



CARDINAL
ENERGY LTD.



Q3 2019

MANAGEMENT DISCUSSION & ANALYSIS

MANAGEMENT'S DISCUSSION AND ANALYSIS

This management's discussion and analysis ("MD&A") is a review of operations, financial position and outlook for Cardinal Energy Ltd. ("Cardinal" or the "Company") for the three and nine months ended September 30, 2019 and is dated November 11, 2019. The 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, 2019 and the audited financial statements for the years ended December 31, 2018 and 2017. 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 the Business

Cardinal is engaged in the acquisition, development, optimization and production of crude oil and natural gas in the provinces of Alberta and Saskatchewan. We are focused on providing sustainable monthly dividends and growth through a combination of accretive oil-based acquisitions and organic development.

Non-GAAP Measures

The terms "funds flow", "adjusted funds flow", "adjusted funds flow per share", "adjusted funds flow per diluted share", "development capital expenditures", "net operating expenses", "netback", "netback after risk management contracts", "net debt", "net debt to adjusted funds flow", "net bank debt", "simple payout ratio" and "total payout ratio" in this MD&A are not recognized under GAAP. Management believes that in addition to earnings and cash flow from operating activities as defined by GAAP, these terms are useful supplemental measures to evaluate operating performance. Users are cautioned however, that these measures should not be construed as an alternative to earnings or cash flow from operating activities determined in accordance with GAAP as an indication of Cardinal's performance and may not be comparable with the calculation of similar measurements by other entities.

Management utilizes "adjusted funds flow" as a key measure to assess the ability of the Company to generate the funds necessary to finance operating activities, capital expenditures and dividends. Adjusted funds flow excludes the change in non-cash working capital, decommissioning expenditures, and transaction costs 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. Funds flow excludes the change in non-cash operating working capital. Funds flow and adjusted funds flow are not intended to represent net cash provided by (used in) operating activities calculated in accordance with IFRS. The following table reconciles cash flow from operating activities to funds flow and adjusted funds flow:

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Cash flow from operating activities	24,836	28,074	(12)	88,265	81,799	8
Change in non-cash working capital	1,487	(2,130)	(170)	1,044	(7,693)	(114)
Funds flow	26,323	25,944	1	89,309	74,106	21
Decommissioning expenditures	1,248	1,128	11	3,637	5,243	(31)
Transaction costs	-	-	-	-	359	(100)
Adjusted funds flow	27,571	27,072	2	92,946	79,708	17

"Adjusted funds flow per share" is calculated using adjusted funds flow divided by the number of weighted average basic shares outstanding and adjusted for shares held in treasury.

"Adjusted funds flow per diluted share" is calculated using adjusted funds flow divided by the number of weighted average diluted shares outstanding and adjusted for shares held in treasury.

"Development capital expenditures" represents expenditures on property, plant and equipment (excluding capitalized G&A, other assets and acquisitions) as shown in the *Capital Expenditures* section below.

"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 through processing third party volumes.

"Netback" is calculated on a boe basis and is determined by deducting royalties, net operating expenses, and transportation expenses from petroleum and natural gas revenue in accordance with the Canadian Oil and Gas Evaluation ("COGE") Handbook. Netback is utilized by Cardinal to better analyze the operating performance of its petroleum and natural gas assets against prior periods.

"Netback after risk management contracts" is calculated as netback adjusted for the effect of realized gains or losses on commodity contracts. It is utilized by Cardinal to analyze operating performance taking into account realized gains and losses on commodity contracts which the Company takes into account in addition to its oil and gas pricing.

The term "net debt" is not recognized under GAAP and is calculated as bank debt plus the principal amount of convertible unsecured subordinated debentures ("convertible debentures") and current liabilities less current assets (adjusted for the fair value of financial instruments, the current portion of lease liabilities and decommissioning obligations). Net debt is used by management to analyze the financial position, liquidity and leverage of Cardinal.

"Net debt to adjusted funds flow" is calculated as net debt divided by adjusted funds flow for the trailing twelve month period. The ratio of net debt to adjusted funds flow is used 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 dividend levels.

"Net bank debt" is calculated as net debt less the principal amount of convertible debentures. Net bank debt is used by management to analyze the financial position, liquidity, leverage and borrowing capacity on Cardinal's bank line.

"Simple payout ratio" represents the ratio of the amount of dividends declared divided by adjusted funds flow.

"Total payout ratio" represents the ratio of the sum of dividends declared plus development capital expenditures divided by adjusted funds flow. Simple payout ratio and total payout ratio are other key measures to assess Cardinal's ability to finance operating activities, capital expenditures and dividends.

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 and does not represent a value equivalency at the wellhead. The term "boe" may be misleading, particularly if used in isolation.

HIGHLIGHTS

- Adjusted funds flow for the third quarter of 2019 increased 2% over the same period in 2018 reflecting general and administrative cost reductions and a successful commodity risk management program. For the first nine months of 2019, adjusted funds flow has increased 17% over 2018 levels.
- Third quarter 2019 production of 20,059 boe/d was 4% lower than the third quarter of 2018 due to the Alberta government's curtailment program restricting oil production and facility turnarounds during the quarter.

- Netback after risk management contracts increased 6% and 16% for the third quarter and first nine months of 2019, respectively, as compared to the same periods in 2018.
- Despite increased regulatory and environmental costs and a major turnaround in the Company's North area, third quarter net operating expenses decreased 1% over the same period in 2018.
- Cardinal's debt reduction strategy continued resulting in a decrease in third quarter 2019 closing net debt by 8% or \$22 million over net debt levels at December 31, 2018.
- Since the announcement of the Company's normal course issuer bid ("NCIB") in July 2019, Cardinal has repurchased and cancelled 1.4 million shares at an average price of \$2.31 per share. The Company has also purchased 2.3 million shares through an independent trust to enable it, at its option, to settle the vesting of restricted awards.
- Cardinal increased the dividend during the quarter paying out \$5.4 million in dividends while keeping the year-to-date total payout ratio at 61%.

