MANAGEMENT'S DISCUSSION AND ANALYSIS

The following is management's discussion and analysis ("MD&A") of Perpetual Energy Inc.'s ("Perpetual", the "Company" or the "Corporation") operating and financial results for the three and six months ended June 30, 2022, as well as information and estimates concerning the Corporation's future outlook based on currently available information. This discussion should be read in conjunction with the Corporation's unaudited condensed interim consolidated financial statements and accompanying notes for the three and six months ended June 30, 2022, as well as the audited consolidated financial statements and accompanying notes for the years ended December 31, 2021 and 2020. Disclosure, which is unchanged from the December 31, 2021 MD&A has not been duplicated herein. The Corporation's consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles ("GAAP") which require publicly accountable enterprises to prepare their financial statements using International Financial Reporting Standards ("IFRS"). Readers are referred to the advisories for additional information regarding forecasts, assumptions and other forward-looking information contained in the "Forward-Looking Information and Statements" section of this MD&A. The date of this MD&A is August 3, 2022.

This MD&A contains certain specified financial measures that are not recognized by GAAP and used by management to evaluate the performance of the Corporation and its business. Since certain specified financial measures may not have a standardized meaning, securities regulations require that specified financial measures are clearly defined, qualified and, where required, reconciled with their nearest GAAP measure. See "Non-GAAP and Other Financial Measures" for further information on the definition, calculation and reconciliation of these measures. This MD&A also contains forward-looking information. See "Forward-Looking Information and Statements". Readers are also referred to the other advisory sections at the end of this MD&A for additional information.

NATURE OF BUSINESS: Perpetual is an oil and natural gas exploration, production and marketing company headquartered in Calgary, Alberta. Additional information on Perpetual, including the most recently filed Annual Information Form ("AIF"), can be accessed at www.sedar.com or from the Corporation's website at www.perpetualenergyinc.com.

Q2 2022 OPERATIONAL AND FINANCIAL HIGHLIGHTS

- Second quarter average production of 6,123 boe/d, up 20% from the comparative period of 2021 (Q2 2021 – 5,099 boe/d; Q1 2022 – 6,804 boe/d) increased due to the success of the 2021 East Edson drilling program which drilled and placed onstream nine (4.5 net) wells, including four (2.0 net) wells in the fourth quarter of 2021. Second quarter average production declined from the first quarter of 2022, in line with expectations as no new natural gas wells at East Edson came on production in the first half of 2022 with drilling resuming at the end of the second quarter. Second quarter oil and NGL production represented 19% of production as two new multi-lateral heavy oil wells at Mannville began to contribute to sales volumes during the quarter.

- Oil and natural gas revenue for the second quarter of 2022 was $33.3 million, more than 2.5 times higher than revenue in the comparative period of 2021 due to significantly higher reference prices for all products and the 20% increase in production.

- Adjusted funds flow (see "Non-GAAP and Other Financial Measures") in the second quarter of 2022 was $10.5 million ($0.16/share), up $8.2 million (356%) from the prior year period of $2.3 million ($0.04/share). Adjusted funds flow on a unit-of-production basis was $18.85/boe in the second quarter of 2022, an increase from the prior year period of $4.96/boe driven by the increase in commodity prices.

- Net cash flows from operating activities in the second quarter of 2022 were $11.6 million, up $8.7 million (305%) from the prior year period (Q2 2021 – $2.9 million). The increase was due to higher realized prices for all products and the increase in production, partially offset by higher cash costs due to a one-time $1.2 million gas cost allowance ("GCA") royalty adjustment and cash interest payments. Cash finance expense was $0.9 million higher than the prior year period despite a 56% ($55.1 million) reduction to debt outstanding, as Term Loan and 2025 Senior Note interest was paid in cash in 2022 relative to 2021 when Perpetual elected to pay the interest in-kind and add to the principal amount owing.

- Net income for the second quarter of 2022 was $4.5 million, (Q2 2021 – $27.0 million). Net income in the second quarter of 2021 was positively impacted by a non-cash impairment reversal of $30.1 million.

- Approximately $4.4 million was invested in exploration and development capital expenditures (see "Non-GAAP and Other Financial Measures"), excluding acquisitions and dispositions, during the second quarter of 2022. This was attributable to the remaining drilling, completion and tie-in operations for the two (2.0 net) well multi-lateral horizontal drilling program at Mannville targeting conventional heavy oil in the Sparky formation as well as the startup of drilling operations at East Edson, where three (1.5 net) wells were spud prior to the end of June.

- Cash costs (see "Non-GAAP and Other Financial Measures") were $15.3 million or $27.46/boe in the second quarter of 2022, up 42% from the prior year period (Q2 2021 – $9.0 million or $19.34/boe). The increase was due to the impact of higher production, combined with the GCA adjustment and cash interest payments.

- As at June 30, 2022, net debt (see "Non-GAAP and Other Financial Measures") was $47.3 million, down 20% from $59.3 million at December 31, 2021, as adjusted funds flow exceeded capital expenditures and other obligations during the first half of 2022.

- During the second quarter of 2022, the borrowing limit for Perpetual's first lien credit facility ("Credit Facility Borrowing Limit") was increased to $30.0 million (December 31, 2021 - $17.0 million). Perpetual had available liquidity (see "Capital Management") at June 30, 2022 of $23.8 million, comprised of the $30.0 million Credit Facility Borrowing Limit, less current borrowings and letters of credit of $5.2 million and $1.0 million, respectively.

2022 OUTLOOK

Perpetual continues to forecast exploration and development capital expenditures (see "Non-GAAP and Other Financial Measures") of $29 to $32 million for full year 2022, up slightly from previous guidance of $28 to $30 million released on May 4, 2022, to be fully funded from adjusted funds flow (see "Non-GAAP and Other Financial Measures").

The table below summarizes forecasted exploration and development capital expenditures and drilling activities for Perpetual for the remainder of 2022:

	H1 2022 (*$ millions*)	# of wells (*gross/net*)	H2 2022 (*$ millions*)	# of wells (*gross/net*)	2022 (*$ millions*)	# of wells (*gross/net*)
West Central(1)	$3.7	1 / 0.5	$12 - $14	6 / 3.0	$16 - $18	7 / 3.5
Eastern Alberta	$5.3	2 / 2.0	$8 - $9	3 / 3.0	$13 - $14	5 / 5.0
Total(2)	**$9.0**	**3 / 2.5**	**$20 - $23**	**9 /6.0**	**$29 - $32**	**12 / 8.5**

(1) Includes six (3.0 net) Wilrich development wells and one (0.5 net) secondary zone evaluation well. Three (1.5 net) wells were spud and one (0.5 net) well was rig released prior to the end of the second quarter.
(2) Excludes abandonment and reclamation spending and acquisitions or land expenditures, if any.

At Mannville in Eastern Alberta, preliminary performance of the recent two (2.0 net) well, multi-lateral horizontal drilling program in the first quarter of 2022 which targeted heavy oil in the Sparky formation has been positive. To follow up this success, the first horizontal multi-lateral well of a three (3.0 net) well program targeting development of the Manville Sparky ("B") pool spud on July 11, 2022. Perpetual will also continue to be focused on waterflood optimization, with one injector conversion planned in Q3, continued battery consolidation projects, as well as shallow gas recompletions and abandonment and reclamation activities in the Mannville property.

The East Edson drilling program kicked off in late June, targeting to drill, complete, equip and tie-in six (3.0 net) extended reach horizontal wells in the Wilrich formation as well as one (0.5 net) additional horizontal well targeting the Notikewin formation to begin evaluating the potential of secondary zones at East Edson. One (0.5 net) Wilrich well was rig released at the end of the second quarter, with one (0.5 net) Wilrich well and one (0.5 net) Notikewin horizontal well spud on the same pad and rig released in beginning of the third quarter. The remaining four well pad in the program spud in mid-July. The seven (3.5 net) well drilling program is expected to fill the West Wolf gas plant to maximize natural gas and NGL sales through next winter. Additional capital is being spent on facility optimizations to reduce emissions and increase NGL recoveries.

Total Company average production for the second quarter of 2022 of 6,123 boe/d (19% oil and NGL) was at the high end of forecast guidance of 5,900 to 6,200 boe/d. Average production volumes are forecast to grow to exceed 7,000 boe/d during the second half of 2022 as seven (3.5 net) new wells are drilled and come onstream at East Edson and the three (3.0 net) well follow-up drilling program at Mannville begins to contribute to heavy oil production volumes. Full year average production is forecast to grow approximately 25% from 2021 levels, in accordance with guidance on May 4, 2022 of 6,500 to 6,750 boe/d. Cash costs(1) are expected to average between $20.00 and $22.00 per boe for the calendar year, up slightly from previous guidance of $17.00 to $20.00 per boe reflecting cost inflation pressures being experienced by Industry.

2022 Updated Guidance assumptions are as follows:

	2022 Guidance
Exploration and development capital expenditures(1)(*$ millions*)	$29 - $32
Cash costs(1) (*$/boe*)	$20.00 - $22.00
Average daily production (*boe/d*)	6,500 - 6,750
Production mix (*%*)	20% oil and NGL

(1) Non-GAAP measure and ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.

Perpetual continues its environmental, social, and corporate governance ("ESG") focus, with total abandonment and reclamation expenditures of up to $2.0 million planned in 2022, with an estimated $0.6 million to be funded through Alberta's Site Rehabilitation Program ("SRP"). The remaining $1.4 million will more than satisfy the Company's annual area-based closure spending requirement of $0.9 million.

