

MANAGEMENT'S DISCUSSION AND ANALYSIS

This management's discussion and analysis ("MD&A") for the year ended December 31, 2023 should be read in conjunction with Perpetual Energy Inc.'s ("Perpetual", the "Company" or the "Corporation") audited consolidated financial statements and accompanying notes for the years ended December 31, 2023 and 2022. 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 IFRS Accounting Standards. The date of this MD&A is March 25, 2024.

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.

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, can be accessed at SEDAR+ at www.sedarplus.ca or from the Corporation's website at www.perpetualenergyinc.com.

SUBSEQUENT EVENTS

Resolution of Sequoia Litigation

On August 3, 2018, Perpetual 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 King's Bench (the "Court"), against Perpetual (the "Sequoia Litigation"). The claim related to a transaction when, on October 1, 2016, Perpetual closed the disposition of shallow conventional natural gas assets in Eastern Alberta (the "Sequoia Disposition").

After several years of litigation, Perpetual has entered into an agreement (the "Settlement Agreement") with the Trustee to resolve the Sequoia Litigation without any party admitting liability, wrongdoing or violation of law, regulations, public policy or fiduciary duties. A Special Committee of Perpetual's Board of Directors has determined that bringing closure to this long-standing contested litigation is in the best interests of all of Perpetual's stakeholders.

Pursuant to an agreement, and subject to Court approval, the Company will make an aggregate payment of \$30.0 million (the "Settlement Principal") spread out over several years, consisting of an initial payment of \$10.0 million and annual installments of \$3.75 million until the total amount of the Settlement Principal is paid. Subject to the payment of all amounts under the Settlement Agreement, interest prior to March 27, 2026 will accrue and be forgiven. As of March 28, 2026, interest will accrue and be payable on the outstanding Settlement Principal at an interest rate equal to the applicable Bank of Canada prime rate on the date of payment. The Company is able to pre-pay all, or any portion, of the outstanding balance of the Settlement Principal at any time without bonus or penalty.

The certainty brought by the execution of the Settlement Agreement, and subsequent Court approval, terminates what has been, and would otherwise continue to be, a lengthy litigation process and allows Perpetual to advance its business plans with significantly improved access to capital, affording the financial flexibility to pursue value enhancing opportunities. The Company and the Board of Directors are pleased to put this matter behind us and move forward to unlock the inherent value potential of its asset base.

Term Loan Repayment

To simplify its capital structure, Perpetual has fully repaid and cancelled its second lien term loan provided by Alberta Investment Management Corporation due December 31, 2024 in the principal amount of \$2.7 million, plus all accrued and unpaid interest.

2025 Senior Notes Redemption

The Company has also provided notice for the early redemption of all of the \$33.2 million aggregate principal amount of 8.75% senior secured third lien notes maturing January 23, 2025 (the "2025 Senior Notes") on April 25, 2024 (the "Redemption Date").

The redemption amount will be CDN \$1,000 for each \$1,000 principal amount of 2025 Senior Notes including interest paid in kind ("PIK") and all accrued and unpaid interest (the "Redemption Price"). In connection with this early redemption, a holder may make elect to, in lieu of receiving the Redemption Price on the Redemption Date, continue to hold their 2025 Senior Notes by agreeing to certain amendments to be made to such notes. \$22.29 per \$1,000 principal amount of 2025 Senior Notes, representing all accrued and unpaid interest, will be paid to 2025 Senior Notes holders on the Redemption Date who do not make such an election to continue as a noteholder. All interest on the principal amount of 2025 Senior Notes that are redeemed shall cease to accrue and be payable from and after the Redemption Date.

Holders of 2025 Senior Notes who make an irrevocable election to amend the terms of their 2025 Senior Notes are required to do so no later than two business days prior to the Redemption Date. These amendments provide the Company with continuation of committed capital and transactional flexibility including the right to convert all or a portion of the 2025 Senior Notes into common shares of the Company at its discretion at any time prior to the maturity date as well as to provide for the second lien security which is required in connection with the resolution of the Sequoia litigation. Entities controlled or directed by the President and Chief Executive Officer, holding \$26.2 million of 2025 Senior Notes, have provided written confirmation to Perpetual of their election to agree to the amended terms and to be a continuing holder of 2025 Senior Notes as amended. These entities will be treated identically to, and have the same rights and benefits as, the other holders of 2025 Senior Notes on a per security basis.

The Company's existing first lien credit facility (the "Credit Facility") has been amended to provide for these matters which includes the first lien lenders' consent to resolve the Sequoia litigation, conditional on completion of the Senior Notes redemption and Court approval. The borrowing base under the Credit Facility remains unchanged at \$30.0 million, with the next borrowing base redetermination date scheduled for on or before May 31, 2024. The Credit Facility and the second lien security provided in connection with the resolution of the Sequoia Litigation contains certain restrictions on any potential refinancing and cash repayment of the 2025 Senior Notes.

The 2025 Senior Notes have not been and will not be registered under the United States Securities Act of 1933, as amended, or the securities laws of any state of the United States, and may not be offered or sold in the United States of America or any of its territories or possessions or to U.S. Persons (as defined in Regulation S under the United States Securities Act of 1933, as amended). The redemption of 2025 Senior

Notes does not constitute an offer to sell or a solicitation of an offer to buy any of these securities within the United States of America or any of its territories or possessions.

FOURTH QUARTER AND ANNUAL 2023 OPERATIONAL AND FINANCIAL HIGHLIGHTS

- On November 22, 2023, the Company closed the previously announced disposition of certain assets at Mannville in Eastern Alberta ("the Mannville Disposition") for \$35.8 million before customary purchase price adjustments of \$2.1 million resulting in total net cash consideration of \$33.7 million.
- Perpetual's exploration and development capital expenditures⁽¹⁾ in the fourth quarter of 2023 were \$5.3 million to drill, complete, equip and tie-in two (1.0 net) wells at East Edson. In addition, \$0.9 million was spent on land purchases at East Edson and \$3.2 million in corporate expenditures related to leasehold improvements. Full year 2023 exploration and development capital spending totaled \$21.5 million, down from \$31.8 million in 2022. Approximately \$0.1 million was spent on asset retirement obligations ("ARO") to abandon wells that had reached their end of life and execute surface lease reclamation activities, bringing full year 2023 ARO spending to \$1.6 million.
- Fourth quarter average production was 5,749 boe/d⁽²⁾, down 19% from the fourth quarter of 2022 (Q4 2022 – 7,138 boe/d) and down 12% quarter-over-quarter (Q3 2023 – 6,570 boe/d) as a result of the Mannville Disposition. During the fourth quarter of 2023, there were production increases from the two (1.0 net) additional wells drilled, completed and brought on production during the fourth quarter at East Edson. Achieving the high end of its 2023 production guidance, as updated for the Mannville Disposition, of 6,200 to 6,400 boe/d, production for full year 2023 was essentially flat year-over-year, averaging 6,375 boe/d in 2023 as compared to 6,486 boe/d in 2022.
- Operating netbacks⁽¹⁾ in the fourth quarter were \$7.4 million (\$14.04/boe) (Q3 2023 - \$9.2 million or \$15.20/boe), reflecting the decrease in WCS benchmark prices and lower production volumes, partially offset by lower royalties, production and operating costs and transportation costs. After the realized gain on risk management contracts of \$8.4 million, or \$15.79/boe (Q3 2023 – \$4.3 million or \$7.10/boe), operating netbacks after risk management contracts increased 17% to \$15.8 million or \$29.83/boe (Q3 2023 – \$13.5 million or \$22.30/boe). Fourth quarter operating netbacks after realized gains on risk management contracts were 7% higher on a per boe basis than the fourth quarter of 2022 (Q4 2022 – \$18.3 million or \$27.97/boe). Operating netbacks for full year 2023 decreased to \$33.5 million, from \$68.9 million in the prior year. After realized gains on risk management contracts, operating netbacks after risk management contracts for 2023 were \$51.1 million (\$21.94/boe), down from \$64.3 million (\$27.15/boe) for 2022.
- Adjusted funds flow⁽¹⁾ in the fourth quarter of 2023 was \$12.7 million (\$0.19/share), up \$1.0 million (11%) from \$9.1 million (\$0.14/share) in the third quarter of 2023 (Q4 2022 - \$14.2 million and \$0.22/share). Adjusted funds flow on a unit-of-production basis was \$24.07/boe, a 57% increase from the \$15.32/boe in the third quarter of 2023, driven by higher realized gains on risk management contracts as well as lower G&A and cash finance expenses (Q4 2022 - \$21.63/boe). Adjusted funds flow in 2023 was \$34.4 million or \$0.51/share in 2023 (2022 - \$48.5 million and \$0.75/share).
- Cash costs⁽¹⁾ were \$6.6 million or \$12.52/boe in the fourth quarter of 2023 (Q3 2023 - \$9.8 million or \$16.16/boe; Q4 2022 – \$9.0 million or \$13.77/boe). Cash costs were \$36.4 million (\$15.64/boe) for full year 2023, up from \$33.8 million in 2022 (\$14.26/boe).
- Net income was \$8.5 million in the fourth quarter of 2023 (Q4 2022 - \$8.6 million net income) and \$5.6 million and \$0.08/share in 2023 (2022 - \$44.4 million and \$0.69/share).
- As at December 31, 2023, net debt⁽¹⁾ was \$21.6 million, inclusive of \$18.3 million of cash on hand, a decrease of \$34.1 million from \$55.7 million at December 31, 2022.
- Perpetual had available liquidity (see "Liquidity and Capital Resources - Capital Management") at December 31, 2023 of \$47.0 million, comprised of the \$30.0 million borrowing limit of Perpetual's first lien credit facility ("Credit Facility Borrowing Limit") and cash on hand of \$18.3 million less letters of credit of \$1.3 million.