OPERATIONS

PRODUCTION

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Light oil (bbl/d)	7,890	8,580	(8)	8,058	8,835	(9)
Medium / heavy oil (bbl/d)	8,733	8,842	(1)	8,744	8,718	0
Crude oil (bbl/d)	16,623	17,422	(5)	16,802	17,553	(4)
Natural gas (mcf/d)	15,022	16,718	(10)	15,616	16,619	(6)
NGL (bbl/d)	932	741	26	945	701	35
boe/d	20,059	20,949	(4)	20,350	21,024	(3)
% Crude oil and NGL production	88%	87%	1	87%	87%	-

During the third quarter of 2019, production decreased 4% over the same period in 2018 due to the Government of Alberta's mandatory oil production curtailment program announced in December 2018. Under the program, the Company's Alberta oil production is restricted to a level that varies by month but is below Cardinal's 2018 production volume levels. During the third quarter of 2019, the Alberta government announced that beginning in October 2019, the base limit for curtailment will increase from 10,000 bbl/d to 20,000 bbl/d. As Cardinal's Alberta oil production is below 20,000 bbl/d, the Company's oil production will not be limited by this program going forward. During the third quarter, planned Company owned facility turnarounds and an unplanned third party facility outage in the Bantry, Alberta area also negatively affected third quarter 2019 production by approximately 320 boe/d. Partially offsetting this decrease was a 26% increase in NGL production due to higher liquids yields in the Grande Prairie, Alberta area.

Production for the first nine months of 2019 decreased 3% over the same period in 2018 due to restricted oil production from the Alberta oil curtailment program combined with unplanned third party facility outages in the third quarter of 2019 and wet weather in the second quarter of 2019 limiting the Company's access to well servicing and optimization.

PETROLEUM AND NATURAL GAS REVENUE

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Light oil	45,463	60,653	(25)	141,570	174,663	(19)
Medium / heavy oil	47,578	49,131	(3)	143,545	133,132	8
Crude oil	93,041	109,784	(15)	285,115	307,795	(7)
NGL	1,332	2,537	(47)	4,465	7,451	(40)
Natural gas	1,110	1,230	(10)	6,119	4,931	24
Petroleum and natural gas revenue	95,483	113,551	(16)	295,699	320,177	(8)
Cardinal average prices						
Light oil (\$/bbl)	62.63	76.84	(18)	64.35	72.42	(11)
Medium / heavy oil (\$/bbl)	59.21	60.40	(2)	60.14	55.94	8
Natural gas (\$/mcf)	0.80	0.80	0	1.44	1.09	32
Equivalent (\$/boe)	51.74	58.92	(12)	53.23	55.79	(5)
Benchmark prices						
Crude oil - WTI (US \$/bbl)	56.45	69.50	(19)	57.06	66.75	(15)
Crude oil - Edmonton light (Cdn \$/bbl)	68.21	81.91	(17)	69.40	78.24	(11)
Crude oil - WCS (Cdn \$/bbl)	58.39	61.78	(5)	60.27	57.79	4
Natural gas - AECO Spot (Cdn \$/gj)	0.86	1.13	(24)	1.44	1.41	2
Exchange rate - (US/Cdn)	0.76	0.77	(1)	0.75	0.78	(4)

Petroleum and natural gas revenue decreased 16% in the third quarter of 2019 as compared to the same period in 2018 due to a 19% decrease in West Texas Intermediate ("WTI") pricing and the decrease in oil production. In the third quarter of 2019, the Company's Edmonton light benchmark price decreased 17% over the same period in 2018 which was proportional with Cardinal's light oil price decrease of 18%. The Company's medium/heavy oil price decreased 2% over the same period in 2018 which was comparable to a 5% decrease in the Western Canadian Select ("WCS") benchmark. The Company's natural gas price remained consistent with the same period in 2018, as compared to a 24% decrease in the AECO benchmark as Cardinal diversified its natural gas sales portfolio beginning in November 2018 by adding exposure to Chicago natural gas pricing which was higher than the AECO natural gas pricing in the quarter.

For the first nine months of 2019, revenue decreased 8% due to the decrease in production combined with the 15% decrease in benchmark WTI pricing. The Company's light oil price decreased 11% which was equivalent to the Edmonton Light benchmark pricing decrease. The Company's medium/heavy oil price increased 8% compared to a 4% increase in the WCS benchmark as Cardinal receives a premium to WCS for certain production in the South Alberta CGU. The WCS price differential to CAD\$ WTI has decreased in the first nine months of 2019 due to the Government of Alberta's oil curtailment program which limits production of oil in Alberta in order to reduce inventory levels.

FINANCIAL INSTRUMENTS

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Average crude oil volumes hedged (bbl/d)	11,500	13,000	(12)	10,528	13,444	(22)
Realized loss - commodity contracts	(4,182)	(19,197)	(78)	(13,188)	(42,802)	(69)
Unrealized gain/(loss) - commodity contracts	238	14,121	(98)	(14,152)	(30,907)	(54)

Managing the variability in funds flow and adjusted funds flow is an integral component of Cardinal's business strategy. Changing business conditions are monitored regularly and reviewed with our Board of Directors to establish risk management guidelines used by management in carrying out the Company's risk management program. The risk exposure inherent in movements in the price of crude oil and natural gas are proactively managed by Cardinal through the use of derivatives with investment-grade counterparties. The Company considers these

derivative contracts to be an effective means to manage cash flow from operating activities, funds flow and adjusted funds flow.

