2022 Management's Discussion and Analysis

The following management's discussion and analysis ("MD&A") as provided by the management of Headwater Exploration Inc. ("Headwater" or the "Company") is dated March 9, 2023 and should be read in conjunction with the audited annual financial statements for the years ended December 31, 2022 and 2021 and the notes thereto. The audited annual financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All dollar amounts are referenced in Canadian dollars unless otherwise stated. In addition, readers are also directed to the Company's Annual Information Form for the year ended December 31, 2022, dated March 9, 2023, which is available on the Company's website at www.headwaterexp.com and under the Company's profile on the System for Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com.

Description of the Company

Headwater is a Canadian resource company engaged in the exploration for and development and production of petroleum and natural gas in Canada. Headwater currently has heavy oil production and reserves in the Clearwater formation in the Marten Hills and Greater Peavine areas of Alberta and natural gas production and reserves in the McCully field near Sussex, New Brunswick.

Unless otherwise indicated herein, all production information presented herein has been presented on a gross basis, which is the Company's working interest prior to deduction of royalties and without including any royalty interests.

FOURTH QUARTER 2022 HIGHLIGHTS

- Headwater declared its inaugural quarterly cash dividend of $0.10 per common share and returned $23.4 million to shareholders in January 2023.

- Achieved average production of 15,546 boe/d (consisting of 13,536 bbls/d of heavy oil, 11.5 mmcf/d of natural gas and 99 bbls/d of natural gas liquids), an increase of 49% from the fourth quarter of 2021.

- Generated significant cash flows provided by operating activities of $66.4 million ($0.29 per basic share), representing an increase of 39% from the fourth quarter of 2021. Adjusted funds flow from operations (1) was $71.8 million ($0.31 per basic share), representing an increase of 47% from the fourth quarter of 2021.

- Achieved an operating netback (2) of $47.93/boe and an adjusted funds flow netback (2) of $50.15/boe.

- Recognized net income of $39.8 million, $0.17 per share (basic).

- Executed a $60.7 million capital expenditure (3) program including 27 net crude oil wells in Marten Hills and the Company's first 3 successful exploration wells in West Nipisi.

- As at December 31, 2022, Headwater had working capital of $109.4 million, adjusted working capital (1) of $104.9 million and no outstanding bank debt.

- The Company entered into a $100.0 million credit facility agreement comprised of a $20.0 million operating facility and an $80.0 million syndicated facility.

- Headwater released its inaugural Environmental, Social and Governance ("ESG") report in November 2022.

YEAR ENDED DECEMBER 31, 2022 HIGHLIGHTS

- Achieved average production of 12,841 boe/d (consisting of 11,411 bbls/d of heavy oil, 8.2 mmcf/d of natural gas and 57 bbls/d of natural gas liquids), an increase of 74% from 2021 annual production of 7,393 boe/d.

- Cash flows provided by operating activities was $283.9 million ($1.25 per basic share), representing an increase of 154% from 2021. Adjusted funds flow from operations (1) was $279.7 million ($1.23 per basic share), representing an increase of 137% from 2021.

- Achieved an operating netback (2) of $63.36/boe and an adjusted funds flow netback (2) of $59.68/boe.

- Generated significant net income of $162.1 million, $0.71 per basic share, an increase of 254% from the comparable period in 2021.

- Executed a $244.5 million capital expenditure (3) program including:

    - Added 112 net sections of unburdened land in the Falher/Clearwater plays in Greater Peavine and West Nipisi establishing the Company's next exploration focus areas.
    - Drilled 97 net crude oil wells which included 94 wells in the Marten Hills area of which 18 were subsequently converted to injection and 3 successful exploration wells in West Nipisi.
    - Commissioned the Company's 15,000 bbls/d oil processing facility and associated pipelines in Marten Hills.

- Headwater has been approved for total funding of up to $18.5 million from Natural Resources Canada ("NRCan") associated with the Emissions Reduction Fund ("ERF") program for infrastructure spend related to the elimination of venting and flaring of methane rich natural gas in the Company's core area of Marten Hills. To date, Headwater has received $11.0 million of funding.

- The Company's McCully asset realized strong winter pricing and contributed $20.1 million in free cash flow (3).

(1) Refer to "Management of capital" in note 16 of the audited annual financial statements and to "Non-GAAP and Other Financial Measures" within this MD&A.
(2) Non-GAAP ratio that does not have any standardized meaning under IFRS and therefore may not be comparable with the calculation of similar measures of other entities. Refer to "Non-GAAP and Other Financial Measures" within this MD&A.
(3) Non-GAAP measure that does not have any standardized meaning under IFRS and therefore may not be comparable with the calculation of similar measures of other entities. Refer to "Non-GAAP and Other Financial Measures" within this MD&A.

SUBSEQUENT TO THE YEAR ENDED DECEMBER 31, 2022

- The Board of Directors (the "Board") of Headwater declared a quarterly cash dividend to shareholders of $0.10 per common share payable on April 17, 2023, to shareholders of record at the close of business on March 31, 2023 (see "Subsequent Events").

Results of Operations

Production and Pricing

	Three months ended December 31, 2022	2021	Percent Change	Year ended December 31, 2022	2021	Percent Change
Average daily production						
Heavy oil (bbls/d)	13,536	9,377	44	11,411	6,665	71
Natural gas (mmcf/d)	11.5	6.4	80	8.2	4.4	86
Natural gas liquids (bbls/d)	99	-	100	57	2	2750
Barrels of oil equivalent (boe/d)	15,546	10,449	49	12,841	7,393	74
Average daily sales (boe/d) (1)						
Heavy oil (bbls/d)	13,558	9,388	44	11,413	6,661	71
Natural gas (mmcf/d)	11.5	6.4	80	8.2	4.4	86
Natural gas liquids (bbls/d)	99	-	100	57	2	2750
Barrels of oil equivalent (boe/d)	15,568	10,459	49	12,843	7,390	74
Headwater average sales price (2)						
Heavy oil ($/bbl) (3)	73.10	75.12	(3)	94.79	68.69	38
Natural gas ($/mcf)	10.15	8.46	20	10.60	7.18	48
Natural gas liquids ($/bbl)	73.02	-	100	91.29	70.14	30
Barrels of oil equivalent ($/boe)	71.60	72.62	(1)	91.44	66.18	38
Average Benchmark Price						
WTI (US$/bbl) (4)	82.64	77.19	7	94.23	67.91	39
WCS differential to WTI (US$/bbl)	(25.66)	(14.64)	75	(18.22)	(13.04)	40
WCS (Cdn$/bbl) (5)	77.42	78.72	(2)	98.52	68.73	43
Condensate at Edmonton (Cdn$/bbl)	111.82	99.65	12	123.20	85.47	44
AGT (US$/mmbtu) (6)	9.90	8.09	22	11.21	5.49	104
AECO 5A (Cdn$/GJ)	4.85	4.41	10	5.06	3.44	47
NYMEX Henry Hub (US$/mmbtu)	6.26	5.83	7	6.64	3.84	73
Exchange rate (US$/Cdn$)	0.74	0.79	(6)	0.77	0.80	(4)

(1) Includes sales of heavy crude oil excluding the impact of purchased condensate and butane. The Company's heavy oil sales volumes and production volumes differ due to changes in inventory.
(2) Average sales prices are calculated using average sales volumes.
(3) Realized heavy oil prices are based on sales, net of blending expense.
(4) WTI = West Texas Intermediate
(5) WCS = Western Canadian Select
(6) AGT = Algonquin city-gates. The AGT price is the average for the winter producing months in the McCully field which include January – April, November and December.

Sales

	Three months ended December 31, 2022	2021	Percent Change	Year ended December 31, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Heavy oil sales	97,584	70,038	39	423,211	178,434	137
Blending expense	(6,403)	(5,162)	24	(28,332)	(11,423)	148
Heavy oil, net of blending (1)	91,181	64,876	41	394,879	167,011	136
Natural gas	10,706	5,005	114	31,876	11,416	179
Natural gas liquids	662	-	100	1,891	62	2950
Gathering, processing and transportation	425	244	74	1,401	1,028	36
Total sales, net of blending expense (1)	102,974	70,125	47	430,047	179,517	140

(1) Non-GAAP measure. Refer to "Non-GAAP and Other Financial Measures" within this MD&A.

Heavy Oil – Alberta

The Company's realized price received for its heavy crude oil is determined by the quality of crude compared to the benchmark price of WCS. Headwater's heavy crude oil production (average 18 – 22˚ API) is blended with diluent in order to meet pipeline transportation specifications.

Higher commodity pricing realized during the year ended December 31, 2022, is a result of stronger WTI pricing partially offset by a wider WCS differential to WTI. WTI strengthened due to increased demand for crude oil following the global recovery from the COVID-19 pandemic in addition to international energy supply concerns associated with the Russia-Ukraine war. Crude oil prices pulled back in the fourth quarter of 2022 due to reduced oil demand in China and elevated recessionary risks. The WCS differential to WTI widened during both the three and twelve months ended December 31, 2022, due to reduced US Golf Coast demand primarily as a result of increased refinery maintenance and downtime.

During the three months ended December 31, 2022, Headwater's heavy oil sales, net of blending expense, significantly increased to $91.2 million from $64.9 million in the corresponding period of the prior year. This increase was attributable to a 44% increase in heavy oil sales volumes partially offset by a 3% decrease in realized commodity pricing. Headwater's discount to WCS widened during the fourth quarter of 2022 primarily due to strong condensate pricing, increased seasonal blending requirements and the Keystone pipeline outage which caused significant apportionment and weaker realized pricing relative to WCS during the month of December.

During the year ended December 31, 2022, Headwater's heavy oil sales, net of blending expense, increased to $394.9 million from $167.0 million in 2021. This increase was attributable to a 71% increase in heavy oil sales volumes combined with a 38% increase in realized commodity pricing.

During the three months ended December 31, 2022, Headwater's heavy oil sales volumes averaged 13,558 bbls/d compared to 9,388 bbls/d in the same period of 2021, while Headwater's heavy oil sales volumes averaged 11,413 bbls/d during the year ended December 31, 2022, compared to 6,661 bbls/d in the same period of 2021. The Company's heavy oil sales volumes have increased significantly as a result of Headwater's extensive capital expenditure program. Headwater drilled 97.0 total net crude oil wells in the year ended December 31, 2022, substantially increasing the Company's heavy oil production in the Marten Hills area.

Natural Gas – New Brunswick and Alberta

The Company produces natural gas out of the McCully field in New Brunswick. The transaction price is based on the AGT daily benchmark price adjusted for delivery location and heat content. Headwater also produces natural gas in Alberta, as the Company commissioned its Marten Hills joint gas processing facility and started generating sales from its associated natural gas production in the third quarter of 2021. The natural gas sales transaction price is based on the AECO 5A daily benchmark price adjusted for delivery location and heat content.