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

(2) See "Fourth Quarter Financial and Operating Results - Production" for details of product components that comprise Perpetual's boe production.

2024 OUTLOOK

Perpetual expects that Court approval for the Settlement Agreement will occur in late April or early May. With the Sequoia Litigation resolved, Perpetual is positioned to turn its attention again to executing its business plan and pursue the Company's strategic priorities which include:

1. Maximize Funds Flow and Value at Edson;
2. Re-ignite Active Exploration Program for Tight Oil and Gas;
3. Advance Technology-Driven Diversifying New Ventures; and
4. Strengthen the Balance Sheet, Reduce Corporate Costs and Manage Risk.

Perpetual's Board of Directors has approved the Q1 2024 production guidance of between 4,300 and 4,600 boe/d, capital spending⁽¹⁾⁽²⁾ of \$1.0 million, cash costs between \$16 and \$18 per boe and royalties of 18% to 20% as a percentage of total revenue.

Perpetual will continue to address end of life ARO, with total abandonment and reclamation expenditures of approximately \$1.2 million planned for the first quarter of 2024. The Company's area-based mandatory spending requirement for 2024 of \$1.3 million, as calculated by the Alberta Energy Regulator ("AER"), will largely be incurred during the first quarter, with remaining spending to occur in the third and fourth quarter of 2024.

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

(2) Excludes abandonment and reclamation spending and acquisitions or land expenditures.

FOURTH QUARTER FINANCIAL AND OPERATING RESULTS

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

Cash flow from investing activities for the three and twelve months ended December 31, 2023 was \$25.8 million and \$12.4 million, respectively, as a result of the Mannville disposition (2022 - \$17.2 million and \$40.9 million cash flow used in investing activities). In addition to cash flow (from) 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 expenditures, excluding non-cash items:

(\$ thousands)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Exploration and development	5,250	8	21,489	31,772
Corporate assets	3,198	107	5,141	137
Capital Expenditures ⁽¹⁾	8,448	115	26,630	31,909
Land and other	936	—	975	—
Capital expenditures, including land and other ⁽¹⁾	9,384	115	27,605	31,909
Net proceeds from dispositions	(33,727)	—	(33,727)	—
Capital expenditures, after dispositions	(24,343)	115	(6,122)	31,909

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

Exploration and development spending by area

(\$ thousands)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
West Central	5,238	1,283	21,395	18,977
Eastern Alberta	12	(1,275)	94	12,795
Total	5,250	8	21,489	31,772

Wells drilled by area

(gross/net)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
West Central	2 / 1.0	- / -	6 / 3.0	7 / 3.5
Eastern Alberta	- / -	- / -	- / -	5 / 5.0
Total	2 / 1.0	- / -	6 / 3.0	12 / 8.5

Perpetual's exploration and development spending in the fourth quarter of 2023 was \$5.3 million (Q4 2022 - nominal amount), of which \$5.2 million was attributable to the drilling, completion and tie-in of two (1.0 net) wells at East Edson. At Mannville in Eastern Alberta, there were nominal amounts spent in the fourth quarter of 2023.

Perpetual's exploration and development spending in 2023 was \$21.5 million (2022 - \$31.8 million), of which \$15.4 million was attributable to the drilling, completion and tie-in of six (3.0 net) wells at East Edson as well as \$6.0 million of lease construction and pipeline costs relating to the 2023 and 2024 drilling programs. At Mannville in Eastern Alberta, nominal amounts were spent in 2023.

Spending on corporate assets of \$5.1 million in 2023 related to office leasehold improvements and head office computer equipment.

Land expenditures of \$1.0 million in 2023 related to crown land purchases at East Edson.

Dispositions

On November 22, 2023, the Company closed on the Mannville Disposition for gross proceeds of \$35.8 million before customary purchase price adjustments of \$2.1 million for total net cash consideration of \$33.7 million. The properties included in the Mannville Disposition comprise substantially all of the production attributed to the Company's Eastern Alberta cash-generating unit ("CGU"s).

Expenditures on decommissioning obligations

During the fourth quarter of 2023, Perpetual spent \$0.1 million (Q4 2022 - \$1.2 million) on abandonment and reclamation projects. For the year ended December 31, 2023, Perpetual spent \$1.6 million (2022- \$1.5 million) and there were four reclamation certificates received from the AER (2022 - four reclamation certificates). Subsequent to year-end, one reclamation certificate was received.

Production

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Production				
Conventional natural gas (Mcf/d) ⁽¹⁾	28,396	33,024	30,161	31,033
Conventional heavy crude oil (bbl/d) ⁽²⁾	497	1,126	853	898
NGL (bbl/d) ⁽³⁾	519	508	495	416
Total production (boe/d)	5,749	7,138	6,375	6,486

(1) Conventional natural gas production yielded a heat content of 1.17 GJ/Mcf for the three and twelve months ended December 31, 2023 (three and twelve months ended December 31, 2022 - 1.17 GJ/Mcf), resulting in higher realized natural gas prices on a \$/Mcf basis.

(2) Primarily from Eastern Alberta and part of the Mannville Disposition.

(3) Primarily from West Central which produces liquids-rich conventional natural gas.

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Production by core area				
West Central	5,026	5,493	5,092	5,149
Eastern Alberta	723	1,645	1,283	1,337
Total production (boe/d)	5,749	7,138	6,375	6,486

Fourth quarter production averaged 5,749 boe/d, down 19% from 7,138 boe/d in the fourth quarter of 2022. The production mix was comprised of 82% conventional natural gas and 18% conventional heavy crude oil and NGL, as compared to 77% of conventional natural gas and 23% conventional heavy crude oil and NGL in the fourth quarter of 2022. During the fourth quarter of 2023, production decreases were driven by the Mannville Disposition and the timing of wells brought on production from the East Edson drilling programs, which added production from an additional two (1.0 net) wells drilled in the fourth quarter.