Cardinal utilizes a variety of derivatives including swaps, collars and puts to protect against downward commodity price movements 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. As of the date of this MD&A Cardinal had the following commodity derivatives, referenced to WTI, WCS and AECO outstanding:

Commodity	Financial Instrument	Period	Average Volume		Average Strike Price
Crude Oil					
	CDN WTI Swap	Oct - Dec 2019	750 bbl/d		\$ 73.17
		Jan - Mar 2020	250 bbl/d		\$ 79.50
	USD WTI Swap	Oct 2019 - Mar 2020	1,000 bbl/d		\$ 60.00
	CDN WTI Collar	Oct - Dec 2019	500 bbl/d	Floor	\$ 80.00
				Ceiling	\$ 90.10
	USD WTI Collar	Oct - Dec 2019	500 bbl/d	Floor	\$ 51.00
				Ceiling	\$ 65.25
	USD WTI Collar	Jan - Jun 2020	1,500 bbl/d	Floor	\$ 51.67
				Ceiling	\$ 66.40
	USD WTI Put	Oct - Dec 2019	3,000 bbl/d		\$ 50.83
	CDN WCS Differential Swap	Oct - Dec 2019	3,500 bbl/d		\$ 22.36
		Jan - Feb 2020	500 bbl/d		\$ 23.00
	CDN WCS Swap	Oct - Dec 2019	3,250 bbl/d		\$ 52.00
		Jan 2020	1,000 bbl/d		\$ 51.75
Natural Gas					
	AECO Swap	Oct - Dec 2019	4,685 gj/d		\$ 1.36
		Jan - Dec 2020	2,740 gj/d		\$ 1.68

ROYALTIES

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Royalties	18,004	21,084	(15)	48,340	56,179	(14)
Percent of revenue	18.9%	18.4%	3	16.3%	17.5%	(7)
\$/boe	9.76	10.94	(11)	8.70	9.79	(11)

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 of 2019 as compared to the same period in 2018 as the Company incurred higher royalties in the Midale, Saskatchewan area. Royalty rates in this area are sensitive to a number of estimated factors including capital expenditures and revenues relating to the enhanced oil recovery project. As the Company incurred lower capital expenditures and higher revenues than originally estimated, the royalty rate in the Midale area increased as compared to the same period in 2018.

For the first nine months of 2019, reduced light oil revenue which attracts a higher royalty rate than the Company's medium / heavy oil production resulted in lower royalties and royalties as a percentage of revenue over the same period in 2018.

NET OPERATING EXPENSES

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Operating expenses	38,682	39,682	(3)	119,583	120,502	-
Less: Processing and other revenue	(716)	(1,259)	(43)	(2,066)	(3,287)	(37)
	37,966	38,423	(1)	117,517	117,215	0
\$/boe	20.57	19.94	3	21.15	20.42	4

During the third quarter of 2019, net operating expenses decreased by 1% over the same period in 2018. The Company's operating cost reduction initiatives reduced electricity costs and workover costs during the quarter, however, these cost reductions were partially offset by higher regulatory and environmental costs. Reduced production to offset fixed costs increased the Company's operating costs per boe during the third quarter of 2019 as compared to the same period in 2018. During the third quarter, net operating expenses were lowered by \$0.4 million due to the implementation of IFRS 16 in which certain leases are recorded as liabilities.

For the first nine months of 2019, reduced production due to curtailment combined with higher turnaround and environmental costs increased operating costs per boe over the same period in 2018. For the first nine months of 2019, net operating costs were reduced by \$1.0 million due to the implementation of IFRS 16 in which certain leases are recorded as liabilities.

The Company continues to forecast net operating expenses to average between \$20.75 and \$21.25 for 2019.

TRANSPORTATION EXPENSES

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Transportation expenses	670	581	15	1,933	1,367	41
\$/boe	0.36	0.30	20	0.35	0.24	46

Transportation costs and transportation costs per boe increased during the third quarter and first nine months of 2019 compared to the same periods in 2018 as the Company increased clean oil trucking in certain areas in order to mitigate apportionment issues or maximize the price received for its sales oil.

NETBACK

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Petroleum and natural gas revenue	51.74	58.92	(12)	53.23	55.79	(5)
Royalties	9.76	10.94	(11)	8.70	9.79	(11)
Net operating expenses	20.57	19.94	3	21.15	20.42	4
Transportation expenses	0.36	0.30	20	0.35	0.24	46
Netback ⁽¹⁾	21.05	27.74	(24)	23.03	25.34	(10)

(1) See non-GAAP measures.

Cardinal's third quarter 2019 netback decreased 24% over the same period in 2018 as a result of decreased WTI oil prices partially offset by narrower WCS oil differentials and lower royalties.

For the first nine months of 2019, lower light oil prices and royalties were partially offset by higher operating costs and transportation costs resulting in a 10% decrease in the netback.

GENERAL AND ADMINISTRATIVE ("G&A")

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Gross G&A	5,138	5,501	(7)	15,366	17,875	(14)
Capitalized G&A and overhead recoveries	(1,406)	(1,376)	2	(3,704)	(3,991)	(7)
G&A	3,732	4,125	(10)	11,662	13,884	(16)
\$/boe	2.02	2.14	(6)	2.10	2.42	(13)

In the third quarter and first nine months of 2019, G&A and G&A costs per boe decreased over the same periods in 2018 due to reduced compensation costs as the Company reduced its staffing costs during a time of curtailed crude oil production. In addition, office rent costs were lowered by \$0.2 million and \$0.7 million, respectively, for the third quarter and first nine month of 2019, due to the implementation of IFRS 16 in which all leases are recorded as liabilities. Details are shown in the Change in Accounting Policies section below.

SHARE-BASED COMPENSATION ("SBC")

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Gross SBC	2,041	2,658	(23)	6,190	6,402	(3)
Capitalized SBC	(287)	(366)	(22)	(794)	(1,038)	(24)
SBC	1,754	2,292	(23)	5,396	5,364	1
\$/boe	0.95	1.19	(20)	0.97	0.93	4

SBC expense decreased in the third quarter of 2019 as compared to the same period in 2018 due to a decrease in the grant fair value of restricted awards ("RAs") outstanding. For the first nine months of 2019, SBC expense was consistent with the same period in 2018 as the increase in RAs outstanding was offset by a decrease in the average fair value of the outstanding restricted awards.

