



THIRD QUARTER 2022

Median Reserves Acquisition Price
\$7.62/boe

Median Production Acquisition Price
\$43,339/boe/d

Enterprise Value of Transactions
\$6.7 billion

Assets and Companies for Sale
\$0.7 billion



**CANADIAN OIL INDUSTRY
MERGER AND ACQUISITION REPORT**

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CANADIAN OIL INDUSTRY MERGER AND ACQUISITION REPORT

HIGHLIGHTS

THIRD QUARTER 2022

Median Reserves Acquisition Price	Enterprise Value of Transactions
\$7.62/boe	\$6.7 billion
Median Production Acquisition Price	Assets and Companies for Sale
\$43,339/boe/d	\$0.7 billion

Purchaser	Acquisition	Enterprise Value	Acquisition Price		Page Number
		\$MM	\$/boe	\$/boe/d	
Decarbonization Plus	Hammerhead	1,386.85	4.47	43,339	32
Journey	Enerplus assets	140.00	7.62	31,470	34
Kiwetinohk	Repsol assets	61.40	4.72	51,167	36
Tamarack Valley	Deltastream	1,524.68	28.67	94,048	38
Topaz	Deltastream assets	265.30	104.11	341,555	40
Tourmaline	Rising Star	215.51	3.33	29,278	42

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M&A VALUE UP 60% QUARTER-OVER-QUARTER

The total M&A activity in the third quarter of 2022 was approximately \$6.7 billion up 60% from the \$4.2 billion of total enterprise value of M&A activity recorded in the second quarter of 2022. In the third quarter of 2021, the total enterprise value was approximately \$2.6 billion. Total M&A activity in the first nine months of 2022 was \$11.9 billion. There were three transactions valued at over \$1.0 billion in the third quarter of 2022.

The largest transaction this quarter was Strathcona Resources Ltd.'s acquisition of Serafina Energy Ltd. for approximately \$2.3 billion in cash (page 30). A payment of \$1.9 billion was made at closing on August 29, 2022, and deferred payments of \$100.0 million are to be made on each of September 30, 2022, October 31, 2022, November 30, 2022 and December 30, 2022. The acquisition was funded through borrowings on Strathcona's revolving credit facility, with total committed borrowing capacity increased to \$2.0 billion (from \$1.5 billion), and through a \$700.0 million term loan. Serafina produced approximately 40,000 bbl/d of oil primarily through thermal heavy oil assets in Saskatchewan.

Another significant transaction in the quarter was Tamarack Valley Energy Ltd.'s acquisition of Deltastream Energy Corporation for approximately \$1.5 billion (page 38). Deltastream's properties were concentrated in the Blood, Canal, Marten Hills and Nipisi areas of Alberta and add 184 net sections of Clearwater acreage and over 500 drilling locations. This is the third corporate acquisition completed by Tamarack Valley in 2022. In the first quarter Tamarack Valley acquired Crestwynd Exploration Ltd. for approximately \$190.0 million and in the second quarter Tamarack Valley acquired Rolling Hills Energy Ltd. for \$94.1 million. With this acquisition Tamarack Valley's production is expected to be in the range of 68,000-72,000 boe/d. Concurrent with the acquisition, Deltastream sold to Topaz Energy Corp. a newly created 5.0% GORR on production from all of the Deltastream assets for \$265.3 million (page 40).

The third largest transaction announced in the quarter was Hammerhead Resources Inc.'s planned transaction with Decarbonization Plus Acquisition Corporation IV for approximately \$1.4 billion (page 32). Hammerhead's asset base on June 30, 2022 consisted of 110,000 net acres of lands and 146 producing wells within the Montney Formation in the Gold Creek and Karr areas of Alberta. Decarbonization Plus is a special purpose acquisition company and upon closing of the transaction the combined company is expected to be listed on the Nasdaq Capital Market and trade under the ticker symbol "HHR".

The number of large transactions (over \$5 million in value) in the third quarter of 2022 increased to 16 deals from 11 in the second quarter of 2022. With the increase in enterprise value in the third quarter, the average deal size for large transactions increased to \$418.0 million; last quarter it was \$377.8 million.

Of the 16 large transactions in the third quarter, there were five corporate transactions and 11 property deals, with total enterprise values of \$5.5 billion and \$1.2 billion respectively. Last quarter there were six corporate deals valued at \$2.4 billion and five property transactions valued at \$1.8 billion. Of the approximately \$6.7 billion in large transactions in the quarter, nine deals were oil-weighted and seven transactions were weighted towards natural gas, with total enterprise values of approximately \$4.8 billion and \$1.9 billion respectively.

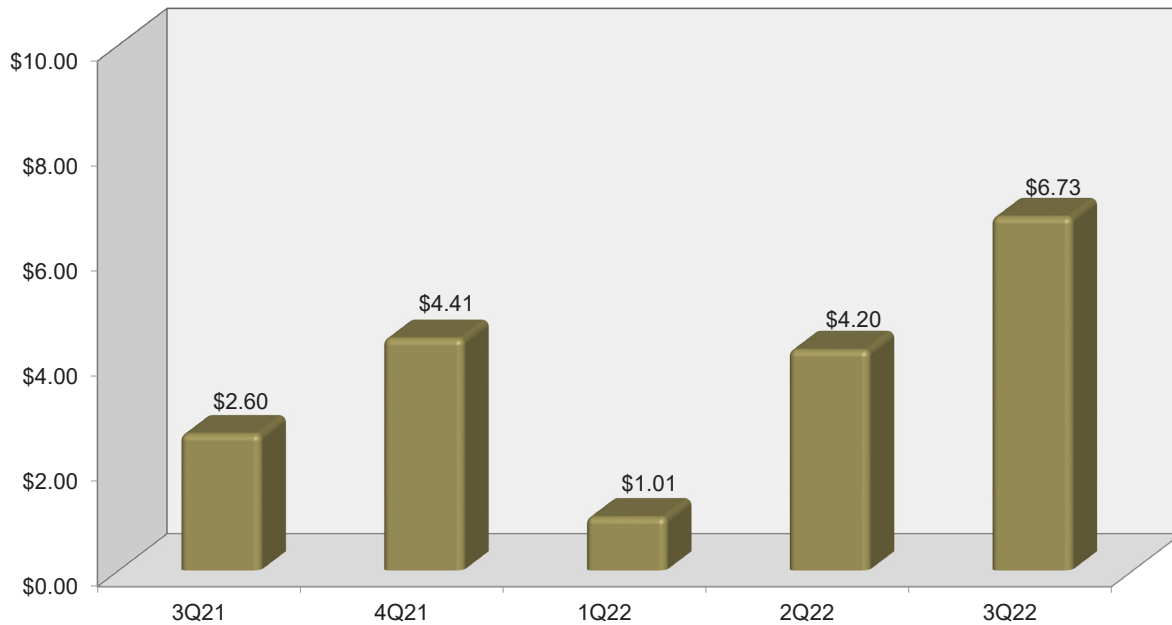
The median acquisition price paid per flowing barrel decreased 21% to \$43,339/boe/d in the third quarter of 2022 from \$52,500/boe/d in the second quarter of 2022. The median acquisition price for proven plus probable reserves decreased 60% quarter-over-quarter to \$7.62/boe from \$18.99/boe in the second quarter of 2022. The significant decrease on a quarter-over-quarter basis can be attributed to a small number of transactions which occurred in the second quarter of 2022.

The spread between oil and natural gas on a \$/boe/d basis remained in favour of oil on a quarter-over-quarter basis. In the third quarter of 2022, the median price paid for oil weighted transactions was \$48,619/boe/d versus \$43,339/boe/d for natural gas transactions, a spread of \$5,280/boe/d. In the second quarter of 2022 the spread was a minimal \$34/boe/d, also towards oil. On a proved plus probable reserves basis, the spread between oil and natural gas also remained in favour of oil quarter-over-quarter. The median acquisition price for oil in the third quarter of 2022 was \$9.10/boe and \$4.47/boe for natural gas, a \$4.63 spread towards oil. During the second quarter of 2022, the spread was \$17.71 towards oil.

A trend we saw continue into the third quarter of 2022 was a number of privately-held oil and natural gas companies which were sold to both publicly-traded and privately-held oil and natural gas companies. Previously-mentioned examples of this include the sale of Serafina to privately-owned Strathcona for approximately \$2.3 billion (page 30), the acquisition of Deltastream by Tamarack Valley for approximately \$1.5 billion (page 38) and the planned transaction between Hammerhead and Decarbonization Plus for approximately \$1.4 billion (page 32). Another example is the acquisition of Rising Star Resources Ltd. by Tourmaline Oil Corp. for \$215.5 million (page 42). With the continued inability for many Canadian oil and natural gas companies to raise capital coupled with increasing interest rates, we most likely will witness more activity on the M&A front prior to the end of the year.

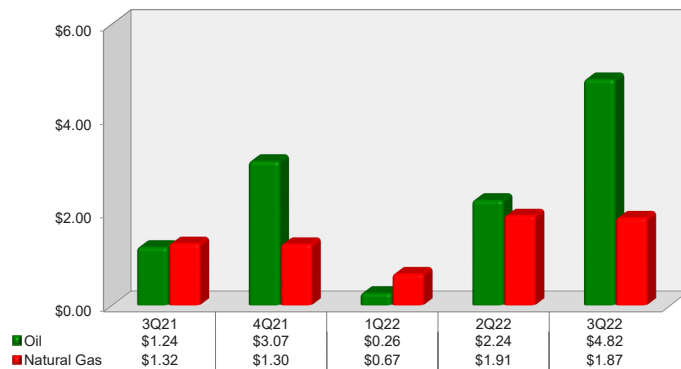
M&A ENTERPRISE VALUE

M&A Enterprise Value of Transactions - \$Billions

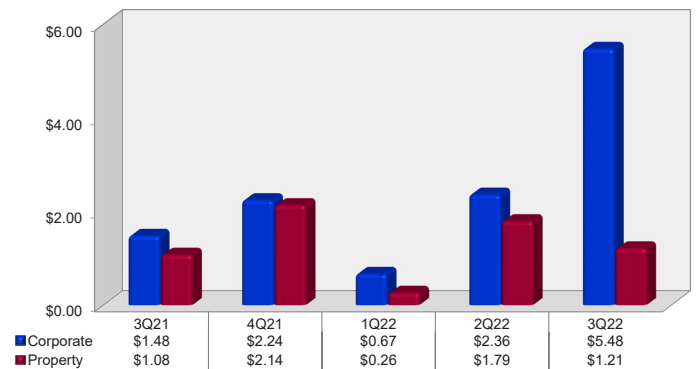


The total M&A enterprise value (large and small deals) in the third quarter of 2022 increased 60% to \$6.7 billion from the approximately \$4.2 billion recorded in the second quarter of 2022. On a year-over-year basis, the enterprise value in the third quarter jumped 159% from the \$2.6 billion recorded in the third quarter of 2021.

M&A Enterprise Value - \$Billions
Oil vs. Natural Gas



M&A Enterprise Value - \$Billions
Corporate vs. Property

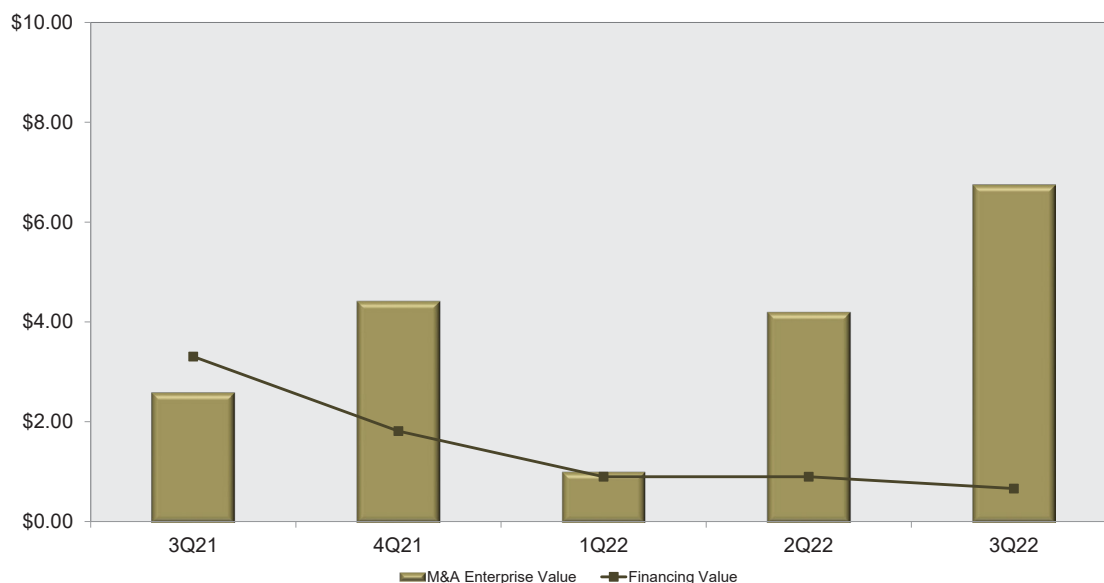


The enterprise value for large oil-weighted transactions valued at over \$5.0 million was \$4.8 billion in the third quarter of 2022, a 115% increase from \$2.2 billion in the second quarter of 2022. The enterprise value for large natural gas-weighted transactions in the third quarter decreased 2% to \$1.9 billion from the second quarter of 2022.

Corporate transactions valued at over \$5.0 million jumped 132% to \$5.5 billion in the third quarter from \$2.4 billion in the second quarter of 2022. The enterprise value for property transactions valued at over \$5.0 million fell 32% to \$1.2 billion in the third quarter of 2022 from \$1.8 billion in the prior quarter.