Fourth quarter conventional natural gas production averaged 28.4 MMcf/d, a decrease of 14% from 33.0 MMcf/d in the fourth quarter of 2022 primarily as a result of the Mannville Disposition. The 2022 West Central East Edson drilling program contributed production additions from six (3.0 net) liquids-rich gas wells through the second half of 2022, and one (0.5 net) Notikewin well from this program was placed on production in the first quarter of 2023. The East Edson drilling program resumed in first quarter of 2023 with two (1.0 net) wells drilled and placed on production early in the second quarter of 2023, two (1.0 net) wells drilled during the third quarter of 2023 and placed on production in late August, and two (1.0 net) wells drilled during the fourth quarter of 2023 and placed on production in late November.

Fourth quarter NGL production was 519 bbl/d, 2% higher than the fourth quarter of 2022. The increase in NGL production is largely tied to higher NGL yields of 19.2 bbl per MMcf achieved in the fourth quarter of 2023 (Q4 2022 – 17.0 bbl per MMcf). Perpetual's average NGL yields have increased in 2023 as a result of capital spent during the second half of 2022 on facility optimization to reduce emissions and increase NGL recoveries, and as a result of new wells drilled during 2023 having higher NGL yields.

Conventional heavy crude oil production averaged 497 bbl/d which was 56% lower than the fourth quarter of 2022. The decrease was attributable to the Mannville Disposition. Heavy oil represented 9% of total production during the fourth quarter of 2023, down from 16% in the fourth quarter of 2022.

For the twelve months ended December 31, 2023, production decreased 2% to 6,375 boe/d compared to 6,486 boe/d in 2022. Production levels slightly decreased as new wells in East Edson brought on production were offset by the Mannville Disposition and approximately 143 boe/d of lost production from shut-ins related to the East Edson forest fires. The Company achieved the high end of its updated guidance for 2023 of annual production of 6,200 to 6,400 boe/d (22% oil and NGL).

Oil and Natural Gas Revenue

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Oil and natural gas revenue				
Natural gas	6,010	17,381	27,374	66,105
Oil	3,645	7,368	23,464	29,538
NGL	3,115	3,665	12,387	13,368
Oil and natural gas revenue	12,770	28,414	63,225	109,011

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Average Benchmark Prices				
AECO 5A Daily Index (\$/GJ)	2.18	4.94	2.50	5.06
AECO 5A Daily Index (\$/Mcf) ⁽¹⁾	2.30	5.21	2.64	5.34
West Texas Intermediate ("WTI") (US\$/bbl)	78.32	82.64	77.62	94.22
Exchange rate (CAD\$/US\$)	1.36	1.36	1.35	1.30
West Texas Intermediate ("WTI") (CAD\$/bbl)	106.52	112.39	104.79	122.49
Western Canadian Select ("WCS") (CAD\$/bbl)	76.84	77.33	79.46	98.49
WCS differential to WTI (US\$/bbl)	(21.98)	(25.70)	(18.73)	(18.23)
Perpetual Average Realized Prices ⁽²⁾				
Natural gas (\$/Mcf)	2.30	5.78	2.49	5.90
Oil (\$/bbl)	79.70	71.14	75.40	90.15
NGL (\$/bbl)	65.25	78.36	68.53	88.05
Average realized price (\$/boe)	24.15	43.27	27.17	46.05

(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 December 31, 2023 of \$12.8 million was a 55% decrease from \$28.4 million in the comparative period in 2022 due to lower reference prices for all products and the Mannville Disposition which contributed to a 19% decrease in production volumes. Perpetual's oil and natural gas revenue for the twelve months ended December 31, 2023 of \$63.2 million was a 42% decrease from \$109.0 million in the prior year due to lower prices and a 2% decrease in production volumes.

Natural gas revenue of \$6.0 million in the fourth quarter of 2023 comprised 47% (Q4 2022 – 61%) of total revenue and natural gas production was 82% (Q4 2022 – 77%) of total production. Natural gas revenue was 65% lower than the fourth quarter of 2022, reflecting the impact of lower AECO Daily Index prices and a 14% decrease in production volumes. For the twelve months ended December 31, 2023, natural gas revenue decreased by \$38.7 million, or 59% compared to prior year, as a result of lower benchmark gas prices and a 3% decrease in production volumes.

Oil revenue of \$3.6 million represented 29% (Q4 2022 – 26%) of total revenue while conventional heavy crude oil production was 9% (Q4 2022 – 16%) of total production. As a result of a 56% decrease in heavy crude oil production related to the Mannville Disposition, oil revenue decreased 51% from the fourth quarter of 2022. Compared to the fourth quarter of 2022, the WCS average price was relatively unchanged at \$76.84/bbl (Q4 2022 - \$77.33/bbl) as lower WTI prices were partially offset by the narrower WCS differential relative to the 2022 period. For the twelve months ended December 31, 2023, oil revenue decreased 21% compared to prior year, as a result of lower realized oil prices and 5% lower production volumes.

NGL revenue for the fourth quarter of 2023 of \$3.1 million represented 24% (Q4 2022 – 13%) of total revenue while NGL production was 9% (Q4 2022 – 7%) of total production. NGL revenue decreased 15% from the fourth quarter of 2022, reflecting lower prices, partially offset by the 2% increase in NGL production which was driven by increased NGL yields at East Edson. For the twelve months ended December 31, 2023, NGL revenue decreased 7% compared to the prior year, as a result of lower NGL prices, partially offset by a 19% increase in production volumes on higher NGL yields.

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 funds 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 contracts.

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Unrealized gain (loss) on risk management contracts				
Unrealized gain on foreign exchange contracts	311	218	282	30
Unrealized gain on natural gas contracts	6,497	1,412	5,968	2,159
Unrealized gain (loss) on oil contracts	754	337	(976)	1,298
Unrealized gain on risk management contracts	7,562	1,967	5,274	3,487
Realized gain (loss) on risk management contracts				
Realized gain on foreign exchange contracts	33	—	173	—
Realized gain (loss) on natural gas contracts	8,940	374	18,057	(491)
Realized loss on oil contracts	(621)	(225)	(631)	(4,129)
Realized gain (loss) on risk management contracts	8,352	149	17,599	(4,620)
Change in fair value of risk management contracts	15,914	2,116	22,873	(1,133)

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

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Realized gain (loss) on risk management contracts ⁽¹⁾				
Realized gain (loss) on natural gas contracts (\$/Mcf)	3.42	0.12	1.64	(0.04)
Realized loss on oil contracts (\$/bbl)	(12.86)	(2.17)	(1.47)	(12.60)
Realized gain (loss) on risk management contracts (\$/boe)	15.79	0.21	7.56	(1.96)
Average realized prices after risk management contracts ⁽¹⁾				
Natural gas (\$/Mcf)	5.72	5.84	4.13	5.80
Oil (\$/bbl)	66.84	68.97	73.93	77.55
NGL (\$/bbl)	65.25	78.36	68.53	88.05
Average realized price (\$/boe)	39.94	43.48	34.73	44.09

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

The realized gain on risk management contracts totaled \$8.4 million for the fourth quarter of 2023, compared to a realized gain of \$0.1 million for the fourth quarter of 2022. The realized gain on risk management contracts totaled \$17.6 million for the twelve months of 2023 (2022 - \$4.6 million realized loss). Hedging gains or losses are 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 and the production volumes hedged at any given time.

