Q1 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 May 12, 2022 and should be read in conjunction with the unaudited interim condensed financial statements as at and for the three months ended March 31, 2022, and the MD&A and the audited financial statements and the notes thereto for the year ended December 31, 2021, copies of which are available through the System for Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com. The unaudited interim condensed financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and in accordance with IAS 34 *Interim Financial Reporting*. All dollar amounts are referenced in Canadian dollars unless otherwise stated.

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 in the Clearwater formation in the Marten Hills area of Alberta and natural gas production 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.

HIGHLIGHTS FOR THREE MONTHS ENDED MARCH 31, 2022

- Production averaged 12,414 boe/d (consisting of 10,602 bbls/d of heavy oil, 10.8 mmcf/d of natural gas and 7 bbls/d of natural gas liquids) representing an increase of 158% from the first quarter of 2021.

- Added 98 net sections of unburdened lands in the Greater Peavine area of the Clearwater play establishing the Company's next exploration focus area.

- Realized record adjusted funds flow from operations (1) of $70.0 million ($0.32 per share basic) and cash flows from operating activities of $60.7 million ($0.27 per share basic).

- Achieved the highest net income in the Company's history of $42.4 million ($0.19 per share basic).

- Achieved a record operating netback (2) of $72.84/boe and an adjusted funds flow netback (2) of $62.75/boe.

- Executed an $82.0 million capital expenditure (3) program. The Company drilled 26 crude oil wells inclusive of 7 exploration and step-out wells in Marten Hills West at a 100% success rate.

- As at March 31, 2022, Headwater had adjusted working capital (1) of $80.1 million, working capital of $77.1 million and no outstanding debt.

(1) Refer to “Management of capital” in note 11 of the interim 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.

Results of Operations

Production and Pricing

	Three months ended March 31, 2022	2021	Percent Change
Average daily production			
Heavy oil (bbls/d)	10,602	3,385	213
Natural gas (mmcf/d)	10.8	8.5	27
Natural gas liquids (bbls/d)	7	5	40
Barrels of oil equivalent (boe/d)	12,414	4,805	158
Average daily sales (1)			
Heavy oil (bbls/d)	10,587	3,347	216
Natural gas (mmcf/d)	10.8	8.5	27
Natural gas liquids (bbls/d)	7	5	40
Barrels of oil equivalent (boe/d)	12,398	4,768	160
Headwater average sales price (2)			
Heavy oil ($/bbl) (3)	98.80	55.72	77
Natural gas ($/mcf)	15.65	7.48	109
Natural gas liquids ($/bbl)	108.57	66.55	63
Barrels of oil equivalent ($/boe)	98.09	52.51	87
Average Benchmark Price			
WTI (US$/bbl) (4)	94.29	57.84	63
WCS differential to WTI (US$/bbl)	(14.53)	(12.47)	17
WCS (Cdn$/bbl) (5)	101.02	57.43	76
Condensate at Edmonton (Cdn$/bbl)	124.49	72.92	71
AGT (US$/mmbtu) (6)	13.67	5.56	146
NYMEX Henry Hub (US$/mmbtu)	4.95	2.69	84
Exchange rate (US$/Cdn$)	0.79	0.79	-

(1) Includes sales of heavy crude oil excluding the impact of purchased condensate. 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

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Heavy oil sales	103,373	19,155	440
Blending expense	(9,240)	(2,370)	290
Heavy oil, net of blending (1)	94,133	16,785	461
Natural gas	15,252	5,718	167
Natural gas liquids	70	31	126
Gathering, processing and transportation	567	588	(4)
Total sales, net of blending expense (1)	110,022	23,122	376

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

Marten Hills

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.

During the three months ended March 31, 2022, Headwater's heavy oil sales, net of blending expense, increased to $94.1 million from $16.8 million in the comparable period of 2021. This increase was attributable to a 77% increase in realized commodity pricing and a 216% increase in sales volumes.

The WTI crude price has strengthened significantly as a result of 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. The WCS differential to WTI remained narrow due to improved market access out of western Canada. The Company's heavy oil realized price for the three months ended March 31, 2022, was $98.80/bbl, reflecting a discount to WCS of $2.22/bbl due to blending costs.

During the three months ended March 31, 2022, Headwater's heavy oil sales volumes averaged 10,587 bbls/d compared to 3,347 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 2021 and first quarter 2022 capital expenditure programs. Headwater drilled 51.0 total net crude oil wells during the year ended December 31, 2021 and drilled 26.0 total net crude oil wells in the first quarter of 2022, substantially increasing the Company's heavy oil production in the Marten Hills area.

Headwater processes its natural gas production through its Marten Hills joint natural gas processing facility which was commissioned in the third quarter of 2021. The natural gas transaction price is based on the AECO 5A daily benchmark price adjusted for delivery location and heat content. Headwater's natural gas sales volumes averaged 3.0 mmcf/d in the Marten Hills area with natural gas sales of $1.3 million generated during the three months ended March 31, 2022.

