ONTARIO ENERGY BOARD

IN THE MATTER OF THE *Ontario Energy Board Act*, S.O. 1998, C.15, Schedule B, and in particular Section 21(2) thereof;

AND IN THE MATTER OF the *Assessment Act*, R.S.O. 1990, c. A31, and in particular Section 25(3) thereof;

AND IN THE MATTER OF an Application by Lagasco Inc. for an Order determining whether or not the natural gas pipelines owned and operated by Lagasco Inc. in Haldimand County are gas transmission pipelines

AFFIDAVIT OF ROBERT KOLLER
(Expert Opinion On Behalf of the Applicant)

1. I, Robert Koller, am a Partner with Deloitte LLP in Calgary, Alberta.

2. I have been engaged by Bennett Jones LLP on behalf of the applicant, Lagasco Inc., to provide evidence in relation to the above-noted court proceeding. Attached as **Exhibit A** is a copy of my expert report, which sets out my investigation, analysis and opinion. I believe the contents of my report to be true and accurate, to the best of my knowledge, and I adopt the report, including its attached appendices, as if they were in affidavit form.

3. Included as Appendix C to my report is an Acknowledgement of Expert's Duty, which follows form 53 under the Ontario *Rules of Civil Procedure*.

4. Included as Appendix D to my report is a copy of my curriculum vitae.

SWORN BEFORE ME by video conference FROM the City of Calgary in the Province of Alberta TO the city of Toronto in the Province of Ontario on May 21, 2020)

William A. Bortolin)

A commissioner, etc.
in and for the Province of Ontario

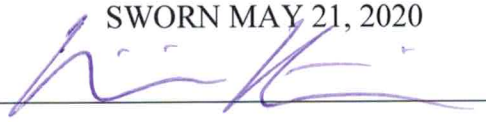
Robert Koller

TAB A

THIS IS EXHIBIT "A" TO

THE AFFIDAVIT OF ROBERT KOLLER

SWORN MAY 21, 2020



William A. Bortolin

Commissioner for Taking Affidavits

Deloitte.

Lagasco Inc.

Expert Report - Classification of Natural Gas Pipelines

Privileged and Confidential
Date of Report: May 21, 2020

Deloitte LLP
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Calgary, AB T2P 0R8
Canada

Tel: 403-503-1370
www.deloitte.ca

Privileged and Confidential

May 21, 2020

Bennett Jones LLP
3400 One First Canadian Place
P.O. Box 130
Toronto, ON M5X 1A4

Attention: Mr. Richard Swan

Dear Sir:

Subject: Dispute between Lagasco Inc. and the Municipal Property Assessment Corporation of Ontario with Respect to the Classification of Natural Gas Pipelines

1) Deloitte LLP ("Deloitte") has been retained, as independent experts, by Bennett Jones LLP ("Counsel" or "Bennett Jones") in connection with Counsel's representation of Lagasco Inc. ("Lagasco" or the "Company) regarding a dispute with the Municipal Property Assessment Corporation of Ontario (the "MPAC") concerning the classification of Lagasco's natural gas pipelines for property tax purposes.

2) Deloitte was formally retained through an engagement agreement between Counsel and Deloitte to prepare an expert report (the "Report" or the "Expert Report") in relation to the above matter.

3) More specifically, we have been asked to prepare an Expert Report regarding the classification of Lagasco's natural gas pipelines, which includes differences between natural gas gathering pipelines and transmission pipelines from an economic perspective.

4) We have prepared this Expert Report in adherence to the Canadian Institute of Chartered Business Valuators' ("CICBV") Standard No. 310, which defines an Expert Report as follows:

> *"An Expert Report is defined as any written communication other than a Valuation Report, containing a conclusion as to the quantum of financial gain/loss, or any conclusion of a financial nature in the context of litigation or a dispute, prepared by an Expert acting independently."*

5) An Expert Report does not constitute a Valuation Report, as defined by the CICBV's Standard No. 110. As such, the comments and analyses in this Report should not be construed as Deloitte providing an opinion related to the underlying value of Lagasco's natural gas pipelines.

Purpose

6) We understand that you require the Expert Report to assist in a dispute before the Ontario Energy Board (the "OEB") between Lagasco and the MPAC for property tax purposes.

Independence

7) Deloitte was engaged to prepare an Expert Report. No part of Deloitte's fee is contingent upon the conclusions reached in the Expert Report or any action or event contemplated in, or resulting from the use of, the Report. The principal expert and other staff involved in the preparation of the Report acted independently and objectively in completing this engagement.

8) Attached to this Report as Appendix C is our Acknowledgement of Expert's Duty equivalent to Form 53 provided for under the *Rules of Civil Procedure* (Ontario).

Restrictions

9) Our Expert Report is solely for use in connection with the stated purposes above. It is not intended for general circulation or publication, nor is it to be reproduced or used for any purpose other than that outlined above without our written permission in each specific instance. We do not assume any responsibility or liability for losses incurred by any parties as a result of the circulation, publication, reproduction, or use of this Report contrary to the provisions of this paragraph.

10) We reserve the right to review all analyses, calculations, if any, and findings included or referred to in our Expert Report and, if we consider it necessary, to revise our Report in light of any information, which becomes known to us after the date of this Report.

