



**NEWS RELEASE**

**NOVEMBER 6, 2023**

**CARDINAL ENERGY LTD. ANNOUNCES THIRD QUARTER 2023  
OPERATING AND FINANCIAL RESULTS, APPOINTMENT OF A NEW DIRECTOR,  
ESTABLISHMENT OF THERMAL OPERATING UNIT  
AND OUR 2024 BUDGET**

Calgary, Alberta – Cardinal Energy Ltd. ("Cardinal" or the "Company") (TSX: CJ) is pleased to announce its operating and financial results for the third quarter ended September 30, 2023, the appointment of a new director, the establishment of a thermal operating unit and our 2024 budget.

**FINANCIAL AND OPERATING HIGHLIGHTS FROM THE THIRD QUARTER OF 2023**

- Third quarter 2023 adjusted funds flow<sup>(1)</sup> of \$81.2 million (\$0.51 per share) was 45% higher than the prior quarter due to higher commodity prices, increased production and lower operating costs;
- Average production volumes in the third quarter of 2023 of 21,872 boe/d were 4% higher than the second quarter of 2023 as the Company recovered from the impact of the northern Alberta forest fires experienced in the second quarter of 2023;
- Net debt<sup>(1)</sup> as at September 30, 2023 decreased 19%, over the balance at the end of the second quarter of 2023, to \$62.0 million, a reduction of \$14.3 million in the third quarter of 2023;
- Net debt to adjusted funds flow ratio<sup>(1)</sup> decreased to 0.2x in the third quarter of 2023;
- Spent \$30.3 million on capital expenditures<sup>(1)</sup> which included the drilling and completion of eight (8.0 net) wells in the Southern and Central Alberta operating areas.

<sup>(1)</sup> See non-GAAP and other financial measures.

The following table summarizes our third quarter financial and operating highlights:

(\$000's except shares, per share and operating amounts)	Three months ended Sept 30			Nine months ended Sept 30		
	2023	2022	% Chg	2023	2022	% Chg
<b>Financial</b>						
Petroleum and natural gas revenue	169,533	179,441	(6)	441,563	582,696	(24)
Cash flow from operating activities	58,647	98,325	(40)	160,956	268,578	(40)
Adjusted funds flow <sup>(1)</sup>	81,230	79,647	2	189,730	294,535	(36)
per share - basic	\$ 0.51	\$ 0.51	-	\$ 1.20	\$ 1.92	(38)
per share - diluted	\$ 0.51	\$ 0.50	2	\$ 1.19	\$ 1.87	(36)
Earnings	39,170	32,996	19	83,210	188,822	(56)
per share - basic	\$ 0.25	\$ 0.21	19	\$ 0.53	\$ 1.23	(57)
per share - diluted	\$ 0.24	\$ 0.21	14	\$ 0.52	\$ 1.20	(57)
Development capital expenditures <sup>(1)</sup>	28,092	23,301	21	81,446	83,266	(2)
Other capital expenditures <sup>(1)</sup>	622	544	14	2,080	1,913	9
Acquisitions, net <sup>(1)</sup>	1,558	145	n/m	(7,570)	145	n/m
Capital expenditures <sup>(1)</sup>	30,272	23,990	26	75,956	85,324	(11)
Common shares, net of treasury shares (000s)	158,306	155,737	2	158,306	155,737	2
Dividends declared	29,032	23,996	21	86,832	32,157	170
Per share	0.18	0.15	20	0.54	0.20	170
Total Payout ratio <sup>(1)</sup>	70%	59%		89%	39%	
Bank debt				44,106	42,167	5
Adjusted working capital deficiency <sup>(1)</sup>				17,860	19,900	(10)
Net debt <sup>(1)</sup>				61,966	62,067	-
Net debt to adjusted funds flow ratio <sup>(1)</sup>				0.2	0.2	-
<b>Operating</b>						
Average daily production						
Light oil (bbl/d)	8,286	8,291	-	7,921	8,043	(2)
Medium/heavy oil (bbl/d)	10,147	10,038	1	10,186	10,151	-
NGL (bbl/d)	823	870	(5)	791	867	(9)
Natural gas (mcf/d)	15,696	15,095	4	15,903	14,836	7
Total (boe/d)	21,872	21,715	1	21,549	21,534	-
Netback (\$/boe) <sup>(1)</sup>						
Petroleum and natural gas revenue	84.25	89.82	(6)	75.06	99.12	(24)
Royalties	(15.66)	(19.52)	(20)	(14.08)	(20.38)	(31)
Net operating expenses <sup>(1)</sup>	(24.10)	(26.75)	(10)	(24.70)	(24.60)	-
Transportation expenses	(0.94)	(0.83)	13	(0.97)	(0.78)	24
Netback <sup>(1)</sup>	43.55	42.72	2	35.31	53.36	(34)
Realized (loss) / gain on commodity contracts	(0.11)	-	-	0.22	-	-
Interest and other	(0.83)	(0.69)	20	(0.78)	(0.91)	(14)
G&A	(2.25)	(2.16)	4	(2.50)	(2.35)	6
Adjusted funds flow <sup>(1)</sup>	40.36	39.87	1	32.25	50.10	(36)