McCully

The Company sells its natural gas production daily from the McCully field in New Brunswick. The transaction price is based on the AGT daily benchmark price adjusted for delivery location and heat content. In recent years, the AGT market has been characterized by excess demand during the winter season resulting in a significant premium in the sales price as compared to prices during other periods of the year. Consistent with prior years, the Company shut-in production for the upcoming summer season effective May 1, 2022.

During the three months ended March 31, 2022, Headwater's natural gas sales out of its McCully field increased to $14.0 million from $5.7 million in the same period of the prior year due to a significant increase in realized prices. The increase in Headwater's average realized natural gas sales price was consistent with the increase in the AGT benchmark price over the period. AGT benchmark pricing has increased as a result of lower than average natural gas storage levels.

Headwater owns the midstream facilities which process and transport natural gas from the McCully field to the Maritimes & Northeast Pipeline. Gathering, processing and transportation revenue primarily relates to income earned on third party gas flowing through these facilities. This revenue will vary quarter over quarter depending on the amount of third-party volumes processed.

Financial Derivative Losses

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Realized losses	(3,945)	(551)	616
Unrealized losses	(130)	(254)	(49)
Financial derivative losses	(4,075)	(805)	406
Per boe ($)	3.65	1.87	95

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

The realized financial derivative losses incurred during the three months ended March 31, 2022, represent the Company's natural gas contracts referenced to the AGT price.

A realized financial derivative loss was recorded during the three months ended March 31, 2022 of $3.9 million compared to a realized loss of $0.6 million in the same period of 2021, for the Company's natural gas contracts settled. The Company recognized losses on its natural gas contracts as the commodity contracts to fix the AGT price were lower when compared to the AGT settlement price in the periods. The AGT settlement price exceeded the contract price during the three months ended March 31, 2022, due to increased natural gas demand following the global recovery from the COVID-19 pandemic. North American east coast temperatures and natural gas storage levels are the main variables impacting the AGT settlement price.

As at March 31, 2022, the fair value of Headwater's outstanding financial derivative contracts was a net unrealized liability of $3.0 million as reflected in the interim 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 March 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 March 31, 2022. For the three months ended March 31, 2022, Headwater recognized unrealized losses of $0.1 million compared to unrealized losses of $0.3 million in the corresponding period of 2021.

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

Commodity	Index	Type	Term	Daily Volume	Contract Price
Natural Gas	AGT	Fixed	April 2022	5,000 mmbtu	Cdn$6.48/mmbtu
Natural Gas	AGT	Fixed	Dec 2022- Mar 2023	2,500 mmbtu	Cdn$17.91/mmbtu
Natural Gas	AGT	Fixed	Jan 2023- Feb 2023	2,500 mmbtu	Cdn$32.71/mmbtu

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 March 31, 2022, Headwater had the following financial derivative foreign exchange contracts outstanding:

Type	Buy Currency	Sell Currency	Rate	Notional Amount	Settlement Date
Forward contract	USD	CAD	March 2022 average (1)	US$39.3 million	April 25, 2022
Forward contract	USD	CAD	1.2735	US$1.0 million	April 25, 2022
Forward contract	USD	CAD	April 2022 average (1)	US$29.3 million	May 25, 2022

(1) WM/Reuters Intraday Spot Rate as of Noon EST
(2) Unrealized change in fair value related to the Company's foreign exchange contracts is included in interest income and other expense in the interim financial statements.

Royalty Expense

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Heavy oil	16,040	2,133	652
Natural gas and natural gas liquids	798	222	259
Total royalty expense	16,838	2,355	615
Percentage of total sales, net of blending (1)	15.3%	10.2%	50
Per boe ($)	15.09	5.49	175

(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 March 31, 2022, royalty expense increased to $16.8 million from $2.4 million in the comparable period of 2021, due to a significant increase in heavy oil sales volumes and commodity pricing.

Headwater's average corporate royalty rate was 15.3% for the three months ended March 31, 2022, compared to 10.2% in the corresponding period of 2021. The increase in Headwater's 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 2021 and the first quarter of 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.

Headwater anticipates an increase in the Company's average corporate royalty rate for the remainder of 2022 due to the increase in commodity prices.

Transportation Expense

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Transportation expense	5,471	2,590	111
Per boe ($)	4.90	6.04	(19)

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

For the three months ended March 31, 2022, transportation expense increased to $5.5 million from $2.6 million in the same period of the prior year as a result of increased heavy oil sales volumes.

Following commissioning of Headwater's 15,000 bbls/d oil processing facility during the three months ended March 31, 2022, the Company realized a gradual reduction in transportation expense to $4.90 per boe from $6.04 per boe in the first quarter of 2021, as a result of lower trucking and terminal fees. Headwater's cost savings are anticipated to be fully realized in the second quarter of 2022, resulting in annual oil transportation expenses of approximately $4.00 per boe.

