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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF QUESTAR GAS COMPANY FOR APPROVAL OF THE VERMILLION ACQUISITION AS A WEXPRO II PROPERTY	Docket No. 17-057-01 APPLICATION
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Questar Gas Company (Questar Gas or Company) submits this application to the Utah Public Service Commission (Utah Commission) for an order approving inclusion of recently acquired properties within the Trail Unit, Whiskey Canyon Unit, Canyon Creek Unit, and Kinney Unit (collectively, the Vermillion Acquisition) as Wexpro II properties pursuant to the Wexpro II Agreement. The Trail Unit and Kinney Unit portion of the acquisition are within the existing Wexpro I Development Drilling Area. The Canyon Creek Unit and Whiskey Canyon Unit are adjacent to, but not within the existing Wexpro I Development Drilling Area. Simultaneously with this filing, Questar Gas is applying for an order approving the Vermillion Acquisition from the Wyoming Public Service Commission (Wyoming Commission). Under the terms of the Wexpro II Agreement, which was approved by the Utah Commission on March 28, 2013, and the Wyoming Commission on April 11, 2013, Questar Gas is required to apply for approval to include properties acquired by Wexpro, within a Wexpro I Development Drilling area, as Wexpro

II properties. Accordingly, Questar Gas is required to seek approval to include the Trail Unit and the Kinney Unit properties within the Wexpro II Agreement. Questar Gas voluntarily offers the Whiskey Canyon Unit and the Canyon Creek Unit properties for approval into the Wexpro II Agreement. Questar Gas offers the following in support of this Application:

BACKGROUND

1. On September 12, 2012, Wexpro Company, Questar Gas Company, the Utah Division of Public Utilities (Division), and the Wyoming Office of Consumer Advocate entered into the Wexpro II Agreement, subject to the approval of both the Utah Commission and the Wyoming Commission. On March 28, 2013, the Utah Commission issued a Report and Order in Docket No. 12-057-13 approving the Wexpro II Agreement. On April 11, 2013, the Wyoming Commission held a public hearing and public deliberations upon the matter in Docket No. 30010-123-GA-12 and rendered a bench order approving the Wexpro II Agreement. On October 16, 2013, the Wyoming Commission issued a formal Memorandum Opinion, Findings and Order Approving the Wexpro II Agreement in Docket No. 30010-123-GA-12.

2. On November 5, 2013, Questar Gas filed an application seeking approval of the Trail Unit Acquisition as a Wexpro II property before the Utah and Wyoming Commissions. The Trail Unit Acquisition was an acquisition within a Wexpro I Development Drilling Area and under the terms of the Wexpro II Agreement Questar Gas was required to bring the property before both the Utah and Wyoming Commissions for approval.

3. On December 23, 2013, the Company, Division, Utah Office of Consumer Services (OCS), and the Wyoming Office of Consumer Advocates (OCA), entered into a Settlement Stipulation for the Trail Unit Acquisition. The Utah Commission issued a report and order approving the Trail Unit Settlement Stipulation on January 17, 2014, and the Wyoming Commission issued an order approving the Trail Unit Settlement Stipulation on January 27, 2014.

4. The Trail Unit Settlement Stipulation provides that Wexpro generally designs its annual drilling program to provide cost-of-service production that is, on average, at or below the current 5-year Rockies-adjusted NYMEX price (5-Year Forward Curve). The Trail Unit Settlement Stipulation also provides that the Company and Wexpro will manage combined cost-of-service production from Wexpro I and Wexpro II properties to Questar Gas at or below 65%.

5. On August 31, 2015, Questar Gas filed an application seeking approval of the Canyon Creek Acquisition Area as a Wexpro II property before the Utah and Wyoming Commissions. The Canyon Creek Acquisition Area was an acquisition within a Wexpro I Development Drilling Area and under the terms of the Wexpro II Agreement Questar Gas was required to bring the property before both the Utah and Wyoming Commissions for approval.