<sup>(1)</sup> See non-GAAP measures.

n/m Not meaningful or not calculable

## THIRD QUARTER OVERVIEW

During the third quarter of 2023, Cardinal recovered from the wildfires experienced in the second quarter increasing our production to 21,872 boe/d, an increase of 4% over the prior quarter. The West Texas Intermediate ("WTI") oil price increased 11% over the prior quarter while the Western Canadian Select ("WCS") differential narrowed by approximately 15% in the third quarter. These positive price movements and increased production led to a 45% increase in adjusted funds flow as compared to the prior quarter.

In the third quarter, adjusted funds flow was \$81.2 million or \$0.51 per diluted share. The incremental adjusted funds flow supported Cardinal paying down \$14.3 million of net debt decreasing our net debt by 19% over the balance at June 30, 2023. Cardinal's net debt to adjusted funds flow ratio decreased to 0.2x continuing to provide us with financial flexibility.

One of our biggest per barrel operating costs is electricity. Due to the nature of our assets, we move products, both CO<sub>2</sub> and water into our reservoirs to maintain pressure and sweep oil. Our cost structure in our conventional assets may be higher than many of our peers as we move gas and fluids in two directions which requires more pumping horsepower. Our benefit from this is that we have the lowest corporate decline asset base in our peer group requiring much less sustaining capital to maintain production. For 2024, Cardinal has fixed electricity contracts in place that cover approximately 70% of our Alberta power requirements at pricing which is substantially less than the average spot price in 2023. Despite higher than historical power costs and inflationary pressures on labor and services, Cardinal decreased our third quarter 2023 net operating expenses per boe by 10% over the same period in 2022.

The third quarter was the most active quarter of 2023 for Cardinal. The Company spent \$30.3 million on capital expenditures which included the drilling and completion of eight (8.0 net) wells in our South and Central Alberta areas. Cardinal also closed the acquisition of a consolidation of working interest of a northern Alberta unit interest. Subsequent to the end of the quarter, Cardinal also closed the acquisition of production that consolidated working interests in an existing long-life light oil unit and a new Clearwater heavy oil area with follow up locations.

In 2023, Cardinal has disposed of, or has entered into agreements to dispose of non-core assets with approximately \$32 million of undiscounted future asset retirement obligations ("ARO") with approximately 350 boe/d of low netback production within our Alberta asset base.

## OPERATIONS

Cardinal's third quarter production averaged 21,872 boe/d. This came from the continued strength of our shallow base production decline, complimented with ongoing development success across our asset base.

As planned, the third quarter saw the Company complete our four (4.0 net) well Central Alberta Wainwright Rex horizontal multilateral program. Given the extensive inventory of up to 90 locations established on this trend, we stepped out and tested various portions of the reservoir, with different lateral lengths, inter-lateral spacing and initial production strategies to optimize long-term development. Initial results have varied with the best well having a peak weekly rate of 219 boe/d. We will continue to monitor the results from these initiatives as we finalize the summer 2024 development strategy.

In Southern Alberta, we completed our four (4.0 net) well Ellerslie multilateral program. In particular, results at our royalty free Alderson property, the two wells have exceeded expectations with current combined production over 450 boe/d.

Our production and optimization staff continue to do an excellent job of maintaining our base production.

The success to date of these activities across our asset base is providing further confidence in the long-term breadth and depth of our identified drilling inventory, and the sustainability of our production base.