TOTAL FINANCINGS VERSUS M&A ENTERPRISE VALUE

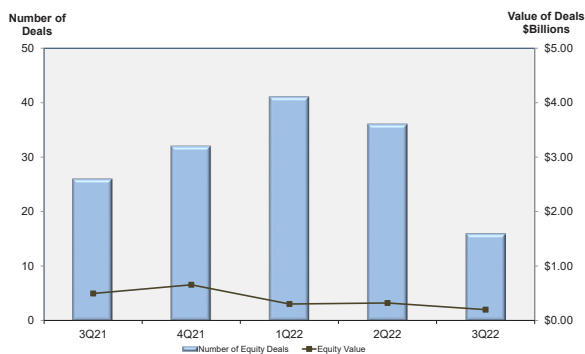
Enterprise Value of Transactions Relative to Total Value of Financings - \$Billions



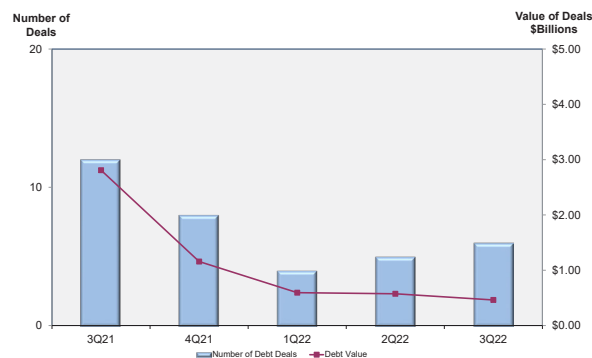
The total value of financings in the third quarter of 2022 decreased 26% to \$661.2 million from \$896.2 million in the second quarter of 2022. The total number of financings in the third quarter of 2022 was 22, compared to 41 in the previous quarter.

The amount of equity raised in the third quarter of 2022 was \$198.7 million, compared to \$321.1 million in the second quarter of 2022. The total number of equity financings in the third quarter was 16, compared to 36 in the second quarter of 2022. Debt financings dropped to \$462.5 million in the third quarter from \$575.1 million in the second quarter. The total number of debt financings in the third quarter was six, compared to five in the previous quarter.

Equity Financings Value - \$Billions



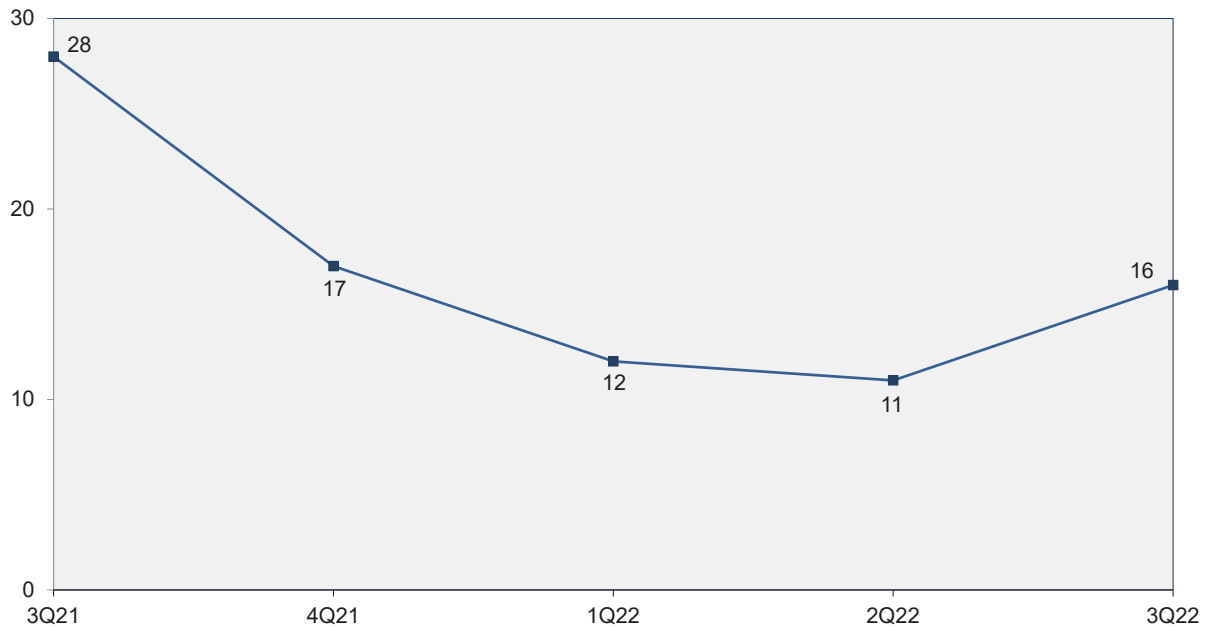
Debt Financings Value - \$Billions



The largest equity offering in the quarter was Tamarack Valley’s bought-deal financing for total gross proceeds of approximately \$144.0 million. The proceeds were used to partially fund the previously-mentioned acquisition of Deltastream (page 38). Tamarack Valley also closed a three-year covenant-based sustainability-linked lending facility which increased to \$700.0 million and is paired with a \$260.0 million two-year secured amortizing term-loan.

The largest debt offering was Saturn Oil & Gas Inc.’s loan agreement with its U.S. based institutional lender for proceeds of \$200.0 million. The proceeds from the offering were used to partially fund the acquisition of assets in the Viking area of Saskatchewan from Crescent Point Energy Corp. for \$260.0 million which was announced in the second quarter of 2022. Saturn also completed a bought deal equity financing of subscription receipts for approximately \$75.0 million and also a private placement of subscription receipts for approximately \$0.4 million.

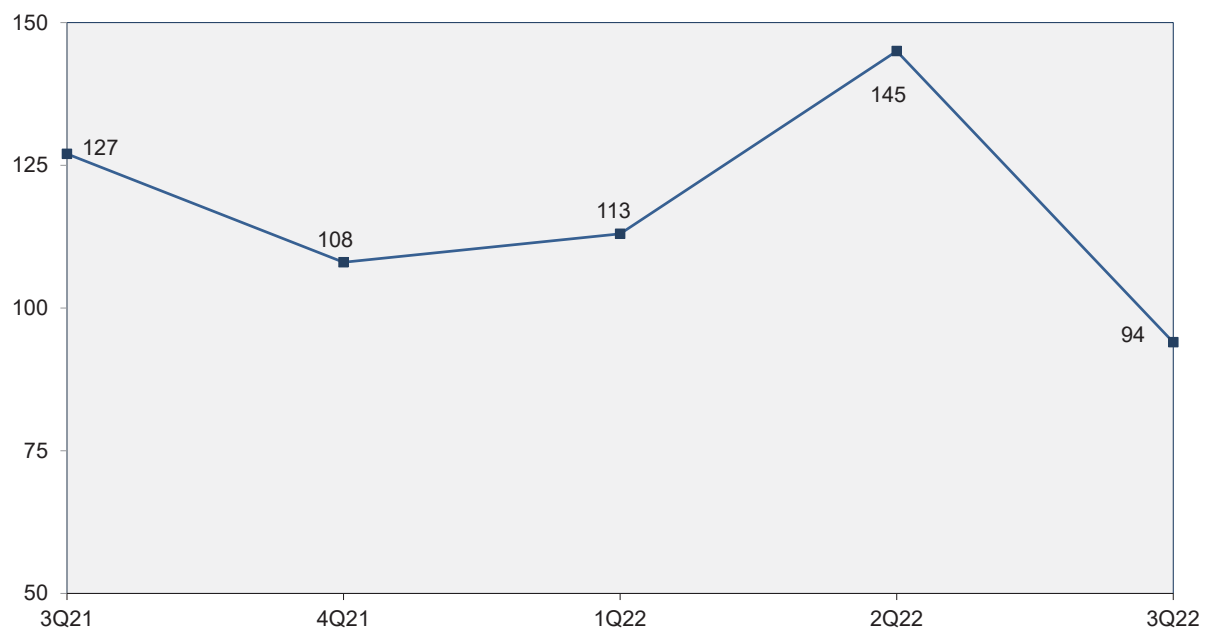
Number of Transactions Over \$5.0 Million



The number of large transactions (valued at over \$5 million in size) was 16 in the third quarter of 2022, up 45% from the 11 deals recorded in the previous quarter. The average deal size for large transactions in the third quarter was approximately \$418.0 million compared to \$377.8 million last quarter. There were five large corporate transactions and 11 large property transactions in the third quarter, with average deal sizes of \$1.1 billion and \$110.1 million respectively. The enterprise value of large transactions this quarter was \$6.7 billion compared to \$4.2 billion in the previous quarter.

The number of small deals (under \$5 million in size) decreased 35% to 94 in the third quarter of 2022 from the 145 recorded last quarter. The total value of small deals increased 7% on a quarter-over-quarter basis to approximately \$45.0 million from \$42.2 million.

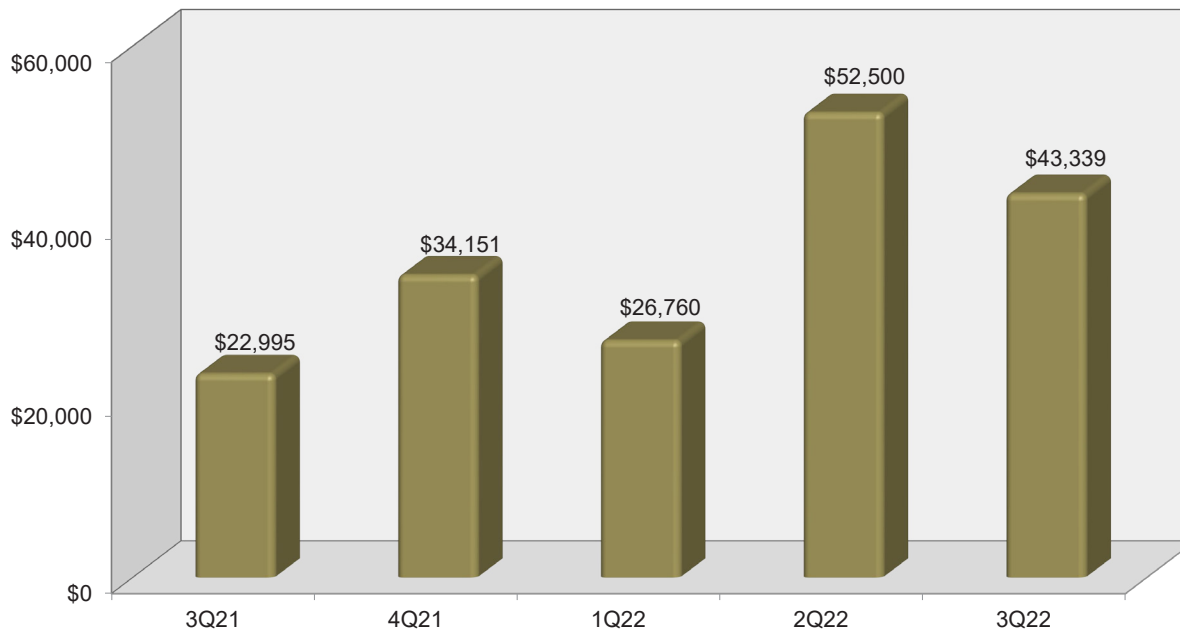
Number of Transactions Under \$5.0 Million



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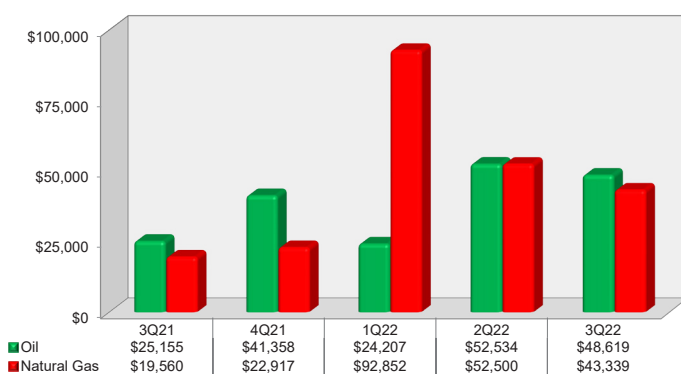
MEDIAN PRODUCTION ACQUISITION PRICE

Median Production Acquisition Price - \$/boe/d

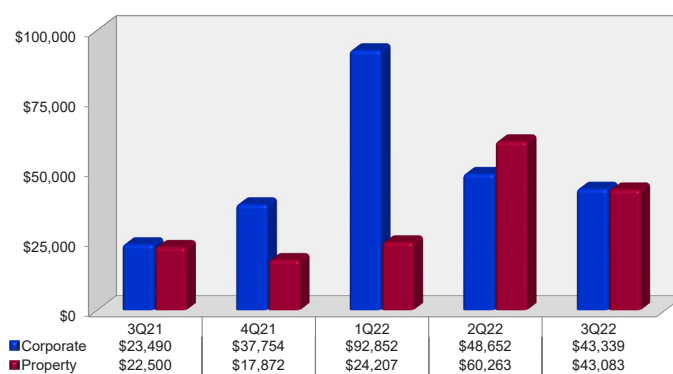


The median acquisition price per producing barrel of oil equivalent decreased 17% to \$43,339/boe/d in the third quarter of 2022 from the second quarter price of \$52,500/boe/d. On a year-over-year basis, the median acquisition price for production is up 88% from the \$22,995/boe/d recorded in the third quarter of 2021.

Median Production Acquisition Price - \$/boe/d
Oil vs. Natural Gas



Median Production Acquisition Price - \$/boe/d
Corporate vs. Property



The median price paid for oil production decreased 7% to \$48,619/boe/d in the third quarter of 2022 from \$52,534/boe/d in the second quarter. The median price paid for natural gas-weighted transactions on a \$/boe/d basis decreased 17% to \$43,339/boe/d from \$52,500/boe/d. There were nine large oil-weighted transactions and seven large natural gas-weighted transactions this quarter.

The median price paid for production for corporate transactions dropped 11% in the third quarter to \$43,339/boe/d from \$48,652/boe/d in the second quarter of 2022. The median production price paid for property transactions also fell this quarter, decreasing 29% to \$43,083/boe/d from \$60,263/boe/d. There were five large corporate transactions and 11 large property transactions in the third quarter of 2022.

A transaction that is representative of the median acquisition price on a \$/boe/d basis was Decarbonization Plus' previously-mentioned transaction with of Hammerhead for \$43,339/boe/d (page 32). Hammerhead's asset base on June 30, 2022 consisted of 110,000 net acres of lands and 146 producing wells within the Montney Formation in the Gold Creek and Karr areas of Alberta. Decarbonization Plus is a special purpose acquisition company and upon closing of the transaction the combined company is expected to be listed on the Nasdaq and trade under the ticker symbol "HHRS". Closing of the transaction is expected to occur in the first quarter of 2023. The combined company will continue to be managed by Hammerhead's current executive management team.