6. On October 26th, 2015, the Company, Division, OCS, and the OCA, entered into a Settlement Stipulation for the Canyon Creek Acquisition. The Utah Commission issued a report and order approving the Canyon Creek Settlement Stipulation on November 17, 2015, and the Wyoming Commission issued an order approving the Canyon Creek Settlement Stipulation on February 24, 2016.

7. The Canyon Creek Settlement Stipulation provides clarification and enhancements of the previous Wexpro II agreements and stipulations. First, it clarifies the calculation of the 5-Year Forward Curve established in the Trail Unit Settlement Stipulation. Second, it provides that all post-2015 development drilling and capital investment would earn the commission-allowed rate of return. It also provides that Dry Hole and non-commercial well costs will be charged and shared on a 50/50 basis between Questar Gas customers and Wexpro. It provides for sharing of cost savings from post-2015 volumes when the annual overall cost of service per decatherm is less than the market price per decatherm. It provides that Wexpro will manage its production from Wexpro I and Wexpro II wells to 55% of the IRP demand beginning in the 2020 IRP year. Finally, it provides that Questar Gas will maintain on its website, a current copy of all relevant documents governing the cost-of-service arrangement between Wexpro and Questar Gas.

VERMILLION ACQUISITION

8. On April 16, 2015 Wexpro Company closed on the acquisition of additional interests in the natural gas producing properties within the Kinney Unit. These interests are within the Development Drilling Areas defined in the Wexpro Agreement.

9. On December 15, 2015 Wexpro Development Company (WDC) closed on an acquisition of additional interests in natural-gas producing properties in the Vermillion Basin in the Trail Unit, Whiskey Canyon, and Canyon Creek properties. These properties are shown in Exhibit B. The Whiskey Canyon Unit lies directly adjacent to the Canyon Creek Unit. The Trail Unit interests are located within Development Drilling Areas as

defined in the Wexpro Agreement. The Whiskey Canyon Unit and the Canyon Creek Unit are adjacent to the Development Drilling Areas.

10. The Wexpro II Agreement governs the requirements for Wexpro and Questar Gas relating to this purchase. Section IV-1 provides that “Wexpro will acquire oil and gas properties or undeveloped leases at its own risk.” Section IV-1(a) provides that “Questar Gas shall apply to the Utah and Wyoming Commissions for approval to include under this Agreement any oil and gas property that Wexpro acquires within the Wexpro I development drilling areas.” Section IV-1(b) provides that “Questar Gas may apply for Commission approval to include these (properties outside the development drilling areas) properties under this agreement.”

11. Wexpro has purchased the Vermillion Acquisition at its own risk and is selling production from these wells on the open market pending the outcome of a decision by the Utah and Wyoming Commissions to determine whether this acquisition should be included as a Wexpro II property. If the Vermillion Acquisition is approved as a Wexpro II property, then the Acquisition Costs (as defined in the Wexpro II Agreement) will be adjusted downward for the depreciation of the gas sold from the time Wexpro closed on the Vermillion Acquisition until Commission approval of this acquisition as a Wexpro II property.

SUPPORTING INFORMATION

12. Section IV-2 of the Wexpro II Agreement provides that Questar Gas will file an application with the Utah and Wyoming Commissions requesting approval to include proposed properties under the Wexpro II Agreement and the application shall include the supporting information that is attached to this Application as Exhibits A

through P. The Company notes that the Vermillion Acquisition includes four separate properties that may be analyzed independently of each other. Accordingly, this Application includes some exhibits that show properties individually, and where applicable, an aggregate exhibit that shows the properties combined. These are included in Exhibits A, C, D, E, F, G, H, J, L, O, and P. In each exhibit, the first portion of the exhibit (C-1 for example) is for the Trail property. The second, third, and fourth exhibits are for Whiskey Canyon, Canyon Creek, and Kinney, respectively (for example, Exhibits C-2, C-3, C-4). The fifth exhibit, where applicable, shows the properties combined (for example, Exhibit C-5).