As at September 30, 2019, Cardinal had 4.8 million RAs outstanding.

FINANCE

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Interest - bank debt	2,352	2,152	9	7,220	6,364	13
Other finance charges, net	278	227	22	756	593	27
Interest - convertible debentures	621	690	(10)	1,859	2,065	(10)
Interest - capital leases	107	-	-	278	-	-
Accretion	2,388	2,524	(5)	7,050	7,472	(6)
Finance	5,746	5,593	3	17,163	16,494	4
\$/boe	3.11	2.90	7	3.09	2.87	8
Average bank debt	206,980	208,450	(1)	213,570	215,277	(1)
Interest rate - bank debt	4.5%	4.1%	10	4.5%	4.0%	13

Finance expenses for the third quarter and first nine months of 2019 were higher than the same periods in 2018 as higher interest rates were partially offset by lower average debt levels and lower convertible debenture interest costs as the Company bought back 10% of the outstanding debentures in the first quarter of 2019. In addition, the Company has incurred implicit financing costs within its lease payments in conjunction with the IFRS 16 implementation.

DEPLETION AND DEPRECIATION ("D&D")

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Depletion and depreciation	22,960	23,068	(0)	68,350	67,877	1
\$/boe	12.44	11.97	4	12.30	11.83	4

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

D&D costs per boe increased 4% in the third quarter of 2019 and for the first nine months of 2019 as lower production volumes and a higher property, plant and equipment depletable base due to the Company's \$76.5 million impairment reversal in the fourth quarter of 2018 were partially offset by increased 2018 year-end proved plus probable reserve bookings. In addition, D&D costs increased by \$0.7 million in the third quarter of 2019 and \$2.0 million for the first nine months of 2019 compared to the same periods in 2018 due to the implementation of IFRS 16 as depreciation is recognized on the right-of-use assets over the lease term.

DEFERRED TAXES

At September 30, 2019, the Company had a deferred tax asset of \$95.0 million (December 31, 2018 – \$112.4 million). The deferred tax asset was recognized as management considers it probable that there will be sufficient future taxable income to utilize the benefits. During the second quarter of 2019, the Alberta government announced a graduated corporate tax rate reduction from 12% to 8% over a four year period. As the Company has a deferred tax asset due to its tax pools being in excess of the accounting net assets, the impact of the rate reduction is an additional \$16.5 million deferred tax expense.

The Company has approximately \$1.4 billion of tax pools (\$1.3 billion are unrestricted) available to be applied against future income for tax purposes. Based on available pools and current commodity prices, Cardinal does not expect to pay current income taxes until 2023 or beyond. Any potential taxes payable beyond 2023 would be affected by commodity prices, capital expenditures and production.

EARNINGS (LOSS), CASH FLOW FROM OPERATING ACTIVITIES, ADJUSTED FUNDS FLOW AND PAYOUT RATIOS

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Earnings (Loss) \$/share	359	9,068	(96)	(19,246)	(24,216)	(21)
Basic and diluted	-	0.08	n/m	(0.17)	(0.21)	(19)
Cash flow from operating activities	24,836	28,074	(12)	88,265	81,799	8
Adjusted funds flow \$/share	27,571	27,072	2	92,946	79,708	17
Basic	0.24	0.24	-	0.80	0.70	14
Diluted	0.24	0.23	4	0.80	0.70	14
Total payout ratio	77%	125%	(38)	61%	107%	(43)
Simple payout ratio	19%	46%	(59)	14%	47%	(70)

For the third quarter of 2019, the Company's earnings decreased mainly due to reduced unrealized gains on commodity contracts as the forward price of oil significantly decreased in the third quarter of 2018. For the first nine months of 2019, the Company has a reduced loss primarily due to reduced realized and unrealized losses on commodity contracts partially offset by decreased petroleum and natural gas revenue and increased deferred tax expense due to the Alberta government's tax rate reduction described in the Deferred Tax section.

During the third quarter and first nine months of 2019, the increase in adjusted funds flow was due to reduced realized losses on commodity contracts in 2019 compared to 2018. Cash flow from operating activities and adjusted funds flow increased by \$0.5 million and \$1.4 million for the third quarter and first nine months of 2019, respectively, due to the implementation of IFRS 16 in which certain leases are recorded as liabilities.

The decrease in Cardinal's total and simple payout ratios for the third quarter and first nine months of 2019 over the same period in 2018 is the result of the increase in adjusted funds flow and decreased dividend payments.

CAPITAL EXPENDITURES

In the third quarter of 2019, the Company drilled and completed two (2.0 net) wells in the Forestburg, Alberta area. In addition, Cardinal drilled 10 (10.0 net) wells in Bantry of which nine were stratigraphic test wells. The Company also invested in its infrastructure by upgrading pipelines and facilities and continued with enhanced oil recovery projects spending \$8.9 million throughout its core areas on equipment, facilities and pipelines. As part of the infrastructure spending, Cardinal continues to invest in power generation projects in order to reduce its dependence on the power grid and lower operating costs.

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Land	208	1,266	(84)	653	1,401	(53)
Geological and geophysical	-	3	(100)	-	(2)	(100)
Drilling and completion	6,672	8,906	(25)	19,191	21,366	(10)
Equipment, facilities and pipelines	8,909	11,105	(20)	24,138	25,374	(5)
Total development capital expenditures ⁽¹⁾	15,789	21,280	(26)	43,982	48,139	(9)
Capitalized G&A	378	408	(7)	1,133	1,329	(15)
Other assets	65	41	59	135	153	(12)
Acquisitions, net	52	(10,928)	n/m	284	(28,170)	n/m
Total cash capital expenditures	16,284	10,801	51	45,534	21,451	112
Non-cash expenditures ⁽²⁾	-	-	-	-	11,250	(100)
Total capital expenditures ⁽³⁾	16,284	10,801	51	45,534	32,701	39

⁽¹⁾ Represents the total of exploration and evaluation and property, plant and equipment expenditures from the statements of cash flows less amounts recorded for capitalized G&A and other assets (included in the table of expenditures above).

