



# RAILROAD COMMISSION OF TEXAS

## OFFICE OF GENERAL COUNSEL

OIL & GAS DOCKET NO. 09-0260202

---

**APPLICATION OF XTO ENERGY, INC., FOR CREATION OF A FORCE POOLED UNIT PURSUANT TO THE MINERAL INTEREST POOLING ACT FOR ITS TEXAS STEEL "A" UNIT, WELL NO. 1H, NEWARK, EAST (BARNETT SHALE) FIELD, TARRANT COUNTY, TEXAS**

---

### APPEARANCES:

#### FOR APPLICANT:

David Gross  
Rick Johnston  
Tarah Fagan  
Andree French Griffin  
Mike Williams

#### APPLICANT:

XTO Energy, Inc.

### AMENDED PROPOSAL FOR DECISION

#### PROCEDURAL HISTORY

<b>DATE APPLICATION FILED:</b>	November 20, 2008
<b>DATE OF INITIAL NOTICE OF HEARING:</b>	January 16, 2009
<b>DATE OF NOTICE OF REOPENED HEARING:</b>	September 3, 2009
<b>DATE OF INITIAL HEARING:</b>	February 20, 2009
<b>DATE OF REOPENED HEARING:</b>	October 5, 2009
<b>HEARD BY:</b>	James M. Doherty, Hearings Examiner Richard Atkins, Technical Examiner
<b>DATE RECORD CLOSED:</b>	October 16, 2009
<b>DATE LAST TRANSCRIPT VOL. RECEIVED:</b>	October 14, 2009
<b>DATE INITIAL PFD CIRCULATED:</b>	May 5, 2009
<b>DATE AMENDED PFD CIRCULATED:</b>	December 3, 2009

#### STATEMENT OF THE CASE

This is an application by XTO Energy, Inc. ("XTO") pursuant to the Mineral Interest Pooling Act ("MIPA") requesting the Commission to enter an order force pooling numerous small tracts of land into a proration unit for the Texas Steel "A" Unit, Well No. 1H, Newark, East (Barnett Shale) Field, Tarrant County, Texas. The application is unopposed.

### **BACKGROUND**

XTO initially requested the Commission to enter an order force pooling all mineral interests in 1,036 tracts of land into a 434.7474 acre proration unit for the Texas Steel "A" Unit ("TSAU"), Well No. 1H. An initial hearing was held on February 20, 2009. On May 5, 2009, a proposal for decision was issued by the examiners recommending that the application be denied. In the initial proposal for decision, the examiners concluded that compulsory pooling was not necessary to prevent the drilling of unnecessary wells, prevent waste, or protect correlative rights because: (1) it was conceded by XTO at the initial hearing that Well No. 1H would not drain a majority of the unleased tracts sought to be force pooled; and (2) there were regular locations, as well as Rule 37 locations, on the TSAU where economically feasible horizontal wells could be drilled without compulsory pooling.

XTO filed exceptions to the initial proposal for decision, and pursuant to XTO's request, the Commission heard oral argument on July 14, 2009. The case was presented at conference on July 21, 2009. At this conference, a majority of the Commissioners voted to remand the case to the examiners for a reopened hearing for the limited purpose of developing additional evidence on what area the Case 2 horizontal well<sup>1</sup> would drain and thus to establish the producible area for such a well.

XTO deliberated until mid-August as to how it wished to proceed, and allowing for the 30 days notice required by §102.016 of the MIPA and for republication of notice in a newspaper of general circulation in Tarrant County, a reopened hearing was scheduled for October 5, 2009. At the reopened hearing, XTO did not present "additional evidence on what area the Case 2 horizontal well will likely drain." Instead, it proposed to drill an entirely different well on a smaller 312.9083 acre unit. XTO now proposes that the Commission enter an order force pooling all mineral interests in 561 tracts of land into a 312.9083 acre proration unit for the TSAU Well No. 1H. The reopened hearing and amendment of XTO's proposal have necessitated issuance of this amended proposal for decision.

### **PRELIMINARY OVERVIEW**

Although XTO has now amended its application to propose that the Commission force pool a lesser number of tracts into a smaller proration unit for a different well, the issues presented are basically the same as those presented by XTO's initial application: (1) whether, without compulsory pooling, XTO has the ability to drill feasible horizontal wells at regular<sup>2</sup> or Rule 37 locations that

---

<sup>1</sup> At the initial hearing, XTO's proposed MIPA well was shown on its so-called "Case 2" plat which was XTO Exhibit No. 28, the same plat attached to this amended proposal for decision as Appendix 2.

<sup>2</sup> The examiners have officially noticed Commission permit records disclosing that XTO has already permitted three horizontal wells at regular locations in the Newark, East (Barnett Shale) Field just on the northern 130 acres of the proposed Texas Steel "A" Unit. These permits are for Well Nos. 1H (Permit No. 670089 issued 09/16/08), 2H (Permit No. 670101 issued 09/18/08), and 3H (Permit No. 670113 issued 09/16/08).

will serve one or more of the purposes of preventing the drilling of unnecessary wells, preventing waste, or protecting correlative rights; (2) whether there is convincing evidence that the proposed MIPA well will drain all of the tracts proposed to be force pooled; and (3) whether XTO is, in actuality, proposing a large force pooled unit for future multiple well development rather than force pooling into an appropriately sized proration unit for a single well.

### **APPLICABLE LAW**

The MIPA is a unique act forged by the legislature largely to protect small tract owners and operators in the wake of the *Normanna* decision<sup>3</sup> which invalidated prorationing formulas with large per well allowable factors allowing substantial uncompensated drainage by wells on small tracts. Traditionally, the MIPA has been construed as limited in function to protect small tract lessees or owners rather than as a broad act designed to protect correlative rights generally, or as an act allowing large tract lessees or owners more flexibility in development. Smith and Weaver, *Texas Law of Oil and Gas*, Vol. 3, Chapter 12, §12.1(B) at page 12-5 (Matthew Bender 2007).

Subject to limitations found elsewhere in the act, §102.011 of the MIPA provides that when two or more separately owned tracts of land are embraced in a common reservoir of oil or gas for which the Commission has established the size and shape of proration units, whether by temporary or permanent field rules, and where there are separately owned interests in oil and gas within an existing or proposed proration unit in the common reservoir and the owners have not agreed to pool their interests, and where at least one of the owners of the right to drill has drilled or has proposed to drill a well on the existing or proposed proration unit to the common reservoir, the Commission, on the application of an owner specified in Section 102.012 of the act and for the purpose of avoiding the drilling of unnecessary wells, protecting correlative rights, or preventing waste, shall establish a unit and pool all of the interests in the unit within an area containing the approximate acreage of the proration unit, which unit shall in no event exceed 160 acres for an oil well or 640 acres for a gas well plus 10 percent tolerance.

### **DISCUSSION OF THE EVIDENCE**

At the initial hearing, XTO proposed creation of a 434.7474 acre force pooled unit as depicted in Appendix 1 to this amended proposal for decision. The MIPA well originally proposed is depicted in Appendix 2 to this amended proposal for decision. XTO has now amended its proposal. The application, as amended at the reopened hearing, requests that the Commission force pool 561 tracts of land into a 312.9083 acre proration unit for the TSAU Well No. 1H. A plat of the proposed unit, as amended, is attached to this amended proposal for decision as Appendix 3. The MIPA well proposed to be drilled on this unit is at a location different from the well originally proposed and is depicted in Appendix 4 to this amended proposal for decision.