Exhibit A: Purchase price and gas pricing assumptions

Exhibit A provides the gas and oil pricing assumptions used in the Vermillion acquisition. Pages one and two show the gas and oil pricing assumptions that were used to determine the bid price for Trail, Whiskey Canyon, and Canyon Creek. Pages three and four show the gas and oil pricing assumptions that were used to determine the market value for Kinney. A Rockies basis adjustment was applied to derive the spot market price where the properties are located. Exhibit A-1 provides the gas and oil pricing assumptions from PIRA and Cambridge Energy Research Associates (CERA) that were available in November 2016 for the Rockies. The Company is providing this more recent information given the market price change that occurred in the gas and oil market following the purchase of the Vermillion Acquisition.

Confidential Exhibit B: Locations of current and future wells

The locations of current and future wells are depicted on a schematic attached to this Application as Exhibit B. Exhibit B shows that there are 196 current wells (including

all units as well as working interest and overrides) and 117 planned future wells given current data.

Confidential Exhibit C: Historical production and remaining reserves of current wells

Exhibit C is broken into five exhibits showing the current wells, their cumulative production to date and their estimated remaining reserves. Exhibit C-1 shows information pertaining to Trail wells, Exhibit C-2 shows information pertaining to Whiskey Canyon wells, Exhibit C-3 shows information pertaining to Canyon Creek wells, and Exhibit C-4 shows information pertaining to Kinney wells. Exhibit C-5 shows the combined information for all four properties.

Confidential Exhibit D: Forecasted production/reserves for future wells

Exhibit D contains five spreadsheets listing the future wells that are planned to be drilled in each of the properties, and their estimated production/reserves for the life of the wells. Exhibit D-1 shows planned wells in the Trail unit, Exhibit D-2 shows planned wells in the Whiskey Canyon unit, Exhibit D-3 shows planned wells in the Canyon Creek unit, and Exhibit D-4 shows planned wells in the Kinney unit. Exhibit D-5 shows the combined information for all four properties.

Confidential Exhibit E: Forecasted decline curves for current and future wells

Exhibit E-1 is an 85-page exhibit showing a rate time plot for each current well, as well as the anticipated type curve for the future development wells in the Trail Unit. Exhibit E-2 is a 7-page exhibit showing the same information for the Whiskey Canyon Unit. Exhibit E-3.1 is a 10-page exhibit showing the same information for the portion of

the Canyon Creek Unit that lies outside the Mesaverde Participating Area. Exhibit E-3.2 is a 121-page exhibit showing the same information for the portion of the Canyon Creek Unit containing overriding royalty interests within the Mesaverde Participating Area. Exhibit E-4 is a 9-page exhibit containing the same information for the Kinney Unit.

Confidential Exhibit F: Estimated drilling (capital) cost per well

Exhibit F provides a detailed estimate of capital cost to drill a future well. Exhibit F-1 shows the estimated cost to drill a Trail well to be \$1.5 million. Exhibit F-2 shows the estimated cost to drill a Whiskey Canyon well to be \$1.5 million. Exhibit F-3 is a 2-page exhibit that shows the estimated cost to drill a vertical Canyon Creek well to be \$1.7 million, and a horizontal Canyon Creek well to be \$3.7 million. Exhibit F-4 shows the estimated cost to drill a Kinney well to be \$1.5 million.

Confidential Exhibit G: Estimated operating expenses for current and future wells

Exhibit G is a summary of the estimated operating expenses for current and future wells within the Vermillion Acquisition. Exhibits G-1 through G-4 reflect costs associated with Trail, Whiskey Canyon, Canyon Creek, and Kinney wells, respectively. The information shown is based on historical data and Wexpro's experience operating and maintaining wells in the Vermillion Acquisition Area.

Confidential Exhibit H: Gross working interest and net revenue interest for current and future wells

Exhibit H (Exhibit H-1, Exhibit H-2, Exhibit H-3, Exhibit H-4, Exhibit H-5) shows the working interest and net revenue interest for the current wells and the future wells for each of the properties.

Exhibit I: Estimated production tax per Dth for current and future wells

Exhibit I is a summary of the estimated production tax per Dth for current and future Vermillion Acquisition wells. Production taxes vary based on the market price of natural gas. Therefore, included in this summary table are natural gas prices ranging from \$2.00 to \$6.00 per Dth.