The unrealized gain on risk management contracts totaled \$7.6 million in the fourth quarter of 2023 (Q4 2022 – unrealized gain of \$2.0 million) and the unrealized gain totaled \$5.3 million for the twelve months ended December 31, 2023 (2022 - \$3.5 million unrealized gain). 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 December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Crown royalties				
Natural gas	253	1,533	749	5,411
Oil	194	91	1,233	1,999
NGL	(37)	856	1,256	2,104
Total Crown royalties	410	2,480	3,238	9,514
Freehold and overriding royalties				
Natural gas	640	1,643	2,904	6,888
Oil	392	1,000	2,618	3,388
NGL	325	154	1,158	1,001
Total freehold and overriding royalties	1,357	2,797	6,680	11,276
Total royalties	1,767	5,277	9,918	20,790
\$/boe	3.34	8.04	4.26	8.78
Royalties as a percentage of revenue⁽¹⁾				
Crown	3.2	8.7	5.1	8.7
Freehold and overriding	10.6	9.8	10.6	10.3
Total (% of oil and natural gas revenue)	13.8	18.5	15.7	19.0
Natural gas royalties (% of natural gas revenue)	14.9	18.1	13.3	18.6
Oil royalties (% of oil revenue)	16.1	14.8	16.4	18.2
NGL royalties (% of NGL revenue)	9.2	27.6	19.5	23.2

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

Total royalties for the fourth quarter of 2023 were \$1.8 million, 67% lower than the fourth quarter of 2022 primarily due to lower reference commodity prices. On a unit-of-production basis, royalties were down 58% to \$3.34/boe (Q4 2022 – \$8.04/boe).

Total royalties for the twelve months ended December 31, 2023 were \$9.9 million, 52% lower than 2022. On a unit-of-production basis, royalties were down 51% to \$4.26/boe (2022 – \$8.78/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 pays a flat Crown royalty of 5% on wells in their early production period. As Perpetual's wells mature and begin to pay higher royalty rates, the amounts owing to the Crown may fluctuate to a greater degree.

On an absolute basis, royalties were lower due to lower reference prices for all commodities and an annual gas cost allowance ("GCA") credit of \$0.7 million. The impact of the GCA credit was a reduction of royalties for the year ended December 31, 2023. In 2022, there was a GCA payment to the Crown of \$1.2 million which increased royalties for the year ended December 31, 2022. Freehold and overriding royalties decreased due to the impact of lower AECO Daily Index, heavy oil and NGL prices and the annual 10% step down in the GORR payable at East Edson effective January 1 of each year, reducing the East Edson GORR from 2.8 to 2.5 MMcf/d of natural gas plus associated NGL for 2023.

Net operating costs⁽¹⁾

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Net operating costs ⁽¹⁾	2,775	3,771	15,640	15,431
\$/boe ⁽¹⁾	5.24	5.61	6.73	6.52

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

Total net operating costs were \$2.8 million, 26% lower than the fourth quarter of 2022 (Q4 2022 - \$3.8 million). The decrease was related to lower production volumes as a result of the Mannville Disposition. For the year ended December 31, 2023, net operating costs were \$15.6 million, a 1% increase from 2022 (2022 - \$15.4 million). During 2023, the Company incurred higher purchased energy costs at the non-operated East Edson gas processing facility, higher carbon taxes and overall cost inflation, which were partially offset by the impact of the Mannville Disposition in November 2023. The Mannville asset contributed higher heavy crude oil production as a percentage of total volumes and the heavy oil production had higher operating costs than the Company's conventional natural gas and NGL production at East Edson.

On a unit-of-production basis, net operating costs decreased by 7% to \$5.24/boe in the fourth quarter of 2023 (Q4 2022 – \$5.61/boe) due to the Mannville Disposition which had significantly higher operating costs per boe than Perpetual's West Central Alberta assets. For the year ended December 31, 2023, on a unit-of-production basis, net operating costs increased by 3% to \$6.73/boe in 2023 (2022 - \$6.52/boe) attributable to higher costs due to the reasons noted above, partially offset by lower heavy oil production as a percentage of total production. Incremental carbon tax obligations in 2023 totaled \$0.8 million or \$0.34/boe for the year ended December 31, 2023.

Transportation costs

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Transportation costs	808	1,223	4,199	3,872
\$/boe	1.53	1.86	1.80	1.64

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 fourth quarter of 2023 were \$0.8 million, a 34% decrease from the fourth quarter of 2022 (Q4 2022 - \$1.2 million) on lower heavy oil trucking volumes as a result of the Mannville Disposition. For the year ended December 31, 2023, transportation costs were \$4.2 million, an 8% increase from the prior year (2022 - \$3.9 million). The increase in costs were a result of higher fuel prices and surcharges and the impact the Alberta forest fires had on access and rates, partially offset by lower production volumes.

On a unit-of-production basis, transportation costs decreased by 18% to \$1.53/boe in the fourth quarter of 2023 on lower costs which more than offset lower production volumes (Q4 2022 - \$1.86/boe) and increased by 10% for 2023 to \$1.80/boe (2022 - \$1.64/boe) on higher costs and lower production volumes.

Operating netbacks

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

(\$/boe) (\$ thousands)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Production (boe/d)	5,749	7,138	6,375	6,486
Oil and natural gas revenue	24.15 12,770	43.27 28,414	27.17 63,225	46.05 109,011
Royalties	(3.34) (1,767)	(8.04) (5,277)	(4.26) (9,918)	(8.78) (20,790)
Net operating costs ⁽¹⁾	(5.24) (2,775)	(5.61) (3,771)	(6.73) (15,640)	(6.52) (15,431)
Transportation costs	(1.53) (808)	(1.86) (1,223)	(1.80) (4,199)	(1.64) (3,872)
Operating netback ⁽¹⁾	14.04 7,420	27.76 18,143	14.38 33,468	29.11 68,918
Realized gain (loss) on risk management contracts	15.79 8,352	0.21 149	7.56 17,599	(1.96) (4,620)
Total operating netback, including risk management contracts ⁽¹⁾	29.83 15,772	27.97 18,292	21.94 51,067	27.15 64,298

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

Perpetual's operating netback in the fourth quarter of 2023 decreased to \$7.4 million, or \$14.04/boe (Q4 2022 - \$18.1 million or \$27.76/boe) as a result of the significant decrease in revenue on lower sales volumes and prices, partially offset by lower royalties, and lower net operating and transportation costs. After the realized gain on risk management contracts of \$8.4 million, or \$15.79/boe (Q4 2022 - gain of \$0.1 million or \$0.21/boe), operating netbacks after risk management contracts were \$15.8 million (\$29.83/boe), down 14% from \$18.3 million (\$27.97/boe) in the fourth quarter of 2022. Fourth quarter operating netbacks after realized gains on risk management contracts were 7% higher on a per boe basis than the fourth quarter of 2022.

Perpetual's operating netback for the twelve months ended December 31, 2023 decreased to \$33.5 million, from \$68.9 million in the prior year, attributable to decreased revenue primarily driven by the significantly lower prices, higher production and operating expenses and transportation costs, partially offset by lower royalties. After the realized gain on risk management contracts of \$17.6 million, or \$7.56/boe (2022 - loss of \$4.6 million or \$1.96/boe), operating netbacks after risk management contracts were \$51.1 million (\$21.94/boe) a 21% decrease from \$64.3 million (\$27.15/boe) for 2022.

General and administrative ("G&A") expenses

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
G&A before overhead recoveries	4,240	4,542	18,352	14,688
MSA recoveries ⁽¹⁾	(813)	(561)	(3,354)	(1,859)
Overhead recoveries	(1,425)	(1,126)	(3,184)	(2,918)
Total G&A expense	2,002	2,855	11,814	9,911
\$/boe	3.79	4.35	5.08	4.19

(1) Concurrent with the sale of the Clearwater Assets to Rubellite Energy Inc. ("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.

