



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 04-0295955

THE APPLICATION OF OXY USA INC. PURSUANT TO STATEWIDE RULE 101 FOR DESIGNATION OF THE VICKSBURG FORMATION FOR THE LOPEZ RANCH (CONSOLIDATED) FIELD AS A TIGHT GAS FORMATION IN BROOKS COUNTY, TEXAS

HEARD BY: Peggy Laird, P.G. – Technical Examiner
Ryan Lammert – Administrative Law Judge

HEARING DATE: February 22, 2016

CONFERENCE DATE: August 24, 2016

APPEARANCES: REPRESENTING:

APPLICANT:

John Soule
Mimi Winetroub

OXY USA, Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Pursuant to Statewide Rule 101 (16 Tex. Admin. Code §3.101), OXY USA Inc. ("OXY") seeks a tight formation area designation for the Vicksburg Formation within the correlative geologic interval from 10,264 feet to 11,894 feet, as shown on the log of the OXY USA Inc. Lopez #14 (API No. 42-047-32498) (the "Proposed Interval"). Statewide Rule 101 specifies the procedure by which an operator can obtain Commission certification that natural gas from a particular gas well qualifies as high-cost gas under Texas Tax Code §201.057(a)(2)(A) and that such gas is eligible for a reduction of the severance tax imposed by Texas Tax Code §201.

OXY seeks Commission certification that the Proposed Interval is a tight formation pursuant to Statewide Rule 101(f). The proposed tight formation area is the area within a 2.5 mile radius of the OXY USA Inc. Lopez #4 (API No. 42-047-32407) in

Brooks County, Texas, and within the boundaries of the following surveys and abstracts (the "Proposed Area").

Survey	Abstract
J M & L CHAPA	A-97
P GARZA	A-215
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The Proposed Area adjoins or overlaps several other tight formation areas previously designated for portions of the Vicksburg Formation in Brooks County. This application seeks to include additional Vicksburg sands in the existing designation. OXY also seeks approval of the filing dates of seven Forms ST-1 (individual well certification). The application was not protested. The Technical Examiner and Administrative Law Judge, (collectively "Examiners") recommend OXY's application be granted.

APPLICABLE LAW

Statewide Rule 101 specifies the procedure by which an operator can obtain Railroad Commission of Texas certification that natural gas from a particular gas well qualifies as high-cost natural gas under the Texas Tax Code and is eligible for a reduction of the severance tax. One of the categories of high-cost gas is gas that is produced from a designated tight formation area. To obtain a tight formation area designation pursuant to Statewide Rule 101(f)(3)(B), an applicant must provide evidence required by Statewide Rule 101 to demonstrate the following:

- i. The *in situ* permeability throughout the proposed formation or specific portion thereof is 0.1 millidarcies (md) or less, as determined by geometric mean or median analysis of available data from all wells that either have been tested or are completed in the proposed formation within the requested area;
- ii. The pre-stimulation stabilized production rate against atmospheric pressure at the wellhead, as determined by a geometric mean or median analysis of the available data from all wells within the requested area that either have been tested and/or are completed in the proposed formation or specific portion of thereof, does not exceed the production rate specified in the rule;
- iii. No well drilled into the formation is expected to produce, without stimulation, more than five barrels of crude oil per day; and
- iv. The requested designated area does not extend beyond a two and one-half mile radius drawn from any data point well.

The requirements specified above must all be met for administrative approval (no hearing required). An applicant may request a hearing if the application does not meet all requirements for administrative approval or is incomplete according to Statewide Rule 101(g)(2) and (3). The Commission has, after a hearing on the request, approved

tight formation area designations that meet all of the criteria listed above except that specified in Statewide Rule 101(f)(3)(B)(iv). In those cases, the applicants demonstrated that the subject formation was broadly continuous across a large area, that the available data is representative of the formation across the entire proposed tight formation area and meets the requirements of Rule 101(f)(3)(B)(i) through (iii). Such is the case in the present matter.

DISCUSSION OF EVIDENCE

Tight Formation Area Designation

The Lopez Ranch (Consolidated) Field is a non-associated gas field in Brooks County, Texas. There are no oil wells in the field. Wells completed in the field require fracture stimulation for sustained commercial production. The Proposed Interval includes Vicksburg sands identified as the Vicksburg F, Vicksburg F1, Vicksburg F2, Vicksburg P, Vicksburg P Shale, Vicksburg P Lower, Vicksburg Q and Vicksburg R sands. The Proposed Area consists of approximately 12,560 acres in Brooks County. In Oil & Gas Docket No. 04-0278660, the Commission designated the Vicksburg F, F1, F2 and P sands within the Proposed Area as tight-gas sands. For this case, OXY is seeking to add deeper P, Q and R sands to the previously approved tight-gas interval.