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 March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Production expense	6,436	2,413	167
Per boe ($)	5.77	5.62	3

Production expense in the three months ended March 31, 2022, was $6.4 million compared to $2.4 million in the corresponding period of 2021. The increase in production expense reflects the increase in the Company's production volumes over the period.

Production expense of $5.77 per boe during the three months ended March 31, 2022, is consistent with production expense of $5.62 per boe in the comparable period of 2021.

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 March 31, 2022	2021	Percent Change
	($/boe)		
Sales	106.88	59.41	80
Royalties	(15.09)	(5.49)	175
Transportation and blending	(13.18)	(11.56)	14
Production expense	(5.77)	(5.62)	3
Operating netback [(1)]	72.84	36.74	98
Realized losses on financial derivatives	(3.54)	(1.28)	177
Operating netback, including financial derivatives [(1)]	69.30	35.46	95

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

General and Administrative ("G&A") Expenses

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
G&A expenses	2,489	1,539	62
Capitalized G&A	(839)	(692)	21
Net G&A expenses	1,650	847	95
Per boe ($)	1.48	1.97	(25)

The Company incurred gross G&A expenses of $2.5 million during the three months ended March 31, 2022, compared to $1.5 million in the corresponding period of 2021. Increased G&A costs before capitalization were mainly the result of increased employee related costs and professional fees due to the significant growth experienced by the Company over the period. Headwater recognized $0.8 million in capitalized G&A as a result of Headwater's significant capital expenditure program in the first quarter of 2022.

G&A expenses were $1.48 per boe during the three months ended March 31, 2022, down from $1.97 per boe in the comparable period of 2021 due to a significant increase in the Company's sales volumes over the period.

Interest Income and Other Expense

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Interest income	237	204	16
Realized and unrealized foreign exchange losses	(369)	(92)	301
Accretion	(115)	(50)	130
Interest on lease liability	(18)	(3)	500
Total interest income and other expense	(265)	59	(549)
Per boe ($)	(0.24)	0.13	(285)

Interest income and other expense decreased during the three months ended March 31, 2022, when compared to the same period in the prior year primarily as a result of higher unrealized foreign exchange losses attributed to higher sales denominated in U.S. dollars. 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 Derivative Losses” for more information.

The increase in interest income by 16% during the three months ended March 31, 2022, when compared to the same period of 2021 is a result of the Bank of Canada’s prime rate hike from 2.45% to 2.70% on March 8, 2022. The Company expects to see a further increase in interest income in the second quarter of 2022 following the prime rate hike to 3.20% on April 19, 2022.

Stock-based Compensation

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Stock options	977	840	16
Deferred share units	56	58	(3)
Capitalized stock-based compensation	(334)	(378)	(12)
Stock-based compensation	699	520	34
Per boe ($)	0.63	1.21	(48)

During the three months ended March 31, 2022, stock-based compensation expense with respect to stock options increased to $1.0 million from $0.8 million in the corresponding period of 2021. Stock-based compensation is recorded over a three-year vesting period using graded amortization resulting in a higher proportion of expense being recognized earlier in the vesting term. Headwater capitalized $0.3 million of stock-based compensation during the three months ended March 31, 2022, as a result of the Company’s significant capital expenditure program.

Stock-based compensation relating to deferred share units (“DSUs”), which are currently held by one of the Company’s non-management directors, is due to the change in fair value of the DSUs over the period resulting from a corresponding change in the Company’s share price. The DSU liability as at March 31, 2022 of $0.3 million is based on a fair value of $6.63 per DSU which is the Company’s closing share price on March 31, 2022.

Stock Option Plans

The Company has a stock option plan (“Old Option Plan”) 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 under the Old Option Plan 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 under the Old Option Plan generally vest over a three-year period and expire four to five years after the grant date. The Company does not intend to grant any additional options under the Old Option Plan.

On March 25, 2020, the Company's Board of Directors (the “Board”) approved a new share option plan (“New Option Plan”) under which options to purchase common shares of the Company may be granted to directors, officers, employees and consultants of the Company. Under the terms of the New Option Plan, an aggregate number of options equal to 8.0% of the aggregate number of issued and outstanding common shares less the aggregate number of common shares issuable pursuant to outstanding options under the Old Option Plan may be granted. The exercise price of each option granted under the New Option Plan is based on the closing price of the common shares on the TSX on the trading day prior to the date the option was granted and generally options will vest as to one third of the number of options granted on each of the first, second and third anniversaries of the date of grant, respectively, and expire four years from the date of grant. The New Option Plan was approved by the Company's shareholders at the Company's annual and special meeting of shareholders held on June 15, 2020.

As at March 31, 2022, there were 963,334 stock options outstanding under the Old Option Plan and 8,403,335 stock options outstanding under the New Option Plan.

At the meeting of the Board held on March 10, 2022, the directors approved a new incentive awards plan (the "Awards Plan") providing for the grant of restricted share units ("RSUs") and performance share units ("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 Old Option Plan and New Option Plan; 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.

