



CARDINAL
ENERGY LTD.

Q3 2022

MANAGEMENT DISCUSSION & ANALYSIS

MANAGEMENT'S DISCUSSION AND ANALYSIS

This management's discussion and analysis ("MD&A") is a review of the operations, financial position and outlook for Cardinal Energy Ltd. ("Cardinal" or the "Company") for the three and nine months ended September 30, 2022 and is dated November 8, 2022. This MD&A should be read in conjunction with Cardinal's unaudited interim condensed financial statements as at and for the three and nine months ended September 30, 2022 and the audited consolidated financial statements as at and for the years ended December 31, 2021 and 2020. Financial data presented has been prepared in accordance with International Financial Reporting Standards ("IFRS" or, alternatively, "GAAP"), unless otherwise indicated. Certain prior period amounts have been reclassified to conform to current period presentation.

All figures in tables are stated in thousands of Canadian dollars (except operational and per share amounts or as noted).

DESCRIPTION OF BUSINESS

Cardinal is engaged in the acquisition, development, optimization and production of crude oil and natural gas in the provinces of Alberta, British Columbia and Saskatchewan.

51-101 Advisory

In accordance with *Standards for Disclosure of Oil and Gas Activities* ("NI 51-101"), natural gas volumes have been converted to barrels of oil equivalent using a conversion rate of six thousand cubic feet of natural gas to one barrel of oil. This ratio is based on an energy equivalency conversion method primarily applicable at the burner tip. It does not represent a value equivalency at the wellhead and is not based on either energy content or current prices. The term "boe" is useful for comparative measures and observing trends, it does not accurately reflect individual product value and may be misleading, particularly if used in isolation. Based on the current price of crude oil to natural gas, using a 6:1 conversion ratio may be misleading as an indication of value.

This MD&A contains forward-looking information and statements along with certain measures, consisting of non-GAAP financial measures, capital management measures, non-GAAP financial ratios, and supplementary financial measures, which do not have any standardized meaning in accordance with International Financial Reporting Standards ("IFRS") as prescribed by the International Accounting Standards Board and therefore may not be comparable with the calculation of similar financial measures disclosed by other entities. Refer to our advisory on forward-looking information and statements and a summary of our specified financial measures at the end of the MD&A.

Climate Reporting Regulations and Estimation Uncertainty

Climate and emission related reporting standards are constantly evolving. The International Sustainability Standards Board has issued an IFRS Sustainability Disclosure Standard with the goal to develop sustainability disclosure standards that are globally consistent, comparable and reliable. The Canadian Securities Administrators have also issued a proposed National Instrument 51-107 *Disclosure of Climate-related Matters* which details the additional reporting requirements for Canadian public companies. If the Company is not able to meet future sustainability reporting requirements of regulators or current and future expectations of investors, insurance providers, or other stakeholders, its business and ability to attract and retain skilled employees, obtain regulatory permits, licenses, registrations, approvals, and authorizations from various governmental authorities, and raise capital may be adversely affected. The Company continues to monitor progress on these reporting requirements and has not yet quantified the cost to comply with these standards.

THIRD QUARTER 2022 HIGHLIGHTS

- Production increased 12% in the third quarter of 2022 as compared to the same period in 2021 due to a successful drilling program in the fourth quarter of 2021 and first nine months of 2022;
- Third quarter 2022, cash flow from operating activities and adjusted funds flow⁽¹⁾ increased 163% and 112%, respectively, over the same period in 2021 due to increased production and pricing;
- Petroleum and natural gas revenue increased 50% in the third quarter of 2022 over the same period in 2021 due to a 34% increase in realized commodity prices combined with increased production;
- Financing costs decreased 41% in the third quarter compared to the same period in 2021 due to a 62% decrease in bank debt interest and the repayment of all remaining second lien notes in early 2022;
- The net debt to adjusted funds flow ratio⁽¹⁾ remained low at 0.2x for the third quarter of 2022;
- Third quarter dividends of \$0.15 per common share totalled \$24 million or 30% of adjusted fund flow⁽¹⁾ and 43% of free cash flow⁽¹⁾.
- Acquired and cancelled 3.4 million common shares in the third quarter through our normal course issuer bid ("NCIB"). To date, Cardinal has purchased and cancelled 3.7 million shares at an average price of \$7.05 per common share.

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Cash flow from operating activities	98,325	37,410	163	268,578	73,148	267
Change in non-cash working capital	(25,982)	(1,800)	n/m	11,069	1,203	n/m
Funds flow⁽¹⁾	72,343	35,610	103	279,647	74,351	276
Decommissioning expenditures	7,304	1,334	n/m	14,888	4,042	268
Transaction costs	-	619	-	-	619	(100)
Adjusted funds flow	79,647	37,563	112	294,535	79,012	273

(1) See "Non-GAAP and other financial measures"

OPERATIONS

ACQUISITION

On July 15, 2021, the Company closed the acquisition of Venturion Oil Limited ("Venturion") for a purchase price of approximately \$46 million (the "Venturion Acquisition"). The consideration consisted of 6.3 million of Cardinal common shares and approximately \$27.8 million of cash. The Venturion assets included approximately 2,400 boe/d of production (83% oil) focused in central Alberta and other minor Alberta and British Columbia properties.

PRODUCTION

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Light oil (bbl/d)	8,291	7,485	11	8,043	7,220	11
Medium / heavy oil (bbl/d)	10,038	8,871	13	10,151	8,087	26
Crude oil (bbl/d)	18,329	16,356	12	18,194	15,307	19
Natural gas (mcf/d)	15,095	15,101	-	14,836	14,215	4
NGL (bbl/d)	870	600	45	867	930	(7)
boe/d	21,715	19,473	12	21,534	18,606	16
% Crude oil and NGL production	88%	87%	1	89%	87%	2

Third quarter 2022 production increased 12% over the same period in 2021 due to incremental oil production from the Company's successful drilling program in the fourth quarter of 2021 and first nine months of 2022. Production for the first nine months of 2022 increased 16% over the same period in 2021, due to production added from the Venturion Acquisition combined with incremental production from the Company's successful drilling program in the fourth quarter of 2021 and first nine months of 2022.