Fifteen of sixteen OXY-operated wells in the Lopez Ranch (Consolidated) Field had data that could be analyzed for the required Statewide Rule 101 criteria as data point wells. One of those wells, the Lopez #4, was the only data point well in Oil & Gas Docket No. 04-0278660. The Commission has approved other tight formation area designations for portions of the Vicksburg Formation in Brooks County. Those area designations, most with applicants other than OXY, include some of the same Vicksburg sands in the Proposed Interval and some extend into portions of the Proposed Area. Some of the data point wells used in those applications are located in the southern part of the Proposed Area. The required Statewide Rule 101 analyses were performed for those wells and those analyses were accepted as supporting tight formation area designations for the Vicksburg F (including F1 and F2) and P sands in the southern part of the Proposed Area.

Pursuant to Statewide Rule 101(f)(3)(B)(i), the *in situ* permeability throughout the proposed formation must be 0.1 md or less. Pursuant to Statewide Rule 101(f)(3)(B)(ii), the unstimulated production rate for a tight gas formation with an average depth to the top of the formation from 10,000 feet to 10,500 feet may not exceed 693 thousand cubic feet (MCF) of gas per day. The average depth to the top of the Proposed Interval in the Proposed Area is 10,026 feet. To demonstrate that the Proposed Interval within the Proposed Area is a tight formation, OXY provided data from 15 data point wells. Formation permeability was evaluated using PROMAT modeling. Flow rates were estimated from ONEPT modeling. According to OXY, both models are industry standard for such evaluations and have been relied upon by the Commission for previous tight formation area designations. Based on modeling of data from the 15 data

point wells, OXY determined the following:

- The geometric mean permeability is 0.009824 md.
- The median permeability is 0.012750 md.
- The geometric mean flow rate is 334 MCF per day.
- The median flow rate is 619 MCF per day.

The in situ permeability and flowrate statistics satisfy the requirements of Statewide Rule 101(f)(3)(B).

Statewide Rule 101(f)(3)(B)(iv) requires that the designated area not extend beyond a 2.5 mile radius drawn from any data point well. As shown on OXY Exhibit No. 11, there are 1,650 acres along the southern portion of the 12,560-acre proposed tight formation area that are more than 2.5 miles from the nearest data point well for the Vicksburg P Lower, Q, and R sands. OXY utilized 15 data point wells, and seven of these produce from all or part of the Vicksburg P Lower, Q, and R sands. The Lopez No. 14 is the only data point well that has analysis across the entire Vicksburg F through R sands. As discussed above, there are additional data point wells in the 1,650-acre area that provided data for previously approved tight formation area designations in the Vicksburg F and P sands. Two structure maps, one cross-section, and testimony from OXY's expert witness demonstrated that the Vicksburg sands within the Proposed Interval are continuous and geologically consistent across the entire Proposed Area. The common, dominant feature of the Vicksburg Deltaic Sandstone in the Rio Grande Embayment is the Vicksburg Fault Zone, which causes structural complexity to increase with depth. Faulting has resulted in a series of lenticular sands with compatible reservoir fluids, as with the subject Vicksburg F through R sands in the Proposed Area. The approved Brooks County Vicksburg tight gas area designations reference the common geologic characteristics across the named sands in each area interval.

The Examiners conclude that OXY has met its burden of proof under Statewide Rule 101 and the proposed area should be designated by the Commission as a tight formation area.

Form ST-1

In this hearing, OXY has requested approval of the filing date for seven Forms ST-1. The Form ST-1 is used to certify that a well is completed within a designated tight formation area so the operator can obtain a severance tax reduction through filings with the Comptroller. Although Tax Code §201.057(e) provides that an application for tight-cost gas certification may be made "any time after the first day of production," Statewide Rule 101 requires that a tight-formation area docket number be listed on Form ST-1. The filing date of a Form ST-1 is important because the severance tax reduction can

extend back no further than two years from the filing date. OXY testified that historically, in cases where an area designation application will not meet the requirements for administrative approval, the Commission has treated the filing of a request for hearing, together with the information required for notice, as the filing of an application for purposes of being able to file the Form ST-1. OXY stated that nothing in Statewide Rule 101 expressly requires the filing of a "complete" application prior to filing Form ST-1.