---

<sup>3</sup> *Atlantic Refining Co. v. Railroad Commission*, 346 S.W.2d 801 (Tex. 1961).

The proposed unit derives its name from the fact that a steel mill once occupied a small portion of the acreage. The pad site for XTO's proposed unit well is located on the old steel mill property, the surface estate of which is now owned by XTO. This pad site is located at the northern extremity of the proposed unit. Surface uses of the remainder of the proposed unit are both residential and non-residential.

Although the tracts in the unit area for which XTO holds the mineral leasehold interest include a few larger tracts, such as the 77.0849 acre tract where the Town Center Mall is located, a substantial majority of the tracts are small town lots containing a fraction of an acre. XTO holds oil and gas leases covering 100% of the mineral interest in 528 of the 561 tracts now proposed to be force pooled. It also holds oil and gas leases covering a partial undivided mineral interest in six additional tracts<sup>4</sup> having an unleased undivided interest because the owner of the unleased interest did not respond to XTO's voluntary pooling offer or could not be found. Of the 312.9083 acres in tracts that XTO now seeks to force pool, XTO's oil and gas leases cover 303.2658 acres. All of the oil and gas leases held by XTO in the unit area are "no surface use" leases, and these leases grant XTO the right to pool the leased premises with adjoining tracts.

Notwithstanding XTO's efforts to obtain oil and gas leases for all tracts, there are 27 separate tracts in the proposed unit area, as amended, that remain entirely unleased.<sup>5</sup> These unleased tracts comprise 9.6425 acres. The 27 unleased tracts include four City of Fort Worth tax foreclosed tracts (Tract Nos. 308, 729, 742, and 812 collectively containing 1.5840 acres) which the City has agreed can be pooled by XTO in return for escrow of a 25% royalty.<sup>6</sup> XTO was unable to obtain leases for the other 23 unleased tracts because the owners stated affirmatively that they were unwilling to lease, did not respond to XTO's voluntary pooling offer, or, despite XTO's diligent effort, could not be found. All but one of the unleased tracts are small tracts containing a fraction of an acre. The one exception is Tract No. 813 which contains 1.4567 acres.

As required by the MIPA, on or about October 10, 2008, XTO sent a voluntary pooling offer to all owners of the unleased tracts in the unit area. The unleased owners were offered three options for inclusion of their interests in the Texas Steel "A" Unit: (1) a lease option; (2) a participation

---

<sup>4</sup> Tract Nos. 266, 269, 290, 418, 461, and 468.

<sup>5</sup> Tract Nos. 54, 61, 71, 196, 216, 219, 255, 262, 296, 308, 352, 362, 367, 405, 424, 437, 449, 450, 664, 726, 729, 742, 799, 812, 813, 830, and 1,033.

<sup>6</sup> The City of Fort Worth and XTO have agreed that these tax foreclosed tracts may be pooled, XTO will hold in escrow a 25% royalty attributable to the tracts subject to disposition in the manner provided by law and without risk or obligation to the City, XTO will assure no surface use without the City's consent, XTO will provide the City with an initial and annual report of tax foreclosed acreage included in the unit and revenues attributed to each tax foreclosed property in the unit, and XTO will assure compliance with all rules and requirements of the Railroad Commission and with the City's gas drilling and other ordinances.

option; or (3) a farm-out option.<sup>7</sup>

The lease option included a bonus offer of \$15,000 per net mineral acre and an offer of a 25% royalty. A standard lease form the unleased owners were asked to sign was for a primary term of four years. The lease provided that no "drilling activity" could be had on the surface of the leased premises without the prior written permission of the lessor. The lease provided also that XTO had the right to pool the leased premises with any other lands or leases. According to XTO, the lease terms offered to the unleased owners were comparable to, or better than, lease terms granted by XTO to its lessors within the unit area.

The participation option provided the unleased owners with an opportunity to purchase a working interest in the proposed Texas Steel "A" Unit, Well No. 1H by paying to XTO, 15 days prior to commencement of actual drilling operations, the owner's pro rata share of drilling and completion costs. An AFE (Authority for Expenditure) attached to the offer indicated that the estimated cost of drilling and completing the well proposed at the initial hearing was \$2,056,500.<sup>8</sup>

The farm-out option proposed to the unleased owners that they convey to XTO an 80% net revenue interest attributable to their mineral interests, and retain an overriding royalty interest equal to 20% of 8/8ths, proportionately reduced to the extent that each owner's interest bore to all of the mineral interests in the unit, until payout of all well costs to drill, test, fracture stimulate, complete, equip and connect the well for production, with the option, at payout, to convert the retained override to a 25% working interest, proportionately reduced.

Included among the owners of tracts within the amended unit that remain unleased are the owners of 2 tracts (Tract Nos. 61 and 450 containing 1.0100 gross acres) that verbally informed XTO that they were refusing to lease to XTO, either because of dissatisfaction with the lease bonus offer or a policy against leasing of minerals. The owners of another 13 tracts (3.5290 gross acres) who received XTO's voluntary pooling offer, as evidenced by receipts for certified mail, did not respond

---

<sup>7</sup> Although, XTO's amended unit is 121.8391 acres smaller than the unit contemplated by the October 10, 2008, voluntary pooling offer, and the proportionate interest of owners of unleased tracts now proposed to be force pooled would be greater than stated in this offer, XTO did not extend a new voluntary pooling offer to the unleased owners prior to the reopened hearing.

<sup>8</sup> At the reopened hearing, XTO did not present any estimate of the cost to drill the well now proposed on the amended unit.

in any way to the offer.<sup>9</sup> Notwithstanding XTO's diligent effort to obtain current addresses, the owners of another 14 tracts (3.5195 gross acres) could not be contacted by XTO.<sup>10</sup> The voluntary pooling offer was sent to the last known address for the "not found" owners, but because receipts for certified mail were not signed and returned, XTO could not establish that the offer had been delivered to these owners.

Notice of the initial and reopened hearings on XTO's application pursuant to the MIPA was sent to all mineral interest owners in the proposed unit and to offsets. In addition, notice of the hearings on the application was published for four consecutive weeks in the Fort Worth Star Telegram.

XTO presented a structure map of the top of the Barnett Shale in the immediate area of the proposed TSAU. Color coded on this structure map are existing producing units operated by XTO in the same area. The existing producing XTO units within five miles of the proposed TSAU pad location are to the south and east. The structure map shows that the area of the proposed unit is in an east dipping portion of the Fort Worth Basin. XTO also presented a three well north to south cross section showing the top of the lower Barnett Shale in the area. From the structure map and cross section, XTO's geologist concluded that the Barnett Shale is present and reasonably productive throughout the area of the proposed unit. There are some very productive Barnett Shale wells to the southeast and northeast of the unit, and XTO hopes that the proposed unit well will be similarly productive.