PETROLEUM AND NATURAL GAS REVENUE

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Light oil	82,959	54,157	53	255,251	139,907	82
Medium / heavy oil	85,605	58,086	47	290,701	142,949	103
Crude oil	168,564	112,243	50	545,952	282,856	93
NGL	4,422	2,277	94	13,454	8,148	65
Natural gas	6,455	5,487	18	23,290	13,656	71
Petroleum and natural gas revenue	179,441	120,007	50	582,696	304,660	91
Cardinal average prices						
Light oil (\$/bbl)	108.75	78.64	38	116.25	70.97	64
Medium / heavy oil (\$/bbl)	92.70	71.18	30	104.90	64.75	62
Natural gas (\$/mcf)	4.65	3.95	18	5.75	3.52	63
Equivalent (\$/boe)	89.82	66.99	34	99.12	59.98	65
Benchmark prices						
Crude oil - WTI (US \$/bbl)	91.56	70.56	30	98.09	64.82	51
Crude oil - Edmonton light (Cdn \$/bbl)	116.84	83.71	40	123.42	75.74	63
Crude oil - WCS (Cdn \$/bbl)	93.49	71.81	30	105.53	65.41	61
Natural gas - AECO Spot (Cdn \$/mcf)	4.22	3.65	16	5.46	3.33	64
Exchange rate - (US/Cdn)	0.77	0.79	(3)	0.78	0.80	(3)

Petroleum and natural gas revenue increased 50% in the third quarter of 2022 over the same period in 2021 due to a 34% increase in realized commodity prices combined with increased production. In the third quarter of 2022, the Company's realized light oil price increase of 38% was comparable with the Edmonton light benchmark price increase of 40%. Cardinal's third quarter 2022 realized medium / heavy oil price increased 30% over the same period in 2021, which was equivalent to the Western Canadian Select ("WCS") benchmark price increase of 30%. The Company's third quarter 2022 realized natural gas price increased 18% over the same period in 2021 which was comparable to the AECO benchmark increase.

For the first nine months of 2022, petroleum and natural gas revenue increased 91% over the same period in 2021 due to higher commodity prices and increased production. For the first nine months of 2022, the Company's light oil, medium/heavy oil and natural gas price increases all tracked their respective benchmark price increases in comparison with the first nine months of 2021.

FINANCIAL INSTRUMENTS - COMMODITY

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Realized loss - commodity contracts	-	(10,368)	(100)	-	(37,884)	(100)
Unrealized gain - commodity contracts	717	8,273	(91)	1,737	1,673	4

Cardinal has historically utilized a variety of derivatives including swaps, collars and puts to protect against downward commodity price movements and foreign exchange fluctuations and avoids entering into more complex derivative structures. Contracts settled in the period result in realized gains or losses based on the market price compared to the contract price. Changes in the fair value of the contracts, as measured at the balance sheet date, are reported as unrealized gains or losses in the period as the forward markets for commodities and currencies fluctuate and as new contracts are executed. For commodities, Cardinal's risk management program allows for hedging a forward profile of three years, of up to 75% of average forecasted 12 months of gross production and up to 50% and 30% of the following 12 and 24 months, respectively.

With the exception of the two month fixed WCS differential contract below, currently, the Company has elected to remain unhedged for 2022 and beyond due to backwardated commodity pricing curves combined with reduced corporate risk from lower debt levels and forecasted expenditures. The Company will continue to monitor the spot and forward prices as well as expected expenditure levels throughout 2022 and in 2023.

As of the date of this MD&A Cardinal had the following commodity derivatives, referenced to WCS outstanding:

Commodity	Type of Instrument	Remaining Term	Average Volume	Average Strike Price
Crude Oil	USD WCS Differential Swap	Dec 2022 - Jan 2023	2,500 bbl/d	USD \$ (13.50)

ROYALTIES

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Royalties	38,997	22,171	76	119,800	52,358	129
Percent of revenue	21.7%	18.5%	17	20.6%	17.2%	20
\$/boe	19.52	12.38	58	20.38	10.31	98

Royalties are either paid or taken in kind and are owed to land and mineral rights owners and to provincial governments. The terms of the land and mineral rights owner agreements and provincial royalty regimes impact Cardinal's overall corporate royalty rate.

Royalties as a percentage of revenue increased during the third quarter and first nine months of 2022 as compared to the same periods in 2021 due to the increase in commodity prices. Crown royalty rates are on a sliding scale and therefore an increase in pricing generally leads to an increase in royalty rates. In addition, royalties and royalties as a percentage of revenue have increased in the third quarter and first nine months of 2022 compared to the same periods in 2021 due to increased higher royalty rate production from the Venturion Acquisition and certain production coming off royalty holidays in our North area.

NET OPERATING EXPENSES

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Operating expenses	54,559	43,057	27	147,896	115,597	28
Less: Processing and other revenue	(1,111)	(908)	22	(3,300)	(2,844)	16
Net operating expenses ⁽¹⁾	53,448	42,149	27	144,596	112,753	28
\$/boe ⁽¹⁾	26.75	23.53	14	24.60	22.20	11

(1) See Non-GAAP and other financial measures.

During the third quarter and first nine months of 2022, net operating expenses per boe increased by 14% and 11%, respectively, over the same periods in 2021 due to increased well reactivations and facility turnarounds. In addition, in the third quarter and first nine months of 2022, the Company has experienced inflationary pressures on operating expenses and increased fuel and power costs throughout its operations in comparison to the same periods in 2021.

TRANSPORTATION EXPENSES

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Transportation expenses	1,655	1,037	60	4,576	2,028	126
\$/boe	0.83	0.58	43	0.78	0.40	95

Transportation costs and transportation costs per boe increased in the third quarter and first nine months of 2022 as compared with the same periods in 2021 as the oil and gas production acquired from the Venturion Acquisition attract higher clean oil trucking and gas transportation charges than Cardinal's other oil and natural gas production. In addition, new oil production from wells drilled in our North area in early 2022 is currently trucked increasing the Company's clean oil trucking costs in 2022.

NETBACK

(\$/boe)	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Petroleum and natural gas revenue	89.82	66.99	34	99.12	59.98	65
Royalties	(19.52)	(12.38)	58	(20.38)	(10.31)	98
Net operating expenses	(26.75)	(23.53)	14	(24.60)	(22.20)	11
Transportation expenses	(0.83)	(0.58)	43	(0.78)	(0.40)	95
Netback ⁽¹⁾	42.72	30.50	40	53.36	27.07	97

(1) See Non-GAAP and other financial measures.

Cardinal's third quarter and first nine months of 2022 netback significantly increased as compared to the same periods in 2021 due to higher commodity prices partially offset by higher royalties and net operating and transportation expenses.