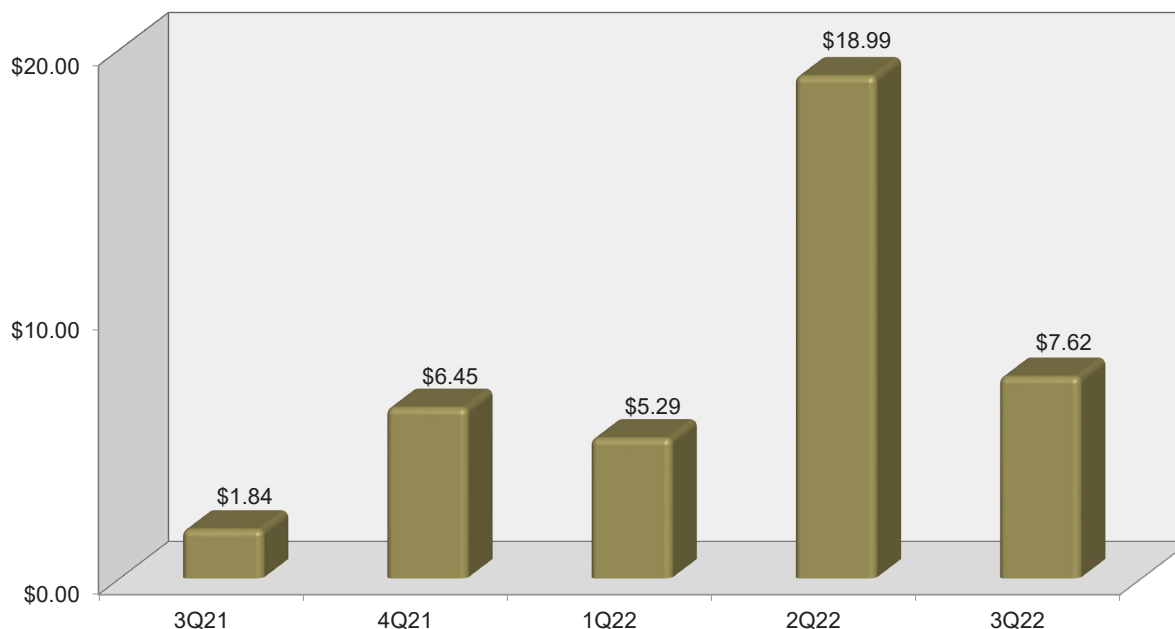
Another transaction that is representative of the median acquisition price on a \$/boe/d basis was Kiwetinohk Energy Corp.'s acquisition of assets located in the Placid area of Alberta from Repsol S.A. for \$51,167/boe/d (page 36). The acquisition consolidates Kiwetinohk's interests in the area. Kiwetinohk plans to accelerate the development of the Placid area and establish a material Montney position to complement its existing Duvernay base. Kiwetinohk funded the acquisition through its existing bank facilities. This was one of three dispositions completed by Repsol in the quarter as it also sold its interests in the Chauvin and Ribstone area of Alberta to Teine Energy Ltd. (page 30) as well as completed the sale of certain interests in the Willesden Green area of Alberta to Paramount Resources Ltd. for \$68.5 million (page 29).

The highest-priced transaction on a production basis (for working interest production) was Tamarack Valley's previously-mentioned acquisition of Deltastream for \$94,048/boe/d (page 38). Deltastream's properties were concentrated in the Blood, Canal, Marten Hills and Nipisi areas of Alberta and add 184 net sections of Clearwater acreage and over 500 drilling locations. This is the third corporate acquisition completed by Tamarack Valley in 2022. In the first quarter Tamarack Valley acquired Crestwynd for approximately \$190.0 million and in the second quarter Tamarack Valley acquired Rolling Hills for \$94.1 million. With this acquisition Tamarack Valley's production is expected to be in the range of 68,000-72,000 boe/d. In conjunction with the acquisition, Tamarack Valley increased its monthly dividend by 24% to \$0.0125 per share. Tamarack Valley also closed a three-year covenant-based sustainability-linked lending facility which increased to \$700.0 million and is paired with a \$260.0 million two-year secured amortizing term-loan. Concurrent with the acquisition, Tamarack Valley announced and subsequently closed a bought-deal equity financing for total gross proceeds of approximately \$144.0 million. The proceeds from these various financings were used to partially fund the acquisition of Deltastream. Concurrent with the acquisition, Deltastream sold to Topaz a newly created 5.0% GORR on production from all of the Deltastream assets for \$341,555/boe/d (page 40). Also in the third quarter, Tamarack Valley disposed of certain non-core Viking assets to Griffon Partners Capital Management for approximately \$70.0 million (page 29).

The lowest-priced transaction on a production basis was Tourmaline's previously-mentioned transaction with Rising Star for \$29,278/boe/d (page 42). Rising Star's main producing properties were located in the Gordondale, Mirage and Valhalla areas of Alberta. Tourmaline as part of the consideration to the shareholders of Rising Star issued 6,000,000 shares of Topaz. Prior to the acquisition of Rising Star, Tourmaline held 51,149,494 Topaz shares, representing approximately 35.5% of the total issued and outstanding Topaz shares. Following the closing of the acquisition of Rising Star, Tourmaline holds 45,149,494 Topaz shares, representing approximately 31.3% of the total issued and outstanding Topaz shares.

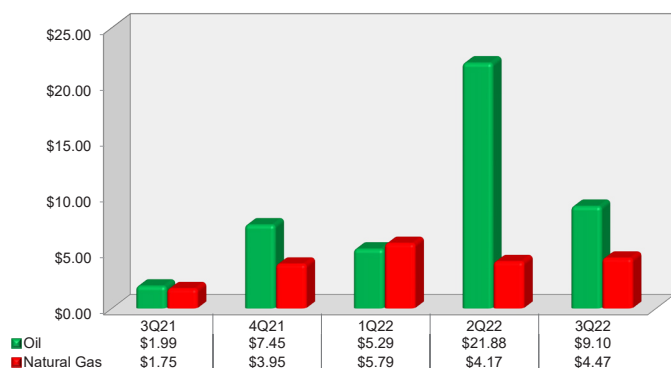
MEDIAN RESERVES ACQUISITION PRICE

Median Reserves Acquisition Price - \$/boe P+P

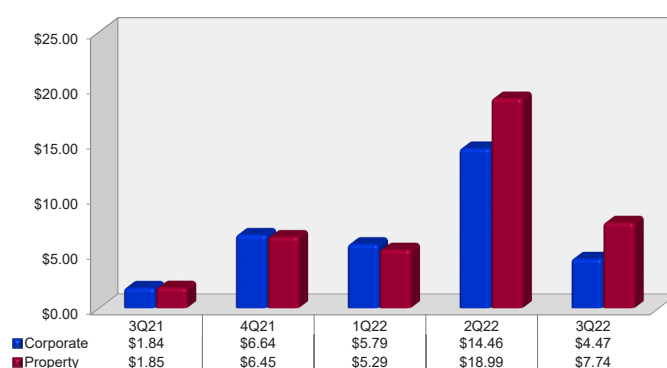


The median acquisition price for proven plus probable reserves decreased 60% to \$7.62/boe this quarter from the \$18.99/boe calculated in the second quarter of 2022. On a year-over-year basis, the price for proven plus probable reserves increased 314% from the \$1.84/boe recorded in the third quarter of 2021.

Median Reserves Acquisition Price - \$/boe P+P
Oil vs. Natural Gas



Median Reserves Acquisition Price - \$/boe P+P
Corporate vs. Property



The price paid for oil-weighted transactions dropped 58% to \$9.10/boe in the third quarter of 2022 from the \$21.88/boe calculated in the previous quarter. The price paid for natural gas-weighted transactions in the third quarter increased slightly to \$4.47/boe from the \$4.17/boe recorded in the second quarter of 2022.

The median reserves acquisition price paid for corporate transactions in the third quarter of 2022 decreased 69% to \$4.47/boe from the \$14.46/boe paid in the second quarter of 2022. The price paid for property transactions dropped to \$7.74/boe in the third quarter compared to the \$18.99/boe calculated last quarter, a 59% decrease.

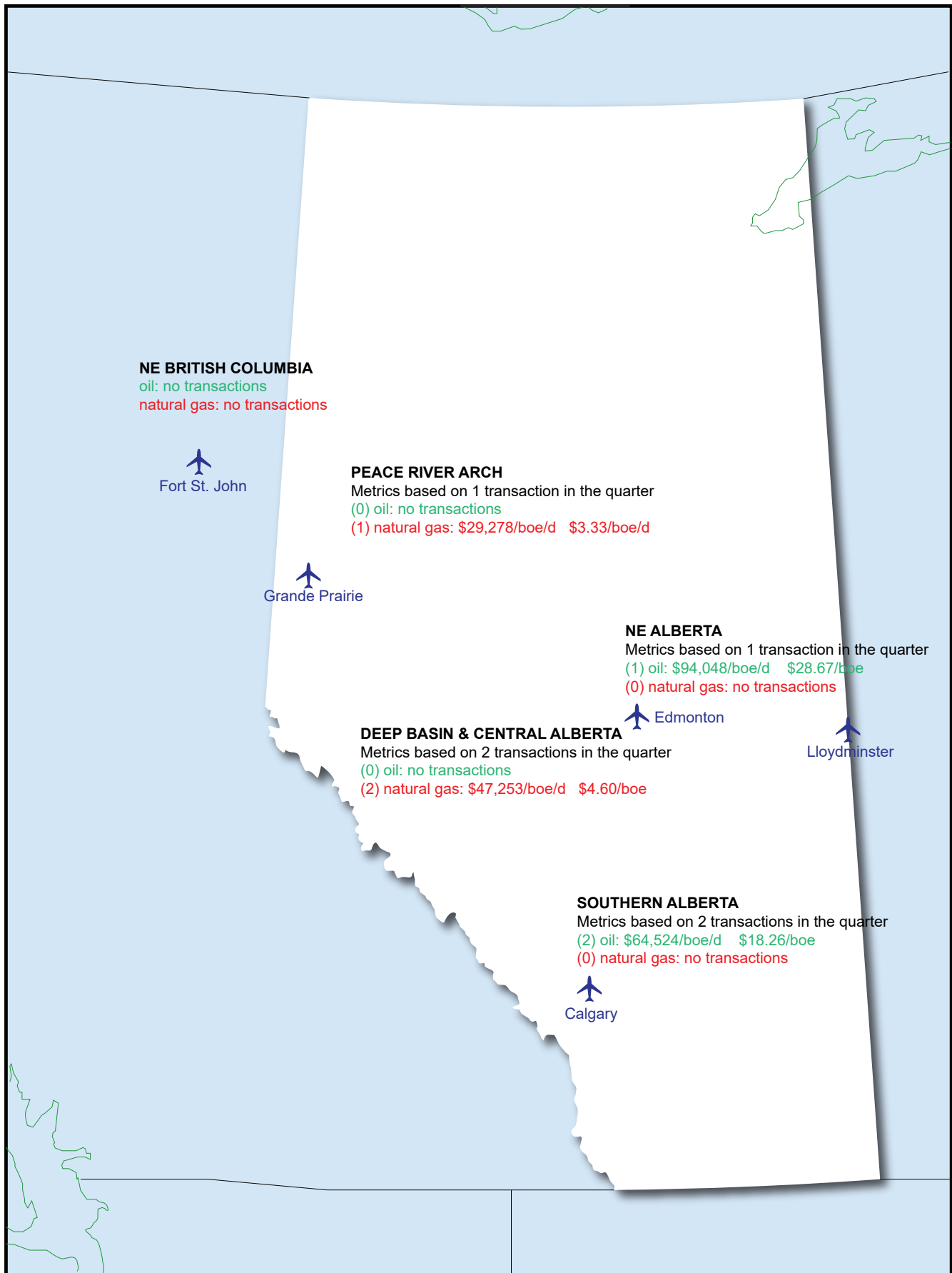
A transaction that is representative of the median reserves acquisition price on a \$/boe basis was Journey Energy Inc.'s acquisition of assets from Enerplus Corporation for \$7.62/boe (page 34). The assets acquired are located in the Ante Creek, Ferrier, Kaybob and Medicine Hat areas of Alberta. The acquisition increased Journey's production by 45% to 14,200 boe/d - 14,600 boe/d (55% oil and ngls). Journey purchased the assets through a cash payment of \$80.3 million, the issuance of 3.0 million shares of Journey and a vendor take-back loan of \$45.0 million. The vendor take-back loan carries an interest rate of 10% per year and is secured by one of the acquired assets until it is repaid in full. Interest is paid monthly in arrears while the principal is repayable in monthly installments that are tied to the monthly average WTI oil price.

The highest-priced transaction on a reserves basis (for working interest reserves) was Tamarack Valley's previously-mentioned acquisition of Deltastream for \$28.67/boe (page 38). Deltastream's properties were concentrated in the Blood, Canal, Marten Hills and Nipisi areas of Alberta and add 184 net sections of Clearwater acreage and over 500 drilling locations. This is the third corporate acquisition completed by Tamarack Valley in 2022. In the first quarter Tamarack Valley acquired Crestwynd for approximately \$190.0 million and in the second quarter Tamarack Valley acquired Rolling Hills for \$94.1 million. With this acquisition, Tamarack Valley's production is expected to be in the range of 68,000-72,000 boe/d. In conjunction with the acquisition, Tamarack Valley increased its monthly dividend by 24% to \$0.0125 per share. Tamarack Valley also closed a three-year covenant-based sustainability-linked lending facility which increased to \$700.0 million and is paired with a \$260.0 million two-year secured amortizing term-loan. Concurrent with the acquisition, Tamarack Valley announced and subsequently closed a bought-deal equity financing for total gross proceeds of approximately \$144.0 million. The proceeds from these various financings were used to partially fund the acquisition of Deltastream. Concurrent with the acquisition, Deltastream sold to Topaz a newly created 5.0% GORR on production from all of the Deltastream assets for \$104.11/boe (page 40). Also in the third quarter, Tamarack Valley disposed of certain non-core Viking assets to Griffon for approximately \$70.0 million (page 29).