Until the Company receives approval of the Awards Plan from the shareholders of the Company in accordance with the rules of the TSX, the Company will not be able to issue common shares on settlement of RSUs and PSUs and will instead be required to make a cash payment equal to the value of the common shares underlying the applicable RSUs or PSUs. The approval of the Awards Plan will be considered by the shareholders of the Company at the annual and special meeting of the shareholders to be held on May 12, 2022.

At the meeting of the Board held on March 10, 2022, the Board approved the adoption of the new DSU plan (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. 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 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 closing trading price on the date of grant.

Depletion & Depreciation

	Three months ended March 31,		Percent
	2022	2021	Change
	(thousands of dollars)		
Depletion	18,807	7,182	162
Depreciation	231	68	240
Depletion & depreciation	19,038	7,250	163
Depletion – Per boe ($)	16.85	16.74	1
Depreciation – Per boe ($)	0.21	0.16	31
Per boe ($)	17.06	16.90	1

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 for the three months ended March 31, 2022, increased to $18.8 million from $7.2 million in the corresponding period of 2021, due to a significant increase in the Company's production volumes over the period.

Depletion and depreciation expense of $17.06 per boe during the three months ended March 31, 2022, is consistent with depletion and depreciation expense of $16.90 per boe in the same period of the prior year.

Impairment Assessment

As at March 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 March 31, 2022	Three months ended March 31, 2021	Percent Change
	(thousands of dollars)		
Current income tax expense	5,816	-	100
Deferred income tax expense	7,371	-	100

For the three months ended March 31, 2022, the Company recorded current taxes of $5.8 million and a deferred income tax expense of $7.4 million. The Company's effective tax provision rate is 23.5%.

As at March 31, 2022, the Company had approximately $314 million of tax pools available to be applied against future taxable income. At current commodity pricing, Headwater expects to utilize all of its Canadian exploration expense balance and non-capital losses by the end of 2022. The federal tax pools are estimated as follows:

($ thousands)	Estimated balance at March 31, 2022
Canadian oil and gas property expense	89,704
Canadian development expense	88,644
Canadian exploration expense	47,988
Undepreciated capital cost	76,654
Non-capital losses	6,201
Other	4,668
Total	313,859

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

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Cash flows provided by operating activities	60,689	12,783	375
Changes in non–cash working capital	15,150	1,696	793
Current income taxes	(5,816)	-	100
Adjusted funds flow from operations (1)	70,023	14,479	384

	Three months ended March 31, 2022	2021	Percent Change
	($/boe)		
Cash flows provided by operating activities	54.39	29.79	83
Changes in non–cash working capital	13.57	3.96	243
Current income taxes	(5.21)	-	100
Adjusted funds flow netback (2)	62.75	33.75	86

(1) Refer to “Management of capital” in note 11 of the interim 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 $60.7 million and $70.0 million, respectively, for the three months ended March 31, 2022, primarily due to a significant increase in realized commodity pricing and sales volumes from the Company’s Marten Hills assets. Headwater drilled 51 (51.0 net) crude oil wells in 2021 and 26 (26.0 net) crude oil wells in the first quarter of 2022 and grew heavy oil sales volumes from 3,347 bbls/d in the three months ended March 31, 2021, to 10,587 bbls/d in the three months ended March 31, 2022. This increase was slightly offset by $5.8 million in current income taxes incurred during the three months ended March 31, 2022.

Capital Expenditures

	Three months ended March 31, 2022	2021	Percent Change
	(thousands of dollars)		
Lease acquisition, retention and geological and geophysical	26,521	278	N/A
Site preparation	4,113	-	100
Drilling and completions	35,518	21,988	62
Equipping and facilities	15,805	15,006	5
Capital expenditures (1)	81,957	37,272	120

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

During the three months ended March 31, 2022, Headwater drilled a total of 26 (26.0 net) crude oil wells and 2 (2.0 net) stratigraphic test wells with a 100% success rate.

During the three months ended March 31, 2022, the Company invested a total of $82.0 million on capital expenditures including $35.5 million on drilling and completions, $26.5 million on land acquisitions including lease rentals and geological and geophysical, $15.8 million on equipping and facilities and $4.1 million on site preparation including road construction.

Headwater's land expenditures of $26.5 million added 98 net sections of unburdened lands in the Greater Peavine area of the Clearwater play establishing the Company's next exploration focus area.

On May 12, 2022, the Company's Board approved an increase to the 2022 capital expenditure budget from $145 million to $230 million. Headwater has allocated $110 million to the Marten Hills area, $70 million to the Marten Hills West area and $50 million to the Greater Peavine area. This budget is expected to be funded through existing working capital and forecasted cash flows from operations.

