Q2 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 August 4, 2022 and should be read in conjunction with the unaudited interim condensed financial statements as at and for the three and six months ended June 30, 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 JUNE 30, 2022

- Realized record adjusted funds flow from operations (1) of $79.4 million ($0.35 per share basic) and cash flows from operating activities of $84.7 million ($0.37 per share basic) representing an increase of 243% and 265%, respectively, over the second quarter of 2021.

- Recognized net income of $48.4 million ($0.21 per share basic) representing an increase of over 950% from the second quarter of 2021.

- Generated free cash flow (3) of $48.6 million.

- Achieved a record operating netback (2) of $81.05/boe and an adjusted funds flow netback (2) of $74.57/boe representing an increase of 103% and 95%, respectively, over the second quarter of 2021.

- Production averaged 11,772 boe/d (consisting of 10,637 bbls/d of heavy oil, 6.4 mmcf/d of natural gas and 66 bbls/d of natural gas liquids) representing an increase of 79% from the second quarter of 2021.

- Executed a $30.9 million capital expenditure (3) program including 5 successful Clearwater A wells in Marten Hills West plus 9 injection wells and 4 water source wells in Marten Hills as part of Headwater's enhanced oil recovery acceleration project.

- 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.

- As at June 30, 2022, Headwater had adjusted working capital (1) of $130.2 million, working capital of $127.1 million and no outstanding bank debt.

(1) Refer to “Management of capital” in note 12 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 June 30,		Percent	Six months ended June 30,		Percent
	2022	2021	Change	2022	2021	Change
Average daily production						
Heavy oil (bbls/d)	10,637	6,185	72	10,620	4,793	122
Natural gas (mmcf/d)	6.4	2.3	178	8.6	5.4	59
Natural gas liquids (bbls/d)	66	5	1220	36	5	620
Barrels of oil equivalent (boe/d)	11,772	6,565	79	12,091	5,690	112
Average daily sales (1)						
Heavy oil (bbls/d)	10,571	6,273	69	10,579	4,818	120
Natural gas (mmcf/d)	6.4	2.3	178	8.6	5.4	59
Natural gas liquids (bbls/d)	66	5	1220	36	5	620
Barrels of oil equivalent (boe/d)	11,705	6,653	76	12,050	5,715	111
Headwater average sales price (2)						
Heavy oil ($/bbl) (3)	121.49	64.20	89	110.20	61.27	80
Natural gas ($/mcf)	7.28	2.76	164	12.51	6.48	93
Natural gas liquids ($/bbl)	113.61	73.99	54	113.12	70.14	61
Barrels of oil equivalent ($/boe)	114.34	61.52	86	106.03	57.79	83
Average Benchmark Price						
WTI (US$/bbl) (4)	108.41	66.07	64	101.35	61.96	64
WCS differential to WTI (US$/bbl)	(12.80)	(11.49)	11	(13.67)	(11.98)	14
WCS (Cdn$/bbl) (5)	122.09	66.99	82	111.55	62.21	79
Condensate at Edmonton (Cdn$/bbl)	137.86	81.00	70	131.17	76.96	70
AGT (US$/mmbtu) (6)	6.49	2.33	179	11.88	4.68	154
AECO 5A (Cdn$/GJ)	6.86	2.93	134	5.73	2.96	94
NYMEX Henry Hub (US$/mmbtu)	7.17	2.83	153	6.06	2.76	120
Exchange rate (US$/Cdn$)	0.78	0.81	(4)	0.78	0.80	(2)

(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

	Three months ended June 30, 2022	2021	Percent Change	Six months ended June 30, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Heavy oil sales	124,919	39,257	218	228,292	58,412	291
Blending expense	(8,051)	(2,609)	209	(17,291)	(4,978)	247
Heavy oil, net of blending (1)	116,868	36,648	219	211,001	53,434	295
Natural gas	4,249	566	651	19,501	6,284	210
Natural gas liquids	677	31	2084	747	62	1105
Gathering, processing and transportation	308	184	67	875	772	13
Total sales, net of blending expense (1)	122,102	37,429	226	232,124	60,552	283

(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 June 30, 2022, Headwater's heavy oil sales, net of blending expense, increased to $116.9 million from $36.6 million in the comparable period of 2021. This increase was attributable to an 89% increase in realized commodity pricing and a 69% increase in sales volumes. During the six months ended June 30, 2022, Headwater's heavy oil sales, net of blending expense, increased to $211.0 million from $53.4 million in the comparable period of 2021. This increase was attributable to an 80% increase in realized commodity pricing and a 120% increase in sales volumes.

