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 months ended March 31, 2023, 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 months ended March 31, 2023 as well as the audited consolidated financial statements and accompanying notes for the year ended December 31, 2022. Disclosure which is unchanged from the December 31, 2022 MD&A has not been duplicated herein. The Corporation's unaudited condensed interim 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"). The date of this MD&A is May 4, 2023.

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". See also the other advisory sections in this MD&A for additional information.

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, can be accessed at www.sedar.com or from the Corporation's website at www.perpetualenergyinc.com.

Q1 2023 OPERATIONAL AND FINANCIAL HIGHLIGHTS

- Perpetual's capital expenditures(1) in the first quarter of 2023 were $9.1 million to drill, complete, equip and tie-in a two-well pad (1.0 net) at East Edson targeting the Wilrich formation and install related pipeline infrastructure. In addition, $0.3 million was spent on asset retirement obligations ("ARO") during the first quarter to abandon wells that had reached their end of life and execute surface lease reclamation activities.

- First quarter average production was 6,655 boe/d(2), down 2% from the comparative period of 2022 (Q1 2022 – 6,804 boe/d), down 7% quarter over quarter (Q4 2022 – 7,138 boe/d) and inline with expectations for 2023 guidance of 6,400 to 6,600 boe/d. During the first quarter the one (0.5 net) Notikewin well drilled and completed in the second half of 2022 was placed on production. The two (1.0 net) new wells drilled at East Edson were brought on production early in the second quarter of 2023.

- Oil and natural gas revenue for the first quarter of 2023 was $17.9 million, 28% lower than the first quarter of 2022 due to significantly lower reference prices for all products along with the 2% decrease in production. First quarter revenue decreased 37% from the fourth quarter of 2022 as production decreased 7% and realized prices decreased 31% on lower prices for all products. Realized prices after gains on risk management contracts(1) decreased 14% relative to the fourth quarter. Revenue inclusive of a $4.6 million realized gain on risk management contracts for the first quarter was $22.5 million, 11% lower than $25.2 million of net revenue in first quarter of 2022 (inclusive of a $0.3 million realized gain on risk management contracts) due to the combined effect of lower production and lower realized commodity prices.

- Adjusted funds flow(1) in the first quarter of 2023 was $8.9 million ($0.13/share), down $5.2 million (37%) from $14.1 million ($0.22/share) in the first quarter of 2022. Adjusted funds flow on a unit-of-production basis was $14.82/boe, a 36% decrease from the $23.06/boe in the first quarter of 2022, driven by the decrease in commodity prices, lower production volumes and higher cash costs(1).

- Cash costs(1) were $10.1 million or $16.81/boe in the first quarter of 2023, up 35% (up 38% on a unit-of-production basis) from the comparative period (Q1 2022 – $7.5 million or $12.22/boe). The increase was due to higher production and operating costs and transportation costs. In addition, general and administrative ("G&A") expenses increased 71% due to higher professional fees related to legal, consulting and computer services, partially offset by higher overhead recoveries on increased capital spending.

- Net loss for the first quarter of 2023 was $0.2 million (Q1 2022 – $7.2 million net income). The net loss in the first quarter of 2023 was a result of the same factors that impacted adjusted funds flow and a $3.4 million unrealized loss on risk management contracts. Net income in the first quarter of 2022 of $7.2 million ($0.11/share) was impacted by a $7.4 million impairment reversal.

- As at March 31, 2023, net debt(1) was $55.4 million, a decrease of $0.3 million from $55.7 million at December 31, 2022, as capital expenditures(1) closely matched adjusted funds flow.

- Perpetual had available liquidity (see "Capital Management") at March 31, 2023 of $18.0 million, comprised of the $30.0 million borrowing limit of Perpetual's first lien credit facility ("Credit Facility Borrowing Limit"), less current borrowings and letters of credit of $10.8 million and $1.2 million, respectively.

(1) Non-GAAP financial measure and ratio. See "Non-GAAP and Other Financial Measures".
(2) See "First Quarter Financial and Operating Results - Production" for details of product components that comprise Perpetual's boe production.

2023 OUTLOOK

Perpetual's Board of Directors previously approved annual exploration and development capital spending(1) of $25 - $32 million for 2023. As planned, two (1.0 net) wells were drilled at East Edson in the first quarter. The remainder of the 2023 capital program is expected to be concentrated in the third quarter of 2023 and focused primarily at East Edson. The 2023 capital program is forecast to be fully funded from the Company's credit facility and adjusted funds flow(1).

During the second half of 2023, Perpetual is planning to participate at its 50% working interest in an East Edson drilling program to drill, complete, equip and tie-in an additional four to six (2.0 to 3.0 net) horizontal wells to fill the West Wolf gas plant in order to optimize production and operating costs, meet transportation commitments and maximize natural gas and NGL sales through next winter.

At Mannville in Eastern Alberta, Perpetual continues to monitor performance of the horizontal, multi-lateral wells drilled in 2022 targeting heavy oil in the Sparky formation, and is operationally prepared to drill up to one follow-up multi-lateral well in the second half of 2023. Perpetual will also continue to focus on waterflood optimization and battery consolidation projects as well as abandonment and reclamation activities at the Mannville property.

Exploration and development capital spending for Perpetual for full year 2023 continues to be forecast at $25 to $32 million. The table below summarizes anticipated capital spending and drilling activities for Perpetual for the full year of 2023.