OXY filed its request for hearing, together with all information required for notice, on March 13, 2015. Its request for hearing was assigned a docket number. After docketing of the application, OXY was advised that filing a "complete" application with Commission staff and staff's review of that application was necessary before the application would be set for hearing. OXY considered this a change in historical Commission practice. Because of concern about potential delay, OXY met with staff in order to determine what would constitute the filing of a "complete" application. Agreement was reached and OXY filed its "complete" application on October 14, 2015. Between the filing of its original application (request for hearing) and the filing of its "complete" application, OXY filed Forms ST-1 for the Lopez No. 9, No. 11 and No. 12 on April 28, 2015, and for the Lopez No. 13, No. 14, No. 15 and No. 16 on August 14, 2015. In January 2016, OXY was advised by staff that it would not administratively approve filing dates of Forms ST-1 that were earlier than filing of the "complete" application. In other words, the Forms ST-1 filed on April 28 and August 14, 2015, would be given a filing date of October 14, 2015. Staff suggested to OXY that it seek approval of the April 28 and August 14, 2015, filing dates at hearing. An amended notice of hearing was requested and issued to allow determination of the filing dates of the Forms ST-1.

EXAMINERS' OPINION

The Examiners conclude that OXY has met its burden of proof under §201.057 of the Texas Tax Code and Statewide Rule 101. The application for tight formation area designation should be approved. The Examiners acknowledge the apparent confusion regarding the timing and filing of a "complete" application, and conclude that the filing dates of the Forms ST-1 for the Lopez No. 9, No. 11 and No. 12 should be April 28, 2015, and for the Lopez No. 13, No. 14, No. 15 and No. 16 should be August 14, 2015.

FINDINGS OF FACT

1. Notice of the application was sent to all persons entitled to notice at least twenty-one (21) days prior to Commission review of the application.
2. Notice of hearing was sent to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
3. No protests of the application were received.

4. The proposed tight formation area consists of approximately 12,560 acres in Starr County, within 2.5 miles of the OXY USA Inc. Lopez #4 (API No. 42-047-32407) and within the geographic boundaries of the following surveys and abstracts in Brooks County.

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5. OXY provided data from 15 data point wells for the proposed tight formation area.
- The geometric mean *in situ* permeability is 0.009824 md, which is less than the 0.1 md requirement of Statewide Rule 101.
 - The geometric mean of the pre-stimulation stabilized production rate against atmospheric pressure for all zones is 334 MCF per day, which is below the 693 MCF per day requirement of Statewide Rule 101.
 - The median *in situ* permeability and the median of the stabilized flowrate are also below the requirements of Statewide Rule 101.
 - Other data point wells from other operator/applicants previously accepted as tight formation areas were used to designate portions of the Proposed Interval within the Proposed Area as tight formation areas.
6. The Lopez Ranch (Consolidated) Field is a non-associated gas field.
7. Wells drilled in the Lopez Ranch (Consolidated) Field require fracture stimulation for sustained commercial production.
8. No well drilled into the proposed tight-gas interval is expected to produce, without stimulation, more than five barrels of crude oil per day. There are no oil wells in the field.
9. The requested area extends beyond a two and one-half mile radius drawn from the nearest data point well. The evidence in the record demonstrates that the available data is sufficient to establish that the requested area meets the permeability and flow rate requirements of Statewide Rule 101.
10. The application (request for hearing) filed March 13, 2015, was docketed as an application for a tight formation area designation. The Forms ST-1 for the Lopez No. 9, No. 11 and No. 12 were filed on April 28, 2015. The Forms ST-1 for the Lopez No. 13, No. 14, No. 15 and No. 16 were filed on August 14, 2015.

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 § 101(f)(2)
3. The requested tight formation area meets the requirements of Statewide Rule 101. 16 Tex. Admin. Code §3.101(f) and §201.057 of the Texas Tax Code.
4. The application filed on March 13, 2015, satisfied the requirements for filing a tight formation area designation. The individual well certifications, Forms ST-1, for the Lopez No. 9, No. 11, and No. 12 were properly filed on April 28, 2015, and for the Lopez No. 13, No. 14, No. 15, and No. 16 were properly filed on August 14, 2015, after the tight formation area designation application was filed. 16 Tex. Admin. Code §101(f)(1).

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend the correlative geologic interval from 10,264 feet to 11,894 feet, as shown on the log of the OXY USA Inc. Lopez #14 (API No. 42-047-32498) within 2.5 miles of the OXY USA Inc. Lopez #4 (API No. 42-047-32407) in Brooks County, Texas, and within the surveys and abstracts shown below, be designated as a tight formation area pursuant to Statewide Rule 101(f). The Examiners also recommend approval of April 28, 2015, as the filing date of Forms ST-1 for the Lopez No. 9, No. 11, and No. 12, and August 14, 2015, as the filing date of Forms ST-1 for the Lopez No. 13, No. 14, No. 15, and No. 16.

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Respectfully submitted,



Peggy Laird, P.G.
Technical Examiner



Ryan Lammert
Administrative Law Judge