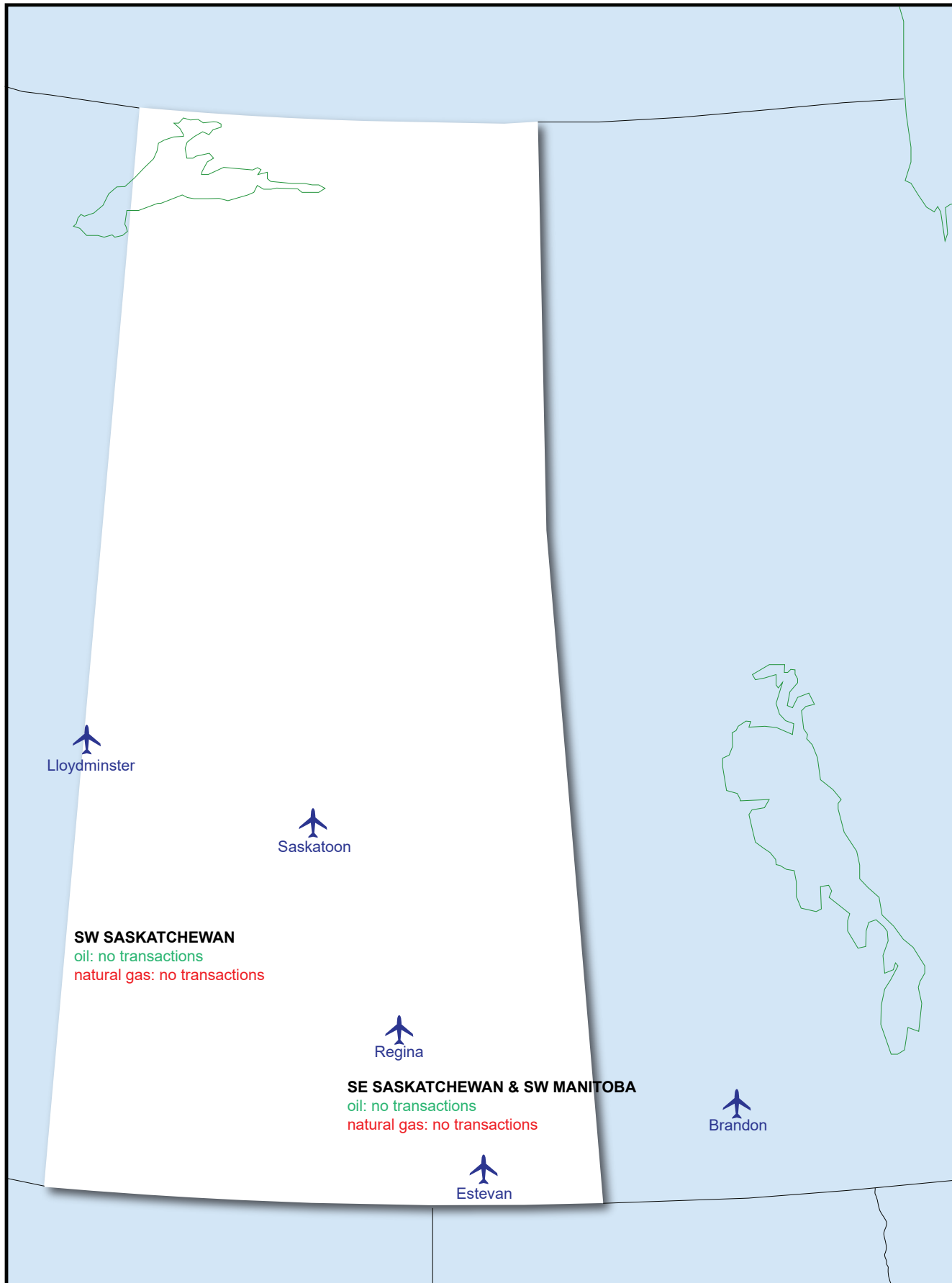
The lowest-priced transaction on a reserves basis was Tourmaline's previously-mentioned acquisition of Rising Star for \$3.33/boe (page 42). Rising Star's main producing properties were located in the Gordondale, Mirage and Valhalla areas of Alberta. Tourmaline as part of the consideration to the shareholders of Rising Star issued 6,000,000 shares of Topaz. Prior to the acquisition of Rising Star, Tourmaline held 51,149,494 Topaz shares, representing approximately 35.5% of the total issued and outstanding Topaz shares. Following the closing of the acquisition of Rising Star, Tourmaline holds 45,149,494 Topaz shares, representing approximately 31.3% of the total issued and outstanding Topaz shares.

Another low-priced transaction on a reserves basis was Kiwetinohk's previously-mentioned acquisition of assets located in the Placid area of Alberta from Repsol for \$4.72/boe (page 36). The acquisition consolidates Kiwetinohk's interests in the area. Kiwetinohk plans to accelerate the development of the Placid area and establish a material Montney position to complement its existing Duvernay base. Kiwetinohk funded the acquisition through its existing bank facilities. This was one of three dispositions completed by Repsol in the quarter as it also sold its interests in the Chauvin and Ribstone area of Alberta to Teine (page 30) as well as completed the sale of certain interests in the Willesden Green area of Alberta to Paramount for \$68.5 million (page 29).

PRODUCTION AND RESERVE METRICS BY AREA

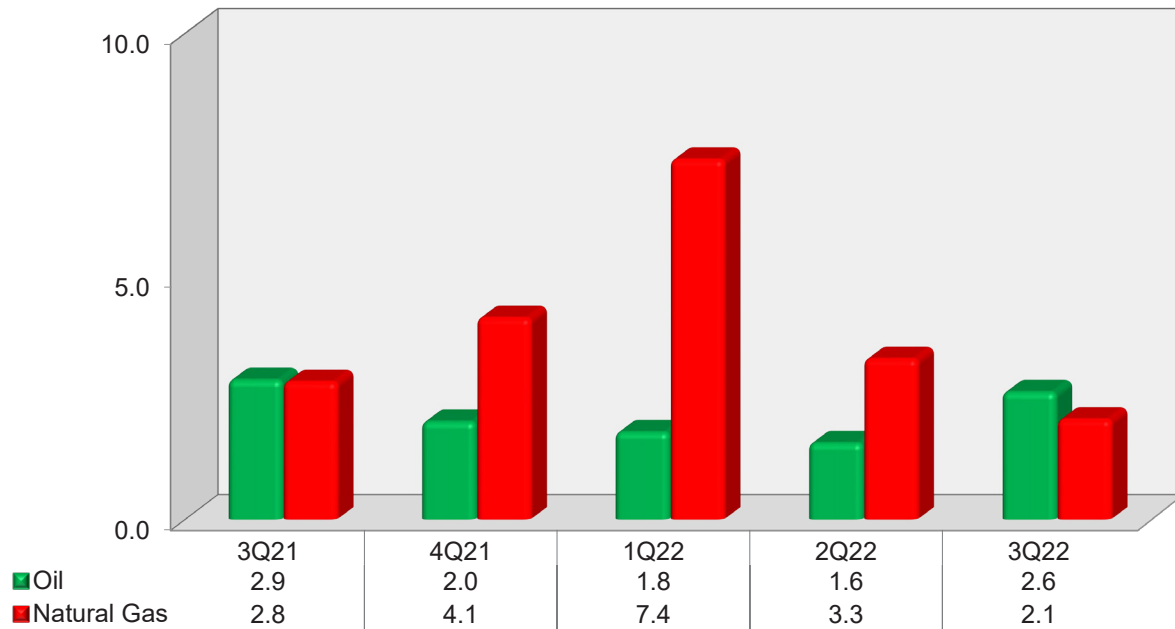


PRODUCTION AND RESERVE METRICS BY AREA



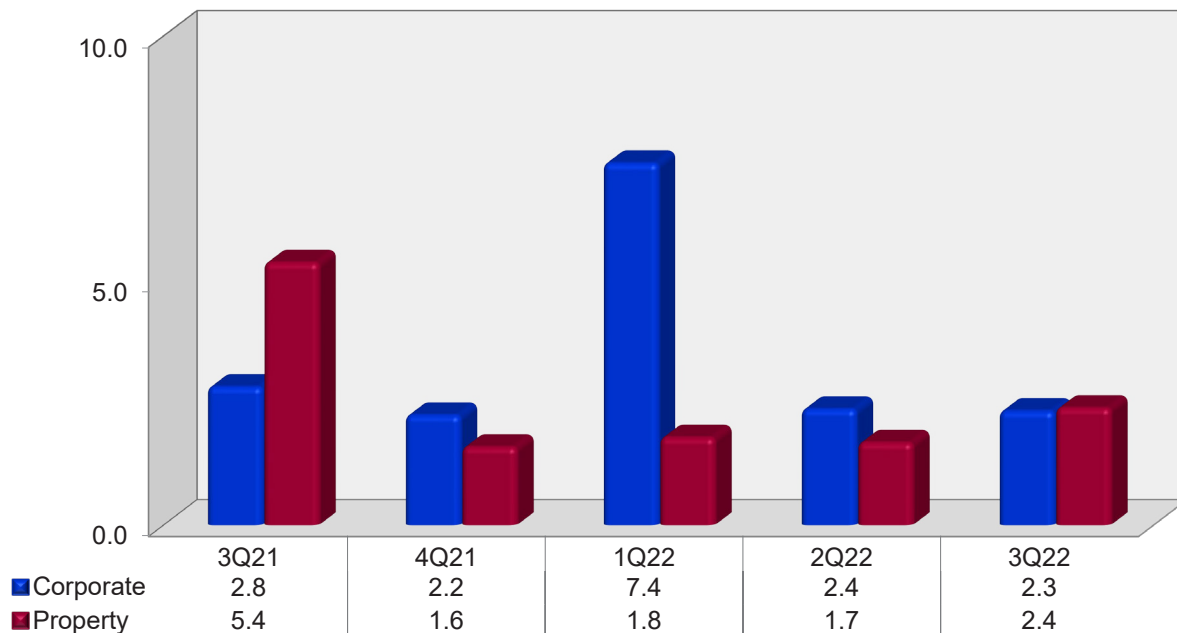
CASH FLOW MULTIPLES

Median Acquisition Operating Cash Flow Multiples
Oil vs. Natural Gas



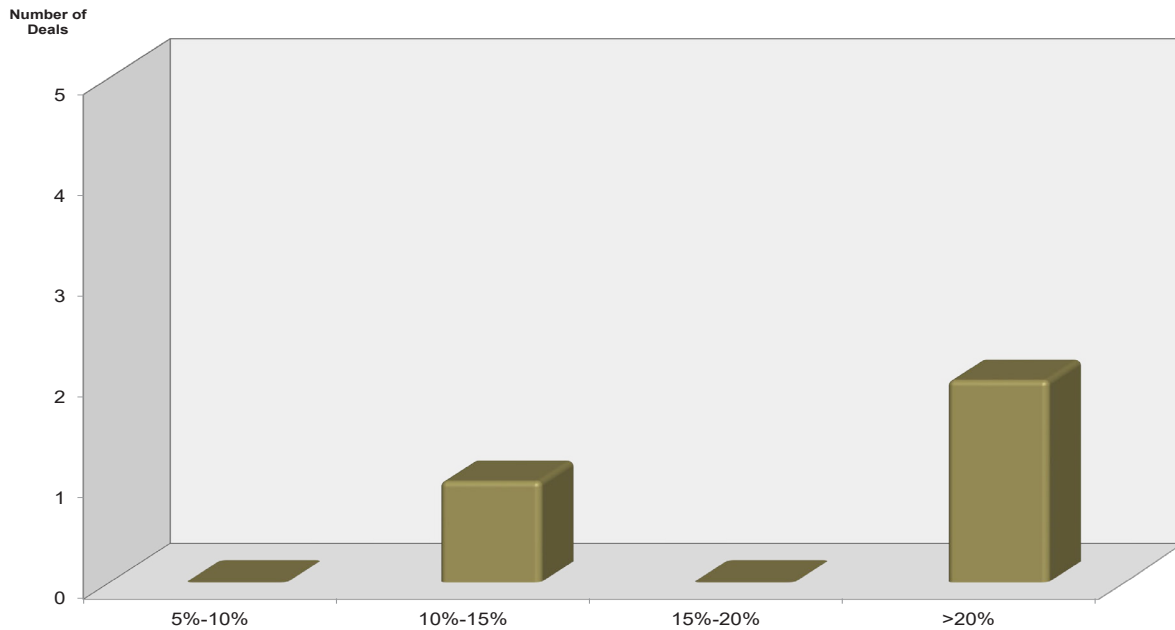
The median operating cash flow multiple for oil-weighted transactions in the third quarter of 2022 was 2.6, up 63% from the 1.6 recorded in the second quarter. The median operating cash flow multiple for natural gas-weighted transactions in the third quarter of 2022 dropped 36% to 2.1 from 3.3 in the second quarter.

Median Acquisition Operating Cash Flow Multiples
Corporate vs. Property



The median operating cash flow multiple for corporate transactions in the third quarter of 2022 decreased slightly to 2.3, compared to the 2.4 recorded in the second quarter. The median operating cash flow multiple for property transactions in the third quarter of 2022 rose to 2.4 from the 1.7 recorded in the second quarter. Care should be taken in drawing conclusions on operating cash flow multiples, given that the cash flow assumptions that were available for this analysis are not the same for every transaction.

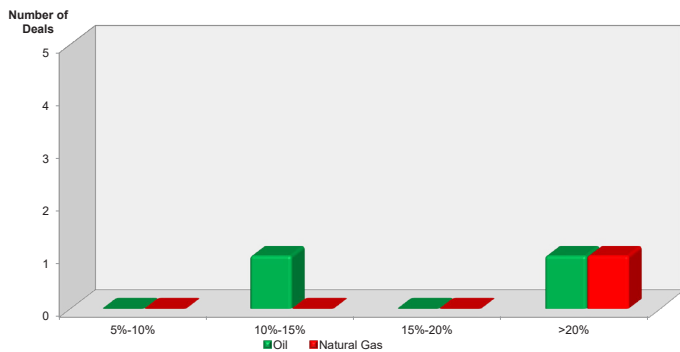
DISCOUNTED CASH FLOW RATES



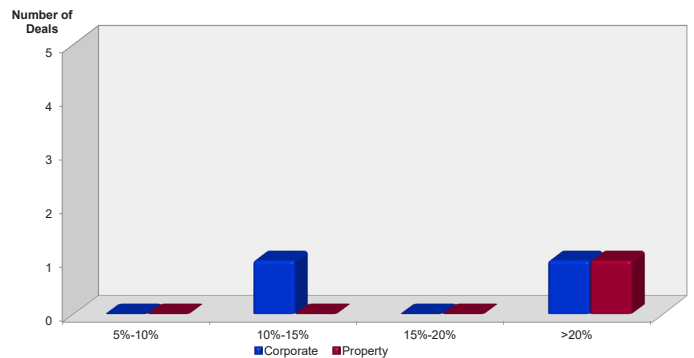
The discounted cash flow (“DCF”) rates on a proven plus probable basis have been analyzed for three transactions in the third quarter of 2022.