	Q1 2023 (*$ millions*)	**# of wells (*gross/net*)**	**Q2 - Q4 2023 (*$ millions*)**	**# of wells (*gross/net*)**	**2023 (*$ millions*)**	**# of wells (*gross/net*)**
West Central	$8.9	2 / 1.0	$14 - $19	4 - 6 / 2.0 - 3.0	$23 - $28	6 - 8 / 3.0 - 4.0
Eastern Alberta[1]	$0.2	- / -	$2 - $4	0 - 1 / 0.0 - 1.0	$2 - $4	0 - 1 /0.0 - 1.0
Total[2]	**$9.1**	**2 /1.0**	**$16 - $23**	**4 - 7 / 2.0 - 4.0**	**$25 - $32**	**6 - 9 / 3.0 - 5.0**

(1) Oil-based mud load fluid is recycled for future drilling operations to the extent possible, or sold and credited back to drilling capital.
(2) Excludes abandonment and reclamation spending and acquisitions or land expenditures, if any.

Total Company average production is expected to be stable year over year at 6,400 to 6,600 boe/d (22% oil and NGL) in 2023. Cash costs[1] are expected to be similar to 2022 levels with an average between $16 and $18 per boe for the calendar year.

2023 guidance assumptions, which are unchanged are as follows:

	2023 Guidance
Exploration and development expenditures[1][2](*$ millions*)	$25 - $32
Cash costs[1] (*$/boe*)	$16 - $18
Royalties (% of revenue)[1]	16 - 18%
Average daily production (*boe/d*)	6,400 - 6,600
Production mix (%)	22% oil and NGL

(1) Non-GAAP measure or ratio. See "Non-GAAP and Other Financial Measures".
(2) Excludes abandonment and reclamation spending and acquisitions or land expenditures, if any.

Perpetual will continue addressing end of life ARO, with total abandonment and reclamation expenditures of approximately $1.5 to $2.0 million planned for 2023. This exceeds the Company's annual area-based closure mandatory spending requirement of $1.4 million as calculated by the Alberta Energy Regulator ("AER") .

(1) Non-GAAP measure or ratio. See "Non-GAAP and Other Financial Measures"

FIRST QUARTER FINANCIAL AND OPERATING RESULTS

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

Cash flow used in investing activities for the three months ended March 31, 2023 was $3.2 million (Q1 2022 - $12.4 million), comprised of $9.1 million in capital expenditures and a $5.9 million change in non-cash working capital. 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, which excludes acquisition and disposition activities.

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 March 31,	
($ thousands)	**2023**	2022
Exploration and development	**9,066**	4,830
Corporate assets	**45**	7
Capital expenditures	**9,111**	4,837

Exploration and development spending by area

	Three months ended March 31,	
($ thousands)	**2023**	2022
West Central	**8,939**	34
Eastern Alberta	**127**	4,796
Total	**9,066**	4,830

Wells drilled by area

	Three months ended March 31,	
(gross/net)	**2023**	2022
West Central	**2 / 1.0**	- / -
Eastern Alberta	**- / -**	1 / 1.0
Total	**2 / 1.0**	1 / 1.0

Perpetual's exploration and development spending in the first quarter of 2023 was $9.1 million, of which $8.9 million (Q1 2022 - nominal) was attributable to the drilling program at the East Edson 50% working interest property. Costs in the first quarter were spent to drill two (1.0 net) wells at East Edson targeting the Wilrich formation and included $2.5 million of lease and pipeline costs in support of the remaining 2023 drilling program. At Mannville in Eastern Alberta, there were nominal amounts spent in the first quarter of 2023 as compared to the first quarter of 2022 when $4.8 million was spent to execute the majority of a two-well drilling program targeting the Sparky formation.

Acquisitions and Dispositions

There were no acquisitions or dispositions during the first quarter of 2023.

Expenditures on asset retirement obligations

During the first quarter of 2023, Perpetual spent $0.3 million (Q1 2022 – $0.1 million) on abandonment and reclamation projects. There was one reclamation certificate received from the AER during the first quarter of 2023 (Q1 2022 – 1 reclamation certificate). Abandonment and reclamation spending eventually leads to the cessation of associated property tax and surface lease expenses, reducing future production and operating costs.

Production

	Three months ended March 31,	
	2023	2022
Production		
Conventional natural gas *(Mcf/d)*(1)	**30,828**	34,330
Conventional heavy crude oil *(bbl/d)*(2)	**1,022**	682
NGL *(bbl/d)*(3)	**495**	400
Total production (*boe/d*)	**6,655**	6,804

(1) Conventional natural gas production yielded a heat content of 1.17 GJ/Mcf for the three months ended March 31, 2023 (Q1 2022 – 1.17), resulting in higher realized natural gas prices on a $/Mcf basis.
(2) Primarily from Eastern Alberta.
(3) Primarily from West Central which produces liquids-rich conventional natural gas.

	Three months ended March 31,	
	2023	2022
Production by core area		
West Central	**5,122**	5,755
Eastern Alberta	**1,533**	1,049
Total production *(boe/d)*	**6,655**	6,804

First quarter production averaged 6,655 boe/d, down 2% from 6,804 boe/d in the first quarter of 2022. In the first quarter of 2023, the production mix was comprised of 77% conventional natural gas and 23% conventional heavy crude oil and NGL, as compared to 84% of conventional natural gas and 16% conventional heavy crude oil and NGL in the first quarter of 2022. During the first quarter of 2023, there were production increases from one (0.5 net) Notikewin well which was drilled and completed in the second half of 2022 but came on production in January. The two (1.0 net) wells drilled at Edson in the first quarter were brought on production early in the second quarter of 2023. The decrease in first quarter production was driven by natural declines and was inline with expectations for 2023 annual production guidance of 6,400 to 6,600 boe/d (22% oil and NGL).