Drilling Activity

The following table summarizes the Company's drilling results:

	Three months ended March 31, 2022		2021	
	Gross	Net	Gross	Net
Heavy crude oil (1)	26	26.0	17	17.0
Natural gas	-	-	-	-
Injection	-	-	-	-
Source/stratigraphic test	2	2.0	3	3.0
Junked and abandoned (2)	1	1.0	-	-
Total	29	29.0	20	20.0
Success	100%	100%	100%	100%

(1) Of the 26 (26.0 net) crude oil wells drilled during the three months ended March 31, 2022, 1 (1.0 net) well was converted to injection and 8 (8.0 net) wells will be converted to water injection wells in the second quarter of 2022.

(2) Well abandoned due to mechanical failure and did not reach intended zone.

Decommissioning Liabilities

As at March 31, 2022, the decommissioning liabilities of the Company were $28.4 million. The Company recorded an increase of $0.8 million in the obligation from the decommissioning liability of $27.6 million as at December 31, 2021. This increase of $0.8 million is due to additions of $4.6 million as a result of the Company's capital expenditure program and accretion expense of $0.1 million partially offset by a downward change in estimate of $3.9 million. The change in estimate is a result of an increase to the risk-free rate from 1.7% at December 31, 2021 to 2.4% at March 31, 2022. The total undiscounted uninflated amount of estimated cash flows required to settle these obligations is $31.4 million (December 31, 2021 - $26.4 million).

Guidance

The following table summarizes Headwater's 2022 guidance as released on May 12, 2022, compared to the guidance issued on March 10, 2022. Headwater expects to fund capital expenditures through existing working capital and forecasted cash flows from operating activities.

	2022 Guidance March 10, 2022	2022 Guidance May 12, 2022
Average Daily Production		
Annual (boe/d) (1)	12,500	13,000
Fourth quarter average (boe/d) (2)	15,000	16,500
Pricing		
Crude oil - WTI (US$/bbl)	88.00	97.50
Crude oil - WCS (Cdn$/bbl)	97.00	107.30
Exchange rate (US$/Cdn$)	0.79	0.78
Natural gas - AGT (US$/mmbtu) (3)	14.19	15.90
Financial Summary ($millions)		
Estimated capital expenditures (4)	145	230
Estimated adjusted funds flow from operations (5)	259	305
Estimated exit adjusted working capital (5)	207	170

(1) March 10, 2022 annual production guidance comprised of: 11,500 bbls/d of heavy oil and 6.2 mmcf/d of natural gas. May 12, 2022 annual production guidance comprised of: 11,900 bbls/d of heavy oil and 6.8 mmcf/d of natural gas.
(2) March 10, 2022 fourth quarter guidance comprised of: 13,770 bbls/d of heavy oil and 7.4 mmcf/d of natural gas. May 12, 2022 fourth quarter guidance comprised of: 15,200 bbls/d of heavy oil and 7.9 mmcf/d of natural gas.
(3) The AGT price is the average for the winter producing months in the McCully field which include January – April 2022 and November – December 2022.
(4) Non-GAAP measure. Refer to "Non-GAAP and Other Financial Measures" within this MD&A
(5) Refer to "Management of capital" in note 11 of the interim financial statements and to "Non-GAAP and Other Financial Measures" within this MD&A.
(6) Revised 2022 guidance assumptions include: royalty rate of 20%, transportation and production of $10.00/boe, blending differential to WCS of $2.50/bbl, financial derivative losses of $1.10/ boe, G&A (including interest income and other) of $1.40/boe and cash taxes of $5.85/boe.

Liquidity and Capital Resources

Headwater's liquidity depends on the Company's cash flows provided by operating activities, supplemented as necessary by equity and debt financings.

As at March 31, 2022, the Company had cash of $94.8 million, working capital of $77.1 million and no outstanding debt. The Company expects to have adequate liquidity to fund its 2022 capital expenditure budget of $230 million and contractual obligations in the near term through existing working capital and forecasted cash flows 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.

Contractual Obligations and Commitments

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

	Within 1 year	1 to 5 years
	$	$
Accounts payable and accrued liabilities	66,384	-
Financial derivative liability	3,515	-
DSU liability	252	-
Lease liability	811	527
Current income tax liability	5,816	-
Total	76,778	527

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

	Total	2022	2023	2024	2025	2026	Thereafter
	$	$	$	$	$	$	$
Transportation	102,281	7,068	10,828	11,043	12,121	13,222	47,999

(1) At March 31, 2022, Headwater has the following transportation commitments:
   a. 9- year take-or-pay transportation agreement with a minimum volume commitment of 10,000 boe/d.
   b. 9- year financial commitment at $1.9 million per year adjusted for inflation.
   c. 9- year take-or-pay transportation agreement with a current minimum volume commitment of 1,250 boe/d increasing to 6,250 boe/d in year 3 and to 9,000 boe/d in year 6.

(2) Excludes leases accounted for under IFRS 16.