Care should be taken in drawing conclusions on DCF rates, given that the price forecasts in the engineering reports that were available for this analysis are not the same for each transaction. If price forecasts could be matched to current reserve evaluations at the time of the transactions, a more accurate representation of the DCF rates would exist.

Discounted Cash Flow Rate
Oil vs. Natural Gas



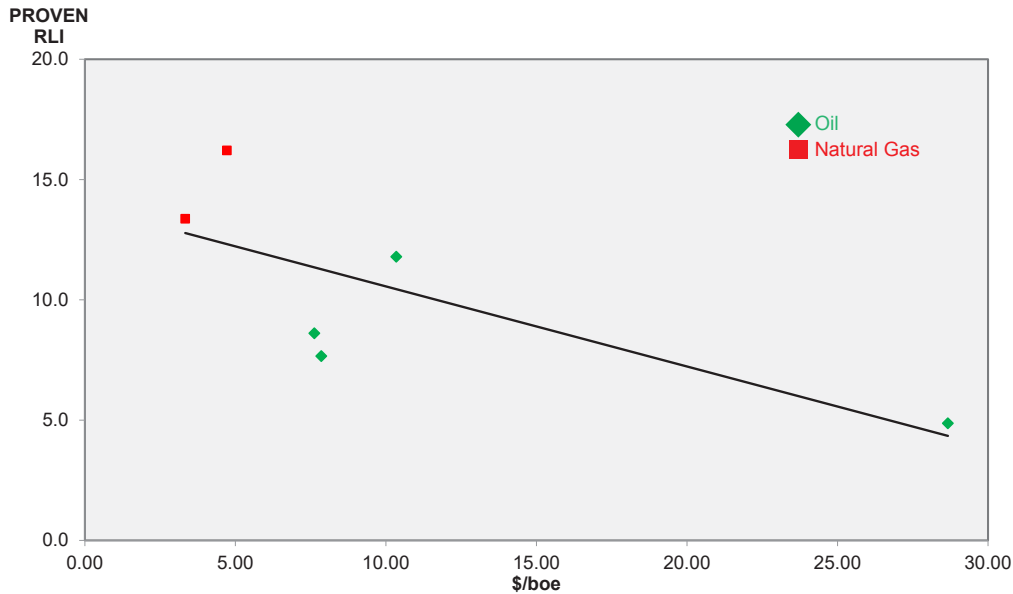
Discounted Cash Flow Rates
Corporate vs. Property



RESERVE LIFE INDEX COMPARED TO M&A PRICES

The graphs below show the relationship between proven RLI and acquisition prices paid on a reserves and production basis during the third quarter of 2022. The RLI is calculated by dividing the total proven reserves by the annualized production.

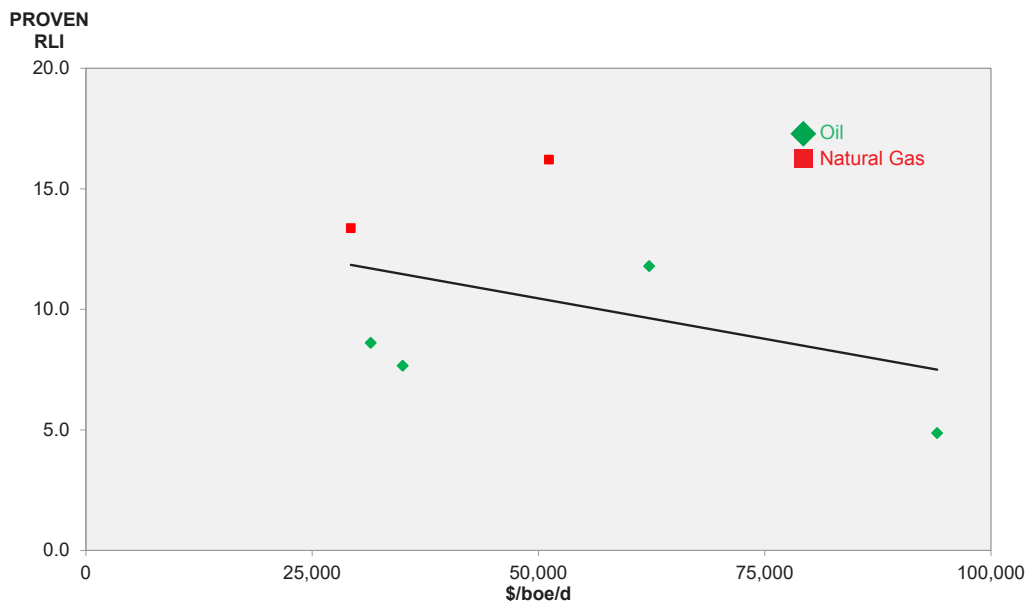
Proven RLI vs. \$/boe



The trend line for RLI versus reserve acquisition prices (\$/boe) illustrated above shows a negative correlation between the RLI and price paid for reserves on a \$/boe basis in that as RLI decreases, reserves acquisition costs increase.

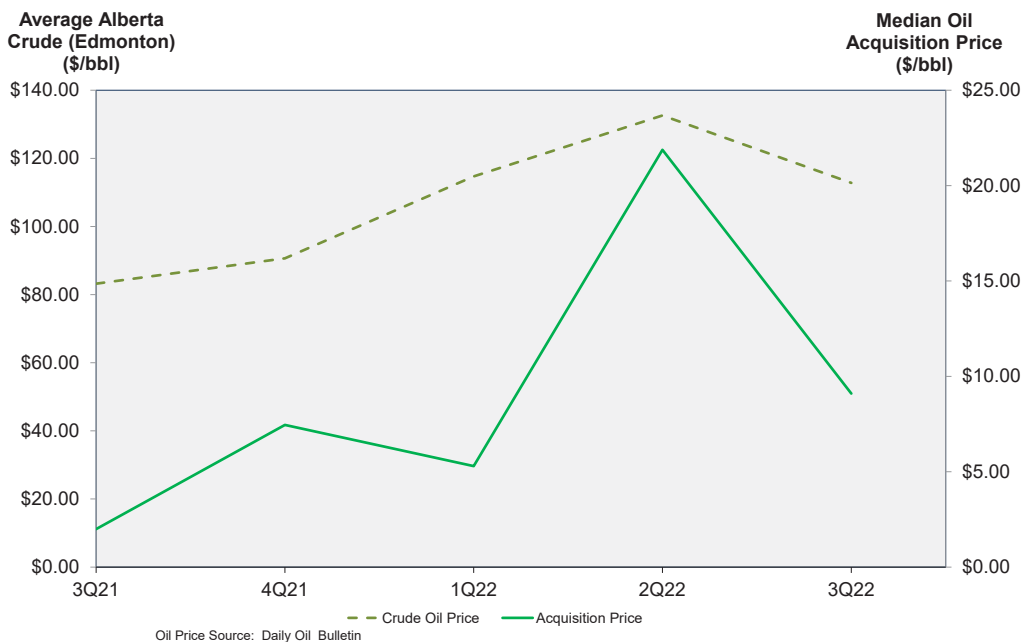
The chart for RLI versus production acquisition prices (\$/boe/d) illustrated below shows a negative correlation, in that as RLI decreases, production acquisition costs increase. Typically, the correlation between RLI and production acquisition costs are positive in that as RLI increases production acquisition costs also increase.

Proven RLI vs. \$/boe/d



CORRELATION OF M&A PRICES AND COMMODITY PRICES

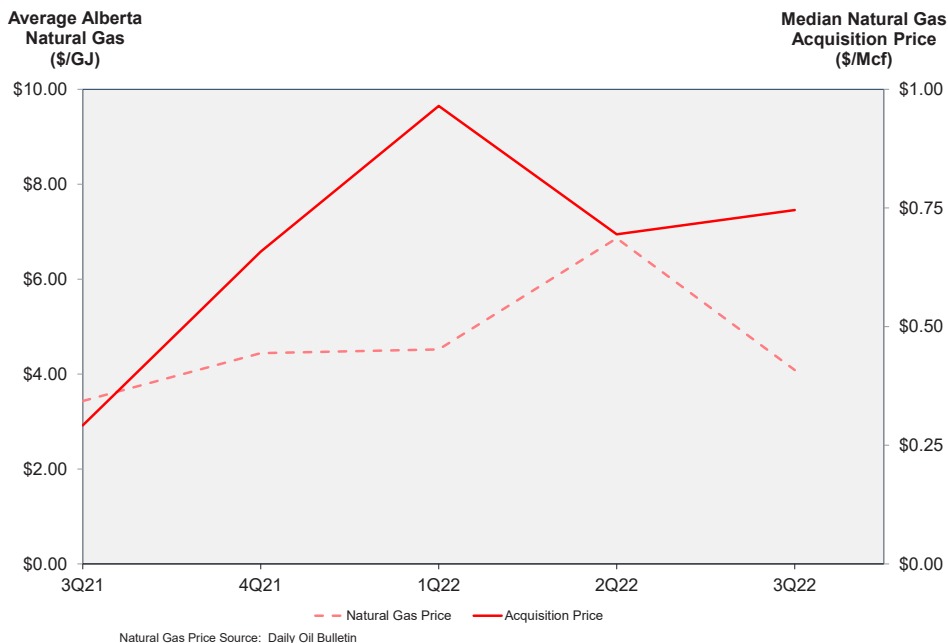
Oil Acquisition Price vs. Crude Oil Price



The preceding graph shows the average Alberta spot crude oil price based on par quality at Edmonton, versus the median proven plus probable reserve oil acquisition price calculated by Sayer Energy Advisors. As illustrated in the graph above, the commodity price has continued to decrease quarter-over-quarter and over the same time period, the acquisition price has also decreased.

The graph below shows the average Alberta natural gas price (AECO-C) versus the median proven plus probable reserve natural gas acquisition price calculated by Sayer Energy Advisors. As illustrated in the graph below, the price of natural gas has decreased quarter-over-quarter, while the acquisition price has increased slightly. It appears that buyer sentiment towards natural gas has remained positive even though natural gas prices have declined quarter-over-quarter.

Natural Gas Acquisition Price vs. Alberta Natural Gas Price



PRIOR QUARTER UPDATE

Sayer Energy Advisors is constantly updating previous quarters as new or updated information becomes available. Information subsequent to the second quarter of 2022 has allowed us to update our database and revise prior quarter statistics.

There were no material changes to our statistics since the second quarter of 2022.

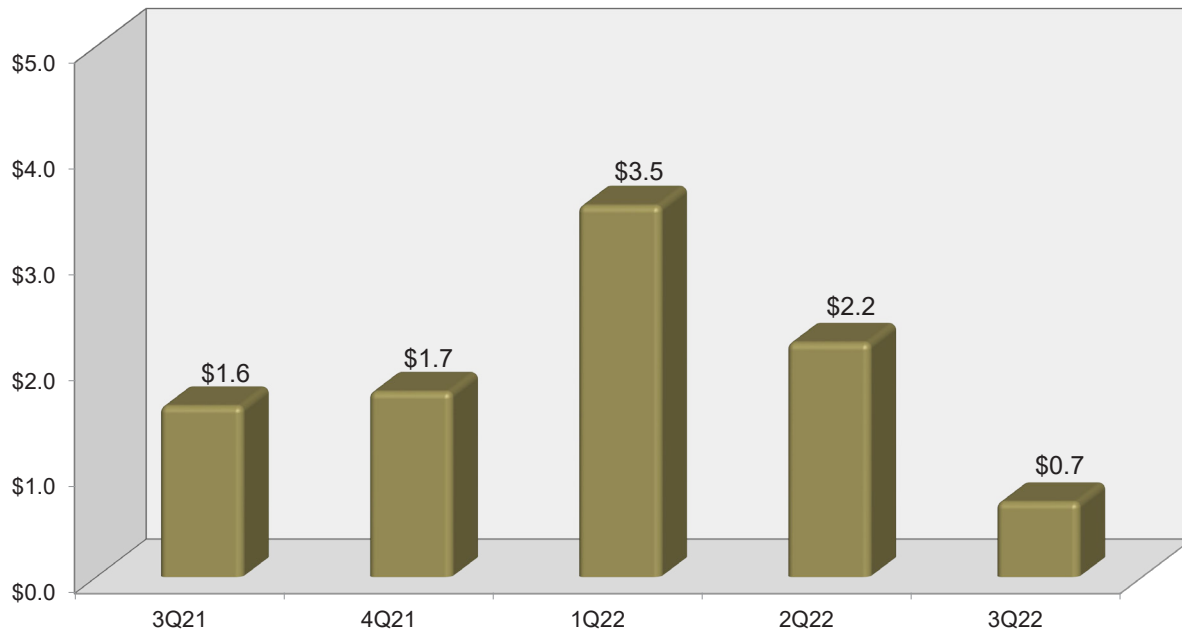
FOURTH QUARTER 2022 MERGER AND ACQUISITION ACTIVITY

There has been one significant deal announced in the first few weeks of the fourth quarter of 2022, which is highlighted below.

Suncor Energy Inc. announced an agreement to purchase an additional 21.3% working interest in the Fort Hills oil sands project located in Alberta's Athabasca region from Teck Resources Limited for approximately \$1.0 billion. Upon closing, Suncor's aggregate share in the project will increase to 75.4% with TotalEnergies SE holding the remaining 24.6%. Suncor is the operator of the Fort Hills oil sands project through an operating services contract.

MERGER AND ACQUISITION CANDIDATES

Companies and Assets for Sale - \$Billions



The total value of companies and assets publicly for sale decreased 68% to approximately \$705.4 million in the third quarter of 2022 from \$2.2 billion in the second quarter of 2022.

The “major assets for sale” category decreased slightly to approximately \$510.0 million in the third quarter from the \$500.0 million recorded last quarter. In the third quarter Whitecap Resources Inc. announced its intention to sell certain oil and natural gas interests located in various areas of Alberta, Saskatchewan and Manitoba. Production associated with this offering is approximately 12,350 boe/d (68% oil and ngl).

