



**CARDINAL**  
ENERGY LTD.



**Q2 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 six months ended June 30, 2019 and is dated July 30, 2019. The MD&A should be read in conjunction with Cardinal's unaudited interim condensed financial statements as at and for the three and six months ended June 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", "net debt", "net debt to adjusted funds flow", "net bank debt", "net bank debt to annualized adjusted funds flow", "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, 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			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Cash flow from operating activities	35,923	21,923	64	63,429	53,725	18
Change in non-cash working capital	(1,685)	4,264	(140)	(443)	(5,563)	(92)
<b>Funds flow</b>	<b>34,238</b>	<b>26,187</b>	<b>31</b>	<b>62,986</b>	<b>48,162</b>	<b>31</b>
Decommissioning expenditures	1,498	898	67	2,389	4,115	(42)
Transaction costs	-	-	-	-	359	(100)
<b>Adjusted funds flow</b>	<b>35,736</b>	<b>27,085</b>	<b>32</b>	<b>65,375</b>	<b>52,636</b>	<b>24</b>

"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.

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.

"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**

Second quarter 2019 cash flow from operating activities and adjusted funds flow increased by 64% and 32%, respectively, over the same period in 2018 while adjusted funds flow per diluted share increased by 29% over the same period.

Production remained consistent in the second quarter of 2019 compared with the same period in 2018 despite a curtailed oil production environment.

Despite a 12% decrease in West Texas Intermediate ("WTI") oil prices, Canadian oil price differentials narrowed to realize a 5% decrease in petroleum and natural gas revenue in the second quarter of 2019 compared to 2018.

Cardinal's initial power-generating projects came online during the second quarter of 2019, contributing to a 2% decrease in net operating costs per boe compared to the same period in 2018.

General and administrative ("G&A") costs continue to decrease with reduced corporate compensation costs resulting in a 19% decrease in per boe costs in comparison to the second quarter of 2018.

Cardinal completed the annual review of its credit facility in the quarter, which saw the bank line unchanged at \$325 million while extending the term by one year. Net debt has decreased by \$20 million or 7% in the first six months of 2019.

## OPERATIONS

### PRODUCTION

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Light oil (bbl/d)	<b>8,043</b>	8,898	(10)	<b>8,144</b>	8,964	(9)
Medium / heavy oil (bbl/d)	<b>8,954</b>	8,510	5	<b>8,749</b>	8,655	1
Crude oil (bbl/d)	<b>16,997</b>	17,408	(2)	<b>16,893</b>	17,619	(4)
Natural gas (mcf/d)	<b>15,906</b>	16,632	(4)	<b>15,918</b>	16,569	(4)
NGL (bbl/d)	<b>939</b>	702	34	<b>952</b>	681	40
<b>boe/d</b>	<b>20,587</b>	20,882	(1)	<b>20,498</b>	21,062	(3)
<b>% Crude oil and NGL production</b>	<b>87%</b>	87%	-	<b>87%</b>	87%	-

During the second quarter of 2019, production decreased 1% 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. In addition, wet weather resulted in power outages and accessibility issues within all of the Company's operating areas limiting total corporate production during the second quarter. Partially offsetting this decrease was a 34% increase in NGL production due to higher liquids yields in the Grande Prairie, Alberta area.

Production for the first six months of 2019 decreased 3% over the same period in 2018 due to restricted production abilities from the Alberta oil curtailment program combined with 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			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Light oil	<b>50,736</b>	60,846	(17)	<b>96,107</b>	114,011	(16)
Medium / heavy oil	<b>52,340</b>	47,135	11	<b>95,967</b>	84,000	14
Crude oil	<b>103,076</b>	107,981	(5)	<b>192,074</b>	198,011	(3)
NGL	<b>1,486</b>	2,713	(45)	<b>3,133</b>	4,914	(36)
Natural gas	<b>1,604</b>	1,153	39	<b>5,009</b>	3,701	35
<b>Petroleum and natural gas revenue</b>	<b>106,166</b>	111,847	(5)	<b>200,216</b>	206,626	(3)
<b>Cardinal average prices</b>						
Light oil (\$/bbl)	<b>69.32</b>	75.14	(8)	<b>65.20</b>	70.27	(7)
Medium / heavy oil (\$/bbl)	<b>64.24</b>	60.86	6	<b>60.60</b>	53.62	13
Natural gas (\$/mcf)	<b>1.11</b>	0.76	46	<b>1.74</b>	1.23	41
<b>Equivalent (\$/boe)</b>	<b>56.67</b>	58.86	(4)	<b>53.97</b>	54.20	-
<b>Benchmark prices</b>						
Crude oil - WTI (US \$/bbl)	<b>59.81</b>	67.88	(12)	<b>57.36</b>	65.38	(12)
Crude oil - Edmonton light (Cdn \$/bbl)	<b>73.59</b>	77.82	(5)	<b>70.00</b>	73.95	(5)
Crude oil - WCS (Cdn \$/bbl)	<b>65.76</b>	62.81	5	<b>61.21</b>	55.78	10
Natural gas - AECO Spot (Cdn \$/gj)	<b>0.98</b>	1.20	(18)	<b>1.73</b>	1.63	6
Exchange rate - (US/Cdn)	<b>0.75</b>	0.77	(3)	<b>0.75</b>	0.78	(4)