SECOND QUARTER FINANCIAL AND OPERATING RESULTS

Cash Flow used in Investing Activities, Capital Expenditures, Acquisitions and Dispositions

Cash flow used in investing activities in the second quarter of 2022 was $4.5 million (Q2 2021 - $0.5 million) and $16.9 million during the first six months of 2022 (2021 - $1.4 million). In addition to cash flow used in investing activities, Perpetual uses capital expenditures to measure its capital investments compared to the Company's annual budgeted expenditures. The capital budget excludes acquisition and disposition activities as well as the accounting impact of any accrual changes. "Capital expenditures" is not a standardized measure and, therefore, may not be comparable with the calculation of similar measures by other entities.

For reconciliation of cash flow used in investing activities to capital expenditures, refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A.

The following table summarizes capital spending for both property, plant and equipment assets and exploration and evaluation assets, excluding non-cash items:

	Three months ended June 30,		Six months ended June 30,	
($ thousands)	**2022**	2021	**2022**	2021
Exploration and development	**4,359**	1,554	**9,189**	1,555
Corporate assets	**2**	–	**9**	2
Capital expenditures	**4,361**	1,554	**9,198**	1,557

Exploration and development spending by area

	Three months ended June 30,		Six months ended June 30,	
($ thousands)	**2022**	2021	**2022**	2021
West Central	**3,579**	660	**3,613**	661
Eastern Alberta	**780**	894	**5,576**	894
Total	**4,359**	1,554	**9,189**	1,555

Wells drilled by area

	Three months ended June 30,		Six months ended June 30,	
(gross/net)	**2022**	2021	**2022**	2021
West Central(1)	**1/0.5**	-/-	**1/0.5**	2/1.0
Eastern Alberta(2)	**1/1.0**	1/0.5	**2/2.0**	1/0.5
Total	**2/1.5**	1/0.5	**3/2.5**	3/1.5

(1) Two additional (1.0 net) wells in West Central (Edson) were spud during the second quarter of 2022 and rig released in early July 2022.
(2) One of the two (2.0 net) multi-lateral wells drilled in Eastern Alberta (Mannville) during the first quarter of 2022 was rig released during the second quarter in early April 2022.

Perpetual's exploration and development spending in the second quarter of 2022 was $4.4 million, of which $2.3 million was attributable to the East Edson drilling program where three (1.5 net) wells were spud in the middle of June following spring break up. The three well pad is scheduled to commence frac operations in late July. The Company also spent $1.3 million on Crown land purchases at East Edson with its 50% joint interest partner. The remaining $0.8 million of capital in the second quarter related to completing drilling operations for the two (2.0 net) horizontal, multi-lateral wells drilled at Mannville in Eastern Alberta, which targeted heavy oil in the Sparky formation. The first well was brought on stream and was recovering oil-based mud prior to the end of the first quarter and the second well commenced production during the second quarter.

Perpetual's exploration and development spending in the first quarter of 2022 was $4.8 million. The spending represented a majority of the activity of a two (2.0 net) well drilling program at Mannville in Eastern Alberta.

Acquisitions and Dispositions

There were no acquisitions or dispositions during the first six months of 2022.

During the first quarter of 2021, Perpetual participated for its 50% working interest in the acquisition of certain undeveloped lands, wells, pipelines and gross overriding royalties from a third party in the East Edson core area, for net consideration of $0.6 million. Dispositions during the first quarter of 2021 also included the sale of non-operated equipment for net proceeds to Perpetual of $0.2 million.

On September 3, 2021, the Company closed the disposition of the sale of the Clearwater assets in Eastern Alberta (the "Clearwater Assets") to Rubellite for total consideration of $65.5 million, including $53.6 million in promissory notes, the assumption by Rubellite of $5.8 million in promissory notes due to 197Co, the return to Perpetual of 8.2 million Perpetual common shares valued at $2.8 million, 0.7 million Rubellite common shares ("AIMCo Bonus Shares") valued at $1.4 million, and the issuance of Rubellite Share Purchase Warrants to purchase 4.0 million Rubellite common shares valued at $2.0 million (the "Rubellite Transaction").

Expenditures on decommissioning obligations

During the second quarter of 2022, Perpetual executed $0.2 million (Q2 2021 – $0.8 million) of abandonment and reclamation projects, of which a nominal amount was funded by Alberta's Site Rehabilitation Program. SRP funding is presented on the condensed interim consolidated statements of income and comprehensive income as other income. There were no reclamation certificates received from the Alberta Energy Regulator ("AER") during the second quarter of 2022 (Q2 2021 – 10 reclamation certificates). Total abandonment and reclamation expenditures of up to $2.0 million are forecast in 2022, with up to $0.6 million anticipated to be funded through the SRP. Abandonment and reclamation spending eventually leads to the cessation of associated property tax and surface lease expenses, reducing future operating costs.

Production

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	**2022**	2021
Production				
Conventional natural gas (Mcf/d) (1)	**29,901**	22,164	**32,103**	22,542
Conventional heavy crude oil (bbl/d) (2)	**775**	1,074	**728**	1,085
NGL (bbl/d) (3)	**364**	331	**382**	313
Total production (*boe/d*)	**6,123**	5,099	**6,461**	5,155

(1) Conventional natural gas production yielded a heat content of 1.17 GJ/Mcf for the three months ended June 30, 2022 (Q2 2021 – 1.17), resulting in higher realized natural gas prices on a $/Mcf basis. See "Commodity Prices".
(2) Primarily from Eastern Alberta which produces primarily conventional heavy crude oil.
(3) Primarily from West Central which produces primarily liquids-rich conventional natural gas.

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	**2022**	2021
Production by core area				
West Central	**4,908**	3,612	**5,329**	3,679
Eastern Alberta	**1,215**	1,487	**1,132**	1,476
Total production (*boe/d*)	**6,123**	5,099	**6,461**	5,155

Second quarter production averaged 6,123 boe/d, up 20% from 5,099 boe/d in the comparative period of 2021. In the second quarter of 2022, the production mix was comprised of 81% conventional natural gas and 19% conventional heavy crude oil and NGL, as compared to 72% of conventional natural gas and 28% conventional heavy crude oil and NGL in the second quarter of 2021. Production levels steadily increased as nine (4.5 net) Edson wells were progressively drilled and brought onstream through 2021, partially offset by the disposition of the Clearwater heavy oil assets in the third quarter of 2021.

Second quarter conventional natural gas production averaged 29.9 MMcf/d, an increase of 35% from 22.2 MMcf/d in the comparative period of 2021 with production additions from the nine (4.5 net) new East Edson liquids-rich gas wells which were brought on production throughout 2021, partially offset by natural declines.

Conventional heavy crude oil production was 775 boe/d which was 28% lower than the second quarter of 2021. The decrease was primarily due to the sale of the Clearwater Assets which contributed average production of 338 boe/d in the comparative period, partially offset by new production from the two new multi-lateral heavy oil wells at Mannville which began to contribute to sales volumes through the second quarter of 2022.

Second quarter NGL production was 364 bbl/d, 10% higher than the comparative period of 2021. The increase in NGL production is closely tied to higher conventional natural gas production at East Edson, where NGL yields were 13.5 bbl per MMcf in the second quarter of 2022 (Q2 2021 – 16.8 bbl per MMcf). Perpetual's average NGL sales composition for the second quarter of 2022 consisted of 76% condensate, higher than the prior year period when condensate represented 60% of total NGL production.

For the six months ended June 30, 2022, production increased 25% to 6,461 boe/d compared to 5,155 boe/d in the comparative period. Production levels steadily increased as new wells were brought on production in both core areas, partially offset by the disposition of the Clearwater Assets in the third quarter of 2021 and natural declines.

Oil and Natural Gas Revenue

	Three months ended June 30,		Six months ended June 30,	
(*$ thousands, except as noted*)	**2022**	2021	**2022**	2021
Oil and natural gas revenue				
Natural gas	**21,560**	6,110	**37,489**	12,132
Oil	**8,264**	5,445	**14,125**	9,477
NGL	**3,475**	1,671	**6,638**	3,153
Oil and natural gas revenue	**33,299**	13,226	**58,252**	24,762

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	**2022**	2021
Average Benchmark Prices				
NYMEX Daily Index (*US$/MMBtu*)	**7.17**	2.83	**6.12**	2.76
AECO 5A Daily Index (*$/GJ*)	**6.86**	2.93	**5.68**	2.96
AECO 5A Daily Index (*$/Mcf*)[(1)]	**7.24**	3.09	**5.99**	3.12
West Texas Intermediate ("WTI") (*US$/bbl*)	**108.41**	66.07	**101.35**	61.96
Exchange rate (US$/CAD$)	**1.28**	1.23	**1.27**	1.25
West Texas Intermediate ("WTI") (CAD*$/bbl*)	**138.44**	81.13	**128.86**	77.27
Western Canadian Select ("WCS") (CAD*$/bbl*)	**122.10**	67.15	**111.55**	62.48
WCS differential to WTI (US*$/bbl*)	**(12.80)**	(11.49)	**(13.67)**	(11.98)
Perpetual Average Realized Prices[(2)]				
Natural gas ($/Mcf)	**7.92**	3.03	**6.45**	2.97
Oil ($/bbl)	**117.20**	55.71	**107.13**	48.26
NGL ($/bbl)	**104.71**	55.48	**95.94**	55.65
Average realized price (*$/boe*)	**59.76**	28.50	**49.81**	26.54

(1) Converted from $/GJ using a standard energy conversion rate of 1.06 GJ:1 Mcf.
(2) Non-GAAP ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.

Perpetual's oil and natural gas revenue for the three months ended June 30, 2022 of $33.3 million was a significant increase from $13.2 million in the comparative period due to the 20% increase in average production combined with the impact of substantially higher reference prices for all products. Oil and natural gas revenue for the six months ended June 30, 2022 of $58.3 million increased 2.4 times compared to the second quarter of 2021, due to higher reference prices and the 25% increase in average production.