The Newark, East (Barnett Shale) Field was discovered on October 15, 1981. This field has special field rules providing for 330' lease line spacing, and there is no between well spacing requirement. As to horizontal wells, where the horizontal portion of the well is cased and cemented back above the top of the Barnett Shale formation, the distance to any property line, lease line, or subdivision line is calculated based on the distance to the nearest perforation in the well, and not based on the penetration point or terminus. Where an external casing packer is placed in a horizontal well and cement is pumped above the external casing packer to a depth above the top of the Barnett Shale formation, the distance to any property line, lease line, or subdivision line is calculated based on the top of the external casing packer or the closest open hole section in the Barnett Shale.

The standard drilling and proration unit for gas in the Newark, East (Barnett Shale) Field is 320 acres. An operator is permitted to form optional drilling units of 20 acres. Operators must file

---

<sup>9</sup> XTO's voluntary pooling offer stated that if a signed copy of the offer letter was not received from the offeree within 14 days, "it will be deemed that you do not elect to either lease your mineral interest to XTO, participate with XTO in the drilling of the well(s) to be drilled on the Unit to the extent of your proportionate interest or, farmout your interest to XTO."

<sup>10</sup> A tabulation of these "not found" owners stated in the "Comments" column for all but one of these owners: "We have sent pooling offer letter and attachments, we have also gone to home address, but mineral owner nonresponsive."

a Form P-15 (Statement of Productivity of Acreage Assigned to Proration Units) listing the number of acres that are being assigned to each well on the lease or unit for proration purposes. No double assignment of acreage is permitted. While the allocation formula for the field is suspended, operators are not required to file plats of proration units with Form P-15.

At the initial hearing, a consulting petroleum engineer retained by XTO presented a plot of estimated ultimate recoveries versus drainhole length for 49 Barnett Shale wells within a five mile radius of a permitted well on the TSAU. He concluded that there is a general trend showing that the longer the drainhole, the greater the ultimate recovery. From the plot, XTO's consulting petroleum engineer calculated "regional recovery" of horizontal wells in the Newark, East (Barnett Shale) Field to be 1.165 MMCF per foot. A similar and more comprehensive plot was presented at the reopened hearing by an in-house XTO reservoir engineer. This was a plot of estimated ultimate recoveries versus drainhole length for 69 Barnett Shale wells within the same five mile radius, from which a "regional recovery" of 0.8833 MMCF per foot was calculated.<sup>11</sup>

At the initial hearing, XTO presented a series of plats (XTO Exhibit Nos. 27, 28, 29, and 31) showing development options for the the originally proposed 434.7474 acre force pooled unit. The "Case 1" plat (Exhibit No. 27) attached to this amended proposal for decision as Appendix 5 showed a horizontal well that could have been drilled at a regular location on the originally proposed unit, without a Rule 37 exception and without compulsory pooling. According to testimony at the initial hearing, this well would have a drainhole length of 4,369 feet.<sup>12</sup>

The so-called "Case 2" plat presented at the initial hearing (XTO Exhibit No. 28) showed the MIPA well proposed in connection with the original 434.7474 acre unit proposal now abandoned by XTO, and no longer applies in view of XTO's proposal at the reopened hearing to drill a different MIPA well.

The so-called "Case 3" plat presented at the initial hearing (XTO Exhibit No. 29) was a plat showing *two* horizontal wells that could have been drilled at regular locations on the originally proposed 434.7474 acre unit, without a Rule 37 exception or compulsory pooling. This plat is

---

<sup>11</sup> Both plots have considerable scatter of the data points. In the plot presented at the initial hearing, a well with a drainhole of only about 1,700 feet had one of the best EUR's of all wells in the study (over 9,000 MMCF), while the well in the study with the longest drainhole (about 4,200 feet) had one of the poorest EURs (less than 1,000 MMCF). The plot presented at the reopened hearing contained the same well of about 1,700 feet with an EUR of more than 9,000 MMCF, while all three wells in the plot having drainhole length of more than 4,000 feet had EURs of about 1,300 MMCF or less. Of the 69 wells studied in the Exhibit No. R6 plot, 66 had drainhole length of less than 4,000 feet.

<sup>12</sup> This well could also be drilled at the same regular location on the amended 312.9083 acre unit proposed at the reopened hearing, without compulsory pooling or a Rule 37 exception. Based on XTO's "regional recovery" of 0.8833 MMCF per foot, this well would have an estimated ultimate recovery of about 3,859 MMCF.

attached to this amended proposal for decision as Appendix 6.<sup>13</sup>

The so-called "Case 4" plat presented at the initial hearing (XTO Exhibit No. 31) depicted four horizontal wells that could have been drilled if all interests in the originally proposed 434.7474 acre unit had been pooled. The "Case 4" plat is attached to this amended proposal for decision as Appendix 7.<sup>14</sup>

At the reopened hearing, XTO presented Exhibit No. R14<sup>15</sup> which is a plat of the amended 312.9083 acre force pooled unit proposed by XTO. This plat, attached as Appendix 3 to this amended proposal for decision, shows the separate tracts proposed to be force pooled and distinguishes between tracts currently 100% leased to XTO, tracts in which XTO has leased a partial undivided interest, and tracts that are 100% unleased ("open of record").

XTO Exhibit No. R10 is a plat of the amended unit showing the MIPA well now proposed by XTO (See Appendix 4 to this amended proposal for decision). As drawn on the plat by XTO, the proposed well extends from the surface location at the northwest extremity of the unit southeast to an inflection point in the north central portion of the unit and then directly south to a terminus in the south central portion of the unit. The longest section of the horizontal drainhole is in the center of the unit. As drawn on the plat by XTO, the proposed MIPA well traverses five tracts which are either wholly or partially unleased: Tract Nos. 262 (unleased), 255 (unleased), 290 (partially unleased), 296 (unleased), and 196 (unleased). There are five other tracts which are either wholly or partially unleased that are within 330 feet of the proposed horizontal drainhole: Tract Nos. 269 (partially unleased), 266 (partially unleased), 405 (unleased), 308 (unleased), and 468 (partially unleased). Tract No. 308 is a City of Fort Worth tax foreclosed tract. The proposed MIPA well shown on Exhibit No. R10 has a drainhole length of 4,545 feet. Assuming that this well would recover 0.8833 MMCF per foot, the well would have an EUR of 4,343 MMCF.

XTO Exhibit No. R12 is a plat showing an example of a horizontal well that could be drilled at a regular location on the amended unit. This well extends directly southeast from the surface

---

<sup>13</sup> At the reopened hearing, XTO did not present a comparable plat to show two horizontal wells that might be drilled at regular locations on the amended 312.9083 acre unit. However, XTO's Exhibit No. R12 plat showing a horizontal well that could be drilled at a regular location on the amended unit suggests that a two well option at regular locations, with well orientation similar to that shown on the Case 3 plat in Exhibit No. 29, still exists.

<sup>14</sup> Because the proposed unit was amended to 312.9083 acres at the reopened hearing, one of the four wells shown on the "Case 4" plat, the well shown as No. 1H could no longer be drilled with force pooling as now proposed. However, at least two, and perhaps three, of the wells could still be accommodated on the amended unit if force pooling as proposed were approved. The MIPA authorizes compulsory pooling into a proration unit for a single well only. The "Case 4" plat is relevant, however, because it depicts XTO's conception of how far laterally horizontal wells in the Barnett Shale can effectively and efficiently drain. Well Nos. 3H and 4H shown on the "Case 4" plat, which could be accommodated by the amended unit, are less than 1,000 feet apart, suggesting that XTO believed that each well would drain laterally 500 feet or less from the horizontal drainholes.