11) We relied upon the completeness, accuracy, and fair presentation of all information, data, advice, opinions, or representations (collectively, the "Information") obtained from Counsel and management of the Company ("Management") and/or its agents and advisors. The Expert Report is conditional upon the completeness, accuracy, and fair presentation of such Information. Except as expressly described herein, we have not attempted to verify independently the completeness, accuracy, or fair presentation of the Information.

12) The Expert Report must be considered as a whole and selecting portions of the analyses or the factors considered by it, without considering all factors and analyses together, could create a misleading view of the process underlying the preparation of the Expert Report.

Scope of Review

13) In preparing this Expert Report, we reviewed and primarily relied upon the following:

    a) Discussions with the following individuals:

        - Mr. Peter Budd, Director, Lagasco; and
        - Ms. Jennifer Lewis (Nisker), Vice President, Lagasco

    b) Canada Valuation Service, 2018 Edition;

    c) General industry and economic research and information obtained from external sources, as referenced in the Report; and

    d) A letter of representation obtained from Management, which includes a general representation that Management has no information or knowledge of any facts or material information not specifically noted in this Expert Report, which, in their view, would reasonably be expected to affect the analysis contained herein.

14) We have not audited or otherwise verified the Information relied upon in completing our Expert Report.

Key Terminology

15) A brief explanation of the key oil and gas terms used throughout this Report can be found in Appendix B.

Background

16) Lagasco is an oil and natural gas production company with assets in the province of Ontario. The Company's assets include oil and natural gas reserves, as well as related infrastructure assets such as pipelines. It is our understanding that the OEB has jurisdiction to classify Lagasco's natural gas pipelines as being either gathering lines or transmission lines. We understand that Management believes that the relevant pipelines should be classified as gathering lines based on their nature. As a result, Lagasco disputes the property taxes levied against it.

17) As previously indicated, Deloitte has been asked to comment on the classification of natural gas pipelines, which includes differences between natural gas gathering pipelines and transmission pipelines from an economic perspective.

Classification of Pipelines

18) Canada's pipeline network is comprised of four main groups of systems, discussed as follows:

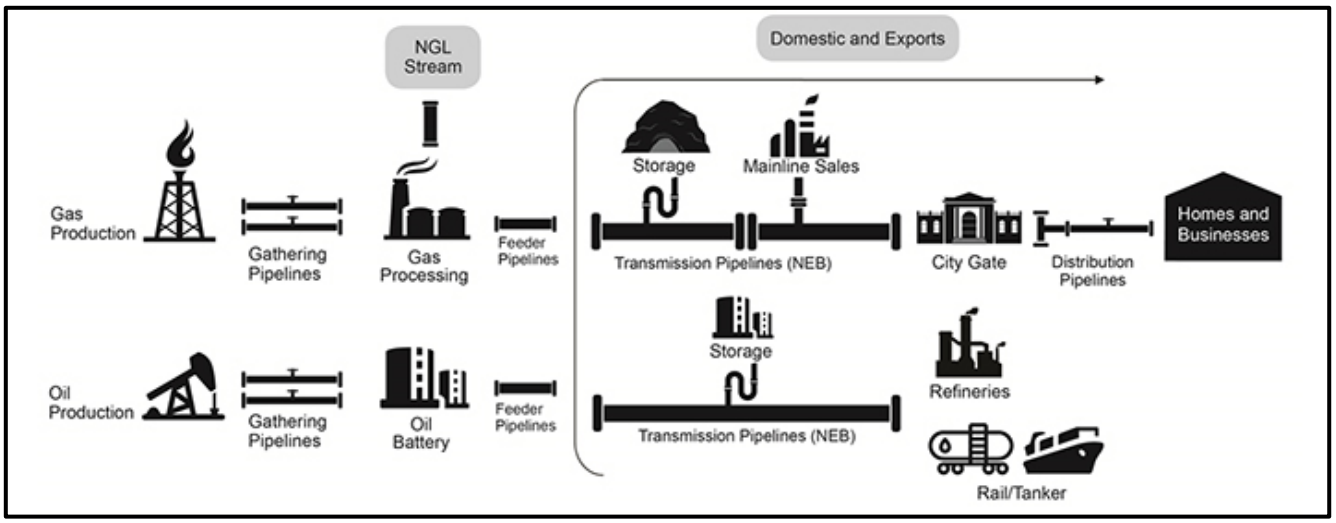
Table 1 – Classification of Pipelines[1]

Type	Description
Gathering Pipelines	Gathering pipelines are typically small-diameter underground pipelines connected to a producing well, which converge with pipes from other wells. Gathering pipelines transport: • Natural gas from the wellhead in the production fields to natural gas processing facilities; and • Crude oil from wellheads in the production fields to oil batteries and processing facilities.
Feeder Pipelines	Feeder pipelines transport: • Natural gas and natural gas liquids ("NGLs") from gas processing facilities and associated storage tanks to transmission pipelines; and • Crude oil from oil batteries and associated storage tanks to transmission pipelines.
Transmission Pipelines	Transmission pipelines transport crude oil, natural gas, and NGLs received from feeder pipelines throughout Canada and across international borders. Transmission pipelines are wide in diameter and are designed to: • Collect natural gas and NGLs from the feeder pipelines and transport them to a large volume customer or distribution system; and • Collect crude oil from the feeder pipelines and transport them to refineries and/or rail and tankers.
Distribution Pipelines	Distribution pipelines are operated by local distribution companies or provincial cooperatives. These pipelines deliver natural gas to homes, businesses, and industrial customers. Large industrial, commercial, and electric generation customers can receive natural gas directly from the transmission pipelines. Smaller homes and businesses receive their natural gas from regional gas utility companies through a network of underground distribution lines. The transmission pipelines transfer natural gas to gas utility companies at what is called a "citygate," and from there, gas utility companies deliver gas to individual customers' meters through an extensive network of small-diameter distribution piping.