## **ENVIRONMENTAL, SOCIAL AND GOVERNANCE ("ESG")**

Cardinal's commitment to environmental and social responsibility, including ongoing efforts to reduce overall emissions, continued during the third quarter. Our Carbon Capture and Sequestration ("CCS") enhanced oil recovery operations continued at Midale, Saskatchewan, where this project has sequestered 5.6 million tonnes of CO<sub>2</sub>, while reducing the annual production decline from this asset to approximately 3%. This project sequestered 55,000 tonnes of CO<sub>2</sub> during the third quarter alone.

In addition to sequestering carbon, Cardinal continues to actively pursue projects that reduce emissions associated with our operations throughout the rest of western Canada.

Cardinal prioritizes workplace safety, and regulatory compliance, both of which are reflected by our top tier record.

Cardinal continues with our commitment to reduce our environmental footprint with \$14.2 million spent for the first nine months of 2023, well in excess of our regulatory required spend commitment. Overall, the Company plans to spend \$23 million in 2023 for ARO, which is more than 2.5 times our 2023 regulatory spend requirement. Cardinal is on track to abandon 100 wells, decommission multiple sites and reclaim more than 60 sites in 2023.

## **ESTABLISHMENT OF A THERMAL OPERATING GROUP**

Cardinal continually strives to improve its business. One of the key components of our business plan is maintaining our peer leading low production decline rates. Having a low decline base enables Cardinal to have a higher free cash flow due to the need for a lower capital requirement to maintain its production levels. Several years ago, we identified steam assisted gravity drainage ("SAGD") as an area that could provide us with growth and further decrease our decline levels. We were able to acquire assets from Broadview Energy Ltd. ("Broadview"), earlier this year that had been significantly de-risked and advanced that fit our requirements, with additional lands acquired at land sales, we are now confident that we have three projects that can be commercially developed.

We identified Saskatchewan thermal opportunities as a good fit for Cardinal. Some of the attributes of developing and producing oil through SAGD technology in Saskatchewan include:

- smaller pool size of 6,000-20,000 barrels of oil per day ("bopd") which are more risk appropriate for our Company;
- known "off the shelf" proven SAGD technology available at fixed pricing giving certainty around project economics;
- large talent pool of professionals with previous development and production experience available;
- supportive provincial regulatory environment;
- year round land access on paved roads within existing utility infrastructure;
- multiple access points for product sales including third party sales points, Cardinal owned facilities and rail options;
- established water source with no use of surface water in the development of these projects;

- natural gas power generation on site eliminates exposure to fluctuating electrical prices;
- Cardinal has nearly 1,000,000 tonnes of potential and verified CO<sub>2</sub> emissions reductions in Saskatchewan from our CO<sub>2</sub> sequestration project to offset future greenhouse gas emissions associated with the SAGD operation; and
- low operating costs which will lower Cardinal's overall operating cost structure in the future.

## REFORD

Cardinal has identified Reford as its first project for development. We have decided to take a conservative approach in developing our first SAGD asset and have focused our development plan on building a 6,000 bopd SAGD facility. Our decision to start with this size of project was based on the capital cost and the project's ability to produce at a flat production profile for approximately 20 years. By taking a conservative first step into SAGD, Cardinal expects it will be able to increase its sustainability in a controlled growth environment while developing a project that will further our low decline/free cash flow model.

Reford development expenditures are targeted to be approximately \$155 million in total from start to first steam. We anticipate the project will take 22 months to implement to full production, with project kickoff expected to happen in Q4 2023.

Standalone economics for Reford at current budget estimated pricing<sup>(2)</sup> are as below:

	Production (heavy oil bbl/d)	Development Expenditures (\$ mm)	Cash flow (\$ mm)	Free Cash Flow (\$ mm)
2024	-	68.5	-	(68.5)
2025	1,800	88.1	28.4	(59.7)
2026	6,000	11.6	116.3	104.7

<sup>(2)</sup> US\$79/bbl WTI, USD/CAD \$0.74, WTI/WCS differential US\$-16.50

In 2024, the majority of the initial capital costs will be constructing the SAGD facility with minor onsite costs. Cardinal forecasts at estimated pricing and development costs, the Reford thermal project will payout within 18 months of initial production.