First quarter conventional natural gas production averaged 30.8 MMcf/d, a decrease of 10% from 34.3 MMcf/d in the comparative period of 2022 as a result of natural declines. The 2022 drilling program contributed production additions of six (3.0 net) East Edson liquids-rich gas wells midway through the second half of 2022, and one (0.5 net) Notikewin well from this program was brought on production in the first quarter of 2023. The East Edson drilling program resumed in February with the two (1.0 net) wells drilled beginning to contribute to production early in the second quarter of 2023.

Conventional heavy crude oil production averaged 1,022 bbl/d which was 50% higher than the first quarter of 2022. The increase was primarily due to the five (5.0 net) new multi-lateral heavy oil wells drilled at Mannville and brought on production through the second and third quarters of 2022. Heavy oil represented 15.4% of total production during the first quarter of 2023, up from 10.0% in the comparative period in 2022.

First quarter NGL production was 495 bbl/d, 24% higher than the comparative period of 2022. The increase in NGL production is closely tied to higher NGL yields of 17.0 bbl per MMcf in the first quarter of 2023 (Q1 2022 – 11.7 bbl per MMcf), partially offset by the decrease in conventional natural gas production at East Edson. Perpetual's average NGL sales composition for the first quarter of 2023 consisted of 58% condensate, slightly higher than the prior year period when condensate represented 53% of total NGL production as additional capital was spent during the second half of 2022 on facility optimization to reduce emissions and increase NGL recoveries.

Oil and Natural Gas Revenue

	Three months ended March 31,	
(*$ thousands, except as noted*)	**2023**	2022
Oil and natural gas revenue		
Natural gas	**8,789**	15,929
Oil	**5,833**	5,861
NGL	**3,287**	3,163
Oil and natural gas revenue	**17,909**	24,953

	Three months ended March 31, 2023	2022
Average Benchmark Prices		
AECO 5A Daily Index *($/GJ)*	**3.05**	4.49
AECO 5A Daily Index *($/Mcf)*[1]	**3.22**	4.74
West Texas Intermediate ("WTI") *(US$/bbl)*	**76.13**	94.29
Exchange rate *(US$/CAD$)*	**1.35**	1.27
West Texas Intermediate ("WTI") *(CAD$/bbl)*	**102.78**	119.75
Western Canadian Select ("WCS") *(CAD$/bbl)*	**69.30**	101.01
WCS differential to WTI *(US$/bbl)*	**(24.88)**	(14.53)
Perpetual Average Realized Prices[2]		
Natural gas *($/Mcf)*	**3.17**	5.16
Oil *($/bbl)*	**63.39**	95.55
NGL *($/bbl)*	**73.81**	87.86
Average realized price *($/boe)*	**29.90**	40.75

(1) Converted from $/GJ using a standard energy conversion rate of 1.06 GJ:1 Mcf.
(2) Non-GAAP ratio. See "Non-GAAP and Other Financial Measures".

Perpetual's oil and natural gas revenue for the three months ended March 31, 2023 of $17.9 million was a 28% decrease from $25.0 million in the comparative period due to the 2% decrease in average production and lower reference prices for all products.

Natural gas revenue of $8.8 million in the first quarter of 2023 comprised 49% (Q1 2022 – 64%) of total revenue while natural gas production was 77% (Q1 2022 – 84%) of total production. Natural gas revenue was 45% lower than the comparative period (Q4 2021 – $15.9 million), reflecting the combined impact of lower AECO Daily Index prices and the 10% decrease in conventional natural gas production volumes driven by timing of the drilling activity at East Edson.

Oil revenue of $5.8 million represented 33% (Q1 2022 –23%) of total revenue while conventional heavy crude oil production was 15% (Q1 2022 – 10%) of total production. Oil revenue was relatively unchanged from the comparative period, as a result of the 50% increase in heavy crude oil production being offset by the decrease in oil prices. Compared to the first quarter of 2022, the WCS average price of $69.30/bbl (Q1 2022 - $101.01/bbl) decreased significantly with the decrease in WTI and the widening WCS differential on WTI oil prices, partially offset by the increase in the US$/CAD$ exchange rate. Perpetual's realized oil prices further reflects a price offset for quality which averaged $5.91/bbl during the quarter (Q1 2022 - $5.46/bbl).

NGL revenue for the first quarter of 2023 of $3.3 million represented 18% (Q1 2022 – 13%) of total revenue while NGL production was 7% (Q1 2022 – 6%) of total production. NGL revenue increased 4% from the comparative period, reflecting the 24% increase in NGL production which was driven by the increased NGL yields at East Edson, partially offset by the decrease in NGL component prices, in step with the drop in WTI oil prices.

Risk Management Contracts

The Company uses financial derivatives, physical delivery contracts and market diversification strategies to manage commodity price risk. Derivative contracts are put in place to manage fluctuations in commodity prices, protecting Perpetual's cash flows from potential volatility. The Company's market diversification strategies balance pricing exposure over multiple markets and are put in place to mitigate market and delivery point risks and dislocations. As a result, Perpetual's realized prices deviate from the index 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 physical and financial crude oil and natural gas forward sales, collars, basis differentials and forward foreign exchange sales.

