CARDINAL ENERGY LTD.

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 months and year ended December 31, 2022 and is dated March 13, 2023. This MD&A should be read in conjunction with Cardinal's audited financial statements as at and for the year ended December 31, 2022 and 2021. 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 S*tandards 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. The Company continues to monitor progress on these reporting requirements and has not yet quantified the cost to comply with these standards.

ANNUAL AND FOURTH QUARTER 2022 HIGHLIGHTS

- Increased adjusted funds flow(1) for the fourth quarter of 2022 and for the fiscal year 2022 by 28% and 174%, respectively, over the same periods in 2021;
- For the fourth quarter and for 2022, production increased 4% and 12%, respectively, over the same periods in 2021;
- Increased pricing and production elevated petroleum and natural gas revenue by 10% in the fourth quarter of 2022 over the fourth quarter of 2021 while petroleum and natural gas revenue increased 66% in 2022 compared to 2021;
- In 2022, Cardinal recognized a realized gain on commodity contracts of $1.7 million versus a loss of $46.8 million in 2021;
- Despite rising interest rates, the Company decreased our financing costs by 38% in the fourth quarter of 2022 as compared to the same period in 2021 mainly due to a 69% decrease in average bank debt and the repayment of all remaining secured notes in 2022;
- At the end of 2022, net debt(1) decreased to $62.7 million, a 65% decrease over the balance of $178.2 million at the end of 2021 leading to a net debt to adjusted funds flow ratio(1) of 0.2x;
- Reduced our future decommissioning obligations ("ARO") in 2022 through a combination of dispositions of non-core assets with high ARO and approximately $19.6 million of actual expenditures further reducing our inactive liabilities;
- Increased our monthly dividend to $0.06 per common share in the fourth quarter of 2022 which supplemented our return to shareholders strategy with approximately $106 million returned to shareholders through dividends, treasury share purchases and the normal course issuer bid ("NCIB") in 2022.

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Cash flow from operating activities	**68,685**	51,973	32	**337,263**	125,121	170
Change in non-cash working capital	**(5,159)**	(789)	n/m	**5,910**	414	n/m
Funds flow(1)	**63,526**	51,184	24	**343,173**	125,535	173
Decommissioning expenditures	**4,722**	2,260	109	**19,610**	6,302	211
Transaction costs	**-**	51	-	**-**	670	(100)
Adjusted funds flow	**68,248**	53,495	28	**362,783**	132,507	174

(1) See Non-GAAP and other financial measures

OPERATIONS

PRODUCTION

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Light oil (bbl/d)	**8,051**	7,509	7	**8,045**	7,293	10
Medium / heavy oil (bbl/d)	**9,891**	9,857	-	**10,086**	8,533	18
Crude oil (bbl/d)	**17,942**	17,366	3	**18,131**	15,826	15
Natural gas (mcf/d)	**15,222**	13,733	11	**14,933**	14,093	6
NGL (bbl/d)	**802**	870	(8)	**851**	915	(7)
boe/d	**21,281**	20,525	4	**21,471**	19,090	12
% Crude oil and NGL production	**88%**	89%	(1)	**88%**	88%	-

Fourth quarter 2022 production increased 4% over the same period in 2021 due to incremental oil and natural gas production from the Company's successful 2022 drilling program. The increased production was partially offset by the disposition of approximately 300 bbl/d of non-core heavy oil production in the fourth quarter of 2022.

For 2022, production increased 12% over 2021, due to a full year of production added from the acquisition of Venturion Oil Limited ("Venturion Acquisition") in the third quarter of 2021 whereby the Company acquired approximately 2,400 boe/d of production (83% oil) combined with incremental production from the Company's successful drilling program in 2022.

PETROLEUM AND NATURAL GAS REVENUE

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Light oil	**73,465**	60,202	22	**328,715**	200,108	64
Medium / heavy oil	**70,284**	70,065	-	**360,986**	213,014	69
Crude oil	**143,749**	130,267	10	**689,701**	413,122	67
NGL	**3,623**	3,797	(5)	**17,077**	11,945	43
Natural gas	**7,522**	6,345	19	**30,812**	20,002	54
Petroleum and natural gas revenue	**154,894**	140,409	10	**737,590**	445,069	66
Cardinal average prices						
Light oil ($/bbl)	**99.18**	87.14	14	**111.94**	75.17	49
Medium / heavy oil ($/bbl)	**77.24**	77.26	-	**98.06**	68.39	43
Natural gas ($/mcf)	**5.37**	5.02	7	**5.65**	3.89	45
Equivalent ($/boe)	**79.11**	74.36	6	**94.12**	63.88	47
Benchmark prices						
Crude oil - WTI (US $/bbl)	**82.65**	77.19	7	**94.23**	67.92	39
Crude oil - Edmonton light (Cdn $/bbl)	**109.92**	93.15	18	**120.04**	80.09	50
Crude oil - WCS (Cdn $/bbl)	**77.09**	78.72	(2)	**98.42**	68.74	43
Natural gas - AECO Spot (Cdn $/mcf)	**5.19**	4.72	10	**5.39**	3.68	46
Exchange rate - (US/Cdn)	**0.74**	0.79	(6)	**0.77**	0.80	(4)

Petroleum and natural gas revenue increased 10% in the fourth quarter of 2022 compared to the same period in 2021 due to a 6% increase in realized commodity prices combined with increased production. In the fourth quarter of 2022, the Company’s realized light oil price increase of 14% was lower than the Edmonton light oil benchmark price increase of 18% due to a portion of Cardinal's light oil production attracting a Cromer price which was lower during the fourth quarter of 2022. Cardinal's fourth quarter 2022 realized medium / heavy oil price was consistent with the same period in 2021 which was slightly better than the Western Canadian Select ("WCS") decrease of 2% due to certain Cardinal WCS production receiving a premium to market. The Company's fourth quarter 2022 realized natural gas price increased 7% over the same period in 2021 as compared to the 10% increase in the AECO benchmark price due to a portion of the Company's natural gas being sold with Chicago based pricing.