The “companies for sale” category decreased 93% to \$115.8 million in the third quarter of 2022 from the \$1.6 billion recorded in the second quarter of 2022. In the third quarter, the Estate of JC Snyder (the “Estate”) is marketing the shares of Saskatoon Leaseholds Limited which assets consist primarily of Fee Title interests, GORR interests, as well as Gross Royalty Trust Certificates in a number of areas of Alberta, Saskatchewan, Manitoba as well as Montana, USA and minor non-operated working interests in Alberta and Saskatchewan. The proceeds from the sale of the shares of Saskatoon Leaseholds will be donated by the Estate to the University of Calgary. Production associated with this offering is approximately 38 boe/d.

Edge Capital Ltd., along with its wholly owned subsidiaries, Edge LRM Operations Ltd. and Edge Crypto Mining Inc. (collectively “Edge”) entered into a corporate sale process. Edge’s main assets are focused on heavy oil operated assets in the Lloydminster area of Alberta and Saskatchewan. Production associated with this offering is 312 boe/d (83% oil and ngl).

The “companies for sale” section only includes those companies that have publicly announced that they are for sale, reviewing strategic alternatives to maximize shareholder value or are in CCAA or receivership and do not include those in the process of a private auction. Several entities, including Deltastream (page 38), Hammerhead (page 32) and Rising Star (page 42) were sold or have received offers to purchase in the third quarter and had not previously publicly announced their intention to sell in advance.

MERGER AND ACQUISITION CANDIDATES

Companies with Major Assets for Sale

Bonavista Energy Corporation	Enerplus Corporation	Whitecap Resources Inc.
Total approximate value ⁽¹⁾ for major sellers		\$500.0 million

Companies with Minor Assets for Sale

Aldon Oils Ltd.	Insignia Energy Ltd.	Signalta Resources Limited
Ascensun Oil and Gas Ltd.	Kiwetinohk Energy Corp.	Sinopec Canada
Aspenleaf Energy Limited	Knowledge Energy Inc.	Surge Energy Inc.
Athabasca Oil Corporation	NuVista Energy Ltd.	Tallahassee Exploration Inc.
Burgess Creek Exploration Inc.	Prairie Provident Resources Inc.	Tamarack Valley Energy Ltd.
Calima Energy Limited	Rally Canada Resources Ltd.	West Lake Energy Corp.
CPE Pembina Lands Ltd.	Richelhoff Resources Inc.	
Total approximate value ⁽¹⁾ for minor sellers		\$79.6 million

Companies for Sale

Companies which announced in the quarter that they were either available for sale, seeking ways to "maximize shareholder value" or were insolvent are as follows:

Bearspaw Petroleum Ltd.	Copetrex Oil & Gas Co. Ltd. ⁽²⁾	Saskatoon Leaseholds Limited
Canadian Spirit Resources Inc.	Edge Capital Ltd.	Strategic Oil & Gas Ltd. ⁽²⁾
CEC North Star Energy Ltd.	Ribbon Creek Resources Inc.	Woodrush Royalty ULC
Total approximate value ⁽¹⁾ for companies for sale		\$115.8 million

TOTAL APPROXIMATE VALUE ⁽¹⁾ FOR ALL M&A CANDIDATES **\$705.4 million**

- 1). Approximate value is an estimation of the overall value of the assets and companies for sale but we have not conducted a detailed valuation of the individual assets or companies. The actual selling prices may vary, perhaps by a considerable amount, from the figures presented here.
- 2). Companies in BIA, CCAA or Receivership.

SECOND QUARTER 2022 TRANSACTION ANALYSIS SUMMARY

Month	Purchaser	Acquisition	Enterprise Value ⁽¹⁾	Reserves Value ⁽¹⁾
			(\$million)	(\$million)
April	Tamarack Valley	Rolling Hills	94.09	94.09
May	Saturn	Crescent Point assets	260.00	255.96
June	Cenovus	BP assets	1,200.00 ⁽³⁾	1,200.00
June	Whitecap	XTO	1,880.00	1,880.00

Notes: (1) For definitions see page 45
 (2) Based on proven plus probable reserves
 (3) Pending but not closed

SECOND QUARTER 2022 TRANSACTION ANALYSIS SUMMARY

Proven Producing Reserves Mix	Proven BOE Reserve Life Index ⁽¹⁾	Reserves ⁽¹⁾	Production ⁽¹⁾	Cash Flow Multiple ⁽¹⁾	Premium/(Discount) ⁽¹⁾ To Market Price ⁽¹⁾
(%oil/%natural gas)	(Res./Annualized Prod.)	(\$/boe)	(\$/boe/d)	Operating	%
100/0 ⁽²⁾	5.0 ⁽²⁾	24.76	44,804	1.4	-
96/4	6.7	18.99	60,263	1.7	-
100/0 ⁽²⁾	50.0 ⁽²⁾	2.63	48,000	-	-
28/72	19.4	4.17	52,500	3.3	-

THIRD QUARTER 2022 TRANSACTION ANALYSIS SUMMARY

Month	Purchaser	Acquisition	Enterprise Value ⁽¹⁾	Reserves Value ⁽¹⁾
			(\$million)	(\$million)
July	Journey	Enerplus assets	140.00	138.47
July	Tourmaline	Rising Star	215.51	186.89
August	Kiwetinohk	Repsol assets	61.40	61.40
September	Decarbonization Plus	Hammerhead	1,386.85 ⁽⁴⁾	1,386.85
September	Tamarack Valley	Deltastream	1,524.68	1,461.01
September	Topaz	Deltastream assets	265.30	265.30

Notes: (1) For definitions see page 45
 (2) Based on total proven reserves
 (3) Based on proven plus probable reserves
 (4) Pending but not closed

THIRD QUARTER 2022 TRANSACTION ANALYSIS SUMMARY

Proven Producing Reserves Mix	Proven BOE Reserve Life Index ⁽¹⁾	Reserves ⁽¹⁾	Production ⁽¹⁾	Cash Flow Multiple ⁽¹⁾	Premium/(Discount) ⁽¹⁾ To Market Price ⁽¹⁾
(%oil/%natural gas)	(Res./Annualized Prod.)	(\$/boe)	(\$/boe/d)	Operating	%
71/29	8.6	7.62	31,470	1.9	-
48/52 ⁽²⁾	13.4	3.33	29,278	2.1	-
44/56	16.2	4.72	51,167	-	-
42/58 ⁽³⁾	26.5 ⁽³⁾	4.47	43,339	-	-
93/7	4.9	28.68	94,048	2.6	-
93/7	4.9	104.11	341,555	7.6	-

THIRD QUARTER MERGER AND ACQUISITION TRANSACTIONS

(exceeding \$5 million in value)

Month	Purchaser	Acquisition	Enterprise Value
			(\$million)
July	Griffon	Tamarack Valley assets	70.00
July	Journey	Enerplus assets	140.00
July	PrairieSky	Undisclosed assets	12.50
July	Strathcona	Serafina	2,300.00
July	Topaz	Tamarack Valley assets	14.90
July	Topaz	Tourmaline assets	52.00
July	Tourmaline	Rising Star	215.51
July	VAALCO	TransGlobe	(1)
August	Kiwetinohk	Repsol assets	61.40
August	Pacific Canbriam	Crew assets	130.00
August	Paramount	Repsol assets	68.50
August	Undisclosed Buyer	Pieridae assets	7.70 ⁽²⁾
September	Decarbonization Plus	Hammerhead	1,386.85 ⁽²⁾
September	Tamarack Valley	Deltastream	1,524.68
September	Teine	Repsol assets	(1)
September	Topaz	Deltastream assets	265.30
Third Quarter Total			\$6.7 billion⁽³⁾

Notes: (1) The estimated or confidential amount for this transaction is included in the quarter total
(2) Pending but not closed
(3) Confidential transactions are not included on the list, however their values are included in the total

SELECTED THIRD QUARTER TRANSACTIONS

At this time we do not have enough information to complete a detailed analysis on the following selected transactions. When and if more information becomes available we will update the transaction with a more detailed analysis in one of our future reports.

Purchaser: Griffon Partners Capital Management	Acquisition: Tamarack Valley Energy Ltd. assets
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Transaction Type:	Property	Date Announced:	July 28, 2022
Price:	\$70.0 million	Date Closed:	July 28, 2022

The assets acquired consist of Viking production and are located primarily in western Saskatchewan and the Esther area of Alberta. The acquisition marks Griffon's entry into conventional oil and natural gas production and builds upon the acquisition of thermal oil production from JACOS in September 2021. Also during the quarter, Tamarack Valley sold a newly created GORR (between 2.0% and 5.0%) to Topaz for net proceeds of \$14.9 million (page 30) and acquired all of the issued and outstanding shares of Deltastream for approximately \$1.5 billion (page 38).

Purchaser: Pacific Canbriam Energy Limited	Acquisition: Crew Energy Inc. assets
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Transaction Type:	Property	Date Announced:	August 18, 2022
Price:	\$130.0 million	Date Closed:	August 18, 2022

The assets acquired were located in the Attachie and Portage areas of northeastern British Columbia. According to Crew the assets consist of approximately 47,025 net acres of Montney rights on land north of the Peace River with no associated production or facilities, total proved reserves of 4.7 million boe, representing 2.3% of total corporate proved reserves, with associated future development capital of \$25.7 million, and total proved plus probable reserves of 34.2 million boe, representing 8.5% of total corporate proved plus probable reserves, with associated future development capital of \$182.9 million. The net proceeds from the sale will be used to redeem the \$128.0 million principal amount of Crew's 6.5% senior unsecured notes due in 2024 of which an aggregate principal amount of \$300.0 million is currently outstanding.

Purchaser: Paramount Resources Ltd.	Acquisition: Repsol S.A. assets
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Transaction Type:	Property	Date Announced:	August 3, 2022
Price:	\$68.5 million	Date Closed:	September 1, 2022

The assets acquired are located in the Willesden Green area of Alberta. The acquisition adds approximately 90,000 net acres and over 200 internally estimated drilling locations. This acquisition follows Paramount's purchase in the second quarter of 2022 of certain of Crescent Point's Duvernay interests in the Willesden Green area of Alberta for \$40.0 million. This was one of three dispositions completed by Repsol in the quarter as it also sold its interests in the Chauvin and Ribstone area of Alberta to Teine (page 30) as well completed the sale of its interests in the Placid area of Alberta to Kiwetinohk for \$61.4 million (page 36).

SELECTED THIRD QUARTER TRANSACTIONS

Purchaser: PrairieSky Royalty Ltd.

Acquisition: Undisclosed assets

Transaction Type:	Property	Date Announced:	July 18, 2022
Price:	\$12.5 million	Date Closed:	Second Quarter 2022

PrairieSky completed an acquisition in the second quarter of 2022 adding approximately 360 boe/d (86% natural gas) of incremental GORR interests in central Alberta and northeastern British Columbia.

Purchaser: Strathcona Resources Ltd.

Acquisition: Serafina Energy Ltd.

Transaction Type:	Corporate	Date Announced:	July 29, 2022
Price:	\$2.3 billion	Date Closed:	August 29, 2022

Strathcona entered into an agreement with Serafina to acquire all the outstanding shares of Serafina for cash consideration of \$2.3 billion. A payment of \$1.9 billion was made at closing on August 29, 2022, and deferred payments of \$100.0 million will be made on each of September 30, 2022, October 31, 2022, November 30, 2022 and December 30, 2022. The acquisition will be funded through borrowings on Strathcona's revolving credit facility, with total committed borrowing capacity increased to \$2.0 billion (from \$1.5 billion), and through a \$700.0 million term loan. Serafina produced approximately 40,000 bbl/d of oil primarily through thermal heavy oil assets in Saskatchewan.

Purchaser: Teine Energy Ltd.

Acquisition: Repsol S.A. assets

Transaction Type:	Property	Date Announced:	September 6, 2022
Price:	Undisclosed	Date Closed:	September 29, 2022

The assets acquired were Repsol's interests in the Chauvin and Ribstone areas of Alberta. This was one of three dispositions completed by Repsol in the quarter as it also sold certain interests in the Willesden Green area of Alberta to Paramount for \$68.5 million (page 29) as well completed the sale of its interests in the Placid area of Alberta to Kiwetinohk for \$61.4 million (page 36).

Purchaser: Topaz Energy Corp.

Acquisition: Tamarack Valley Energy Ltd. assets

Transaction Type:	Property	Date Announced:	July 28, 2022
Price:	\$14.9 million	Date Closed:	Second Quarter 2022

Topaz acquired a GORR (between 2.0% and 5.0%) on a select portion of Tamarack Valley's Charlie Lake and Clearwater interests. Tamarack Valley used the proceeds from this sale to partially fund its acquisition of undeveloped lands targeting the Charlie Lake and Clearwater formations during the second quarter of 2022. Also during the quarter, Topaz purchased a newly created 5.0% GORR on production from all of the Deltastream assets (page 40) concurrent with the acquisition of Deltastream by Tamarack Valley (page 38). Topaz also acquired a newly created 3.0% GORR on natural gas production and a 2.5% GORR on crude oil and condensate production from Tourmaline on approximately 0.2 million gross acres of developed and undeveloped land in the Peace River and Deep Basin areas of Alberta for total cash consideration of \$52.0 million (page 31).

SELECTED THIRD QUARTER TRANSACTIONS

Purchaser: Topaz Energy Corp.	Acquisition: Tourmaline Oil Corp. assets
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Transaction Type:	Property	Date Announced:	July 27, 2022
Price:	\$52.0 million	Date Closed:	September 1, 2022

Topaz acquired a newly created GORR from Tourmaline on approximately 0.2 million gross acres of developed and undeveloped land in the Peace River and Deep Basin areas of Alberta. The acquisition increases Topaz's royalty acreage in these areas by 7%. The acquisition consisted of a 3.0% GORR on natural gas production and a 2.5% GORR on crude oil and condensate production. Also during the quarter, Topaz purchased a GORR (between 2.0% and 5.0%) on a select portion of Tamarack Valley's Charlie Lake and Clearwater interests for net proceeds of \$14.9 million (page 30), and also purchased a newly created 5.0% GORR on production from all of the Deltastream assets (page 40) concurrent with the acquisition of Deltastream by Tamarack Valley (page 38).