[1] The classification of pipelines, as provided by the Canada Energy Regulator. Source: https://www.cer-rec.gc.ca/nrg/ntgrtd/trnsprttn/2016/cnds-ppln-trnsprttn-systm-eng.html

19) Figure 1 below shows a visualization of the pipeline systems within the oil and gas value chain:

Figure 1 – Pipeline Systems



Source: Canada Energy Regulator[2]

20) As depicted in Figure 1, natural gas is delivered from the individual wells to the gas processing facility through the gathering pipelines. The natural gas processing facility takes the natural gas, and extracts non-methane hydrocarbons such as NGLs, water, and various other byproducts for delivery to the transmission pipelines for further sale. The natural gas is then transported from the natural gas processing facility through feeder pipelines into the larger transmissions pipelines where it can be stored, sold, or transferred to citygate before being delivered to homes and businesses for consumption. The gathering pipelines and natural gas processing facilities are an integral part of the underlying natural gas reserves whereas transmission pipelines collect gas from multiple feeder pipelines. As such, the gathering pipelines and transmission pipelines serve different purposes in the natural gas value chain.

The Economics of Natural Gas Gathering Pipelines

21) Natural gas gathering pipelines are typically small diameter (up to eight inches) pipelines that connect producing wells to natural gas processing facilities. A series of gathering pipelines, which make-up gathering systems, transport natural gas from production fields to processing facilities. The processing facilities and related gathering systems can either be owned by the owner of the natural gas reserves, or by a third party. In the case of third party ownership, the owner of the natural gas reserves would execute processing contracts with the third party. Once the producing field is depleted of all natural gas reserves, the gathering pipelines and related processing facilities are no longer required and remediation of the assets is completed. That is, the gathering pipelines and related processing facilities only serve to monetize the value of the primary asset, being the natural gas reserves.

[2] Source: https://www.cer-rec.gc.ca/nrg/ntgrtd/trnsprttn/2016/cnds-ppln-trnsprttn-systm-eng.html

22) The useful life of the gathering pipelines is limited to the production and expected life of the natural gas wells to which they are connected. Once the natural gas reserves are depleted and there is no longer production from the natural gas wells in that field, the wells are shut-in and the gathering system connected to those wells is rendered obsolete. When producers move on to other oil and natural gas opportunities or begin drilling in a different parts of the same area, they typically shut-in the existing gathering system infrastructure for economic reasons.

23) Gathering pipelines are a part of the supporting infrastructure directly related to the underlying natural gas reserves / wells. The value of the gathering pipelines is inherently captured in the value of the reserves when reserve reports are prepared. Below, we have summarized the accepted valuation approach for the valuation of oil and natural gas reserves. The valuation is comprised of the underlying natural gas reserves, as well as the supporting integrated infrastructure directly associated to the reserves, which includes gathering pipelines, natural gas processing facilities, and compression stations (collectively, the "Oil and Gas Properties").

Valuation of Oil and Gas Properties

24) The income approach utilizing a discounted cash flow ("DCF") method is the most commonly used valuation methodology for the Oil and Gas Properties. Please refer Appendix A for further details on general approaches to valuation. We reach this conclusion based on our experience in valuations, corporate mergers, acquisitions, and divestitures, as well as considering the following factors:

- This is the approach that a market participant or a notional purchaser would likely use when contemplating an acquisition of Oil and Gas Properties;
- Oil and Gas Properties are expected to be income producing where future cash flows can be reasonably estimated based on the underlying oil and gas reserves; and
- The future cash flows are based on a depleting resource base where production fluctuates annually and the Oil and Gas Properties have a finite life.

25) The use of a DCF method to value Oil and Gas Properties is the most common method in the oil and gas industry.

26) The DCF method involves determining the present value of future cash flows from the oil and gas reserves, over their life, on either a before-tax or after-tax basis, to yield the value of the Oil and Gas Properties. We would typically estimate the value of the Oil and Gas Properties on an after-tax basis, where corporate income taxes are deducted from annual future cash flows before discounting, with the resulting after-tax cash flows being discounted using an after-tax discount rate. Discounting is required to account for the time value of money, as well as risks in generating the forecast cash flows.

27) The future annual before-tax cash flows are estimated by qualified reserve engineers being either the company's internal engineers or a third party reserve engineering firm, and are calculated as follows:

Future before-tax cash flows are equal to:

- Revenue (Total production volumes of oil, natural gas, and NGLs multiplies by forecast sales prices for these commodities)
- Less: Royalties (Crown, freehold and over-riding)
- Less: Production and mineral taxes
- Less: Transportation costs
- Less: Other operating costs (Fixed and variable, including property taxes)
- Equals: Net operating income
- Less: Capital expenditures
- Less / (Add): Abandonment cost / (salvage value)
- Equals: Before-tax cash flows

28) The costs associated with the transportation of raw natural gas through gathering pipelines and the processing costs associated with that natural gas being purified are captured in the cash flows. As such, the overall valuation of the Oil and Gas Properties inherently captures the value of the gathering pipelines and the gas processing facilities.