For 2022, petroleum and natural gas revenue increased 66% over 2021 due to higher commodity prices and increased production. In 2022, the Company's light oil, medium/heavy oil and natural gas price increases tracked their respective benchmark price increases compared with 2021.

FINANCIAL INSTRUMENTS - COMMODITY

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Realized gain/(loss) - commodity contracts	**1,661**	(8,951)	(119)	**1,661**	(46,835)	(104)
Unrealized gain/(loss) - commodity contracts	**(204)**	8,331	(102)	**1,533**	10,004	(85)

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.

During 2022, the Company remained unhedged with the exception of one WCS differential contract for a basis differential for 2,500 bbl/d in December. Cardinal earned $1.7 million in December 2022 on that contract.
With the exception of a January fixed WCS differential contract for 2,500 bbl/d, the Company has elected to remain unhedged for 2023 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 in 2023.

As of the date of this MD&A Cardinal did not have any commodity derivative contracts outstanding.

ROYALTIES

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Royalties	**30,201**	27,693	9	**150,001**	80,051	87
Percent of revenue	**19.5%**	19.7%	(1)	**20.3%**	18.0%	13
$/boe	**15.43**	14.67	5	**19.14**	11.49	67

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 slightly decreased during the fourth quarter of 2022 as compared to the same period in 2021 due to certain oil production from new wells attracting a lower crown royalty rate until initial production payouts are achieved.

For 2022, higher commodity prices led to higher royalties as a percentage of revenue. 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 2022 compared to 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			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Operating expenses	**51,301**	42,932	19	**199,197**	158,529	26
Less: Processing and other revenue	**(950)**	(842)	13	**(4,250)**	(3,686)	15
Net operating expenses [(1)]	**50,351**	42,090	20	**194,947**	154,843	26
$/boe [(1)]	**25.72**	22.29	15	**24.88**	22.22	12

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

During the fourth quarter of 2022, net operating expenses per boe increased by 15%, over the same period in 2021 due to increased fuel and power costs. In the fourth quarter of 2022, the average power price in Alberta doubled over the same period in 2021 to average over $213/MWh. The increased power price has impacted Cardinal's operating costs by approximately $2.65/boe in the fourth quarter of 2022. In addition, in the fourth quarter of 2022, the Company has experienced inflationary pressures on operating expenses and labor costs throughout its operations in comparison to the same period in 2021.

For 2022, increased fuel and power costs and inflationary pressures on labor have increased the Company's net operating expenses per boe by 12%. Average Alberta power prices increased approximately 60% in 2022 which elevated the Company's net operating expenses by over $2.00/boe as compared to 2021.

TRANSPORTATION EXPENSES

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Transportation expenses	**1,699**	1,378	23	**6,275**	3,406	84
$/boe	**0.87**	0.73	19	**0.80**	0.49	63

Transportation costs and transportation costs per boe increased in the fourth quarter and for 2022 as compared with the same periods in 2021 as 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 the fourth quarter and for 2022 as compared to the same periods in 2021. In addition, 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 increasing Cardinal's transportation costs for 2022 as compared with 2021.

NETBACK

	Three months ended			Year ended		
($/boe)	**Dec 31, 2022**	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Petroleum and natural gas revenue	**79.11**	74.36	6	**94.12**	63.88	47
Royalties	**(15.43)**	(14.67)	5	**(19.14)**	(11.49)	67
Net operating expenses	**(25.72)**	(22.29)	15	**(24.88)**	(22.22)	12
Transportation expenses	**(0.87)**	(0.73)	19	**(0.80)**	(0.49)	63
Netback[(1)]	**37.09**	36.67	1	**49.30**	29.68	66

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

Cardinal's fourth quarter and 2022 netback 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			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Gross G&A	**6,266**	5,934	6	**24,464**	19,541	25
Capitalized G&A and overhead recoveries	**(1,550)**	(1,506)	3	**(5,950)**	(4,508)	32
G&A	**4,716**	4,428	7	**18,514**	15,033	23
$/boe	**2.41**	2.34	3	**2.36**	2.15	10

In the fourth quarter of 2022, G&A costs per boe have increased by 3% over the same period in 2021 due to the Company reinstating its full compensation program which was reduced in 2021 and the hiring of additional staff to accommodate Cardinal's increased activity. For 2022, higher compensation costs, additional staffing and the end of government subsidy programs related to the COVID pandemic increased G&A as compared to 2021. Increased capitalized G&A and overhead recoveries are a result of increased development capital expenditures in the fourth quarter and for 2022 as compared to the same periods in 2021.

SHARE-BASED COMPENSATION ("SBC")

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Gross SBC	**2,441**	1,847	32	**8,159**	4,986	64
Capitalized SBC	**(300)**	(232)	29	**(967)**	(572)	69
SBC	**2,141**	1,615	33	**7,192**	4,414	63
$/boe	**1.09**	0.86	27	**0.92**	0.63	46

SBC expense increased in the fourth quarter and for 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 fourth quarter and 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 December 31, 2022, Cardinal had 2.4 million RAs and 1.3 million PAs outstanding.

FINANCE

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Interest - bank debt	**943**	2,098	(55)	**5,406**	10,627	(49)
Other finance charges, net	**361**	231	56	**1,179**	1,213	(3)
Interest - convertible debentures	**-**	-	-	**-**	348	(100)
Interest - secured notes	**-**	763	(100)	**361**	2,915	(88)
Interest - leases	**36**	44	(18)	**146**	206	(29)
Accretion	**1,806**	1,966	(8)	**8,058**	7,690	5
Finance	**3,146**	5,102	(38)	**15,150**	22,999	(34)
$/boe	**1.61**	3.11	(48)	**1.93**	3.41	(43)
Average bank debt	**51,312**	166,824	(69)	**98,099**	183,911	(47)
Interest rate - bank debt	**7.3%**	5.0%	46	**5.5%**	5.8%	(5)

In the fourth quarter of 2022, lower bank fees due to the Company's strong financial ratios combined with lower average debt levels decreased the interest on bank debt by 55% 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 fourth quarter of 2022 as compared to the same period in 2021.