Natural gas revenue of $21.6 million in the second quarter of 2022 comprised 65% (Q2 2021 – 46%) of total revenue while natural gas production was 81% (Q2 2021 – 72%) of total production. Natural gas revenue increased 3.5 times from the comparative period (Q2 2021 – $6.1 million), reflecting the combined impact of higher AECO Daily Index prices and the 35% increase in conventional natural gas average production volumes driven by successful 2021 drilling activity at East Edson. For the six months ended June 30, 2021, natural gas revenue increased 3.1 times compared to the prior year, as a result of the 42% increase in average production and higher reference prices.

Oil revenue of $8.3 million represented 25% (Q2 2021 – 41%) of total revenue while conventional heavy crude oil production was 13% (Q2 2021 – 21%) of total production. Oil revenue was 52% higher than the second quarter of 2021, as a result of higher benchmark prices, partially offset by a 28% decrease in heavy crude oil production related to the disposition of the Clearwater Assets. Compared to the second quarter of 2021, the WCS average price of $122.10/bbl was almost double, which moved with the increase in WTI prices to US$108.41/bbl (Q2 2021 – US$66.07/bbl). For the six months ended June 30, 2021, oil revenue increased 49% compared to the prior year, as a result of higher reference prices, partially offset by the 33% decline in average production.

NGL revenue for the second quarter of 2022 of $3.5 million represented 10% (Q2 2021 – 13%) of total revenue while NGL production was 6% (Q2 2021 – 6%) of total production. NGL revenue increased 2.1 times over the comparative period, reflecting a 10% increase in NGL production and an increase in all NGL component prices compared to the prior year period, in step with the rise in WTI oil prices. For the six months ended June 30, 2022, NGL revenue increased 111% compared to the prior year, as a result of the 22% increase in average production and higher reference prices.

Risk Management Contracts

The Company's realized price deviates from the index due to the Company's market diversification strategies that balances pricing exposure over multiple markets. In addition, the Company may use both financial derivatives and physical delivery contracts to manage fluctuations in commodity prices. The Company uses "average realized prices after risk management contracts" which is not a standardized measure, and therefore may not be comparable with the calculation of similar measures by other entities. The measure is used by management to calculate the Company's net realized commodity prices, taking into account the monthly settlements of financial crude oil and natural gas forward sales, collars, basis differentials, and forward foreign exchange sales. These contracts are put in place to protect Perpetual's cash flows from potential volatility.

	Three months ended June 30,		Six months ended June 30,	
(*$ thousands, except as noted*)	**2022**	2021	**2022**	2021
Unrealized gain (loss) on risk management contracts				
Unrealized gain (loss) on financial natural gas contracts	**2,404**	-	**(2,432)**	-
Unrealized gain (loss) on physical natural gas contracts	**(46)**	634	**(148)**	1,539
Unrealized gain (loss) on financial oil contracts	**1,559**	-	**(4,497)**	-
Unrealized gain on physical oil contracts	**-**	531	**-**	62
Unrealized gain (loss) on risk management contracts	**3,917**	1,165	**(7,077)**	1,601
Realized loss on risk management contracts				
Realized loss on financial natural gas contracts[(1)]	**(5,082)**	(1,567)	**(3,815)**	(2,941)
Realized loss on financial oil contracts	**(2,027)**	-	**(3,014)**	-
Realized loss on risk management contracts	**(7,109)**	(1,567)	**(6,829)**	(2,941)

(1) Includes a realized gain of $2.0 million for the six months ended June 30, 2022 (Q2 2021 – realized losses of $2.9 million) related to a modification to the Company's market diversification contract obligations for a future period.

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	**2022**	2021
Realized loss on risk management contracts				
Realized loss on financial natural gas contracts *($/Mcf)*	**(1.87)**	(0.78)	**(0.66)**	(0.72)
Realized loss on financial oil contracts *($/bbl)*	**(28.76)**	-	**(22.87)**	-
Realized loss on risk management contracts (*$/boe*)	**(12.76)**	(3.37)	**(5.84)**	(3.15)
Perpetual Average Realized Prices after risk management contracts(1)				
Natural gas *($/Mcf)*	**6.05**	2.25	**5.79**	2.25
Oil *($/bbl)*	**88.44**	55.71	**84.26**	48.26
NGL (*$/bbl*)	**104.70**	55.48	**95.94**	55.65
Average realized price (*$/boe)*	**47.00**	25.12	**43.97**	23.39

(1) Non-GAAP ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.

Realized losses on risk management contracts totaled $7.1 million for the second quarter of 2022, compared to losses of $1.6 million for the comparative period of 2021. Realized losses on risk management contracts totaled $6.8 million for the first six months of 2022 (2021 - $2.9 million realized loss), which includes a $2.0 million gain on the elimination of the performance obligations of the Company's market diversification contract obligations in consideration for payments that are collected over the original contract period.

Unrealized gains on risk management contracts were $3.9 million in the second quarter of 2022 (Q2 2021 – unrealized gains of $1.2 million) and unrealized losses were $7.1 million for the six months ended June 30, 2022 (2021 – unrealized gains of $1.6 million). Unrealized gains and losses represent the change in mark-to-market value of derivative contracts as forward commodity prices and foreign exchange rates change. Unrealized gains and losses on derivatives are excluded from the Company's calculation of cash flow from (used in) operating activities as non-cash items. Derivative gains and losses vary depending on the nature and extent of derivative contracts in place, which in turn, vary with the Company's assessment of commodity price risk, committed capital spending and other factors.

Royalties

	Three months ended June 30,		Six months ended June 30,	
(*$ thousands, except as noted*)	**2022**	2021	**2022**	2021
Crown royalties				
Natural gas	**1,885**	184	**2,424**	361
Oil	**735**	165	**1,003**	281
NGL	**388**	146	**592**	382
Total Crown royalties	**3,008**	495	**4,019**	1,024
Freehold and overriding royalties				
Natural gas	**2,268**	989	**3,778**	1,977
Oil	**856**	539	**1,264**	876
NGL	**566**	360	**879**	637
Total freehold and overriding royalties	**3,690**	1,888	**5,921**	3,490
Total royalties	**6,698**	2,383	**9,940**	4,514
$/boe	**12.02**	5.14	**8.50**	4.84
Royalties as a percentage of oil and natural gas revenue(1)				
Crown	**9.0**	3.7	**6.9**	4.1
Freehold and overriding	**11.1**	14.3	**10.2**	14.1
Total *(% of oil and natural gas revenue)*	**20.1**	18.0	**17.1**	18.2
Natural gas royalties *(% of natural gas revenue)*	**19.3**	19.2	**16.5**	19.3
Oil royalties *(% of oil revenue)*	**19.3**	12.9	**16.0**	12.2
NGL royalties *(% of NGL revenue)*	**27.4**	30.3	**22.2**	32.3

(1) Non-GAAP ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.

Total royalties for the second quarter of 2022 were $6.7 million, which increased more than 2.8 times over the comparative period. On a unit-of-production basis, royalties were up 134% to $12.02/boe (Q2 2021 – $5.14/boe). During the second quarter of 2022, royalties were significantly higher as a result of increased production, higher reference prices and a one-time gas cost allowance adjustment of $1.2 million or $2.15/boe. The combined average royalty rate on oil increased from 2021 as royalty rates escalate with price under the Crown royalty regime in Alberta. Freehold and overriding royalties increased to $3.7 million from $1.9 million the second quarter of 2022, due to the impact of higher AECO Daily Index and NGL prices. For the six months ended June 30, 2022, royalties were $9.9 million (2021 – $4.5 million), 120% higher than the prior year period. The impact of the $1.2 million GCA adjustment on royalties for the six month period ended June 30, 2022 was $1.03/boe. Royalties increased for the six month period relative to 2021, as the Alberta Gas Reference price and AECO Daily index prices, which are used to calculate Crown royalties and certain overriding royalties respectively, increased significantly during 2022 along with oil and NGL prices.

As part of the sale of 50% of the East Edson property on April 1, 2020, Perpetual agreed to retain its joint venture partner's 50% working interest in the existing gross overriding royalty obligation on the property, equivalent to 2.8 MMcf/d of natural gas and associated NGL production, for the period April 1, 2020, to December 31, 2022. This obligation has been recorded in the condensed interim consolidated statement of financial position under the heading "Royalty obligations". Prior to November 1, 2021, the retained East Edson royalty obligation was paid in-kind, and settled through non-cash delivery of contractual natural gas and NGL volumes to the royalty holder. As of November 1, 2021, the royalty obligation is settled through payment in cash.

Production and operating expenses

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except as noted)	**2022**	2021	**2022**	2021
Production and operating expenses	**4,187**	3,552	**7,846**	6,838
$/boe	**7.51**	7.66	**6.71**	7.33

Total production and operating expenses decreased 2% on a unit-of-production basis to $7.51/boe for the second quarter of 2022, compared to $7.66/boe for the comparable period of 2021. For the six months ended June 30, 2022, production and operating expenses decreased 8% on a unit-of-production basis to $6.71/boe, compared to $7.33/boe for the comparable period of 2021. The decrease was due to increased conventional natural gas production at East Edson which has a high percentage of fixed operating costs and much lower operating costs as compared to the Company's conventional heavy crude oil production. The decrease was also related to the decrease in conventional heavy oil production as a result of the sale of the Clearwater Assets and natural declines. On an absolute dollar basis, production and operating costs increased on higher production volumes.