For the three months ended December 31, 2022, Headwater's natural gas sales increased to $10.7 million from $5.0 million in the corresponding period of the prior year due to an 80% increase in natural gas sales volumes and a 20% increase in realized commodity pricing. For the year ended December 31, 2022, Headwater's natural gas sales increased to $31.9 million from $11.4 million in the corresponding period of the prior year due to an 86% increase in natural gas sales volumes and a 48% increase in realized commodity pricing. Natural gas sales volumes increased to 11.5 mmcf/d and 8.2 mmcf/d, respectively, for the three and twelve months ended December 31, 2022, from 6.4 mmcf/d and 4.4 mmcf/d, respectively, for the corresponding periods of the prior year, as a result of higher associated natural gas production from the Company's Marten Hills assets. Realized natural gas pricing increased due to higher benchmark pricing for both AGT and AECO 5A.

Financial Derivatives Gains (Losses)

	Three months ended December 31, 2022	2021	Percent Change	Year ended December 31, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Realized financial derivative gains	4,240	1,360	212	37	955	(96)
Unrealized financial derivative gains (losses)	5,516	5,830	(5)	2,184	(3,228)	(168)
Financial derivative gains (losses)	9,756	7,190	36	2,221	(2,273)	(198)
Per boe	6.81	7.47	(9)	0.47	(0.84)	(156)

Natural gas and crude oil commodity contracts

Headwater enters into financial derivative commodity contracts to manage the risks associated with fluctuations in commodity prices.

The realized financial derivative gains recognized during both the three and twelve months ended December 31, 2022, represent both the natural gas contracts referenced to the AGT price and the crude oil contracts referenced to the WCS differential.

A realized financial derivative gain was recorded during the three months ended December 31, 2022, of $4.2 million compared to a realized gain of $1.4 million in the corresponding period of 2021. The Company realized a gain of $3.0 million relating to its AGT contracts and a $1.2 million gain on its WCS differential contract. The Company recognized gains on its AGT contracts during the three months ended December 31, 2022, as the commodity contracts to fix the AGT price exceeded the settlement price in the period. A realized gain was recognized on the WCS differential contract as the WCS differential widened in the period.

A realized financial derivative gain was recorded during the year ended December 31, 2022, of $37 thousand compared to a realized financial derivative gain of $1.0 million in the same period of 2021. The Company's realized losses on its fixed AGT contracts in the first quarter of 2022 were offset by realized gains recognized in the fourth quarter of 2022 on both its AGT contracts and WCS differential contract.

The unrealized gains recorded are a result of the change in fair value of the Company's outstanding financial derivative contracts over the periods. As at December 31, 2022, the fair value of Headwater's outstanding financial derivative commodity contracts was a net unrealized liability of $1.2 million as reflected in the audited annual financial statements. The fair value or mark to market value of these contracts is based upon the estimated amount that would have been payable as at December 31, 2022, had the contracts been monetized or terminated. Subsequent changes in the fair value of the contracts are recognized in each reporting period and could be materially different than what is recorded as at December 31, 2022. For the three and twelve months ended December 31, 2022, Headwater recognized unrealized gains of $5.5 million and $2.2 million, respectively, compared to unrealized gains of $5.8 million and unrealized losses of $3.2 million in the corresponding periods of 2021.

As at December 31, 2022, Headwater had the following financial derivative commodity contracts outstanding:

Commodity	Index	Type	Term	Daily Volume	Contract Price
Natural Gas	AGT	Fixed	Jan 2023- Mar 2023	2,500 mmbtu	Cdn$17.91/mmbtu
Natural Gas	AGT	Fixed	Jan 2023- Feb 2023	2,500 mmbtu	Cdn$32.71/mmbtu
Natural Gas	AGT	Fixed	Mar 2023	2,500 mmbtu	Cdn$19.36/mmbtu
Natural Gas	AECO 5A	Fixed	Apr 2023- Oct 2023	2,000 GJ	Cdn$3.83/GJ

Foreign exchange contracts

The Company is exposed to fluctuations of the Canadian to U.S. dollar exchange rate given realized pricing is directly influenced by U.S. dollar denominated benchmark pricing and from exposure to its U.S. dollar denominated heavy oil and natural gas marketing arrangements.

Headwater mitigates this risk by entering into commodity contracts in Canadian dollars and entering into short-term foreign exchange contracts.

As at December 31, 2022, Headwater had the following financial derivative foreign exchange contract outstanding:

Type	Buy Currency	Sell Currency	Rate	Notional Amount	Settlement Date
Forward contract	CAD	USD	WMR noon rate, December 2022 average (1)	US$28,000,000	January 26, 2023

(1) WM/Reuters Intraday Spot Rate as of Noon EST

Subsequent to December 31, 2022, the Company entered into an additional natural gas commodity contract and foreign exchange contracts. Refer to the heading "Subsequent Events".

Royalty Expense

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Heavy oil	18,456	10,643	73	82,301	25,414	224
Natural gas and natural gas liquids	896	266	237	2,861	524	446
Total royalty expense	19,352	10,909	77	85,162	25,938	228
Percentage of total sales, net of blending (1)	18.8%	15.6%	21	19.8%	14.4%	38
Per boe ($)	13.51	11.34	19	18.17	9.62	89

(1) Non-GAAP ratio. Refer to the advisory "Non-GAAP and Other Financial Measures".

Royalty expense consists of crown royalties payable to the Alberta and New Brunswick provincial governments and the gross overriding royalty ("GORR") payable to Topaz Energy Corp. Under the Alberta Modernized Royalty Framework ("MRF"), the Company will pay a flat royalty of 5% on a well's production until the well's total revenue exceeds the Drilling and Completion Cost Allowance (C*), then royalty rates increase on a sliding scale up to 40% depending on commodity reference pricing.

For the three months ended December 31, 2022, royalty expense increased to $19.4 million from $10.9 million in the comparable period of 2021, due to a significant increase of 44% in heavy oil production volumes. For the year ended December 31, 2022, royalty expense increased to $85.2 million from $25.9 million in the comparable period of 2021, due to a significant increase of 71% in heavy oil production volumes and a significant increase of 38% in realized heavy oil commodity pricing.

Headwater's average corporate royalty rate was 18.8% for the three months ended December 31, 2022, compared to 15.6% in the corresponding period of 2021, while the Company's average corporate royalty rate was 19.8% for the year ended December 31, 2022, compared to 14.4% in the corresponding period of 2021. The increase in Headwater's 2022 average corporate royalty rate is due to a significant increase in both Headwater's cumulative heavy oil production and realized heavy oil sales price. During 2022, several of the Company's Marten Hills wells' cumulative revenues exceeded C* and reverted to the sliding scale royalty under the MRF, resulting in a higher Alberta crown royalty rate.

Transportation Expense

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Transportation expense	6,025	6,719	(10)	20,067	20,355	(1)
Per boe ($)	4.21	6.98	(40)	4.28	7.55	(43)

Transportation expense includes clean oil trucking, terminal fees and pipeline tariffs incurred to move production to the sales point.

The Company's transportation expense decreased to $6.0 million during the three months ended December 31, 2022, from $6.7 million in the same period of 2021, due to the commissioning of Headwater's 15,000 bbls/d oil processing facility and associated pipelines in the core area of Marten Hills in the first quarter of 2022, which resulted in lower trucking and terminal charges.

Transportation expense was $20.1 million for the year ended December 31, 2022, compared to $20.4 million in the corresponding period of 2021. Transportation expense remained consistent on an absolute dollar basis as the impact of increased heavy oil sales volumes of 71% was offset by transportation savings realized from the commissioning of Headwater's oil processing facility.

The Company's transportation expense per boe decreased in both the three and twelve months ended December 31, 2022, to $4.21 and $4.28, respectively, from $6.98 and $7.55 in the comparable periods of 2021, due to both increased sales volumes and the commissioning of Headwater's oil processing facility.

Headwater has firm transportation service commitments in place to secure pipeline capacity to the point of sale. Refer to "Contractual Obligations and Commitments" for more information.

Production Expense

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Production expense	8,954	4,041	122	27,814	12,513	122
Per boe ($)	6.25	4.20	49	5.93	4.64	28

For the three and twelve months ended December 31, 2022, production expense increased to $9.0 million and $27.8 million, respectively, from $4.0 million and $12.5 million in the comparable periods of 2021, due to a significant increase in production volumes.

For the three and twelve months ended December 31, 2022, production expense per boe increased to $6.25 and $5.93, respectively, from $4.20 and $4.64 in the comparable periods of 2021, primarily due to incremental costs incurred to operate Headwater's 15,000 bbls/d oil processing facility which was commissioned at the end of the first quarter of 2022, as well as higher emulsion trucking charges from growth in Marten Hills West.

Netbacks

Operating netback reflects the Company's margin on a per-barrel of oil equivalent basis. The following table provides a reconciliation of Headwater's operating netback and operating netback, including financial derivatives. Refer to the heading "Non-GAAP and Other Financial Measures" for more information.

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	($/boe)			*($/boe)*		
Sales	76.37	78.25	(2)	97.78	70.80	38
Royalties	(13.51)	(11.34)	19	(18.17)	(9.62)	89
Transportation and blending	(8.68)	(12.35)	(30)	(10.32)	(11.78)	(12)
Production expense	(6.25)	(4.20)	49	(5.93)	(4.64)	28
Operating netback [(1)]	47.93	50.36	(5)	63.36	44.76	42
Realized gains on financial derivatives	2.96	1.41	110	0.01	0.35	(97)
Operating netback, including financial derivatives [(1)]	50.89	51.77	(2)	63.37	45.11	40

(1) Non-GAAP ratio. Refer to the advisory "Non-GAAP and Other Financial Measures".

For the three months ended December 31, 2022, the Company recorded an operating netback, including financial derivatives of $50.89 per boe, which is consistent with the Company's operating netback, including financials derivatives of $51.77 per boe in the corresponding period of 2021. Higher royalties and production expense on a per boe basis were offset by lower transportation and blending per boe, while realized commodity pricing remained flat.

For the year ended December 31, 2022, the Company recorded a higher operating netback, including financial derivatives of $63.37 per boe compared to $45.11 per boe for the corresponding period of 2021, primarily as a result of higher realized commodity pricing partially offset by higher cash costs on a per boe basis including royalties and production expense.

General and Administrative ("G&A") Expenses

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Gross G&A expenses	2,251	2,244	-	9,662	7,135	35
Capitalized G&A	(617)	(1,064)	(42)	(3,187)	(3,154)	1
Net G&A expenses	1,634	1,180	38	6,475	3,981	63
Per boe ($)	1.14	1.23	(7)	1.38	1.48	(7)

For the three and twelve months ended December 31, 2022, gross G&A expenses increased to $2.3 million and $9.7 million, respectively, from $2.2 million and $7.1 million in the corresponding periods of 2021. Increased G&A costs before capitalization were mainly a result of increased employee related costs and professional fees due to the significant growth experienced by the Company. For the three and twelve months ended December 31, 2022, the Company recognized $0.6 million and $3.2 million, respectively, of capitalized G&A due to Headwater's significant capital expenditure program in 2022.