For 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 34% as compared to the same period in 2021. These decreases have been partially offset by increased interest rates throughout 2022 where the Bank of Canada has increased prime borrowing rates from 2.45% in early 2022 to 6.45% by the end of 2022.

DEPLETION AND DEPRECIATION ("D&D")

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Depletion and depreciation	**23,290**	24,773	(6)	**102,467**	78,534	30
$/boe	**11.90**	11.91	-	**13.08**	10.94	20

Depletion is calculated based on capital expenditures 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 decreased in the fourth quarter of 2022 as compared to the same period in 2021 due to increased 2022 year-end proved plus probable reserve bookings.

D&D costs and D&D costs per boe increased in 2022 as compared to 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 from the Company's year-end third party reserve evaluation in 2022.

IMPAIRMENT REVERSAL

At December 31, 2022, the Company completed assessments of internal and external indicators of impairment reversal. The Company identified an indicator of impairment reversal at December 31, 2022 for the Alberta Central CGU and performed an impairment reversal test to estimate the recoverable amount of the CGU. It was determined the recoverable amount of the Alberta Central CGU exceeded its carrying value, resulting in all previous Alberta Central CGU impairment, net of depletion, of $64.3 million being reversed. The impairment reversal was the result of a recovery of the forecasted oil and gas commodity prices, increased economic stability, corporate market capitalization, and greater certainty in the sustainability of the commodity price increases.

The estimated recoverable value of the Company's Alberta Central CGU was estimated as the value in use based on the net present value of before tax cash flows from proved and probable oil and gas reserves estimated by Cardinal's independent third party reserve evaluators and discounted between 12% and 20% depending on the reserve composition. The estimated recoverable amount of the CGU involves significant estimates including the estimate of proved and probable oil and gas reserves and the discount rates. The estimate of proved and probable oil and gas reserves includes significant assumptions related to forecasted oil and gas commodity prices, forecasted production volumes, forecasted operating costs, forecasted royalty costs and forecasted future development costs. In determining the appropriate discount rate, Cardinal considered various characteristics and risks of the assets.

The following table outlines forecasted oil and gas commodity prices and exchange rates used in the Company's impairment test at December 31, 2022. The forecasted oil and gas commodity prices are based on the average price forecasts of three independent third party reserve evaluators at December 31, 2022 and are a significant assumption in assessing the estimated recoverable amount.

	WTI (USD $/bbl)	WCS (CAD $/bbl)	AECO (CAD $/mmbtu)	Exchange rate (US/CAD)
2023	$ 80.33	$ 76.54	$ 4.23	0.75
2024	$ 78.50	$ 77.75	$ 4.40	0.77
2025	$ 76.95	$ 77.54	$ 4.21	0.77
2026	$ 77.61	$ 80.07	$ 4.27	0.77
2027	$ 79.16	$ 81.89	$ 4.34	0.78
Thereafter (inflation percentage and exchange rate)	2.0%	2.0%	2.0%	0.78

2021:
As a result of assessments of internal and external indicators of impairment or impairment reversal, the Company performed impairment tests for its CGUs in 2021. Cardinal determined that the estimated recoverable amounts of the Alberta Central and Alberta South CGUs exceeded the carrying amounts of $148.1 million and $131.1 million, respectively. Accordingly, an aggregate non-cash impairment reversal of $218.3 million was recorded. The impairment reversal was the result of a recovery of the forecasted oil and gas commodity prices, increased economic stability, corporate market capitalization, and greater certainty in the sustainability of the commodity price increases. The estimated recoverable amounts were based on proved and probable oil and gas reserves as evaluated by the Company's independent third party reserve evaluators as at December 31, 2021.

DEFERRED TAXES

At December 31, 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. Based on available tax pools, forecasted capital expenditures and forecasted commodity prices at December 31, 2022 from the average of three independent third party reserve evaluators, Cardinal does not expect to pay current income taxes until 2026 or beyond. Any potential taxes payable beyond 2026 would be affected by commodity prices, capital expenditures and production volumes.

		As at December 31		
Tax Pool Balance	**Maximum Annual Claim**	**2022**	2021	Change %
COGPE	10%	**453,853**	491,696	(8)
CEE and non-capital losses	100%	**533,409**	720,016	(26)
CDE	30%	**166,947**	149,209	12
Undepreciated capital cost	25%	**133,214**	130,799	2
Other	20%	**405**	498	(19)
Total		**1,287,828**	1,492,218	(14)

A deferred tax asset was not recognized in respect of temporary differences related to successor tax pools of $101 million (2021 – $146 million) as there is not sufficient certainty regarding future utilization.

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 will continue defending its position. Although, the Company has appealed the reassessment, Cardinal has derecognized these tax pools.

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

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Earnings	**113,865**	38,955	192	**302,687**	284,415	6
$ per share						
Basic	**0.73**	0.26	181	**1.97**	1.98	(1)
Diluted	**0.71**	0.24	196	**1.92**	1.84	4
Cash flow from operating activities	**68,685**	51,973	32	**337,263**	125,121	170
$ per share						
Basic	**0.44**	0.35	26	**2.19**	0.87	152
Diluted	**0.43**	0.32	34	**2.14**	0.81	164
Adjusted funds flow	**68,248**	53,495	28	**362,783**	132,507	174
$ per share(1)						
Basic	**0.44**	0.36	22	**2.36**	0.92	157
Diluted	**0.43**	0.33	30	**2.30**	0.86	167
Total payout ratio(1)	**89%**	34%	162	**49%**	38%	29

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

In the fourth 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 $9.0 million in the fourth quarter of 2021 to a realized gain of $1.7 million in the same period in 2022. For 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 2022. In 2022, the Company recognized a $46.4 million net impairment reversal as compared to a reversal of $218.3 million in 2021. In addition, Cardinal had a $9.7 million deferred tax reduction in 2022 due to the recognition of the deferred tax asset in 2022.