The WTI crude price has strengthened significantly over both the three and six months ended June 30, 2022, 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. 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 June 30, 2022, was $121.49/bbl, reflecting a discount to WCS of $0.60/bbl, while the Company's heavy oil realized price for the six months ended June 30, 2022, was $110.20/bbl, reflecting a discount to WCS of $1.35/bbl. The discount to WCS narrowed during the three months ended June 30, 2022, due to selling more volumes at higher commodity pricing in the month of June, in addition to blending more heavy crude oil volumes with butane versus condensate. The realized price for butane was approximately 40% less than the realized price for condensate in the quarter.

During the three months ended June 30, 2022, Headwater's heavy oil sales volumes averaged 10,571 bbls/d compared to 6,273 bbls/d in the same period of 2021, while Headwater's heavy oil sales volumes averaged 10,579 bbls/d during the six months ended June 30, 2022, compared to 4,818 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 half 2022 capital expenditure programs. Headwater drilled 51.0 total net crude oil wells during the year ended December 31, 2021, and drilled 41.0 total net crude oil wells in the first half 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 4.6 mmcf/d with natural gas sales of $3.0 million in the three months ended June 30, 2022, while natural gas sales volumes were 3.8 mmcf/d with natural gas sales of $4.2 million in the six months ended June 30, 2022. Headwater's associated liquids production averaged 62 bbls/d with sales of $0.6 million in the three months ended June 30, 2022.

McCully

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. 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 six months ended June 30, 2022, Headwater's natural gas sales out of its McCully field increased to $15.3 million from $6.3 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 June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Realized gains (losses)	(258)	146	(277)	(4,203)	(405)	938
Unrealized losses	(2,801)	(1,458)	92	(2,931)	(1,712)	71
Financial derivative losses	(3,059)	(1,312)	133	(7,134)	(2,117)	237
Per boe	(2.87)	(2.17)	32	(3.27)	(2.05)	60

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 and six months ended June 30, 2022, represent the Company's natural gas contracts referenced to the AGT price.

A realized financial derivative loss was recorded during the three and six months ended June 30, 2022, of $0.3 million and $4.2 million, respectively, compared to a realized gain of $0.1 million in the three months ended June 30, 2021, and a realized loss of $0.4 million in the six months ended June 30, 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 and six months ended June 30, 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 June 30, 2022, the fair value of Headwater's outstanding financial derivative contracts was a net unrealized liability of $6.6 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 June 30, 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 June 30, 2022. For the three and six months ended June 30, 2022, Headwater recognized unrealized losses of $2.8 million and $2.9 million, respectively, compared to unrealized losses of $1.5 million and $1.7 million in the corresponding periods of 2021.

As at June 30, 2022, Headwater had the following financial derivative commodity contracts outstanding:

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

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 June 30, 2022, Headwater had the following financial derivative foreign exchange contract outstanding:

Type	Buy Currency	Sell Currency	Rate	Notional Amount	Settlement Date
Forward contract	USD	CAD	June 2022 average (1)	US$42.0 million	July 26, 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 June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Heavy oil	24,853	5,334	366	40,893	7,467	448
Natural gas and natural gas liquids	551	17	3141	1,349	239	464
Total royalty expense	25,404	5,351	375	42,242	7,706	448
Percentage of total sales, net of blending (1)	20.8%	14.3%	45	18.2%	12.7%	43
Per boe	23.85	8.84	170	19.37	7.45	160

(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 and six months ended June 30, 2022, royalty expense increased to $25.4 million and $42.2 million, respectively, from $5.4 million and $7.7 million in the comparable periods of 2021, due to a significant increase in heavy oil sales volumes and commodity pricing.

Headwater's average corporate royalty rate was 20.8% for the three months ended June 30, 2022, compared to 14.3% in the corresponding period of 2021, while the Company's average corporate royalty rate was 18.2% for the six months ended June 30, 2022, compared to 12.7% 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 half 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.