Total G&A expenses were \$2.0 million in the fourth quarter of 2023, 30% lower than the fourth quarter of 2022 as a result of lower professional fees and higher MSA and overhead recoveries.

For the twelve months ended December 31, 2023, total G&A expenses of \$11.8 million increased 19% over the prior year. 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 in 2023 and will fluctuate from one period to the next based on the amount of capital spent by Perpetual or Rubellite under the MSA.

For the three and twelve months ended December 31, 2023, the costs billed under the MSA to Rubellite were \$0.8 million and \$3.4 million (2022 - \$0.6 million and \$1.9 million). MSA recoveries in 2023 increased over the comparative period as a result of higher shared G&A expenses and Rubellite's increased production relative to Perpetual.

Share-based payments

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Share-based payments (non-cash)	95	740	2,883	6,184
Share-based payments (cash)	—	124	—	1,250
Total share-based payments	95	864	2,883	7,434

Share-based payments expense for the three and twelve months ended months ended December 31, 2023 decreased to \$0.1 million and \$2.9 million, respectively (2022 - \$0.9 million and \$7.4 million). The decrease is due to a reduction in the performance share right multiplier in 2023 and a higher fair value of grants issued through 2022. The reduction in cash share-based payments decreased over the prior year for both the three and twelve months ended December 31, 2023 as the related plan ended during the fourth quarter of 2022.

During the fourth quarter of 2023, 1.5 million deferred options, 2.2 million deferred shares, 1.3 million share options and 0.1 million restricted rights were granted to Officers, Directors and employees of the Company. For the twelve months ended December 31, 2023, 1.5 million deferred options, 2.3 million deferred shares, 1.5 million share options, 1.1 million performance rights and 2.3 million restricted rights were granted to Officers, Directors and employees of the Company.

Depletion and depreciation

(\$ thousands, except as noted)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Depletion and depreciation	7,418	5,633	23,624	17,962
\$/boe	14.03	8.58	10.15	7.59

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 December 31, 2023, depletion was calculated on a \$174.2 million depletable balance and \$97.6 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 fourth quarter of 2023 was \$7.4 million or \$14.03/boe (Q4 2022 – \$5.6 million or \$8.58/boe). Depletion and depreciation expense for the twelve months ended December 31, 2023 was \$23.6 million or \$10.15/boe (2022 – \$18.0 million or \$7.59/boe). The increases reflect higher depletion rates per barrel of oil equivalent.

On a unit-of-production basis, depletion and depreciation expense increased from the comparable periods of 2022 due to higher oil production relative to reserves in Eastern Alberta along with a higher depletable base from additions, and impairment reversals in 2022, partially offset by the Mannville Disposition in the fourth quarter of 2023. 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 CGU as of December 31, 2023; therefore, an impairment test was not performed. 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 2023 and as such 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. Accordingly, a non-cash impairment reversal of \$7.4 million was included in net income in the comparative period.

During 2022, land of \$0.2 million was transferred to PP&E, which was equal to the book value in E&E. As a result of the transfer, an impairment test was performed, resulting in no impairments recorded to E&E in 2022.

Finance expense

(\$ thousands)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Cash finance expense				
Interest on revolving bank debt	196	334	1,350	1,031
Interest on term loan	54	55	216	216
Interest on Senior Notes	742	780	3,025	3,184
Interest on lease liabilities	44	26	148	116
Total cash finance expense	1,036	1,195	4,739	4,547
Non-cash finance expense				
Gain on senior note extinguishment	(27)	—	(209)	(101)
Amortization of debt issue costs	66	434	1,003	1,864
Accretion on decommissioning obligations	170	203	793	727
Change in fair value of other liability	—	60	340	1,678
Change in fair value of royalty obligations ⁽¹⁾	—	(363)	—	2,256
Total non-cash finance expense	209	334	1,927	6,424
Finance expense recognized in net income	1,245	1,529	6,666	10,971

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

Total cash finance expense was \$1.0 million in the fourth quarter of 2023, 13% lower than the fourth quarter of 2022 as a result of lower outstanding bank debt due to the Mannville Disposition.

For the twelve months ended December 31, 2023, total cash finance expenses was \$4.7 million, a 4% increase from the prior year as a result of increased interest rates being applied to higher outstanding bank debt during the year, partially offset by lower interest on Senior Notes due to lower principal outstanding and lower outstanding bank debt in the fourth quarter due to the Mannville Disposition.

Total non-cash finance expense for the three and twelve months ended December 31, 2023 was \$0.2 million and \$1.9 million, a decrease from the comparable periods of 2022 driven by the termination of the East Edson retained royalty obligation on December 31, 2022, which was \$2.3 million in 2022. Also contributing to the decrease was the change in the fair value of the final future contingent payment due June 30, 2024 related to the Second Lien Loan Settlement which is recorded as other liability with the change being recognized through finance expense and lower amortization of debt issue costs.

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

<i>(\$ thousands, except as noted)</i>	December 31, 2023	December 31, 2022
Revolving bank debt	—	14,909
Term loan, principal amount	2,671	2,671
Senior notes, principal amount	33,229	35,647
Other liability	2,788	3,342
Adjusted working capital surplus ⁽¹⁾	(17,122)	(894)
Net debt ⁽¹⁾	21,566	55,675
Shares outstanding at end of period (thousands) ⁽³⁾	67,467	65,944
Market price at end of period (\$/share)	0.43	0.71
Market value of shares ⁽¹⁾	29,011	46,820
Enterprise value ⁽¹⁾	50,577	102,495
Net debt as a percentage of enterprise value ⁽²⁾	43%	54%
Trailing twelve-months adjusted funds flow ⁽¹⁾	34,419	48,471
Net debt to trailing twelve-months adjusted funds flow ⁽²⁾	0.6	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 December 31, 2023, Perpetual had total net debt of \$21.6 million, down \$34.1 million from December 31, 2022 driven by the Mannville Disposition in the fourth quarter 2023 and free funds flow of \$6.8 million.

Perpetual had available liquidity at December 31, 2023 of \$47.0 million, comprised of a cash balance of \$18.3 million and the \$30.0 million Credit Facility Borrowing Limit less letters of credit of \$1.3 million.

Revolving bank debt

During the period, the Company completed the semi-annual borrowing base redetermination for the first lien credit facility (the "Credit Facility") and its borrowing limit was maintained at \$30.0 million (December 31, 2022 - \$30.0 million) with an initial term to May 31, 2024. The initial term may be extended to May 31, 2025 subject to approval by the syndicate. If the facility is not extended all outstanding balances would be repayable on May 31, 2025. The maturity date of the Company's third lien Senior Notes (the "Senior Notes") is January 23, 2025. Under the Credit Facility agreement, if by July 31, 2024, the January 23, 2025 maturity date of the Senior Notes has not been extended, by a period of at least two years, or refinanced with the maturity date of the refinancing debt being at least January 23, 2027, the maturity date of the Credit Facility springs to July 31, 2024 and any outstanding balance would become repayable at that time. The next semi-annual borrowing base redetermination is scheduled to be completed on or before May 31, 2024.

As at December 31, 2023, nil was drawn (December 31, 2022 - \$14.9 million) and \$1.3 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 December 31, 2023 was 9.1%. at December 31, 2023

As at December 31, 2023, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Subsequent to December 31, 2023 the maturity date on the Company's Credit Facility of July 31, 2024, in the event the January 23, 2025 maturity date of the Senior Notes has not been extended by a period of at least two years, has been extended to November 30, 2024 and currently no amounts have been drawn on the Credit Facility.

Term loan

(\$ thousands, except as noted)	Maturity date	Interest rate	December 31, 2023		December 31, 2022	
			Principal	Carrying Amount	Principal	Carrying amount
Term loan	December 31, 2024	8.1%	2,671	2,593	2,671	2,524

The second lien 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 the loans under the Credit Facility.