CAPITAL EXPENDITURES

In the fourth quarter of 2022, the Company spent $34.9 million on capital expenditures which included the drilling and completion of five (5.0 net) wells in our Southern Alberta core area. The Company continued with its well reactivation program spending $1.9 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 CO_2 injection at Midale. In the fourth quarter, the Company added to our undeveloped land base with $2.3 million of land acquisitions. Cardinal also had net acquisitions of $1.9 million which included an increase in a unit working interest in the North area partially offset by a disposition of approximately 300 boe/d of heavy oil with associated decommissioning obligations of $8.0 million for $0.4 million.

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Land	**2,300**	622	270	**6,894**	1,109	n/m
Geological and geophysical	**28**	-	n/m	**69**	-	n/m
Drilling, completion, and recompletions	**15,055**	8,989	67	**59,377**	26,638	123
Equipment, facilities and pipelines	**14,773**	8,499	74	**49,082**	22,829	115
Development capital expenditures (1)	**32,156**	18,110	78	**115,422**	50,576	128
Capitalized G&A	**495**	567	(13)	**1,949**	1,339	46
Other assets	**395**	54	631	**854**	154	n/m
Property acquisitions(2)	**2,287**	306	647	**2,432**	4,334	(44)
Property dispositions	**(425)**	(10,375)	(96)	**(425)**	(10,375)	(96)
Capital expenditures(1)	**34,908**	8,662	n/m	**120,232**	46,028	161

(1) See Non-GAAP and other financial measures
(2) Amounts exclude the Venturion Acquisition

DECOMMISSIONING OBLIGATION

In the fourth quarter of 2022, the Company spent $4.7 million on decommissioning obligations bringing the total spent in 2022 to $19.6 million. In addition, in the fourth quarter of 2022, the Company closed the sale of non-core assets which included the disposition of $8.0 million of decommissioning obligations.

LIQUIDITY AND CAPITAL RESOURCES

Capitalization table	As at **Dec 31, 2022**	 Dec 31, 2021	 Change %
Net bank debt [1]	**$ 62,672**	$ 165,647	(62)
Secured notes	**-**	12,546	(100)
Common shares, outstanding	**155,756,621**	150,441,686	4
Market price at end of period ($ per share)	**$ 7.62**	$ 4.27	78
Market capitalization	**1,186,865**	642,386	85
	$ 1,249,537	$ 820,579	52

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

CAPITAL FUNDING

Bank debt

On November 25, 2022 Cardinal renewed its reserves-based revolving credit facility at a level of $155.0 million comprised of a $135.0 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 May 31, 2023.

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 December 31, 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.

	Year ended			
		Dec 31, 2022		Dec 31, 2021
Bank debt	**$**	**31,280**	$	142,412
Secured notes		**-**		12,546
Adjusted working capital deficiency[1]		**31,392**		23,235
Net debt [1]	**$**	**62,672**	$	178,193
Cash flow from operating activities	**$**	**337,263**	$	125,121
Change in non-cash working capital		**5,910**		414
Funds flow	**$**	**343,173**	$	125,535
Decommissioning obligation expenditures		**19,610**		6,302
Transaction costs		**-**		670
Adjusted funds flow	**$**	**362,783**	$	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 December 31, 2022 was 0.2 to 1, which is below the Company's targeted range of 1.0 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 2022, the Company has reduced its net debt by $115.5 million or 65% which includes the repayment of its higher interest rate secured notes.

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 2023 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 $31.4 million at December 31, 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 2023 fiscal year and beyond.

DIVIDENDS

	Three months ended			Year ended		
	Dec 31, 2022	Dec 31, 2021	Change %	**Dec 31, 2022**	Dec 31, 2021	Change %
Dividends declared	**28,699**	-	n/m	**60,856**	-	n/m
Dividends declared per share	**$ 0.180**	-	n/m	**$ 0.380**	-	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.

In the fourth quarter of 2022, Cardinal increased the Company's dividend to $0.06 per common share per month.

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 year ended December 31, 2022, the independent trustee purchased 2,691,538 treasury shares (2021 – 1,394,358) at an average price of $7.06 (2021 – $2.87) for the settlement of vesting RAs and PAs. In 2022, the Company settled 1,931,131 RAs (2021 – 2,009,757) and 606,123 PAs (2021 – 282,123) with 1,608,629 treasury shares (2021 – 1,306,710) held by the trustee and cash payments totalling $10.6 million (2021 – $2.3 million) for withholding taxes. At December 31, 2022, the trustee held a remaining balance of 2,519,681 (December 31, 2021 – 1,436,772) treasury shares.

In 2022, Cardinal granted 0.8 million RAs (2021 – 1.9 million) and 0.4 million PAs (2021 – 1.0 million) to officers, directors and employees pursuant to the Company's bonus award plan.