Transportation Expense

	Three months ended June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Transportation expense	4,333	4,968	(13)	9,804	7,558	30
Per boe	4.07	8.21	(50)	4.49	7.31	(39)

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 \$4.3 million, \$4.07 per boe, during the three months ended June 30, 2022, from \$5.0 million, \$8.21 per boe, 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 which resulted in lower trucking and terminal charges.

Headwater's transportation expense increased to \$9.8 million in the six months ended June 30, 2022, from \$7.6 million in the same period of 2021 resulting from a 111% increase in sales volumes. Transportation expense per boe decreased to \$4.49 from \$7.31 over the same period 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 June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Production expense	6,030	2,960	104	12,466	5,373	132
Per boe	5.66	4.89	16	5.72	5.19	10

For the three and six months ended June 30, 2022, production expense increased to \$6.0 million and \$12.5 million, respectively, from \$3.0 million and \$5.4 million in the comparable periods of 2021, due to a significant increase in production volumes.

For the three and six months ended June 30, 2022, production expense per boe increased to \$5.66 and \$5.72, respectively, from \$4.89 and \$5.19 in the comparable periods of 2021, 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.

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 June 30,		Percent	Six months ended June 30,		Percent
	2022	2021	Change	2022	2021	Change
	($/boe)			*($/boe)*		
Sales	122.19	66.14	85	114.36	63.34	81
Royalties	(23.85)	(8.84)	170	(19.37)	(7.45)	160
Transportation and blending	(11.63)	(12.52)	(7)	(12.42)	(12.12)	2
Production expense	(5.66)	(4.89)	16	(5.72)	(5.19)	10
Operating netback [1]	81.05	39.89	103	76.85	38.58	99
Realized gains (losses) on financial derivatives	(0.24)	0.24	(200)	(1.93)	(0.39)	395
Operating netback, including financial derivatives [1]	80.81	40.13	101	74.92	38.19	96

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

For the three and six months ended June 30, 2022, Headwater's operating netback, including financial derivatives increased significantly to $80.81 and $74.92, respectively, from $40.13 and $38.19 in the corresponding periods of the prior year as a result of significantly higher commodity pricing partially offset by higher cash costs including royalties, transportation and blending, production expense and realized losses on financial derivatives.

General and Administrative ("G&A") Expenses

	Three months ended June 30,		Percent	Six months ended June 30,		Percent
	2022	2021	Change	2022	2021	Change
	(thousands of dollars)			*(thousands of dollars)*		
G&A expenses	2,568	1,656	55	5,057	3,182	59
Capitalized G&A	(944)	(685)	38	(1,783)	(1,364)	31
Net G&A expenses	1,624	971	67	3,274	1,818	80
Per boe ($)	1.52	1.60	(5)	1.50	1.76	(15)

For the three and six months ended June 30, 2022, gross G&A expenses increased to $2.6 million and $5.1 million, respectively, from $1.7 million and $3.2 million in the corresponding periods of the prior year. 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 periods. For the three and six months ended June 30, 2022, the Company recognized $0.9 million and $1.8 million, respectively, of capitalized G&A due to Headwater's significant capital expenditure program in the first half of 2022.

G&A expenses decreased to $1.52 per boe during the three months ended June 30, 2022, and $1.50 per boe during the six months ended June 30, 2022, due to a significant increase in the Company's sales volumes over the period.

Interest Income and Other Expense

	Three months ended June 30,		Percent	Six months ended June 30,		Percent
	2022	2021	Change	2022	2021	Change
	(thousands of dollars)			*(thousands of dollars)*		
Interest income	496	146	240	733	350	109
Realized and unrealized foreign exchange gains (losses)	60	(287)	(121)	(309)	(379)	(18)
Accretion	(168)	(89)	89	(283)	(139)	104
Interest on repayable contribution	(11)	-	100	(11)	-	100
Interest on lease liability	(16)	(5)	220	(34)	(8)	325
Total interest income and other expense	361	(235)	(254)	96	(176)	(155)
Per boe ($)	0.34	(0.39)	(187)	0.04	(0.17)	(124)

Interest income and other expense increased during both the three and six months ended June 30, 2022, when compared to the same periods in the prior year, primarily as a result of higher interest income and lower foreign exchange losses.

The increase in interest income by 240% during the three months ended June 30, 2022, and by 109% during the six months ended June 30, 2022, when compared to the same periods of 2021, is a result of the Bank of Canada's prime rate hikes over the first half of 2022 increasing the overnight rate to 3.70%. Additionally, the Company had a higher average cash balance on hand in 2022 when compared to 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 Derivative Losses" for more information.