Common Share Information

Share Capital

(thousands)	Three months ended March 31, 2022	Three months ended March 31, 2021
Weighted average outstanding common shares (1)		
-Basic	221,209	195,322
-Diluted	234,265	195,322
Outstanding securities at March 31, 2022		
-Common shares		223,727
-Stock options – weighted average strike price of $2.38		9,367
-Recapitalization warrants – strike price $0.92 (2)		8,594

(1) The Company uses the treasury stock method to determine the dilutive effect of stock options and warrants. 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 in March 2020. As at March 31, 2022, these warrants are fully exercisable with a strike price of $0.92.

Changes to share capital during the three months ended March 31, 2022, were the following:

- 138 thousand stock options were exercised for 112 thousand common shares. Contributed surplus related to the stock options exercised of $69 thousand was transferred to capital stock.

- 6,793 thousand warrants were exercised for 5,934 thousand common shares. The associated fair value of the warrants of $2.4 million was transferred to capital stock.

Total Market Capitalization

The Company's market capitalization at March 31, 2022 was approximately $1.5 billion.

(thousands)	March 31, 2022
Common shares outstanding	223,727
Share price [(1)]	$ 6.63
Total market capitalization	$1,483,310

(1) Represents the closing price on the TSX on March 31, 2022.

As at May 12, 2022 the Company had 223,762,962 common shares outstanding.

(thousands)	May 12, 2022
Outstanding securities at May 12, 2022	
-Common shares	223,763
-Stock options – weighted average strike price of $2.39	9,324
-Recapitalization warrants – strike price $0.92	8,594

Environmental, Social and Governance ("ESG") Update

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

- 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. Headwater nominated a new female director to the Board for approval by shareholders at the annual and special meeting of shareholders to be held on May 12, 2022.

- The Company expects to release its inaugural sustainability report in the second half of 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.

Summary of Quarterly Information

	Q1/22	Q4/21	Q3/21	Q2/21	Q1/21	Q4/20	Q3/20	Q2/20
Financial *(thousands of dollars except share data)*								
Total sales, net of blending (1) (2)	110,022	70,125	48,841	37,429	23,122	6,283	-	565
Adjusted funds flow from (used in) operations (3)	70,023	48,731	31,524	23,182	14,479	4,816	(837)	(610)
Per share - basic (4)	0.32	0.24	0.16	0.12	0.07	0.03	(0.01)	-
- diluted (4)	0.30	0.22	0.14	0.10	0.07	0.03	(0.01)	-
Cash flows provided by (used in) operating activities	60,689	47,753	27,888	23,232	12,783	(1,451)	(364)	863
Net income (loss)	42,363	27,927	26,106	4,588	(12,793)	16,919	(1,723)	(1,679)
Per share - basic	0.19	0.14	0.13	0.02	(0.07)	0.10	(0.01)	(0.01)
- diluted	0.18	0.13	0.12	0.02	(0.07)	0.10	(0.01)	(0.01)
Capital expenditures (2)	81,957	49,043	37,293	16,781	37,272	1,748	61	398
Property acquisition	-	-	-	-	-	135,297	-	-
Depletion and depreciation	19,038	15,790	10,889	10,459	7,250	2,586	75	754
Adjusted working capital (3)	80,072	92,929	63,709	69,697	58,367	80,759	112,667	113,569
Working capital	77,122	89,775	16,490	32,586	28,687	70,528	112,536	113,718
Shareholders' equity	441,148	397,791	295,528	268,191	257,461	269,030	155,148	156,386
Weighted average shares *thousands)*								
Basic	221,209	204,005	202,313	197,445	195,322	161,365	145,044	144,749
Diluted (5)	234,265	220,958	218,190	213,905	195,322	168,600	145,044	144,749
Shares outstanding, end of period *(thousands)*								
Basic	223,727	217,681	202,466	202,286	195,574	195,106	145,044	145,044
Diluted (6)	241,688	242,448	240,447	240,257	240,456	238,121	158,627	151,381
Operating ***(6:1 boe conversion)***								
Average daily production								
Heavy oil (*bbls/d*)	10,602	9,377	7,637	6,185	3,385	979	-	-
Natural gas *(mmcf/d)*	10.8	6.4	0.3	2.3	8.5	4.0	-	2.4
Natural gas liquids *(bbls/d)*	7	-	-	5	5	3	-	-
Barrels of oil equivalent *(boe/d)* (7)	12,414	10,449	7,688	6,565	4,805	1,646	-	396
Average daily sales (8)	12,398	10,459	7,613	6,653	4,768	1,646	-	396
Average selling prices								
Heavy oil (*$/bbl*)	98.80	75.12	70.00	64.20	55.72	45.05	-	-
Natural gas *($/mcf)*	15.65	8.46	4.49	2.76	7.48	5.37	-	2.27
Natural gas liquids *($/bbl)*	108.57	-	-	73.99	66.55	56.23	-	-
Barrels of oil equivalent *($/boe)*	98.09	72.62	69.71	61.52	52.51	39.90	-	13.63
Netbacks ($/boe) (4) (9)								
Operating								
Sales, net of blending	98.60	72.88	69.73	61.83	53.89	41.50	-	15.67
Realized gain (loss) on financial derivatives	(3.54)	1.41	-	0.24	(1.28)	10.42	-	-
Royalties	(15.09)	(11.34)	(10.46)	(8.84)	(5.49)	(3.86)	-	(0.39)
Transportation	(4.90)	(6.98)	(8.68)	(8.21)	(6.04)	(5.10)	-	-
Production	(5.77)	(4.20)	(4.42)	(4.89)	(5.62)	(7.92)	-	(14.79)
Operating netback, including financial derivatives *($/boe)*	69.30	51.77	46.17	40.13	35.46	35.04	-	0.49
General and administrative	(1.48)	(1.23)	(1.40)	(1.60)	(1.97)	(4.64)	-	(23.33)
Interest income and other expense (10)	0.14	0.10	0.24	(0.23)	0.26	1.39	-	6.00
Current income taxes	(5.21)	-	-	-	-	-	-	-
Adjusted funds flow netback *($/boe)*	62.75	50.64	45.01	38.30	33.75	31.79	-	(16.84)

