



NEWS RELEASE

MARCH 14, 2024

**CARDINAL ENERGY LTD. ANNOUNCES FOURTH QUARTER 2023
AND YEAR-END FINANCIAL RESULTS**

Calgary, Alberta – Cardinal Energy Ltd. ("Cardinal" or the "Company") (TSX: CJ) is pleased to announce its operating and financial results for the fourth quarter and year ended December 31, 2023.

HIGHLIGHTS FROM THE FOURTH QUARTER AND FULL YEAR OF 2023

- Production for the fourth quarter and for the full year of 2023 increased by 4% and 1%, respectively, over the same periods in 2022.
- Adjusted funds flow⁽¹⁾ for the fourth quarter was \$64.0 million and for fiscal 2023 was \$253.7 million. For the full year 2023, adjusted funds flow was directed towards:
 - Direct returns to shareholder through \$115.8 million in declared dividends and \$3.0 million in common share treasury purchases;
 - Capital expenditures⁽¹⁾ of \$117.3 million and exploration and evaluation expenditures of \$4.9 million; and
 - Asset retirement and decommissioning liability expenditures of \$23.2 million, more than double Cardinal's regulatory requirement.
- Capital expenditures of \$117.3 million were directed towards the drilling of 20 wells (18.6 net) in addition to the strategic Mitsue/Buffalo Lake acquisition located within Cardinal's core operating areas for total consideration of \$24.6 million. In addition, the Company acquired Saskatchewan heavy oil assets for non-cash consideration of \$10.0 million through the issuance of Cardinal common shares at a value of \$7.35 per share.
- Total payout ratio⁽¹⁾ for the fourth quarter was 70% compared to 89% in the prior year comparative quarter.
- Cardinal incurred \$4.9 million in cash exploration and evaluation expenditures during 2023 which were principally directed towards drilling stratigraphic wells as part of the evaluation and de-risking of Cardinal's Reford, Saskatchewan thermal project.
- During 2023, Cardinal initiated the development of a steam assisted gravity drainage ("SAGD") project in its Reford, Saskatchewan operating area, that upon expected completion in the fourth quarter of 2025, is anticipated to produce approximately 6,000 bbl/d (100% heavy crude oil). See "Saskatchewan Thermal Project Summary and Update" for additional details.
- Net operating costs per boe⁽¹⁾ for the fourth quarter were 10% lower than the comparative quarter, and for the full year 2023 were 2% lower than the prior year. G&A costs per boe for the fourth quarter were 16% lower than the prior year quarter and 10% lower than the third quarter of 2023.
- Cardinal continues to demonstrate the ability to efficiently deploy capital to enhance the quality, predictability, and sustainability of its low decline asset base. Utilizing less than 50% of adjusted funds flow, Cardinal replaced production in the Proved Developed Producing ("PDP") reserves category, replaced Total Proved ("TP") reserves and Total Proved plus Probable ("TPP") reserves at 1.4x and 1.7x of 2023 annual production respectively.
- Excellent 2023 drilling results at Nipisi for Clearwater oil and Alderson for Eilerslie oil, further delineated development drilling opportunities. In addition, an exploratory discovery at Heart River is now producing with ongoing assessment to determine further long-term development opportunities.

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

The following table summarizes our fourth quarter and annual 2023 operating and financial highlights:

(\$000's except shares, per share and operating amounts)	Three months ended December 31			Year ended December 31		
	2023	2022	% Chg	2023	2022	% Chg
Financial						
Petroleum and natural gas revenue	148,042	154,894	(4)	589,605	737,590	(20)
Cash flow from operating activities	69,305	68,685	1	230,261	337,263	(32)
Adjusted funds flow ⁽¹⁾	63,968	68,248	(6)	253,698	362,783	(30)
per share - basic	\$ 0.40	\$ 0.44	(9)	\$1.61	\$ 2.36	(32)
per share - diluted	\$ 0.40	\$ 0.43	(7)	\$1.58	\$ 2.30	(31)
Earnings	20,388	113,865	(82)	103,598	302,687	(66)
per share - basic	\$ 0.13	\$ 0.73	n/m	\$0.66	\$ 1.97	(66)
per share - diluted	\$ 0.13	\$ 0.71	n/m	\$0.65	\$ 1.92	(66)
Development capital expenditures ⁽¹⁾	15,521	32,156	(52)	96,967	115,422	(16)
Other capital expenditures ⁽¹⁾	491	890	(45)	2,571	2,803	(8)
Acquisitions, net ⁽¹⁾	25,290	1,862	n/m	17,720	2,007	n/m
Total capital expenditures ⁽¹⁾	41,302	34,908	18	117,258	120,232	(2)
Exploration & evaluation expenditures ("E&E")	4,318	-	n/m	14,909	-	n/m
Common shares, net of treasury shares (000s)	158,095	155,757	2	158,095	155,757	2
Dividends declared	28,975	28,699	1	115,807	60,856	90
Per share	\$0.18	\$0.18	-	\$0.72	\$0.38	89
Total payout ratio ⁽¹⁾	70%	89%	(15)	84%	49%	71
Bank debt				44,920	31,280	44
Adjusted working capital deficiency ⁽¹⁾				38,730	31,392	23
Net debt ⁽¹⁾				83,650	62,672	33
Net debt to adjusted fund flow ratio ⁽¹⁾				0.3	0.2	50
Operating						
Average daily production						
Light oil (bbl/d)	8,566	8,051	6	8,084	8,045	-
Medium/heavy oil (bbl/d)	10,100	9,891	2	10,164	10,086	1
NGL (bbl/d)	891	802	11	817	851	(4)
Natural gas (mcf/d)	15,644	15,222	3	15,838	14,933	6
Total (boe/d)	22,164	21,281	4	21,705	21,471	1
Netback (\$/boe) ⁽¹⁾						
Petroleum and natural gas revenue	72.60	79.11	(8)	74.43	94.12	(21)
Royalties	(14.62)	(15.43)	(5)	(14.22)	(19.14)	(26)
Net operating expenses ⁽¹⁾	(23.19)	(25.72)	(10)	(24.31)	(24.88)	(2)
Transportation expenses	(1.10)	(0.87)	26	(1.00)	(0.80)	25
Netback ⁽¹⁾	33.69	37.09	(9)	34.90	49.30	(30)
Realized gain on commodity contracts	0.59	0.85	(31)	0.32	0.21	52
Finance and other	(0.89)	(0.67)	(32)	(0.83)	(0.86)	(3)
G&A	(2.02)	(2.41)	(16)	(2.37)	(2.36)	-
Adjusted funds flow ⁽¹⁾	31.37	34.86	(10)	32.02	46.29	(31)

⁽¹⁾ See non-GAAP and other financial measures.
n/m Not meaningful or not calculable

FOURTH QUARTER OVERVIEW

Oil prices during the fourth quarter of 2023 were lower than the third quarter of 2023 and lower than the prior year comparative quarter. West Texas Intermediate ("WTI") benchmark oil price averaged US\$78.32/bbl during the fourth quarter compared to US\$82.26/bbl in the third quarter of 2023 and US\$82.65/bbl in the prior year comparative quarter. Canadian oil differentials widened during the fourth quarter, negatively impacting the Western Canadian Select ("WCS") benchmark price by approximately 17% over the third quarter. In addition to weaker crude oil prices, fourth quarter revenues were also impacted by a 55% reduction in the AECO natural gas benchmark price.

Production for the fourth quarter was 2% above budget and 4% higher than the prior year comparative quarter. Improved production was due to incremental oil and gas production attributable to Cardinal's 2023 drilling program combined with the Mitsue/Buffalo Lake acquisition which closed in the fourth quarter. These increases were offset in part, by the disposition of approximately 200 boe/d of non-core, non-operated, production in the fourth quarter of 2023. Production for both the fourth quarter and full year 2023 consisted of 88% crude oil and natural gas liquids, consistent with the prior year respective periods.

Fourth quarter 2023 adjusted funds flow of \$64.0 million was 6% lower than the same period in 2022. Lower adjusted funds flow was primarily driven by the reduction in the realized price for crude oil as noted above. Adjusted funds flow was directed towards the payment of dividends, Cardinal's capital and E&E programs, and environmental and decommissioning activities. Cardinal's total payout ratio for the fourth quarter was 70% compared to 89% in the prior year quarter, as reduced development capital expenditures, more than offset a modest reduction in adjusted funds flow.

Net operating expenses for the fourth quarter of \$23.19/boe compared to \$25.72/boe in the prior year comparative quarter. Fourth quarter 2023 operating expenses benefited from Cardinal's fixed-price electricity hedging contracts in its Alberta operations, offset in part, by higher well servicing, workover costs and general inflationary pressures. Electricity is a material cost to Cardinal's operations due to the nature of the asset base, as both CO₂ and water are pumped/moved in two directions to maintain optimal reservoir pressure. As a result of the nature of Cardinal's conventional asset base, our cost structure may be higher than similar peers; this impact is offset by Cardinal's low decline asset base which requires significantly less sustaining capital relative to the same peer group.