29) Oil and Gas Properties are finite life assets. Once the oil and natural gas reserves in the ground are extracted there is no means of replacing them. As such, the DCF method for Oil and Gas Properties does not include a terminal value. The terminal value represents the estimated value of future income or cash flow streams beyond the discrete projection period. It is commonly calculated using the "Gordon Growth Model," which is used for valuing assets that are expected to have stable growth in their cash flows after the forecast period. Since the cash flow projections by the reserve engineers span the life of the reserves, there are no future income or cash flow streams beyond this period and, therefore, there is no terminal value in the DCF method for Oil and Gas Properties.

30) The natural gas reserve reports prepared by reserve engineers for Oil and Gas Properties consider both the underlying natural gas reserves and the supporting infrastructure needed to extract the reserves from the ground and send the product to the transmission pipelines. Gathering lines are part of the supporting infrastructure and there is value associated with these lines so long as there are reserves in the ground. Once the reserves are depleted, the gathering pipelines do not have any independent value of their own and, in fact, there are remediation costs associated with them. Unlike a transmission pipeline, which is valued on a standalone basis, gathering pipelines do not have any standalone value, as the value is tied to the underlying natural gas reserves.

31) As stated in the Canada Valuation Service, 2018 Edition:

> *The valuation of oil and gas exploration and production ("E&P") companies, in theory, is no different than the valuation of any other business. Regardless of the type of company, fair market value is predicated on the present value of all of the future net benefits (namely discretionary or free cash flow) to be realized by ownership.*
>
> *The unique aspect of valuing an E&P company is that its revenues are not recurring in nature. Once a barrel of oil is sold, it is gone forever. And oil is a commodity, meaning that if an E&P company runs out of oil, customers will find supply elsewhere.*

32) In order to corroborate the value of the Oil and Gas Properties under the income approach, a market approach is employed through the use of guideline public company trading multiples and guideline precedent transaction multiples. The valuation multiples implied by the income approach are compared to the multiples of the guideline public companies and guideline precedent transactions as a reasonability test. Multiples specific to the characteristics of the oil and natural gas reserves, such as the volume of reserves in the ground, gas weighting of the reserves, average daily production from the reserves, and gross profit per barrel of oil equivalent are assessed. The value of the supporting infrastructure, including gathering pipelines, is captured in the value of the reserves and, therefore, the implied multiples. Typically, the value of gathering pipelines is not bifurcated from reserve value.

The Economics of Natural Gas Transmission Pipelines

33) Natural gas transmission pipelines are generally large diameter (six to 48 inches) inter-province or intra-province pipelines that collect natural gas from feeder pipelines and transports them to large volume customers or distribution systems. A transmission pipeline is a separate asset capable of generating cash flows independent of any specific producing natural gas wells or reserves. Unlike gathering pipelines, which have a finite useful life associated with the underlying natural gas reserves that they were constructed for, transmission pipelines generally have a much longer life, as they carry volumes produced from multiple existing and to be developed natural gas fields. For example, the Trans Mountain crude oil pipeline has been operational for over 65 years, since 1953, and is expected to continue to operate with long-term shipping contracts in place for the foreseeable future.

34) The producers of oil and natural gas (the "Shippers"), who generally own the Oil and Gas Properties transport oil and natural gas through the transmission pipelines for delivery to refineries, rail, tankers, distributors, or others. Transmission pipeline owners and/or operators generate revenue through agreements with the Shippers. The most common types of contracts between the pipeline owners and/or operators and the Shippers are discussed below:

Table 2 – Transmission Pipelines - Types of Contracts

Type	Description
Take-or-Pay Contract	A take-or-pay contract guarantees the Shipper a specific amount of capacity in the pipeline over a fixed term (i.e., life of the contract). Whether or not the Shipper uses the capacity is irrelevant, as they are still required to pay for it. These types of contracts eliminate commodity price risk, as well as volume risk to the pipeline owners and/or operators, as the fees per unit of natural gas and the volumes are at a contracted rate. Other terms and conditions unique to the contract may include terms such as the Shipper agrees to pay a base fee for capacity and a further fee for using the pipeline.
Cost of Service Contract	A cost of service contract allows the pipeline operator to charge a fee, plus a regulated[3] allowed rate of return, for shipping oil and/or natural gas through the pipeline. This type of contract does not have commodity price or contractual price risk, as the pipeline owner and/or operator recover their cost of shipment and earn an incremental rate of return. However, these contracts have volume risk implications for the pipeline owner and/or operator, as there is no guarantee of the volume being transported.
Fee-Based Contract	In a fee-based contract, pipeline operators charge a fee for the volumes shipped in the transmission pipeline. The fees may vary based on factors such as volume being transmitted and prices set by the regulatory bodies. Generally, these contracts do not have a commodity price risk for the pipeline owner and/or operators. Fee based contracts have volume risk, as there is no guarantee on the volume of product that is shipped through the pipeline.
Percentage-of-Proceeds Contract	In a percentage-of-proceeds contract, a portion or all of the payment may be in kind where the pipeline company receives a percentage of the volume shipped. This arrangement has commodity and volume risk to the pipeline owner and/or operator. A pipeline owner and/or operator can take on the price and volume risk by purchasing the oil / natural gas from the producer and marketing it to an end user.