<sup>15</sup> All references in the amended proposal for decision to exhibits presented by XTO at the reopened hearing carry an "R" preceding the exhibit number to distinguish from exhibits with the same number presented at the initial hearing.

location in the northwest extremity of the unit to a terminus in the southeast portion of the unit. This well could be drilled on the amended unit without compulsory pooling or a Rule 37 exception. The Exhibit No. R12 plat is attached to this amended proposal for decision as Appendix 8. The well shown on Exhibit No. R12 has a drainhole length of 3,946 feet. Assuming that this well would recover 0.8833 MMCF per foot, the well would have an EUR of 3,946 MMCF.

At the reopened hearing, XTO's in-house reservoir engineer presented a volumetric analysis of gas in place beneath the proposed 312.9083 acre unit. Based on average porosity of six percent and a 325 feet of pay, he calculated that gas in place beneath the proposed unit is 41 BCF. He claimed that the recoverable gas beneath the proposed unit is the 4,343 MMCF estimated ultimate recovery of the proposed MIPA well shown in XTO Exhibit No. R10, meaning that this well theoretically will recover 11% of the gas in place beneath the unit.<sup>16</sup>

XTO's in-house reservoir engineer claimed that XTO's proposed MIPA well shown in Exhibit No. R10 would "impact with drainage" or "likely" would drain all tracts within the proposed 312.9083 acre unit. He based this claim on a study of two pairs of XTO Barnett Shale wells located about 20 miles north of the TSAU: the Golden Triangle D No. 4H and Golden Triangle B No. 2H and the Copeland D No. 1H and the Copeland G No. 1H. The closest perforations in the Golden Triangle D No. 4H and the Golden Triangle B No. 2H are 2,140 feet apart. From a daily production plot for the Golden Triangle D No. 4H, the first of the two wells to be completed, XTO's reservoir engineer concluded that a response was seen in the daily production of the No. 4H well when the Golden Triangle B No. 2H was fracture stimulated, indicating communication between these two wells. He reached a similar conclusion with respect to the Copeland wells, the closest perforations of which are 2,000 feet apart, that is, a response was seen in the daily production of the Copeland D No. 1H when the Copeland G No. 1H was fracture stimulated. Conceding that it cannot be determined from this type of analysis how far out any one of the four study wells is draining, XTO's reservoir engineer decided to assume lateral drainage of 1,600 feet as the basis for his opinion that the proposed MIPA well will impact with drainage or "likely" will drain the entirety of the proposed 312.9083 acre unit. However, XTO's in-house engineer testified that it is *not* likely that the single

---

<sup>16</sup> This 11% recovery factor assumed the drilling of the single proposed MIPA well on the amended 312.9083 acre unit. XTO's in-house reservoir engineer testified that elsewhere XTO has drilled as many as four or five wells on a 320 acre unit in the Barnett Shale, and has also drilled horizontal wells in the Barnett Shale as close as 330 feet apart. Drilling of multiple wells on comparably sized units has resulted in incremental recovery, that is, recovery of gas that a single horizontal well could not recover. In cases where XTO develops comparable units in the Barnett Shale with three wells, it expects a recovery factor for the unit of about 24%.

proposed MIPA well would “efficiently and effectively” drain the entirety of the amended unit.<sup>17</sup>

XTO believes that compulsory pooling as proposed at the reopened hearing is necessary to prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights because, assuming a recovery of 0.8833 MMCF for every foot of horizontal drainhole, the proposed MIPA well shown in XTO Exhibit No. R10 will recover 511 MMCF more than the well at a regular location shown in XTO Exhibit No. R12.

### EXAMINERS’ OPINION

The examiners proceed from the premise that the Commission is a creature of the Legislature and has no inherent authority. *Public Util. Comm’n v. GTE-SW Corp.*, 901 S.W.2d 401, 407 (Tex. 1995). Like other state administrative agencies, the Commission has only those powers that the Legislature expressly confers upon it and any implied powers that are necessary to carry out the express responsibilities given to it by the Legislature. *Public Util. Comm’n v. City Pub. Serv. Bd.*, 53 S.W.3d 310, 316 (Tex. 2001). It is not enough that the power claimed by the Commission be reasonably useful to the Commission in discharging its duties; the power must be either expressly conferred or necessarily implied by statute. The agency may not exercise what is effectively a new power, or a power contradictory to the statute, on the theory that such a power is expedient for administrative purposes. *Id.*

The Commission, therefore, does not have unlimited authority to compel the pooling of mineral interests whenever it is presented with a compulsory pooling application that in some sense may be deemed conceptually sound. Compulsory pooling may be ordered only as expressly authorized by the MIPA, which is a limited compulsory pooling statute unique to Texas. Smith and Weaver, *Texas Law of Oil and Gas*, Vol. 3, Chapter 12, §12.3(B)(1)(a) at page 12-24 (Matthew Bender 2007). It is immaterial that some may think that the targets of an application under the MIPA have not acted wisely in declining to lease and/or pool their mineral interests. Unless the application

---

<sup>17</sup> The two well pairs in this analysis were selected from a study of all XTO wells in the Barnett Shale performed by XTO’s in-house reservoir engineer, including other well pairs with perforations a comparable distance apart that did not exhibit similar communication. It was conceded that the claim that the Golden Triangle and Copeland well pairs are “in communication” is not to say that each well is draining 2,000 feet laterally from their horizontal drainholes. It was also conceded that to say that the proposed MIPA well would have a drainage “impact” on tracts up to 1,600 feet away is something different than saying the proposed MIPA well will efficiently and effectively drain tracts at this distance. XTO’s so-called “Case 4” plat in Exhibit No. 31 (Appendix 7 to this amended proposal for decision) suggested that as many as three horizontal wells would be required to drain basically the same acreage as is now included in the amended unit. XTO’s reservoir engineer explained this difference by saying that while a single well would cause “some” drainage, it would not effectively and efficiently drain the acreage. It appears from use of the scale on XTO Exhibit No. R10 that in order to drain the entirety of the amended 312.9083 acre unit, the proposed MIPA well would have to drain laterally from the horizontal drainhole a distance of up to about 1,875 feet to the west and up to about 1,375 feet to the east. Examiners’ Exhibit No. R1 contains print-outs from the Commission’s Online System regarding a Rule 37 well permitted by XTO on the Texas Steel “C” Unit (Status No. 682963/Case No. 026409) and a plat of a proposed force pooled Texas Steel “C” Unit taken from a XTO MIPA application related to that unit (Oil & Gas Docket No. 09-0261888; Application withdrawn October 8, 2009). The unit on which the Rule 37 well was permitted is a “slice” of the formerly proposed Texas Steel “C” MIPA unit. The greatest distance laterally from the Rule 37 well location to the unit boundary is about 600 feet, suggesting that this is the maximum distance the Rule 37 well is expected to drain.

conforms strictly to the requirements of the MIPA, the government has no authority to make this decision for them.