Stock-based Compensation

	Three months ended June 30,		Percent	Six months ended June 30,		Percent
	2022	2021	Change	2022	2021	Change
	(thousands of dollars)			*(thousands of dollars)*		
Stock options	623	978	(36)	1,600	1,819	(12)
Deferred share units ("DSUs")	434	17	2453	490	75	553
Share awards	764	-	100	764	-	100
Capitalized stock-based compensation	(422)	(385)	10	(756)	(764)	(1)
Stock-based compensation	1,399	610	129	2,098	1,130	86
Per boe ($)	1.31	1.01	30	0.96	1.09	(12)

During the three and six months ended June 30, 2022, stock-based compensation expense increased to $1.4 million and $2.1 million, respectively, from $0.6 million and $1.1 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 six months ended June 30, 2022, the Company capitalized $0.4 million and $0.8 million of stock-based compensation expense, respectively, as a result of Headwater’s significant capital expenditure program in the first half of 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 does not intend to grant any further options under the Option Plans.

As at June 30, 2022, there were 7,217,678 stock options outstanding under the Option Plans.

Share Awards

At the meeting of the Board of Directors (the “Board”) of the Company 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 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 June 30, 2022, there were 153,540 RSUs outstanding and 818,460 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 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 the volume weighted average trading price of the five days preceding the grant date.

As at June 30, 2022, there were 119,051 DSUs outstanding.

Depletion & Depreciation

	Three months ended June 30, 2022	2021	Percent Change	Six months ended June 30, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Depletion	17,013	10,376	64	35,820	17,558	104
Depreciation	230	83	177	461	151	205
Depletion & depreciation	17,243	10,459	65	36,281	17,709	105
Depletion – Per boe ($)	15.97	17.14	(7)	16.42	16.97	(3)
Depreciation – Per boe ($)	0.22	0.14	57	0.21	0.15	40
Per boe ($)	16.19	17.28	(6)	16.63	17.12	(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 for the three and six months ended June 30, 2022, increased to $17.0 million and $35.8 million, respectively, from $10.4 million from $17.6 million in the corresponding periods of 2021, due to a significant increase in the Company's production volumes over the periods.

Depletion per boe for both the three and six months ended June 30, 2022, was consistent with the corresponding periods of the prior year.

Impairment Assessment

As at June 30, 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 June 30, 2022	2021	Percent Change	Six months ended June 30, 2022	2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Current income tax expense	5,493	-	100	11,309	-	100
Deferred income tax expense	9,466	-	100	16,837	-	100

For the three months ended June 30, 2022, the Company recorded current taxes of $5.5 million and a deferred income tax expense of $9.5 million. For the six months ended June 30, 2022, the Company recorded current taxes of $11.3 million and a deferred income tax expense of $16.8 million. The Company's effective tax provision rate is 23.4%.

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

	Three months ended June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Cash flows provided by operating activities	84,728	23,232	265	145,417	36,015	304
Changes in non–cash working capital	200	(50)	(500)	15,350	1,646	833
Current income taxes	(5,493)	-	100	(11,309)	-	100
Adjusted funds flow from operations (1)	79,435	23,182	243	149,458	37,661	297

	Three months ended June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	($/boe)			*($/boe)*		
Cash flows provided by operating activities	79.54	38.38	107	66.67	34.81	92
Changes in non–cash working capital	0.19	(0.08)	(338)	7.04	1.59	343
Current income taxes	(5.16)	-	100	(5.19)	-	100
Adjusted funds flow netback (2)	74.57	38.30	95	68.52	36.40	88

(1) Refer to “Management of capital” in note 12 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 to $84.7 million and $79.4 million, respectively, for the three months ended June 30, 2022, while cash flows provided by operating activities and adjusted funds flow from operations increased to $145.4 million and $149.5 million, respectively, for the six months ended June 30, 2022, due to a significant increase in sales as a result of higher 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 41 (41.0 net) crude oil wells in the first half of 2022 and grew heavy oil sales volumes from 6,273 bbls/d in the three months ended June 30, 2021, to 10,571 bbls/d in the three months ended June 30, 2022. The increase in sales was partially offset by higher cash costs including royalties, transportation and blending, production expense, realized losses on financial derivatives and G&A expenses. Headwater also recorded current income taxes of $5.5 million and $11.3 million, respectively, for the three and six months ended June 30, 2022.