As shown below, Cardinal's 2024 conventional budget provides for significant free cash flows, which when combined with our current available bank line of \$155 million (\$44 million drawn as at September 30, 2023) is expected to provide us with sufficient liquidity to develop this project over the next 22 months. In addition, we have identified approximately \$50 million of capital items in our current budget that could be eliminated or deferred to assist the project financing in the event of a significant decline in oil pricing over the development time frame. This reduction of these capital items is not expected to have a material impact on our conventional production base.

## 2024 BUDGET HIGHLIGHTS

- Generate adjusted funds flow of \$290 million (\$1.79 per diluted share) at current strip prices<sup>(3)</sup>;
- Average annual production of 22,250 to 22,750 boe/d for 2024;
- Executing a conventional capital budget of \$116 million with a further \$68.5 million for the Reford thermal oil project;

- Drilling and completion of 24 (22.2 net) wells throughout our conventional asset base;
- Investment of \$20 million for ARO which is approximately 200% of our required regulatory spend in 2024;
- Dividend level maintained at \$0.06 per share per month;

<sup>(3)</sup> US\$79/bbl WTI, USD/CAD \$0.74, WTI/WCS differential US\$-16.50

Cardinal's 2024 capital budget takes advantage of our low corporate decline rate and focuses on optimizing our long life asset base. At budgeted prices, we expect to generate approximately \$174 million of free cash flow after conventional capital expenditures from our existing assets which will assist in funding our monthly dividend, ARO expenditures and the 2024 thermal development requirements for the Reford SAGD project.

### **BUDGET SUMMARY**

Average production (boe/d)	22,250-22,750
Adjusted funds flow (\$ mm)	290.4
Conventional capital expenditures (\$ mm)	116.6
Thermal development expenditures (\$ mm)	68.5
ARO expenditures (\$ mm)	20.0
Net operating expenses (\$/boe)	24.50
Transportation costs (\$/boe)	1.00
G&A (\$/boe)	2.65
WTI (US\$/bbl)	79.00
US/CAD Exchange Rate	0.74
WTI-WCS Basis Differential (US\$/bbl)	(16.50)
WTI-MSW Basis Differential (US\$/bbl)	(2.50)
AECO (CAD\$/mcf)	2.65

### **CHANGES TO THE BOARD OF DIRECTORS**

Cardinal would like to announce the retirement of David Johnson from its Board of Directors (the "Board"). David has been with Cardinal since inception and has provided constant guidance and input in helping us build our business. We would like to thank David for his contributions and wish him the best in retirement.

We would also like to announce the appointment of John Festival to the Board. Mr. Festival has had a 35+ year career of discovering and developing heavy oil and thermal projects. He started at Home Oil Company and worked in Lloydminster as an engineer at the Kitscoty Cyclic Steam Project. He then joined Koch Exploration Canada Corporation ("Koch") and alongside a technical team established operations across all the heavy oil regions of western Canada. At the time, Koch was the largest leaseholder in the Alberta oil sands, including operatorship of the Fort Hills mine asset. Mr. Festival and the senior technical team from Koch moved on to BlackRock Ventures Inc. ("BlackRock") where they discovered primary heavy oil in the Seal area of Alberta. They also piloted and initiated the Orion SAGD Project, one of the first SAGD projects in the Clearwater zone which continues to operate today. After selling BlackRock to Shell Canada Ltd. for \$2.4 billion in 2006, his team went on to transform BlackPearl Resources Inc. ("BlackPearl") into a thermal heavy oil player at Onion Lake, Saskatchewan. At BlackPearl, they also piloted the Blackrod SAGD Project ("Blackrod") in Alberta and then merged with International Petroleum Corp ("IPC") in 2019. IPC has since sanctioned a commercial project at Blackrod, the first successful SAGD project in the Grand Rapids formation, with an initial phase of 30,000 bopd. In 2019, Mr. Festival

was appointed CEO of Broadview, a Saskatchewan thermal development company. Cardinal acquired the Broadview assets in April of 2023.

As well as becoming a board member, Mr. Festival will be representing the shareholders on the reserves, audit and environment, social and governance (ESG) committees.

## **OUTLOOK**

The development of Reford as well as other SAGD projects that are currently being de-risked will continue to provide a path for growth at Cardinal for the next decade. Our second project that is currently going through various stages of de-risking and licensing is expected to be larger and has the potential to become a 10,000 bopd (heavy oil) asset. We are also de-risking a third pool and exploring to find additional opportunities in the area.