G&A expenses per boe decreased by 7% in both the three and twelve months ended December 31, 2022, compared to 2021, due to a significant increase in corporate sales volumes.

Interest Income and Other Expense

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Interest income	1,833	159	1053	3,844	663	480
Foreign exchange gains (losses)	205	(65)	(415)	(538)	(432)	25
Accretion on decommissioning liability	(225)	(110)	105	(709)	(341)	108
Interest on repayable contribution	(32)	-	100	(106)	-	100
Interest	(17)	(13)	31	(74)	(35)	111
Total interest income and other expense	1,764	(29)	(6183)	2,417	(145)	(1767)
Per boe ($)	1.23	(0.03)	(4200)	0.52	(0.05)	(1140)

Foreign exchange gains and losses, accretion and interest were offset by a significant increase in interest income for the three and twelve months ended December 31, 2022.

The increase in interest income in both the three and twelve months ended December 31, 2022, is a result of carrying a higher average cash balance in 2022 when compared to 2021, combined with the significant increase in interest rates throughout 2022. The Bank of Canada hiked interest rates throughout 2022, increasing the target overnight rate to 4.25% in December 2022, resulting in a prime rate of 6.45%. In comparison, Canada's prime rate was 2.45% in 2021.

The Company manages fluctuations in foreign exchange gains and losses by entering into foreign exchange contracts to fix the foreign exchange rate. Refer to "Financial Derivatives Gains (Losses)" for more information.

Stock-based Compensation

	Three months ended December 31, 2022	Three months ended December 31, 2021	Percent Change	Year ended December 31, 2022	Year ended December 31, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Stock options	635	1,115	(43)	2,883	3,999	(28)
Deferred share units	138	23	500	629	105	499
Share awards	670	-	100	2,102	-	100
Capitalized stock-based compensation	(369)	(150)	146	(1,529)	(1,378)	11
Stock-based compensation expense	1,074	988	9	4,085	2,726	50
Per boe ($)	0.75	1.03	(27)	0.87	1.01	(14)

During the three and twelve months ended December 31, 2022, stock-based compensation expense increased to $1.1 million and $4.1 million, respectively, from $1.0 million and $2.7 million in the corresponding periods of 2021, primarily as a result of grants of restricted share units ("RSUs") and performance share units ("PSUs" and collectively with the RSUs, the "Awards") under the Company's new incentive awards plan (the "Awards Plan") and grants of deferred share units ("DSUs") under the Company's new DSU plan (the "DSU Plan"). During the three and twelve months ended December 31, 2022, the Company capitalized $0.4 million and $1.5 million of stock-based compensation expense, respectively, as a result of Headwater's significant capital expenditure program in 2022.

Stock Options

The Company has an old and new stock option plan (the "Option Plans") under which options to purchase common shares of the Company may be granted to directors, officers, employees and consultants of the Company. The exercise price of each option granted is based on the closing price of the common shares on the Toronto Stock Exchange ("TSX") on the trading day prior to the date the option was granted. Options granted generally vest as to one third of the number granted on each of the first, second and third anniversaries of the date of grant over a three-year period and expire four to five years after the grant date. The Company did not grant any stock options in 2022 and does not intend to grant any further options under the Option Plans.

As at December 31, 2022, there were 6,085,516 stock options outstanding under the Option Plans.

Share Awards

At the meeting of the Board held on March 10, 2022, the directors approved the Awards Plan providing for the grant of RSUs and PSUs to officers, employees and consultants of the Company. Under the Awards Plan, the aggregate number of common shares reserved for issuance may not exceed the lesser of: (i) 6.0% of the aggregate number of issued and outstanding common shares less the aggregate number of common shares reserved for issuance under the Option Plans; and (ii) 4.5% of the aggregate number of issued and outstanding common shares. Generally, one third of the RSUs will vest on each of the first, second and third anniversaries of the date of grant and all PSUs will vest on the third anniversary of the date of grant, unless otherwise determined by the Board. The common shares underlying PSUs are adjusted based on a payout multiplier ranging from 0 to 2 times, which is determined based on certain corporate performance measures, as determined by the Board. The Company received approval of the Awards Plan from the shareholders of the Company on May 12, 2022.

The Awards Plan allows a holder to receive common shares upon vesting. Headwater uses the fair value method for valuing the Awards. The fair value of Awards is determined based on the volume weighted average trading price of the five days preceding the grant date. This fair value is recognized as stock-based compensation expense, with a portion being capitalized, over the vesting period with a corresponding increase to contributed surplus. The amount of stock-based compensation expense is reduced by an estimated forfeiture rate determined at the date of the grant and updated each period. Upon vesting of the Awards and settlement in common shares, the previously recognized value in contributed surplus will be recorded as an increase to capital stock.

As at December 31, 2022, there were 179,004 RSUs outstanding and 838,371 PSUs outstanding.

DSUs

At the meeting of the Board held on March 10, 2022, the Board approved the adoption of the DSU Plan. The DSU Plan provides for grants of DSUs to non-management directors. Each DSU vests on the date of grant; however, settlement of the DSU occurs when the individual ceases to be a director of the Company. DSUs are to be settled in cash or by payment in common shares acquired through the facilities of the TSX. It is the intention of the Company to settle DSUs in cash. The directors may also elect to receive all of their annual cash compensation in the form of DSUs provided that such election must be made on December 1st of the preceding calendar year (or within a certain prescribed time frame if an individual becomes a director after the commencement of a calendar year or after the initial adoption of the DSU Plan) and after such date the election will be irrevocable for such year. DSUs are measured at fair value using the volume weighted average trading price of the five days preceding the grant date.

As at December 31, 2022, there were 140,777 DSUs outstanding.

Depletion & Depreciation

	Three months ended December 31, 2022	2021	Percent Change	Year ended December 31, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Depletion	25,431	15,560	63	78,295	43,882	78
Depreciation	411	230	79	1,112	506	120
Depletion & depreciation	25,842	15,790	64	79,407	44,388	79
Depletion per boe ($)	17.76	16.17	10	16.70	16.27	3
Depreciation per boe ($)	0.29	0.24	21	0.24	0.19	26
Depletion & depreciation per boe ($)	18.05	16.41	10	16.94	16.46	3

Depletion expense is calculated using the unit-of-production method which is based on production volumes in relation to the proved plus probable reserves base.

Depletion and depreciation expense for the three and twelve months ended December 31, 2022, was $25.8 million and $79.4 million, respectively, compared to $15.8 million and $44.4 million recorded in the corresponding periods of 2021. The increase in the absolute level of depletion expense for the three and twelve months ended December 31, 2022, is due to a significant increase in the Company's production volumes over the periods.

Depletion and depreciation per boe increased during the three and twelve months ended December 31, 2022, when compared to the corresponding periods of 2021, as significant reserve additions were more than offset by additions to the depletion base, which were primarily attributed to Headwater's significant capital program in 2022.

Impairment Assessment

As at December 31, 2022, there were no indicators of impairment identified for either of the Company's Alberta or New Brunswick CGUs. As such, an impairment test was not performed.

Current and Deferred Income Taxes

	Three months ended December 31, 2022	2021	Percent Change	Year ended December 31, 2022	2021	Percent Change
	(thousands of dollars)			*thousands of dollars*		
Current income tax expense	1,075	-	100	14,393	-	100
Deferred income tax expense	10,749	5,064	112	35,173	5,064	595
Canadian statutory income tax rate	23.3%	23.6%	(1)	23.3%	23.6%	(1)

For the three and twelve months ended December 31, 2022, Headwater recorded current income tax expense of $1.1 million and $14.4 million, respectively. The Company was not required to pay income taxes in the prior year as Headwater had sufficient tax deductions available to shelter taxable income.

For the three and twelve months ended December 31, 2022, the Company recorded a deferred income tax expense of $10.7 million and $35.2 million respectively, compared to a deferred income tax expense of $5.1 million for both the three and twelve months ended December 31, 2021. The Company's effective tax provision rate in 2022 is 23.3%.

At December 31, 2022, the Company had approximately $290.6 million of tax pools available to be applied against future taxable income. The federal tax pools are estimated as follows:

($ thousands)	Estimated balance at December 31, 2022
Canadian oil and gas property expense	86,681
Canadian development expense	126,755
Undepreciated capital cost	75,056
Other	2,151
Total	290,643

Cash Flows Provided by Operating Activities and Adjusted Funds Flow from Operations

Refer to the heading "Non-GAAP and Other Financial Measures" for more information.

	Three months ended December 31,		Year ended, December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Cash flows provided by operating activities	66,448	47,753	283,925	111,656
Changes in non–cash working capital	6,455	978	10,195	6,260
Current income tax expense	(1,075)	-	(14,393)	-
Adjusted funds flow from operations (1)	71,828	48,731	279,727	117,916

	Three months ended December 31,		Year ended, December 31,	
	2022	2021	2022	2021
	($/boe)		*($/boe)*	
Cash flows provided by operating activities	46.39	49.62	60.57	41.40
Changes in non–cash working capital	4.51	1.02	2.18	2.32
Current income tax expense	(0.75)	-	(3.07)	-
Adjusted funds flow netback (2)	50.15	50.64	59.68	43.72

(1) Refer to "Management of capital" in note 16 of the audited annual financial statements and to "Non-GAAP and Other Financial Measures" within this MD&A.
(2) Non-GAAP ratio. Refer to the advisory "Non-GAAP and Other Financial Measures".

Cash flows provided by operating activities and adjusted funds flow from operations increased significantly to $283.9 million and $279.7 million, respectively, for the year ended December 31, 2022, due to both an increase in realized commodity pricing and sales volumes from the Company's Marten Hills assets, partially offset by higher cash costs including royalties, blending and transportation, production expense, general and administrative expenses and current income tax expense. The Company recorded current income tax expense of $14.4 million for the year ended December 31, 2022, while Headwater was not required to pay income tax in the prior year as the Company had sufficient tax deductions available to shelter taxable income.

Capital Expenditures

	Three months ended December 31, 2022	2021	Percent Change	Year ended December 31, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Land and geological and geophysical	1,435	398	261	32,505	2,284	1323
Site preparation	12,916	6,077	113	38,070	11,020	245
Drilling and completions	39,394	16,024	146	134,189	64,844	107
Equipping and facilities	8,730	26,542	(67)	44,076	62,228	(29)
Corporate	39	2	1850	83	13	538
	62,514	49,043	27	248,923	140,389	77
Government grant	(1,837)	-	100	(4,428)	-	100
Capital expenditures [1]	60,677	49,043	24	244,495	140,389	74

(1) Non-GAAP measure. Refer to "Non-GAAP and Other Financial Measures" within this MD&A.