Petroleum and natural gas revenue decreased 5% in the second quarter of 2019 as compared to the same period in 2018 due to a 12% decrease in WTI pricing and the decrease in oil production. In the second quarter of 2019, the Company's Edmonton light benchmark price decreased 5% over the same period in 2018 as compared to Cardinal's light oil price decrease of 8% as there was reduced higher valued production in the Midale, Saskatchewan area. The Company's medium/heavy oil price increased 6% over the same period in 2018 which was comparable to a 5% increase in the WCS benchmark. The Company's natural gas price increased 46% in the second quarter of 2019, in comparison to the same period in 2018, as compared to an 18% decrease in the AECO benchmark. The Company 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 six months of 2019, revenue decreased 3% due to the decrease in production combined with a slight decrease in commodity pricing. The Company's light oil price decreased 7% which was comparable with the 5% decrease in the Edmonton light benchmark. Medium/heavy oil prices increased proportionately with the WCS benchmark. The WCS price differential to CAD\$ WTI has decreased throughout the first half 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			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Average crude oil volumes hedged (bbl/d)	<b>12,583</b>	13,167	(4)	<b>10,042</b>	12,667	(21)
Realized loss - commodity contracts	<b>(7,554)</b>	(18,582)	(59)	<b>(9,006)</b>	(23,605)	(62)
Unrealized gain/(loss) - commodity contracts	<b>11,096</b>	(26,250)	(142)	<b>(14,390)</b>	(45,028)	(68)

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
<b>Crude Oil</b>				
	CDN WTI Swap	Jul - Dec 2019	750 bbl/d	\$ 73.17
		Jan - Mar 2020	250 bbl/d	\$ 79.50
	CDN WTI Collar	Jul - Dec 2019	500 bbl/d	Floor \$ 80.00 Ceiling \$ 90.10
	USD WTI Collar	Jul - 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	Jul - Dec 2019	3,000 bbl/d	\$ 50.83
	CDN WCS Differential Swap	Jul - Dec 2019	3,500 bbl/d	\$ 22.36
		Jan - Feb 2020	500 bbl/d	\$ 23.00
	CDN WCS Swap	Jul - Dec 2019	3,250 bbl/d	\$ 52.00
		Jan 2020	1,000 bbl/d	\$ 51.75
<b>Natural Gas</b>				
	AECO Swap	Jul - Dec 2019	6,837 gj/d	\$ 1.34
		Jan - Dec 2020	1,740 gj/d	\$ 1.57

## ROYALTIES

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Royalties	<b>16,797</b>	18,956	(11)	<b>30,336</b>	35,095	(14)
Percent of revenue	<b>15.8%</b>	16.9%	(7)	<b>15.2%</b>	17.0%	(11)
\$/boe	<b>8.97</b>	9.98	(10)	<b>8.18</b>	9.21	(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 and royalties as a percentage of revenue decreased during the second quarter of 2019 and for the first six months of 2019 as compared to the same periods in 2018 due to reduced light oil revenue which attracts a higher royalty rate than the Company's medium / heavy oil production. In addition light oil royalty rates decreased due to the decreased pricing experienced in the second quarter and first six months of 2019 as compared with the same periods in 2018.