GENERAL AND ADMINISTRATIVE ("G&A")

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Gross G&A	5,777	4,887	18	18,198	13,607	34
Capitalized G&A and overhead recoveries	(1,464)	(1,132)	29	(4,400)	(3,002)	47
G&A	4,313	3,755	15	13,798	10,605	30
\$/boe	2.16	2.10	3	2.35	2.09	12

In the third quarter and first nine months of 2022, G&A costs have increased by 15% and 30%, respectively, over the same periods in 2021. In 2022, compensation costs have increased due to the Company reinstating its full compensation program in mid-2021 and the hiring of additional staff to accommodate Cardinal's increased activity. In addition, government subsidy programs related to the COVID pandemic ended in mid-2021. Increased capitalized G&A and overhead recoveries are a result of increased development capital expenditures⁽¹⁾ in the third quarter and first nine months of 2022 as compared to the same periods in 2021.

SHARE-BASED COMPENSATION ("SBC")

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Gross SBC	2,325	1,184	96	5,718	3,139	82
Capitalized SBC	(277)	(130)	113	(667)	(340)	96
SBC	2,048	1,054	94	5,051	2,799	80
\$/boe	1.03	0.59	75	0.86	0.55	56

SBC expense increased in the third quarter and first nine months of 2022 compared to the same periods in 2021 due to an increase in the grant date fair value of restricted bonus awards ("RA") and performance bonus awards ("PA") outstanding. In addition, the Company's estimated performance multiplier on vesting awards has increased the share-based compensation for the third quarter and first nine months of 2022 as compared to the same periods in 2021. Partially offsetting this increase is a reduction in the amount of RAs and PAs outstanding in 2022 compared to 2021.

As at September 30, 2022, Cardinal had 2.4 million RAs and 1.3 million PAs outstanding.

FINANCE

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Interest - bank debt	1,024	2,722	(62)	4,463	8,528	(48)
Other finance charges, net	320	191	68	818	982	(17)
Interest - convertible debentures	-	-	-	-	348	(100)
Interest - secured notes	-	940	(100)	361	2,152	(83)
Interest - leases	37	51	(27)	110	162	(32)
Accretion	2,077	1,939	7	6,252	5,725	9
Finance	3,458	5,843	(41)	12,004	17,897	(33)
\$/boe	1.73	3.26	(47)	2.04	3.52	(42)
Average bank debt	67,173	188,644	(64)	113,866	189,670	(40)
Interest rate - bank debt	6.0%	5.7%	5	5.2%	6.0%	(13)

In the third quarter of 2022, lower bank fees combined with lower average debt levels decreased the interest on bank debt by 62% as compared with the same period in 2021. The Company also repaid all of the outstanding second lien secured notes in late 2021 and in the first quarter of 2022 which reduced finance costs in the third quarter of 2022.

For the first nine months of 2022, a combination of lower average debt levels, decreased bank fees, the redemption of all convertible debentures in 2021 and the repayment of all outstanding second lien secured notes has reduced finance costs by 33% as compared to the same period in 2021.

DEPLETION AND DEPRECIATION ("D&D")

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Depletion and depreciation	26,904	19,494	38	79,177	53,761	47
\$/boe	14.58	10.88	34	13.85	10.58	31

Depletion is calculated based on capital expenditures⁽¹⁾ incurred since inception of the Company, forecasted future development costs associated with proved and probable reserves, production rates, and the estimates of proved and probable oil and gas reserves. In addition to depletion, Cardinal records depreciation on other capital equipment and right-of-use assets not directly associated with proved and probable reserves.

D&D costs and D&D costs per boe increased in the third quarter and first nine months of 2022 as compared to the same periods in 2021 due to a higher property, plant and equipment depletable base from the Company's impairment reversals in the third quarter of 2021. This increase was partially offset by increased proved and probable reserves recorded in Cardinal's 2021 year-end reserves.

IMPAIRMENT ON ASSETS HELD FOR SALE

Prior to the end of the third quarter of 2022, Cardinal entered into a purchase and sale agreement for the disposition of non-core property, plant and equipment. The closing of the disposition was considered highly probable of occurring and the assets were available for immediate sale in their present condition and, as such, were classified as held for sale. Immediately prior to classifying the assets as held for sale, the Company conducted a review of the assets' recoverable amounts based on expected consideration to be received and recorded an impairment of \$16.4 million. On November 1, 2022, the Company closed the sale which included the disposition of \$8.0 million of decommissioning obligations.

As at September 30, 2022, there were no other indicators of impairment or impairment reversal for oil and gas properties in any of the Company's CGUs.

DEFERRED TAXES

At September 30, 2022, the Company has approximately \$1.3 billion of tax pools (\$1.2 billion are unrestricted) available to be applied against future income for tax purposes.

In the third quarter of 2021, Cardinal received a reassessment notice from the Canada Revenue Agency ("CRA") wherein the CRA reduced certain non-capital loss tax pools of approximately \$192 million carried forward in the tax return filed for the year ended December 31, 2015. Cardinal disagrees with CRA's position and has appealed the reassessment and firmly believes it will be successful in defending its position. Although, the Company has appealed the reassessment, Cardinal derecognized these tax pools in the first quarter of 2020.

EARNINGS, CASH FLOW FROM OPERATING ACTIVITIES, ADJUSTED FUNDS FLOW AND PAYOUT RATIO

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Earnings	32,996	262,326	(87)	188,822	245,460	(23)
\$ per share						
Basic	0.21	1.76	(88)	1.23	1.74	(29)
Diluted	0.21	1.64	(87)	1.20	1.63	(26)
Cash flow from operating activities	98,325	37,410	163	268,578	73,148	267
\$ per share						
Basic	0.63	0.25	152	1.75	0.52	237
Diluted	0.61	0.23	165	1.71	0.48	256
Adjusted funds flow	79,647	37,563	112	294,535	79,012	273
\$ per share ⁽¹⁾						
Basic	0.51	0.25	104	1.92	0.56	243
Diluted	0.50	0.23	117	1.87	0.52	260
Total payout ratio ⁽¹⁾	59%	44%	34	39%	41%	(5)

(1) See Non-GAAP and other financial measures.

In the third quarter of 2022, higher commodity prices and production increased the Company's cash flow from operating activities and adjusted funds flow. In addition, the Company has reduced its realized losses on commodity contracts from \$10.4 million in the third quarter of 2021 to nil in the same period in 2022. For the first nine months of 2022, higher commodity prices and production combined with no realized losses on commodity contracts have increased cash flow from operating activities, adjusted funds flow and created significant earnings in the period as compared to the same period in 2021. The Company's earnings in the comparative periods in 2021 included a \$218 million impairment reversal.