Transportation costs

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except as noted)	**2022**	2021	**2022**	2021
Transportation costs	**932**	754	**1,624**	1,444
$/boe	**1.67**	1.62	**1.39**	1.55

Transportation costs include clean oil trucking and NGL transportation, as well as costs to transport natural gas from the plant gate to commercial sales points. Transportation costs in the second quarter of 2022 were $0.9 million, a 24% increase from the comparative period of 2021 as a result of higher average production volumes. On a unit-of-production basis, transportation costs increased by 3% to $1.67/boe in the second quarter of 2022 (Q2 2021 – $1.62/boe), due to increases in oil trucking costs primarily as a result of higher fuel costs and surcharges, partially offset by increased natural gas production which benefited from lower transportation costs on optimization activities.

For the six months ended June 30, 2022, transportation costs were $1.6 million, an increase of 12% over the prior year period on higher average production volumes. On a unit-of-production basis, transportation costs decreased by 10% to $1.39/boe (2021 – $1.55/boe) due to increased natural gas production and transportation optimization activities.

Operating netbacks

"Operating netback" is a non-GAAP measure determined by deducting royalties, production and operating expenses, and transportation costs from oil and natural gas revenue. Operating netback is also calculated on a per boe basis using total production sold in the period. Perpetual considers operating netback to be an important performance measure to evaluate its operational performance as it demonstrates its profitability relative to commodity prices. Operating netback is not a standardized measure and, therefore, may not be comparable with the calculation of similar measures by other entities.

The following table highlights Perpetual's operating netbacks for the three and six months ended June 30, 2022 and 2021:

	Three months ended June 30,				Six months ended June 30,			
($/boe) ($ thousands)		**2022**		2021		**2022**		2021
Production (*boe/d*)		**6,123**		5,099		**6,461**		5,155
Oil and natural gas revenue	**59.76**	**33,299**	28.50	13,226	**49.81**	**58,252**	26.54	24,762
Royalties	**(12.02)**	**(6,698)**	(5.14)	(2,383)	**(8.50)**	**(9,940)**	(4.84)	(4,514)
Production and operating expenses	**(7.51)**	**(4,187)**	(7.66)	(3,552)	**(6.71)**	**(7,846)**	(7.33)	(6,838)
Transportation costs	**(1.67)**	**(932)**	(1.62)	(754)	**(1.39)**	**(1,624)**	(1.55)	(1,444)
Operating netback(1)	**38.56**	**21,482**	14.08	6,537	**33.21**	**38,842**	12.82	11,966
Realized gain (loss) on risk management contracts	**(12.76)**	**(7,109)**	(3.37)	(1,567)	**(5.84)**	**(6,829)**	(3.15)	(2,941)
Total operating netback, including risk management contracts	**25.80**	**14,373**	10.71	4,970	**27.37**	**32,013**	9.67	9,025

(1) Non-GAAP measure. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MDA for an explanation of composition.

For the second quarter of 2022, Perpetual's operating netback, including risk management contracts, was $14.4 million ($25.80/boe), up significantly from $5.0 million ($10.71/boe) in the comparative period of 2021. For the six months ended June 30, 2022 the operating netback, including risk management contracts, was $32.0 million ($27.37/boe) a significant increase from $9.0 million ($9.67/boe) in the comparative year. The increase was due to higher oil and natural gas revenue driven by increased pricing for all commodities being applied to higher average production volumes. The increase was partially offset by higher royalties, driven by the one-time GCA adjustment, and realized hedging losses.

General and administrative ("G&A") expenses

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except as noted)	**2022**	2021	**2022**	2021
G&A expense before overhead recoveries	**3,584**	2,206	**6,549**	4,281
MSA recoveries[1]	**(414)**	–	**(722)**	–
Overhead recoveries	**(842)**	(212)	**(1,420)**	(232)
Total G&A expense	**2,328**	1,994	**4,407**	4,049
$/boe	**4.18**	4.30	**3.77**	4.34

(1) Concurrent with the sale of the Clearwater Assets to Rubellite on September 3, 2021, Perpetual entered into a Management and Operating Services Agreement (the "MSA") with Rubellite whereby Perpetual receives payment for certain technical and administrative services provided to Rubellite on a cost recovery basis.

During the second quarter of 2022, G&A expenses of $2.3 million increased 17% over the comparative period. For the six months ended June 30, 2022, G&A expenses were $4.4 million, an increase of 9% over the prior year period. Before recoveries, the increase in G&A was related to higher employee salaries and benefits, which had been reduced in the prior year in response to the collapse in commodity prices and were gradually re-instated over the second half of 2021. In addition, Perpetual increased the number of staff and consultants in response to higher capital activity. Overhead recoveries were higher due to increased capital spending and higher absolute production and operating costs.

During 2021 Perpetual received payments from the Canada Emergency Wage Subsidy ("CEWS") and Canada Emergency Rent Subsidy ("CERS") programs which reduced general and administrative expenses by $0.2 million during the second quarter of 2021 and $0.6 million during the first six months of 2021. There were no payments received in 2022.

Share-based payments

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except as noted)	**2022**	2021	**2022**	2021
Share-based payments (non-cash)	**3,219**	147	**3,459**	252
Share-based payments (cash)	**376**	375	**750**	750
Total share-based payments	**3,595**	522	**4,209**	1,002

Share-based payments expense for the three and six month periods of 2022 was $3.6 million and $4.2 million, an increase from $0.5 million and $1.0 million relative to the comparative periods of 2021. During the second quarter of 2022, 0.1 million deferred options, 0.1 million deferred shares, 0.1 million share options, 0.1 million performance share rights, and 1.7 million restricted rights were granted to Officers, Directors, and employees of the Company.

Depletion and depreciation

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except as noted)	**2022**	2021	**2022**	2021
Depletion and depreciation	**3,765**	3,196	**7,783**	6,182
$/boe	**6.76**	6.89	**6.66**	6.63

The Company calculates depletion using the net book value of the asset, future development costs associated with proved and probable reserves, salvage values on associated production equipment, as well as proved and probable reserves. As at June 30, 2022, depletion was calculated on a $160.0 million depletable balance and $69.2 million in future development costs (2021 – $154.3 million depletable balance and $75.3 million in future development costs). The depletable base excluded an estimated $3.8 million (2021 – $3.7 million) of salvage value.

Depletion and depreciation expense for the second quarter of 2022 was $3.8 million or $6.76/boe (Q2 2021 – $3.2 million or $6.89/boe). Depletion and depreciation expense for the six months ended June 30, 2022 was $7.8 million or $6.66/boe (2021 – $6.2 million or $6.63/boe). The increases reflect higher average production volumes compared to the comparative periods. On a unit-of-production basis, depletion and depreciation expense decreased by 2% compared to the second quarter of 2021 and relatively unchanged for six month period as compared to prior year.

Impairment

There were no indicators of impairment or reversal for the Company's CGUs as of June 30, 2022 and therefore an impairment test was not performed.

During the first quarter of 2022, the Company determined that indictors of impairment reversal existed and that the estimated recoverable amounts of the Eastern Alberta CGU exceeded the carrying amounts of $44.8 million. Accordingly, a non-cash impairment reversal of $7.4 million was included in net income. All previous impairments charges that were eligible for reversal have now all been reversed as at March 31, 2022 for property, plant and equipment.

During the second quarter of 2021, the Company determined that indictors of impairment reversal existed and that the estimated recoverable amounts of the West Central CGU and Eastern Alberta CGU exceeded the carrying amounts of $89.6 million and $28.6 million, respectively. Accordingly, a non-cash impairment reversal of $30.1 million was included in net income.

E&E assets are tested for impairment both at the time of any triggering facts and circumstances as well as upon their eventual reclassification to oil and gas properties in PP&E.

At June 30, 2022, the Company conducted an assessment of indicators of impairment and impairment reversal for the Company's E&E assets. The Company transferred undeveloped land to PP&E at a value of $0.2 million, which was equal to the book value in E&E. As a result of the transfer, an impairment test was required on transfer to PP&E. There were no impairments recorded to E&E as at June 30, 2022.

Finance expense

	Three months ended June 30,		Six months ended June 30,	
($ thousands)	**2022**	2021	**2022**	2021
Cash finance expense				
Interest on revolving bank debt	**276**	252	**437**	528
Interest on term loan	**52**	–	**107**	–
Interest on 2022 Senior Notes(1)	**-**	–	**-**	(1,253)
Interest on 2025 Senior Notes(2)	**800**	–	**1,604**	–
Interest on lease liabilities	**30**	39	**62**	79
Total cash finance expense	**1,158**	291	**2,210**	(646)
Non-cash finance expense				
Interest paid in-kind on term loan	**-**	948	**-**	1,896
Interest paid in-kind on 2025 Senior Notes(2)	**-**	767	**-**	2,824
Gain on senior note maturity extension(2)	**-**	–	**-**	(1,591)
Amortization of debt issue costs	**452**	180	**966**	558
Accretion on decommissioning obligations	**176**	147	**312**	245
Change in fair value of other liability	**57**	–	**1,559**	–
Change in fair value of royalty obligations	**585**	1,913	**2,180**	3,022
Total non-cash finance expense	**1,270**	3,955	**5,017**	6,954
Finance expenses recognized in net income (loss)	**2,428**	4,246	**7,227**	6,308

(1) The Company satisfied the January 23, 2022 semi-annual interest payment of $1.6 million by making a cash payment.

(2) On January 22, 2021, Perpetual's 2022 Senior Notes were exchanged for 2025 Senior Notes, providing Perpetual the option to pay interest in-kind. Perpetual elected to pay the January 23, 2021 semi-annual interest of $1.5 million by a PIK Interest Payment. As a result, the previously accrued 2022 Senior Notes cash interest of $1.3 million was reversed and replaced by $1.3 million of 2025 Senior Note non-cash interest expense. The Company satisfied the semi-annual interest payment due July 23, 2021 by making a PIK Interest Payment and accrued $0.8 million and $1.5 million of non-cash interest expense for the three and six months ended June 30, 2021.