(1) Heavy oil sales are netted with blending expense to compare the realized price to benchmark. In the interim 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 11 of the interim 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 and warrants that would be outstanding as dilutive instruments using the treasury stock method.
(6) Includes in-the-money dilutive instruments as at March 31, 2022 which include 9.4 million stock options with a weighted average exercise price of $2.38 and 8.6 million warrants with an exercise price of $0.92.
(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 and interest on the 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 the first quarter of 2022 by executing an $82.0 million capital program inclusive of significant land acquisitions, drilling and infrastructure spend. Headwater's land expenditures of $26.5 million in the first quarter of 2022 added 98 net sections of unburdened lands in the Greater Peavine area of the Clearwater play establishing the Company's next exploration focus area. Headwater grew production to 12,414 boe/d in the first quarter of 2022.The recovery of crude oil prices and the increase in the Company's average production has resulted in a significant increase in sales, cash flows provided by operating activities and net income.

Prior to the Acquisition in December 2020, Headwater solely produced natural gas and 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

Commodity Contract

Subsequent to March 31, 2022, Headwater entered into the following commodity contract:

Commodity	Index	Type	Term	Daily Volume	Contract Price
Crude Oil	WCS Basis (1)	Differential	Oct 1-Dec 31, 2022	1,000 bbls	US$15.75/bbl

(1) WCS = Western Canadian Select. Headwater pays on WCS while counterparty pays on WTI (West Texas Intermediate) less US$15.75/bbl.

Foreign Exchange Contracts

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

Type	Buy Currency	Sell Currency	Rate	Notional Amount	Settlement Date
Forward contract	USD	CAD	April 2022 average [1]	US$2.4 million	May 25, 2022
Forward contract	USD	CAD	May 2022 average [1]	US$29.5 million	June 27, 2022

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

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.

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 interim financial statements blending expense is recorded within blending and transportation expense.

	Three months ended March 31, 2022	2021
	(thousands of dollars)	
Heavy oil sales	103,373	19,155
Blending expense	(9,240)	(2,370)
Heavy oil sales, net of blending expense	94,133	16,785

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 interim financial statements blending expense is recorded within blending and transportation expense.

	Three months ended March 31, 2022	2021
	(thousands of dollars)	
Total sales	119,262	25,492
Blending expense	(9,240)	(2,370)
Total sales, net of blending expense	110,022	23,122

Capital expenditures and capital expenditures including acquisition

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 interim financial statements.

	Three months ended March 31,	
	2022	2021
	(thousands of dollars)	
Cash flows used in investing activities	80,374	8,260
Restricted cash	(5,000)	1,237
Change in non-cash working capital	6,583	27,775
Capital expenditures	81,957	37,272

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 eliminating changes in non-cash working capital and deducting current income taxes, adjusted funds flow from operations is a useful measure of operating performance. 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 March 31,	
	2022	2021
	(thousands of dollars)	
Cash flows provided by operating activities	60,689	12,783
Changes in non–cash working capital	15,150	1,696
Current income taxes	(5,816)	-
Adjusted funds flow from operations	70,023	14,479

Adjusted Working Capital

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

	March 31, 2022	December 31, 2021
	(thousands of dollars)	
Working capital	77,122	89,775
Financial derivative receivable	(565)	(770)
Financial derivative liability	3,515	3,924
Adjusted working capital	80,072	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. The sales price, transportation and blending costs, and sales volumes exclude the impact of purchased condensate. Operating netback, including financial derivatives is defined as operating netback plus realized gains or losses on financial derivatives.

Adjusted funds flow per share

Adjusted funds flow per share is a non-GAAP ratio and is used by management to better analyze the Company's performance against prior periods on a more comparable basis. Adjusted funds flow per share is calculated as adjusted funds flow from operations divided by weighted average shares outstanding during the 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 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, stock-based compensation expense per boe and depletion and depreciation per boe. These figures are calculated using sales volumes.