Confidential Exhibit J: Estimated gathering/processing costs per Dth for current and future wells

Exhibit J is a summary of the estimated gathering/processing costs per Dth for current and future Vermillion Acquisition wells, by property (Exhibits J-1 through J-4).

Confidential Exhibit K: Description of any land lease, title, and legal issues related to real property

With respect to the Trail Unit, Whiskey Canyon Unit, and Canyon Creek Unit, Exhibit K contains (1) a confidential copy of the Purchase and Sale Agreement by and between QEP Energy Company, Wexpro Development Company, and Wexpro Company (as operator); (2) a Purchase and Sale Agreement for the Trail, Whiskey Canyon and Canyon Creek properties; (3) the Assignment for the Trail, Whiskey Canyon and Canyon Creek properties; (4) the Agreement for the Kinney property; and (5) the Assignment for the Kinney property.

Confidential Exhibit L: Forecasted long-term cost-of-service analysis

Exhibit L-1 is a 16-page summary showing the estimated cost-of-service analysis over a 25-year period over the Trail Unit acquisition. Exhibits L-2, L-3 and L-4 show the same information for Whiskey Canyon, Canyon Creek and Kinney, respectively. Exhibit L-5 shows a combination of all four. For illustrative purposes, in each of the

referenced exhibits, cost-of-service is shown on a cumulative and annual basis with both allocated and incremental general and administrative (G&A) costs. When Wexpro makes drilling or acquisition decisions, an incremental analysis on G&A includes only the additional costs that are incurred because of the new well or acquisition.

Pages 1 through 4 on each exhibit show the cumulative cost of service with allocated G&A; pages 5 through 8 show the cumulative cost of service with incremental G&A; pages 9 through 12 show the annual cost of service with allocated G&A; and pages 13 through 16 show the annual cost of service with incremental G&A. For comparison purposes the estimated production over the 25-year period has also been included in each graph.

Confidential Exhibit M: Impact on Questar Gas' gas supply

Exhibit M is a bar chart showing the estimated production levels for Wexpro I and Wexpro II production, and the incremental Vermillion Acquisition production for the next five (5) years.

Confidential Exhibit N: Geologic data

Exhibit N is an 8-page exhibit highlighting the geology of the Vermillion Acquisition Area. Page 1 is an index map showing the location of the Vermillion Acquisition Area in Southwest Wyoming. On the detailed map, the structural contours depict the subsurface configuration of the top of the Mesaverde Group. The Mesaverde is a closed anticlinal structure (upside-down bowl) within the Vermillion Acquisition Area. This closed structure has served to trap the natural gas in the Mesaverde Group within the Canyon Creek and Trail Units.

Page 2 is a Late Cretaceous stratigraphic column for the Vermillion Acquisition Area. Shown from top to bottom are the different rock formations encountered in the Vermillion Acquisition wells. The Lance Formation and Fox Hills Sandstone are non-productive intervals. The Lewis Shale provides the top seal for the gas accumulation in the Mesaverde Group. This seal is necessary to trap the gas in the anticlinal structure depicted on the previous page. The red symbols to the right of the diagram depict the productive members of the Mesaverde Group in the Vermillion Acquisition Area. The Almond Formation is the most prolific of the productive intervals in recent wells. The Canyon Creek and Trail formations were the original productive intervals when the fields were discovered in the 1950s.

Page 3 is a type log for the fields. Open-hole logs (Log) are run in the wells in the Vermillion Acquisition Area prior to running casing to ensure that the expected productive sands are present in the well. This is a representative Log for the fields. At the far left of the Log the Lewis Shale is depicted. Downhole, to the right, the Almond Formation is the first zone encountered in the Mesaverde Group. The upper portions of the Almond Formation are a shoreface (beach to slightly offshore) depositional environment. Deeper in the Almond, the environment turns to a coastal plain with river channels, overbank mudstones, and coal seams. Below the Almond Formation is the Canyon Creek Member, which is a stack of river channel and point bar sands. The non-productive Rusty Shale separates the Canyon Creek Member from the Trail Member. The Trail Member also contains stacked river channels and point bar sands. Together these three members of the Mesaverde Group comprise the entire productive interval in the Vermillion Acquisition Area.