## NET OPERATING EXPENSES

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Operating expenses	<b>38,789</b>	40,408	(4)	<b>80,901</b>	80,820	-
Less: Processing and other revenue	<b>(805)</b>	(1,221)	(34)	<b>(1,350)</b>	(2,028)	(33)
	<b>37,984</b>	39,187	(3)	<b>79,551</b>	78,792	1
\$/boe	<b>20.28</b>	20.62	(2)	<b>21.44</b>	20.67	4

During the second quarter of 2019, net operating expenses per boe decreased over the same period in 2018. This was primarily a result of reduced workover and Alberta electricity costs. With electricity costs currently making up approximately 20% to 25% of the Company's total operating costs, Cardinal has initiated a power generation program to reduce our dependence on the power grid. During the second quarter, four of these projects successfully came online in our Central area. In addition, during the second quarter, net operating expenses were lowered by \$0.3 million due to the implementation of IFRS 16 in which certain leases are recorded as liabilities.

For the first six months of 2019, reduced production due to curtailment combined with higher electricity and one-time well reactivation costs incurred in the first quarter increased operating costs per boe over the same period in 2018. For the first six months of 2019, net operating costs were reduced by \$0.6 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			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Transportation expenses	<b>913</b>	367	149	<b>1,263</b>	786	61
\$/boe	<b>0.49</b>	0.19	158	<b>0.34</b>	0.20	70

Transportation costs and transportation costs per boe increased during the second quarter and first six 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 mainly during the second quarter of 2019.

## NETBACK

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Petroleum and natural gas revenue	<b>56.67</b>	58.86	(4)	<b>53.97</b>	54.20	-
Royalties	<b>8.97</b>	9.98	(10)	<b>8.18</b>	9.21	(11)
Net operating expenses	<b>20.28</b>	20.62	(2)	<b>21.44</b>	20.67	4
Transportation expenses	<b>0.49</b>	0.19	158	<b>0.34</b>	0.20	70
Netback <sup>(1)</sup>	<b>26.93</b>	28.07	(4)	<b>24.01</b>	24.12	-

(1) See non-GAAP measures.

Cardinal's second quarter 2019 netback decreased 4% 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 six months of 2019, lower royalties were offset by higher operating costs and transportation costs resulting in a minimal decrease in the netback.

## GENERAL AND ADMINISTRATIVE ("G&A")

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Gross G&A	5,015	6,051	(17)	10,228	12,374	(17)
Capitalized G&A and overhead recoveries	(1,234)	(1,318)	(6)	(2,298)	(2,615)	(12)
G&A	3,781	4,733	(20)	7,930	9,759	(19)
\$/boe	2.02	2.49	(19)	2.14	2.56	(16)

In the second quarter and first six 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 \$0.3 million and \$0.5 million, respectively, for the second quarter and first six 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			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Gross SBC	2,252	2,110	7	4,149	3,744	11
Capitalized SBC	(290)	(364)	(20)	(507)	(672)	(25)
SBC	1,962	1,746	12	3,642	3,072	19
\$/boe	1.05	0.92	14	0.98	0.81	21

SBC expense increased in the second quarter and first six months of 2019 as compared to the same periods in 2018 due to an increase in the total amount of restricted awards ("RAs") outstanding in the periods.

As at June 30, 2019, Cardinal had 5.0 million RAs outstanding.

## FINANCE

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Interest - bank debt	2,471	2,059	20	4,868	4,212	16
Other finance charges, net	229	193	19	477	366	30
Interest - convertible debentures	594	685	(13)	1,238	1,375	(10)
Interest - capital leases	107	-	-	172	-	-
Accretion	2,350	2,489	(6)	4,662	4,948	(6)
Finance	5,751	5,426	6	11,417	10,901	5
\$/boe	3.07	2.86	7	3.08	2.86	8
Average bank debt	212,870	209,257	2	216,920	218,743	(1)

Finance expenses for the second quarter and first six months of 2019 were higher than the same periods in 2018 as higher interest rates and slightly increased average debt levels were partially offset by 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			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Depletion and depreciation	23,054	22,285	3	45,390	44,809	1
\$/boe	12.31	11.73	5	12.23	11.75	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 5% in the second quarter of 2019 as lower quarterly 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 second quarter of 2019 compared to the same period in 2018 due to the implementation of IFRS 16 as depreciation is recognized on the right-of-use assets over the lease term.

For the first six months of 2019, D&D costs and D&D costs per boe increased over the same period in 2018 due to the aforementioned impairment reversal increasing the Company's depletable base partially offset by increased year end reserve bookings. In addition, D&D costs increased by \$1.3 million in the first six months of 2019 compared to the same period 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 June 30, 2019, the Company had a deferred tax asset of \$95.7 million (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, 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.