Total cash finance expense was $1.2 million in the second quarter of 2022, higher than the comparative period (Q2 2021 – $0.3 million). For the six months ended June 30, 2022, cash finance expense was $2.2 million (2021 – $0.6 million recovery). The increase in 2022 reflected the payment of interest in cash rather than in-kind.

Total non-cash finance expense for the second quarter of 2022 was $1.3 million, lower than the prior year period (Q2 2021 – $4.0 million). For the six months ended June 30, 2022, non-cash finance expense was $5.0 million (2021 – $7.0 million). The decrease was attributable to the payment of interest on the Senior Notes and Term Loan in cash rather than in-kind. Non-cash finance expense is also driven by the change in the fair value of the royalty obligations which is sensitive to changing AECO natural gas and NGL prices and the recognition of future contingent payments related to the Second Lien Loan Settlement which are recorded as other liability with the change being recognized through finance expense.

On January 22, 2021, the Company exchanged its unsecured 2022 Senior Notes for new $33.6 million secured 8.75% third lien senior notes due January 23, 2025. Interest on the 2025 Senior Notes may be paid in-kind at the option of the Company by adding the interest payment to the principal amount owing (a "PIK Interest Payment"). The Company elected to pay the January 23, 2021 and July 23, 2021 semi-annual interest payments by a PIK Interest Payment, which increased the principal amount of the 2025 Senior Notes outstanding to $36.6 million on July 23, 2021. Perpetual paid the 2022 semi-annual interest payments in cash.

The Company recorded a net gain on the senior note maturity extension of $1.6 million in the fourth quarter of 2021, representing the difference between the carrying amount of 2022 Senior Notes of $34.5 million and the present value of the modified cash flows for the 2025 Senior Notes of $32.9 million. The gain has been recorded as a reduction of non-cash finance expense.

On September 3, 2021, upon completion of the plan of arrangement related to the Rubellite Transaction, Perpetual's agreement with its Term Loan lender for the settlement of principal and all interest owing on the Term Loan was accounted for as being effective. Perpetual extinguished the previous Term Loan in exchange for the payment of approximately $38.5 million in cash, the delivery by Perpetual of the AIMCo Bonus Shares at a value of $1.4 million, the issuance of a new $2.7 million second lien Term Loan bearing interest at 8.1% annually and maturing December 31, 2024 and up to an aggregate $4.5 million in contingent payments over the three year period ended June 30, 2024 in the event that Perpetual's annual average realized oil and natural gas prices exceed certain thresholds (the "Second Lien Loan Settlement" – See "Term Loan").

LIQUIDITY AND CAPITAL RESOURCES

Perpetual's strategy targets the maintenance of a strong capital base to retain investor, creditor and market confidence to support the execution of its business plans. The Company manages its capital structure and adjusts its capital spending in light of changes in economic conditions such as depressed commodity prices, available liquidity, and the risk characteristics of its underlying oil and natural gas assets. The Company considers its capital structure to include share capital, senior notes, the Term Loan, bank indebtedness, and adjusted net working capital. To manage its capital structure and available liquidity, the Company may from time to time issue equity or debt securities, sell assets, and adjust its capital spending to manage current and projected debt levels. The Company will continue to regularly assess changes to its capital structure and repayment alternatives, with considerations for both short-term liquidity and long-term financial sustainability.

Perpetual uses net debt, adjusted working capital, enterprise value and trailing twelve-months adjusted funds flow as important indicators of capital resources, capital management and liquidity. Net debt includes the carrying value of bank indebtedness, the undiscounted portion of the other liability, the principal amount of the Term Loan, and the principal amount of senior notes. Net debt is calculated by deducting any borrowing from adjusted working capital. Adjusted working capital is current assets less accounts payable and accrued liabilities excluding short-term derivative assets and liabilities related to the Company's risk management activities, current portion of other liability, current portion of royalty obligations, current portion of lease liabilities, and current portion of decommissioning obligations. Perpetual uses net debt as an alternative measure of outstanding debt. Management considers net debt and adjusted working capital as important measures in assessing the liquidity of the Company. Net debt and net debt to adjusted funds flow ratios are used by management to assess the Company's overall debt position and borrowing capacity. For calculation of adjusted working capital and adjusted funds flow, refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A.

Enterprise value is calculated by multiplying the current shares outstanding by the market price at the end of the period and then adjusting it by the net debt. The Company considers enterprise value as an important measure as it normalizes the market value of the Company's shares for its capital structure.

Capital management

(*$ thousands, except as noted*)	**June 30, 2022**	December 31, 2021
Revolving bank debt	**5,248**	2,487
Term loan, principal amount	**2,671**	2,671
Senior notes, principal amount	**36,583**	36,583
Other liability, undiscounted amount	**3,342**	1,387
Adjusted working capital deficiency (surplus)(1)	**(572)**	16,143
Net debt(1)	**47,272**	59,271
Shares outstanding at end of period (*thousands*)(3)	**64,852**	63,567
Market price at end of period (*$/share*)	**1.22**	0.70
Market value of shares(1)	**79,119**	44,497
Enterprise value(1)	**126,391**	103,768
Net debt as a percentage of enterprise value(2)	**37%**	57%
Trailing twelve-months adjusted funds flow(1)	**36,522**	16,746

(1) Non-GAAP measure. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.
(2) Non-GAAP ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.
(3) Shares outstanding are presented net of shares held in trust.

At June 30, 2022, Perpetual had total net debt of $47.3 million, down $12.0 million (20%) from December 31, 2021 as adjusted funds flow exceeded capital expenditures during the first half of 2022.

Perpetual had available liquidity at June 30, 2022 of $23.8 million, comprised of the $30.0 million Credit Facility Borrowing Limit, less current borrowings and letters of credit of $5.2 million and $1.0 million, respectively.

Revolving bank debt

During the second quarter of 2022, the Company completed the semi-annual borrowing base redetermination of the Company's first lien credit facility and the borrowing limit was increased to $30.0 million (December 31, 2021 - $17.0 million) with an initial term to May 31, 2023. The initial term may be extended to May 31, 2024 subject to approval by the syndicate. If the facility is not extended all outstanding balances would be repayable on May 31, 2024. The next semi-annual borrowing base redetermination is scheduled to be completed on or before November 30, 2022.

As at June 30, 2022, $5.2 million was drawn (December 31, 2021 – $2.5 million) and $1.0 million of letters of credit had been issued (December 31, 2021 – $1.0 million) under the Company's credit facility. Borrowings under the Credit Facility bear interest at its lenders' prime rate or Banker's Acceptance rates, plus applicable margins and standby fees. The applicable Banker's Acceptance margins range between 3.0% and 5.5%. The effective interest rate on the Credit Facility at June 30, 2022 was 5.9%. For the period ended June 30, 2022 if interest rates changed by 1% with all other variables held constant, the impact on annual cash finance expense and net income would be $0.1 million.

The Credit Facility is secured by general first lien security agreements covering all present and future property of the Company and its subsidiaries.

At June 30, 2022, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Term loan

			June 30, 2022		December 31, 2021	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Term loan	December 31, 2024	8.1%	**$ 2,671**	**$ 2,493**	$ 2,671	$ 2,469

During the third quarter of 2021, Perpetual executed an agreement with its Term Loan lender for the settlement of principal and all interest owing on the Term Loan. Perpetual substantively modified the previous Term Loan with Alberta Investment Management Corporation ("AIMCo") in exchange for the payment of approximately $38.5 million in cash, the delivery by Perpetual of the AIMCo Bonus Shares at a value of $1.4 million, the issuance of a new $2.7 million second lien Term Loan (the "New Term Loan"), and up to an aggregate $4.5 million in contingent payments over the three year period ended June 30, 2024 in the event that Perpetual's annual average realized oil and natural gas prices exceed certain thresholds (the "Second Lien Loan Settlement") (note 10). All amounts related to the Second Lien Loan Settlement were paid on October

5, 2021. The New Term Loan bears interest at 8.1% annually, which Perpetual may elect to pay-in-kind and will mature on December 31, 2024. Perpetual has the ability to repay the Term Loan at any time without any repayment penalty.

The New Term Loan has a cross-default provision with the Credit Facility and contains substantially similar provisions and covenants as the Credit Facility (note 8). The Term Loan is secured by a general security agreement over all present and future property of the Company and its subsidiaries on a second priority basis, subordinate only to liens securing loans under the Credit Facility.

At June 30, 2022, the Term Loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Senior notes

			June 30, 2022		December 31, 2021	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Senior notes	January 23, 2025	8.75%	**$ 36,583**	**$ 34,804**	$ 36,583	$ 34,189

On January 22, 2021, Perpetual announced the unsecured 2022 Senior Notes were exchanged for new 8.75% secured third lien notes due January 23, 2025. The 2025 Senior Notes have been issued under a trust indenture that contains substantially the same terms as the 2022 Senior Notes, and are secured on a third lien basis and allow for the semi-annual interest payments to be paid at Perpetual's option, in cash, or in additional 2025 Senior Notes (a "PIK Interest Payment"). In 2021, the Company elected to pay the semi-annual interest payments by making PIK Interest Payments, increasing the principal amount to $36.6 million.

The Company satisfied the January 23, 2022 semi-annual interest payment of $1.6 million by making a cash payment. Subsequent to June 30, 2022, the Company satisfied the July 23, 2022 semi-annual interest payment of $1.6 million by making a cash payment.

At June 30, 2022, the senior notes are recorded at the present value of future cash flows, net of $1.8 million in issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 13.7%

The senior notes are direct senior secured, third lien obligations of the Company. The Company may redeem the senior notes without any repayment penalty. The senior notes have a cross-default provision with the Company's Credit Facility. In addition, the senior notes indenture contains restrictions on certain payments including dividends, retirement of subordinated debt, and stock repurchases.