Our conventional assets continue to perform very well. We will continue to add land and drilling opportunities to our base assets to extend their economic timelines and increase their standalone profitability.

As we build out our thermal asset team, we would like to introduce Heath Williamson as our Manager of Thermal Oil. Mr. Williamson graduated from the University of Alberta with a BSc Petroleum Engineering degree in 2007 along with several years of field operating experience as an Engineering Student at BlackRock. He then joined BlackPearl in 2009 where he gained extensive SAGD experience alongside Mr. Festival including piloting the Blackrod SAGD Project as Asset Manager and developing the Onion Lake Thermal Project as GM Thermal & EOR. In 2019, Mr. Williamson took on the role of Director of Asset Development & New Ventures at IPC following its merger with BlackPearl. In 2020 and 2021, Mr. Williamson took on a variety of roles as an independent consultant where he evaluated heavy oil opportunities in Alberta, Saskatchewan, and Latin America while also supporting Mr. Festival at Broadview as a technical and business development advisor. Prior to joining Cardinal, Mr. Williamson was employed at Athabasca Oil Corp. as their Manager of Sustainability where he evaluated Carbon Capture Utilization and Storage opportunities. Mr. Williamson was previously Vice President of the Canadian Heavy Oil Association and has frequently spoken at industry conferences.

We are also fortunate to have Greg Brown on our staff. Greg, an experienced explorationist joined Cardinal in 2014 and worked in our Southern Alberta area for many years. Greg has had previous SAGD development experience at BlackPearl with both Mr. Festival and Mr. Williamson and will work with the thermal team using his past experiences to help develop and explore for additional opportunities.

We forecast that the development of these and other acquired SAGD assets will take the Company from approximately 22,000 boe/d to over 28,000 boe/d over the next two years. Our low decline base will provide significant cash flow to help fund the development of these assets while maintaining our dividend which currently yields over nine percent.

On behalf of the Board, management and employees we would like to thank our shareholders for their ongoing support.

### **Note Regarding Forward-Looking Statements**

This press release contains forward-looking statements and forward-looking information (collectively "forward-looking information") within the meaning of applicable securities laws relating to Cardinal's plans and other aspects of Cardinal's anticipated future operations, management focus, objectives, strategies, financial, operating and production results. Forward-looking information typically uses words such as "anticipate", "believe", "project", "expect", "goal", "plan", "intend", "may", "would", "could" or "will" or similar words suggesting future outcomes, events or performance. The forward-looking statements contained in this press release speak only as of the date thereof and are expressly qualified by this cautionary statement.

Specifically, this press release contains forward-looking statements relating to: the Company's strategies, plans, priorities, focus and objectives, the Company's benefits to be derived from its cost structure on its conventional assets; the benefits to be derived from the Company's fixed electricity contracts in 2024; the Company's plans to continue to optimize long-term development at Wainwright; the Company's confidence in its long-term identified drilling inventory and sustainability of its production base; Cardinal's pursuit of projects that reduce emissions associated with its operations; Cardinal's intention to continue with its commitment to reduce its environmental footprint with \$23 million of ARO spend in 2023 and \$20 million in 2024 and decommissioning and reclaiming 60 sites in 2023; benefits to be derived from the Company's low decline base; benefits to be derived from SAGD projects and the attributes of developing and producing through SAGD technology; our planned SAGD development at Reford and future areas; the expected Reford thermal project cost from start to first steam; the anticipated timing to complete the Reford thermal project; the standalone economics for the Reford thermal project from 2024 and 2026 and the underlying pricing assumptions; the anticipated timing of payout for the Reford thermal project; that the 2024 budget the pricing assumptions underlying such 2024 budget and our current bank line will provide sufficient liquidity to fund SAGD expenditures; our 2024 budget and the funding of it; the de-risking of the second and future SAGD projects and the benefits to be derived therefrom; that we will continue to add land and drilling opportunities to our base assets to extend their economic timelines and increase their standalone profitability; and that development of these and other acquired SAGD assets will take the company from over 22,000 boe/d to over 28,000 boe/d over the next two years and other matters set forth under "2024 Budget Highlights" and "Outlook".