At December 31, 2023, the Term Loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Subsequent to December 31, 2023, in concurrence with the execution of the Settlement Agreement, the second lien term loan has been repaid and cancelled.

Senior notes

(\$ thousands, except as noted)	Maturity date	Interest rate	December 31, 2023		December 31, 2022	
			Principal	Carrying Amount	Principal	Carrying amount
Senior notes	January 23, 2025	8.75%	33,229	33,099	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 and the July 23, 2023 semi-annual interest payments 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 December 31, 2023, the Senior Notes are recorded at the present value of future cash flows, net of \$0.1 million in issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 14.0%.

During 2023, the Company purchased and cancelled a portion of the Senior Notes balance with a carrying value of \$2.4 million (2022 - \$0.9 million) for gross costs of \$2.2 million (2022 - \$0.8 million). A gain on extinguishment of \$0.2 million (2022 - \$0.1 million) is included in non-cash finance expense.

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 December 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 Chief Executive Officer ("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.

Subsequent to December 31, 2023, the Company has provided notice for the early redemption of all of the principal amount of the \$33.2 million aggregate 8.75% senior secured third lien notes maturing on January 23, 2025 on April 1, 2024. Entities controlled or directed by the President and Chief Executive Officer, holding \$26.2 million of 2025 Senior Notes, have provided written confirmation to Perpetual of their election to be a continuing holder of 2025 Senior Notes as amended.

Equity

At December 31, 2023, there were 67.5 million common shares outstanding, net of 1.1 million shares held in trust for the Company's employee compensation program. During the fourth quarter of 2023, 0.1 million shares were purchased by the independent trustee to be held in trust (Q4 2022 - 0.1 million). Basic and diluted weighted average shares outstanding for the three months ended December 31, 2023 were 67.2 million and 73.5 million, respectively (Q4 2022 - 65.9 million basic and 75.1 million diluted). Basic and diluted weighted average shares outstanding for the twelve months ended December 31, 2023 were 66.7 million and 74.1 million, respectively (2022 - 64.4 million basic and 74.8 million diluted).

At March 25, 2024, there were 67.5 million common shares outstanding which is net of 1.1 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)	March 25, 2024
Share options	3.1
Performance share rights	1.9
Compensation awards	5.4
Total ⁽¹⁾	10.4

(1) 5.4 million compensation awards, 3.1 million share options, and 1.9 million performance share rights have an exercise price below the December 31, 2023 closing price of the Company's common shares of \$0.43 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 March 25, 2024, the Company had the following swap commodity contracts in place:

Commodity	Volumes sold	Term	Reference/ Index	Contract Traded Bought/sold	Market Price
Natural gas	15,000 GJ/d	Mar 1 - Mar 31, 2024	AECO 5A (CAD\$/GJ)	Swap - sold	\$3.26
Natural gas	15,000 GJ/d	Apr 1 - Oct 31, 2024	AECO 5A (CAD\$/GJ)	Swap - sold	\$2.84
Natural gas	15,000 GJ/d	Nov 1 - Dec 31, 2024	AECO 5A (CAD\$/GJ)	Swap - sold	\$3.84
Natural gas	5,000 GJ/d	Nov 1, 2024 - Mar 31, 2025	AECO 5A (CAD\$/GJ)	Swap - bought	\$3.00
Natural gas	25,000 GJ/d	Jan 1 - Mar 31, 2025	AECO 5A (CAD\$/GJ)	Swap - sold	\$3.67
Natural gas	10,000 GJ/d	Jan 1 - Mar 31, 2025	AECO 5A (CAD\$/GJ)	Swap - bought	\$3.11
Natural gas	15,000 GJ/d	Apr 1 - Oct 31, 2025	AECO 5A (CAD\$/GJ)	Swap - sold	\$3.19
Natural gas	15,000 GJ/d	Nov 1 - Dec 31, 2025	AECO 5A (CAD\$/GJ)	Swap - sold	\$3.61
Natural gas	5,000 GJ/d	Jan 1 - Mar 31, 2026	AECO 5A (CAD\$/GJ)	Swap - sold	\$4.00

As at March 25, 2024, the Company had entered the following CAD\$/USD\$ foreign exchange swaps which settle in CAD\$:

Contract	Notional amount	Term	Price (CAD\$/US\$)
Average rate forward (CAD\$/US\$)	\$1,472,000 US\$/month	Jan 1 – Mar 31, 2024	1.3750
Average rate forward (CAD\$/US\$)	\$264,000 US\$/month	Apr 1 – Oct 31, 2024	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	Apr 1, 2024 to Oct 31, 2024 Daily sales volume (MMBtu/d)
Malin	5,000
Dawn	2,500
Emerson	2,500
Total sales volume obligation	10,000

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 seven-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. Perpetual filed its Affidavit of Records on July 31, 2023.

On December 18, 2023 the Trustee filed an affidavit with the Court of King's Bench of Alberta in support of the Trustee's amended summary judgement application which has not yet been filed or scheduled with the Court of King's Bench of Alberta. Additionally, on December 27, 2023 the Trustee also submitted a statement of concern related to the transfer of licenses related to certain Mannville assets that were disposed of during the fourth quarter of 2023.

As at December 31, 2023 managements position is that the Company is more likely than not to be 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. Subsequent to December 31, 2023 the Company has entered into an agreement (the "Settlement Agreement") with the Trustee to resolve the Sequoia Litigation.

COMMITMENTS AND CONTRACTUAL OBLIGATIONS

The Company's minimum contractual obligations and lease commitments over the next three years and thereafter, excluding estimated interest payments, are as follows:

	2024	2025	2026	2027 and thereafter	Total
Contractual obligations					
Accounts payable and accrued liabilities	21,188	—	—	—	21,188
Term loan, principal amount	2,671	—	—	—	2,671
Senior notes, principal amount	—	33,229	—	—	33,229
Other liability	2,788	—	—	—	2,788
Head Office lease	581	517	540	5,610	7,248
Pipeline transportation commitments	1,964	1,682	335	—	3,981
Total	29,192	35,428	875	5,610	71,105

OFF BALANCE SHEET ARRANGEMENTS

Perpetual has no other material off balance sheet arrangements not discussed within this MD&A.

RELATED PARTY TRANSACTIONS

Perpetual and Rubellite are considered related parties as certain officers and directors are in a position of control over Perpetual while also having significant influence and being considered key management personnel of Rubellite in addition to there being a relationship under the Management and Operating Services Agreement ("MSA"). During the year ended December 31, 2023, Perpetual billed and/or incurred on behalf of Rubellite net transactions, which are considered to be normal course of oil and gas operations, totaling \$6.9 million (December 31, 2022 - \$5.6 million). Included within this amount are \$3.4 million (2022 - \$1.9 million) of costs billed under the MSA. The Company recorded an accounts receivable of \$1.9 million owing from Rubellite as at December 31, 2023 (December 31, 2022 - accounts receivable of \$0.6 million).

Investments made in a private energy technology company, where the Company's CEO is a director, were valued at \$0.4 million at December 31, 2023 (December 31, 2022 - \$0.4 million). There were no amounts outstanding or receivable at December 31, 2023 (December 31, 2022 - nil).

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 Accounting Standards 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 Accounting Standards, such as net income (loss) and comprehensive 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 (from) used in investing activities. A summary of the reconciliation of cash flow (from) used in investing activities to capital expenditures or capital spending, is set forth below:

(\$ thousands)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Net cash flows (from) used in investing activities	(25,756)	17,239	(12,369)	40,941
Purchase of marketable securities	—	(2)	—	(39)
Proceeds from dispositions	33,727	—	33,727	—
Change in non-cash working capital	1,413	(17,122)	6,247	(8,993)
Capital expenditures, including land	9,384	115	27,605	31,909

Adjusted funds flow: Adjusted funds flow is calculated based on cash flows from 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. For 2022, the Company 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 operating activities calculated in accordance with IFRS.