In 2022, there were 10,122,000 warrants (2021 – 500,000) exercised resulting in $12.1 million (2021 – $0.3 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	Mar 13, 2023	Dec 31, 2022	Dec 31, 2021
Common shares, issued	158,276,302	158,276,302	151,878,458
Treasury shares	(2,516,876)	(2,519,681)	(1,436,772)
Warrants	-	-	10,122,000
RAs	2,350,799	2,359,191	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 December 31, 2022, the Company had contractual obligations as follows:

	2023	2024	2025	2026	2027	Thereafter
Trade and other payables	$ 89,156	-	-	-	-	-
Dividend payable	10,009	-	-	-	-	-
Lease liabilities (1)	1,746	787	685	394	423	1,323
Bank debt (2)	-	31,280	-	-	-	-
Power purchase commitment (3)	14,056	13,195	8,674	8,674	8,674	-
Total contractual obligations	**$ 114,967**	**$ 45,262**	**$ 9,359**	**$ 9,068**	**$ 9,097**	**$ 1,323**

(1) Amounts include the extension of the Company's office lease which was completed in the fourth quarter of 2022.
(2) Amount excludes interest.
(3) Amounts represents the portion of the Company's power cost that has been fixed

ADDITIONAL INFORMATION

CRITICAL ACCOUNTING ESTIMATES

Cardinal's significant accounting policies including the use of judgments and key sources of estimation uncertainty, please refer to the disclosures in note 3 of the December 31, 2022 financial statements. The timely preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, disclosure of any contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses for the period. These estimates are subject to measurement uncertainty and the effect on the financial statements of changes in these estimates could be material. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Critical and other Judgments
Identification of cash generating units
Cardinal's assets are aggregated into CGUs for the purpose of calculating impairment. CGU's are based on an assessment of the unit's ability to generate largely independent cash inflows. The determination of these CGUs was based on management's judgment in regards to shared infrastructure, geographical proximity, petroleum type and similar exposure to market risk and materiality.

Impairment of property, plant and equipment
Judgments are required to assess when internal or external indicators of impairment, or indicators of impairment reversal, exist and impairment testing is required. In determining the recoverable amount of PP&E, which includes petroleum and natural gas assets, impairment tests are based on estimates of proved and probable oil and gas reserves which are based upon a number of significant assumptions, such as forecasted production volumes, forecasted oil and gas commodity prices, forecasted operating costs, forecasted royalty costs and forecasted future development costs. The estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Deferred income taxes
Judgments are made by management to determine the likelihood of whether deferred income tax assets at the end of the reporting period will be realized from future taxable income. To the extent that assumptions regarding future profitability change, there can be an increase or decrease in the amounts recognized in respect of deferred tax assets as well as the amounts recognized in earnings or loss in the period in which the change occurs.

Lease accounting regarding incremental borrowing rate and lease term
The incremental borrowing rates are based on judgments including economic environment, term, currency, and the underlying risk inherent to the asset. The carrying balance of the right-of-use assets, lease obligations, and the resulting interest and depletion and depreciation expense, may differ due to changes in the market conditions and lease term. Lease terms are based on assumptions regarding extension terms that allow for operational flexibility and future market conditions.

Key and other Sources of Estimation Uncertainty
Reserve estimates
The Company uses estimated proved and probable oil and gas reserves to deplete its petroleum and natural gas assets included in PP&E, to assess for indicators of impairment on the Company's cash generating units ("CGU") and if any such indicators exist, to perform an impairment test to estimate the recoverable amount of its CGUs. Estimates of proved and probable oil and gas reserves are based upon a number of significant assumptions, such as forecasted production volumes, forecasted oil and gas commodity prices, forecasted operating costs, forecasted royalty costs and forecasted future development costs. Cardinal engaged independent third party reserve evaluators to evaluate the Company's estimates of proved and probable oil and gas reserves at December 31, 2022 and 2021. Reserve adjustments are made annually based on actual volumes produced, the results from capital expenditure programs, revisions to previous estimates, new discoveries and acquisitions and dispositions made during the year.

Proved oil and gas reserves are those forecasted quantities of petroleum and natural gas determined to be economically recoverable under existing economic and operating conditions with a high degree of certainty, of at least 90 percent, that those quantities will be equaled or exceeded. Probable oil and gas reserves are those forecasted quantities of petroleum and natural gas determined to be economically recoverable under existing economic and operating conditions with a moderate degree of certainty, of at least 50 percent, that those quantities will be equaled or exceeded. Cardinal reports production and reserve quantities in accordance with Canadian practices and specifically in accordance with NI 51-101.

Cardinal cautions users of this information that the process of estimating proved and probable oil and gas reserves is subject to a level of uncertainty. The proved and probable oil and gas reserves are based on current and forecast economic and operating conditions; therefore, changes can be made to future assessments as a result of a number of factors, which can include forecasted oil and gas commodity prices, new technology, changing economic conditions, future reservoir performance and development activity.

Property, plant and equipment
Petroleum and natural gas assets included in PP&E are depleted using the unit-of-production method based on estimated proved and probable oil and gas reserves determined using a number of significant assumptions, such as forecasted oil and gas commodity prices, forecasted production volumes, forecasted operating costs, forecasted royalty costs and forecasted future development costs. The estimate of proved and probable oil and gas reserves and the discount rate is part of the depletion calculation and the impairment test.

Business combinations
In a business combination, management makes estimates of the fair value of assets acquired and liabilities assumed which includes assessing the value of petroleum and natural gas properties based upon the estimation of recoverable quantities of proved and probable oil and gas reserves being acquired.

Decommissioning obligation
Cardinal recognizes a provision for future abandonment activities in the financial statements equal to the net present value of the estimated future expenditures required to settle the estimated future obligation at the balance sheet date. The measurement of the decommissioning obligation involves the use of estimates and assumptions including the discount rate, the expected timing of future expenditures and the amount of future abandonment costs. The estimates were made by management and external consultants considering current costs, technology and enacted legislation.

Taxation
The calculation of deferred income taxes is based on a number of assumptions including estimating the future periods in which temporary differences, tax losses and other tax credits will reverse to ensure the appropriate estimate of the substantively enacted tax rates at the time of reversal and the likelihood of deferred tax assets being realized.

IFRS requires the Company, at each reporting date, to make certain judgments on uncertain tax positions by relevant tax authorities. Judgments include determining whether the Company will "more likely than not" be successful in defending its tax positions by considering information from relevant tax interpretations and tax laws in Canada. As such, this recognition threshold is subject to management's judgment and may impact the carrying value of the Company's deferred tax assets and liabilities at the end of the reporting period.