Capital Expenditures

	Three months ended June 30, 2022	Three months ended June 30, 2021	Percent Change	Six months ended June 30, 2022	Six months ended June 30, 2021	Percent Change
	(thousands of dollars)			*(thousands of dollars)*		
Land and geological and geophysical	300	476	(37)	26,821	754	3457
Site preparation	7,795	2,380	228	11,908	2,380	400
Drilling and completions	17,734	5,283	236	53,252	27,270	95
Equipping and facilities	7,617	8,633	(12)	23,422	23,639	(1)
Corporate	5	9	(44)	5	10	(50)
	33,451	16,781	99	115,408	54,053	114
Government grant	(2,591)	-	100	(2,591)	-	100
Capital expenditures (1)	30,860	16,781	84	112,817	54,053	109

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

During the three months ended June 30, 2022, the Company invested a total of $33.5 million on capital expenditures including $17.7 million on drilling and completions, $7.8 million on site preparation including road construction, $7.6 million on equipping and facilities, and $0.3 million on lease retention and seismic.

During the six months ended June 30, 2022, the Company invested a total of $115.4 million on capital expenditures including $53.3 million on drilling and completions, $26.8 million on land acquisitions and seismic, $23.4 million on equipping and facilities and $11.9 million on site preparation including road construction. Headwater’s land expenditures of $26.8 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.

The Company realized a $2.6 million reduction to capital expenditures in the quarter in connection with its first claim submission to the ERF program. See “Environmental, Social and Governance (“ESG”) Update” for more details.

Drilling Activity

The following table summarizes the Company’s drilling results:

	Three months ended June 30, 2022 Gross	2022 Net	2021 Gross	2021 Net	Six months ended June 30, 2022 Gross	2022 Net	2021 Gross	2021 Net
Crude oil (1)	15	15.0	2	2.0	41	41.0	19	19.0
Natural gas	-	-	-	-	-	-	-	-
Injection	-	-	-	-	-	-	-	-
Source/stratigraphic test	4	4.0	-	-	6	6.0	3	3.0
Junked and abandoned (2)	-	-	-	-	1	1.0	-	-
Total	19	19.0	2	2.0	48	48.0	22	22.0
Success	100%	100%	100%	100%	100%	100%	100%	100%

(1) Of the 15 (15.0 net) crude oil wells drilled during the three months ended June 30, 2022, 9 (9.0 net) wells were subsequently converted to injection in July 2022.
(2) Well abandoned due to mechanical failure and did not reach intended zone.

Decommissioning Liabilities

As at June 30, 2022, the decommissioning liabilities of the Company were $25.4 million. The Company recorded a decrease of $2.2 million in the obligation from the decommissioning liability of $27.6 million as at December 31, 2021. This decrease of $2.2 million is due to a downward change in estimate of $8.4 million partially offset by additions of $5.9 million as a result of the Company's capital expenditure program and accretion expense of $0.3 million. The change in estimate is a result of an increase to the risk-free rate from 1.7% at December 31, 2021 to 3.1% at June 30, 2022. The total undiscounted uninflated amount of estimated cash flows required to settle these obligations is $32.8 million (December 31, 2021 - $26.4 million).

Guidance

The following table summarizes Headwater's 2022 revised guidance as released on August 4, 2022, compared to the guidance issued on May 12, 2022. Headwater expects to fund capital expenditures through existing working capital and forecasted cash flows from operating activities.

	2022 Guidance May 12, 2022	2022 Guidance August 4, 2022
Average Daily Production		
Annual (boe/d) (1)	13,000	13,000
Fourth quarter average (boe/d) (2)	16,500	16,500
Pricing		
Crude oil - WTI (US$/bbl)	97.50	96.30
Crude oil - WCS (Cdn$/bbl)	107.30	101.70
Exchange rate (US$/Cdn$)	0.78	0.78
Natural gas - AGT (US$/mmbtu) (3)	15.90	17.70
Financial Summary ($millions)		
Estimated capital expenditures (4)	230	230
Estimated adjusted funds flow from operations (5)	305	295
Estimated exit adjusted working capital (5)	170	160

