OIL & GAS DOCKET NO. 03-0254102

APPLICATION OF MORGAN ENTERPRISES, INC. TO CONSIDER AN MER FOR THE PIERCE JUNCTION FIELD, HARRIS COUNTY, TEXAS

HEARD BY: Thomas H. Richter, P.E. **DATE OF HEARING:** December 12, 2007 **APPEARANCES:**

Gary Roeder

REPRESENTING Morgan Enterprises, Inc.

EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

This is the unprotested application of Morgan Enterprises, Inc. for Commission consideration of a fieldwide MER of 250 BOPD per well for wells completed in the Pierce Junction Field. It is also proposed that all oil production in excess of an assigned allowable be canceled effective the date of the Order. The examiner recommends approval.

DISCUSSION OF THE EVIDENCE

The Pierce Junction Field was discovered in 1921 at 5,000' subsurface depth. The field is designated as a piercement saltdome reservoir. There is no minimum leaseline/between well requirements or well density restrictions. The top allowable for a well in the field is 91 BOPD. Cumulative production from the field is in excess of 90 MMBO. Though there are many wells in field, only 13 wells are active. Morgan Enterprises has completed three wells and drilling a fourth well.

The Pierce Junction saltdome is a typical "piercement" salt intrusion as the reservoirs are truncated either by the salt intrusion itself or the complex formation faulting that occurs. In effect, small reservoirs are created by the fault blocks that are not in pressure communication over very short distances. Thus, production from one fault block has no bearing on surrounding compartmental wells. The productive formations include the Miocene, Frio, Vicksburg and Yegua sands.

The Morgan Enterprises, Taylor Heirs Lease Well No. 1 was completed September 6, 2007 through perforations from 5,304' to 5,310' Measured Depth in a Frio Sand. The well potentialed at 141 BOPD, 20 MCFD, no water and flowing on a 12/64ths choke at 405 psi.

An MER of 250 BOPD per well will not result in reduction of the ultimate recovery of reserves. The subject well flowed for 10 days and decreased in both oil production [120 BOPD to 36 BOPD] and flowing tubing pressure [350 psi to 60 psi] before dying. It was discovered that the perforations had "sanded-up". Well stream analysis showed that the Frio Sand is an extremely fine sand that stays in a floating solution state if there is sufficient fluid velocity. The sand has no

OIL AND GAS DOCKET NO 03-0254102

appreciable adverse effect on the surface separation facilities. It was determined that such formation sand reduction techniques such as downhole gravel packs would only add to the problem of pressure drop across the perforations and hence fluid velocity decrease. The sand was "bailed" from the wellbore and the well returned to production. The choke size was increased to 16/64ths and the well flowed relatively stable between 200 and 250 BOPD. The flow rates were reduced by choke size reductions in an attempt to obtain the top allowable permitted of 91 BOPD. At a flow rate of ± 150 BOPD, the tubing pressure decreased to the point that the well died. Swabbing was used to place the well back on production. Production was then stabilized on a 16/64ths choke at ± 250 BOPD.

It is proposed that the oil produced in excess of the assigned allowable be canceled.

FINDINGS OF FACT

- 1. Notice of this application was given to all persons entitled to notice at least ten (10) days prior to the hearing.
- 2. There was no protest of the application.
- 3. The Pierce Junction Field was discovered in 1921 at 5,000' subsurface depth. The field is designated as a piercement saltdome reservoir. There is no minimum leaseline/between well requirements or well density restrictions. The top allowable for a well in the field is 91 BOPD.
- 4. The Morgan Enterprises, Taylor Heirs Lease Well No. 1 was completed September 6, 2007 through perforations from 5,304' to 5,310' Measured Depth in a Frio Sand. The well potentialed at 141 BOPD, 20 MCFD, no water and flowing on a 12/64ths choke at 405 psi.
- 5. The Pierce Junction saltdome is a "piercement" salt intrusion as the reservoirs are truncated either by the salt intrusion itself or the complex formation faulting that occurs.
 - a. The production from one fault block has no bearing on surrounding compartmental wells.
 - b. The productive formations include the Miocene, Frio, Vicksburg and Yegua sands.
- 6. An MER of 250 BOPD per well will not result in reduction of the ultimate recovery of reserves.
 - a. Reservoir energy will not be adversely affected.
 - b. Testing demonstrates that wells producing from the fault block compartments are not in pressure communication and are rate sensitive.
- 7. Canceling the any overproduction will not harm correlative rights.

OIL AND GAS DOCKET NO 03-0254102

CONCLUSIONS OF LAW

- 1. Notice of this hearing was provided in accordance with all applicable regulatory statutes and rules.
- 2. All things have occurred or been accomplished to afford the Commission the jurisdiction to consider and decide this matter.
- 3. Consideration and approval of this application is a matter properly within the jurisdiction of the Commission to foster conservation and prevent waste.
- 4. Approval of the proposed application of Morgan Enterprises for a fieldwide per well MER will not harm correlative rights nor cause waste.
- 5. Cancellation of the oil production in excess of the assigned allowable will not harm correlative rights.

EXAMINERS' RECOMMENDATION

It is recommended that the application of Morgan Enterprises, Inc. for Commission consideration for wells completed in the Pierce Junction Field for an MER of 250 BOPD per well be approved. It is further recommended that the oil produced in excess of assigned allowables be canceled.

Respectfully submitted,

Thomas H. Richter, P.E. Technical Examiner Office of General Counsel