Purchaser: Undisclosed Buyer	Acquisition: Pieridae Energy Limited assets
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Transaction Type:	Property	Date Announced:	August 10, 2022
Price:	\$7.7 million	Date Closed:	Pending

Pieridae announced it had entered into an agreement to dispose of certain non-core oil and natural gas properties in northeastern British Columbia for \$1.2 million in cash and either a 10% GORR interest in certain lands included in the package or a \$6.5 million cash payment, at the option of the purchaser. The transaction is expected to close in the fourth quarter of 2022, with proceeds used to decrease Pieridae's outstanding term debt.

Purchaser: VAALCO Energy, Inc.	Acquisition: TransGlobe Energy Corporation
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Transaction Type:	Corporate	Date Announced:	July 14, 2022
Price:	Undisclosed	Date Closed:	October 14, 2022

VAALCO acquired all the issued and outstanding common shares of TransGlobe in a share-for-share business combination transaction valued at USD \$307.0 million. TransGlobe's operations were in Egypt as well as in the Harmattan area of Alberta. TransGlobe's production at Harmattan was 1,794 boe/d (67% oil and ngl) in the second quarter of 2022.

DECARBONIZATION PLUS/ HAMMERHEAD

Purchaser: Decarbonization Plus Acquisition Corporation IV	Acquisition: Hammerhead Resources Inc.
Date Announced: September 26, 2022	Date Completed: Pending
Transaction Type: Corporate	Operating CF Multiple: N.A.
Reserves Acquisition Price: \$4.47/boe	Production Acquisition Price: \$43,339/boe/d

Estimated Value:

	<u>\$MM</u>		<u>\$MM</u>
Equity Value	\$1,194.16 ⁽¹⁾	Enterprise Value	\$1,386.85
plus: Long term debt	+192.69 ⁽²⁾	less: Undeveloped land	-
Working capital deficit	-	Working capital surplus	-
Other liabilities	-	Other assets	-
Enterprise Value	<u>\$1,386.85</u>	Value of Reserves	<u>\$1,386.85</u>

Reserves:

Net Present Value of Reserves (\$MM):

	<u>Oil & NGL</u>	<u>Natural Gas</u>	<u>Total</u>	
	(MMbbls)	(Bcf)	(MMboe)	<u>Discounted</u>
				10%
Total P+P	<u>130.200</u>	<u>1,070.800</u>	<u>310.000</u>	<u>2,500.00</u>

Source of reserves estimate: *McDaniel & Associates Consultants Ltd. with oil/natural gas reserves split based on production weighting*

Effective date of reserves information: *December 31, 2021*

<u>RLI:</u>	<u>Total P+P</u>		<u>Oil & NGL</u>	<u>Natural Gas</u>
	(years)		(%)	(%)
Oil & NGL	26.5	<u>Reserve Weighting:</u>	42	58
Natural Gas	26.5	P+P		
BOE	26.5			

Daily Production:

Oil & NGL: 13,440 bbls/d
 Natural Gas: 111.36 MMcf/d
BOE: 32,000 boe/d

Basis of production information: Midpoint of Hammerhead's forecast for the year ended December 31, 2022

DECARBONIZATION PLUS/ HAMMERHEAD

Undeveloped Land: N.A.

Operating Cash Flow Estimate: N.A.

Operating Cash Flow Multiple: N.A.

Price Assumptions Used in Evaluation:

	Edmonton Par Price 40° API (\$C/bbl)	AECO Natural Gas Price (\$C/MMbtu)
2022	86.82	3.56
2023	80.73	3.21
2024	78.01	3.05
2025	79.57	3.11
2026	81.16	3.17

Effective date of pricing: Average of GLJ Ltd., McDaniel and Sproule Associates Limited's price forecast as at January 1, 2022

Notes:

- 1) Based on each of 88,000,000 Hammerhead shares exchanged for one share of Decarbonization Plus with each Decarbonization Plus share valued at US\$10.00 using a CAD/USD exchange rate of 1.3570.
- 2) Based on Hammerhead's net debt outstanding as at July 31, 2022 using a CAD/USD exchange rate of 1.3570.

Comments:

Hammerhead's main producing properties are located in the Gold Creek and Karr areas of Alberta. Hammerhead's asset base on June 30, 2022 consisted of 110,000 net acres of lands and 146 producing wells within the Montney Formation. Decarbonization Plus is a special purpose acquisition company and upon closing of the transaction the combined company is expected to be listed on the Nasdaq and trade under the ticker symbol "HHRS". Closing of the transaction is expected to occur in the first quarter 2023. The combined company will continue to be managed by Hammerhead's current executive management team.

Date of Analysis: October 25, 2022

Date of Financial Information: July 31, 2022

JOURNEY / ENERPLUS ASSETS

Purchaser: Journey Energy Inc.

Acquisition: Enerplus Corporation assets

Date Announced: July 28, 2022

Date Completed: October 31, 2022

Transaction Type: Property

Operating CF Multiple: **1.9 X**Reserves Acquisition Price: **\$7.62/boe**Production Acquisition Price: **\$31,470/boe/d****Estimated Value:**

	<u>\$MM</u>
Enterprise Value	\$140.00 ⁽¹⁾
less: Undeveloped land	-1.53
Other assets	-
Value of Reserves	<u>\$138.47</u>

Reserves:

	<u>Oil & NGL</u>	<u>Natural Gas</u>	<u>Total</u>
	(MMbbls)	(Bcf)	(MMboe)
Proven Producing	9.003	22.063	12.680
Proven Developed Non-Producing & Undeveloped	0.814	1.996	1.147
Total Proven	9.817	24.059	13.827
Probable	<u>3.080</u>	<u>7.555</u>	<u>4.339</u>
Total P+P	<u>12.897</u>	<u>31.614</u>	<u>18.166</u>

Source of reserves estimate:

McDaniel & Associates Consultants Ltd. with oil/natural gas reserves split based on production weighting and adjusted for production from January 1, 2022 to May 1, 2022

Effective date of reserves information:

December 31, 2021

<u>RLI:</u>	<u>Proven Producing (years)</u>	<u>Total Proven (years)</u>	<u>Total P+P (years)</u>	<u>Reserve Weighting:</u>	<u>Oil & NGL (%)</u>	<u>Natural Gas (%)</u>
Oil & NGL	7.9	8.6	11.3	Proven Producing	71	29
Natural Gas	7.9	8.6	11.3	Proven	71	29
BOE	7.9	8.6	11.3	P+P	71	29

Daily Production:

Oil & NGL: 3,124 bbls/d
 Natural Gas: 7.66 MMcf/d
BOE: 4,400 boe/d

Basis of production information: Average for the month of June 2022

JOURNEY / ENERPLUS ASSETS

Undeveloped Land:

Total net acres:	15,338
Estimated value	\$1.53 million
Unit value	\$100.00/net acre

Source of land value estimate: Sayer Energy Advisors

Operating Cash Flow Estimate: \$71.47 million per year

Basis of cash flow estimate: Based on actual operating cash flow from the assets for the six months ended June 30, 2022 before interest, overhead and current income tax.

Operating Cash Flow Multiple: 1.9 X

Notes:

- 1) Based on a cash payment of \$80.3 million, a vendor-take-back loan of \$45.0 million and the issuance of 3.0 million shares of Journey, with each Journey share priced at \$4.90 on the last trading day prior to the announcement of the transaction.

Comments:

The assets acquired are located in the Ante Creek, Ferrier, Kaybob and Medicine Hat areas of Alberta. The acquisition increased Journey's production by 45% to 14,200 boe/d - 14,600 boe/d (55% oil and ngls).

The vendor-take-back loan mentioned above carries an interest rate of 10% per year and is secured by one of the acquired assets until it is repaid in full. Interest is paid monthly in arrears while the principal is repayable in monthly installments that are tied to the monthly average WTI oil price.

Date of Analysis: October 26, 2022

KIWETINOHK / REPSOL ASSETS

Purchaser: Kiwetinohk Energy Corp.
 Date Announced: August 24, 2022
 Transaction Type: Property
 Reserves Acquisition Price: **\$4.72/boe**

Acquisition: Repsol S.A. assets
 Date Completed: September 15, 2022
 Operating CF Multiple: **N.A.**
 Production Acquisition Price: **\$51,167/boe/d**

<u>Estimated Value:</u>	<u>\$MM</u>
Enterprise Value	\$61.40
less: Undeveloped land	-
Other assets	-
Value of Reserves	<u>\$61.40</u>

Reserves:

	<u>Oil & NGL</u>	<u>Natural Gas</u>	<u>Total</u>
	(MMbbls)	(Bcf)	(MMboe)
Proven Producing	1.500	11.300	3.383
Proven Developed Non-Producing & Undeveloped	<u>1.700</u>	<u>12.100</u>	<u>3.717</u>
Total Proven	3.200	23.400	7.100
Probable	<u>2.900</u>	<u>18.100</u>	<u>5.917</u>
Total P+P	<u>6.100</u>	<u>41.500</u>	<u>13.017</u>

Source of reserves estimate: *McDaniel & Associates Consultants Ltd.*
 Effective date of reserves information: *December 31, 2021*

<u>RLI:</u>	<u>Proven Producing (years)</u>	<u>Total Proven (years)</u>	<u>Total P+P (years)</u>	<u>Reserve Weighting:</u>	<u>Oil & NGL (%)</u>	<u>Natural Gas (%)</u>
Oil & NGL	7.6	16.2	30.9	Proven Producing	44	56
Natural Gas	7.8	16.2	28.7	Proven	45	55
BOE	7.7	16.2	29.7	P+P	47	53

Daily Production:

Oil & NGL: 540 bbls/d
 Natural Gas: 3.96 MMcf/d
BOE: 1,200 boe/d

Basis of production information: Current production as at August 24, 2022

KIWETINOHK / REPSOL ASSETS

Undeveloped Land: N.A.

Operating Cash Flow Estimate: N.A.

Operating Cash Flow Estimate: N.A.

Comments:

The assets acquired are located in the Placid area of Alberta. The acquisition consolidates Kiwetinohk's interests in the area. Kiwetinohk plans to accelerate the development of the Placid area and establish a material Montney position to complement its existing Duvernay base. Kiwetinohk funded the acquisition through its existing bank facilities. This was one of three dispositions completed by Repsol in the quarter as it also sold its interests in the Chauvin and Ribstone area of Alberta to Teine (page 30) as well as completed the sale of certain interests in the Willesden Green area of Alberta to Paramount for \$68.5 million (page 29).

Date of Analysis: October 25, 2022

TAMARACK VALLEY / DELTASTREAM

Purchaser: Tamarack Valley Energy Ltd.
 Date Announced: September 12, 2022
 Transaction Type: Corporate
 Reserves Acquisition Price: **\$28.67/boe**

Acquisition: Deltastream Energy Corporation
 Date Completed: October 13, 2022
 Operating CF Multiple: **2.6 X**
 Production Acquisition Price: **\$94,048/boe/d**

<u>Estimated Value:</u>	<u>\$MM</u>		<u>\$MM</u>
Equity Value	\$1,443.40 ⁽¹⁾	Enterprise Value	\$1,524.68
plus: Long term debt	+30.00	less: Undeveloped land	-9.15
Working capital deficit	-	Working capital surplus	-54.51 ⁽³⁾
Other liabilities	<u>+51.28</u> ⁽²⁾	Other assets	-
Enterprise Value	<u>\$1,524.68</u>	Value of Reserves	<u>\$1,461.02</u>

Reserves:

Net Present Value of Reserves (\$MM):

	<u>Oil & NGL</u> (MMbbbls)	<u>Natural Gas</u> (Bcf)	<u>Total</u> (MMboe)	<u>Discounted</u>				
				<u>0%</u>	<u>5%</u>	<u>10%</u>	<u>15%</u>	<u>20%</u>
Proven Producing	12.466	5.669	13.411	618.87	588.45	559.70	533.51	510.01
Proven Non-Producing	0.502	0.141	0.526	31.52	29.36	27.48	25.84	24.42
Undeveloped	<u>12.821</u>	<u>5.068</u>	<u>13.666</u>	<u>470.45</u>	<u>370.67</u>	<u>298.98</u>	<u>245.44</u>	<u>204.40</u>
Total Proven	25.789	10.878	27.602	11,20.83	988.48	886.15	804.79	738.83
Probable	<u>21.464</u>	<u>11.385</u>	<u>23.362</u>	<u>983.85</u>	<u>760.17</u>	<u>609.54</u>	<u>502.32</u>	<u>423.08</u>
Total P+P	47.253	22.263	50.964	2,104.69	1,748.65	1,495.69	1,307.12	1,161.90

Source of reserves estimate:

Tamarack Valley Energy Ltd.

Effective date of reserves information:

September 1, 2022

<u>RLI:</u>	<u>Proven Producing</u> (years)	<u>Total Proven</u> (years)	<u>Total P+P</u> (years)	<u>Reserve Weighting:</u>	<u>Oil & NGL</u> (%)	<u>Natural Gas</u> (%)
Oil & NGL	2.2	4.7	8.5	Proven Producing	93	7
Natural Gas	7.5	14.4	29.5	Proven	93	7
BOE	2.4	4.9	9.0	P+P	93	7

Daily Production:

Oil & NGL: 15,190 bbls/d

Natural Gas: 2.07 MMcf/d

BOE: 15,535 boe/d

Basis of production information: Average for the six months ended June 30, 2022

Undeveloped Land:

Total net acres: 91,478

Estimated value \$9.15 million

Unit value \$100.00/net acre

Source of land value estimate: Sayer Energy Advisors

Operating Cash Flow Estimate: \$558.36 million per year

Basis of cash flow estimate: Based on Deltastream's actual operating cash flow from the assets for the three months ended June 30, 2022 before interest, overhead and current income tax and incorporating the 5.0% GORR payable to Topaz (see page 40).

Operating Cash Flow Multiple: 2.6 X

TAMARACK VALLEY / DELTASTREAM

Price Assumptions Used in Evaluation:

	<u>Edmonton Par</u> <u>Price 40° API</u> <u>(\$C/bbl)</u>	<u>AECO Natural</u> <u>Gas Price</u> <u>(\$C/MMbtu)</u>
2022	111.97	6.19
2023	95.75	4.76
2024	85.74	4.27
2025	79.72	3.88
2026	81.32	3.96

Effective date of pricing: Average of GLJ Ltd., McDaniel & Associates Consultants Ltd. and Sproule Associates Limited's price forecast as at July 1, 2022

Notes:

- 1) Based on a cash payment of \$825.0 million, \$300.0 million of 5.75% subordinated unsecured deferred acquisition payment notes repayable in six quarterly payments and the issuance of 80,000,000 Tamarack Valley shares, with each Tamarack Valley share priced at \$3.98 on the last trading day prior to the announcement of the transaction.
- 2) Includes site restoration costs, hedging contracts liability and an estimate of future overhead costs necessary to produce Deltastream's reserves.
- 3) Includes the estimated proceeds from the exercise of "in-the-money" options.