($ thousands, except as noted)	Three months ended March 31, 2023	2022
Unrealized gain (loss) on risk management contracts		
Unrealized gain on foreign exchange contracts	**59**	—
Unrealized loss on natural gas contracts	**(3,006)**	(7,004)
Unrealized loss on oil contracts	**(454)**	(3,990)
Unrealized loss on risk management contracts	**(3,401)**	(10,994)
Realized gain (loss) on risk management contracts		
Realized gain on foreign exchange contracts	**31**	—
Realized gain on natural gas contracts	**4,289**	1,267
Realized gain (loss) on oil contracts	**303**	(987)
Realized gain on risk management contracts	**4,623**	280
Change in fair value of risk management contracts	**1,222**	(10,714)

The following table calculates average realized prices after risk management contracts, which is not a standardized measure:

	Three months ended March 31, 2023	2022
Realized gain (loss) on risk management contracts [(1)]		
Realized gain (loss) on natural gas contracts *($/Mcf)*	**1.55**	0.41
Realized gain (loss) on oil contracts *($/bbl)*	**3.63**	(16.09)
Realized gain (loss) on risk management contracts (*$/boe*)	**7.72**	0.46
Average realized prices after risk management contracts[(1)]		
Natural gas *($/Mcf)*	**4.72**	5.57
Oil *($/bbl)*	**67.02**	79.46
NGL (*$/bbl*)	**73.81**	87.86
Average realized price *($/boe)*	**37.62**	41.21

(1) See "Non-GAAP and Other Financial Measures".

The realized gain on risk management contracts totaled $4.6 million for the first quarter of 2023, compared to a gain of $0.3 million for the comparative period of 2022. The gain on risk management contracts was attributable to reference price fluctuations relative to pricing on commodity contracts driven by changes in AECO, WTI and WCS differential prices as well as fluctuations in foreign exchange rates.

The unrealized loss on risk management contracts totaled $3.4 million in the first quarter of 2023 (Q1 2022 – unrealized loss of $11.0 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 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

(*$ thousands, except as noted*)	Three months ended March 31, 2023	2022
Crown royalties		
Natural gas	**865**	539
Oil	**156**	268
NGL	**607**	204
Total Crown royalties	**1,628**	1,011
Freehold and overriding royalties		
Natural gas	**968**	1,510
Oil	**591**	408
NGL	**389**	313
Total freehold and overriding royalties	**1,948**	2,231
Total royalties	**3,576**	3,242
$/boe	**5.97**	5.30
Royalties as a percentage of revenue[(1)]		
Crown	**9.1**	4.1
Freehold and overriding	**10.9**	8.9
Total *(% of oil and natural gas revenue)*	**20.0**	13.0
Natural gas royalties *(% of natural gas revenue)*	**20.9**	12.9
Oil royalties *(% of oil revenue)*	**12.8**	11.5
NGL royalties *(% of NGL revenue)*	**30.3**	16.4

(1) See "Non-GAAP and Other Financial Measures".

Total royalties for the first quarter of 2023 were $3.6 million, 10% higher than the first quarter of 2022. On a unit-of-production basis, royalties were up 13% to $5.97/boe (Q1 2022 – $5.30/boe). Perpetual's royalties consists of Crown royalties payable to the Alberta provincial government and other freehold and gross overriding ("GORR") royalties. The mix between Crown and freehold production as a percentage of total production can change the composition of royalties from one period to the next. Under the Alberta Modernized Royalty Framework (“MRF”), the Company paid a flat Crown royalty of 5% on more recent wells in their early production period for most of 2022. As Perpetual's wells began to pay higher royalty rates during the second half of 2022, the average royalty rates and payments to the Crown continued to increase into the first quarter of 2023, offset partially by lower reference prices for all commodities. Freehold and overriding royalties decreased to $1.9 million from $2.2 million in the first quarter of 2022, due to the impact of lower AECO Daily Index, heavy oil and NGL prices.

Production and operating expenses

($ thousands, except as noted)	Three months ended March 31, 2023	2022
Production and operating expenses	**4,215**	3,659
$/boe	**7.04**	5.98

Total production and operating expenses were $4.2 million, 15% higher than the first quarter of 2022 (Q1 2022 - $3.7 million). The increase was related to higher heavy crude oil production as a percentage of total volumes as it has higher operating costs than the Company's conventional natural gas and NGL production at East Edson. Also contributing to higher costs in the first quarter of 2023 was higher purchased energy costs at the non-operated East Edson gas processing facility and significant overall cost inflation.

On a unit-of-production basis, costs increased by 18% to $7.04/boe in the first quarter of 2023 (Q1 2022 – $5.98/boe) attributable to both higher costs, higher heavy oil production as a percentage of total production and lower total production volumes.

Transportation costs

	Three months ended March 31,	
($ thousands, except as noted)	**2023**	2022
Transportation costs	**1,092**	692
$/boe	**1.82**	1.13

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 first quarter of 2023 were $1.1 million, a 58% increase from the first quarter of 2022, as a result of higher oil and NGL production volumes which have higher transportation costs. In addition, there were increased trucking costs as a result of higher fuel prices and surcharges.

