Colleen Larkin Bell (5253) Jenniffer Nelson Clark (7497) 333 S. State Street PO Box 45433 Salt Lake City, Utah 84145-0433 (801)324-5556 (801)324-5935 (fax) <u>Colleen.Bell@questar.com</u> Jenniffer.Clark@questar.com

Attorneys for Questar Gas Company

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF QUESTAR GAS COMPANY FOR APPROVAL OF THE CANYON CREEK ACQUISITION AS A WEXPRO II PROPERTY

Docket No. 15-057-10

APPLICATION

Questar Gas Company (Questar Gas or Company) submits this application to the Utah Public Service Commission (Utah Commission) for an order approving inclusion of a recently acquired property within a Wexpro I Development Drilling area known as the Canyon Creek Mesaverde Participating Area (Canyon Creek Acquisition Area) as a Wexpro II property referred to as the Canyon Creek Acquisition (Canyon Creek Acquisition) pursuant to the Wexpro II Agreement. Simultaneously with this filing, Questar Gas is applying for an order approving the Canyon Creek 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. 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%.

CANYON CREEK ACQUISITION

5. On December 19, 2014, Wexpro Company closed on its \$52.7 million acquisition of an additional 30% interest in natural-gas producing properties in the Canyon Creek Acquisition Area located in the Vermillion Basin in southwest Wyoming. These properties are located within the Development Drilling areas defined in the Wexpro I Agreement.

6. Wexpro already owns a 70% (Mesaverde) interest in the Canyon Creek Acquisition Area. This acquisition increases Wexpro's ownership interest to 100%.

7. 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." 8. Wexpro has purchased the Canyon Creek 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 Canyon Creek 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 Canyon Creek Acquisition until Commission approval of this acquisition as a Wexpro II property.

SUPPORTING INFORMATION

9. 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 which are attached to this Application as Exhibits A through P. The Company notes that the supporting testimony to this Application proposes and supports changes that, if approved by the Utah and Wyoming Commissions, would change some of these exhibits. Accordingly, this Application includes adjusted information in the exhibits that change as a result of the proposal. Changed exhibits are identified as Exhibits A-1, L-1, M-1, O-1, and P-1.

Exhibit A: Purchase price and gas pricing assumptions

Exhibit A provides the gas and oil pricing assumptions used in the Canyon Creek Acquisition. Columns B and C show the gas and oil pricing assumptions that were available on August 8, 2014, for the Henry Hub and NYMEX indices for the period of January 2014 to December 2018. A Rockies basis adjustment was applied to derive the spot market price where the properties are located. These pricing assumptions were used in developing Wexpro's bid price. Exhibit A-1 provides the gas and oil pricing assumptions from PIRA and Cambridge Energy Research Associates (CERA) that were available on June 2015 for the Rockies. The Company is providing this more recent information given the significant change that occurred in the gas and oil market following the purchase of the Canyon Creek 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 100 current wells and 30 planned future wells given current data.

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

Exhibit C is a two-page spreadsheet listing the 100 current wells, their cumulative production to date and their estimated remaining reserves.

Confidential Exhibit D: Forecasted production/reserves for future wells

Exhibit D is a spreadsheet listing 30 future wells that are planned to be drilled and their estimated production/reserves for the life of the wells.

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

Exhibit E includes a rate time plot for each current well, as well as the anticipated type curve for the proven undeveloped (PUD) future development wells.

5

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

Exhibit F provides a detailed estimate of capital cost to drill a future well. The estimated cost is approximately \$2 million per well.

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 Canyon Creek Acquisition wells. This is based on historical data and Wexpro's experience operating and maintaining wells in the Canyon Creek Acquisition Area.

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

Exhibit H is a three-page spreadsheet showing the working interest and net revenue interest for the 100 current wells and the 30 future wells.

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 Canyon Creek 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 Canyon Creek Acquisition wells.

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

Exhibit K contains a confidential copy of the Purchase and Sale Agreement by and between Linn Energy Holdings, LLC and Questar Gas Company, Wexpro Company, and QEP Energy Company executed on December 17, 2014 (the "PSA"). Attached to the PSA are Exhibit A (listing all Leases purchased), Exhibit B (listing Wells and Well Locations), Exhibit D (Form Assignment and Bill of Sale), among other exhibits. Also attached to Exhibit K is a copy of the Letter Agreement entered into between Wexpro and QEP Energy Company regarding ownership of the assets purchased from Linn Energy Holdings, LLC, and a copy of the Stipulation and Cross Conveyance of Interests in Oil and Gas Leases by and between Wexpro Company, Questar Gas Company, and QEP Energy Company.

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

Exhibit L is a 16 page summary showing the estimated cost-of-service analysis over a 30-year period for the Canyon Creek Acquisition at the current return. For illustration purposes, cost-of-service is shown on a cumulative and annual basis with both allocated and incremental general and administrative (G&A). 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 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 at the current return. For comparison purposes the estimated production over the 30-year period has also been included in each graph. Confidential Exhibit L-1 is a 16-page summary showing the estimated cost-of-service analysis adjusted for the proposed changes as described in Mr. McKay's testimony.