At June 30, 2022, the senior notes were not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Entities controlled by the Company's CEO hold $15.9 million of the 2025 Senior Notes outstanding. An entity that is associated with the Company's CEO holds an additional $10.3 million of the 2025 Senior Notes outstanding.

Equity

At June 30, 2022, there were 64.9 million common shares outstanding, net of 0.7 million shares held in trust to resource employee compensation programs. 0.2 million shares were purchased by the independent trustee to be held in trust during the second quarter of 2022 (Q2 2021 – nil). Basic and diluted weighted average shares outstanding for the three and six months ended June 30, 2022 were 63.6 and 74.7 million and 63.4 million and 74.8 million, respectively (Q2 2021 – 62.6 million basic and 70.5 diluted; 2021 – 62.1 basic and 69.36 diluted).

At August 3, 2022, there were 64.9 million common shares outstanding which is net of 0.9 million shares held in trust for employee compensation programs. In addition, the following potentially issuable common shares were outstanding as at the date of this MD&A:

(millions)	**August 3, 2022**
Share options	**2.5**
Performance share rights	**2.6**
Compensation awards	**7.4**
Total[(1)]	**12.5**

(1) 7.4 million compensation awards, 2.4 million share options, and 2.5 million performance share rights have an exercise price below the June 30, 2022 closing price of the Company's common shares of $1.22 per share.

Commodity price risk management and sales obligations

Perpetual's commodity price risk management strategy is focused on managing downside risk and increasing certainty in adjusted funds flow by mitigating the effect of commodity price volatility. Physical forward sales contracts and financial derivatives are used to increase certainty in adjusted funds flow (see "Non-GAAP and Other Financial Measures"), manage the balance sheet, lock in economics on capital programs, and to take advantage of perceived anomalies in commodity markets. Perpetual also utilizes foreign exchange derivatives and physical or financial derivatives related to the differential between natural gas prices at the AECO and NYMEX trading hubs and oil basis differentials between WTI and WCS in order to mitigate the effects of fluctuations in foreign exchange rates and basis differentials on the Company's revenue. Diversification of markets is a further risk management strategy employed by the Company.

As at August 3, 2022, the Company entered into the following swap commodity contracts:

Commodity	Volumes sold	Term	Reference/ Index	Contract Traded Bought/sold	Average Market Price
Natural gas	17,500 GJ/d	Aug 1 – Sept 30, 2022	AECO 5A (CAD$/GJ)	Swap - sold	$3.66
Natural gas	2,500 GJ/d	Aug 1 – Dec 31, 2022	AECO 5A (CAD$/GJ)	Swap - sold	$3.57
Natural gas	7,500 GJ/d	Oct 1 – Dec 31, 2022	AECO 5A (CAD$/GJ)	Swap - sold	$5.23
Natural gas	5,000 GJ/d	Jan 1 - Mar 31, 2023	AECO 5A (CAD$/GJ)	Swap - sold	$4.62
Crude Oil	100 bbl/d	Aug 1 – Dec 31, 2022	WTI (CAD$/bbl)	Swap – sold	$103.30
Crude Oil	400 bbl/d	Aug 1 – Dec 31, 2022	WCS FP (CAD$/bbl)	Swap – sold	$70.73
Crude Oil	100 bbl/d	Jan 1 – Dec 31, 2023	WTI (USD$/bbl)	Swap – sold	$89.15

As at August 3, 2022, the Company entered into the following swap WTI-WCS basis differential which settle in CAD$:

Commodity	Volumes sold	Term	Reference/ Index	Market Price *(CAD$/bbl)*
Crude oil	100 bbl/d	Aug 1 – Dec 31, 2022	WCS Differential	(17.25)
Crude oil	100 bbl/d	Jan 1 – Dec 31, 2023	WCS Differential	(17.30)

In the second quarter of 2022, the Company eliminated 5,000 MMBtu/d of fixed volume obligations for the period commencing November 1, 2022 and ending March 31, 2023 and will receive payment of $0.8 million over the term of the associated contract volumes.

In the first quarter of 2022, the Company eliminated 10,000 MMBtu/d of fixed volume obligations for the period commencing November 1, 2022 and ending on March 31, 2023 and will receive payment of $1.2 million over the term of the associated contract volumes.

In the first quarter of 2021, the Company eliminated its remaining performance obligations on fixed volume obligations of 10,000 MMBtu/d for the period commencing April 1, 2021 and ending on October 31, 2021 in consideration for the payment of $1.4 million to be collected over the term of the associated contract volumes.

In the third quarter of 2021, the Company eliminated its remaining fixed volume obligations of 25,400 MMBtu/d for the period commencing April 1, 2022 and ending on October 31, 2022 in consideration for the payment of $1.8 million over the term of the associated contract volumes.

These modifications have been recognized as realized gain or losses on risk management contracts in the condensed interim consolidated statement of income (loss) and comprehensive income (loss).

Conventional natural gas volumes sold pursuant to the Company's market diversification contract are sold at fixed volume obligations and priced at daily index prices at each of the market price points, less transportation costs from AECO to each market price point as detailed below.

Market/Pricing Point	November 1, 2022 to March 31, 2023 Daily sales volume *(MMBtu/d)*	April 1, 2023 to October 31, 2024 Daily sales volume *(MMBtu/d)*
Malin	-	15,000
Dawn	15,000	15,000
Emerson	10,000	10,000
Total sales volume obligation	**25,000**	**40,000**

As at August 3, 2022, the Company entered into the following foreign exchange contracts:

Contract	Notional amount	Term	Price *(US$/CAD$)*
Average rate forward (US$/CAD$)	$200,000 US$/month	Jan 1 – Dec 31, 2023	1.3029

SEQUOIA LITIGATION UPDATE

On August 3, 2018, the Company received a Statement of Claim that was filed by PricewaterhouseCoopers Inc. LIT ("PwC"), in its capacity as trustee in bankruptcy (the "Trustee") of Sequoia Resources Corp. ("Sequoia"), with the Alberta Court of Queen's Bench (the "Court"), against Perpetual (the "Sequoia Litigation"). The claim relates to a close to six-year-old transaction when, on October 1, 2016, Perpetual closed the disposition of shallow conventional natural gas assets in Eastern Alberta to an arm's length third party at fair market value after an extensive and lengthy marketing, due diligence, and negotiation process (the "Sequoia Disposition"). This transaction was one of several completed by Sequoia. Sequoia assigned itself into bankruptcy on March 23, 2018. PwC is seeking an order from the Court to either set this transaction aside or declare it void, or damages of approximately $217 million. On August 27, 2018, Perpetual filed a Statement of Defence and Application for Summary Dismissal with the Court in response to the Statement of Claim. All allegations made by PwC have been denied and applications to the Court to dismiss all claims has been made on the basis that there is no merit to any of them.

On January 13, 2020, a written decision related to the Application for Dismissal, dismissed and struck all claims against the Company's CEO and all but one of the claims filed against Perpetual. The Court did not find that the test for summary dismissal relating to whether the asset transaction was an arm's length transfer for purposes of section 96(1) of the Bankruptcy and Insolvency Act (the "BIA") was met, on the balance of probabilities. Accordingly, the BIA claim was not dismissed or struck and only that part of the claim could continue against Perpetual. The

Trustee filed a notice of appeal with the Court of Appeal of Alberta, challenging the entire decision, and Perpetual filed a similar notice of appeal contesting the BIA claim portion of the decision (the "First Appeal").

On February 25, 2020, Perpetual filed a second application to strike and summarily dismiss the BIA claim on the basis that there was no transfer at undervalue, and Sequoia was not insolvent at the time of the asset transaction nor caused to be insolvent by the asset transaction (the "Second Summary Dismissal Application"). In July 2020, the Orphan Well Association ("OWA"), certain oil and gas companies, and six municipalities applied to intervene in the Second Summary Dismissal Application proceedings. The OWA and certain oil and gas companies were permitted to intervene (the "Intervenors") in the proceedings which took place on October 1 and 2, 2020. The Intervenors were also permitted to intervene in the First Appeal proceedings. On January 14, 2021 the Court issued its decision, finding that the Trustee could not establish a necessary element of the BIA Claim as Sequoia was not insolvent at the time of, nor rendered insolvent by, the Sequoia Disposition. The Court therefore concluded there is "no merit" to the BIA Claim and it summarily dismissed the balance of the Statement of Claim. The Trustee appealed this decision, and the Court of Appeal hearing took place on February 10, 2022, with the panel reserving judgement. On March 25, 2022, the Court of Appeal issued their judgement with respect to this matter and allowed PwC's appeal on the basis that the Court of Queen's Bench erred in law in its handling of the end-of-life obligations and that based on the record, it could not be concluded the error was without consequence, and that the Court of Queen's Bench also erred in agreeing to hear the Second Summary Dismissal Application. On this basis, the BIA Claim has been directed to trial.

The First Appeal proceedings were heard on December 10, 2020. On January 25, 2021, the Court of Appeal of Alberta issued their judgement with respect to the First Appeal proceedings, dismissing the appeal filed by Perpetual and granting certain aspects of the appeals filed by the Trustee, thereby reinstating certain elements of the Sequoia Litigation for trial. On March 24, 2021, Perpetual applied for leave to appeal the First Appeal decision to the Supreme Court of Canada (the "SCC"). On July 8, 2021, the SCC dismissed Perpetual's application.

Management expects that the Company is more likely than not to be completely successful in defending against the Sequoia Litigation such that no damages will be awarded against it, and therefore, no amounts have been accrued as a liability in these financial statements.