On a unit-of-production basis, transportation costs increased by 61% to $1.82/boe in the first quarter of 2023 (Q1 2022 – $1.13/boe) attributable to both higher transportation costs and lower total production volumes.

Operating netbacks

The following table highlights Perpetual's operating netbacks for the three months ended March 31, 2023 and 2022:

		Three months ended March 31,		
($/boe) ($ thousands)		**2023**		2022
Production (*boe/d*)		**6,655**		6,804
Oil and natural gas revenue	**29.90**	**17,909**	40.75	24,953
Royalties	**(5.97)**	**(3,576)**	(5.30)	(3,242)
Production and operating expenses	**(7.04)**	**(4,215)**	(5.98)	(3,659)
Transportation costs	**(1.82)**	**(1,092)**	(1.13)	(692)
Operating netback(1)	**15.07**	**9,026**	28.34	17,360
Realized gain (loss) on risk management contracts	**7.72**	**4,623**	0.46	280
Total operating netback, including risk management contracts	**22.79**	**13,649**	28.80	17,640

(1) Non-GAAP measure. See "Non-GAAP and Other Financial Measures".

For the first quarter of 2023, Perpetual's operating netback, including risk management contracts, was $13.6 million ($22.79/boe), down 23% from $17.6 million ($28.80/boe) in the first quarter of 2022. The decrease was due to lower oil and natural gas revenue driven by lower pricing for all commodities being applied to lower average production volumes, higher royalties and higher costs in all areas.

General and administrative ("G&A") expenses

	Three months ended March 31,	
($ thousands, except as noted)	**2023**	2022
G&A expense before overhead recoveries	**5,255**	2,965
MSA recoveries(1)	**(779)**	(308)
Overhead recoveries	**(922)**	(578)
Total G&A expense	**3,554**	2,079
$/boe	**5.93**	3.39

(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 split on a relative production basis.

For the three months ended March 31, 2023, G&A expenses of $3.6 million increased 71% over the comparative period. Prior to overhead recoveries, G&A increased due to higher employee salaries and benefits, legal costs, professional fees and computer services. Overhead recoveries were higher on increased capital spending.

For the three months ended March 31, 2023, the costs billed under the MSA to Rubellite were $0.8 million (Q1 2022 - $0.3 million). MSA recoveries in the first quarter of 2023 increased over the comparative period as a result of higher G&A expenses and Rubellite's capital activity and increased production.

Share-based payments

	Three months ended March 31,	
($ thousands, except as noted)	**2023**	2022
Share-based payments (non-cash)	**679**	240
Share-based payments (cash)	**—**	374
Total share-based payments	**679**	614

Share-based payments expense for the three months ended March 31, 2023 increased to $0.7 million from $0.6 million in the first quarter of 2022. The increase is due to a higher fair value of grants issued through 2022, which is driven by the increase in the Company's share price, partially offset by a reduction in the cash share-based payments as the related equity plan ended during the fourth quarter of 2022.

During the first quarter of 2023, 0.1 million deferred options and deferred shares, 0.9 million performance share rights and 0.1 million restricted rights were granted to Officers, Directors, and employees of the Company.

Depletion and depreciation

	Three months ended March 31,	
($ thousands, except as noted)	**2023**	2022
Depletion and depreciation	**5,366**	4,018
$/boe	**8.96**	6.56

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 March 31, 2023, depletion was calculated on a $177.9 million depletable balance and $98.9 million in future development costs (December 31, 2022 – $176.1 million depletable balance and $104.6 million in future development costs). The depletable base excluded an estimated $3.8 million (December 31, 2022 – $3.8 million) of salvage value.

Depletion and depreciation expense for the first quarter of 2023 was $5.4 million or $8.96/boe (Q1 2022 – $4.0 million or $6.56/boe). The increase reflects higher depletion rates per barrel of oil equivalent, partially offset by lower production. On a unit-of-production basis, depletion and depreciation expense increased by 37% compared to the first quarter of 2022 due to an increase in the depletion rate driven by higher production and lower reserves in the Eastern Alberta along with higher depletable base from additions and impairment reversals in 2022. Depletion and depreciation expense will fluctuate from one period to the next depending on the amount of capital spent, the amount of reserves added and volumes produced.

Impairment

There were no indicators of impairment for the Company’s cash generating units ("CGU"s) as of March 31, 2023 and therefore an impairment test was not performed.

During the first quarter of 2022, the Company determined that indicators 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 impairment charges that were eligible for reversal had all been reversed as at March 31, 2022 for property, plant and equipment.

E&E assets are tested for impairment both at the time of any triggering facts and circumstances as well as upon their reclassification to oil and gas properties in PP&E. There were no transfers during the first quarter of 2023 and there were no indicators of impairment as at March 31, 2023.

During the first quarter of 2022, Perpetual moved the Mannville undeveloped land value 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 impairment test required at transfer, there were no impairments recorded to E&E in the first quarter of 2022. There were no indicators of impairment or impairment reversal as at March 31, 2022.

Finance expense

($ thousands)	Three months ended March 31, 2023	2022
Cash finance expense		
Interest on revolving bank debt	**359**	162
Interest on term loan	**54**	54
Interest on Senior Notes	**772**	804
Interest on lease liabilities	**23**	32
Total cash finance expense	**1,208**	1,052
Non-cash finance expense		
Amortization of debt issue costs	**358**	515
Accretion on decommissioning obligations	**222**	136
Change in fair value of other liability	**24**	1,501
Change in fair value of royalty obligations(1)	**—**	1,595
Total non-cash finance expense	**604**	3,747
Finance expense recognized in net income (loss)	**1,812**	4,799

(1) The East Edson retained royalty obligation terminated on December 31, 2022.