⁽²⁾ Represents share consideration associated with the 2018 Midale consolidating working interest acquisition.

⁽³⁾ Expenditures exclude expenditures for the decommissioning obligation and non-cash capitalized share-based compensation.

Recently the Company commenced a multi-well drilling program to fulfill farm-in commitments and take advantage of additional drilling opportunities and has therefore increased its 2019 capital budget. The Company's Board of Directors has approved a \$10 million increase to Cardinal's 2019 capital budget from \$52 million to \$62 million.

DECOMMISSIONING OBLIGATION

The decommissioning obligation increased in the third quarter of 2019 to \$124.5 million from \$121.7 million at the end of 2018 as the Company settled \$3.6 million of liabilities, incurred \$0.2 million of future liabilities and increased the liability with \$6.4 million of accretion. In addition, Cardinal disposed of \$0.2 million of asset retirement obligations during the third quarter of 2019.

LIQUIDITY AND CAPITAL RESOURCES

Capitalization table	As at		
	Sep 30, 2019	Dec 31, 2018	Change %
Net bank debt ⁽¹⁾	202,760	219,689	(8)
Convertible debentures	45,000	50,000	(10)
Common shares, outstanding	114,333,031	116,197,095	(2)
Market price at end of period (\$ per share)	\$ 2.48	\$ 2.22	12
Market capitalization	283,546	257,958	10
Total capitalization	531,306	527,647	1

(1) See non-GAAP measures.

CAPITAL FUNDING

The Company has a reserved based credit facility of \$325 million which is comprised of a \$295 million syndicated term credit facility and a \$30 million non-syndicated operating term credit facility (the "Facilities"). The Facilities are available on a revolving basis until May 23, 2020 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 22, 2021. 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, 2019.

The borrowing base of the Facilities is primarily based on reserves and commodity prices estimated by the syndicate and is subject to review and redetermination on a semi-annual basis. 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.

Advances under the Facilities are available by way of either prime rate loans, which bear interest at the banks' prime lending rate plus 0.5 to 2.5%, and bankers' acceptances and/or LIBOR loans, which are subject to fees and margins ranging from 1.5 to 3.5%. 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.

Cardinal has \$45 million (December 31, 2018 - \$50 million) of convertible debentures which have a maturity date of December 31, 2020. The convertible debentures have a conversion price of \$10.50 per common share and bear interest at 5.5% per annum, payable semi-annually on June 30 and December 31 each year. The convertible debentures are redeemable by the Company after January 1, 2019 subject to certain conditions. In December 2018, the Company announced a normal course issuer bid ("NCIB") whereby Cardinal could purchase up to \$5.0 million aggregate principal amount of its convertible debentures, subject to certain conditions. In the first quarter of 2019, the Company repurchased and cancelled the maximum number of convertible debentures of \$5.0 million allowed under this NCIB at an average rate of 96.9314 and for a gain of \$0.2 million.

CAPITAL STRUCTURE

Cardinal manages its capital to provide a flexible structure to support production maintenance, capital programs, stability of dividends and other operational strategies. 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 and dividend payments.

The key measures that the Company utilizes in evaluating its capital structure are the credit available from the syndicate in relation to the Company's budgeted capital expenditure program and the ratio of net debt to adjusted funds flow (see non-GAAP measures).

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

increases 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 quarterly and updated as necessary.

	Twelve months ended	
	Sep 30, 2019	Dec 31, 2018
Bank debt	\$ 192,435	\$ 211,443
Principal amount of Convertible Debentures	45,000	50,000
Working capital deficiency ⁽¹⁾	10,325	8,246
Net debt ⁽²⁾	\$ 247,760	\$ 269,689
Cash flow from operating activities	\$ 95,233	\$ 88,767
Change in non-cash working capital	(1,611)	(10,348)
Funds flow ⁽²⁾	\$ 93,622	\$ 78,419
Decommissioning obligation expenditures	4,837	6,443
Transaction costs	-	359
Adjusted funds flow ⁽²⁾	98,459	85,221
Net debt to adjusted funds flow ⁽²⁾	2.5	3.2

(1) Excludes the fair value of commodity contracts, the current portion of the lease liabilities and the current portion of the decommissioning obligation

(2) See non-GAAP measures

Cardinal's ratio of net debt to adjusted funds flow as at September 30, 2019 was 2.5 to 1, lower than the ratio at December 31, 2018 of 3.2 to 1 due to higher adjusted funds flow from higher oil prices and significantly narrower Canadian oil price differentials in 2019. In the fourth quarter of 2018, the Company experienced record wide Canadian oil price differentials which negatively affected cash flow from operating activities, adjusted funds flow and increased bank debt. Cardinal has targeted a ratio of 2.0 to 1 and has decreased the ratio from a high of 4.5 to 1 in the second quarter of 2017 to 2.5 to 1 in the third quarter of 2019. During periods of significant capital expenditures, acquisitions or low pricing environments as experienced in the fourth quarter of 2018, the ratio will increase. The Company believes the low pricing environment experienced in the fourth quarter of 2018 was a short-term situation but Cardinal will continue to evaluate further non-core asset dispositions or may consider other forms of financing to reduce its debt to within its targeted range.

LIQUIDITY

The Company relies on cash flow from operating activities, the unused portion of the Facilities and equity issuances to fund its capital requirements and provide liquidity. As at September 30, 2019, Cardinal had a working capital deficiency of \$10.3 million and unused capacity of \$131.0 million on its Facilities, after taking into account outstanding letters of credit.