During the three months ended December 31, 2022, the Company invested a total of $60.7 million on capital expenditures including $39.4 million on drilling and completions, $12.9 million on site preparation, including road construction, $8.7 million on equipping and facilities, and $1.5 million on lease acquisition and geological and geophysical costs and corporate costs. The Company realized a reduction to capital expenditures of $1.8 million related to the ERF program.

During the year ended December 31, 2022, the Company invested a total of $244.5 million on capital expenditures including $134.2 million on drilling and completions, $44.1 million on equipping and facilities, $38.1 million on site preparation, including road construction, and $32.5 million on lease acquisition and geological and geophysical costs. During the year ended December 31, 2022, Headwater completed construction of its 15,000 bbls/d oil processing facility. The Company's land expenditures of $32.5 million added unburdened lands in the Falher/Clearwater plays in Greater Peavine and West Nipisi establishing the Company's next exploration focus areas.

The Company realized a $4.4 million reduction to capital expenditures during the year ended December 31, 2022, in connection with its first and second claim submissions to the Government of Canada's ERF program. See "ESG Update" for more details.

Drilling Activity

The following table summarizes the Company's drilling results:

	Three months ended December 31, 2022 Gross	Net	2021 Gross	Net	Year ended December 31, 2022 Gross	Net	2021 Gross	Net
Crude oil [1]	30	30.0	11	11.0	97	97.0	51	51.0
Natural gas	-	-	-	-	-	-	-	-
Injection	-	-	-	-	-	-	-	-
Source/stratigraphic test	2	2.0	3	3.0	9	9.0	7	7.0
Junked and abandoned [2]	-	-	-	-	1	1.0	-	-
Total	32	32.0	14	14.0	107	107.0	58	58.0
Success	100%	100%	100%	100%	100%	100%	100%	100%

(1) Of the 97 (97.0 net) crude oil wells drilled during the year ended December 31, 2022, 18 (18.0 net) were converted to injection in 2022 and 13 (13.0 net) will be converted to injection wells in 2023.
(2) Well abandoned due to mechanical failure and did not reach intended zone.

Decommissioning Liabilities

As at December 31, 2022, the decommissioning liabilities of the Company were $32.3 million. The Company recorded an increase of $4.7 million in the obligation from the decommissioning liability of $27.6 million as at December 31, 2021. This increase of $4.7 million is due to additions of $14.3 million as a result of the Company's capital expenditure program and accretion expense of $0.7 million partially offset by a downward change in estimate of $10.2 million. The change in estimate is a result of an increase to the risk-free rate to 3.3% at December 31, 2022 from 1.7% at December 31, 2021 and an increase to the time to abandonment, partially offset by an increase to the inflation rate to 2.1% at December 31, 2022 from 1.8% at December 31, 2021. The total undiscounted uninflated amount of estimated cash flows required to settle these obligations is $43.0 million (December 31, 2021 - $26.4 million).

2022 Guidance

A summary of the guidance that was provided by the Company in November 2022 compared to the actual results from 2022, are as follows:

	2022 Guidance	2022 Actuals
2022 annual average production (boe/d)	13,000	12,841
Adjusted funds flow from operations (1)	$287 million	$280 million
Capital expenditures (2)	$245 million	$245 million
Adjusted working capital (1)	$113 million	$105 million

(1) Refer to "Management of capital" in note 16 of the audited annual financial statements and to "Non-GAAP and Other Financial Measures" within this MD&A.
(2) Non-GAAP measure. Refer to "Non-GAAP and Other Financial Measures" within this MD&A

Adjusted working capital is $8 million lower than 2022 guidance as a result of lower than expected adjusted funds flow from operations due to lower realized commodity pricing when compared to forecasted prices in the fourth quarter of 2022 and lower than expected 2022 annual average production. Lower than expected annual average production is primarily a result of fourth quarter apportionment and well onstream timing in Marten Hills.

2023 Guidance

The following table summarizes Headwater's 2023 guidance. Headwater expects to fund capital expenditures through existing working capital and forecasted cash flows from operating activities.

	2023 Guidance March 9, 2023
Average Daily Production	
Annual (boe/d) (1)	18,000
Pricing	
Crude oil - WTI (US$/bbl)	75.21
Crude oil - WCS (Cdn$/bbl)	77.67
Exchange rate (US$/Cdn$)	0.74
AECO 5A (Cdn$/GJ)	3.33
Natural gas - AGT (US$/mmbtu) (2)	7.61
Financial Summary ($millions)	
Estimated capital expenditures (3)	200
Estimated adjusted funds flow from operations (4)	280
Dividends (5)	94
Estimated exit adjusted working capital (4)	90

(1) 2023 annual production guidance comprised of: 16,390 bbls/d of heavy oil, 60 bbls/d of natural gas liquids and 9.3 mmcf/d of natural gas.
(2) The AGT price is the average for the winter producing months in the McCully field which include January – April 2023 and November – December 2023.
(3) Non-GAAP measure. Refer to "Non-GAAP and Other Financial Measures" within this MD&A.
(4) Refer to "Management of capital" in note 16 of the audited annual financial statements and to "Non-GAAP and Other Financial Measures" within this MD&A.
(5) Refer to "Dividend Policy" within this MD&A.
(6) 2023 guidance assumptions include: royalty rate of 17%, transportation and production of $11.50/boe, blending differential to WCS of $2.00/bbl, financial derivative gains of $1.00/boe, G&A (including interest income and other expense) of $1.05/boe and cash taxes of $6.00/boe.

Liquidity and Capital Resources

The Company's objectives when managing capital are to i) deploy capital to provide an appropriate return on investment to its shareholders; ii) maintain financial flexibility in order to preserve the Company's ability to meet financial obligations; and iii) maintain a capital structure that provides financial flexibility to execute strategic acquisitions. To aid in managing the capital structure, the Company monitors adjusted working capital and adjusted funds flow from operations, supplemented as necessary by equity and debt financings.

On November 3, 2022, Headwater announced its inaugural quarterly cash dividend of $0.10 per common share ($0.40 per common share annualized). The first dividend was paid on January 16, 2023, to shareholders of record at the close of business on December 30, 2022.

As at December 31, 2022, the Company had cash of $175.4 million, adjusted working capital of $104.9 million and no outstanding bank debt. The Company expects to have adequate liquidity to fund its 2023 capital expenditure budget of $200 million, quarterly cash dividends and contractual obligations in the near term through existing working capital and forecasted adjusted funds flow from operations. Headwater anticipates that it will make use of debt or equity financing for any substantial expansion of its capital program or to finance any significant acquisitions.

To the extent that the Company's existing working capital is not sufficient to pay the cash portion of the purchase price for any future acquisition, Headwater anticipates that it will make use of additional equity or debt financings as available. Alternatively, the Company may issue equity as consideration to complete any future acquisition.

Credit Facility

During the fourth quarter of 2022, the Company entered into a senior secured revolving syndicated credit facility with the National Bank of Canada and the Bank of Montreal ("the Lenders"). The credit facility is comprised of extendible revolving credit facilities consisting of a $20.0 million operating facility and an $80.0 million syndicated facility.

As at December 31, 2022, Headwater had not drawn on the credit facility. The Company does not intend to draw on the credit facility at current commodity pricing.

The credit facility has a revolving period of 364 days, extendible annually at the request of the Company, subject to approval of the Lenders. If not extended, the facilities will automatically convert to a term loan and all outstanding obligations will be repayable one year after the expiry of the revolving period. The borrowing base is subject to semi-annual redeterminations occurring by June 30th and by November 30th of each year. The credit facility is secured by a demand debenture in the amount of $250.0 million. Repayments of principal are not required until the maturity date, provided that the borrowings do not exceed the authorized borrowing base and the Company is in compliance with all covenants, representations and warranties.

The credit facility bears interest at a floating market rate with margins charged by the Lenders linked to the Company's senior debt to EBITDA ratio. EBITDA, for the purposes of calculating the senior debt to EBITDA ratio, is calculated as net income adjusted for non-cash items, interest expense and income taxes. Senior debt, for the purposes of calculating the senior debt to EBITDA ratio, is calculated as any debt of the Company excluding the financial derivative liability and repayable contribution.

The credit facility is not subject to any financial covenants. Additionally, distributions are permitted subject to compliance with a Board approved distributions policy.

Contractual Obligations and Commitments

The following table details the undiscounted contractual maturities of the Company's liabilities as at December 31, 2022:

(thousands of dollars)	Within 1 year	1 to 5 years
	$	$
Accounts payable and accrued liabilities	71,404	-
DSU liability	825	-
Financial derivative liability	1,520	-
Current income tax liability	14,393	-
Dividends payable	23,392	-
Lease liability	658	314
Repayable contribution	-	8,834
Total	112,192	9,148

As at December 31, 2022, the Company is committed to future payments under the following agreements:

(thousands of dollars)	Total	2023	2024	2025	2026	2027	Thereafter
	$	$	$	$	$	$	$
Transportation (1)	110,397	11,808	13,362	13,628	14,775	15,906	40,918
Waste disposal (2)	1,917	1,917	-	-	-	-	-
Lease (3)	765	357	375	33	-	-	-
Government grant (4)	8,834	-	-	883	2,942	5,009	-

(1) At December 31, 2022, Headwater has the following transportation commitments:
   a. 8- year take-or-pay transportation agreement with a minimum volume commitment of 10,000 boe/d.
   b. 8- year financial commitment at $1.9 million per year adjusted for inflation.
   c. 8- year take-or-pay transportation agreement with a current minimum volume commitment of 4,750 boe/d increasing to 9,750 boe/d in year 4 and to 12,500 boe/d in year 6.

(2) Relates to a commitment to deliver a certain amount of drilling waste to a third-party landfill.
(3) Relates to variable operating costs, which are a non-lease component of the Company's head office lease.
(4) Relates to scheduled undiscounted re-payments of federal government funding under the terms of the repayable contribution agreement with NRCan.
(5) Excludes leases accounted for under IFRS 16.

Common Share Information

Share Capital

(thousands)	Three months ended December 31,		Year ended December 31,	
	2022	2021	2022	2021
Weighted average outstanding common shares (1)				
-Basic	231,766	204,005	227,299	199,802
-Diluted	235,305	220,958	230,755	215,861
Outstanding securities at December 31, 2022				
-Common shares				233,920
-Stock options – weighted average strike price of $2.74				6,086
-Warrants – strike price of $0.92 (2)				6
-Restricted share units				179
-Performance share units				838
-Deferred share units				141

(1) The Company uses the treasury stock method to determine the dilutive effect of stock options, warrants, RSUs and PSUs. Under this method, only "in-the-money" dilutive instruments impact the calculation of diluted income per common share. This method also assumes that the proceeds received from the exercise of all "in-the-money" dilutive instruments are used to repurchase shares at the average market price.
(2) Issued on the recapitalization transaction as part of the non-brokered private placement. As at December 31, 2022, these warrants are fully exercisable with a strike price of $0.92.