(1) May 12, 2022 and August 4, 2022 annual production guidance comprised of: 11,900 bbls/d of heavy oil and 6.8 mmcf/d of natural gas.
(2) May 12, 2022 and August 4, 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 12 of the interim financial statements and to "Non-GAAP and Other Financial Measures" within this MD&A.
(6) 2022 revised 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 $1.25/ boe, G&A (including interest income and other) of $1.30/boe and cash taxes of $4.40/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 June 30, 2022, the Company had cash of $144.8 million, working capital of $127.1 million and no outstanding bank 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 June 30, 2022:

	Within 1 year	1 to 5 years
	$	$
Accounts payable and accrued liabilities	62,434	-
Financial derivative liability	6,696	-
DSU liability	685	-
Lease liability	790	491
Current income tax liability	11,309	-
Repayable contribution	-	4,132
Total	81,914	4,623

As at June 30, 2022, the Company is committed to future payments under the following agreements:

	Total	2022	2023	2024	2025	2026	Thereafter
	$	$	$	$	$	$	$
Transportation (1)	113,568	4,893	11,437	13,165	13,427	14,571	56,075
Lease (2)	765	-	357	375	33	-	-
Government grant (3)	5,370	-	-	-	537	1,788	3,045
Total	119,703	4,893	11,794	13,540	13,997	16,359	59,120

(1) At June 30, 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 4,750 boe/d increasing to 9,750 boe/d in year 3 and to 12,500 boe/d in year 6.

(2) Relates to variable operating costs, which are a non-lease component of the Company's head office lease.

(3) Relates to scheduled re-payments of federal government funding under the terms of the repayable contribution agreement with NRCan.

(4) Excludes leases accounted for under IFRS 16.

Common Share Information

Share Capital

(thousands)	Three months ended June 30, 2022	2021	Six months ended June 30, 2022	2021
Weighted average outstanding common shares (1)				
-Basic	226,168	197,445	223,702	196,389
-Diluted	233,479	213,905	230,957	196,389
Outstanding securities at June 30, 2022				
-Common shares				229,908
-Stock options – weighted average strike price of $2.51				7,218
-Recapitalization warrants – strike price $0.92 (2)				3,487
-Restricted share units				154
-Performance share units				818
-Deferred share units				119

(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 in March 2020. As at June 30, 2022, these warrants are fully exercisable with a strike price of $0.92.

Changes to share capital during the six months ended June 30, 2022, were the following:

- 2.3 million stock options were exercised for 1.8 million common shares and cash proceeds of $0.8 million. Contributed surplus related to the stock options exercised of $1.7 million was transferred to capital stock.

- 11.9 million warrants were exercised for 10.5 million common shares and cash proceeds of $0.4 million. The associated fair value of the warrants of $4.2 million was transferred to capital stock.

Total Market Capitalization

The Company's market capitalization at June 30, 2022 was approximately $1.2 billion.

(thousands)	June 30, 2022
Common shares outstanding	229,908
Share price (1)	$ 5.41
Total market capitalization	$1,243,802

(1) Represents the closing price on the TSX on June 30, 2022.

As at August 4, 2022 the Company had 229,908,281 common shares outstanding.

(thousands)	August 4, 2022
Outstanding securities at August 4, 2022	
-Common shares	229,908
-Stock options – weighted average strike price of $2.51	7,218
-Recapitalization warrants – strike price $0.92	3,487
-Restricted share units	159
-Performance share units	818
-Deferred share units	119

Environmental, Social and Governance ("ESG") Update

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

- Headwater was approved for initial funding of $6.7 million from NRCan in connection with its first claim submission to the ERF program. NRCan will provide 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, 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 March 31, 2025, 33% on March 31, 2026, and 57% on March 31, 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.