Page 4 is a table of petrophysical values derived from the Log mentioned in the previous paragraph and from core data. This data shows that within the Mesaverde Group the porosity (open space in the rock) is 10-12%. The water saturation value is the percent of the porosity occupied by water. Average water saturation in the Almond formation is approximately 43% and in the Canyon Creek and Trail formations it is 28% on average. Core permeability averages 0.1 millidarcies. The porosity and permeability values make the field a high-quality tight-gas accumulation.

Page 5 is a Net Reservoir map showing the Almond shoreface (beach) sands. The net reservoir thickness of the shoreface sands is the underlying data for the contour map. The net reservoir thickness values are posted on the map at the existing well locations. These values are used to project sand thicknesses to areas where wells have not been drilled. The NW-SE orientation of the shoreline is visible on these maps. The thickest shoreface sands are present in the northern part of the Canyon Creek Acquisition Area. The sands thin slightly to the southwest and northeast. Production data shows that the thinning has only a minor effect on well productivity.

Page 6 is a Net Reservoir map showing the Almond fluvial sands. These sands trend perpendicular to the shoreface sands and represent rivers that were flowing to the coast and feeding the shoreline. The fluvial sands are thickest in the central and northern parts of the Trail Unit and thin to the south. In terms of well productivity, this zone likely contributes only a small amount of hydrocarbons.

Page 7 is a Net Pay map of the Canyon Creek Member. The Canyon Creek sand becomes more water saturated down structure. This is depicted in the thinning of the Net Pay toward the edges of the unit. The Canyon Creek sand was produced extensively in

the early life of the field and has some pressure depletion. It is still a minor contributor to some new wells. Completing in water-bearing portions of this member is avoided by using extensive open-hole log evaluations.

Page 8 is a Net Pay map of the Trail Member. The Trail sand behaves somewhat like the Canyon Creek sand, but is a lower quality reservoir and not as productive. The Trail Member is a thick, stacked sand package that has many internal complexities that compartmentalize the reservoir. This heterogeneity may require extensive application of modern technology to fully develop the resource.

The four Net Pay maps depicted in pages 5-8 represent the entire productive interval in the Mesaverde Group. The nature of this vertical stack of productive gas sands provides low-risk future development drilling.

Confidential Exhibit O: Future development plan for the proposed properties

Exhibit O is a summary of future wells planned to be drilled from 2017 through 2022 within the Vermillion Acquisition Area.

Highly-Confidential Exhibit P: Other data as requested or as may be appropriate to an evaluation of the property

Exhibit P includes the Highly Confidential economic models for each property (Exhibits P-1 through P-4) and a Highly Confidential economic model for all four combined (Exhibit P-5). Wexpro used these models in the cost-of-service analysis of the Vermillion Acquisition and they will be provided to each Commission, the OCS, the Division, and the OCA electronically.

Questar Gas has filed the sworn testimony of Barrie L. McKay (QGC Exhibit 2.0) and Brady B. Rasmussen (QGC Exhibit 3.0) in support of this Application. As set forth in Mr. McKay's testimony, approval of the Vermillion Acquisition as a Wexpro II property would provide an opportunity for Questar Gas's customers to receive cost-of-service gas that is estimated to provide lower-cost gas over a 25-year period. Additionally, as set forth in Mr. Rasmussen's testimony, Wexpro will continue to manage its current production and future drilling programs at or below the 5-Year Forward Curve and to manage combined cost-of-service production from Wexpro I and Wexpro II properties to Questar Gas at or below the thresholds established in the Canyon Creek Acquisition.

PRAYER FOR RELIEF

Based upon the foregoing, and supporting testimony, Questar Gas respectfully requests that the Utah Commission approve each of the properties in the Vermillion Acquisition as Wexpro II properties.

DATED this 9th day of January, 2017.

Respectfully submitted,

QUESTAR GAS COMPANY

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CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the Application was served upon the following persons by email on January ____, 2017:

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