Derivatives
The Company's estimate of the fair value of derivative financial instruments is dependent on forecasted for oil and gas commodity prices and the volatility in those prices.

Trade and other receivables
The Company monitors receivables due from petroleum and natural gas marketers and from joint asset partners to manage credit risk. The Company historically has not experienced any collection issues with petroleum and natural gas marketers as a significant portion of these receivables are with creditworthy purchasers. To protect against credit losses from joint asset partners, the Company has the ability to withhold production in the event of non-payment and the ability to obtain the partners' share of capital expenditures in advance of a project. The Company continues to expect that its receivables are substantially collectible at December 31, 2022.

RISKS

Financial Risk
Financial risk is the risk of loss or lost opportunity resulting from financial management and market conditions that could have a positive or negative impact on Cardinal's business. Financial risks the Company is exposed to include: marketing production at an acceptable price given market conditions; finding and producing reserves at a reasonable cost; volatility in market prices for oil and natural gas; fluctuations in foreign exchange and interest rates; stock market volatility; debt service which may limit timing or amount of dividends as well as market price of shares; the continued availability of adequate debt and equity financing and funds flow to fund planned expenditures; sufficient liquidity for future operations; lost revenue or increased expenditures as a result of delayed or denied environmental, safety or regulatory approvals; cost of capital risk to carry out the Company's operations; and uncertainties associated with credit facilities and counterparty credit risk.

Operational Risk
Operational risk is the risk of loss or lost opportunity resulting from operating and capital activities that, by their nature, could have an impact on the Company's ability to achieve objectives. Operational risks that Cardinal is exposed to include: uncertainties associated with estimating oil and natural gas reserves; incorrect assessments of the value of acquisitions and exploration and development programs; failure to realize the anticipated benefits of acquisitions; uncertainties associated with partner plans and approvals; operational matters related to non-operated properties; inability to secure adequate product transportation; delays in business operations, pipeline restrictions, blowouts; unforeseen title defects; increased competition for, among other things, capital, acquisitions of reserves and undeveloped lands; competition for and availability of qualified personnel or management; loss of key personnel; unexpected geological, technical, drilling, construction and processing problems; availability of insurance; competitive action by other companies; the ability of suppliers to meet commitments and risks; and uncertainties related to oil and gas interests and operations on tribal lands.

Safety, Environmental and Regulatory Risks
Safety, environmental and regulatory risks are the risks of loss or lost opportunity resulting from changes to laws governing safety, the environment, royalties and taxation. Safety, environmental and regulatory risks that Cardinal is exposed to include: aboriginal land claims; uncertainties associated with regulatory approvals; uncertainty of

government policy changes; the risk of carrying out operations with minimal environmental impact; changes in or adoption of new laws and regulations or changes in how they are interpreted or enforced; obtaining required approvals of regulatory authorities and stakeholder support for activities and growth plans.

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.

Information Systems
Our operations rely heavily on information technology, such as computer hardware and software systems, to properly operate our business. These systems could be damaged, corrupted or interrupted by natural disasters, telecommunications failures, power loss, malicious acts or code, computer viruses, physical or electronic security breaches, user misuse or user error. A system disruption or breach could adversely impact our reputation, financial condition, results of operations and cash flows.

Risk Management
Cardinal is committed to identifying and managing its risks in the near term, as well as on a strategic and longer term basis at all levels in the organization. Issues affecting, or with the potential to affect, our assets, operations and/or reputation, are generally of a strategic nature or are emerging issues that can be identified early and then managed, but occasionally include unforeseen issues that arise unexpectedly and must be managed on an urgent basis.

Cardinal takes a proactive approach to the identification and management of issues that can affect the Company's assets, operations and/or reputation. Specific actions to ensure effective risk management include: employing qualified professional and technical staff; concentrating in a limited number of areas with low cost exploitation and development objectives; utilizing the latest technology for finding and developing reserves; constructing quality, environmentally sensitive and safe production facilities; adopting and communicating sound policies governing all areas of our business; maximizing operational control of drilling and production operations; strategic hedging of commodity prices and foreign exchange rates on borrowings; adhering to conservative borrowing guidelines; and monitoring counterparty creditworthiness.

Additional information regarding risk factors is available in our Annual Information Form, which is available on the SEDAR website at www.sedar.com.

DISCLOSURE CONTROLS AND PROCEDURES

Disclosure controls and procedures ("DC&P"), as defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* ("NI 52-109"), are designed to provide reasonable assurance that material information required to be disclosed in the Company's annual filings, interim filings or other reports filed, or submitted by the Company under securities legislation is recorded, processed, summarized and reported within the time periods specified under securities legislation and include controls and procedures designed to ensure that information required to be so disclosed is accumulated and communicated to management, including the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure.

The Company's CEO and CFO have designed, or caused to be designed under their supervision, disclosure controls and procedures to provide reasonable assurance that: (i) material information relating to the Company is made known to the Company's CEO and CFO by others, particularly during the period in which the annual 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 period specified in securities legislation. The CEO and CFO have evaluated, or caused to be evaluated under their supervision, the effectiveness of the Company's disclosure controls and procedures at the financial year end of the Company and have concluded that the Company's disclosure controls and procedures were effective at December 31, 2022 for the foregoing purposes.

INTERNAL CONTROLS OVER FINANCIAL REPORTING

Internal control over financial reporting ("ICOFR"), as defined in NI 52-109, includes those policies and procedures that: a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets of Cardinal; b) are designed to provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS and that receipts and expenditures of the Company are being made in accordance with authorizations of management and Directors of Cardinal; and c) are designed to provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

The CEO and the CFO have designed, or caused to be designed under their supervision, internal controls over financial reporting as defined in NI 52-109, 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 CEO and the CFO have evaluated the design and operating effectiveness of Cardinal's ICOFR as at December 31, 2022 and have concluded that such internal controls over financial reporting are designed and operating effectively. The control framework Cardinal's officers used to design the Company's ICOFR is COSO 2013.