Summary of Quarterly Information

	Q2/22	Q1/22	Q4/21	Q3/21	Q2/21	Q1/21	Q4/20	Q3/20
Financial *(thousands of dollars except share data)*								
Total sales	130,153	119,262	75,287	50,123	40,038	25,492	6,626	-
Total sales, net of blending (1) (2)	122,102	110,022	70,125	48,841	37,429	23,122	6,283	-
Adjusted funds flow from (used in) operations (3)	79,435	70,023	48,731	31,524	23,182	14,479	4,816	(837)
Per share - basic (4)	0.35	0.32	0.24	0.16	0.12	0.07	0.03	(0.01)
- diluted (4)	0.34	0.30	0.22	0.14	0.10	0.07	0.03	(0.01)
Cash flows provided by (used in) operating activities	84,728	60,689	47,753	27,888	23,232	12,783	(1,451)	(364)
Net income (loss)	48,412	42,363	27,927	26,106	4,588	(12,793)	16,919	(1,723)
Per share - basic	0.21	0.19	0.14	0.13	0.02	(0.07)	0.10	(0.01)
- diluted	0.21	0.18	0.13	0.12	0.02	(0.07)	0.10	(0.01)
Capital expenditures (2)	30,860	81,957	49,043	37,293	16,781	37,272	1,748	61
Property acquisition	-	-	-	-	-	-	135,297	-
Depletion and depreciation	17,243	19,038	15,790	10,889	10,459	7,250	2,586	75
Adjusted working capital (3)	130,206	80,072	92,929	63,709	69,697	58,367	80,759	112,667
Working capital	127,101	77,122	89,775	16,490	32,586	28,687	70,528	112,536
Shareholders' equity	492,145	441,148	397,791	295,528	268,191	257,461	269,030	155,148
Weighted average shares *thousands)*								
Basic	226,168	221,209	204,005	202,313	197,445	195,322	161,365	145,044
Diluted (5)	233,479	234,265	220,958	218,190	213,905	195,322	168,600	145,044
Shares outstanding, end of period *(thousands)*								
Basic	229,908	223,727	217,681	202,466	202,286	195,574	195,106	145,044
Diluted (6)	241,585	241,688	242,448	240,447	240,257	240,456	238,121	158,627
Operating ***(6:1 boe conversion)***								
Average daily production								
Heavy oil (*bbls/d*)	10,637	10,602	9,377	7,637	6,185	3,385	979	-
Natural gas *(mmcf/d)*	6.4	10.8	6.4	0.3	2.3	8.5	4.0	-
Natural gas liquids *(bbls/d)*	66	7	-	-	5	5	3	-
Barrels of oil equivalent *(boe/d)* (7)	11,772	12,414	10,449	7,688	6,565	4,805	1,646	-
Average daily sales (8)	11,705	12,398	10,459	7,613	6,653	4,768	1,646	-
Average selling prices								
Heavy oil (*$/bbl*)	121.49	98.80	75.12	70.00	64.20	55.72	45.05	-
Natural gas *($/mcf)*	7.28	15.65	8.46	4.49	2.76	7.48	5.37	-
Natural gas liquids *($/bbl)*	113.61	108.57	-	-	73.99	66.55	56.23	-
Barrels of oil equivalent *($/boe)*	114.34	98.09	72.62	69.71	61.52	52.51	39.90	-
Netbacks ($/boe) (4) (9)								
Operating								
Sales, net of blending	114.63	98.60	72.88	69.73	61.83	53.89	41.50	-
Realized gain (loss) on financial derivatives	(0.24)	(3.54)	1.41	-	0.24	(1.28)	10.42	-
Royalties	(23.85)	(15.09)	(11.34)	(10.46)	(8.84)	(5.49)	(3.86)	-
Transportation	(4.07)	(4.90)	(6.98)	(8.68)	(8.21)	(6.04)	(5.10)	-
Production	(5.66)	(5.77)	(4.20)	(4.42)	(4.89)	(5.62)	(7.92)	-
Operating netback, including financial derivatives *($/boe)*	80.81	69.30	51.77	46.17	40.13	35.46	35.04	-
General and administrative	(1.52)	(1.48)	(1.23)	(1.40)	(1.60)	(1.97)	(4.64)	-
Interest income and other expense (10)	0.44	0.14	0.10	0.24	(0.23)	0.26	1.39	-
Current income taxes	(5.16)	(5.21)	-	-	-	-	-	-
Adjusted funds flow netback *($/boe)*	74.57	62.75	50.64	45.01	38.30	33.75	31.79	-

(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 12 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, 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 June 30, 2022 which include 7.2 million stock options with a weighted average exercise price of $2.51, 3.5 million warrants with an exercise price of $0.92, 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 the first half of 2022 by executing an $112.8 million capital program inclusive of significant land acquisitions, drilling and infrastructure spend. Headwater’s land expenditures of $26.8 million in the first half 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 11,772 boe/d in the second 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 Marten Hills 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

Foreign Exchange Contracts

Subsequent to June 30, 2022, Headwater entered into the following foreign exchange contracts:

Type	Buy Currency	Sell Currency	Rate	Notional Amount	Settlement Date
Forward contract	USD	CAD	July 2022 average	US$28.0 million	August 26, 2022
Forward contract	USD	CAD	August 2022 average	US$25.0 million	September 27, 2022

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.