CAPITAL EXPENDITURES

In the third quarter of 2022, the Company spent \$24.0 million on capital expenditures which included the drilling of four (3.5 net) wells. Two (2.0 net) wells were drilled and completed in the Central Alberta area, one (0.8 net) well at Midale, Saskatchewan and one (0.7 net) in Northern Alberta. The Company continued with its well reactivation program spending \$2.1 million on recompletions and workovers throughout its operating areas. Cardinal also constructed new facilities and upgraded existing infrastructure across our asset base and continued with the enhanced oil recovery program with CO₂ injection at Midale.

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Land	212	342	(38)	4,594	487	n/m
Geological and geophysical	11	-	n/m	41	-	n/m
Drilling, completion, and recompletions	8,515	9,210	(8)	44,322	17,650	151
Equipment, facilities and pipelines	14,563	6,980	109	34,309	14,330	139
Development capital expenditures ⁽¹⁾	23,301	16,532	41	83,266	32,467	156
Capitalized G&A	335	270	24	1,454	772	88
Other assets	209	31	574	459	100	n/m
Property acquisitions, net ⁽²⁾	145	694	(79)	145	4,028	(96)
Capital expenditures ⁽¹⁾	23,990	17,527	37	85,324	37,367	128

(1) See Non-GAAP and other financial measures

(2) Amounts exclude the Venturion Acquisition

DECOMMISSIONING OBLIGATION

In the third quarter of 2022, the Company spent \$7.3 million on decommissioning obligations bringing the total spent in the first nine months of 2022 to \$14.9 million. Subsequent to the end of the third quarter of 2022, the Company closed the sale of non-core property which included the disposition of \$8.0 million of decommissioning obligations.

LIQUIDITY AND CAPITAL RESOURCES

Capitalization table	As at		
	Sep 30, 2022	Dec 31, 2021	Change %
Net bank debt ⁽¹⁾	\$ 62,067	\$ 165,647	(63)
Secured notes	-	12,546	(100)
Common shares, outstanding	155,736,988	150,441,686	4
Market price at end of period (\$ per share)	\$ 7.10	\$ 4.27	66
Market capitalization	1,105,733	642,386	72
	\$ 1,167,800	\$ 820,579	42

(1) See Non-GAAP and other financial measures.

CAPITAL FUNDING

Bank debt

On May 9, 2022 Cardinal renewed its reserves-based revolving credit facility at a level of \$185.0 million comprised of a \$165.0 million syndicated term credit facility and a \$20.0 million non-syndicated operating line credit facility (the "Facilities"). The Facilities are available on a revolving basis until May 31, 2023 and may be extended for a further 364 day period, subject to approval by the syndicate. If not extended, the Facilities will cease to revolve, the applicable margins will increase by 0.5% and all outstanding advances will be repayable on May 31, 2024.

The available lending limits of the Facilities are reviewed semi-annually based on the syndicate's interpretation of the Company's reserves, future commodity prices and costs. As the available lending limit of the Facilities is based on the syndicate's interpretation of the Company's reserves and future commodity prices and costs, there can be no assurance that the amount of the Facilities will not decrease at the next scheduled review. On a redetermination date, lenders could reduce the borrowing base to below amounts drawn, in which case, any short fall would have to be repaid within 60 days. The next scheduled review date will be on or before November 30, 2022.

Advances under the Facilities are available by way of either prime rate loans, which bear interest at the banks' prime lending rate plus 1.75% to 5.25%, and bankers' acceptances, which are subject to fees and margins ranging from 2.75% to 6.25%. Interest and standby fees on the undrawn amounts of the Facilities depend upon certain ratios. The Facilities are secured by a general security agreement over all of the Company's assets. There are no financial covenants related to the Facilities, provided that Cardinal is not in default of the terms of the Facilities. Cardinal was in compliance with the terms of the Facilities at September 30, 2022.

Secured Notes

On July 14, 2021, Cardinal issued \$12.5 million principal amount of subordinated second lien secured notes (the "Notes") which accrued interest at 10% per annum with a three year term. Interest accrued semi-annually and was added to the principal amount paid upon maturity or on the repayment date. On March 31, 2022, Cardinal settled the Notes for a payment of \$13.7 million, which included the principal amount, \$0.9 million of accrued interest and a prepayment fee of \$0.3 million.

CAPITAL STRUCTURE

Cardinal manages its capital to provide a flexible structure to support production maintenance, capital programs, other operational strategies, and shareholder returns. Maintaining a strong financial position enables Cardinal to enhance business opportunities and supports Cardinal's strategy of providing shareholder return through growth of the business, reducing its cost structure, and dividend payments.

One of the key measures that the Company utilizes in evaluating its capital structure is the credit available from the Facilities in relation to the Company's budgeted capital expenditure program and the ratio of net debt to adjusted funds flow.

To manage its capital structure, Cardinal considers its net debt to adjusted funds flow ratio, its capital expenditures program, the current level of credit available from the Facilities, the level of credit that may be attainable due to changes in petroleum and natural gas reserves and new equity if available on favourable terms. The Company prepares an annual capital expenditure budget, which is monitored monthly and updated as necessary.

	Twelve month period ended	
	Sep 30, 2022	Dec 31, 2021
Bank debt	\$ 42,167	\$ 142,412
Secured notes	-	12,546
Adjusted working capital deficiency ⁽¹⁾	19,900	23,235
Net debt ⁽¹⁾	\$ 62,067	\$ 178,193
Cash flow from operating activities	\$ 320,551	\$ 125,121
Change in non-cash working capital	10,280	414
Funds flow	\$ 330,831	\$ 125,535
Decommissioning obligation expenditures	17,148	6,302
Transaction costs	51	670
Adjusted funds flow	\$ 348,030	\$ 132,507
Net debt to adjusted funds flow ⁽¹⁾	0.2	1.3

(1) See Non-GAAP and other financial measures

Cardinal's ratio of net debt to adjusted funds flow as at September 30, 2022 was 0.2 to 1, which is below the Company's targeted range of 1.5 to 1. This ratio has decreased from year-end 2021 due to higher commodity prices, a disciplined capital expenditure program and the Company's debt reduction strategy. During the first nine months of 2022, the Company has reduced its net debt by \$116.1 million or 65% which includes the repayment of its higher interest rate secured notes. Under the current commodity price environment, Cardinal expects to continue with its debt reduction strategy in 2022 and into 2023.

As discussed below in the *Liquidity* section, the Company currently has available capacity on its Facilities to satisfy its capital expenditure and asset retirement obligations for 2022 and beyond.

LIQUIDITY

The Company relies on cash flow from operating activities, the unused portion of the Facilities and equity and debt issuances to fund its capital expenditure requirements and provide liquidity. Cardinal had sufficient credit capacity to cover its adjusted working capital deficiency of \$19.9 million at September 30, 2022 and continues to have excess capacity as of the date of this MD&A.