Total cash finance expense was $1.2 million in the first quarter of 2023, 15% higher than the first quarter of 2022 as a result of increased interest rates and higher outstanding bank debt (Q1 2022 – $1.1 million).

Total non-cash finance expense for the first quarter of 2023 was $0.6 million, lower than the comparative period (Q1 2022 – $3.7 million income). The decrease was driven by the termination of the East Edson retained royalty obligation which was $1.6 million in the comparative period and the modest change in 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.

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, revolving bank debt, 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.

Capital management

($ thousands, except as noted)	**March 31, 2023**	December 31, 2022
Revolving bank debt	**10,846**	14,909
Term loan, principal amount	**2,671**	2,671
Senior notes, principal amount	**35,647**	35,647
Other liability, undiscounted amount	**3,288**	3,342
Adjusted working capital deficiency (surplus)(1)	**2,977**	(894)
Net debt(1)	**55,429**	55,675
Shares outstanding at end of period (thousands)(3)	**66,032**	65,944
Market price at end of period ($/share)	**0.64**	0.71
Market value of shares(1)	**42,260**	46,820
Enterprise value(1)	**97,689**	102,495
Net debt as a percentage of enterprise value(2)	**57%**	54%
Trailing twelve-months adjusted funds flow(1)	**43,230**	48,471
Net debt to adjusted funds flow(2)	**1.3**	1.2

(1) Non-GAAP measure. See "Non-GAAP and Other Financial Measures".
(2) Non-GAAP ratio. See"Non-GAAP and Other Financial Measures".
(3) Shares outstanding are presented net of shares held in trust.

At March 31, 2023, Perpetual had total net debt of $55.4 million, down $0.3 million from December 31, 2022 as capital expenditures only slightly exceeded adjusted funds flow by $0.2 million during the first quarter of 2023.

Perpetual had available liquidity at March 31, 2023 of $18.0 million, comprised of the $30.0 million Credit Facility Borrowing Limit, less current borrowings and letters of credit of $10.8 million and $1.2 million, respectively.

Revolving bank debt

The Company has a first lien credit facility of $30.0 million (December 31, 2022 - $30.0 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 May 31, 2023.

As at March 31, 2023, $10.8 million was drawn (December 31, 2022 – $14.9 million) and $1.2 million of letters of credit had been issued (December 31, 2022 – $1.2 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 March 31, 2023 was 8.2%. For the period ended March 31, 2023 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 March 31, 2023, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Term loan

($ thousands,			**March 31, 2023**		December 31, 2022	
except as noted)	**Maturity date**	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Term loan	December 31, 2024	8.1%	**2,671**	**2,541**	2,671	2,524

The Term Loan has a cross-default provision with the Credit Facility and contains substantially similar provisions and covenants as the Credit Facility. 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 March 31, 2023, the Term Loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Senior notes

($ thousands,			**March 31, 2023**		December 31, 2022	
except as noted)	**Maturity date**	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Senior notes	January 23, 2025	8.75%	**35,647**	**34,868**	35,647	34,527

The secured third lien Senior Notes have been issued under a trust indenture 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 Senior Notes (a "PIK Interest Payment").

The Company satisfied the January 23, 2023 semi-annual interest payment of $1.6 million by making a cash payment (January 23, 2022 - $1.6 million cash payment; July 23, 2022 - $1.6 million cash payment).

At March 31, 2023, the Senior Notes are recorded at the present value of future cash flows, net of $0.8 million in issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 13.9%.

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 March 31, 2023, 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 Senior Notes outstanding. An entity that is associated with the Company's CEO holds an additional $10.3 million of the Senior Notes outstanding.

Equity

At March 31, 2023, there were 66.0 million common shares outstanding, net of 1.3 million shares held in trust for employee compensation program. During the first quarter of 2023, a nil amount of shares were purchased by the independent trustee to be held in trust (Q1 2022 – 0.4 million). Basic and diluted weighted average shares outstanding for the three months ended March 31, 2023 were 66.0 million and 66.0 million, respectively (Q1 2022 - 63.2 million basic and 74.3 million diluted).

At May 4, 2023, there were 66.0 million common shares outstanding which is net of 1.3 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)	**May 4, 2023**
Share options	**2.3**
Performance share rights	**5.1**
Compensation awards	**7.2**
Total[1]	**14.6**

(1) 7.2 million compensation awards, 2.3 million share options, and 5.1 million performance share rights have an exercise price below the March 31, 2023 closing price of the Company's common shares of $0.64 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 Corporation's revenue. Diversification of markets is a further risk management strategy employed by the Company.