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

(\$ thousands, except per share and per boe amounts)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Net cash flows from operating activities	8,526	11,238	26,717	37,830
Change in non-cash working capital	4,087	1,925	6,136	9,442
Decommissioning obligations settled (cash)	116	1,044	1,566	1,199
Adjusted funds flow	12,729	14,207	34,419	48,471
Adjusted funds flow per share	0.19	0.22	0.51	0.75
Adjusted funds flow per boe	24.07	21.63	14.79	20.48

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 December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Adjusted funds flow	12,729	14,207	34,419	48,471
Capital Expenditures, including land	(9,384)	(115)	(27,605)	(31,909)
Free funds flow	3,345	14,092	6,814	16,562

Operating netback: Operating netback is calculated by deducting royalties, net operating costs, 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 operating costs: Net operating costs equals operating expenses net of other income, which is made up of processing revenue. Management views net operating costs as an important measure to evaluate its operational performance. The most directly comparable IFRS measure for net operating costs is production and operating expenses.

The following table reconciles net operating costs from production and operating expenses and other income in the Company's consolidated statement of income (loss) and comprehensive income (loss).

(\$ thousands, except per share and per boe amounts)	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Production and operating	2,906	3,896	16,323	16,063
Processing income				
Other income	(131)	(336)	(683)	(980)
SRP revenue ⁽¹⁾	—	211	—	348
Processing income ⁽¹⁾	(131)	(125)	(683)	(632)
Net operating costs	2,775	3,771	15,640	15,431
Per boe	5.24	5.61	6.73	6.52

(1) Processing income is other income less amounts related to Alberta Site Rehabilitation Program ("SRP") revenue.

Cash costs: Cash costs are controllable costs comprised of net operating costs, 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 December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Net operating costs	2,775	3,771	15,640	15,431
Transportation	808	1,223	4,199	3,872
General and administrative	2,002	2,855	11,814	9,911
Cash finance expense	1,036	1,195	4,739	4,547
Cash costs	6,621	9,044	36,392	33,761
Cash costs per boe	12.52	13.77	15.64	14.26

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 December 31, 2023	As of December 31, 2022
Cash and cash equivalents	18,272	—
Accounts and accrued receivable	16,489	15,804
Prepaid expenses and deposits	1,886	1,564
Marketable securities	1,663	1,814
Inventory	—	674
Accounts payable and accrued liabilities	(21,188)	(18,962)
Adjusted working capital surplus ⁽¹⁾	17,122	894
Bank indebtedness	—	(14,909)
Term loan (principal)	(2,671)	(2,671)
Other liability	(2,788)	(3,342)
Senior notes (principal)	(33,229)	(35,647)
Net debt	(21,566)	(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: 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 basis 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.

"Net operating expense per boe" is comprised of net operating expense, 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 consolidated financial statements.

Sustainability Disclosures

On June 26, 2023, the International Sustainability Standards Board ("ISSB") issued IFRS S1 "General Requirements for Disclosure of Sustainability-related Financial Information" and IFRS S2 "Climate-related Disclosures". IFRS S1 and IFRS S2 are effective for annual reporting periods beginning on or after January 1, 2024. The sustainability standards as issued by the ISSB provide for transition relief in IFRS S1 that allow a reporting entity to report only on climate-related risks and opportunities, as set out in IFRS S2, in the first year of reporting under the sustainability standards.

The Canadian Securities Administrators ("CSA") are responsible for determining the reporting requirements for public companies in Canada and are responsible for decisions related to the adoption of the sustainability disclosure standards, including the effective annual reporting dates. The CSA issued proposed National Instrument ("NI 51-107 – Disclosure of Climate-related Matters") in October 2021. The CSA has indicated it will consider the ISSB sustainability standards and developments in the United States in its decisions related to developing climate-related disclosure requirements for reporting issuers in Canada. The CSA will involve the Canadian Sustainability Standards Board ("CSSB") for their combined review of the ISSB issued sustainability standards for their suitability for adoption in Canada. Until such time as the CSA and CSSB make decisions on sustainability standard adoption here in Canada, there is no requirement for public companies in Canada to adopt the sustainability standards. The Company is actively evaluating the potential effects of the ISSB issued sustainability standards; however, at this time, the Company is not able to determine the impact on future financial statements, nor the potential costs to comply with these sustainability standards.

Amendments to IAS 1 *Presentation of Financial Statements*

In January 2020, The IASB issued amendments to IAS 1 *Presentation of Financial Statements* ("IAS 1"), to clarify its requirements for the presentation of liabilities as current or non-current in the statement of financial position. In October 2022, the IASB issued further amendments to IAS 1, which specify the classification and disclosure of a liability with covenants. These amendments to IAS 1 will be effective January 1, 2024 and Perpetual plans to adopt the amendments for annual periods beginning on or after January 1, 2024.

RISK FACTORS

The Corporation is exposed to business risks that are inherent in the oil and gas industry, as well as those governed by the individual nature of Perpetual's operations. Risks impacting the business which influence controls and management of the Corporation include, but are not limited to, the following:

- geological and engineering risks;
- the uncertainty of discovering commercial quantities of new reserves;
- commodity prices, interest rate and foreign exchange risks;
- political and geopolitical risks;
- competition
- cybersecurity risks;
- inflation and supply chain risks;
- risks relating to pandemics (including COVID-19);
- risks relating to litigation (including the Sequoia litigation); and
- changes to government regulations including royalty regimes and tax legislation.

Perpetual manages these risks by:

- attracting and retaining a team of highly qualified and motivated professionals who have a vested interest in the success of the Corporation;
- prudent operation of oil and natural gas properties;
- employing risk management instruments and policies to manage exposure to volatility of commodity prices, interest rates and foreign exchange rates;
- maintaining a flexible financial position;
- maintaining strict environmental, safety and health practices; and
- active participation with industry organizations to monitor and influence changes in government regulations and policies.

A complete discussion of risk factors is included in the Corporation's 2023 Annual Information Form ("AIF") available on the Corporation's website at www.perpetualenergyinc.com or on SEDAR+ at www.sedarplus.com.

DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OVER FINANCIAL REPORTING

Perpetual's CEO and Chief Financial Officer ("CFO") have designed, or caused to be designed under their supervision, disclosure controls and procedures ("DC&P") and internal controls over financial reporting ("ICOFR") as defined in National Instrument 52-109 Certification of Disclosure in Issuer's Annual and Interim Filings in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with IFRS.

Disclosure controls and procedures

The DC&P have been designed to provide reasonable assurance that material information relating to Perpetual is made known to the CEO and CFO by others, and that information required to be disclosed by Perpetual in its annual filings, interim filing or other reports is filed or submitted by Perpetual under securities legislation.

Perpetual's CEO and CFO have concluded, based on their evaluation at December 31, 2023, the DC&P are designed and operating effectively to provide reasonable assurance that information required to be disclosed by the Corporation in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in the securities legislation and include controls and procedures designed to ensure that information required to be disclosed by the Corporation in its annual filings, interim filings or other reports filed or submitted under securities legislation is accumulated and communicated to the issuer's management, including its certifying officers, as appropriate to allow timely decisions regarding required disclosure.

Management's annual report on internal controls over financial reporting

Management is responsible for establishing and maintaining adequate ICOFR, which is a process designed by, or under the supervision of, the CEO and CFO, and effected by the board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

Under the supervision and with the participation of management, including the CEO and CFO, an evaluation of the effectiveness of the internal controls over financial reporting was conducted as of December 31, 2023 based on criteria described in "Internal Control – Integrated Framework" issued in 2013 by the Committee of Sponsoring Organization of the Treadway Commission. Based on this assessment, management determined that, as of December 31, 2023, the internal controls over financial reporting were designed and operating effectively.