The Company believes that it is well positioned to take advantage of its internally developed opportunities funded through its available Facilities combined with anticipated cash flow from operating activities. Present sources of capital are anticipated to be sufficient to satisfy the Company's capital program, decommissioning obligations, and dividend payments for the 2019 fiscal year.

DIVIDENDS

	Three months ended			Nine months ended		
	Sep 30, 2019	Sep 30, 2018	Change %	Sep 30, 2019	Sep 30, 2018	Change %
Dividends declared	5,372	12,467	(57)	12,597	37,107	(66)
Dividends declared per share	\$ 0.045	\$ 0.105	(57)	\$ 0.105	\$ 0.315	(67)

In the third quarter of 2019, the Company declared \$5.4 million (2018 – \$12.5 million) of dividends of which \$3.4 million (2018 – \$8.1 million) was paid in cash and \$2.0 million (2018 - \$4.4 million) was recognized as a liability at

September 30, 2019. In December 2018, due to record wide Canadian crude oil price differentials, the Company announced a reduction of the dividend to \$0.01 per share per month commencing with the December 2018 dividend payable on January 15, 2019. In April 2019, with strengthening WTI oil prices and narrowing Canadian oil price differentials, the Company announced that it would increase its dividend to \$0.015 per share effective for the July 2019 dividend. The Board of Directors will review the dividend level again in 2020 and may make adjustments to the dividend rate depending on market conditions at that time.

SHARE CAPITAL

During the first nine months of 2019, Cardinal granted 2.8 million RAs to officers, directors and employees pursuant to the Company's restricted bonus award plan.

RAs 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. As of the date of this MD&A, the trustee had purchased 2,253,357 treasury shares at an average price of \$2.83 for the potential settlement of vesting RAs. During the first nine months of 2019, 333,559 treasury shares held by the trustee were utilized to settle vesting awards.

In the third quarter of 2019, the Company announced that the Toronto Stock Exchange ("TSX") accepted the Company's intention to commence an NCIB. Pursuant to the NCIB, the Company is permitted to purchase up to 11,128,148 common shares (representing approximately 10% of its public float as of July 23, 2019) between August 2, 2019 and August 2, 2020.

Under the NCIB, common shares may be repurchased in open market transactions on the TSX, and/or alternative Canadian trading systems, or by such other means as may be permitted by the TSX and applicable securities laws and in accordance with the rules of the TSX governing NCIB's. The total number of common shares that Cardinal is permitted to purchase is subject to a daily purchase limit of 131,082 common shares, representing 25% of the average daily trading volume of 524,329 common shares on the TSX calculated for the six-month period ended June 30, 2019, however, Cardinal may make one block purchase per calendar week which exceeds the daily repurchase restrictions. Any common shares that are purchased under the NCIB will be cancelled upon their purchase by the Company. As of November 11, 2019, the Company has repurchased and cancelled 1,393,246 common shares at an average price of \$2.31 per share.

On January 12, 2018, the Company issued 2,314,815 common shares valued at \$4.86 per share as partial consideration for the consolidating acquisition increasing the Company's working interest in the Midale Unit from 68.8% to 77.2%.

On August 30, 2018, Cardinal issued 640,000 flow-through common shares pursuant to a private placement at \$6.25 per common share for gross proceeds of \$4.0 million. The Company recorded a deferred liability for the related premium in the amount of \$0.5 million. As of September 30, 2019, Cardinal has incurred \$3.1 million of qualifying Canadian Exploration Expenditures and is committed to incurring the remaining balance of \$0.9 million prior to December 31, 2019.

Equity Instruments as at	Nov 11, 2019	Sep 30, 2019	Dec 31, 2018
Common shares, issued	115,752,829	116,252,829	116,197,095
Treasury shares	(1,919,798)	(1,919,798)	-
Convertible debentures	4,285,714	4,285,714	4,761,905
RAs	4,701,670	4,754,161	3,444,409
Stock options	-	833	12,501

OFF BALANCE SHEET ARRANGEMENTS

Cardinal does not have any special purpose entities nor is it a party to any arrangements that would be excluded from the balance-sheet, other than the operating leases summarized in *Commitments and Contractual Obligations*.

CONTRACTUAL OBLIGATIONS

At September 30, 2019, the Company had contractual obligations as follows:

	2019	2020	2021	2022	2023	Thereafter
Trade and other payables	55,181	-	-	-	-	-
Dividends payable	1,954	-	-	-	-	-
Lease liabilities	1,040	1,850	1,539	1,054	979	9
Bank debt	-	-	192,435	-	-	-
Capital commitments	1,872	1,250	-	-	-	-
Convertible debentures	1,238	47,475	-	-	-	-
Total contractual obligations	\$ 61,285	\$ 50,575	193,974	1,054	979	9

SUBSEQUENT EVENTS

On **October 15, 2019**, the Company confirmed that a dividend of \$0.015 per common share would be paid on November 15, 2019 to shareholders of record on October 31, 2019. The total amount of dividends declared at October 31, 2019 was \$1.7 million.

ADDITIONAL INFORMATION

CRITICAL ACCOUNTING ESTIMATES

There have been no changes in Cardinal's critical accounting estimates in the nine months ended September 30, 2019. 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, 2018.

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 2019.

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.

CHANGE IN ACCOUNTING POLICIES

IFRS 16 – Leases

Effective January 1, 2019, Cardinal adopted IFRS 16, which provides a single recognition and measurement model for lessees to recognize assets and liabilities for contracts that are, or contain, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company recognizes a right-of-use asset ("ROU") and a lease liability at the lease commencement date. The ROU asset is initially measured at cost based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs

to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The assets are depreciated to the earlier of the end of the useful life of the ROU asset or the lease term using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option. In addition, the ROU is periodically reduced by impairment losses, if any, and adjusted for certain re-measurements of the lease liability. The average depreciation term is 3.7 years.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

The lease liability is measured at amortized cost using the effective interest method. It is re-measured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is re-measured in this way, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in earnings or loss if the carrying amount of the ROU asset has been reduced to zero. Lease payments are applied against the lease obligation, with a portion reflected as interest expense using the effective interest rate method. Cardinal presents the lease liability as its own line item on the balance sheets.