The CEO and CFO are required to cause the Corporation to disclose any change in the Corporation's internal controls over financial reporting that occurred during the most recent interim period that has materially affected, or is reasonably likely to materially affect, the Corporation's internal controls over financial reporting. There were no changes in Cardinal's ICOFR during the quarter ended December 31, 2022 that materially affected, or are reasonably likely to materially affect, the Company's ICOFR.

Due to their inherent limitations, internal controls over financial reporting may not prevent or detect misstatements. In addition, projections of any evaluation relating to the effectiveness in future periods are subject to the risk that controls may become inadequate as a result of changes in conditions, or that the degree of compliance with policies and procedures may deteriorate. It should also be noted that a control system, including the Company's DC&P and ICOFR, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objective of the control system is met and it should not be expected that the DC&P and ICOFR will prevent all errors or fraud.

OUTLOOK

2022 was a very successful year for Cardinal and our shareholders. When we prepared our 2022 budget in late 2021, our focus was to accomplish three things; reduce the risk in our business, improve our sustainability and provide returns to shareholders. Our single largest achievement in 2022 was the significant reduction in our debt. At current debt levels we no longer view debt as a significant risk factor but will strive to reduce it to zero as appropriate. Sustainability was dramatically improved in 2022 with large increases to our development drilling inventory throughout our asset base.

Our overall focus for 2023 will not change from 2022. Continue to improve our sustainability, reduce risk and ensure returns to shareholders utilizing our NCIB, dividends and special dividends when appropriate.

QUARTERLY DATA

	Dec 31, 2022	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022
Production				
Oil (bbl/d)	**17,942**	18,329	18,767	17,478
Natural gas (mcf/d)	**15,222**	15,095	15,511	13,888
NGL (bbl/d)	**802**	870	928	804
Oil equivalent (boe/d)	**21,281**	21,715	22,280	20,596
Financial				
Petroleum and natural gas revenue	**154,894**	179,441	228,917	174,338
Earnings	**113,865**	32,996	98,586	57,240
Basic per share ($)	**0.73**	0.21	0.64	0.38
Diluted per share ($)	**0.71**	0.21	0.63	0.35
Cash flow from operating activities	**68,248**	98,325	120,210	50,043
Total assets	**1,155,013**	1,060,734	1,130,750	1,122,348
Bank debt	**31,280**	42,167	66,956	146,564
Total long-term liabilities	**120,418**	114,115	181,207	263,711
Shareholders' equity	**925,370**	837,857	850,617	763,396
Dividends declared	**28,699**	23,996	8,161	-
Per share ($)	**0.18**	0.15	0.05	-
Common shares outstanding, net (000's)(1)	**155,757**	155,737	159,143	151,891
Diluted shares outstanding, net (000's)(1)	**159,444**	159,487	162,915	164,990

	Dec 31, 2021	Sep 30, 2021	Jun 30, 2021	Mar 31, 2021
Production				
Oil (bbl/d)	17,366	16,356	14,767	14,781
Natural gas (mcf/d)	13,733	15,101	13,173	14,364
NGL (bbl/d)	870	600	986	1,210
Oil equivalent (boe/d)	20,525	19,473	17,949	18,385
Financial				
Petroleum and natural gas revenue	140,409	120,007	99,106	85,547
Earnings (loss)	38,955	262,326	9,095	(25,961)
Basic per share ($)	0.26	1.76	0.06	(0.20)
Diluted per share ($)	0.24	1.64	0.06	(0.20)
Cash flow from operating activities	51,973	37,410	22,463	13,275
Total assets	1,075,828	1,053,162	747,248	750,410
Bank debt	142,412	170,229	178,239	188,984
Secured notes	12,546	30,270	17,429	16,809
Total long-term liabilities	271,529	283,934	275,153	287,370
Shareholders' equity	719,232	679,549	398,147	388,753
Common shares outstanding, net (000's)(1)	150,442	150,332	144,388	144,388
Diluted shares outstanding, net (000's)(1)	165,766	166,097	157,891	157,891

(1) Net of treasury shares

In 2021, as the Company began its recovery from the reduced activity due to COVID-19, production was restored and commodity prices increased lifting petroleum and natural gas revenue. 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. In the second quarter of 2022, commodity prices were highest in the year and have subsequently decreased in the back half of 2022.

The Company's earnings also increased with non-cash impairment reversals of previous impairments on its assets as shown with a reversal of previous impairments in the third quarter of 2021 where the Company reversed impairments by $218.3 million. In the third and fourth quarter of 2022, the Company also recorded net impairment reversals of $46.4 million. In addition, in the first quarter of 2021, the Company recognized a re-measurement loss on its warrant liability of $12.9 million and in the third quarter of 2021, the Company recorded a gain on the Venturion Acquisition of $21.8 million. Cardinal also recognized $9.7 million of a deferred tax reduction in the fourth quarter of 2022 due to the recognition of its deferred tax asset.