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 October 1, 2023 and ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

CEO and CFO certifications

Perpetual's CEO and CFO have filed with the Canadian securities regulators regarding the quality of Perpetual's public disclosures relating to its fiscal 2023 filings with the Canadian securities regulators.

CRITICAL ACCOUNTING JUDGEMENTS AND ESTIMATES

Certain accounting policies require that management make appropriate decisions with respect to the formulation of estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Management reviews its estimates on a regular basis. The emergence of new information and changed circumstances may result in actual results or changes to estimates that differ materially from current estimates.

Perpetual's financial and operational results incorporate certain estimates including:

- estimated commodity sales from production at a specific reporting date for which actual revenues have not yet been received, including associated estimated credit losses;
- estimated royalty obligations, transportation, and operating expenses at a specific reporting date for which costs have been incurred but have not yet been settled;
- estimated capital expenditures on projects that are in progress;
- estimated depletion charges and deferred tax assets that are based on estimates of reserves that Perpetual expects to recover in the future;
- estimated future recoverable value of PP&E and E&E and any associated impairment charges or reversals;
- estimated fair values of financial instruments that are subject to fluctuation depending upon the underlying forward curves for commodity prices, foreign exchange rates and interest rates, as well as volatility curves, and the risk of non-performance;
- estimated value of ARO that is dependent upon estimates of future costs and timing of expenditures;
- estimated compensation expense under Perpetual's share-based compensation plans including the PSUs awarded under the PSU Plans that are dependent on the final number of PSU awards that eventually vest based on a performance multiplier; and
- estimated fair values of assets acquired and liabilities assumed in a business combination.

A change in a critical accounting estimate can have a significant effect on net loss, including their impact on the depletion rate, provisions, impairments, and income taxes. A change in a critical accounting estimate can have a significant effect on the value of property, plant, and equipment, provisions, derivative financial instruments and accounts payable. A complete discussion of critical accounting estimates is included in the notes to the consolidated financial statements at December 31, 2023.

FORWARD-LOOKING INFORMATION AND STATEMENTS

Certain information in this MD&A including management's assessment of future plans and operations 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 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 news release. In particular and without limitation of the foregoing, material factors or assumptions on which the forward-looking information in this news release 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; climate change; severe weather events (including wild fires); 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 pandemics (including COVID-19) and the war in Ukraine and related sanctions on commodity prices and the global economy, and the Israel-Hamas war, 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, 2023 and in other reports on file with Canadian securities regulatory authorities which may be accessed through the SEDAR+ website (www.sedarplus.ca) 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 "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

ANNUAL FINANCIAL AND OPERATING HIGHLIGHTS

<i>(\$ thousands, except as noted)</i>	2023	2022	2021
Financial			
Oil and natural gas revenue	63,225	109,687	60,814
Net income	5,616	44,397	81,121
Per share – basic	0.08	0.69	1.29
Per share – diluted	0.08	0.59	1.16
Cash flow from operating activities	26,717	37,830	12,815
Adjusted funds flow ⁽¹⁾	34,419	48,471	16,746
Per share – basic ⁽²⁾	0.51	0.75	0.27
Revolving bank debt	—	14,909	2,487
Senior notes, principal amount	33,229	35,647	36,582
Term loan, principal amount	2,671	2,671	2,671
Other Liability	2,788	3,342	1,387
Net working capital deficiency (surplus) ⁽³⁾	(17,122)	(220)	16,143
Total Net Debt	21,566	56,349	59,270
Capital expenditures, including land purchases ⁽¹⁾	(27,605)	31,909	19,062
Net proceeds on dispositions ⁽¹⁾	33,727	—	49,549
Common shares (thousands)			
Weighted average – basic	66,738	64,448	62,969
Weighted average – diluted	74,129	74,798	69,989
Operating			
Daily average production			
Natural gas (MMcf/d)	30.2	31.0	24.6
Oil (bbl/d)	853	898	963
NGL (bbl/d)	495	416	331
Total (boe/d)	6,375	6,486	5,389
Perpetual average realized prices⁽²⁾			
Natural gas (\$/Mcf)	2.49	5.90	3.15
Oil (\$/bbl)	75.40	90.15	57.36
NGL (\$/bbl)	68.53	88.05	63.24
Wells drilled			
Conventional natural gas - gross (net)	6 (3.0)	7 (3.5)	9 (4.5)
Heavy crude oil - gross (net)	—	5 (5.0)	5 (4.0)
Total - gross (net)	6 (3.0)	12 (8.5)	14 (8.5)

⁽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⁾ Includes cash on hand of \$18.3 million on December 31, 2023 (December 31, 2022 - nil).

SUMMARY OF QUARTERLY RESULTS

<i>(\$ thousands, except as noted)</i>	Q4 2023	Q3 2023	Q2 2023	Q1 2023
Financial				
Oil and natural gas revenue	12,770	17,477	15,167	17,811
Net income (loss), and comprehensive income (loss)	6,322	3,732	(4,203)	(235)
Per share – basic	0.08	0.06	(0.06)	—
Per share – diluted	0.09	0.05	(0.06)	—
Cash flow from operating activities	8,526	2,460	8,295	7,436
Adjusted funds flow ⁽¹⁾	12,729	9,127	3,687	8,876
Per share – basic ⁽²⁾	0.19	0.14	0.05	0.13
Capital expenditures, including land ⁽¹⁾	9,384	7,310	1,800	9,111
Net payments proceeds on dispositions ⁽¹⁾	(33,727)	—	—	—
Common shares (thousands)				
Weighted average – basic	67,172	67,204	66,551	65,978
Weighted average – diluted	73,472	74,341	66,551	65,978
Operating				
Daily average production				
Natural gas (MMcf/d)	28.4	30.8	30.6	30.8
Oil (bbl/d)	497	942	953	1,022
NGL (bbl/d)	519	493	474	495
Total (boe/d)	5,749	6,570	6,532	6,655
Perpetual average realized prices⁽²⁾				
Natural gas (\$/Mcf)	2.30	2.34	2.16	3.12
Oil (\$/bbl)	79.70	87.83	73.46	63.39
NGL (\$/bbl)	65.25	71.00	64.11	73.81

<i>(\$ thousands, except as noted)</i>	Q4 2022	Q3 2022	Q2 2022	Q1 2022
Financial				
Oil and natural gas revenue	28,414	22,856	33,092	24,953
Net income (loss), and comprehensive income (loss)	24,531	8,234	4,470	7,162
Per share – basic	0.14	0.13	0.07	0.11
Per share – diluted	0.12	0.11	0.06	0.10
Cash flow from operating activities	8,749	8,749	11,571	6,272
Adjusted funds flow ⁽¹⁾	14,207	9,642	10,505	14,117
Per share – basic ⁽²⁾	0.22	0.15	0.16	0.22
Capital expenditures ⁽¹⁾	115	22,596	4,361	4,837
Common shares (thousands)				
Weighted average – basic	65,883	65,016	63,641	63,216
Weighted average – diluted	75,090	74,067	74,721	74,348
Operating				
Daily average production				
Natural gas (MMcf/d)	33.0	26.9	29.9	34.3
Oil (bbl/d)	1,126	1,002	775	682
NGL (bbl/d)	508	390	364	400
Total (boe/d)	7,138	5,882	6,123	6,804
Perpetual average realized prices⁽²⁾				
Natural gas (\$/Mcf)	5.78	4.74	7.92	5.16
Oil (\$/bbl)	71.14	87.24	117.20	95.55
NGL (\$/bbl)	78.36	85.48	104.71	87.86

⁽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.