Stock Options

During the year ended December 31, 2022, 2.8 million stock options were exercised for 2.1 million common shares on a cashless basis and 0.6 million stock options were exercised for 0.6 million common shares for total proceeds of $0.9 million. Contributed surplus related to the options exercised of $2.4 million was transferred to capital stock.

During the year ended December 31, 2021, 1.7 million stock options were exercised for 1.3 million common shares on a cashless basis and 17 thousand stock options were exercised for 17 thousand common shares for total proceeds of $18 thousand. Contributed surplus related to the options exercised of $1.0 million was transferred to capital stock.

Warrants

During the year ended December 31, 2022, 14.4 million warrants were exercised for 12.5 million common shares on a cashless basis and 1.0 million warrants were exercised for 1.0 million common shares for total proceeds of $0.9 million. The associated fair value of the warrants of $5.4 million, along with the proceeds received, were transferred to capital stock.

During the year ended December 31, 2021, 6.3 million warrants were exercised for 6.3 million common shares for total proceeds of $5.7 million. The associated fair value of the warrants of $2.2 million, along with the proceeds received, were transferred to capital stock.

Cenovus Warrants

On December 23, 2021, Cenovus Energy Inc. ("Cenovus") exercised 15 million warrants (the "Cenovus Warrants") for 15 million common shares for total proceeds of $30 million. The total fair value of $42.9 million, along with the proceeds received, were credited to capital stock.

Cenovus Secondary Offering

In December 2020, Headwater issued 50 million common shares of the Company to Cenovus as part of the consideration for the acquisition of its Marten Hills assets valued at a closing price of $1.93 per common share. On October 14, 2021, Cenovus closed a $227.5 million bought deal secondary offering of 50 million common shares of the Company. Post-closing of the offering, the investor agreement (the "Investor Agreement") between Cenovus and Headwater was terminated. In connection with the termination of the Investor Agreement, one of Cenovus' nominees on the Board resigned. The other nominee of Cenovus on the Board continues to serve as a director of the Company notwithstanding the termination of the Investor Agreement. Headwater did not receive any proceeds of the secondary offering. Cenovus reimbursed the Company for all of its expenses incurred in connection with the secondary offering.

Total Market Capitalization

The Company's market capitalization at December 31, 2022 was approximately $1.4 billion.

(thousands)	December 31, 2022
Common shares outstanding	233,920
Share price [(1)]	$5.92
Total market capitalization	$1,384,806

(1) Represents the last price traded on the TSX on December 30, 2022.

As at March 9, 2023 the Company had 234,043,686 common shares outstanding.

(thousands)	March 9, 2023
Outstanding securities at March 9, 2023	
-Common shares	234,044
-Stock options – weighted average strike price of $2.74	5,867
-Warrants – strike price of $0.92	-
-Restricted share units	179
-Performance share units	835
-Deferred share units	224

ESG Update

Headwater remains committed to strong ESG performance. Recent achievements related to the Company's ESG strategy include:

- Headwater released its inaugural ESG report on November 3, 2022, highlighting key factors of the Company's ESG program including emissions management, Indigenous and community engagement and sustainability stewardship. For more information, see the Company's ESG report on the Company's website at www.headwaterexp.com.

- Headwater has received initial funding of $11.0 million from NRCan in connection with its first and second claim submissions to the ERF program. NRCan has provided financial assistance by way of a partially repayable interest-free loan to the Company for its working interest in the joint Marten Hills natural gas processing plant and gathering system, as well as for gas conservation equipment associated with the Company's wholly owned oil processing facility in Marten Hills (the "Project"). Headwater will repay 80% of the financial assistance pursuant to the terms and conditions of the agreement, with the remaining 20% being non-repayable. The Project eliminates venting and flaring of methane rich natural gas from existing and future oil wells in the Company's core area of Marten Hills. Over the course of the Project and subject to future claims, NRCan will contribute the lesser of 75% of total eligible Project costs and $18.5 million. The repayable portion of the funds received are to be repaid as follows: 10% on June 30, 2025, 33% on June 30, 2026, and 57% on June 30, 2027.

- The Board has set a target of achieving and maintaining a Board composition in which at least 30% of its directors are women by no later than the date of the annual meeting of shareholders in 2023. The Board increased its representation by women members from 12.5% to 22.2% as the result of the nomination and election of an additional woman to the Board at the annual and special meeting of shareholders held on May 12, 2022.

The Board continually focuses on ensuring that its governance structure is appropriate and following best practices given Headwater's size and stage of development. The primary responsibility of Headwater's Corporate Governance and Sustainability Committee, which is comprised of independent members of the Board, is to develop the Company's approach to matters concerning corporate governance, sustainability, human resources and compensation. In addition, the Board has also established the Audit Committee and Reserves and Safety Committee, which are both comprised of independent members of the Board, to ensure the integrity of the financial and reserves reporting of the Company. For additional information relating to the governance policies and structure of the Company see the Company's management information circular dated April 1, 2022 for the annual and special meeting of the shareholders held on May 12, 2022, which is available on SEDAR at www.sedar.com and the information under the heading Corporate Responsibility on the Company's website at at www.headwaterexp.com.

Related Party Transactions

Key management personnel of the Company include its directors and senior management. In 2022, the Company recorded $3.3 million (2021 – $2.8 million) relating to compensation of key management personnel. In 2022, stock-based compensation expense, including amounts capitalized to PP&E, relating to compensation of key management personnel was $3.9 million (2021 – $2.7 million).

Selected Annual Financial Information

The following table summarizes key annual financial and operating information over the most recently completed financial years.

	2022	2021	2020
(thousands of dollars except share data and production volumes)			
Average production volumes (boe/d)	12,841	7,393	882
Average sales volumes (boe/d)	12,843	7,390	882
Total sales, net of blending (1)	430,047	179,517	9,156
Net income	162,109	45,828	6,707
Net income per share			
-basic	0.71	0.23	0.05
-diluted	0.70	0.21	0.05
Adjusted net income (1)	162,109	78,427	10,996
Cash flows provided by operating activities	283,925	111,656	230
Adjusted funds flow from operations (2)	279,727	117,916	8,782
Working capital	109,433	89,775	70,528
Adjusted working capital (2)	104,918	92,929	80,759
Dividends declared	23,392	-	-
Per share	0.10	-	-
Capital expenditures (1)	244,495	140,389	2,277
Property acquisition	-	-	135,297
Total assets	734,742	488,807	300,685

(1) Non-GAAP measure. Refer to “Non-GAAP and Other Financial Measures” within this MD&A.
(2) Refer to “Management of capital” in note 16 of the audited annual financial statements and to “Non-GAAP and Other Financial Measures” within this MD&A.

Following the Marten Hills acquisition from Cenovus in December 2020, Headwater has grown annual average production volumes significantly from 882 boe/d in 2020 to 7,393 boe/d in 2021 to 12,841 boe/d in 2022. This production growth, in combination with higher commodity prices as a result of the increased demand for crude oil following the global recovery from the COVID-19 pandemic, resulted in significant cash flows provided by operating activities of $283.9 million and adjusted funds flow from operations of $279.7 million in 2022.

Summary of Quarterly Information

	Q4/22	Q3/22	Q2/22	Q1/22	Q4/21	Q3/21	Q2/21	Q1/21
Financial *(thousands of dollars except share data)*								
Total sales	109,377	99,587	130,153	119,262	75,287	50,123	40,038	25,492
Total sales, net of blending (1) (2)	102,974	94,949	122,102	110,022	70,125	48,841	37,429	23,122
Adjusted funds flow from operations (3)	71,828	58,441	79,435	70,023	48,731	31,524	23,182	14,479
Per share - basic	0.31	0.25	0.35	0.32	0.24	0.16	0.12	0.07
- diluted (5)	0.31	0.25	0.34	0.30	0.22	0.14	0.10	0.07
Cash flows provided by operating activities	66,448	72,060	84,728	60,689	47,753	27,888	23,232	12,783
Net income (loss)	39,789	31,545	48,412	42,363	27,927	26,106	4,588	(12,793)
Per share - basic	0.17	0.14	0.21	0.19	0.14	0.13	0.02	(0.07)
- diluted	0.17	0.13	0.21	0.18	0.13	0.12	0.02	(0.07)
Capital expenditures (2)	60,677	71,001	30,860	81,957	49,043	37,293	16,781	37,272
Depletion and depreciation	25,842	17,284	17,243	19,038	15,790	10,889	10,459	7,250
Adjusted working capital (3)	104,918	117,967	130,206	80,072	92,929	63,709	69,697	58,367
Working capital	109,433	113,381	127,101	77,122	89,775	16,490	32,586	28,687
Shareholders' equity	543,335	525,006	492,145	441,148	397,791	295,528	268,191	257,461
Dividends declared	23,392	-	-	-	-	-	-	-
Per share	0.10	-	-	-	-	-	-	-
Weighted average shares *thousands)*								
Basic	231,766	229,909	226,168	221,209	204,005	202,313	197,445	195,322
Diluted (5)	235,305	236,658	233,479	234,265	220,958	218,190	213,905	195,322
Shares outstanding, end of period *(thousands)*								
Basic	233,920	229,911	229,908	223,727	217,681	202,466	202,286	195,574
Diluted (6)	241,029	241,593	241,585	241,688	242,448	240,447	240,257	240,456
Operating *(6:1 boe conversion)*								
Average daily production								
Heavy oil (*bbls/d*)	13,536	10,842	10,637	10,602	9,377	7,637	6,185	3,385
Natural gas *(mmcf/d)*	11.5	4.3	6.4	10.8	6.4	0.3	2.3	8.5
Natural gas liquids *(bbls/d)*	99	55	66	7	-	-	5	5
Barrels of oil equivalent *(boe/d)* (7)	15,546	11,612	11,772	12,414	10,449	7,688	6,565	4,805
Average daily sales (8)	15,568	11,680	11,705	12,398	10,459	7,613	6,653	4,768
Average selling prices								
Heavy oil (*$/bbl*)	73.10	92.35	121.49	98.80	75.12	70.00	64.20	55.72
Natural gas *($/mcf)*	10.15	4.23	7.28	15.65	8.46	4.49	2.76	7.48
Natural gas liquids *($/bbl)*	73.02	95.54	113.61	108.57	-	-	73.99	66.55
Barrels of oil equivalent *($/boe)*	71.60	88.27	114.34	98.09	72.62	69.71	61.52	52.51
Netbacks ($/boe) (4) (9)								
Operating								
Sales, net of blending	71.90	88.36	114.63	98.60	72.88	69.73	61.83	53.89
Realized gain (loss) on financial derivatives	2.96	-	(0.24)	(3.54)	1.41	-	0.24	(1.28)
Royalties	(13.51)	(21.93)	(23.85)	(15.09)	(11.34)	(10.46)	(8.84)	(5.49)
Transportation	(4.21)	(3.94)	(4.07)	(4.90)	(6.98)	(8.68)	(8.21)	(6.04)
Production	(6.25)	(5.95)	(5.66)	(5.77)	(4.20)	(4.42)	(4.89)	(5.62)
Operating netback, including financial derivatives *($/boe)*	50.89	56.54	80.81	69.30	51.77	46.17	40.13	35.46
General and administrative	(1.14)	(1.46)	(1.52)	(1.48)	(1.23)	(1.40)	(1.60)	(1.97)
Interest income and other expense (10)	1.15	1.18	0.44	0.14	0.10	0.24	(0.23)	0.26
Current income taxes	(0.75)	(1.87)	(5.16)	(5.21)	-	-	-	-
Adjusted funds flow netback *($/boe)*	50.15	54.39	74.57	62.75	50.64	45.01	38.30	33.75