Comments:

Deltastream's properties were concentrated in the Blood, Canal, Marten Hills and Nipisi areas of Alberta and add 184 net sections of Clearwater acreage and over 500 drilling locations. This is the third corporate acquisition completed by Tamarack Valley in 2022. In the first quarter Tamarack Valley acquired Crestwynd for approximately \$190.0 million and in the second quarter Tamarack Valley acquired Rolling Hills for \$94.1 million. With this acquisition Tamarack Valley's production is expected to be in the range of 68,000-72,000 boe/d.

In conjunction with the acquisition, Tamarack Valley increased its monthly dividend by 24% to \$0.0125 per share.

Tamarack Valley also closed a three-year covenant-based sustainability-linked lending facility which increased to \$700.0 million and is paired with a \$260.0 million two-year secured amortizing term-loan.

Concurrent with the acquisition, Tamarack Valley announced and subsequently closed a bought-deal equity financing for total gross proceeds of approximately \$144.0 million. The proceeds were used to partially fund the acquisition of Deltastream.

Concurrent with the acquisition, Deltastream sold to Topaz a newly created 5.0% GORR on production from all of the Deltastream assets for \$265.3 million (page 40).

Also in the third quarter, Tamarack Valley disposed of certain non-core Viking assets to Griffon for approximately \$70.0 million (page 29) and a GORR (between 2.0% and 5.0%) on a select portion of Charlie Lake and Clearwater interests to Topaz for \$14.9 million (page 30).

At June 1, 2022 Deltastream had \$220.3 million in unused Canadian income tax pools, none of which are non-capital losses.

Date of Analysis: October 19, 2022
Date of Financial Information: June 30, 2022

TOPAZ / DELTASTREAM ASSETS

Purchaser: Topaz Energy Corp.
 Date Announced: September 12, 2022
 Transaction Type: Property
 Reserves Acquisition Price: **\$104.11/boe**

Acquisition: Deltastream Energy Corporation assets
 Date Completed: October 3, 2022
 Operating CF Multiple: **7.6 X**
 Production Acquisition Price: **\$341,555/boe/d**

<u>Estimated Value:</u>	<u>\$MM</u>
Enterprise Value	\$265.30
less: Undeveloped land	-
Other assets	-
Value of Reserves	<u>\$265.30</u>

Reserves:

	<u>Oil & NGL</u>	<u>Natural Gas</u>	<u>Total</u>
	(MMbbls)	(Bcf)	(MMboe)
Proven Producing	0.623	0.283	0.671
Proven Non-Producing	0.025	0.007	0.026
Undeveloped	<u>0.641</u>	<u>0.253</u>	<u>0.683</u>
Total Proven	1.289	0.544	1.380
Probable	<u>1.073</u>	<u>0.569</u>	<u>1.168</u>
Total P+P	<u>2.363</u>	<u>1.113</u>	<u>2.548</u>

Source of reserves estimate: Tamarack Valley Energy Ltd. with reserves adjusted to account for the 5.0% GORR interest
 Effective date of reserves information: September 1, 2022

<u>RLI:</u>	<u>Proven Producing</u>	<u>Total Proven</u>	<u>Total P+P</u>	<u>Reserve Weighting:</u>	<u>Oil & NGL</u>	<u>Natural Gas</u>
	(years)	(years)	(years)		(%)	(%)
Oil & NGL	2.2	4.7	8.5	Proven Producing	93	7
Natural Gas	7.5	14.4	29.5	Proven	93	7
BOE	2.4	4.9	9.0	P+P	93	7

Daily Production:

Oil & NGL: 760 bbls/d
 Natural Gas: 0.10 MMcf/d
BOE: 777 boe/d

Basis of production information: Average for the six months ended June 30, 2022

TOPAZ / DELTASTREAM ASSETS

Undeveloped Land:	N.A.
Operating Cash Flow Estimate:	\$34.90 million per year
Basis of cash flow estimate:	Based on actual royalty revenue from the assets for the three months ended June 30, 2022 before interest, overhead and current income tax.
Operating Cash Flow Multiple:	7.6 X

Comments:

Concurrent with the announcement of Tamarack Valley's purchase of Deltastream (page 38) Topaz announced the purchase from Deltastream of a newly created 5.0% GORR on production from all of the Deltastream assets.

Also during the quarter, Topaz purchased a GORR (between 2.0% and 5.0%) on a select portion of Tamarack Valley's Clearwater and Charlie Lake interests for net proceeds of \$14.9 million (page 30), and also acquired a newly created 3.0% GORR on natural gas production and a 2.5% GORR on crude oil and condensate production from Tourmaline on approximately 0.2 million gross acres of developed and undeveloped land in the Peace River and Deep Basin areas of Alberta, for total cash consideration of \$52.0 million (page 31).

As the assets acquired are GORR interests, we have excluded the \$/boe, \$/boe/d and operating cash flow metrics of this transaction from our calculation of the median prices for the third quarter of 2022.

Date of Analysis: October 19, 2022

TOURMALINE / RISING STAR

Purchaser: Tourmaline Oil Corp.
 Date Announced: July 27, 2022
 Transaction Type: Corporate
 Reserves Acquisition Price: **\$3.33/boe**

Acquisition: Rising Star Resources Ltd.
 Date Completed: August 10, 2022
 Operating CF Multiple: **2.1 X**
 Production Acquisition Price: **\$29,278/boe/d**

<u>Estimated Value:</u>	<u>\$MM</u>		<u>\$MM</u>
Equity Value	\$193.04 ⁽¹⁾	Enterprise Value	\$215.51
plus: Long term debt	-	less: Undeveloped land	-11.10
Working capital deficit	-	Working capital surplus	-17.52 ⁽³⁾
Other liabilities	<u>+22.47</u> ⁽²⁾	Other assets	-
Enterprise Value	<u>\$215.51</u>	Value of Reserves	<u>\$186.89</u>

Reserves:

	<u>Oil & NGL</u>	<u>Natural Gas</u>	<u>Total</u>
	(MMbbls)	(Bcf)	(MMboe)
Total Proven	14.892	97.520	31.146
Probable	<u>11.906</u>	<u>77.965</u>	<u>24.900</u>
Total P+P	<u>26.798</u>	<u>175.485</u>	<u>50.046</u>

Source of reserves estimate:

Sproule Associates Limited with oil/natural gas reserves split based on production weighting and adjusted for production from January 1, 2022 to March 31, 2022 by Sayer Energy Advisors

Effective date of reserves information:

December 31, 2021

<u>RLI:</u>	<u>Total Proven</u>	<u>Total P+P</u>	<u>Reserve Weighting:</u>	<u>Oil & NGL</u>	<u>Natural Gas</u>
	(years)	(years)		(%)	(%)
Oil & NGL	13.4	24.1	Proven	48	52
Natural Gas	13.4	24.1	P+P	48	52
BOE	13.4	24.1			

Daily Production:

Oil & NGL: 3,052 bbls/d
 Natural Gas: 19.99 MMcf/d
BOE: 6,384 boe/d

Basis of production information: Quarter ended March 31, 2022

TOURMALINE / RISING STAR

Undeveloped Land:

Total net acres:	111,000
Estimated value	\$11.100 million
Unit value	\$100.00/net acre

Source of value estimate: Sayer Energy Advisors

Operating Cash Flow Estimate: \$90.92 million per year

Basis of cash flow estimate: Based on Rising Star's actual operating cash flow for the three months ended March 31, 2022 before interest, overhead and current income tax.

Operating Cash Flow Multiple: 2.1 X

Break Fee:

Size (millions)	\$10.00
As percentage of equity value	5.2%
As percentage of enterprise value	4.6%

Notes:

- 1) Based on each of 80,382,000 Rising Star shares, 7,610,000 Rising Star shares issued on the exercise of "in-the-money" options and 3,300,000 Rising Star shares exchanged on the exercise of "in-the-money" options exchanged for \$0.74 in cash and 0.0657 of a Topaz share, with each Topaz share priced at \$20.89 on the last trading day prior to the announcement of the transaction.
- 2) Includes site restoration costs, hedging contracts liability and an estimate of future overhead costs necessary to produce Rising Star's reserves.
- 3) Includes an adjustment for three months of capital expenditures by Rising Star between January 1, 2022 and March 31, 2022 and estimated proceeds from the exercise of "in-the-money" options and warrants.

Comments:

Rising Star's main producing properties were located in the Gordondale, Mirage and Valhalla areas of Alberta. Tourmaline, as part of the consideration to the shareholders of Rising Star, issued 6,000,000 shares of Topaz Energy Corp. Prior to the acquisition of Rising Star, Tourmaline held 51,149,494 Topaz shares, representing approximately 35.5% of the total issued and outstanding Topaz shares. Following the closing of the acquisition of Rising Star, Tourmaline holds 45,149,494 Topaz shares, representing approximately 31.3% of the total issued and outstanding Topaz shares.

Date of Analysis: October 21, 2022

Date of Financial Information: March 31, 2022

Recent Transactions Completed by Sayer Energy Advisors

This announcement appears as a matter of record only.

LONGSHORE RESOURCES 

has sold its interests in the Consort/Provost area of Alberta to

 **Axiom**
Oil and Gas Inc.

The undersigned acted as financial advisor to Longshore for this transaction.

 **SAYER**
ENERGY ADVISORS


August 2022

This announcement appears as a matter of record only.

 **EDGE**
LRM Operations Ltd.

has sold in multiple transactions certain non-core interests in Alberta

The undersigned acted as financial advisor to Edge for these transactions.

 **SAYER**
ENERGY ADVISORS


Summer 2022

This announcement appears as a matter of record only.

THE ESTATE OF GEORGE BENNETT DEW


has sold certain Fee Title interests in the Jumpbush area of Alberta

The undersigned acted as financial advisor to the Estate of George Bennett Dew for this transaction.

 **SAYER**
ENERGY ADVISORS


September 2022

This announcement appears as a matter of record only.

 **Tallahassee**
EXPLORATION INC.

has sold its interests in the Maxhamish area of British Columbia

The undersigned acted as financial advisor to Tallahassee for this transaction.

 **SAYER**
ENERGY ADVISORS

September 2022

This announcement appears as a matter of record only.


All the outstanding shares of

CHERYL RESOURCES LTD.

have been acquired by

DELTA OIL CORP.

The undersigned acted as financial advisor to Cheryl for this transaction.

 **SAYER**
ENERGY ADVISORS

October 2022

This announcement appears as a matter of record only.

Certain oil and natural gas interests held by

 **SanLing**
ENERGY LTD.

have been sold through its receiver

 **pwc**

The undersigned acted as financial advisor to PwC for these transactions.

 **SAYER**
ENERGY ADVISORS

October 2022

NOTES

1. Definitions:
 - a. $\$/\text{boe}$: the value ascribed on a per barrel of oil equivalent (“boe”) basis to proven and probable reserves before royalties using NI 51-101. The detailed analysis of each transaction and the summary graphs use the conversion rates of 6 Mcf equals one barrel. Non-reserve assets and liabilities are excluded from the reserve purchase price for this calculation.
 - b. $\$/\text{boe}/\text{d}$: Reserves Value divided by equivalent barrels of daily production.
 - c. Acquisition Value: the estimated fair market value of the amount expended by the purchaser for the equity portion of the acquisition. In some transactions, this figure may be different from the Total Value as the purchaser only acquired a portion of the Total Value.
 - d. Break Fee: the amount payable to the purchaser by the company being acquired (the “seller”) if the seller does not proceed with the transaction agreement in certain circumstances. This would include, but is not limited to, accepting a superior take-over bid.
 - e. Enterprise Value: the total equity value plus long-term debt, working capital deficit and other liabilities. The latter item includes such things as site restoration, executive compensation, future overhead expense, hedging contracts liability or asset.
 - f. GORR: gross overriding royalty.
 - g. Median Acquisition Price: the price where there is an equal number of transactions above and below the median. This approach is less sensitive to extreme values of $\$/\text{boe}$ than a simple average and is less sensitive to larger deals than a weighted average.
 - h. Operating Cash Flow Multiple: Reserves Value divided by an estimate of yearly net operating income before overhead, interest and current income tax.
 - i. Premium/(Discount) to Market Price: the percentage premium of the price per common share paid by the purchaser for the acquisition compared to the closing market price of the purchased company on the day prior to the announcement of the take-over.
 - j. Reserve Life Index (“RLI”): Total Proven Reserves divided by total yearly production at production rates noted in the transaction analysis.
 - k. Reserves Value: the acquisition value excluding non-reserve assets and liabilities.
 - l. Total Value: the cash purchase price paid for the assets in the case of an asset acquisition or the price paid for 100% of the equity of the company acquired in the case of a corporate transaction.
2. All Dollar amounts are in Canadian funds, unless noted otherwise.
3. This publication includes only those transactions that involve the purchase of oil and natural gas reserves and that are publicly disclosed. In addition to the transactions noted herein, a number of other private transactions have taken place. Although some transactions may not be included in our database, we believe the published data is representative of industry trends.
4. The Enterprise Value and the Value of Reserves used in this report do not include any value for tax pools acquired in the transaction or created as a result of the transaction. Where available, existing tax pools of the acquired company are described in the Comments section on each individual analysis.
5. The information contained herein was based on information which was obtained from sources which we believe are reliable, however we cannot guarantee its accuracy or completeness. The opinions expressed herein are based on our analysis and interpretation of this information and are not to be construed as a solicitation of an offer to buy or sell any securities. Sayer Energy Advisors may act as financial advisor or fiscal agent for certain companies mentioned herein and may receive remuneration for its services. This report is furnished on the basis and the understanding that Sayer Energy Advisors is to be under no responsibility or liability in respect thereof.
6. While every effort has been made to ensure the accuracy and timeliness of this publication, the analysis and comments are necessarily of a general nature. We would also like to note that there is more information available in our files on specific transactions that we can publish in the Report. Clients are urged to seek specific advice on matter of concern and not to rely solely on the text of this publication.
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