OFF BALANCE SHEET ARRANGEMENTS

Perpetual has no off balance sheet arrangements.

NON-GAAP AND OTHER FINANCIAL MEASURES:

Throughout this MD&A and in other materials disclosed by the Company, Perpetual employs certain measures to analyze financial performance, financial position and cash flow. These non-GAAP and other financial measures do not have any standardized meaning prescribed under IFRS and therefore may not be comparable to similar measures presented by other entities. The non-GAAP and other financial measures should not be considered to be more meaningful than GAAP measures which are determined in accordance with IFRS, such as net income (loss), cash flow from operating activities, and cash flow from investing activities, as indicators of Perpetual's performance.

Non-GAAP Financial Measures

Capital Expenditures or Capital Spending: Perpetual uses capital expenditures or capital spending related to exploration and development to measure its capital investments compared to the Company's annual capital budgeted expenditures. Perpetual's capital budget excludes acquisition and disposition activities as well as the accounting impact of any accrual changes.

The most directly comparable GAAP measure for capital expenditures or capital spending is cash flow used in investing activities. A summary of the reconciliation of cash flow used in investing activities to capital expenditures or capital spending, is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	**2022**	2021
Net cash flows used in investing activities	**4,535**	449	**16,885**	1,432
Acquisitions	**-**	-	**-**	(625)
Net proceeds on dispositions, net of cash disposed	**-**	46	**-**	202
Purchase of marketable securities	**(6)**	-	**(29)**	-
Change in non-cash working capital	**(168)**	1,059	**(7,658)**	548
Capital expenditures	**4,361**	1,554	**9,198**	1,557

Cash costs: Cash costs are comprised of royalties, production and operating, transportation, general and administrative, and cash finance expense as detailed below. Cash costs per boe is calculated by dividing cash costs by total production sold in the period. Management believes that cash costs assist management and investors in assessing Perpetual's efficiency and overall cost structure.

	Three months ended June 30,		Six months ended June 30,	
(*$ thousands, except per boe amounts*)	**2022**	2021	**2021**	2021
Royalties	**6,698**	2,383	**9,940**	4,514
Production and operating	**4,187**	3,552	**7,846**	6,838
Transportation	**932**	754	**1,624**	1,444
General and administrative	**2,328**	1,994	**4,407**	4,049
Cash finance expense	**1,158**	291	**2,210**	(646)
Cash costs	**15,303**	8,974	**26,027**	16,199
Cash costs per boe	**27.46**	19.34	**22.26**	17.36

Operating netbacks and total operating netbacks after risk management contracts: Operating netback is calculated by deducting royalties, production and operating expenses, and transportation costs from oil revenue. Operating netback is also calculated on a per boe basis using total production sold in the period. Total operating netbacks after risk management contracts is presented after adjusting for realized gains or losses from risk management contracts. Perpetual considers that operating netback is a key industry performance indicator and one that provides investors with information that is also commonly presented by other crude oil and natural gas producers. Perpetual considers operating netback to be an important performance measure to evaluate its operational performance as it demonstrates its profitability relative to current commodity prices. Perpetual considers the presentation after risk management contracts an important measure to evaluate performance after risk management activities. Refer to reconciliations in the MD&A under the "Operating Netbacks" section.

Net Debt: Net debt is calculated by deducting any borrowing under Perpetual's reserve-based credit facility (the "Credit Facility") from adjusted working capital. Adjusted working capital is current assets less accounts payable and accrued liabilities excluding short-term derivative assets and liabilities related to the Company's risk management activities, current portion of other liability, current portion of royalty obligations, current portion of lease liabilities, and current portion of decommissioning obligations. Perpetual uses net debt as an alternative measure of outstanding debt. Management considers net debt and adjusted working capital as important measures in assessing the liquidity of the Company. Net debt and net debt to adjusted funds flow ratios are used by management to assess the Company's overall debt position and borrowing capacity.

Net debt includes the carrying value of bank indebtedness, the undiscounted portion of the other liability, the principal amount of the second lien term loan (the "Term Loan"), and the principal amount of senior notes. Net debt and net debt to adjusted funds flow ratios are used by management to assess the Company's overall debt position and borrowing capacity. Net debt to adjusted funds flow ratios are calculated on a trailing twelve-month basis.

Previously, net debt was calculated using the current balance of the other liability. As of March 31, 2022, net debt has been computed using the undiscounted value of the other liability. The current determination of net debt is reflective of the measures used by Management to monitor its liquidity in light of operating and capital budging decisions. Net debt is not a standardized measure and therefore may not be comparable to similar measures presented by other entities.

The following table reconciles adjusted working capital and net debt as reported in the Company's statements of financial position:

	As at June 30, 2022	**As at December 31, 2021**
Cash	**-**	1,090
Accounts and accrued receivable	**18,181**	11,671
Prepaid expenses and deposits	**604**	910
Marketable securities	**5,350**	2,409
Accounts payable and accrued liabilities	**(23,563)**	(32,223)
Adjusted working capital surplus (deficiency)[(1)]	**572**	(16,143)
Bank indebtedness	**(5,248)**	(2,487)
Term loan (principal)	**(2,671)**	(2,671)
Other liability (undiscounted amount)	**(3,342)**	(1,387)
Senior notes (principal)	**(36,583)**	(36,583)
Net debt	**(47,272)**	(59,271)

(1) Alternative calculation of current assets less current liabilities adjusted for the removal of the current portion of risk management contracts.

Adjusted funds flow: Adjusted funds flow is calculated based on cash flows from (used in) operating activities, excluding changes in non-cash working capital and expenditures on decommissioning obligations since Perpetual believes the timing of collection, payment or incurrence of these items is variable. Expenditures on decommissioning obligations may vary from period to period depending on capital programs and the maturity of the Company's operating areas. Expenditures on decommissioning obligations are managed through the capital budgeting process which considers available adjusted funds flow and regulatory requirements. The Company has added back non-cash oil and natural gas revenue in-kind, equal to retained East Edson royalty obligation payments taken in-kind, to present the equivalent amount of cash revenue generated. The Company has also deducted payments of the gas over bitumen royalty financing from adjusted funds flow to present these payments net of gas over bitumen royalty credits received. These payments are indexed to gas over bitumen royalty credits and are recorded as a reduction to the Company's gas over bitumen royalty financing obligation in accordance with IFRS. Management uses adjusted funds flow and adjusted funds flow per boe as key measures to assess the ability of the Company to generate the funds necessary to finance capital expenditures, expenditures on decommissioning obligations, and meet its financial obligations.

Adjusted funds flow is not intended to represent net cash flows from (used in) operating activities calculated in accordance with IFRS.

The following table reconciles net cash flows from (used in) operating activities as reported in the Company's condensed interim consolidated statements of cash flows, to adjusted funds flow:

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except per share and per boe amounts)	**2022**	2021	**2022**	2021
Net cash flows from operating activities	**11,571**	2,854	**17,843**	4,536
Change in non-cash working capital	**(1,304)**	(1,832)	**7,206**	(1,982)
Decommissioning obligations settled (cash)	**238**	316	**(427)**	431
Oil and natural gas revenue in-kind	**-**	1,198	**-**	2,331
Payments of gas over bitumen royalty financing	**-**	(234)	**-**	(470)
Adjusted funds flow	**10,505**	2,302	**24,622**	4,846
Adjusted funds flow per share	**0.16**	0.04	**0.38**	0.08
Adjusted funds flow per boe	**18.85**	4.96	**21.05**	5.19

Available Liquidity: Available Liquidity is defined as Perpetual's Credit Facility borrowing limit, less borrowings and letters of credit issued under the Credit Facility. Management uses available liquidity to assess the ability of the Company to finance capital expenditures and expenditures on decommissioning obligations, and to meet its financial obligations.

Enterprise value: Enterprise value is equal to net debt plus the market value of issued equity and is used by management to analyze leverage. Enterprise value is calculated by multiplying the current shares outstanding by the market price at the end of the period and then adjusting it by the net debt. The Company considers enterprise value as an important measure as it normalizes the market value of the Company's shares for its capital structure.

Non-GAAP Financial Ratios

Perpetual calculates certain non-GAAP measures per boe as the measure divided by weighted average daily production. Management believes that per boe ratios are a key industry performance measure of operational efficiency and one that provides investors with information that is also commonly presented by other crude oil and natural gas producers. Perpetual also calculates certain non-GAAP measures per share as the measure divided by outstanding common shares.

Net debt to adjusted funds flow ratio: Net debt to adjusted funds flow ratios are calculated on a trailing twelve-month basis.

Net debt as a percentage of enterprise value: Net debt as a percentage of enterprise value is calculated by dividing net debt by enterprise value.

Adjusted funds flow per share: Adjusted funds flow ratios are calculated on a per share as the measure divided by basic shares outstanding.

Adjusted funds flow per boe: Adjusted funds flow per boe is calculated as adjusted funds flow divided by total production sold in the period.

Supplementary Financial Measures

"Average realized price" is comprised of total commodity sales from production, as determined in accordance with IFRS, divided by the Company's total sales production on a boe basis.

"Realized NGL price" is comprised of NGL commodity sales from production, as determined in accordance with IFRS, divided by the Company's NGL sales production.

"Realized oil price" is comprised of oil commodity sales from production, as determined in accordance with IFRS, divided by the Company's oil sales production.

"Realized natural gas price" is comprised of natural gas commodity sales from production, as determined in accordance with IFRS, divided by the Company's natural gas sales production.

"Depletion and depreciation expense per boe" is comprised of DD&A expense, as determined in accordance with IFRS, divided by the Company's total sales production.

"G&A expense per boe" is comprised of G&A expense, as determined in accordance with IFRS, divided by the Company's total sales production.