The examiners have concluded that XTO's application should be denied for at least three reasons. First, XTO has contractual authority pursuant to its oil and gas leases to form a 303.2658 acre voluntary pooled unit. This is sufficient acreage to drill multiple Barnett Shale wells where optional 20 acre well density applies. The unleased tracts pose no significant barrier to the drilling of one or more economically feasible horizontal wells at regular and/or Rule 37 locations on the voluntary unit XTO is able to form. Based on XTO's theory that every foot of horizontal drainhole will recover 0.8833 MMCF, these wells would have recoveries comparable to XTO's proposed MIPA well. A second reason for denial is that XTO did not succeed in presenting convincing proof that the proposed MIPA well will efficiently and effectively drain all of the tracts proposed to be force pooled. It cannot be said that compulsory pooling of portions of the proposed unit that will not be drained will prevent the drilling of unnecessary wells, prevent waste, or protect correlative rights. A third reason for denial is that XTO has not negated the likelihood that the Commission is being requested to create a large force pooled unit for future multiple well development, whereas the MIPA contemplates compulsory pooling into a proration unit for a single well. These bases for the recommended denial of the application are discussed in greater detail under the subheadings which follow.

#### **Regular and/or Rule 37 Locations**

Under the MIPA, the Commission may order compulsory pooling only if it is necessary to avoid the drilling of unnecessary wells, protect correlative rights, or prevent waste. Smith & Weaver, *Texas Law of Oil and Gas*, Vol. 3, Chapter 12, §12.3[A][6] at page 12.22.1. Compulsory pooling may not be ordered if the applicant has the ability to drill wells at regular and/or Rule 37 locations on a voluntarily formed unit that will serve these statutory purposes just as well as the proposed MIPA well.

It is apparent from XTO's Exhibit No. R14 plat of the amended unit (Appendix 3 to this amended proposal for decision) that there are regular locations on the unit where horizontal wells could be drilled without compulsory pooling, that is, locations which are 330 feet or more from any unit boundary or any unleased tract interior to the unit. These include the regular locations of the three horizontal wells that XTO has already permitted on the northern 130 acres of the unit, as well as the regular locations for horizontal wells shown on XTO Exhibit No. 27 presented at the initial hearing (Appendix 5 to this amended proposal for decision) and XTO Exhibit No. R12 presented at the reopened hearing (Appendix 8 to this proposal for decision). According to testimony at the initial hearing, the regularly located well shown in XTO Exhibit No. 27 would have a drainhole length of 4,369 feet, and according to testimony at the reopened hearing, the regularly located well shown on XTO Exhibit No. R12 would have a drainhole length of 3,946 feet. These two regularly located wells would have drainholes only slightly shorter than the proposed MIPA well, 176 feet shorter in the case of the Exhibit No. 27 well and 599 feet shorter in the case of the Exhibit No. R12 well. Still, the drainhole of the regularly located well shown in Exhibit No. 27 is longer than that of any of the 69 Barnett Shale wells within a five mile radius of the TSAU studied by XTO in Exhibit No. R6 (to develop an average EUR of 0.8833 MMCF per foot of horizontal drainhole), and the drainhole of the regularly located well shown in Exhibit No. R12 is as long or longer than that of all but three of the 69 wells in the Exhibit No. R6 study. The Exhibit No. R6 study demonstrates

that not all Barnett Shale wells are alike, and it cannot be said that a well with a longer drainhole necessarily will recover more gas than a well with a drainhole that is shorter by only a few hundred feet.<sup>18</sup>

At the reopened hearing, XTO did not present a plat comparable to Exhibit No. 29 presented at the initial hearing showing two horizontal wells that might be drilled at regular locations. However, XTO's Exhibit No. R12 plat of a horizontal well that could be drilled at a regular location on the amended 312.9083 acre unit suggests that a two well option at regular locations, with well orientation similar to that shown on the Case 3 plat in Exhibit No.29, still exists and these wells at regular locations would have combined drainhole length exceeding that of the proposed MIPA well.

Furthermore, XTO's claim that the proposed MIPA well shown in Exhibit No. R10 will prevent waste and protect correlative rights because the proposed MIPA well would have a drainhole 599 feet longer than the well at a regular location shown in Exhibit No. R12 disregards the fact that with a Rule 37 exception, the drainhole of the Exhibit No. R12 well could be extended at least another 650 feet toward the southeast unit boundary. This Rule 37 well would have a drainhole length exceeding that of the proposed MIPA well and, pursuant to XTO's theory that every foot of drainhole will recover 0.8833 MMCF, would recover about 45 MMCF more than the MIPA well. There is no precedent for the proposition that compulsory pooling under the MIPA is justified to avoid the need to obtain a Rule 37 exception. As noted in the initial proposal for decision, the examiners have officially noticed from Commission records that XTO has applied for and obtained hundreds of Rule 37 exceptions in the Newark, East (Barnett Shale) Field, and not one of these has required a contested case hearing. This is not a case like *Finley*<sup>19</sup> where the Commission found that the Rule 37 approach was an impractical alternative to compulsory pooling, because in *Finley* the Commission found that a Rule 37 well would need to be drilled so near unleased tracts as to create a danger of an unintentional trespass. There is no danger whatsoever of an unintentional trespass in XTO's case, and XTO has not contended the contrary.

### The Drainage Issue

This case was remanded to the examiners for a reopened hearing to allow XTO an opportunity to present evidence establishing the area that its so-called "Case 2" MIPA well (XTO Exhibit No. 28) would drain and to modify the proposed unit accordingly. XTO responded by proposing a unit 121.8391 acres smaller than originally proposed, but did not undertake to establish

---

<sup>18</sup> The argument that compulsory pooling invariably should be ordered when the proposed MIPA well has a longer drainhole than a well that could be drilled at a regular location is actually an argument for automatic approval of every "reverse MIPA" application in the Barnett Shale, because in most cases of a proposed unit having any significant number of unleased "window" tracts, the drainhole of a well at a location 330 feet from all internal lease lines is likely to be at least marginally shorter than the drainhole of a proposed MIPA well that does not need to observe the spacing rule as to internal lease lines. The test under the MIPA is not a matter of the longest drainhole that, in theory, could be drilled in the event of compulsory pooling, but whether compulsory pooling is reasonably necessary to prevent the drilling of unnecessary wells, prevent waste, or protect correlative rights.

<sup>19</sup> Oil & Gas Docket No. 09-0252373; *Application of Finley Resources, Inc., for the Formation of A Unit Pursuant to the Mineral Interest Pooling Act for the Proposed East Side Unit, Newark, East (Barnett Shale) Field, Tarrant County, Texas* (Final Order served August 26, 2008).

the drainage area of the "Case 2" well. Instead, at the reopened hearing, XTO proposed an entirely different MIPA well (XTO Exhibit No. R10) on the amended 312.9083 acre unit.

The drainage issue is significant because compulsory pooling of tracts that will not be drained by the proposed MIPA well is not authorized under the MIPA.<sup>20</sup> Force pooling of tracts that will not be drained will not prevent the drilling of unnecessary wells because additional wells will be required to drain these tracts. Force pooling of tracts that will not be drained will not prevent waste or protect correlative rights because whatever reserves exist under these tracts will remain there regardless of the drilling of the proposed MIPA well. See Smith & Weaver, *Texas Law of Oil & Gas*, Vol. 3, Chapter 12, §12.3[A][6] at pages 12-22.2 ("Conversely, if an additional well is necessary to drain the acreage sought to be forcibly pooled, then pooling should also be denied because the pooling would not avoid the drilling of unnecessary wells, prevent waste, or protect correlative rights.")