Forward-looking statements regarding Cardinal are based on certain key expectations and assumptions of Cardinal concerning anticipated financial performance, cost estimates, business prospects, strategies, regulatory developments, current and future commodity prices and exchange rates, effects of inflation, applicable royalty rates, tax laws, industry conditions, availability of government subsidies and abandonment and reclamation programs, future well production rates and reserve volumes, future operating costs, the performance of existing and future wells, the success of our exploration and development activities, the success of our SAGD thermal projects, 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 competition, conditions in general economic and financial markets, availability of drilling and related equipment, effects of regulation by governmental agencies, the ability to obtain financing on acceptable terms which are subject to change based on commodity prices, market conditions and drilling success and potential timing delays.

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 abandonment and reclamation 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. Furthermore, in respect of the Reford project, there is a risk that development, commissioning, and achievement of commercial production of oil from the project will not be completed on time or on budget, or at all. Subject facilities may be affected by the design and construction of an efficient processing facility, the cost and availability of suitable machinery, supplies, equipment and skilled labor, the existence of competent operational management, prudent financial administration, and the availability and reliability of appropriately skilled and experienced employees.

Management has included the forward-looking statements above and a summary of assumptions and risks related to forward-looking statements provided in this press release 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 press release and Cardinal disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

### Supplemental Information Regarding Product Types

This news release includes references to 2023 and 2022 production. The Company discloses crude oil production based on the pricing index that the oil is priced from. The following table is intended to provide the product type composition as defined by NI 51-101.

	Light/Medium Crude Oil	Heavy Oil	NGL	Conventional Natural Gas	Total (boe/d)
Q3/23	45%	39%	3%	13%	21,872
Q3/22	49%	35%	4%	12%	21,715
Nine months 2023	46%	38%	4%	12%	21,549
Nine months 2022	53%	32%	4%	11%	21,534
Rex	-	92%	-	8%	200
Disposed	19%	75%	2%	4%	350
South – Alderson	90%	-	-	10%	450

### Non-GAAP and Other Financial Measures

This news release contains certain specified measures consisting of non-GAAP financial measures, capital management measures, non-GAAP financial ratios, and supplementary financial measures. Since these specified financial measures may not have a standardized meaning, they must be clearly defined and, where required, reconciled with their nearest GAAP measure and may not be comparable with the calculation of similar financial measures disclosed by other entities.

#### Non-GAAP Financial Measures

##### *Net operating expenses*

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

	Three months ended		Nine months ended	
	Sept 30, 2023	Sept 30, 2022	Sept 30, 2023	Sept 30, 2022
Operating expenses	49,404	54,559	148,518	147,896
Less: Processing and other revenue	(913)	(1,111)	(3,185)	(3,300)
Net operating expenses	48,491	53,448	145,333	144,596

### Netback

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

	Three months ended		Nine months ended	
	Sept 30, 2023	Sept 30, 2022	Sept 30, 2023	Sept 30, 2022
Petroleum and natural gas revenue	<b>169,533</b>	179,441	<b>441,563</b>	582,696
Royalties	<b>(31,503)</b>	(38,997)	<b>(82,812)</b>	(119,800)
Net operating expenses	<b>(48,491)</b>	(53,448)	<b>(145,333)</b>	(144,596)
Transportation expenses	<b>(1,887)</b>	(1,655)	<b>(5,707)</b>	(4,576)
Netback	<b>87,652</b>	85,341	<b>207,711</b>	313,724

### Capital expenditures and development capital expenditures

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

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

	Three months ended		Nine months ended	
	Sept 30, 2023	Sept 30, 2022	Sept 30, 2023	Sept 30, 2022
Cash flow from investing activities	<b>18,608</b>	23,315	<b>75,495</b>	85,995
Change in non-cash working capital	<b>11,881</b>	675	<b>1,036</b>	(671)
E&E	<b>(217)</b>	-	<b>(575)</b>	-
Capital expenditures	<b>30,272</b>	23,990	<b>75,956</b>	85,324
Less:				
Capitalized G&A	<b>(458)</b>	(335)	<b>(1,632)</b>	(1,454)
Other	<b>(164)</b>	(209)	<b>(448)</b>	(459)
Acquisitions, net	<b>(1,558)</b>	(145)	<b>7,570</b>	(145)
Development capital expenditures	<b>28,092</b>	23,301	<b>81,446</b>	83,266