ANNUAL DATA

	2022	2021	2020
Production			
Oil (bbl/d)	**18,131**	15,826	15,266
Natural gas (mcf/d)	**14,933**	14,093	13,585
NGL (bbl/d)	**851**	915	911
Oil equivalent (boe/d)	**21,471**	19,090	18,442
Financial			
Petroleum and natural gas revenue	**737,590**	445,069	223,231
Earnings (loss)	**302,687**	284,415	(363,160)
Basic per share ($)	**1.97**	1.98	(3.20)
Diluted per share ($)	**1.92**	1.84	(3.20)
Cash flow from operating activities	**337,263**	125,121	43,525
Adjusted funds flow(1)	**362,783**	132,507	43,827
Basic per share ($)	**2.36**	0.92	0.39
Diluted per share ($)	**2.30**	0.86	0.39
Dividends per share ($)	**0.380**	-	0.03
Total assets	**1,155,013**	1,075,828	749,133
Bank debt	**31,280**	142,412	192,115
Principal amount of convertible debentures	**-**	-	28,207
Secured notes	**-**	12,546	16,217
Total long-term liabilities	**120,418**	271,529	316,952
Shareholders' equity	**925,370**	719,232	372,848
Weighted average shares - basic (000's)	**153,994**	143,636	113,415
Weighted average shares - diluted (000's)	**157,898**	154,572	113,415

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

In 2020, the Company voluntarily shut-in production in response to the low oil prices experienced due to COVID-19. In 2021 as prices recovered, the Company resumed its well reactivation and drilling program steadily increasing production throughout the year. In 2022, Cardinal's successful drilling program continued to increase production. This has impacted revenue, earnings (loss), cash flow from operating activities and adjusted funds flow which have also varied due to volatility in commodity prices.

Cardinal's earnings (loss) varied significantly due to changes in realized and unrealized gains and losses on commodity contracts, an impairment charge of $220.3 million in 2020 and a reversal of previous impairments of $218.3 million in 2021 and a net impairment reversal of $46.4 million in 2022. In addition, during the first quarter of 2020, the Company derecognized its deferred tax asset resulting in a $102.9 million impact to earnings in 2020.

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		**Year ended**	
	Dec 31, 2022	Dec 31, 2021	**Dec 31, 2022**	Dec 31, 2021
Operating expenses	**51,301**	42,932	**199,197**	158,529
Less: Processing and other revenue	**(950)**	(842)	**(4,250)**	(3,686)
Net operating expenses	**50,351**	42,090	**194,947**	154,843

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		**Year ended**	
	Dec 31, 2022	Dec 31, 2021	**Dec 31, 2022**	Dec 31, 2021
Petroleum and natural gas revenue	**154,894**	140,409	**737,590**	445,069
Royalties	**(30,201)**	(27,693)	**(150,001)**	(80,051)
Net operating expenses	**(50,351)**	(42,090)	**(194,947)**	(154,843)
Transportation expenses	**(1,699)**	(1,378)	**(6,275)**	(3,406)
Netback	**72,643**	69,248	**386,367**	206,769

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		**Year ended**	
	Dec 31, 2022	Dec 31, 2021	**Dec 31, 2022**	Dec 31, 2021
Cash flow from investing activities	**30,186**	3,540	**116,181**	46,571
Change in non-cash working capital	**4,722**	5,122	**4,051**	15,268
Corporate acquisition	**-**	-	**-**	(15,811)
Capital expenditures	**34,908**	8,662	**120,232**	46,028
Capitalized G&A	**(495)**	(567)	**(1,949)**	(1,339)
Other assets	**(395)**	(54)	**(854)**	(154)
Property acquisitions	**(2,287)**	(306)	**(2,432)**	(4,334)
Property dispositions	**425**	10,375	**425**	10,375
Development capital expenditures	**32,156**	18,110	**115,422**	50,576

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 fair value of financial instruments, current decommissioning obligation, and current lease liabilities). The following table reconciles working capital to adjusted working capital:

As at	**Dec 31, 2022**	Dec 31, 2021	Dec 31, 2020
Working capital deficiency	**39,919**	30,086	25,690
Lease liabilities	**1,487**	1,371	1,687
Decommissioning obligation	**8,573**	5,480	3,280
Fair value of financial instruments	**(1,533)**	-	6,909
Warrant liability	**-**	-	3,530
Adjusted working capital deficiency	**31,392**	23,235	10,284

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	**Dec 31, 2022**	Dec 31, 2021	Dec 31, 2020
Bank debt	**31,280**	142,412	192,115
Adjusted working capital deficiency	**31,392**	23,235	10,284
Net bank debt	**62,672**	165,647	202,399
Secured notes	**-**	12,546	16,217
Principal amount of Convertible Debentures	**-**	-	28,207
Net debt	**62,672**	178,193	246,823

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		Year ended	
	Dec 31, 2022	Dec 31, 2021	**Dec 31, 2022**	Dec 31, 2021
Cash flow from operating activities	**68,685**	51,973	**337,263**	125,121
Change in non-cash working capital	**(5,159)**	(789)	**5,910**	414
Funds flow	**63,526**	51,184	**343,173**	125,535
Decommissioning expenditures	**4,722**	2,260	**19,610**	6,302
Transaction costs	**-**	51	**-**	670
Adjusted funds flow	**68,248**	53,495	**362,783**	132,507
Total development capital expenditures	**(32,156)**	(18,110)	**(115,422)**	(50,576)
Free cash flow	**36,092**	35,385	**247,361**	81,931

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		Year ended	
	Dec 31, 2022	Dec 31, 2021	**Dec 31, 2022**	Dec 31, 2021
Petroleum and natural gas revenue	**79.11**	74.36	**94.12**	63.88
Royalties	**(15.43)**	(14.67)	**(19.14)**	(11.49)
Net operating expenses	**(25.72)**	(22.29)	**(24.88)**	(22.22)
Transportation expenses	**(0.87)**	(0.73)	**(0.80)**	(0.49)
Netback per boe	**37.09**	36.67	**49.30**	29.68

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 year.

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 2023;
- 2023 capital expenditure plans;
- 2023 net debt and the components thereof;
- Cardinal's business strategy, goals and management focus;
- 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, decommissioning obligations, and dividend payments;
- 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)
Q4/22	49%	35%	4%	12%	21,281
Q3/22	49%	35%	4%	12%	21,715
Q2/22	49%	35%	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
2022	50%	34%	4%	12%	21,471
2021	54%	29%	5%	12%	19,090
2020	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