The Company believes that it is well positioned to take advantage of its internally developed opportunities funded through its currently available Facilities combined with anticipated cash flow from operating activities and adjusted funds flow. At current commodity prices, present sources of capital are anticipated to be sufficient to satisfy the Company's capital expenditure program and decommissioning obligations and dividend payments for the 2022 fiscal year and beyond.

In May 2022, the extension of our Facilities to a May 31, 2024 maturity combined with the repayment of all outstanding secured notes has enhanced the Company's liquidity position.

DIVIDENDS

	Three months ended			Nine months ended		
	Sep 30, 2022	Sep 30, 2021	Change %	Sep 30, 2022	Sep 30, 2021	Change %
Dividends declared	23,996	-	n/m	32,157	-	n/m
Dividends declared per share	\$ 0.150	-	n/m	\$ 0.200	-	n/m

In March 2020, due to a collapse in the price of crude oil, Cardinal elected to suspend its dividend. The Company put a plan in place to reduce its net debt and set a target of \$100 million before reinstating the dividend.

In May 2022, Cardinal's Board of Directors approved the reinstatement of the Company's dividend beginning in June 2022 at \$0.05 per common share per month. The record date for the June dividend was June 30, 2022 and such dividend was settled on July 15, 2022.

On October 11, 2022, Cardinal increased the Company's dividend to \$0.06 per common share to shareholders of record on October 31, 2022 with a settlement date of November 15, 2022.

SHARE CAPITAL

The Company has a bonus award plan whereby RAs and PAs may be granted to directors, officers, employees and other service providers. In the case of PAs, the award value is adjusted for a payout multiplier which can range from 0.0 to 2.0 and is dependent on the performance of the Company relative to pre-defined corporate performance measures for a particular period. Awards are adjusted for dividends declared, either with a cash payment or incremental common shares, and may be settled in cash, common shares issued from treasury or common shares acquired by an independent trustee in the open market for such purposes.

During the nine months ended September 30, 2022, the independent trustee purchased 2,691,538 treasury shares (2021 – 1,095,294) at an average price of \$7.06 (2021 – \$2.55) for the settlement of vesting RAs and PAs. During the first nine months of 2022, the Company settled 1,897,154 RAs (2021 – 1,948,872) and 606,123 PAs (2021 – 282,123) with 1,588,996 treasury shares (2021 – 1,272,581) held by the trustee and a cash payment of \$10.5 million (2021 – \$2.2 million) for withholding taxes. At September 30, 2022, the trustee held a remaining balance of 2,539,314 (December 31, 2021 – 1,436,772) treasury shares.

In the first nine months of 2022, Cardinal granted 0.8 million RAs (2021 – 1.8 million) and 0.4 million PAs (2021 – 1.0 million) to officers, directors and employees pursuant to the Company's bonus award plan.

In the first nine months of 2022, there were 10,122,000 warrants (2021 – 125,000) exercised resulting in \$12.1 million (2021 – \$0.1 million) of proceeds to the Company.

On June 27, 2022, the Company announced that the Toronto Stock Exchange ("TSX") had accepted the Company's intention to commence an NCIB. Pursuant to the NCIB, the Company is permitted to purchase up to 12,319,686 common shares representing approximately 10% of its public float as of June 20, 2022 over a twelve month period commencing June 30, 2022. To date, Cardinal has purchased 3,724,156 common shares for cancellation at an average price of \$7.05 per common share.

Equity Instruments as at	Nov 8, 2022	Sep 30, 2022	Dec 31, 2021
Common shares, issued	158,276,302	158,276,302	151,878,458
Treasury shares	(2,524,637)	(2,539,314)	(1,436,772)
Warrants	-	-	10,122,000
RAs	2,402,979	2,421,863	3,665,598
PAs	1,327,923	1,327,923	1,536,246

OFF BALANCE SHEET ARRANGEMENTS

Cardinal does not have any special purpose entities nor is it a party to any material arrangements that would be excluded from the balance-sheet.

CONTRACTUAL OBLIGATIONS

At September 30, 2022, the Company had contractual obligations as follows:

	2022	2023	2024	2025	2026	Thereafter
Trade and other payables	\$ 84,483	-	-	-	-	-
Dividend payable	8,349	-	-	-	-	-
Lease liabilities	420	1,547	392	120	-	-
Bank debt ⁽¹⁾	-	-	42,167	-	-	-
Power purchase commitment	1,357	5,382	4,497	-	-	-
Total contractual obligations	\$ 94,609	\$ 6,929	\$ 47,056	\$ 120	\$ -	\$ -

(1) Amount excludes interest.

ADDITIONAL INFORMATION

CRITICAL ACCOUNTING ESTIMATES

There have been no changes in Cardinal's critical accounting estimates in the three and nine months ended September 30, 2022. Further information on the Company's critical accounting policies and estimates can be found in the notes to the annual financial statements and MD&A for the year ended December 31, 2021.

INTERNAL CONTROLS UPDATE

Cardinal is required to comply with National Instrument 52-109 "Certification of Disclosure on Issuers' Annual and Interim Filings". The certificate requires that Cardinal disclose in the interim MD&A any change in the Company's internal control over financial reporting ("ICOFR") that occurred during the period that have materially affected, or are reasonably likely to materially affect Cardinal's ICOFR. As of the date of this MD&A Cardinal confirms that there have been no such changes in Cardinal's ICOFR during the third quarter of 2022.

ENVIRONMENTAL RISKS

The oil and gas industry has a number of environmental risks and hazards and is subject to regulation by all levels of government. Environmental legislation includes, but is not limited to, operational controls, site restoration requirements and restrictions on emissions of various substances produced in association with oil and natural gas operations. Compliance with such legislation could require additional expenditures and a failure to comply may result in fines and penalties which could, in the aggregate and under certain unlikely assumptions, become material.

Operations are continuously monitored to minimize the environmental impact and capital is allocated to reclamation and other activities to mitigate the impact on the areas in which we operate.

OUTLOOK

In 2022, Cardinal was able to achieve the targets set out in our Three Phase Plan; reducing debt in two phases and re-instating and increasing our dividend. These milestones were achieved in a much quicker fashion than originally planned with the benefit of higher than budgeted oil prices. For 2023, we will continue with a prudent financial plan that will allow the Company to show a 3% year over year average production growth on a \$97 million capital expenditure budget. Our 2023 budget is based on an oil price of US\$80 WTI and our sensitivity to a US\$1 change in WTI is approximately \$7 million in adjusted funds flow.