This news release also includes Cardinal's estimated capital expenditures for 2024 on its conventional assets and development capital expenditures for the Reford project for years-end 2024, 2025 and 2026. There is no significant difference between these non-GAAP financial measures that are forward-looking information and the equivalent historical non-GAAP financial measure. Readers should also refer to the "Forward-Looking Information" section above and the sections entitled "2024 Budget Highlights" and "Reford" in this news release which provides further information with respect to the assumptions used to prepare Cardinal's estimates of future capital expenditures and development expenditures related to the Redford project.

### Adjusted working capital deficiency

Management utilizes adjusted working capital to monitor its capital structure, liquidity, and its ability to fund current operations. Adjusted working capital is calculated as current liabilities less current assets (adjusted for the fair value

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

As at	Sept 30, 2023	Sept 30, 2022
<b>Working capital deficiency</b>	<b>25,342</b>	25,657
Lease liabilities	<b>(1,366)</b>	1,489
Decommissioning obligation	<b>(6,811)</b>	6,430
Liabilities associated with assets held for sale	-	8,011
Fair value of financial instruments, net	<b>695</b>	(1,737)
Assets held for sale	-	(8,436)
<b>Adjusted working capital deficiency</b>	<b>17,860</b>	19,900

#### *Net debt*

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

The following table reconciles bank debt to net debt:

As at	Sept 30, 2023	Sept 30, 2022
Bank debt	<b>44,106</b>	42,167
Adjusted working capital deficiency	<b>17,860</b>	19,900
Net debt	<b>61,966</b>	62,067

#### *Funds flow*

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

#### *Adjusted funds flow*

Management utilizes adjusted funds flow as a key measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, capital expenditures and shareholder returns. As shown below, adjusted funds flow is calculated as funds flow excluding decommissioning expenditures since Cardinal believes the timing of 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.

This news release also includes Cardinal's estimated adjusted flow for 2024. There is no significant difference between this non-GAAP financial measure that is forward-looking information and the equivalent historical non-GAAP financial measure. Readers should also refer to the "Forward-Looking Information" section above and the section entitled "Budget Summary" in this news release which provides further information with respect to the assumptions used to prepare Cardinal's estimates of its estimated adjusted flow for 2024.

#### *Free cash flow*

Management utilizes free cash flow as a measure to assess Cardinal's ability to generate cash, after taking into account the development capital expenditures, to increase returns to shareholders, repay debt, or for other corporate

purposes. As shown below, free cash flow is calculated as adjusted funds flow less development capital expenditures.

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

	Three months ended		Nine months ended	
	Sept 30, 2023	Sept 30, 2022	Sept 30, 2023	Sept 30, 2022
Cash flow from operating activities	<b>58,647</b>	98,325	<b>160,956</b>	268,578
Change in non-cash working capital	<b>17,222</b>	(25,982)	<b>14,582</b>	11,069
<b>Funds flow</b>	<b>75,869</b>	72,343	<b>175,538</b>	279,647
Decommissioning expenditures	<b>5,361</b>	7,304	<b>14,192</b>	14,888
<b>Adjusted funds flow</b>	<b>81,230</b>	79,647	<b>189,730</b>	294,535
Total development capital expenditures	<b>(28,092)</b>	(23,301)	<b>(81,446)</b>	(83,266)
Free cash flow	<b>53,138</b>	56,346	<b>108,284</b>	211,269

This news release also includes Cardinal's estimated free cash flow from the Reford project for years-end 2024, 2025 and 2026. There is no significant difference between this non-GAAP financial measure that is forward-looking information and the equivalent historical non-GAAP financial measure. Readers should also refer to the "Forward-Looking Information" section above and the section entitled "Reford" in this news release which provides further information with respect to the assumptions used to prepare Cardinal's estimates of 2024, 2025 and 2026 free cash flows from the Redford project.