35) Similar to the valuation of Oil and Gas Properties, the accepted base valuation methodology for transmission pipelines is the DCF method under the income approach. The important difference between the two valuations is that Oil and Gas Properties have a finite life whereas the transmission pipelines can continue to operate into perpetuity, since their economic life is not directly associated

[3] In the case of intra-provincial pipelines, the respective provincial energy boards (such as the OEB), and in the case of inter-provincial pipelines, the federal energy board (i.e.,) Canada Energy Regulator, are the regulatory bodies.

with specific oil and gas reserves. The transmission pipelines are continually filled with oil and gas from both existing and newly drilled wells that replace the volumes from depleted production fields. Unlike the DCF analysis for the Oil and Gas Properties where forecasts are limited to the economic life of the underlying reserves, the DCF analysis for the transmission pipelines would generally include a terminal value. Gathering pipelines and transmission pipelines are two fundamentally different types of assets, and the appropriate valuation analysis accounts for this.

Valuation of a Transmission Pipeline

36) The DCF analysis for a transmission pipeline includes the following steps:

- Estimating the pipeline's future free cash flows (i.e., future free cash flow is calculated as the operating revenues minus capital and operational expenditures) over the projection period;
- Applying an appropriate discount rate that is commensurate with the amount of risk inherent in the forecast cash flows; and
- Determining a terminal value for use at the end of forecast free cash flows projection period.

37) Unlike with Oil and Gas Properties, the cash flow projections for transmission pipelines are not provided by oil and natural gas reserve engineers. In our experience, a series of assumptions and projections are needed when undertaking a DCF analysis for a transmission pipeline that is in-service. These assumptions and projections will often include the following:

Table 3 – DCF Analysis - Major Assumptions

Inputs	Discussion
Throughput or Volume	A pipeline is inherently limited to the volume of product it can transport (i.e., its capacity). Further, not all pipelines will transport the maximum capacity volume for the entirety of its useful life. A combination of economic and environmental factors, such as competing transportation systems to major pricing hubs or declining production in the area near the pipeline's origination point, can lead to the transportation of lower volumes. As revenue is based on the volume being transported and price, in accordance with the contractual terms, as discussed above, the volume transported (i.e., throughput) is a major assumption in assessing the value of a transmission pipeline.
Tariffs	Pipelines earn revenue by charging fees to the Shippers for the right to transport product on their pipelines. These fees are referred to as "toll rates" or "tariffs." These tariffs can vary over time due to several factors such as changes in throughput, operating and capital costs, market conditions, inflation rate, terms of the underlying contracts, and regulatory requirements.
Terminal Value	An inherent limitation in forecast cash flows is that they are typically prepared for a finite period of time, whereas the life of a transmission pipeline that is well maintained is indefinite. If the assets are expected to continue to generate cash flows beyond the forecast period, a terminal value is calculated to estimate the future cash flows over an undefined and indefinite period. A terminal value is commonly calculated using the "Gordon Growth Model," which is used for valuing assets that are expected to have stable growth in their cash flows after the forecast period.

Inputs	Discussion
	To calculate a terminal value, we typically use the same assumptions as the last year of the finite forecast period and capitalize them using the Gordon Growth Model. The terminal value is then discounted and included in the total value for the transmission pipeline.

38) In order to corroborate the value of a transmission pipeline under the income approach, we also use the market approach. More specifically, guideline public company trading multiples and guideline precedent transaction multiples. The process is similar to that described previously for gathering pipelines. However, based on the economics of transmission pipelines, a different set of multiples in terms of their nature is considered. The enterprise value to earnings before interest, taxes, depreciation, and amortization ("EBITDA") multiple is assessed. This is because EBITDA is a key driver of value for a transmission pipeline, which generates revenues and profits through contracts with Shippers. The profitability of the transmission pipeline is largely dependent on the terms of contracts instead of specific oil and gas reserve characteristics, as these pipelines carry volumes from multiple producers.

39) Based on the foregoing, the value of a transmission pipeline is reflective of its standalone valuation, as it is capable of generating an identifiable and independent stream of cash flows without relying on a specific set of depleting oil and/or natural gas wells or reserves for throughput.

Conclusion

40) From natural gas reserves in the ground to delivering this commodity to the ultimate customer, the oil and natural gas process chain involves various pipeline systems each with their own unique functions. There are fundamental difference between gathering pipelines and transmission pipelines. In our experience, gathering pipelines do not have a value independent from the underlying natural gas reserves that they were constructed to serve, while transmission pipelines have identifiable independent cash flows that can be valued as a separate business. In addition, while gathering pipelines take natural gas from the wellhead to processing facilities, transmission pipelines pool natural gas from various feeder pipelines, which collect natural gas from the processing facilities, to deliver this product to end customers.

The accompanying appendices are an integral part of this Report.

Yours truly,

Deloitte LLP

Rob Koller, CA, CPA, CBV
Deloitte LLP

Enclosures (Appendices)

Appendix A – Valuation Approaches

General Approaches

There are two fundamental approaches to determine fair market value. These are the liquidation approach and the going concern approach.