## LOSS, CASH FLOW FROM OPERATING ACTIVITIES, ADJUSTED FUNDS FLOW AND PAYOUT RATIOS

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Loss	<b>(3,099)</b>	(19,970)	(84)	<b>(19,605)</b>	(33,284)	(41)
\$/share						
Basic and diluted	<b>(0.03)</b>	(0.17)	n/m	<b>(0.17)</b>	(0.29)	n/m
Cash flow from operating activities	<b>35,923</b>	21,923	64	<b>63,429</b>	53,725	18
Adjusted funds flow	<b>35,736</b>	27,085	32	<b>65,375</b>	52,636	24
\$/share						
Basic and diluted	<b>0.31</b>	0.24	29	<b>0.56</b>	0.46	22
Total payout ratio	<b>58%</b>	98%	(41)	<b>54%</b>	98%	(45)
Simple payout ratio	<b>10%</b>	46%	(78)	<b>11%</b>	47%	(77)

For the second quarter of 2019 and first six months of 2019, the Company's loss decreased mainly due an unrealized gain on commodity contracts in the second quarter of 2019 and a reduced unrealized loss for the first six months of 2019 as compared to significant unrealized losses for the same periods in 2018. Partially offsetting this was a \$22.7 million and \$17.3 million deferred tax expense in the second quarter and for the first six months of 2019, respectively, compared to a \$6.3 million and \$11.8 million deferred tax recovery, in the second quarter and first six months of 2018, respectively. The incremental deferred tax expense in the second quarter and first six months of 2019 was related to the Alberta government's income tax rate reduction as described above.

During the second quarter and first six months of 2019, the increase in cash flow from operating activities and 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 \$0.9 million for the second quarter and first six 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 second quarter and first six 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 second quarter of 2019, the Company drilled and completed four (4.0 net) wells in the Bantry, Alberta area. Cardinal also accelerated the drilling of two (1.5 net) wells in the Midale, Saskatchewan area which were originally planned for the third quarter. The Company also invested in infrastructure, upgraded its pipelines and facilities and continued with enhanced oil recovery projects spending \$7.7 million throughout its core areas on equipment, facilities and pipelines. As part of the infrastructure spending, Cardinal successfully brought online four power generation projects in its Central area in order to reduce its dependence on the power grid and lower operating costs.

	Three months ended			Six months ended		
	Jun 30, 2019	Jun 30, 2018	Change %	Jun 30, 2019	Jun 30, 2018	Change %
Land	113	112	1	445	135	230
Geological and geophysical	-	(34)	(100)	-	(5)	(100)
Drilling and completion	9,254	6,448	44	12,519	12,460	-
Equipment, facilities and pipelines	7,674	7,533	2	15,229	14,269	7
Total development capital expenditures <sup>(1)</sup>	17,041	14,059	21	28,193	26,859	5
Capitalized G&A	378	450	(16)	755	921	(18)
Other assets	15	74	(80)	70	112	(38)
Acquisitions, net	232	(963)	n/m	232	(17,242)	n/m
Total cash capital expenditures	17,666	13,620	30	29,250	10,650	175
Non-cash expenditures <sup>(2)</sup>	-	-	-	-	11,250	(100)
Total capital expenditures <sup>(3)</sup>	17,666	13,620	30	29,250	21,900	34

(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 non-cash expenditures for the decommissioning obligation and capitalized share-based compensation.

## DECOMMISSIONING OBLIGATION

The decommissioning obligation increased in the second quarter of 2019 to \$123.5 million from \$121.7 million at the end of 2018 as the Company settled \$2.4 million of liabilities, incurred \$0.1 million of future liabilities and increased the liability with \$4.2 million of accretion. In addition, Cardinal disposed of \$0.1 million of asset retirement obligations during the second quarter of 2019.

## LIQUIDITY AND CAPITAL RESOURCES

Capitalization table	As at		
	Jun 30, 2019	Dec 31, 2018	Change %
Net bank debt <sup>(1)</sup>	204,627	219,689	(7)
Convertible debentures	45,000	50,000	(10)
Common shares, outstanding	115,203,457	116,197,095	(1)
Market price at end of period (\$ per share)	\$ 2.40	\$ 2.22	8
Market capitalization	276,488	257,958	7
Total capitalization	526,115	527,647	(0)

(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 June 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. The next scheduled review of the borrowing base is to be completed on or before May 23, 2020. 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.