Confidential Exhibit M: Impact on Questar Gas's gas supply

Exhibit M is a bar chart showing the estimated production levels for Wexpro I production, the Wexpro II Trail Unit Acquisition production, Trail compression, and Wexpro II Canyon Creek Acquisition production for the next five years. Exhibit M-1 is a bar chart showing the same information adjusted for the Company's proposed changes.

Confidential Exhibit N: Geologic data

Exhibit N is an 8 page exhibit highlighting the geology of the Canyon Creek Acquisition Area. Page 1 is an index map showing the location of the Canyon Creek 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 Canyon Creek Acquisition Area. This closed structure has served to trap the natural gas in the Mesaverde Group.

Page 2 is a Late Cretaceous stratigraphic column for the Canyon Creek Acquisition Area. Shown from top to bottom are the different rock formations encountered in Canyon Creek 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 Canyon Creek Acquisition Area. The Almond Formation is the most prolific of the productive intervals in recent wells. The Canyon Creek and Trail members were the original productive intervals when the field was discovered in the 1950s.

Page 3 is a type log for the field. Open-hole logs (Log) are run in the wells in the Canyon Creek 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 field. 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 Canyon Creek Participating 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 9-11%. The water saturation value is the percent of the porosity occupied by water. Average water saturation is approximately 33%. Core permeability averages 0.5 millidarcies. The porosity and permeability values make the field a high-quality tight-gas accumulation.

Page 5 is a Net Pay map showing the Almond shoreface (beach) sands. The Net Pay thickness of the shoreface sands is the underlying data for the contour map. The Net Pay 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 south. Production data shows that the thinning has some effect on well productivity, but it is minor.

Page 6 is a Net Pay map showing the Almond coastal plain sands. These sands trend perpendicular to the shoreface sands and represent rivers that were flowing to the coast and feeding the shoreline. The coastal plain sands are thickest in the central and northern parts of the field 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 and is still a 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 has a lower overall water saturation. This leads to a thinning of sands toward the unit boundaries, but not to the extent that the Canyon Creek Member thins. The Trail Member is a thick, stacked sand package that has many internal complexities that compartmentalize the reservoir. This heterogeneity requires extensive well downspacing to fully develop the gas in place.

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 in 2021 and 2022. Exhibit O-1 is a summary of the future wells planned to be drilled in 2016 and 2017 if the proposed changes accompanying this application are approved by the Commissions.

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 model, used in the analysis of the Canyon Creek Acquisition and will be provided to the Utah Commission, the Office of Consumer Services and the Division electronically. Exhibit P-1 is the Highly Confidential economic model adjusted for the Company's proposed changes.

Questar Gas has filed the sworn testimony of Barrie L. McKay (QGC Exhibit 1.0) and Brady B. Rasmussen (QGC Exhibit 2.0) in support of this Application. As set forth in Mr. McKay's testimony, approval of the Canyon Creek Acquisition as a Wexpro II property and the Company's proposed changes in allowed return, expense assignment and savings sharing 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 30-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 65%.

PRAYER FOR RELIEF

Based upon the foregoing, and supporting testimony, Questar Gas respectfully requests that the Utah Commission approve the Canyon Creek Acquisition as a Wexpro II property and find that the proposed changes accompanying this Application are in the public interest.

DATED this 31st day of August, 2015.

Respectfully submitted,

QUESTAR GAS COMPANY

Colleen Larkin Bell (5253) Jenniffer Nelson Clark (7947) Attorneys for Questar Gas Company 333 S. State Street PO Box 45433 Salt Lake City, Utah 84145-0433 (801) 324-5556

175742

CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the Confidential Application was

served upon the following persons by email on August _____, 2015:

Patricia E. Schmid Assistant Attorney General 160 East 300 South P.O. Box 140857 Salt Lake City, UT 84114-0857 pschmid@utah.gov

Chris Parker Director Division of Public Utilities 160 East 300 South P.O. Box 146751 Salt Lake City, UT 84114-6751 chrisparker@utah.gov

Bryce Freeman Administrator Wyoming Office of Consumer Advocate 2515 Warren Avenue, Suite 304 Cheyenne, WY 82002 Bryce.Freeman@wyo.gov Rex Olson Assistant Attorney General 160 East 300 South, 5th Floor P.O. Box 140857 Salt Lake City, Utah 84114-0857 rolsen@utah.gov

Michele Beck Director Office of Consumer Services 160 East 300 South P.O. Box 146782 Salt Lake City, UT 84114-6782 <u>mbeck@utah.gov</u>

Ivan Williams Senior Counsel Wyoming Office of Consumer Advocate 2515 Warren Avenue, Suite 304 Cheyenne, WY 82002 Ivan.williams@wyo.gov