The breakdown of our 2023 capital and decommissioning expenditure budget is as follows:

	2023
Drill, complete, equip and tie-in	\$ 43,000
Well reactivations, production optimization and enhanced oil recovery ("EOR")	23,000
Proactive maintenance	25,000
Corporate and other	6,000
Capital expenditures	97,000
Decommissioning expenditures	23,000
Capital expenditures and decommissioning expenditures	\$ 120,000

After our capital expenditures and decommissioning expenditures, we have budgeted \$115 million for our current \$0.06 per month dividend for a total spend of \$235 million. Any excess funds will be used for debt repayment, possible acquisitions and additional shareholder returns with our NCIB or potential dividend increases.

QUARTERLY DATA

	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021
Production				
Oil (bbl/d)	18,329	18,767	17,478	17,366
Natural gas (mcf/d)	15,095	15,511	13,888	13,733
NGL (bbl/d)	870	928	804	870
Oil equivalent (boe/d)	21,715	22,280	20,596	20,525
Financial				
Petroleum and natural gas revenue	179,441	228,917	174,338	140,409
Earnings	32,996	98,586	57,240	38,955
Basic per share (\$)	0.21	0.64	0.38	0.26
Diluted per share (\$)	0.21	0.63	0.35	0.24
Cash flow from operating activities	98,325	120,210	50,043	51,973
Total assets	1,060,734	1,130,750	1,122,348	1,075,828
Bank debt	42,167	66,956	146,564	142,412
Secured notes	-	-	-	12,546
Total long-term liabilities	114,115	181,207	263,711	271,529
Shareholders' equity	837,857	850,617	763,396	719,232
Dividends declared	23,996	8,161	-	-
Per share (\$)	0.15	0.05	-	-
Common shares outstanding, net (000's) ⁽¹⁾	155,737	159,143	151,891	150,442
Diluted shares outstanding, net (000's) ⁽¹⁾	159,487	162,915	164,990	165,766

	Sep 30, 2021	Jun 30, 2021	Mar 31, 2021	Dec 31, 2020
Production				
Oil (bbl/d)	16,356	14,767	14,781	15,149
Natural gas (mcf/d)	15,101	13,173	14,364	13,653
NGL (bbl/d)	600	986	1,210	1,200
Oil equivalent (boe/d)	19,473	17,949	18,385	18,625
Financial				
Petroleum and natural gas revenue	120,007	99,106	85,547	66,065
Earnings (loss)	262,326	9,095	(25,961)	119,988
Basic per share (\$)	1.76	0.06	(0.20)	1.06
Diluted per share (\$)	1.64	0.06	(0.20)	1.04
Cash flow from operating activities	37,410	22,463	13,275	12,810
Total assets	1,053,162	747,248	750,410	749,133
Bank debt	170,229	178,239	188,984	192,115
Principal amount of convertible debentures	-	-	-	28,207
Secured notes	30,270	17,429	16,809	16,217
Total long-term liabilities	283,934	275,153	287,370	316,952
Shareholders' equity	679,549	398,147	388,753	372,848
Common shares outstanding, net (000's) ⁽¹⁾	150,332	144,388	144,388	121,349
Diluted shares outstanding, net (000's) ⁽¹⁾	166,097	157,891	157,891	134,310

(1) Net of treasury shares

In 2020, reduced oil demand due to concerns over the effect of COVID-19 significantly impacted oil production, pricing and revenue. The Company shut-in higher cost production in the second quarter of 2020 but in the second half of 2020 and during 2021, subsequently brought back on production. Reduced production and low commodity prices significantly impacted revenue and cash flow from operating activities in 2020. As prices increased through 2021, revenue increased however the Company incurred realized and unrealized hedging losses which negatively impacted earnings and cash flow from operating activities. In 2022, continued strong commodity prices and reduced realized and unrealized hedging losses have increased earnings and cash flow from operating activities.

The Company's earnings also increase with non-cash impairment reversals of previous impairments on its assets as shown with a reversal of previous impairments in the fourth quarter of 2020 when forecasted oil prices partially recovered which positively impacted earnings by \$122.7 million. In the third quarter of 2021, further strengthening of commodity prices and confidence in the sustainability of price increases allowed the Company to reverse impairments by \$218.3 million. In addition, the Company recorded a gain on the Venturion Acquisition of \$21.8 million. In the first quarter of 2021, the Company recognized a re-measurement loss on its warrant liability of \$12.9 million. In the third quarter of 2022, the Company recorded an impairment loss of \$16.4 million on assets held for sale.

NON-GAAP AND OTHER FINANCIAL MEASURES

Non-GAAP Financial Measures

Net operating expenses

Net operating expenses is calculated as operating expense less processing and other revenue primarily generated by processing third party volumes at processing facilities where the Company has an ownership interest, and can be expressed on a per boe basis. As the Company's principal business is not that of a midstream entity, management believes this is a useful supplemental measure to reflect the true cash outlay at its processing facilities by utilizing spare capacity to process third party volumes. The following table reconciles operating expenses to net operating expenses:

	Three months ended		Nine months ended	
	Sep 30, 2022	Sep 30, 2021	Sep 30, 2022	Sep 30, 2021
Operating expenses	54,559	43,057	147,896	115,597
Less: Processing and other revenue	(1,111)	(908)	(3,300)	(2,844)
Net operating expenses	53,448	42,149	144,596	112,753

Netback

Cardinal utilizes netback as key performance indicator and is utilized by Cardinal to better analyze the operating performance of its petroleum and natural gas assets against prior periods. Netback is calculated as petroleum and natural gas revenue deducting royalties, net operating expenses, and transportation expenses. The following table reconciles petroleum and natural gas revenue to netback:

	Three months ended		Nine months ended	
	Sep 30, 2022	Sep 30, 2021	Sep 30, 2022	Sep 30, 2021
Petroleum and natural gas revenue	179,441	120,007	582,696	304,660
Royalties	(38,997)	(22,171)	(119,800)	(52,358)
Net operating expenses	(53,448)	(42,149)	(144,596)	(112,753)
Transportation expenses	(1,655)	(1,037)	(4,576)	(2,028)
Netback	85,341	54,650	313,724	137,521

Capital expenditures and development capital expenditures

Cardinal utilizes capital expenditures as a measure of capital investment on property, plant and equipment compared to the annual budgeted capital expenditure. Capital expenditures is calculated as cash flow from investing activities excluding change in non-cash working capital and corporate acquisition.