Even if compulsory pooling were not barred by XTO's ability to drill wells at regular and Rule 37 locations on the proposed unit, the examiners believe that the unit proposed by XTO could not be approved because XTO did not convincingly establish that the entirety of the proposed 312.9083 acre unit would be effectively and efficiently drained by the newly proposed MIPA well. In an attempt to demonstrate that the entirety of the proposed unit would be "impacted" by drainage or "likely" be drained by the newly proposed MIPA well, XTO relied on its analysis of two pairs of XTO Barnett Shale wells located about 20 miles to the north of the TSAU. According to XTO, although the closest perforations in each pair of wells are about 2,000 feet apart, plots of daily gas and water production show as to each well pair that fracturing of the second wells had an impact on production of the first well, so that the wells must be in communication. XTO could not determine how far out each well was draining, but, for the purpose of conclusions about drainage of the amended unit by the proposed MIPA well, assumed drainage 1,600 feet laterally from the horizontal drainhole. XTO's well pair analysis is not convincing evidence of efficient and effective drainage for several reasons.

First, even if XTO's interpretation is correct that the wells in each well pair in its drainage analysis are in "communication," this does not establish that any well studied is efficiently and effectively draining 1,600 feet laterally from the horizontal drainhole. XTO's reservoir engineer conceded that to say that the proposed MIPA well would have a drainage "impact" on tracts up to 1,600 feet away is something different than saying the MIPA well will efficiently and effectively drain tracts at this distance. In fact, this engineer concluded that it is *not* likely that the proposed MIPA well will efficiently and effectively drain the entirety of the proposed unit. The two well pairs in XTO's drainage analysis were selected from a study of all of XTO's Barnett Shale wells, including other horizontal wells with perforations at comparable distances apart that did not exhibit any communication. There was no showing by XTO that the two well pairs used for the purpose of its drainage analysis are in any way typical of Barnett Shale wells generally. It is counterintuitive to suggest that a typical well in the Newark, East (Barnett Shale) Field, a field with 330 foot lease line spacing and zero feet between well spacing, will effectively and efficiently drain an area extending out 1,600 feet on either side of the horizontal drainhole.

---

<sup>20</sup> XTO has requested that the Commission force pool 561 separate tracts, leased or unleased, in the amended 312.9083 acre unit.

XTO's so-called "Case 4" plat in Exhibit No. 31 presented at the initial hearing (Appendix 7 to this amended proposal for decision) suggested that as many as three horizontal wells would be required to drain basically the same acreage as is now included in the amended unit. XTO's reservoir engineer explained this by saying that while a single well would have "some" drainage, it would not effectively and efficiently drain this acreage. The "Case 4" plat is relevant because it depicts XTO's conception of how far laterally horizontal wells in the Barnett Shale can effectively and efficiently drain. Well Nos. 3H and 4H shown on the "Case 4" plat, which could be accommodated by the amended unit, are less than 1,000 feet apart, suggesting that XTO believed that each well would drain laterally about 500 feet from the horizontal drainholes. It appears from use of the scale on XTO Exhibit No. R10 that in order to drain the entirety of the amended 312.9083 acre unit, the proposed MIPA well would have to drain laterally from the horizontal drainhole a distance of up to about 1,875 feet to the west and up to about 1,375 feet to the east. Examiners' Exhibit No. R1 contains print-outs from the Commission's Online System regarding a Rule 37 well permitted by XTO on the Texas Steel "C" Unit (Status No. 682963/Case No. 026409) and a plat of a proposed force pooled Texas Steel "C" Unit taken from a XTO MIPA application related to that unit (Oil & Gas Docket No. 09-0261888; Application withdrawn October 8, 2009). The unit on which the Rule 37 well was permitted is a "slice" of the formerly proposed Texas Steel "C" MIPA unit. The greatest distance laterally from the Rule 37 well location to the boundary of the unit on which the well was permitted is about 600 feet, suggesting that this is the maximum distance the Rule 37 well is expected to drain.<sup>21</sup>

The examiners are persuaded that the area that will be efficiently and effectively drained is the proper drainage test under the MIPA, because only efficient and effective drainage by a MIPA well will prevent the drilling of unnecessary wells on the MIPA unit, prevent waste, and protect correlative rights. Assuming lateral drainage of no more than 500 to 600 feet as suggested by XTO Exhibit No. 31 and Examiners' Exhibit No. R1, the proposed MIPA well would efficiently and effectively drain only a little more than one-half of the amended 312.9083 acre unit and leave numerous leased and unleased tracts within the unit undrained.

#### **Multiple Well Development Unit**

The examiners remain convinced that even with the amended proposal, XTO is asking the Commission to form a large force pooled unit for future multiple well development. The Commission has authority to form compulsory units having acreage up to the standard proration unit for the field, but has frequently approved MIPA units having acreage less than the standard proration unit. Compulsory pooling is authorized only where necessary to prevent the drilling of unnecessary wells, prevent waste, or protect correlative rights, and for this reason, the size of a compulsory unit that may be approved should be no larger than the area that the MIPA well will efficiently and effectively drain. XTO has made no claim that its newly proposed MIPA well will efficiently and effectively drain the entirety of the amended 312.9083 acre unit, and, in fact, has conceded that such

---

<sup>21</sup> The Texas Steel "C" Unit is just to the west of the TSAU. The Rule 37 well permitted by XTO on the Texas Steel Unit is about 331 feet to 600 feet, depending on where the measurement is taken, from the boundary of the slice of the formerly proposed Texas Steel "C" MIPA Unit selected for the purpose of permitting the well. XTO's in-house reservoir engineer agreed that it would logically follow that XTO selected this slice of the formerly proposed MIPA unit on the basis of the area the Rule 37 well could be expected to drain efficiently and effectively.

drainage of the unit is *not* likely. Instead, XTO says that if the requested compulsory unit is approved, it will drill the MIPA well and then determine whether additional wells will be drilled to efficiently and effectively drain the entire unit.

On units of comparable size in the Barnett Shale, XTO has developed the unit with up to four or five wells and has achieved incremental recovery of gas by drilling multiple wells. While the single proposed MIPA well will achieve recovery of only 11% of the gas in place beneath the amended 312.9083 acre unit, XTO's experience elsewhere in the Barnett Shale has been that the drilling of three wells on units of comparable size will result in a 24% recovery factor.

The Commission's authority to order compulsory pooling under the MIPA is limited to the pooling of separately owned interests in oil and gas *into an existing or proposed proration unit for a well.*<sup>22</sup> Compulsory pooling into a development unit for multiple wells is not contemplated by the MIPA. See Oil & Gas Docket No. 06-0245016; *Application of Patricia C. Nowak for Formation of A Pooled Unit Pursuant to the Mineral Interest Pooling Act, Proposed Waldrop Gas Unit 1-A, Carthage (Cotton Valley) Field, Panola County, Texas* (Final Order served July 7, 2006) (Conclusion of Law No. 5: "The Commission's authority to order forced pooling under the Mineral Interest Pooling Act [Texas Natural Resources Code, Chapter 102] is limited to the pooling of separately owned interests in oil and gas into an existing or proposed proration unit for a well, and the Commission may not at once forcibly pool the entirety of the interest of Patricia C. Nowak into a unit which includes the location of multiple wells and all or portions of multiple proration units.") The proposed unit, even as amended, is simply too large given that the MIPA authorizes force pooling into a proration unit for only a single well.