	<b>Twelve months ended</b>	
	<b>Jun 30, 2019</b>	<b>Dec 31, 2018</b>
Bank debt	\$ 195,468	\$ 211,443
Principal amount of Convertible Debentures	45,000	50,000
Working capital deficiency <sup>(1)</sup>	9,159	8,246
Net debt	\$ 249,627	\$ 269,689
Cash flow from operating activities	\$ 98,471	\$ 88,767
Change in non-cash working capital	(5,228)	(10,348)
Funds flow	\$ 93,243	\$ 78,419
Decommissioning obligation expenditures	4,717	6,443
Transaction costs	-	359
Adjusted funds flow	97,960	85,221
Net debt to adjusted funds flow	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*

Cardinal's ratio of net debt to adjusted funds flow as at June 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 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 second 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 June 30, 2019, Cardinal had a working capital deficiency of \$9.2 million and unused capacity of \$129.5 million on its Facilities.

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

	<b>Three months ended</b>			<b>Six months ended</b>		
	<b>Jun 30, 2019</b>	<b>Jun 30, 2018</b>	<b>Change %</b>	<b>Jun 30, 2019</b>	<b>Jun 30, 2018</b>	<b>Change %</b>
Dividends declared	3,606	12,359	(71)	7,225	24,640	(71)
Dividends declared per share	\$ 0.030	\$ 0.105	(71)	\$ 0.060	\$ 0.210	(71)

In the second quarter of 2019, the Company declared \$3.6 million (2018 – \$12.3 million) of dividends of which \$2.3 million (2018 – \$8.0 million) was paid in cash and \$1.3 million (2017 - \$4.3 million) was recognized as a liability at June 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 be increasing 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 six 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 2,161,039 treasury shares at an average price of \$2.85 for the potential settlement of future vesting RAs. During the first six months of 2019, 218,421 treasury shares held by the trustee were utilized to settle vesting awards.

Subsequent to the second quarter of 2019, the Company announced that the Toronto Stock Exchange ("TSX") has accepted the Company's intention to commence a new NCIB. Pursuant to the NCIB, the Company is permitted to purchase up to 11,128,148 common shares ("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 20, 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.

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 June 30, 2019, Cardinal has incurred \$1.3 million of qualifying Canadian Exploration Expenditures and is committed to incurring the remaining balance of \$2.7 million prior to December 31, 2019.

Equity Instruments as at	Jul 30, 2019	Jun 30, 2019	Dec 31, 2018
Common shares, issued	117,146,075	117,146,075	116,197,095
Treasury shares	(1,902,880)	(1,942,618)	-
Convertible debentures	4,285,714	4,285,714	4,761,905
RAs	4,941,203	5,015,391	3,444,409
Stock options	833	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 June 30, 2019, the Company had contractual obligations as follows:

	2019	2020	2021	2022	2023	Thereafter
Trade and other payables	53,781	-	-	-	-	-
Dividends payable	1,321	-	-	-	-	-
Lease liabilities	1,529	1,807	1,489	1,028	979	9
Bank debt	-	-	195,468	-	-	-
Capital commitments	2,906	-	-	-	-	-
Convertible debentures	1,238	47,475	-	-	-	-
<b>Total contractual obligations</b>	<b>\$ 60,775</b>	<b>\$ 49,282</b>	<b>196,957</b>	<b>1,028</b>	<b>979</b>	<b>9</b>

## SUBSEQUENT EVENTS

On **July 15, 2019**, the Company confirmed that a dividend of \$0.015 per common share would be paid on August 15, 2019 to shareholders of record on July 31, 2019. The total amount of dividends declared at June 30, 2019 was \$1.8 million.

## ADDITIONAL INFORMATION

### CRITICAL ACCOUNTING ESTIMATES

There have been no changes in Cardinal's critical accounting estimates in the six months ended June 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 second 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 3.9 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 6.3%. 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 June 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:

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

Cash flow from financing activities for the six months ended June 30, 2019 was \$0.9 million lower due to the deduction of the lease payments reflected in this section while cash flow from operating activities increased \$0.9 million. For the six months ended June 30, 2019, general and administrative expense was decreased by \$0.5 million and operating expense was decreased by \$0.6 million offset by an increase in depletion and depreciation expense of \$1.3 million.

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

## OUTLOOK

Strong realized pricing and lower operating costs from the Company's cost reduction initiatives combined with controlled capital spending have allowed Cardinal to execute its debt reduction strategy through the first half of 2019. The Company plans to continue with this strategy through 2019 and into 2020 and will be disciplined with its capital spending but also plans to take advantage of opportunities that may arise in a challenging industry environment. The low decline of Cardinal's asset base allows us to be selective with our capital spending to take advantage of the Company's land base and infrastructure.