Cardinal utilizes development capital expenditures as a measure of capital investment on property, plant and equipment excluding capitalized G&A, other assets and net acquisitions and is compared to the annual budgeted capital expenditures. The following table reconciles cash flow from investing activities to total capital expenditures to total development capital expenditures.

	Three months ended		Nine months ended	
	Sep 30, 2022	Sep 30, 2021	Sep 30, 2022	Sep 30, 2021
Cash flow from investing activities	23,315	26,492	85,995	43,032
Change in non-cash working capital	675	6,846	(671)	10,146
Corporate acquisition	-	(15,811)	-	(15,811)
Capital expenditures	23,990	17,527	85,324	37,367
Capitalized G&A	(335)	(270)	(1,454)	(772)
Other assets	(209)	(31)	(459)	(100)
Property acquisitions	(145)	(694)	(145)	(4,028)
Development capital expenditures	23,301	16,532	83,266	32,467

Capital Management Measures

Adjusted working capital

Management utilizes adjusted working capital to monitor its capital structure, liquidity, and its ability to fund current operations. Adjusted working capital is calculated as current liabilities less current assets (adjusted for assets held for sale, fair value of financial instruments, liabilities associated with assets held for sale, current decommissioning obligation, and current lease liabilities). The following table reconciles working capital to adjusted working capital:

As at	Sep 30, 2022	Dec 31, 2021
Working capital deficiency	25,657	30,086
Lease liabilities	1,489	1,371
Decommissioning obligation	6,430	5,480
Liabilities associated with assets held for sale	8,011	-
Fair value of financial instruments, net	(1,737)	-
Assets held for sale	(8,436)	-
Adjusted working capital deficiency	19,900	23,235

Net debt

Management utilizes net debt to analyze the financial position, liquidity and leverage of Cardinal. Net debt is calculated as bank debt plus secured notes and adjusted working capital.

Net bank debt

Management utilizes net bank debt to analyze the financial position, liquidity, leverage and borrowing capacity on Cardinal's bank line. Net bank debt is calculated as net debt less secured notes.

The following table reconciles bank debt to net bank debt and net debt:

As at	Sep 30, 2022	Dec 31, 2021
Bank debt	42,167	142,412
Adjusted working capital deficiency	19,900	23,235
Net bank debt	62,067	165,647
Secured notes	-	12,546
Net debt	62,067	178,193

Funds flow

Management utilizes funds flow as a useful measure of Cardinal's ability to generate cash not subject to short-term movements in non-cash operating working capital. As shown below, funds flow is calculated as cash flow from operating activities excluding the change in non-cash working capital.

Adjusted funds flow

Management utilizes adjusted funds flow as a key measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, capital expenditures and shareholder returns. As shown

below, adjusted funds flow is calculated as funds flow excluding transaction costs and decommissioning expenditures since Cardinal believes the timing of collection, payment or incurrence of these items involves a high degree of discretion and variability. Expenditures on decommissioning obligations vary from period to period depending on the maturity of the Company's operating areas and availability of adjusted funds flow and are viewed as part of the Company's capital budgeting process.

Free cash flow

Management utilizes free cash flow as a measure to assess Cardinal's ability to generate cash, after taking into account the development capital expenditures, to increase returns to shareholders, repay debt, or for other corporate purposes. As shown below, free cash flow is calculated as adjusted funds flow less development capital expenditures.

The following table reconciles cash flow from operating activities, funds flow, adjusted funds flow, and free cash flow:

	Three months ended		Nine months ended	
	Sep 30, 2022	Sep 30, 2021	Sep 30, 2022	Sep 30, 2021
Cash flow from operating activities	98,325	37,410	268,578	73,148
Change in non-cash working capital	(25,982)	(1,800)	11,069	1,203
Funds flow	72,343	35,610	279,647	74,351
Decommissioning expenditures	7,304	1,334	14,888	4,042
Transaction costs	-	619	-	619
Adjusted funds flow	79,647	37,563	294,535	79,012
Total development capital expenditures	(23,301)	(16,532)	(83,266)	(32,467)
Free cash flow	56,346	21,031	211,269	46,545

Non-GAAP Financial Ratios

Netback per boe

Cardinal utilizes netback per boe to assess Cardinal's operating performance of its petroleum and natural gas assets on a per unit of production basis. Netback per boe is calculated as netback divided by total production for the applicable period. The following table details the calculation of netback per boe:

	Three months ended		Nine months ended	
	Sep 30, 2022	Sep 30, 2021	Sep 30, 2022	Sep 30, 2021
Petroleum and natural gas revenue	89.82	66.99	99.12	59.98
Royalties	(19.52)	(12.38)	(20.38)	(10.31)
Net operating expenses	(26.75)	(23.53)	(24.60)	(22.20)
Transportation expenses	(0.83)	(0.58)	(0.78)	(0.40)
Netback per boe	42.72	30.50	53.36	27.07

Net debt to adjusted funds flow ratio

Cardinal utilizes net debt to adjusted funds flow to measure the Company's overall debt position and to measure the strength of the Company's balance sheet. Cardinal monitors this ratio and uses this as a key measure in making decisions regarding financing, capital expenditures and shareholder returns. Net debt to adjusted funds flow is calculated as net debt divided by adjusted funds flow for the trailing twelve month period.

Total payout ratio

Cardinal utilizes this ratio as key measure to assess the Company's ability to fund financing activities, operating activities, and capital expenditures. Total payout ratio is calculated as the sum of dividends declared plus development capital expenditures divided by adjusted funds flow.

Net operating expenses per boe

Cardinal utilizes net operating expenses per boe to assess Cardinal's operating efficiency of its petroleum and natural gas assets on a per unit of production basis. Net operating expense per boe is calculated as net operating expenses divided by total production for the applicable period.

Adjusted funds flow per boe

Cardinal utilizes adjusted funds flow per boe as a measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, capital expenditures, and shareholder returns on a per boe basis. Adjusted funds flow per boe is calculated using adjusted funds flow divided by total production for the applicable period.

Adjusted funds flow per basic share

Cardinal utilizes adjusted funds flow per share as a measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, capital expenditures, and shareholder returns on a per basic share basis. Adjusted funds flow per basic share is calculated using adjusted funds flow divided by the weighted average basic shares outstanding.

Adjusted funds flow per diluted share

Cardinal utilizes adjusted funds flow per share as a measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, capital expenditures, and shareholder returns on a per diluted share basis. Adjusted funds flow per diluted share is calculated using adjusted funds flow divided by the weighted average diluted shares outstanding.