(1) Heavy oil sales are netted with blending expense to compare the realized price to benchmark. In the audited annual financial statements, blending is recorded in blending and transportation expense.
(2) Non-GAAP measure. Refer to “Non-GAAP and Other Financial Measures” within this MD&A.
(3) Refer to “Management of capital” in note 16 of the audited annual financial statements and to “Non-GAAP and Other Financial Measures” within this MD&A.
(4) Non-GAAP ratio. Refer to the advisory “Non-GAAP and Other Financial Measures”.
(5) Diluted weighted average shares outstanding includes the impact of any stock options, warrants, RSUs and PSUs that would be outstanding as dilutive instruments using the treasury stock method.
(6) Includes in-the-money dilutive instruments as at December 31, 2022 which include 6.1 million stock options with a weighted average exercise price of $2.74, 0.2 million RSUs and 0.8 million PSUs.
(7) See barrels of oil equivalent under “Oil and Gas Measures”.
(8) Includes sales of unblended heavy crude oil. The Company’s heavy oil sales volumes and production volumes differ due to changes in inventory.
(9) Netbacks are calculated using average sales volumes.
(10) Excludes unrealized foreign exchange gains/losses, accretion on decommissioning liabilities, interest on repayable contribution and interest on lease liability.

2021 was a transformational year for Headwater following the recapitalization transaction and Marten Hills acquisition in 2020. The Company spent $140.4 million on its capital program in 2021 growing production from 1,646 boe/d in the fourth quarter of 2020 to 10,449 boe/d in the fourth quarter of 2021. The Company continued this expansion in 2022 by executing a $244.5 million capital program inclusive of significant land acquisitions, drilling and infrastructure spend. Headwater’s land expenditures of $32.5 million in 2022 added unburdened lands in the Falher/Clearwater plays in Greater Peavine and West Nipisi establishing the Company’s next exploration focus areas. Headwater grew average production to 15,546 boe/d in the fourth quarter of 2022. The recovery of crude oil prices and the increase in the Company’s average daily production has resulted in a significant increase in sales, cash flows provided by operating activities and net income.

Prior to the Marten Hills acquisition in December 2020, Headwater solely produced natural gas and natural gas liquids out of its McCully assets in New Brunswick. Headwater’s east coast natural gas sales are priced at AGT. The AGT market has been characterized by excess demand during the winter season resulting in significant premiums in the sales price for natural gas during the winter season as compared to prices during other periods of the year. In response to this trend in natural gas prices, since 2015, the Company has shut-in most of its producing natural gas wells in the McCully field in New Brunswick for a portion of the summer and fall period to time the start-up of production, and the associated recovery of flush volumes, with peak winter pricing to maximize adjusted funds flow from operations and to retain Headwater’s reserves for production in future years.

Off-Balance Sheet Arrangements

All off-balance sheet arrangements are in the normal course of business. Refer to the commitments under the heading “Contractual Obligations and Commitments”.

Subsequent Events

a) Dividend

Subsequent to December 31, 2022, the Company declared a cash dividend of $0.10 per common share. The dividend will be payable on April 17, 2023, to shareholders of record at the close of business on March 31, 2023. The dividend is designated as an eligible dividend for Canadian income tax purposes.

b) Financial derivative commodity contract and foreign exchange contracts:

Subsequent to December 31, 2022, Headwater entered into the following financial derivative contract:

Commodity	Index	Type	Term	Daily Volume	Contract Price
Natural Gas	AECO 5A	Fixed	Apr 2023- Oct 2023	1,000 GJ	Cdn$2.93/GJ

Subsequent to December 31, 2022, Headwater entered into the following foreign exchange contracts:

Type	Buy Currency	Sell Currency	Rate	Notional Amount	Settlement Date
Forward contract	CAD	USD	WMR noon rate, January 2023 average	US$23,800,000	February 28, 2023
Forward contract	CAD	USD	WMR noon rate, February 2023 average	US$24,600,000	March 28, 2023
Forward contract	CAD	USD	WMR noon rate, March 2023 average	US$26,000,000	April 26, 2023

Non-GAAP and Other Financial Measures

Throughout this MD&A, the Company uses various non-GAAP and other financial measures to analyze operating performance and financial position. These non-GAAP and other financial measures do not have standardized meanings prescribed under IFRS and therefore may not be comparable to similar measures presented by other entities.

Non-GAAP Financial Measures

Free cash flow

Management utilizes free cash flow to assess the amount of funds available for future capital allocation decisions. It is calculated as adjusted funds flow from operations net of capital expenditures.

	Three months ended December 31,		Year ended December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Adjusted funds flow from operations	71,828	48,731	279,727	117,916
Capital expenditures	(60,677)	(49,043)	(244,495)	(140,389)
Free cash flow	11,151	(312)	35,232	(22,473)

Adjusted net income

Adjusted net income is a non-GAAP financial measure which management utilizes to present a measure of financial performance that is more comparable over periods. It is calculated by adding the remeasurement loss on warrant liability associated with the Cenovus Warrants to net income.

	Three months ended December 31,		Year ended December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Net income	39,789	27,927	162,109	45,828
Remeasurement loss on warrant liability	-	4,669	-	32,599
Adjusted net income	39,789	32,596	162,109	78,427

Heavy oil sales, net of blending

Management utilizes heavy oil sales, net of blending expense to compare realized pricing to WCS benchmark pricing. It is calculated by deducting the Company's blending expense from heavy oil sales. In the annual financial statements blending expense is recorded within blending and transportation expense.

	Three months ended December 31,		Year ended December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Heavy oil sales	97,584	70,038	423,211	178,434
Blending expense	(6,403)	(5,162)	(28,332)	(11,423)
Heavy oil sales, net of blending expense	91,181	64,876	394,879	167,011

Total sales, net of blending

Management utilizes total sales, net of blending expense to compare realized pricing to benchmark pricing. It is calculated by deducting the Company's blending expense from total sales. In the audited annual financial statements blending expense is recorded within blending and transportation expense.

	Three months ended December 31,		Year ended December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Total sales	109,377	75,287	458,379	190,940
Blending expense	(6,403)	(5,162)	(28,332)	(11,423)
Total sales, net of blending expense	102,974	70,125	430,047	179,517

Capital expenditures

Management utilizes capital expenditures to measure total cash capital expenditures incurred in the period. Capital expenditures represents capital expenditures – exploration and evaluation and capital expenditures – property, plant and equipment in the statement of cash flows in the Company's audited annual financial statements netted by the government grant.

	Three months ended December 31,		Year ended December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Cash flows used in investing activities	61,957	47,047	232,056	109,127
Proceeds from government grant	780	-	1,988	-
Restricted cash	5,000	1,248	-	1,477
Change in non-cash working capital	(5,223)	748	14,879	29,785
Government grant	(1,837)	-	(4,428)	-
Capital expenditures	60,677	49,043	244,495	140,389

Capital Management Measures

Adjusted Funds Flow from Operations

Management considers adjusted funds flow from operations to be a key measure to assess the Company's management of capital. In addition to being a capital management measure, adjusted funds flow from operations is used by management to assess the performance of the Company's oil and gas properties. Adjusted funds flow from operations is an indicator of operating performance as it varies in response to production levels and management of production and transportation costs. Management believes that by excluding the impact of changes in non-cash working capital and deducting current income taxes, adjusted funds flow from operations provides a useful measure of Headwater's ability to generate the funds necessary to manage the capital needs of the Company. While current income taxes will not be paid until 2023, management believes adjusting for current income taxes in the period incurred is a better indication of the funds generated by the Company.

	Three months ended December 31,		Year ended, December 31,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Cash flows provided by operating activities	66,448	47,753	283,925	111,656
Changes in non–cash working capital	6,455	978	10,195	6,260
Current income tax expense	(1,075)	-	(14,393)	-
Adjusted funds flow from operations	71,828	48,731	279,727	117,916

Adjusted Working Capital

Adjusted working capital is a capital management measure which management uses to assess the Company's liquidity.

	Year ended December 31,	
	2022	2021
	(thousands of dollars)	
Working capital	109,433	89,775
Contribution receivable (long-term)	1,104	-
Repayable contribution	(6,720)	-
Financial derivative receivable	(419)	(770)
Financial derivative liability	1,520	3,924
Adjusted working capital	104,918	92,929

Non-GAAP Ratios

Adjusted funds flow netback, operating netback and operating netback, including financial derivatives

Adjusted funds flow netback, operating netback and operating netback, including financial derivatives are non-GAAP ratios and are used by management to better analyze the Company's performance against prior periods on a more comparable basis.

Adjusted funds flow netback is defined as adjusted funds flow from operations divided by sales volumes in the period.

Operating netback is defined as sales less royalties, transportation and blending costs and production expense divided by sales volumes in the period. Sales volumes exclude the impact of purchased condensate. Operating netback, including financial derivatives is defined as operating netback plus realized gains on financial derivatives.

Adjusted funds flow per share and adjusted net income per share

Adjusted funds flow per share and adjusted net income per share are non-GAAP ratios and are used by management to better analyze the Company's performance against prior periods on a more comparable basis. Adjusted funds flow per share and adjusted net income per share are calculated as adjusted funds flow from operations or adjusted net income divided by weighted average shares outstanding during the applicable period on a basic or diluted basis.

Royalty rate

Corporate royalty rate is calculated as total royalties as a percentage of total sales, net of blending expense.

Per boe numbers

This MD&A represents various results on a per boe basis including Headwater average realized sales price, financial derivatives gains (losses) per boe, royalty expense per boe, transportation expense per boe, production expense per boe, general and administrative expenses per boe, interest income and other expense per boe, remeasurement loss on warrant liability per boe, stock-based compensation expense per boe, depletion and depreciation per boe and impairment reversal per boe. These figures are calculated using sales volumes.