As at May 4, 2023, the Company had entered into the following swap commodity contracts:

Commodity	Volumes sold	Term	Reference/ Index	Contract Traded Bought/sold	Market Price
Natural gas	5,000 GJ/d	Nov 1, 2023 - Mar 31, 2024	AECO 5A (CAD$/GJ)	Swap - sold	$3.42
Natural gas	5,000 GJ/d	Apr 1, 2024 - Oct 31, 2024	AECO 5A (CAD$/GJ)	Swap - sold	$3.00
Crude oil	300 bbl/d	Apr 1 – Dec 31, 2023	WTI (US$/bbl)	Swap – sold	$81.32
Crude oil	200 bbl/d	May 1 - Dec 31, 2023	WTI (US$/bbl)	Swap – sold	$78.95

As at May 4, 2023, the Company had entered into the following swap WTI-WCS basis differential which settle in CAD$ or US$:

Commodity	Volumes sold	Term	Reference/ Index	Contract Traded Bought/sold	Market Price
Crude oil	450 bbl/d	Apr 1 - Dec 31, 2023	WCS (US$/bbl)	Differential	($14.73)
Crude oil	100 bbl/d	Jul 1 - Dec 31, 2023	WCS (US$/bbl)	Differential	($16.20)
Crude oil	100 bbl/d	Jan 1 - Dec 31, 2024	WCS (US$/bbl)	Differential	($14.65)
Crude oil	250 bbl/d	Jan 1 - Dec 31, 2024	WCS (US$/bbl)	Differential	($17.50)
Crude oil	100 bbl/d	Apr 1 – Dec 31, 2023	WCS (CAD$/bbl)	Differential	($17.30)

As at May 4, 2023, the Company had entered the following US$/CAD$ foreign exchange swaps which settle in CAD$:

Contract	Notional amount	Term	Price (US$/CAD$)
Average rate forward (US$/CAD$)	$250,000 US$/month	Apr 1 – Dec 31, 2023	1.3700
Average rate forward (US$/CAD$)	$250,000 US$/month	Apr 1 – Dec 31, 2023	1.3600
Average rate forward (US$/CAD$)	$200,000 US$/month	Apr 1 – Dec 31, 2023	1.3029
Average rate forward (US$/CAD$)	$500,000 US$/month	Apr 1 – Dec 31, 2023	1.3710

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	April 1, 2023 to October 31, 2023 Daily sales volume (MMBtu/d)	November 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**

SEQUOIA LITIGATION

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 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 have 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"). 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.

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 Trustee filed its Amended Statement of Claim with the Court of King's Bench of Alberta on October 14, 2022. Perpetual filed its Statement of Defence to the Amended Statement of Claim on December 12, 2022. The Trustee filed its Reply to Defence on March 3, 2023. On March 30, 2023, Perpetual filed an Application to Dismiss or Stay the Trustee's Amended Application for Summary Judgment. On April 6, 2023, the Court of King's Bench of Alberta granted Perpetual's application and stayed the Trustee's proposed amended application for summary judgment.

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.

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 March 31,	
($ thousands)	**2023**	2022
Net cash flows used in investing activities	**3,177**	12,350
Purchase of marketable securities	**—**	(23)
Change in non-cash working capital	**5,934**	(7,490)
Capital expenditures	**9,111**	4,837

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. 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 consolidated statements of cash flows, to adjusted funds flow:

	Three months ended March 31,	
(*$ thousands, except per share and per boe amounts*)	**2023**	2022
Net cash flows from operating activities	**7,436**	6,272
Change in non-cash working capital	**1,189**	8,510
Decommissioning obligations settled (cash)	**251**	(665)
Adjusted funds flow	**8,876**	14,117
Adjusted funds flow per share	**0.13**	0.22
Adjusted funds flow per boe	**14.82**	23.06

Free funds flow: Free funds flow is an important measure that informs efficiency of capital spent and liquidity. Free funds flow is calculated as adjusted funds flow generated during the period less capital expenditures. Adjusted funds flow and capital expenditures are non-GAAP financial measures which have been reconciled to its most directly comparable GAAP measure previously in this document. By removing the impact of current period capital expenditures from adjusted funds flow, Perpetual monitors its free funds flow to inform decisions such as capital allocation and debt repayment.

The following table shows the calculation of the removal of capital expenditures from adjusted funds flows:

($ thousands, except per share and per boe amounts)	Three months ended March 31, 2023	2022
Adjusted funds flow	**8,876**	14,117
Capital Expenditures	**(9,111)**	(4,837)
Free funds flow	**(235)**	9,280

Cash costs: Cash costs are controllable costs comprised of 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.

($ thousands, except per boe amounts)	Three months ended March 31, 2023	2022
Production and operating	**4,215**	3,659
Transportation	**1,092**	692
General and administrative	**3,554**	2,079
Cash finance expense	**1,208**	1,052
Cash costs	**10,069**	7,483
Cash costs per boe	**16.81**	12.22

Operating netback: Operating netback is calculated 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 and presented before and after realized gains or losses from risk management contracts. Perpetual considers that 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. Refer to reconciliations earlier in the MD&A under the "Operating netbacks" section.

Net Debt: Perpetual uses net debt as an alternative measure of outstanding debt. Management considers net debt as an important measure in assessing the liquidity of the Company. Net debt is used by management to assess the Company's overall debt position and borrowing capacity. Net debt is not a standardized measure and therefore may not be comparable to similar measures presented by other entities.

The following table details the composition of net debt:

($ thousands)	As of March 31, 2023	As of December 31, 2022
Accounts and accrued receivable	**12,837**	15,804
Prepaid expenses and deposits	**1,350**	1,564
Marketable securities	**2,723**	1,814
Inventory	**654**	674
Accounts payable and accrued liabilities	**(20,541)**	(18,962)
Adjusted working capital surplus (deficiency)(1)	**(2,977)**	894
Bank indebtedness	**(10,846)**	(14,909)
Term loan (principal)	**(2,671)**	(2,671)
Other liability (undiscounted amount)	**(3,288)**	(3,342)
Senior notes (principal)	**(35,647)**	(35,647)
Net debt	**(55,429)**	(55,675)

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

Available Liquidity: Available Liquidity is defined as Perpetual's credit facility borrowing limit, less current 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.