Supplementary Financial Measures

NI 52-112 defines a supplementary financial measure as a financial measure that: (i) is, or is intended to be, disclosed on a periodic basis to depict the historical or expected future financial performance, financial position or cash flow of an entity; (ii) is not disclosed in the financial statements of the entity; (iii) is not a non-GAAP financial measure; and (iv) is not a non-GAAP ratio. The supplementary financial measures used in this MD&A are either a per unit disclosure of a corresponding GAAP measure, or a component of a corresponding GAAP measure, presented in the financial statements. Supplementary financial measures that are disclosed on a per unit basis are calculated by dividing the aggregate GAAP measure (or component thereof) by the applicable unit for the period. Supplementary financial measures that are disclosed on a component basis of a corresponding GAAP measure are a granular representation of a financial statement line item and are determined in accordance with GAAP.

FORWARD LOOKING STATEMENTS

This MD&A contains certain forward-looking statements and forward-looking information (collectively referred to herein as "forward-looking statements") within the meaning of applicable Canadian securities laws. All statements other than statements of present or historical fact are forward-looking statements. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "believe", "plan", "intend", "objective", "continuous", "ongoing", "estimate", "expect", "may", "will", "project", "should", or similar words suggesting future outcomes. In particular, this MD&A contains forward-looking statements relating, but not limited to:

- estimated tax pools, future taxability and future taxable income;
- expectations with respect to the outcome of the CRA dispute;
- plans to manage liquidity and continue to reduce debt including Cardinal's targeted debt amounts throughout 2022 and in 2023;
- 2022 and 2023 capital expenditure plans;
- 2022 and 2023 net debt and the components thereof;
- Cardinal's business strategy, goals and management focus;
- Estimated performance multiplier for certain outstanding PAs;
- Cardinal's dividend and NCIB plans;
- targeted net debt to adjusted funds flow ratio and plans to monitor this ratio;

- Cardinal's risk management strategy including the mitigation of our exposure to commodity price risk, medium crude oil differentials, foreign exchange risk on borrowings and the benefits to be obtained therefrom;
- Plans to monitor spot and forward prices and capital expenditure plans as part of Cardinal's risk management strategy;
- sources of funds for the Company's operations, capital expenditures, and decommissioning obligations;
- plans to minimize the environmental impact of our operations;
- abandonment and reclamation spending plans including the timing thereof;
- anticipated costs of compliance with environmental legislation;
- future liquidity and the Company's access to sufficient debt and equity capital;
- Cardinal's asset base;
- expectations regarding the business environment, industry conditions, future commodity prices and differentials;
- Cardinal's capital management strategies;
- Cardinal's outlook for 2023, including its capital and decommissioning expenditure budget, dividend budget and potential other uses for corporate funds; and
- treatment under governmental and other regulatory regimes and tax, environmental and other laws.

Forward-looking statements regarding Cardinal are based on certain key expectations and assumptions of Cardinal concerning the impact of COVID-19; anticipated financial performance, business prospects, strategies, regulatory developments, current and future commodity prices and exchange rates, applicable royalty rates, tax laws, production shut-ins, future well production rates and reserve volumes, future operating costs, the performance of existing and future wells, the success of our exploration and development activities, the sufficiency and timing of budgeted capital expenditures in carrying out planned activities, the availability and cost of labor and services, the impact of increasing competition, the impact of cost increases as a result of inflationary pressures, or otherwise, conditions in general economic and financial markets, availability of drilling and related equipment, effects of regulation by governmental agencies, the ability to obtain financing on acceptable terms which are subject to change based on commodity prices, market conditions, and drilling success .

These forward-looking statements are subject to numerous risks and uncertainties, certain of which are beyond Cardinal's control. Such risks and uncertainties include, without limitation: the impact of general economic conditions; volatility in market prices for crude oil and natural gas; impact of COVID-19 and the ability of the Company to carry on operations as contemplated in light of COVID-19; determinations by OPEC and other countries as to production levels; industry conditions; currency fluctuations; imprecision of reserve estimates; liabilities inherent in crude oil and natural gas operations; environmental risks; incorrect assessments of the value of acquisitions and exploration and development programs; competition from other producers; the lack of availability of qualified personnel, drilling rigs or other services; changes in income tax laws or changes in royalty rates and incentive programs relating to the oil and gas industry including government curtailment programs; hazards such as fire, explosion, blowouts, and spills, each of which could result in substantial damage to wells, production facilities, other property and the environment or in personal injury; and ability to access sufficient capital from internal and external sources.

Management has included the forward-looking statements above and a summary of assumptions and risks related to forward-looking statements provided in this MD&A in order to provide readers with a more complete perspective on Cardinal's future operations and such information may not be appropriate for other purposes. Cardinal's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits that Cardinal will derive there from. Readers are cautioned that the foregoing lists of factors are not exhaustive. These forward-looking statements are made as of the date of this MD&A and Cardinal disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

Supplemental Information Regarding Product Types

This MD&A includes references to 2020, 2021 and 2022 production. The Company discloses crude oil production based on the pricing index that the oil is priced off of. The following table is intended to provide the product type composition as defined by NI 51-101.

	LIGHT/MEDIUM CRUDE OIL	HEAVY OIL	NGL	CONVENTIONAL NATURAL GAS	TOTAL (BOE/D)
Q3/22	54%	30%	4%	12%	21,715
Q2/22	53%	31%	4%	12%	22,280
Q1/22	52%	33%	4%	11%	20,596
Q4/21	51%	34%	4%	11%	20,525
Q3/21	54%	30%	3%	13%	19,473
Q2/21	56%	26%	6%	12%	17,949
Q1/21	54%	26%	7%	13%	18,385
Q4/20	55%	26%	7%	12%	18,625
3Q/22	53%	31%	4%	11%	21,534
3Q/21	55%	27%	5%	13%	18,606
Venturion	27%	56%	1%	16%	2,400

Frequently Used Terms

Term or abbreviation

"bbl"	Barrel(s)
"bbl/d"	Barrel(s) per day
"boe"	Barrel(s) of oil equivalent
"boe/d"	Barrel(s) of oil equivalent per day
"CO ₂ "	Carbon dioxide
"COGE Handbook"	Canadian Oil and Gas Evaluation Handbook
"GJ"	Gigajoule
"gj/d"	Gigajoule(s) per day
"m" preceding a volumetric measure	1,000 units of the volumetric measure
"mcf"	Thousand cubic feet
"mcf/d"	Thousand cubic feet per day
"NGL"	Natural gas liquids
"n/m"	Not meaningful ie. absolute value greater than 300%
"US"	United States
"USD"	United States dollars
"WCS"	Western Canadian Select
"WTI"	West Texas Intermediate