A liquidation value would be used if the business was not viable on a going concern or if the return on the assets on a going concern basis was not adequate. This value is the net realizable value on an orderly disposition made in a manner that would minimize the loss or taxes thereon.

The going concern approach assumes a continuing business enterprise with a potential for economic future earnings. Where a business has commercial value as a going concern three approaches to valuation are commonly referred to as the following:

- Income approach;
- Market approach; and
- Asset-based approach.

Within each category a variety of methodologies exist to assist in the estimation of fair market value. The nature and characteristics of the asset indicates which approach and methodology is most appropriate for valuation. The following sections contain a brief overview of the theoretical basis for each approach, as well as a discussion of the specific methodologies relevant to the analyses performed.

Valuation Approach	Description
Income Approach	The income approach measures the value of an asset by the present value of its future net economic benefits to be enjoyed over the life of the asset. These benefits may include earnings, cost savings, tax deductions, and proceeds from disposition. The steps followed in applying this approach include estimating the expected cash flows attributable to the asset over its life and converting these cash flows to present value through discounting. The discount rate selected incorporates an appropriate return for the time value of money, the expected rate of inflation, and any specific risks associated with the particular asset. The discount rate selected is generally based on rates of return from alternative investments of similar type and quality, as at the valuation date.
Market Approach	The market approach measures the value of an asset based on what other purchasers in the marketplace have paid for assets, which can be considered reasonably similar to those being valued. When the market approach is applied, data on guideline transaction or guideline public companies are collected to inform on the prices paid for reasonably similar assets. Considerations and adjustments are made to the guideline precedent transactions or guideline public companies, as necessary, to compensate for differences in financial

Valuation Approach	Description
	condition, operating performance, economic, environmental, and political factors. Application of the market approach results in an estimate of the price the owner might reasonably expect to receive from the sale of the subject asset in the notional marketplace.
Asset-based Approach	The asset-based approach is generally used where the going concern of the business is closely related to the value of its underlying assets. The two most common asset-based approaches are the cost method and the adjusted net book value ("ABV") method. The discrete valuation of an asset using a cost method is based upon the concept of replacement as an indicator of value. A prudent investor would pay no more for an asset than the amount for which he could replace the asset new. The cost approach establishes value based on the cost of reproducing or replacing the property, less depreciation from physical deterioration and functional obsolescence, if present and measurable. Under the ABV method, the business' tangible assets and liabilities are adjusted to their current fair market values, with the resultant net equity representing the going concern value of the business. Within the ABV method there are generally two approaches to consider the tax consequences that might arise on a notional transaction. In holding companies, the latent income taxes arising from an asset sale can be considered in the determination of the ABV if a notional purchaser is more likely to acquire the assets than the shares, or, like in most other companies that are assumed to be a going concern, the tax shield forgone on a share purchase can be deducted.

Appendix B – Key Terminology

Descriptions of key terminology[4] in the oil and gas industry that were used in the Report are briefly set forth, as follows:

Term	Description
Casing-string	A casing string is a long section of connected oilfield pipe (i.e., drill pipe) that is lowered into a wellbore and cemented.
Gas utility company	A gas utility company is a local distribution company that facilitates the delivery of natural gas to consumers in homes and businesses.
Natural gas processing facility	A natural gas processing facility is a facility designed to process raw natural gas by separating impurities and non-methane hydrocarbons and fluids (i.e., NGLs) to produce what is known as saleable pipeline quality dry natural gas.
NGLs	Natural gas liquids are hydrocarbons, in the same family of molecules as natural gas and crude oil, composed exclusively of carbon and hydrogen. NGLs consist of ethane, propane, butane, isobutane, and pentane.
Producing well / Production field	A producing well or production field is a well or a field where crude oil and/or natural gas is produced.
Reserves	Reserves are those quantities of crude oil, natural gas, and/or NGLs, which are anticipated to be commercially recovered from known accumulations below the surface of the earth from a given date forward.
Shut-in well	To shut in a well is to close off a well so that it stops producing crude oil and/or natural gas.
Wellbore	A wellbore is a hole that is drilled to aid in the exploration and recovery of oil or natural gas. It is the actual hole that forms the well.

[4] The descriptions provided above are included to facilitate an understanding of the terms used within this Report. These descriptions do not necessarily constitute definitions, as provided by various industry bodies and petroleum engineering societies.

Term	Description
Wellhead	A wellhead is a structure that is installed at the top of an oil or natural gas well. Its main function is to ensure the safe operation and manage the flow of oil or gas from the well into the gathering system. It acts as an interface between the surface facilities and the casing-string in the wellbore.