Disclosure Controls and Procedures and Internal Controls over Financial Reporting

The Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") of the Company have designed, or caused to be designed under their supervision, disclosure controls and procedures as defined in National Instrument 52-109 – *Certification of Disclosure in Issuers' Annual and Interim Filings* ("NI 52-109") of the Canadian Securities Administrators, to provide reasonable assurance that: (i) information required to be disclosed by an issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is accumulated and communicated to the Company's management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure; and (ii) information required to be disclosed by the Company 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 securities legislation.

The CEO and the CFO have evaluated the effectiveness of Headwater's disclosure controls and procedures as at December 31, 2022 and have concluded that such disclosure controls and procedures were effective as at such date.

The CEO and the CFO of Headwater have designed, or caused to be designed under their supervision, internal controls over financial reporting ("ICFR") as defined in NI 52-109. The control framework Headwater's officers used to design the Company's ICFR is the COSO Framework published by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). The CEO and CFO have concluded that the Company's ICFR were effective as of December 31, 2022. There have been no changes in the ICFR during the period from October 1, 2022, to December 31, 2022 that have materially affected, or are reasonably likely to materially affect the Company's ICFR.

It should be noted that while Headwater's CEO and CFO believe that the Company's internal controls and procedures provide a reasonable level of assurance and that they are effective, they do not expect these controls will prevent all errors or fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Critical Accounting Estimates

Use of estimates and judgments

The preparation of the Company's financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Such estimates and assumptions are evaluated at each reporting date and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Estimates are more difficult to determine, and the range of potential outcomes can be wider, in periods of higher volatility and uncertainty. The impacts of the COVID-19 pandemic and the recovery therefrom coupled with several factors including higher levels of uncertainty due to the Russian invasion of Ukraine and its impact on energy markets, rising interest and inflation rates, and constrained supply chains have created a higher level of volatility and uncertainty. Management has, to the extent reasonable, incorporated known facts and circumstances into the estimates made, however, actual results could differ from those estimates and those differences could be material. The Company has identified the following areas requiring significant judgments, assumptions or estimates.

Climate change

The following provides certain disclosures as to the impact of climate change on the amounts recorded in the financial statements as at and for the year ended December 31, 2022. The below is not a comprehensive list or analysis of all climate change impacts and risks.

Emissions, carbon and other regulations impacting climate and climate related matters are constantly evolving. With respect to climate reporting, the International Sustainability Standards Board has issued an IFRS Sustainability Disclosure Standard with the aim to develop sustainability disclosure standards that are globally consistent, comparable and reliable. In addition, the Canadian Securities Administrators have issued a proposed national instrument 51-107 Disclosure of Climate-Related Matters. The cost to comply with these standards, and others that may be developed or evolve over time, has not yet been quantified.

The Company has considered the impact of the evolving worldwide demand for energy and global advancement of alternative sources of energy that are not sourced from fossil fuels in its assessment as a possible indication of impairment of its oil and gas properties. The Company completed the analysis of triggers for impairment as at December 31, 2022 and climate risk/climate change, in of itself, did not result in the Company completing an impairment test. The Company has considered the impact of the evolving worldwide demand for energy and global advancement of alternative sources of energy that are not sourced from fossil fuels in its assessment of depletion on its oil and gas properties. Depletion of the Company's oil and gas properties was based on proved and probable reserves, the life of which is generally less than 20 years. The ultimate period in which global energy markets can transition from carbon-based sources to alternative energy is highly uncertain, however, the majority of the Company's proved and probable reserves per the 2022 reserve report should be realized prior to the elimination of carbon-based energy. At this time, the Company has not capped its reserve life for purposes of calculating depletion expense, however, this estimate will be monitored as the energy evolution continues.

The Company engages a third-party external reserve engineer to prepare the reserve report. The reserve report includes anticipated impacts from emissions related taxes, most notably the reserve report includes estimated carbon tax related to the Company's operations consistent with Alberta's Emissions Management and Climate Resilience Act.

The evolving energy transition and general sentiment to the oil and gas industry may result in reduced access to capital markets. Management will continue to adjust the capital structure to the dynamic environment.

The Company's financial results for 2022 were not directly impacted from a climate event. In 2022, the Company did not incur material weather related damages to its property, plant and equipment. During 2022, management is not aware of a material disruption in its supply chain or the marketers of the Company's product related to climate events.

The Company maintains insurance coverage that provides a level of insurance for certain events that may arise due to climate change factors; however, the Company's insurance program is subject to limits and various restrictions. No claims were made under the Company's insurance policies in 2022 with respect to climate related matters.

a) Critical Judgments in Applying Accounting Policies

Business Combinations

Business combinations are accounted for using the acquisition method of accounting. The determination of fair value is estimated based on information available at the date of acquisition and requires management to make assumptions and estimates about future events. The assumptions and estimates with respect to determining the fair value of exploration and evaluation assets and property, plant and equipment acquired generally require the most judgment and include estimates of the cash flows associated with proved and probable reserves acquired which is impacted by assumptions related to forecasted production, forecasted operating and royalty costs, future development costs, future crude oil and natural gas commodity prices, foreign exchange rates, and discount rates. Assumptions are also required to determine the fair value of decommissioning liabilities associated with the properties. Changes in any of these assumptions or estimates used in determining the fair value of acquired assets and liabilities could impact the amounts assigned to assets, liabilities (including deferred income tax liabilities) in the acquisition equation. Future net income (loss) will be affected as the fair value on initial recognition impacts future depletion expense, as well as the risk of potential impairment in future periods.

Determination of cash-generating units ("CGU") and impairment

The determination of what constitutes a CGU used to test the recoverability of the carrying values of the Company's oil and gas properties is subject to management's judgment. Judgments are made in regard to shared infrastructure, geographical proximity, petroleum type and similar exposure to market risks and materiality. The asset composition of a CGU can directly impact the recoverability of the assets included therein.

Judgments are required to assess when impairment or impairment reversal indicators exist and impairment testing is required.

The Company's CGUs as at December 31, 2022 include its Alberta CGU comprised of its Marten Hills and Greater Peavine assets and its New Brunswick CGU consisting of its McCully assets.

Exploration and evaluation ("E&E") assets

The application of the Company's accounting policy for E&E assets requires management to make certain judgments as to whether economic quantities of reserves have been found. Judgment is also required to determine the level at which E&E is assessed for impairment; for Headwater, the recoverable amount of E&E assets is assessed at a CGU level.

b) Key Sources of Estimation Uncertainty

Recoverability of asset carrying value and the impact of reserves on depletion and the evaluation of the recoverable amount of a CGU

At each reporting date, the Company assesses its property, plant and equipment and exploration and evaluation assets to determine if there is any indication that the carrying amount of the assets may not be recoverable. An assessment is also made at each reporting date to determine whether there is any indication that previously recognized impairment losses no longer exist or have decreased. Determination as to whether and how much an asset is impaired, or no longer impaired, involves management's estimates on highly uncertain matters. The key estimates used in the determination of cash flows from crude oil and natural gas reserves and the volume of proved and probable crude oil and natural gas reserves include the following:

i) Reserves and forecasted production – assumptions that are valid at the time of reserve estimation may change significantly when new information becomes available. Changes in future price estimates, production levels or results of future drilling may change the economic status of reserves and may ultimately result in reserve revisions.

ii) Forecasted crude oil and natural gas prices – commodity prices can fluctuate for a variety of reasons including supply and demand fundamentals, inventory levels, exchange rates, weather, and economic and geopolitical factors.

iii) Discount rate – the discount rate used to calculate the net present value of cash flows is based on estimates of an approximate industry peer group weighted average cost of capital. Changes in the general economic environment could result in significant changes to this estimate.

iv) Forecasted operating and royalty costs and future development costs – estimates concerning future drilling and infrastructure costs and production costs required to operate the assets are used in the cash flow model.

Changes in circumstances may impact these estimates which could have a material financial impact in future periods.

Reserves estimates also have a material financial impact on depletion expense, property, plant, and equipment acquired in business combinations and decommissioning liabilities, all of which could have a material impact on financial results. These reserve estimates are evaluated by third-party reserve evaluators at least annually, who work with information provided by the Company to establish reserve determinations in accordance with National Instrument (NI) 51-101, “Standards of Disclosure for Oil and Gas Activities”. Changes in circumstances may impact these estimates which could have a material financial impact in future periods.

Decommissioning liabilities

The decommissioning costs which will ultimately be incurred by the Company are uncertain and estimates can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other production sites. The expected timing can also change in response to changes in reserves or changes in laws and regulations. As a result, there could be significant adjustments to the provisions established which could materially affect future financial results. Judgments include the most appropriate discount rate to use, which management has determined to be a risk-free rate.

Valuation of financial instruments

The estimated fair values of the Company’s financial derivative commodity and foreign exchange contracts are subject to measurement uncertainty due to the estimation of future crude oil and natural gas commodity prices, foreign exchange rates and volatility.

The estimated fair value of the warrant liability, which is considered a financial instrument, uses the Monte Carlo simulation pricing model which is based on assumptions including volatility, risk-free interest rate and the expected term.

Valuation of warrants and stock options

The estimated fair values of stock options issued under the Company’s stock option plans were based on the Black-Scholes pricing model incorporating assumptions on volatility, risk-free interest rate, forfeiture rate and the expected term.

New accounting policies

On January 1, 2022, the Company adopted an amendment to IAS 16 “Property, Plant and Equipment” re: *proceeds before intended use*. The amendment prohibits a company from deducting from the cost of PP&E amounts received from selling items produced while the company is preparing the asset for its intended use. Instead, a company will recognize such sales proceeds and related costs in the Statement of Income and Comprehensive Income.

On January 1, 2022, the Company adopted an amendment to IAS 37 “Provisions, Contingent Liabilities and Contingent Assets” re: *onerous contracts – cost of fulfilling a contract*. The amendment specifies which costs a company includes in determining the cost of fulfilling a contract for the purpose of assessing whether a contract is onerous.

These amendments did not have a material impact to the Company's financial statements for the year ended December 31, 2022.

Future accounting pronouncements

The IASB announced an amendment to IAS 1 "Presentation of financial statements" re: *classification of liabilities as current or non-current* which is effective for annual periods beginning on or after January 1, 2024. The amendment clarifies that the classification of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period.

On May 7, 2021, the IASB announced an amendment to IAS 12 "Income Taxes" re: *deferred tax assets and liabilities arising from a single transaction* which is effective for annual periods beginning on or after January 1, 2023. The amendment narrows the scope of the initial recognition exemption so that is does not apply to transactions that give rise to equal and offsetting temporary differences. As a result, companies will need to recognize a deferred tax asset and a deferred tax liability for temporary differences arising on initial recognition of a lease and of a decommissioning provision.