Cardinal has elected to use the modified retrospective approach upon adoption and therefore the comparative information has not been restated. The effect of initially applying the standard was a \$6.5 million increase to ROU assets, with a corresponding lease liability recorded. The ROU asset was then reduced by \$1.0 million for previously recorded lease inducements with the offset recognized to eliminate the lease inducement liability that was previously included in trade and other payables. On January 1, 2019 there was no impact on deficit. The lease liability was measured at the present value of the remaining lease payments, discounted using Cardinal's incremental borrowing rate as at January 1, 2019. The weighted average incremental borrowing rate used to determine the lease obligation on adoption was approximately 6.4%. The ROU assets and lease liabilities recognized largely relate to the Company's head office lease in Calgary.

The Company has elected to apply the practical expedient of not recognizing right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The lease payments associated with these leases are recognized as expenses on a straight-line basis over the lease term and are not considered material at September 30, 2019.

The preparation of the financial statements in accordance with IFRS requires management to make judgments, estimates, and assumptions that affect the reported amount of assets, liabilities, income, and expenses. Actual results could differ significantly from these estimates. Key areas where management has made judgments, estimates, and assumptions related to the application of IFRS 16 include:

- Incremental borrowing rate: 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 term: Lease terms are based on assumptions regarding extension terms that allow for operational flexibility and future market conditions.

The difference in operating lease commitments disclosed as at December 31, 2018 and lease liabilities recognized on the balance sheet at January 1, 2019 is primarily due to non-lease components within the agreements and the impact of discounting using the Company's incremental borrowing rate at January 1, 2019:

	As at
	January 1, 2019
Less than 1 year	\$ 2,277
1 - 3 years	5,308
4 - 5 years	1,475
	<u>9,060</u>
Non-lease components	(1,786)
Amounts representing interest	(796)
Lease liabilities	<u>6,478</u>

Cash flow from financing activities for the nine months ended September 30, 2019 was \$1.4 million lower due to the deduction of the lease payments reflected in this section while cash flow from operating activities increased \$1.4 million. For the nine months ended September 30, 2019, general and administrative expense was decreased by \$0.7 million and operating expense was decreased by \$1.0 million offset by an increase in depletion and depreciation expense of \$1.9 million.

Certain prior period amounts have been reclassified to conform to current period presentation.

OUTLOOK

Strong realized pricing and disciplined spending combined with a successful commodity risk management program have allowed Cardinal to execute its debt reduction strategy through the first nine months of 2019. In 2019, the Company has also provided its shareholders with returns by purchasing approximately 3.7 million common shares on the open market through its NCIB and its independent Trustee for approximately \$9.6 million and has increased its dividend by 50% effective July 2019.

Cardinal has been subject to regulated curtailment of its oil production for the past ten months, which was relaxed in October 2019. The curtailed oil production levels limited Cardinal's total production to a range of 20,000 to 20,500 boe/d. Through 2019, Cardinal has acquired access to several townships of land, on attractive royalty terms. These lands directly offset the Company's infrastructure in Southern Alberta. Late in the third quarter of 2019, the Company commenced a multi-well drilling program to fulfill farm-in commitments and take advantage of these additional drilling opportunities and has therefore increased its 2019 capital budget by \$10 million to fund this activity. Cardinal anticipates corporate production volumes will increase to approximately 21,000 boe/d in the first quarter of 2020 from the current 20,000 to 20,500 boe/d range. Including the increased capital expenditures, at current prices, Cardinal expects to continue to reduce debt levels and make purchases under the NCIB while keeping the total payout ratio below 100% in the fourth quarter of 2019. In addition, Cardinal will continue to upgrade its pipelines and facilities and has plans to bring on two additional power generation projects during the fourth quarter of 2019.

QUARTERLY DATA

	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018
Production				
Oil and NGL (bbl/d)	17,555	17,936	17,752	17,622
Natural gas (mcf/d)	15,022	15,906	15,930	16,460
Oil equivalent (boe/d)	20,059	20,587	20,407	20,365
Financial				
Revenue	95,483	106,166	94,050	59,077
Earnings (loss)	359	(3,099)	(16,506)	84,760
Basic per share (\$)	-	(0.03)	(0.14)	0.73
Diluted per share (\$)	-	(0.03)	(0.14)	0.70
Cash flow from operating activities	24,836	35,923	27,506	6,968
Adjusted funds flow ⁽¹⁾	27,571	35,736	29,639	5,513
Basic per share (\$)	0.24	0.31	0.25	0.05
Diluted per share (\$)	0.24	0.31	0.25	0.05
Working capital deficiency ⁽²⁾	(10,325)	(9,159)	(6,729)	(8,246)
Total assets	1,186,151	1,190,950	1,218,439	1,206,336
Bank debt	192,435	195,468	206,151	211,443
Principal amount of convertible debentures	45,000	45,000	45,000	50,000
Total long-term liabilities ⁽³⁾	359,809	362,500	372,245	376,651
Shareholders' equity	758,263	763,655	771,674	792,622
Common shares outstanding, net (000's) ⁽⁴⁾	114,333	115,203	116,617	116,197
Diluted shares outstanding, net (000's) ⁽⁴⁾⁽⁵⁾	119,088	120,220	121,669	119,654
	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018	Dec 31, 2017
Production				
Oil and NGL (bbl/d)	18,163	18,110	18,492	17,943
Natural gas (mcf/d)	16,718	16,632	16,505	18,032
Oil equivalent (boe/d)	20,949	20,882	21,243	20,949
Financial				
Revenue	113,551	111,847	94,779	97,646
Earnings (loss)	9,068	(19,970)	(13,314)	(54,308)
Basic per share (\$)	0.08	(0.17)	(0.12)	(0.49)
Diluted per share (\$)	0.08	(0.17)	(0.12)	(0.49)
Cash flow from operating activities	28,074	21,923	31,802	24,442
Adjusted funds flow ⁽¹⁾	27,072	27,085	25,551	28,421
Basic per share (\$)	0.24	0.24	0.23	0.26
Diluted per share (\$)	0.23	0.24	0.23	0.26
Working capital deficiency ⁽²⁾	(16,204)	(12,488)	(12,505)	(7,062)
Total assets	1,198,150	1,216,642	1,216,075	1,228,596
Bank debt	184,524	200,645	200,836	218,905
Principal amount of convertible debentures	50,000	50,000	50,000	50,000
Total long-term liabilities ⁽³⁾	365,083	380,961	380,859	397,980
Shareholders' equity	715,260	707,163	737,201	749,962
Common shares outstanding, net (000's)	116,039	114,228	113,985	110,838
Diluted shares outstanding, net (000's) ⁽⁵⁾	119,647	117,775	117,996	113,956