Appendix C – Acknowledgement of Expert's Duty

1. My name is Rob A. Koller. I live at Calgary, in the province of Alberta.
2. I have been engaged by Bennett Jones LLP ("Counsel") to provide evidence in connection with Counsel's representation of Lagasco Inc. regarding a dispute with the Municipal Property Assessment Corporation of Ontario concerning the classification of Lagasco's natural gas pipelines for property tax purposes.
3. I acknowledge that it is my duty to provide evidence in relation to this proceeding, as follows:
   (a) To provide opinion evidence that is fair, objective, and non-partisan;
   (b) To provide opinion evidence that is related only to matters that are within my area of expertise; and
   (c) To provide such additional assistance, as the court may reasonably require, to determine a matter in issue.
4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Date: May 21, 2020

Rob Koller, CPA, CA, CBV

Appendix D – Curriculum Vitae of the Expert

Rob Koller, CPA, CA, CBV

Partner
Financial Advisory
Value Advisory
Calgary, AB
Phone: (403) 503-1370
Email: rkoller@deloitte.ca

Profile

Rob Koller is a Partner, Deloitte LLP, Calgary, Alberta, within the Financial Advisory Services department specializing in business valuations, litigation support and damage quantification, and business insurance claims consulting.
He has been qualified as an expert witness in the Court of Queen's Bench of Alberta, the Court of Queen's Bench of Saskatchewan, the Supreme Court of British Columbia, at the Alberta Municipal Government Board, and for various affidavits related to Court of Queen's Bench of Alberta matters.

Experience

Rob has participated in damage quantification and valuation assignments for the purposes of:

- Damage quantification for litigation
- Business interruption insurance
- Shareholder disputes
- Taxation restructuring
- Estate freezes
- Acquisitions, mergers, divestitures, and reorganizations
- Financings
- Matrimonial equalization payments
- Appraised remedies / minority squeeze-outs
- Employee buyouts
- Personal injury claims
- Oppression remedies
- Purchase price allocations
- Impairment testing for financial statements
- Fair value determinations

He has been involved with or responsible for the following major business interruption claims, valuation, and damage quantification assignments:

- Prepared the purchase price allocation for financial reporting purposes for Akita Drilling Ltd.'s September 2018 acquisition of Xtreme Drilling Corporation for total consideration of approximately $170 million;
- Conducted financial modelling, valuation, and related financial statement goodwill impairment testing related to the Federal Government of Canada's $4.4 billion acquisition of Kinder Morgan Canada Limited's existing and expansion Trans Mountain pipeline business;
- Prepared independent, formal valuations, under Multilateral Instrument 61-101, and fairness opinions related to Paramount Resources Ltd.'s acquisition of Trilogy Energy Corp., which was immediately proceeded by Paramount's acquisition of Apache Canada Ltd. The value of the subject transactions was approximately $1.5 billion. Deloitte was co-engaged by each of the special committees of the board of directors of Paramount and Trilogy. In preparing the formal valuations and fairness opinions, the upstream and midstream assets of Paramount, Apache, and Trilogy were valued;
- Prepared a fairness opinion in connection with the arrangement agreement among Critical Control Energy Services Corp. (the "Company"), 2209021 Ontario Inc., and Alykhan Mamdani providing for the re-arrangement and re-organization of the ownership structure of the Company. Deloitte conducted quantitative financial modelling and valuation analysis, as well as an assessment of the qualitative components of the arrangement, to assess the fairness to various classes of shareholders;
- Determined the fair value of various oil and gas assets located in the Quifa, Llanos, and La Creciente fields in Colombia, as well as fields in Peru for financial statement impairment testing purposes for a public company with daily production of approximately 75,000 barrels of oil equivalent per day. This included oil and gas reserves, as well as midstream assets such as pipelines and water treatment facilities;
- Determined the economic loss caused by the alleged breach of right of first refusal provisions with respect to the approximately $25 million sale of interests in select oil and gas properties in Saskatchewan;
- Pursuant to an arrangement agreement whereby a related majority shareholding group offered to purchase all of the shares held by minority shareholders to facilitate the privatization of one of the largest bulk transportation companies in North America with an enterprise value of approximately $250 million, prepared both a formal valuation, as required by Multilateral Instrument 61-101 – Protection of Minority Security Holders in Special Transactions, as well as fairness opinion.
- Determined the potential economic loss in a claim under the rules of the North American Free Trade Agreement made by an oil and gas exploration and production company against the Government of Canada resulting from the revocation of an exploration permit;
- Conducted various purchase price allocation engagements for financial statement reporting purposes related to the acquisition of various oil and gas exploration and production companies and assets, as well as various oilfield services companies and assets;
- Prepared the purchase price allocation for financial accounting purposes of a $450 million natural gas cavern storage business;
- Valued the oil and gas reserves of numerous public oil and gas exploration and production companies for financial statement reporting purposes;
- Determined the value of various oil and gas reserve assets for a private oil and gas exploration and production company;
- Assisted a company with a $900 million insurance loss resulting from a fire at its petroleum upgrading facility in Northern Alberta;
- Determined the fair market value of a 300,000 barrel per day petroleum refining facility located in Eastern North America;