The new accounting pronouncement on income taxes is not expected to have a material impact to the Company's financial statements. The Company has not determined the impact of the revisions to IAS 1.

Business Conditions and Risks

There are numerous factors both known and unknown, that could cause actual results or events to differ materially from forecast results. The following is a summary of such risk factors, which should not be construed as exhaustive:

- Volatility in the market conditions for the oil and natural gas industry may affect the value of the Company's reserves and restrict its cash flow and ability to access capital to fund the development of it properties;
- Various factors may adversely impact the marketability of oil and natural gas, affecting net production revenue, production volumes and development and exploration activities;
- The anticipated benefits of acquisitions may not be achieved and the Company may dispose of non-core assets for less than their carrying value on the financial statements as a result of weak market conditions;
- The impact of the Russian Ukrainian conflict on commodity prices and the world economy could affect the Company's results, business, financial conditions or liquidity;
- Natural disasters, terrorist acts, civil unrest, war, pandemics (including any continuing impacts of the COVID-19 pandemic) and other disruptions and dislocations may affect the Company's results, business, financial conditions or liquidity;
- The Company's business may be adversely affected by political and social events and decisions made in Canada, the United States, Europe and elsewhere;
- Lack of capacity and/or regulatory constraints on gathering and processing facilities and pipeline systems may have a negative impact on the Company's ability to produce and sell its oil and natural gas;
- The Company competes with other oil and natural gas companies, some of which have greater financial and operational resources;
- The Company's ability to successfully implement new technologies into its operations in a timely and efficient manner will affect its ability to compete;

- Changes to the demand for oil and natural gas products and the rise of petroleum alternatives may negatively affect the Company's financial condition, results of operations and cash flow;
- Modification to current, or implementation of additional, regulations (including environmental regimes) or royalty regimes may reduce the demand for oil and natural gas, impact the Company's cash flows and/or increase the Company's costs and/or delay planned operations;
- Taxes on carbon emissions affect the demand for oil and natural gas, the Company's operating expenses and may impair the Company's ability to compete;
- Liability management programs enacted by regulators in the western provinces may prevent or interfere with the Company's ability to acquire properties or require a substantial cash deposit with the regulator;
- The Company may require additional financing, from time to time, to fund the acquisition, exploration and development of properties and its ability to obtain such financing in a timely fashion and on acceptable terms may be negatively impacted by the current economic and global market volatility;
- Changing investor sentiment towards the oil and natural gas industry may impact the Company's access to, and cost of, capital;
- Oil and natural gas operations are subject to seasonal weather conditions and, if applicable to the Company's operations in the future, the Company may experience significant operational delays as a result;
- Regulatory water use restrictions and/or limited access to water or other fluids may impact the Company's future production volumes from any future waterflood of the Company;
- Credit risk related to non-payment for sales contracts or other counterparties;
- Foreign exchange risk as commodity sales are based on US dollar denominated benchmarks; and
- The risk of significant interruption or failure of the Company's information technology systems and related data and control systems or a significant breach that could adversely affect the Company's operations.

Additional risks and information on risk factors are included in the Annual Informational Form for the year ended December 31, 2022, dated March 9, 2023, which is available on the Company's website at www.headwaterexp.com and under the Company's profile on SEDAR at www.sedar.com.

The Company uses a variety of means to help mitigate or minimize these risks including the following:

- Attracting and retaining a team of highly qualified and motivated professionals who have a vested interest in the success of the Company;
- Employing risk management instruments to minimize exposure to volatility of commodity prices;
- Maintaining a strong financial position;
- Maintaining strict environmental, safety and health practices;
- Maintaining a comprehensive insurance program;
- Managing credit risk by entering into agreements with counterparties that are investment grade; and
- Implementation of cyber security protocols and procedures to reduce to risk of failure of breach of data.

<u>Oil and Gas Metrics</u>

Barrels of Oil Equivalent

The term barrels of oil equivalent (“boe”) may be misleading, particularly if used in isolation. Per boe amounts have been calculated using a conversion rate of six thousand cubic feet of natural gas to one barrel of crude oil. This equivalence is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. As the value ratio between natural gas and crude oil based on the current prices of natural gas and crude oil is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

Dividend Policy

The amount of future cash dividends paid by the Company, if any, will be subject to the discretion of the Board and may vary depending on a variety of factors and conditions existing from time to time, including, among other things, adjusted funds flow from operations, fluctuations in commodity prices, production levels, capital expenditure requirements, acquisitions, debt service requirements and debt levels, operating costs, royalty burdens, foreign exchange rates and the satisfaction of the liquidity and solvency tests imposed by applicable corporate law for the declaration and payment of dividends. Depending on these and various other factors, many of which will be beyond the control of the Company, the Board will adjust the Company’s dividend policy from time to time and, as a result, future cash dividends could be reduced or suspended entirely.

Reserves Information

Reserves information as at December 31, 2022 as presented herein is based on a report (the “2022 GLJ Reserves Report”) prepared by GLJ Ltd. (“GLJ”) assessing the Company’s reserves effective December 31, 2022 which were prepared in accordance with standards of the Canadian Oil and Gas Evaluation Handbook and National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities and is based on the average forecast prices as at December 31, 2022 of three independent reserves evaluation firms. Additional information regarding reserves data and other oil and gas information is included in Headwater's Annual Information Form for the year ended December 31, 2022, dated March 9, 2023, which is available on the Company's website at and under the Company's profile on SEDAR at www.sedar.com.

Forward Looking Information

This MD&A contains certain forward-looking statements and forward-looking information (collectively referred to herein as "forward-looking statements") within the meaning of Canadian securities laws. All statements other than statements of historical fact are forward-looking statements. Forward-looking information typically contains statements with words such as "anticipate", "believe", "plan", "continuous", "estimate", "expect", "may", "will", "project", "should" or similar words suggesting future outcomes. In particular, this MD&A contains forward-looking statements pertaining to the following:

- business plans and strategies (including its production optimization and hedging strategies);
- the Company’s intent to not draw on the credit facility at current commodity pricing;
- the Company’s intent to not grant any further options under the Option Plans;
- the Company’s intent to settle DSUs in cash;
- the Company’s intent to convert 13 (13.0 net) wells to injection in 2023;
- the expectation that Headwater could make use of additional equity or debt financings to fund any substantial increase of its capital expenditure program or for future acquisitions;
- 2023 guidance related to expected annual average daily production, capital expenditures, dividend payment, adjusted funds flow from operations and exit adjusted working capital;

- the expectation that the Company has adequate liquidity to fund its 2023 capital expenditure budget of $200 million, future dividend payments and contractual obligations in the near term through existing working capital and forecasted cash flows from operations;
- exploration and development plans of Headwater;
- 2023 crude oil and natural gas pricing assumptions; and
- 2023 Canadian – US dollar exchange rates;
- the estimated amount to settle the Company's decommissioning liabilities;
- the expected details of the Company's funding from the ERF program and the timing of repayment of such funding; and
- the expectation that the majority of the Company's proved and probable reserves per the 2022 reserve report should be realized prior to the elimination of carbon-based energy.

Statements relating to "reserves" are forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the reserves described, as applicable, exist in the quantities predicted or estimated and can profitably be produced in the future. Undue reliance should not be placed on forward-looking statements, which are inherently uncertain, are based on estimates and assumptions, and are subject to known and unknown risks and uncertainties (both general and specific) that contribute to the possibility that the future events or circumstances contemplated by the forward-looking statements will not occur. There can be no assurance that the plans, intentions or expectations upon which forward-looking statements are based, will in fact be realized. Actual results will differ, and the difference may be material and adverse to the Company and its shareholders.

The forward-looking statements contained herein are based on certain key expectations and assumptions made by the Company, including but not limited to expectations and assumptions concerning the success of optimization and efficiency improvement projects, the availability of capital, current legislation, receipt of required regulatory approval, the success of future drilling, development and waterflooding activities, the performance of existing wells, the performance of new wells, Headwater's growth strategy, general economic conditions including inflationary pressures, availability of required equipment and services, prevailing equipment and services costs and prevailing commodity prices. Although the Company believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company can give no assurance that they will prove to be correct.

Any financial outlook or future oriented financial information in this press release, as defined by applicable securities legislation, has been approved by management of the Company as of the date hereof. Readers are cautioned that any such future-oriented financial information contained herein should not be used for purposes other than those for which it is disclosed herein.

Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks. These include, but are not limited to, the risks identified under the heading "*Business Conditions and Risks*". Further information regarding these factors and additional factors may be found under the heading "Risk Factors" in the Annual Informational Form for the year ended December 31, 2022, dated March 9, 2023, which is available on the Company's website at www.headwaterexp.com and under the Company's profile on SEDAR at www.sedar.com. Readers are cautioned that the foregoing list of factors that may affect future results is not exhaustive.

The forward-looking statements contained in this MD&A are made as of the date hereof and the Company does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, except as required by applicable law. The forward-looking statements contained herein are expressly qualified by this cautionary statement.

Corporate Information

Board of Directors

NEIL ROSZELL
Executive Chairman & CEO, Headwater Exploration Inc.
Calgary, Alberta

JASON JASKELA
President and COO, Headwater Exploration Inc.
Calgary, Alberta

CHANDRA HENRY (1) (2)
CFO and Chief Compliance Officer Longbow Capital Inc.
Calgary, Alberta

STEPHEN LARKE (2)
Director Vermillion Energy Inc. and Topaz Energy Corp.
Calgary, Alberta

PHILLIP KNOLL(3)
Director Altagas Ltd.
Calgary, Alberta

KEVIN OLSON (1) (3)
Independent Businessman .
Calgary, Alberta

DAVE PEARCE (2) (3)
Deputy Managing Partner, Azimuth Capital Management
Calgary, Alberta

KAM SANDHAR (1)
Executive Vice President, Strategy and Corporate Development
Cenovus Energy Inc.
Calgary, Alberta

ELENA DUMITRASCU
Cofounder and Chief Technology Officer, Credivera
Calgary, Alberta

(1) Audit Committee
(2) Corporate Governance and Sustainability Committee
(3) Reserves and Safety Committee

Officers

NEIL ROSZELL, P. Eng.
Executive Chairman & CEO

JASON JASKELA, P. Eng.
President and COO

ALI HORVATH, CPA, CA
Vice President Finance & CFO

TERRY DANKU, P. Eng.
Vice President Engineering

JON GRIMWOOD, P. Geo.
Vice President Exploration

SCOTT RIDEOUT
Vice President Land

BRAD CHRISTMAN
Vice President Production

TED BROWN (Corporate Secretary)
Burnet, Duckworth & Palmer LLP

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Auditors
KPMG LLP
Calgary, Alberta

Independent Reservoir Consultants
GLJ Ltd.