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Adjusted funds flow from operations	79,435	23,182	149,458	37,661
Capital expenditures	(30,860)	(16,781)	(112,817)	(54,053)
Free cash flow	48,575	6,401	36,641	(16,392)

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Heavy oil sales	124,919	39,257	228,292	58,412
Blending expense	(8,051)	(2,609)	(17,291)	(4,978)
Heavy oil sales, net of blending expense	116,868	36,648	211,001	53,434

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Total sales	130,153	40,038	249,415	65,530
Blending expense	(8,051)	(2,609)	(17,291)	(4,978)
Total sales, net of blending expense	122,102	37,429	232,124	60,552

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 interim financial statements netted by the government grant.

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Cash flows used in investing activities	35,663	30,079	116,037	38,339
Restricted cash	-	240	(5,000)	1,477
Change in non-cash working capital	(2,212)	(13,538)	4,371	14,237
Government grant	(2,591)	-	(2,591)	-
Capital expenditures	30,860	16,781	112,817	54,053

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 June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	(thousands of dollars)		*(thousands of dollars)*	
Cash flows provided by operating activities	84,728	23,232	145,417	36,015
Changes in non–cash working capital	200	(50)	15,350	1,646
Current income taxes	(5,493)	-	(11,309)	-
Adjusted funds flow from operations	79,435	23,182	149,458	37,661

Adjusted Working Capital

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

	As at June 30, 2022	As at December 31, 2021
	(thousands of dollars)	
Working capital	127,101	89,775
Contribution receivable (long-term)	671	-
Repayable contribution	(4,132)	-
Financial derivative receivable	(130)	(770)
Financial derivative liability	6,696	3,924
Adjusted working capital	130,206	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 April 1, 2022 to June 30, 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 Russian 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 and six months ended June 30, 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 June 30, 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 independent qualified reserves evaluator 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 and six months ended June 30, 2022, were not directly impacted from a climate event. During the three and six months ended June 30, 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 and six months ended June 30, 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 June 30, 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 independent qualified reserves evaluators at least annually, who work with information provided by the Company to establish reserve determinations in accordance with National Instrument 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 Company’s intent to not grant any further options under the Option Plans;
- the Company’s intent to settle DSUs in cash;
- 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;
- 2022 revised guidance related to expected annual and fourth quarter average daily production, capital expenditures, adjusted funds flow from operations and exit adjusted working capital;
- the expectation that the Company has 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;
- exploration and development plans of Headwater;
- 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 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	Officers
NEIL ROSZELL Executive Chairman & CEO, Headwater Exploration Inc. Calgary, Alberta	NEIL ROSZELL, P. Eng. Executive Chairman & CEO
JASON JASKELA President and COO, Headwater Exploration Inc. Calgary, Alberta	JASON JASKELA, P. Eng. President and COO
CHANDRA HENRY (1) (2) CFO and Chief Compliance Officer, Longbow Capital Inc. Calgary, Alberta	ALI HORVATH, CPA, CA Vice President Finance & CFO
STEPHEN LARKE (2) Director, Vermillion Energy Inc. and Topaz Energy Corp. Calgary, Alberta	TERRY DANKU, P. Eng. Vice President Engineering
PHILLIP KNOLL(3) Director, Altagas Ltd. Calgary, Alberta	JON GRIMWOOD, P. Geo. Vice President Exploration
KEVIN OLSON (1) (3) Independent Businessman Calgary, Alberta	SCOTT RIDEOUT Vice President Land
DAVE PEARCE (2) (3) Deputy Managing Partner, Azimuth Capital Management Calgary, Alberta	BRAD CHRISTMAN Vice President Production
KAM SANDHAR (1) Executive Vice President, Strategy and Corporate Development Cenovus Energy Inc. Calgary, Alberta	TED BROWN (Corporate Secretary) Burnet, Duckworth & Palmer LLP
ELENA DUMITRASCU Cofounder and Chief Technology Officer, Credivera Calgary, Alberta	

(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.