### Non-GAAP Financial Ratios

#### *Netback per boe*

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

	Three months ended		Nine months ended	
	Sept 30, 2023	Sept 30, 2022	Sept 30, 2023	Sept 30, 2022
Petroleum and natural gas revenue	<b>84.25</b>	89.82	<b>75.06</b>	99.12
Royalties	<b>(15.66)</b>	(19.52)	<b>(14.08)</b>	(20.38)
Net operating expenses	<b>(24.10)</b>	(26.75)	<b>(24.70)</b>	(24.60)
Transportation expenses	<b>(0.94)</b>	(0.83)	<b>(0.97)</b>	(0.78)
<b>Netback per boe</b>	<b>43.55</b>	42.72	<b>35.31</b>	53.36

#### *Net debt to adjusted funds flow ratio*

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

#### *Total payout ratio*

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

#### *Net operating expenses per boe*

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

#### *Adjusted funds flow per boe*

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

#### *Adjusted funds flow per basic share*

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

#### *Adjusted funds flow per diluted share*

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

### **Supplementary Financial Measures**

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

### **Oil and Gas Metrics**

Cardinal has used the term "payout" herein, which is an oil and gas metric, which does not have standardized meaning and therefore may be calculated differently from the metrics presented by other oil and gas companies. Payout means the anticipated years of production from a well required to fully pay for all capital spent to build the Reford thermal project. This metric does not have any standardized meaning or standard method of calculation and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. As such, it should not be used to make comparisons. Cardinal management uses this oil and gas metrics for its own performance measurements and to provide investors with measures to compare Cardinal's performance over time; however, such measures are not reliable indicators of Cardinal's future performance, which may not compare to Cardinal's performance in previous periods, and therefore should not be unduly relied upon.

The term "boe" or barrels of oil equivalent may be misleading, particularly if used in isolation. A boe conversion ratio of six thousand cubic feet of natural gas to one barrel of oil equivalent (6 Mcf: 1 bbl) is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Additionally, given that the value ratio based on the current price of crude oil, as compared to natural gas, is significantly different from the energy equivalency of 6:1; utilizing a conversion ratio of 6:1 may be misleading as an indication of value.

### **Initial Production**

Any references in this news release to initial production rates are useful in confirming the presence of hydrocarbons, however, such rates are not determinative of the rates at which such wells will continue production and decline thereafter. Initial production rates may be estimated based on third party estimates or limited data available at the time. While encouraging, readers are cautioned not to place reliance on such rates in calculating the aggregate production for Cardinal. The aggregate over 450 boe/d production rate set forth herein as it relates to the Ellerslie multilateral wells is based on reported production from October 25-31, 2023.

### **Drilling Locations**

This news release discloses Cardinal's inventory of 90 potential locations Wainwright Central Alberta Rex of which in respect of Wainwright Central Alberta Rex, two locations are booked proved undeveloped, one net is booked probable undeveloped locations and 87 net are unbooked. The booked locations are derived from the Company's year-end 2022 reserves evaluation by GLJ Ltd. with an effective date of December 31, 2022 and account for drilling locations that have associated proved and/or probable reserves, as applicable. Unbooked locations are internal estimates based on the Company's prospective acreage and an assumption as to the number of wells that can be drilled per section based on industry practice and internal review. Unbooked locations do not have attributed reserves. Unbooked locations have been identified by management as an estimation of the Company's multi-year drilling activities based on evaluation of applicable geologic, seismic, engineering, production and reserves information. There is no certainty that the Company will drill all unbooked drilling locations and if drilled there is no certainty that such locations will result in additional oil and gas reserves, resources or production. The drilling locations on which the Company will actually drill wells, including the number and timing thereof is ultimately dependent upon the availability of funding, regulatory approvals, seasonal restrictions, oil and natural gas prices, costs, actual drilling results, additional reservoir information that is obtained and other factors. While a certain number of the unbooked drilling locations have been de-risked by drilling existing wells in relative close proximity to such unbooked drilling locations, the majority of other unbooked drilling locations are farther away from existing wells where management has less information about the characteristics of the reservoir and therefore there is more uncertainty whether wells will be drilled in such locations and if drilled there is more uncertainty that such wells will result in additional oil and gas reserves, resources or production.

### **About Cardinal Energy Ltd.**

Cardinal is a Canadian oil and natural gas company with operations focused on low decline oil in Western Canada. Cardinal differentiates itself from its peers by having the lowest decline conventional asset base in Western Canada. Cardinal works to continually improve its Environmental, Social and Governance profile and operates its assets in a responsible and environmentally sensitive manner.

### **For further information:**

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