"Operating expense per boe" is comprised of operating expense, as determined in accordance with IFRS, divided by the Company's total sales production.

"Realized gain or loss on risk management contract per boe" is comprised of realized gain on risk management contracts, as determined in accordance with IFRS, divided by the Company's total sales production.

"Transportation expense per boe" is comprised of operating expense, as determined in accordance with IFRS, divided by the Company's total sales production.

"Royalties as a percentage of revenue" is comprised of royalties, as determined in accordance with IFRS, divided by oil and natural gas revenue from sales production as determined in accordance with IFRS.

"Royalties per boe" is comprised of royalties, as determined in accordance with IFRS, divided by the Company's total sales production.

“Market value of shares” is comprised of common shares outstanding multiplied by the market price of shares.

FUTURE ACCOUNTING PRONOUNCEMENTS

The International Accounting Standards Board (“IASB”) and the IFRS Interpretations Committee regularly issue new and revised accounting pronouncements which have future effective dates and therefore are not reflected in Perpetual's financial statements. Once adopted, these new and amended pronouncements may have an impact on Perpetual's condensed interim consolidated financial statements. Perpetual's analysis of recent accounting pronouncements is included in the notes to the consolidated financial statements at December 31, 2021

CORPORATE GOVERNANCE

The Corporation is committed to maintaining high standards of corporate governance. Each regulatory body, including the Toronto Stock Exchange and the Canadian provincial securities commissions, has a different set of rules pertaining to corporate governance. The Corporation fully conforms to the rules of the governing bodies under which it operates.

INTERNAL CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures

There were no changes in the Corporation's internal control over financial reporting during the period beginning on April 1, 2022 and ended June 30, 2022 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

FORWARD-LOOKING INFORMATION AND STATEMENTS

Certain information in this MD&A, including management's assessment of future plans and operations, and including the information contained under the heading "2022 Outlook" may constitute forward-looking information or statements (together "forward-looking information") under applicable securities laws. The forward-looking information includes, without limitation, statements with respect to: forecast exploration and development capital expenditures for 2022 and the expectation that such expenditures will be funded from adjusted funds flow; drilling activities for the remainder of 2022 including the number of gross and net wells to be drilled; the continued focus on waterflood optimization at Mannville including the planned injector conversion, continued battery consolidation projects as well as shallow gas recompletions and abandonment and reclamation activities; the targeted drilling in East Edson and the expectation that it will fill the West Wolf plant to maximize natural gas and NGL sales through next winter; facility optimizations and reduction in emissions and increase in NGL recoveries resulting therefrom; forecast average production levels and the number of wells to be drilled in the remainder of 2022; cash costs estimates; projected abandonment and reclamation expenditures and the funding thereof; expectations as to drilling activity plans in various areas and the benefits to be derived from such drilling including the production growth and expectations respecting Perpetual's future exploration, development and drilling activities; and Perpetual's business plan.

Forward-looking information is based on current expectations, estimates and projections that involve a number of known and unknown risks, which could cause actual results to vary and, in some instances, to differ materially from those anticipated by Perpetual and described in the forward-looking information contained in this MD&A. In particular and without limitation of the foregoing, material factors or assumptions on which the forward-looking information in this MD&A is based include: forecast commodity prices and other pricing assumptions; forecast production volumes based on business and market conditions; foreign exchange and interest rates; near-term pricing and continued volatility of the market including inflationary pressures; accounting estimates and judgments; future use and development of technology and associated expected future results; the ability to obtain regulatory approvals; the successful and timely implementation of capital projects; ability to generate sufficient cash flow to meet current and future obligations; the ability of Perpetual to obtain and retain qualified staff and equipment in a timely and cost-efficient manner, as applicable; the retention of key properties; forecast inflation, supply chain access and other assumptions inherent in Perpetual's current guidance and estimates; the continuance of existing tax, royalty, and regulatory regimes; the accuracy of the estimates of reserves volumes; ability to access and implement technology necessary to efficiently and effectively operate assets; and the ongoing and future impact of the coronavirus and Russia's invasion of Ukraine and related sanctions on commodity prices and the global economy, among others.

Undue reliance should not be placed on forward-looking information, which is not a guarantee of performance and is subject to a number of risks or uncertainties, including without limitation those described herein and under "Risk Factors" in Perpetual's Annual Information Form and MD&A for the year ended December 31, 2021 and in other reports on file with Canadian securities regulatory authorities which may be accessed through the SEDAR website (www.sedar.com) and at Perpetual's website (www.perpetualenergyinc.com). Readers are cautioned that the foregoing list of risk factors is not exhaustive. Forward-looking information is based on the estimates and opinions of Perpetual's management at the time the information is released, and Perpetual disclaims any intent or obligation to update publicly any such forward-looking information, whether as a result of new information, future events or otherwise, other than as expressly required by applicable securities law.

GLOSSARY

The following is a list of abbreviations that may be used in this MD&A:

Measurement:

bbl	barrel
bbl/d	barrels per day
Mbbl	thousand barrels
MMbbl	million barrels
boe(1)	barrels of oil equivalent
boe/d(1)	barrels of oil equivalent per day
Mboe(1)	thousands of barrels of oil equivalent
MMboe(1)	millions of barrels of oil equivalent
Mcf	thousand cubic feet
Mcf/d	thousand cubic feet per day
MMcf	million cubic feet
MMcf/d	million cubic feet per day
MMBtu	million British thermal units
GJ	gigajoule

Volume Conversions:

Barrel of oil equivalent ("boe") may be misleading, particularly if used in isolation. In accordance with National Instrument 51-101 ("NI 51-101"), a conversion ratio for conventional natural gas of 6 Mcf:1 bbl has been used, which is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In addition, utilizing a conversion on a 6 Mcf:1 bbl basis may be misleading as an indicator of value as the value ratio between conventional natural gas and heavy crude oil, based on the current prices of natural gas and crude oil, differ significantly from the energy equivalency of 6 Mcf:1 bbl. A conversion ratio of 1 bbl of heavy crude oil to 1 bbl of NGL has also been used throughout this MD&A. Refer to the "Production" section of this MD&A for details of constituent product components that comprise Perpetual's boe production.

Financial and Business Environment:

AECO	Alberta Energy Company
DD&A	Depletion, depreciation and amortization
E&E	Exploration and evaluation
GAAP	Generally accepted accounting principles
G&A	General and administrative
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
NGLs	Natural gas liquids
NYMEX	New York Mercantile Exchange,
PP&E	Property, plant and equipment
TSX	Toronto Stock Exchange
WTI	West Texas Intermediate

SUMMARY OF QUARTERLY RESULTS

(*$ thousands, except as noted*)	**Q2 2022**	Q1 2022	Q4 2021	Q3 2021
Financial				
Oil and natural gas revenue	**33,299**	24,953	21,449	14,603
Net income	**4,470**	7,162	5,669	51,141
Per share – basic	**0.07**	0.11	0.09	0.80
Per share – diluted	**0.06**	0.10	0.08	0.72
Cash flow from operating activities	**11,571**	6,272	1,624	6,655
Adjusted funds flow(1)	**10,505**	14,117	8,585	3,315
Per share – basic(2)	**0.16**	0.22	0.13	0.05
Capital expenditures(1)	**4,361**	4,837	7,558	9,947
Net payments (proceeds) on acquisitions and dispositions(1)	**-**	–	53,407	(4,060)
Common shares (*thousands*)				
Weighted average – basic	**63,642**	63,216	63,853	63,801
Weighted average – diluted	**74,721**	74,348	70,873	71,266
Operating				
Daily average production				
Natural gas *(MMcf/d)*	**29.9**	34.3	31.5	21.6
Oil *(bbl/d)*	**775**	682	714	972
NGL *(bbl/d)*	**364**	400	395	300
Total (*boe/d*)	**6,123**	6,804	6,359	4,876
Perpetual Average Realized Prices(2)				
Natural gas (*$/mcf*)	**7.92**	5.16	4.80	3.50
Oil (*$/bbl*)	**117.20**	95.55	74.03	65.22
NGL (*$/bbl*)	**104.71**	87.86	73.53	65.40

(*$ thousands, except as noted*)	Q2 2021	Q1 2021	Q4 2020	Q3 2020
Financial				
Oil and natural gas revenue	13,226	11,536	8,178	7,089
Net income (loss)	27,017	(2,706)	14,443	(7,491)
Per share – basic	0.43	(0.04)	0.24	(0.12)
Per share – diluted	0.38	(0.04)	0.24	(0.12)
Cash flow from (used in) operating activities	2,854	1,682	(1,104)	(2,538)
Adjusted funds flow(1)	2,302	2,544	1,240	(2,098)
Per share – basic(2)	0.04	0.04	0.02	(0.03)
Capital expenditures(1)	1,554	3	466	251
Net payments (proceeds) on acquisitions and dispositions(1)	46	469	–	133
Common shares (*thousands*)				
Weighted average - basic	62,574	61,603	61,266	61,200
Weighted average – diluted	70,461	61,603	61,266	61,200
Operating				
Daily average production				
Conventional natural gas (*MMcf/d*)	22.2	22.9	19.5	16.3
Heavy crude oil (*bbl/d*)	1,074	1,097	1,241	1,193
NGL (*bbl/d*)	331	294	237	273
Total (*boe/d*)	5,099	5,211	4,730	4,188
Perpetual Average Realized Prices(2)				
Natural gas (*$/mcf*)	3.03	2.92	1.95	1.63
Oil (*$/bbl*)	55.71	40.84	33.69	35.89
NGL (*$/bbl*)	55.48	56.01	38.07	28.07

(1) Non-GAAP measure. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MDA for an explanation of composition.
(2) Non-GAAP ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.