(1) See non-GAAP measures

(2) Excluding the fair value of financial instruments, the current portion of lease liabilities and the current portion of the decommissioning obligation

(3) Includes lease liabilities, bank debt and the liability component of convertible debentures

(4) Net of treasury shares

(5) Excludes the impact of convertible debentures

Since the third quarter of 2017, increases in commodity prices have resulted in increasing revenue until the fourth quarter of 2018. In the fourth quarter of 2018, concern over inventory levels and egress options significantly widened the Canadian crude oil price differentials to record levels which negatively impacted revenue as fourth quarter revenue was approximately 45% lower than the average of the previous three quarters in 2018. In the first quarter of 2019, Canadian pricing differentials normalized and revenue, adjusted funds flow and cash flow from operating activities returned to historical levels.

Similarly, adjusted funds flow has been relatively consistent since the third quarter of 2017 until the significant drop in revenues in the fourth quarter of 2018 which subsequently normalized in 2019. The second quarter of 2019 produced record cash flow from operating activities and adjusted funds flow as Canadian oil differentials narrowed due to the Alberta oil production curtailment program combined with reduced hedging losses. During the third quarter of 2019, while Canadian oil price differentials remained relatively narrow in comparison to historical averages, WTI pricing decreased impacting adjusted funds flow and cash flow from operating activities.

Cardinal's quarterly earnings and losses have varied significantly due to non-cash unrealized gains and losses on risk management contracts which include an unrealized loss of \$18.8 million and \$26.3 million in the first and second quarters of 2018, respectively. In the third quarter of 2018 as forward commodity prices decreased, the Company incurred a \$14.1 million unrealized gain. With the decline in forward oil prices in the fourth quarter of 2018, the Company's unrealized gain on risk management contracts increased to \$62.2 million which was partially reversed with a \$25.5 million unrealized loss in the first quarter of 2019 as commodity prices recovered. The Company's earnings also fluctuate with non-cash impairment charges and reversals of previous impairments on its assets as shown with an impairment charge of \$61.0 million in the fourth quarter of 2017 and a reversal of previous impairments of \$76.5 million in the fourth quarter of 2018. In the second quarter of 2019, the Company's deferred tax expense increased by \$16.5 million as the deferred tax asset was reduced due to the Alberta governments decrease in tax rates from 12% to 8% over the next four years.

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:

- expectations that the Company's oil production will not be limited by the Government of Alberta's production curtailment program going forward;
- forecasted 2019 net operating costs;
- estimated tax pools, future taxability and future taxable income;
- plans to continue to invest in power generation projects in order to reduce the Company's dependence on the power grid and lower operating costs;
- the timing of next review of the Facilities;
- Cardinal's business strategy, goals and management focus;
- Cardinal's dividend plans, the amount, timing and sources of funding of the payment of future dividends and our plans to review the dividend level again in 2020 and may make adjustments to the dividend rate depending on market conditions at that time;
- plans to evaluate non-core asset dispositions or other forms of financing to reduce debt;
- plans to maintain a conservative leverage profile through a targeted net debt to adjusted funds flow ratio of less than 2.0;
- Cardinal's risk management strategy including the mitigation of our exposure to commodity price risk, medium crude oil differentials and the benefits to be obtained therefrom;
- sources of funds for the Company's operations, capital expenditures, decommissioning obligations and dividend payments;
- plans to minimize the environmental impact of our operations;
- anticipated costs of compliance with environmental legislation;

- future liquidity and the Company's access to sufficient debt and equity capital;
- Cardinal's asset base and decline rates;
- expectations regarding the business environment, industry conditions, future commodity prices and differentials;
- Cardinal's capital management strategies;
- future capital expenditures;
- future drilling plans and the earning of additional land;
- Cardinal's plans to continue its debt reduction strategy;
- future total payout ratio;
- our ability to be selective with our capital spending to take advantage of our infrastructure;
- our plans to continue to upgrade our pipelines and facilities and plans to bring on two additional power generation projects in the fourth quarter;
- Cardinal's plans to continue to be opportunistic in utilizing its NCIB in the fourth quarter and during 2020; 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 anticipated financial performance, business prospects, strategies, regulatory developments, current and future commodity prices and exchange rates, applicable royalty rates, tax laws, production curtailment, future well production rates and reserve volumes, future operating costs, the performance of existing and future wells, the success of its exploration and development activities, the sufficiency and timing of budgeted capital expenditures in carrying out planned activities, the timing and success of our cost cutting initiatives and power projects, the availability and cost of labor and services, the impact of increasing competition, conditions in general economic and financial markets, availability of drilling and related equipment, effects of regulation by governmental agencies including production curtailment, the ability to obtain financing on acceptable terms which are subject to change based on commodity prices, market conditions, drilling success and potential timing delays and the ability of Cardinal to achieve the benefits from the new NCIB.

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; 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.

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
"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