- Prepared a business interruption claim for an 80 MW cogeneration power generation facility located in Alberta;
- Valued a 105 MW combined cycle power generation facility for property taxation purposes and provided related testimony at a Board hearing;
- Engaged on behalf of the plaintiffs concerning an alleged breach of contract and alleged misrepresentations in the potato growing and processing industries. Responsible for creating an economic damages model and related expert opinion report;
- Prepared and presented a business interruption claim for a 300 MW combined cycle power generation facility located in the Northeastern United States;
- Due to an appointment by the Court, valued a Regina based company specializing in the construction of deep pile foundation systems for the purposes of resolving a shareholder dispute;
- Prepared an opinion of value (for organization purposes) of an Alberta based construction company with annual revenues approximating $60 million;
- Assisted in the quantification of a $100 million US loss of income claim submitted by a major ammonia based fertilizer producing public company in the United States;
- Aided in the quantification and presentation of a $500 million US loss of income claim related to a major petroleum refining facility submitted by a large multinational public company. Assistance was also provided in preparation for and conducting various depositions, as well as mediation meetings;
- Assisted in the preparation of a business interruption insurance claim for a large phosphate fertilizer manufacturing facility owned by a multinational public company;
- Determined the fair market value of an ammonia based fertilizer manufacturing plant with annual revenues exceeding $60 million US;
- Engaged on behalf of the defendants to a major damage claim with respect to an oil and gas litigation assignment. The defendants were accused by the carried interest owner of breaching their fiduciary duty to assure the earliest feasible marketing of oil and gas from a natural gas field;
- Prepared spreadsheet models used to forecast cash flows and other financial data for a property management and property brokerage company prior to obtaining a listing on the Alberta Stock Exchange;
- Determined the fair market value for an underground utility construction company with revenues of $12.3 million for shareholder dispute arbitration purposes;
- Determined the fair market value for a resort with revenues of $9.1 million for a potential buyout of various shareholders by an existing shareholder;
- Valued a land developer with $94.2 million of assets for submission to the Alberta Stock Exchange;
- Determined the fair market value for an oil and gas company for submission to the Alberta Stock Exchange in relation to an Issuer Bid Circular;
- Valued two printing companies each with revenues of approximately $25 million for purposes of a potential merger;
- Valued the restricted shares of a company with investments in significant mining operations in Australia for tax purposes;
- Determined the fair market value of preferred shares of a private company that were donated to a major charitable organization. The valuation was required to substantiate the amount of the charitable donation receipt;

- Determined the fair market value of a management contract for a resort hotel held by a hotel management company to assist management of the later mentioned company evaluate the potential buyout of the contract;
- Valued numerous hotel and farming companies controlled by a single family for corporate reorganization purposes;
- Prepared an estimate of value for tax purposes of certain legal entities of a global oilfield services company focused on providing technology-based products and services. The parent company is listed on the New York Stock Exchange with a current market capitalization in excess of $95 billion;
- Prepared two valuations of an oil and gas drilling company with operations across South America;
- Prepared the purchase price allocation for the acquisition of a company involved in the logistics and accommodation space of the oilfield services sector. The acquirer was a Canadian publicly listed company;
- Prepared an expert witness report assessing the financial impact of a contractual dispute between a drilling contractor and an oil and gas exploration and production company;
- Prepared the purchase price allocation for the acquisition of a company focused on providing transloading services for oil and gas companies. The purchase price was in excess of $100 million;
- Prepared an opinion of value as to the fair market value of a company involved in the design and sale of drilling mud systems to oil and gas companies in Alberta and Saskatchewan. The valuation was required in relation to a dispute over the purchase price of the company;
- Prepared an estimate of value for tax purposes of a large company providing passenger transportation services, which includes the transportation of workers in the Alberta oil sands; and
- Prepared an estimate of value as to the fair market value of an oil and gas drilling company in Saskatchewan for shareholder dispute purposes.

Education/Professional Designations

Bachelor of Commerce (With Great Distinction),
University of Saskatchewan – 1994
Chartered Professional Accountants of Alberta – 1997
Canadian Institute of Chartered Business Valuators – 1998
Attended American Society of Appraisers Business Valuation Course
201 – 1998, 203 – 2001 and 204 – 2002

Professional and Community Affairs

Member of the Chartered Professional Accountants of Alberta
Member of the Canadian Institute of Chartered Business Valuators

Presentations Given:

- The Canadian Bar Association - Civil Litigation section in Saskatchewan - "Damage Quantification Issues Normally Encountered in Loss Calculations" – 1999
- The Law Society of Alberta – Bar Admission Course – "Valuing a Business" – Spring 2000
- Legal Education Society of Alberta – "Understanding Financial Statements, Valuing a Business, and Damage Quantification Issues" – Fall 2000 and Spring 2002
- Numerous Calgary law firms – "Understanding Financial Statements, Valuing a Business, and Damage Quantification Issues" – 2000 to 2005
- The Institute of Chartered Accountants of Alberta – "Introduction to Business Valuations" – Fall 2000 to 2005

- The Canadian Institute of Chartered Business Valuators' 2011 Western Canadian Business Valuation Conference – "Recent Developments for Expert Witnesses"
- Canadian Bar Association, British Columbia – Department of Justice - "What to Expect from Your Expert? Practice, Tactics and Strategy" – 2015
- Alternative Dispute Resolution of Canada's 2015 National Conference – "Expert Witnesses in Arbitration" Panel

Publications

- "Will Daubert become standard for expert evidence?" The Lawyers Weekly. January 2002:12.
- "Blockage discounts affect determination of fair market value" The Lawyers Weekly. March 2003:07.

Languages

English

Industry Focus

Has experience in the following business sectors:

- Petroleum refining
- Oil & gas exploration, development, and servicing
- Electricity generation
- Gasoline service stations
- Construction
- Printing
- Fertilizer manufacturing
- Industrial manufacturing
- Agriculture
- Transportation
- Major grocery retail
- Hospitality industry
- Property management and real estate

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