Disclosure Controls and Procedures

The Chief Executive Officer and Chief Financial Officer have designed, or caused to be designed under their supervision, disclosure controls and procedures as defined in National Instrument 52-109 of the Canadian Securities Administrators, to provide reasonable assurance that (i) material information relating to the Company is made known to the Chief Executive Officer and Chief Financial Officer by others, particularly during the period in which the annual and interim filings are being prepared 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.

Internal Controls over Financial Reporting

The Chief Executive Officer and Chief Financial Officer have designed, or caused to be designed under their supervision, internal controls over financial reporting as defined in National Instrument 52-109 of the Canadian Securities Administrators, in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

The Company confirms that there were no changes to Headwater's internal controls over financial reporting during the interim period from January 1, 2022 to March 31, 2022 that have materially affected, or are reasonably likely to affect, the Company's internal control over financial reporting.

It should be noted that while Headwater's Chief Executive Officer and Chief Financial Officer believe that the Company's internal controls and procedures provide a reasonable level of assurance and that they are effective, they do not expect that 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 amount 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. Actual results may differ from the estimated amounts as future confirming events occur and more information is obtained by management. The Company has identified the following areas requiring significant judgments, assumptions or estimates.

Impact of COVID-19 and other world events

In March 2020, the World Health Organization declared a global pandemic following the emergence and rapid spread of a novel strain of the coronavirus ("COVID-19"). The outbreak and subsequent measures enforced to limit the spread of the pandemic contributed to volatility in financial markets. More recently, world markets and commodity pricing are being impacted by the invasion of Ukraine.

COVID-19 and recent world events have materially impacted market conditions and the energy industry and have increased the complexity of estimates and assumptions used to prepare the interim financial statements, particularly related to recoverable amounts. The Company will continue to update its significant judgments, estimates and assumptions for COVID-19 and recent world events as the impacts on commodity prices and equity markets unfold.

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 three months ended March 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 March 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 2021 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 based on the current rate of Cdn$50 per tonne.

The evolving energy transition and general sentiment to the oil and gas industry may result in reduced access to capital markets. However, due to recent world events, the focus on energy security has increased along with Canada's key role in world energy markets. Management will continue to adjust the capital structure to the dynamic environment.

The Company's financial results for the three months ended March 31, 2022 were not directly impacted from a climate event. During the three months ended March 31, 2022, the Company did not incur material weather related damages to its property, plant and equipment. 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 during the three months ended March 31, 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 March 31, 2022 include its Alberta CGU and its New Brunswick CGU.

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, deferred income taxes 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.

Valuation of warrants and stock options

The estimated fair values of the warrants issued as part of the non-brokered private placement in connection with the recapitalization transaction and 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.

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:

- 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 and other disruptions and dislocations may affect the Company's results, business, financial conditions or liquidity;
- 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 sales, production volumes and development and exploration activities;
- Inflation and supply chain issues could impact the Company's operating costs and capital expenditures as well as the Canadian and global economy;
- 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;
- Public health risks including relating to the COVID-19 pandemic 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, 2021, dated March 10, 2022, 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 and foreign exchange rates;
- 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 creditworthy counterparties that are primarily investment grade; and
- Implementation of cyber security protocols and procedures to reduce to risk of failure of breach of data.

Oil and Gas Metrics

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.

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 expectation that the Company's average corporate royalty rate will increase in the remainder of 2022 due to increased commodity pricing;
- the expectation of annual oil transportation expenses of approximately $4.00 per boe;
- the expectation to generate higher interest income in the second quarter of 2022;
- the expectation of the Company to utilize all of its Canadian exploration expense balance and non-capital losses by the end of 2022 at current commodity pricing;
- the expectation 8 (8.0 net) crude oil wells will be converted to water injection wells in the second quarter of 2022;
- the expectation that Headwater could make use of additional equity or debt financings to fund future acquisitions;
- 2022 revised guidance related to expected average daily production, capital expenditures, cash flow from operating activities, adjusted funds flow from operations, exit working capital and exit adjusted working capital;
- details of the revised 2022 approved capital expenditure budget including expected capital expenditures;
- the expectation that the 2022 capital expenditure budget will be funded through existing working capital and forecasted cash flows from operations;
- exploration and development plans of Headwater and the expectation Headwater can fund its contractual obligations through existing working capital and cash flows provided by operating activities;
- 2022 crude oil and natural gas pricing assumptions; and
- 2022 Canadian – US dollar exchange rates;
- the estimated amount to settle the Company's decommissioning liabilities;
- the expectation of the Company to release its inaugural sustainability report in the second half of 2022;
- the expectation of timing time the start-up of production from the Company's McCully field, 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; and
- the expectation that the majority of the Company's proved and probable reserves per the 2021 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, 2021, dated March 10, 2022, 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

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

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

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Auditors
KPMG LLP
Calgary, Alberta

Independent Reservoir Consultants
GLJ Ltd.