Based on the entire record in this case, the examiners recommend adoption of the following Findings of Fact and Conclusions of Law.

---

<sup>22</sup> Under Texas Natural Resources Code §102.011, the authority of the Commission to force pool pertains to two or more separately owned tracts of land in a common reservoir *for which the Commission has established the size and shape of proration units*, where there are separately owned interests in oil and gas *within an existing or proposed proration unit* and the owners have not agreed to pool, and where at least one of the owners of the right to drill has drilled or has proposed to drill a well *on the existing or proposed proration unit* to the common reservoir. Under §102.012(1) of the Code, the owner of any interest in oil and gas *in an existing proration unit* may apply under the MIPA for the pooling of mineral interests. Under §102.013(c) of the Code, an offer of the owner of any interest in oil and gas *within an existing proration unit* to share on the same yardstick basis as the other owners *within the existing proration unit* are then sharing is to be considered a fair and reasonable offer. Under §102.014(a) of the Code, the Commission may not require the owner of a mineral interest, the productive acreage of which is equal to or in excess of *the standard proration unit* for the reservoir, to pool his interest with others, unless requested by the holder of an adjoining mineral interest, the productive acreage of which is smaller than such pattern, who has not been provided a reasonable opportunity to pool voluntarily. Under §102.017 of the Code, a Commission compulsory pooling order must describe the land included in the unit, identify the reservoir to which it applies, and designate the location of *the well*. See also *Carson v. Railroad Com'n of Texas*, 669 S.W.2d 315, 317 (Tex. 1984), wherein the Texas Supreme Court held that the Legislature's intent in adding subsection (c) to §102.013 of the Code was to permit small tract owners to "muscle in" to a larger established "proration unit."

**FINDINGS OF FACT**

1. Notice of the hearings was mailed to all interested parties at mailing addresses provided by the applicant XTO Energy, Inc. ("XTO") at least 30 days prior to the hearing dates.
2. Notice of the hearings was published in the Fort Worth Star Telegram once a week for four consecutive weeks.
3. By this application, as amended at the reopened hearing, XTO requests that the Commission approve compulsory pooling pursuant to the Mineral Interest Pooling Act, Chapter 102, Texas Natural Resources Code, of all mineral interests in 561 tracts of land into a 312.9083 acre proration unit for the Texas Steel "A" Unit, Well No. 1H, Newark, East (Barnett Shale) Field, Tarrant County, Texas.
4. Appendix 3 to this proposal for decision, incorporated into this finding by reference, is a plat for the proposed 312.9083 acre unit which distinguishes between tracts for which XTO holds a leasehold interest, tracts for which XTO has a partial leasehold interest and for which an undivided mineral interest remains unleased, and unleased ("open") tracts.
5. Appendix 4 to this proposal for decision, incorporated into this finding by reference, is a plat showing the proposed location, as amended at the reopened hearing, of the Texas Steel "A" Unit, Well No. 1H.
6. No person appeared at the hearings in opposition to the XTO application.
7. The Newark, East (Barnett Shale) Field was discovered on October 15, 1981. This field has special field rules providing for 330' lease line spacing, and there is no between well spacing requirement. As to horizontal wells, where the horizontal portion of the well is cased and cemented back above the top of the Barnett Shale formation, the distance to any property line, lease line, or subdivision line is calculated based on the distance to the nearest perforation in the well, and not based on the penetration point or terminus. Where an external casing packer is placed in a horizontal well and cement is pumped above the external casing packer to a depth above the top of the Barnett Shale formation, the distance to any property line, lease line, or subdivision line is calculated based on the top of the external casing packer or the closest open hole section in the Barnett Shale.
8. The standard drilling and proration unit for the Newark, East (Barnett Shale) Field is 320 acres. An operator is permitted to form optional drilling units of 20 acres. Operators must file a Form P-15 (Statement of Productivity of Acreage Assigned to Proration Units) listing the number of acres that are being assigned to each well on the lease or unit for proration purposes. No double assignment of acreage is permitted. While the allocation formula for the field is suspended, operators are not required to file plats of proration units with Form P-15.
9. The proposed unit is about four miles south of downtown Fort Worth, Texas. There are commercial or other non-residential surface uses of a significant portion of the proposed unit, but residential lots comprise more than fifty percent of the surface acreage.

10. XTO now holds oil and gas leases covering 100% of the mineral interest in 528 of the 561 tracts proposed to be force pooled. It also holds oil and gas leases covering a partial undivided mineral interest in six additional tracts sought to be force pooled. Of the 312.9083 acres in tracts sought to be force pooled, XTO's oil and gas leases cover 303.2658 acres. XTO has the right to pool all of the tracts for which it holds a leasehold interest.
11. There are 27 separate tracts within the proposed unit that remain entirely unleased for mineral development. These unleased tracts collectively contain 9.6425 acres. XTO was unable to obtain mineral leases for these tracts because the owners stated affirmatively that they were unwilling to lease, did not respond to XTO's voluntary pooling offer, or could not be located by XTO. A substantial majority of the unleased tracts are small town lots containing a fraction of an acre.
12. The unleased tracts within the proposed unit include four tracts containing 1.5840 acres that are City of Fort Worth tax foreclosed tracts. The City of Fort Worth has agreed with XTO that these four tracts may be pooled in return for escrow by XTO of a 25% royalty, subject to disposition in the manner provided by law.
13. On or about October 10, 2008, XTO mailed a voluntary pooling offer to all owners of unleased mineral interests in tracts within the proposed unit. The unleased owners were offered three options for inclusion of their interests in the Texas Steel "A" Unit: (i) a lease option; (ii) a participation option; or (iii) a farm-out option.
  - a. The lease option included a bonus offer of \$15,000 per net mineral acre and an offer of a 25% royalty. A standard lease form the unleased owners were asked to sign was for a primary term of four years. The lease provided that no "drilling activity" could be had on the surface of the leased premises without the prior written permission of the lessor. The lease provided that XTO had the right to pool the leased premises with any other lands or leases. The lease terms offered to the unleased owners were comparable to, or better than, lease terms granted by XTO to its lessors within the proposed unit.
  - b. The participation option provided the unleased owners with an opportunity to purchase a working interest in the proposed unit by paying to XTO, 15 days prior to commencement of actual drilling operations, the owner's pro rata share of drilling and completion costs.
  - c. The farm-out option proposed to the unleased owners that they convey to XTO an 80% net revenue interest attributable to their mineral interests, and retain an overriding royalty interest equal to 20% of 8/8ths, proportionately reduced to the extent that each owner's interest bore to all of the mineral interests in the unit, until payout of all well costs to drill, test, fracture stimulate, complete, equip and connect the well for production, with the option, at payout, to convert the retained override to a 25% working interest, proportionately reduced.
14. The proposed unit is in an east dipping portion of the Fort Worth Basin. The Barnett Shale is present and reasonably productive in the area of the proposed unit.

