RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 05-0282660

THE APPLICATION OF HALCON OPERATING CO., INC. TO CONSIDER AN MER ALLOWABLE FOR THE AQUILA VADO (EAGLE FORD) FIELD, BRAZOS, GRIMES, LEON, MADISON, AND ROBERTSON COUNTIES, TEXAS

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

HEARING DATE: June 27, 2013

APPEARANCES:	**REPRESENTING:**
APPLICANT:	
Flip Whitworth John Miller	Halcon Operating Co., Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Halcon Operating Co., Inc. ("Halcon") requests that an MER allowable of 1,000 BOPD be established for wells completed in the Aquila Vado (Eagle Ford) Field. Halcon also requests that any accumulated overproduction be cancelled for any wells.

The application is unprotested and the examiners recommend approval of the requested MER and cancellation of overproduction.

DISCUSSION OF EVIDENCE

The Aquila Vado (Eagle Ford) Field was discovered in December 2009. There are only 3 oil wells listed on the proration schedule. There are approximately seven other completions in the field that are not listed on the proration schedule and 23 drilling permits approved for the Aquila Vado (Eagle Ford) Field. Cumulative production from the field is over 20.7 MBO.

The Aquila Vado (Eagle Ford) Field extends into portions of 5 counties. All of the wells within the five county area are classified as oil wells. Horizontal drilling is expanding rapidly

through out the Aquila Vado (Eagle Ford) Field area.

The current top allowable in the field is 331 BOPD based on the 1965 yardstick for 160 acres with a 2,000:1 GOR. It is common for newly completed wells to have high initial production rates, followed by a steep decline. Halcon provided two examples of recent horizontal wells which produced in excess of 1,000 BOPD. The Hedge Hog, Well No. 1H had an initial potential of 1,008 BOPD and the Bumble Bee Unit, Well No. 1 had an initial potential of 1,056 BOPD. These high initial rates may result in overproduction for the wells during the first few months of production. Increasing the top allowable for oil wells will prevent the accumulation of overproduction and the issuance of shut-in letters.

During June 2013, Halcon tested the Bumble Bee, Well No. 1H at various rates to determine sensitivity. The results of the test are summarized as follows:

choke size	oil rate	gas rate	gas-oil ratio	FTP
10/64"	318 BOPD	114 MCFD	360 cuft/bbl	1,740 psi
14/64"	674 BOPD	257 MCFD	382 cuft/bbl	1,547 psi
18/64"	813 BOPD	352 MCFD	432 cuft/bbl	1,066 psi

The producing gas-oil ratio remained nearly constant throughout the rate testing. The GOR remained at a very low rate between 360 cuft/bbl to 432 cuft/bbl. At the highest daily test rate of 813 BOPD and 352 MCFD, the GOR was low at 432 cuft/bbl. The well produced at a peak rate of 931 BOPD. The nearly constant GOR indicates the well is not rate sensitive.

The Eagleford Shale is a formation such that there is no gas cap/oil column which would require limitation of withdrawals of casinghead gas from oil wells. Because of the microdarcy permeability operators believe that there is no migration of fluids in the reservoir and wells only produce fluids that are contacted by the fracture treatment. Increased MER allowables have been adopted in other Eagle Ford fields, specifically, the Eagleville (Eagle Ford1,2), Cypress Land (Eagle Ford), Southern Bay (Eagle Ford) Fields for a 2,000 BOPD MER, the Eagleville (Eagle Ford Sour) and Briscoe Ranch (Eagleford) Fields for 800 BOPD MER. There is no conservation purpose in restricting allowable, as the wells are not rate sensitive and there is no gas cap to protect.

Halcon is not aware the leases are overproduced, but due to timing of filed forms commission records may indicate the leases are overproduced. Halcon requests that any overage be cancelled.

FINDINGS OF FACT

1. Notice of these hearings was given to all persons entitled to notice at least ten days prior to the date of hearing.

2. The Aquila Vado (Eagle Ford) Field was discovered in December 2009. There are only 3 oil wells listed on the proration schedule. There are approximately seven other completions in the field that are not listed on the proration schedule and 23 drilling permits approved for the Aquila Vado (Eagle Ford) Field.

3. Cumulative production from the field is over 20.7 MBO.

4. All of the wells within the five county area are classified as oil wells. Horizontal drilling is expanding rapidly through out the Aquila Vado (Eagle Ford) Field area.

5. The current top allowable in the field is 331 BOPD based on the 1965 yardstick for 160 acres.

6. It is common for newly completed wells to have high initial production rates, followed by a steep decline. Halcon provided two examples of recent horizontal wells which produced in excess of 1,000 BOPD.

   a. The Hedge Hog, Well No. 1H had an initial potential of 1,008 BOPD.

   b. The Bumble Bee Unit, Well No. 1 had an initial potential of 1,056 BOPD.

7. Variable rate testing of the Bumble Bee, Well No. 1H indicates that producing at rates of up to 1,000 BOPD will not cause waste.

   a. The average maximum oil rate was 813 BOPD on a 18/64" choke.

   b. The well produced at a peak rate of 931 BOPD on a 18/64" choke.

   c. The average maximum oil rate was 318 BOPD on a 10/64" choke.

   d. The well's GOR remained low, and nearly constant between 360 to 432 scf/bbl when the well was tested between 318 and 813 BOPD.

   e. The nearly constant GOR indicates the well is not rate sensitive.

8. Because of the microdarcy permeability of the Eagle Ford Shale, operators believe that there is no migration of fluids in the reservoir and wells only

produce fluids that are contacted by the fracture treatment.

9. Since many wells in the Eagleford trend have high initial potentials of over 1,000 BOPD and there is no migration of reservoir fluids, an 1,000 BOPD allowable is appropriate for the field.

10. Similar high-MER top allowables have been adopted in other Eagle Ford fields. Specifically, the Eagleville (Eagle Ford1,2), Cypress Land (Eagle Ford), and Southern Bay (Eagle Ford) Fields have a 2,000 BOPD MER, and the Eagleville (Eagle Ford Sour) and Briscoe Ranch (Eagleford) Fields have a 800 BOPD MER.

11. The leases are not believed to be overproduced. Halcon requests cancellation of any overproduction if Commission records indicates overproduction is occurring.

CONCLUSIONS OF LAW

1. Notice of this hearing was given as specified in the provisions of all regulatory codes.

2. All things have occurred or been accomplished to give the Commission jurisdiction in this matter.

3. Approval of a fieldwide MER of 1,000 BOPD for wells completed in Aquila Vado (Eagle Ford) Field and cancellation of overproduction will not cause waste and will not harm correlative rights.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiners recommend approval of an MER of 1,000 BOPD and cancellation of any overproduction in the Aquila Vado (Eagle Ford) Field in Brazos, Grimes, Leon, Madison, and Robertson counties, Texas.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Examiner

Michael Crnich
Legal Examiner