Average realized prices after risk management contracts: are calculated as the average realized price by product type less the realized gain or loss on risk management contracts by production type.

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 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.

"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 gain (loss) on natural gas contracts per mcf" is comprised of the realized gain or loss on natural gas contracts, as determined in accordance with IFRS, divided by the Company's total natural gas sales production.

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

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

"Depletion and depreciation expense per boe" is comprised of depletion and depreciation 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.

“Adjusted funds flow per share” is comprised of adjusted funds flow divided by the Company’s shares outstanding.

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.

DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING

There were no changes in the Company's disclosure controls or procedures or internal controls over financial reporting (ICFR) during the period beginning on January 1, 2023 and ending on March 31, 2023 that have materially affected, or are reasonably likely to materially affect, the Company's ICFR. It should be noted that a control system, including the Company's disclosure and internal controls and procedures, no matter how well conceived can provide only reasonable, but not absolute assurance that the objectives of the control system will be met and it should not be expected that the disclosure and internal controls and procedures will prevent all errors or fraud.

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 “2023 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 production and exploration and development capital expenditures for 2023 and the expectation that such expenditures will be funded from the Credit Facility and adjusted funds flow; drilling activities for 2023 including the number of gross and net wells to be drilled; 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 the war in 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, 2022 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
boe	barrels of oil equivalent
boe/d	barrels of oil equivalent per day
Mboe	thousands of barrels of oil equivalent
Mcf	thousand cubic feet
Mcf/d	thousand cubic feet per day
MMcf/d	million cubic feet per day
GJ	gigajoule

Volume Conversions:

Barrel of oil equivalent ("boe") may be misleading, particularly if used in isolation. In accordance with National Instrument 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. " See "First Quarter Financial and Operating Results" section in this MD&A for details of constituent product components that comprise Perpetual's boe production.

Financial and Business Environment:

AECO	Alberta Energy Company
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
PP&E	Property, plant and equipment
WTI	West Texas Intermediate
WCS	Western Canadian Select

SUMMARY OF QUARTERLY RESULTS

($ thousands, except as noted)	**Q1 2023**	Q4 2022	Q3 2022	Q2 2022
Financial				
Oil and natural gas revenue	**17,909**	28,579	22,856	33,299
Net income (loss)	**(265)**	9,264	8,234	4,470
Per share – basic	**—**	0.14	0.13	0.07
Per share – diluted	**—**	0.12	0.11	0.06
Cash flow from operating activities	**7,436**	8,749	8,749	11,571
Adjusted funds flow[1]	**8,876**	14,207	9,642	10,505
Per share – basic[2]	**0.13**	0.22	0.15	0.16
Capital expenditures[1]	**9,111**	115	22,596	4,361
Common shares (thousands)				
Weighted average – basic	**65,978**	65,883	65,016	63,641
Weighted average – diluted	**65,978**	75,090	74,607	74,721
Operating				
Daily average production				
Natural gas (MMcf/d)	**30.8**	33.0	26.9	29.9
Oil (bbl/d)	**1,022**	1,126	1,002	775
NGL (bbl/d)	**495**	508	390	364
Total (boe/d)	**6,655**	7,138	5,882	6,123
Perpetual Average Realized Prices[2]				
Natural gas ($/Mcf)	**3.17**	5.78	4.74	7.92
Oil ($/bbl)	**63.39**	71.14	87.24	117.20
NGL ($/bbl)	**73.81**	78.36	85.48	104.71

($ thousands, except as noted)	Q1 2022	Q4 2021	Q3 2021	Q2 2021
Financial				
Oil and natural gas revenue	24,953	21,449	14,603	13,226
Net income	7,162	5,669	51,151	27,017
Per share – basic	0.11	0.09	0.80	0.43
Per share – diluted	0.10	0.08	0.72	0.38
Cash flow from operating activities	6,272	1,624	6,655	2,854
Adjusted funds flow[1]	14,117	8,585	3,315	2,302
Per share – basic[2]	0.22	0.13	0.05	0.04
Capital expenditures[1]	4,837	7,558	9,947	1,554
Net payments (proceeds) on acquisitions and dispositions[1]	—	53,407	(4,060)	46
Common shares (thousands)				
Weighted average – basic	63,216	63,853	63,801	62,574
Weighted average – diluted	74,348	70,873	71,266	70,461
Operating				
Daily average production				
Natural gas (MMcf/d)	34.3	31.5	21.6	22.2
Oil (bbl/d)	682	714	972	1,074
NGL (bbl/d)	400	395	300	331
Total (boe/d)	6,804	6,359	4,876	5,099
Perpetual Average Realized Prices[2]				
Natural gas ($/Mcf)	5.16	4.80	2.59	2.25
Oil ($/bbl)	95.55	73.93	65.19	55.75
NGL ($/bbl)	87.86	73.44	65.37	55.48

(1) Non-GAAP measure. See "Non-GAAP and Other Financial Measures"
(2) Non-GAAP ratio. See "Non-GAAP and Other Financial Measures"