15. A plot of estimated ultimate recoveries of 69 Barnett Shale wells within five miles of a well permitted on the Texas Steel "A" Unit shows a relationship between horizontal drainhole length and ultimate recovery. Calculated regional recovery of horizontal wells in the Newark, East (Barnett Shale) Field is 0.8833 MMCF per foot of horizontal drainhole.
17. The Texas Steel "A" Unit, Well No. 1H proposed to be drilled if compulsory pooling is ordered would have drainhole length of 4,545 feet. If this well recovered 0.8833 MMCF per foot of horizontal drainhole, it would have estimated ultimate recovery of 4,343 MMCF.
18. The proposed Texas Steel "A" Unit, Well No. 1H could not be drilled at the precise location proposed by XTO without compulsory pooling of five unleased tracts that would be traversed by the horizontal drainhole, as more particularly shown on Appendix 4 to this proposal for decision.
19. There are regular locations within the proposed 312.9083 acre unit where horizontal wells could be drilled practically and economically without compulsory pooling or an exception to Statewide Rule 37.
  - a. XTO has already permitted three horizontal wells at regular locations in the Newark, East (Barnett Shale) Field just on the northern 130 acres of the proposed Texas Steel "A" Unit.
  - b. XTO Exhibit No. R12, attached to this amended proposal for decision as Appendix 8 and incorporated into this finding by reference, is a plat showing another horizontal well that could be drilled at a regular location on the amended unit. This well would have a drainhole length of 3,946 feet. Assuming that this well would recover 0.8833 MMCF per foot, the well would have an EUR of 3,946 MMCF.
  - c. Although the location of the wells would need to be shifted to the east, it is likely that there is sufficient "regular location" acreage on the amended 312.9083 acre unit to drill two regularly located horizontal with a northwest to southeast orientation similar to that shown in XTO Exhibit No. 29, that would have combined drainhole length exceeding that of the well proposed to be drilled by XTO if compulsory pooling is ordered.
  - d. XTO Exhibit No. 27, attached to this amended proposal for decision as Appendix 5 and incorporated into this finding by reference, showed a horizontal well that could have been drilled at a regular location on the originally proposed unit. This well could also be drilled at the same regular location on the amended 312.9083 acre unit. This well would have a drainhole length of 4,369 feet, and assuming recovery of 0.8833 MMCF per foot, would have an estimated ultimate recovery of about 3,859 MMCF.

20. The well shown on XTO Exhibit No. 27 that could be drilled at a regular location on XTO's leased acreage without compulsory pooling would have a drainhole longer than any of the 69 wells in the Exhibit No. R6 study of Barnett Shale wells within five miles of the Texas Steel "A" Unit.
21. The well shown on XTO Exhibit No. R12 that could be drilled at a regular location on XTO's leased acreage without compulsory pooling would have a drainhole longer than all but three of the 69 wells in the Exhibit No. R6 study of Barnett Shale wells within five miles of the Texas Steel "A" Unit.
22. With a Rule 37 exception, and without compulsory pooling, the drainhole of the horizontal well as shown on Appendix 8 to this proposal for decision could be extended to the south by 650 feet at a minimum in order to achieve total drainhole length of 4,596 feet, which would be longer than the drainhole of XTO's proposed MIPA well. This Rule 37 well could be drilled without risk of unintentional trespass on any unleased tract, and assuming recovery of 0.8833 MMCF per foot, the well would have an estimated ultimate recovery of 4,060 MMCF.
23. The proposed 312.9083 acre unit is substantially larger than the area that efficiently and effectively would be drained by the MIPA well proposed to be drilled by XTO if compulsory pooling is ordered. Additional wells would be required to efficiently and effectively drain a substantial portion of the proposed unit.
  - a. XTO's in-house reservoir engineer confirmed that it is not likely the single proposed MIPA well would efficiently and effectively drain the entire 312.9083 acre unit.
  - b. In order to drain the entirety of the amended 312.9083 acre unit, the proposed MIPA well would have to drain laterally from the horizontal drainhole a distance of up to about 1,875 feet to the west and up to about 1,375 feet to the east.
  - c. A "multiple well option" exhibit presented by XTO at the initial hearing, attached as Appendix 7 to this amended proposal for decision and incorporated into this finding by reference, showed that as many as three horizontal wells might be drilled on basically the same acreage as is now included in the amended 312.9083 acre unit. XTO's reservoir engineer confirmed that this was because a single well, while causing "some" drainage, would not efficiently and effectively drain the acreage. Well Nos. 3H and 4H shown on the Appendix 7 plat, which could be accommodated by the amended unit, are less than 1,000 feet apart. Assuming equal drainage of the acreage in between, each well would drain laterally about 500 feet from their horizontal drainholes.
  - d. XTO's two well pair "communication" analysis in XTO Exhibit Nos. R1 and R2 did not establish that the proposed MIPA well will efficiently and effectively drain the amended 312.9083 acre unit.

- i. The two well pairs included in this analysis were selected from a review of all of XTO's Barnett Shale wells, including wells with perforations comparable distances apart that did not exhibit communication.
  - ii. XTO did not establish that communication exhibited by the two well pairs in the analysis is typical of Barnett Shale wells generally that are comparable distances apart.
  - iii. "Communication" between wells with perforations 2,000-2,100 feet apart does not establish that the wells are efficiently and effectively draining acreage within 1,600 feet on either side of the horizontal drainholes.
- e. Elsewhere in the Barnett Shale, XTO has developed 320 acre units with as many as four or five horizontal wells. It has drilled horizontal wells in the Barnett Shale as close as 330 feet apart.
  - f. Volumetrically calculated gas in place beneath the amended 312.9083 acre unit is 41 BCF. XTO expects to recover only 11% of this gas by drilling the single MIPA well proposed. Elsewhere in the Barnett Shale, drilling of multiple wells on comparably sized units has achieved incremental recovery of gas. XTO expects that drilling of three wells on comparable units will achieve recovery of 24% of the gas in place.

**CONCLUSIONS OF LAW**

1. Pursuant to Texas Natural Resources Code §102.016, notice of the hearings was given to all interested parties by mailing the notices to their last known addresses, and by publication of notice for four consecutive weeks in a newspaper of general circulation in the county where the proposed unit is located in the case of parties whose whereabouts were unknown, at least 30 days before the hearings.
2. All things have occurred and been accomplished to give the Commission jurisdiction to decide this matter.
3. XTO Energy, Inc., made a fair and reasonable offer to pool voluntarily as required by Texas Natural Resources Code §102.013.
4. XTO Energy, Inc., did not prove that compulsory pooling as proposed by XTO is required to avoid the drilling of unnecessary wells, prevent waste, or protect correlative rights.
5. Pursuant to Texas Natural Resources Code §102.011, the Commission has no authority to order compulsory pooling where it is not proved that such compulsory pooling is necessary to avoid the drilling of unnecessary wells, prevent waste, or protect correlative rights.

RECOMMENDATION

The examiners recommend that the application of XTO Energy, Inc., pursuant to the Mineral Interest Pooling Act be denied.

Respectfully submitted,

*James M. Doherty*

James M. Doherty  
Hearings Examiner

*Richard P. Atkins*

Richard Atkins  
Technical Examiner