Cardinal's plans for the balance of 2019 are to continue with the debt reduction strategy and its capital program which is focused on long term operating cost reductions. The Company expects that its second half adjusted funds flow will advance these goals and keep its total payout ratio well below 100%. The Company will also implement a new NCIB of its common shares which is expected to be utilized to help achieve per share growth in an era of curtailed oil production.



## QUARTERLY DATA

	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018
<b>Production</b>				
Oil and NGL (bbl/d)	17,936	17,752	17,622	18,163
Natural gas (mcf/d)	15,906	15,930	16,460	16,718
Oil equivalent (boe/d)	20,587	20,407	20,365	20,949
<b>Financial</b>				
Revenue	106,166	94,050	59,077	113,551
Earnings (loss)	(3,099)	(16,506)	84,760	9,068
Basic per share (\$)	(0.03)	(0.14)	0.73	0.08
Diluted per share (\$)	(0.03)	(0.14)	0.70	0.08
Cash flow from operating activities	35,923	27,506	6,968	28,074
Adjusted funds flow <sup>(1)</sup>	35,736	29,639	5,513	27,072
Basic per share (\$)	0.31	0.25	0.05	0.24
Diluted per share (\$)	0.31	0.25	0.05	0.23
Working capital deficiency <sup>(2)</sup>	(9,159)	(6,729)	(8,246)	(16,204)
Total assets	1,190,950	1,218,439	1,206,336	1,198,150
Bank debt	195,468	206,151	211,443	184,524
Principal amount of convertible debentures	45,000	45,000	50,000	50,000
Total long-term liabilities <sup>(3)</sup>	362,500	372,245	376,651	365,083
Shareholders' equity	763,655	771,674	792,622	715,260
Common shares outstanding, net (000's) <sup>(4)</sup>	115,203	116,617	116,197	116,039
Diluted shares outstanding, net (000's) <sup>(4)(5)</sup>	120,220	121,669	119,654	119,647
	Jun 30, 2018	Mar 31, 2018	Dec 31, 2017	Sep 30, 2017
<b>Production</b>				
Oil and NGL (bbl/d)	18,110	18,492	17,943	18,355
Natural gas (mcf/d)	16,632	16,505	18,032	18,650
Oil equivalent (boe/d)	20,882	21,243	20,949	21,463
<b>Financial</b>				
Revenue	111,847	94,779	97,646	86,022
Loss	(19,970)	(13,314)	(54,308)	(12,070)
Basic per share (\$)	(0.17)	(0.12)	(0.49)	(0.11)
Diluted per share (\$)	(0.17)	(0.12)	(0.49)	(0.11)
Cash flow from operating activities	21,923	31,802	24,442	23,719
Adjusted funds flow <sup>(1)</sup>	27,085	25,551	28,421	23,521
Basic per share (\$)	0.24	0.23	0.26	0.21
Diluted per share (\$)	0.24	0.23	0.26	0.21
Working capital deficiency <sup>(2)</sup>	(12,488)	(12,505)	(7,062)	(4,098)
Total assets	1,216,642	1,216,075	1,228,596	1,301,832
Bank debt	200,645	200,836	218,905	239,418
Principal amount of convertible debentures	50,000	50,000	50,000	50,000
Total long-term liabilities <sup>(3)</sup>	380,961	380,859	397,980	428,774
Shareholders' equity	707,163	737,201	749,962	813,407
Common shares outstanding, net (000's)	114,228	113,985	110,838	110,324
Diluted shares outstanding, net (000's) <sup>(5)</sup>	117,775	117,996	113,956	113,525

(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 the first quarter of 2019. The second quarter of 2019 has shown record cash flow from operating activities and adjusted funds flow as Canadian oil differentials have narrowed due to the Alberta oil production curtailment program combined with reduced hedging losses.

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 gain of \$15.3 million in the second quarter of 2017 compared to 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 2017 as forward commodity prices increased, the Company incurred a \$4.0 million unrealized loss compared to a \$14.1 million unrealized gain for the same period in 2018. 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:

- estimated tax pools, future taxability and future taxable income;
- 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 the consistency of our dividend policy;
- 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;
- 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 operating costs;
- Cardinal's cost reduction initiatives;

- Cardinal's plans to continue its debt reduction strategy;
- future adjusted funds flow and total payout ration;
- plans to implement a new NCIB and the benefits to be achieved therefrom;
- treatment under governmental and other regulatory regimes and tax, environmental and other laws; and
- the impact of future accounting policies.

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