Capital expenditures for the fourth quarter were \$41.3 million, consisting of \$3.5 million on recompletions and workovers throughout its operating areas combined with \$7.9 million on facilities and infrastructure upgrades. Cardinal continued to focus on its enhanced oil recovery program, utilizing a combination of CO₂ injection and water flood.

Also included in capital expenditures for the fourth quarter of 2023, is \$24.6 million related to the Mitsue-Buffalo Lake acquisition which closed during the quarter, adding approximately 900 boe/d of production in the fourth quarter. The acquisition included the consolidation of working interests in Cardinal's existing, operated, long-life light-oil unit in Mitsue, Alberta while also adding production of approximately 500 bbl/d of Clearwater oil production in Buffalo/Figure Lake. The transaction is synergistic with Cardinal's existing operations, does not require any additional direct administrative staff and is consistent with the Company's focus on operating assets with long-life/low-decline and predictable production.

As noted above, Cardinal disposed of approximately 200 boe/d of non-core assets during the fourth quarter of 2023, which included a reduction in asset retirement obligations of \$7.6 million. For the full year 2023, asset dispositions, which consisted primarily of non-core, non-producing assets (except as noted for the fourth quarter), resulted in cash proceeds of \$11.6 million with a reduction in asset retirement obligations of \$9.1 million.

During the fourth quarter, Cardinal completed one (1.0 net) Falher/Clearwater oil well at Heart River. This well was brought on stream late in the fourth quarter of 2023; current production rates are approximately 100 bbl/d (100% heavy crude oil). There are currently 12 identified follow-up drill locations within the existing drilled horizon with the potential to develop additional secondary zone within the existing land block.

Cardinal has established, and in 2023 further enhanced, a multi-year drilling inventory to complement our low decline production base. This conventional inventory is located across our asset base allowing the Company to mitigate increases in local area operating costs and production decline.

Cardinal continues to demonstrate the ability to efficiently deploy capital to enhance the quality, predictability, and sustainability of its low decline asset base. As noted earlier, the Company successfully replaced current year production in its PDP, TP and TPP reserve categories, with 90% of Cardinal's TPP reserves consisting of light, medium and heavy crude oil and natural gas liquids. Additionally, Cardinal's before tax net present value (discounted at 10%) of the TPP reserves was \$1.8 billion, a 1% increase from the prior year. Cardinal's December 31, 2023, reserves summary does not include the potential impact of its Reford, Saskatchewan thermal assets. Additional details on Cardinal's 2023 year-end reserves can be found in the Company's press release from February 12, 2024, "Cardinal Energy Ltd. Announces 2023 Year-End Reserves".

Asset retirement expenditures for the fourth quarter of 2023 were \$9.0 million (\$23.2 million for fiscal 2023). Asset retirement obligations were also impacted by the acquisition of the Mitsue-Buffalo Lake assets, with Cardinal acquiring \$7.2 million of incremental liabilities, which was more than offset by the disposition of \$7.6 million of liabilities through the disposition of non-core non operated assets.

In the fourth quarter of 2023, Cardinal declared \$28.9 million of dividends which was consistent with the prior year quarter. In 2023, Cardinal returned over \$118 million to shareholders in the form of dividends and treasury share purchases. Cardinal's dividend is currently \$0.06 per common share/month (\$0.72 per common share annualized).

Saskatchewan Thermal Project Summary and Update

As previously noted, Cardinal has initiated a SAGD project in its Reford, Saskatchewan operating area, that upon completion, is expected to produce approximately 6,000 bbl/d (100% heavy crude oil). The initial development phase of the project is expected to be completed prior to the end of fiscal 2025.

Key attributes of Cardinal's Reford, Saskatchewan thermal project that are consistent with Cardinal's overall corporate strategy include:

- The initial 6,000 bbl/d (100% heavy crude oil) project is risk appropriate for Cardinal's size, further enhancing our low decline existing asset base while also providing the optionality for future projects which could increase the size of the overall trend to 20,000 bbl/d (100% heavy crude oil); and
- Low operating costs are forecasted to positively impact Cardinal's overall operating cost structure in the future.

During the fourth quarter of 2023, Cardinal incurred \$4.3 million (\$4.9 million 2023 year-to-date) of costs associated with the evaluation and de-risking of this project. These costs are included as a component of E&E expenditures.

During the first quarter of 2024, Cardinal entered into an agreement with Propak Systems Ltd. ("Propak") for the engineering, fabrication and field construction of a central processing facility, including the first SAGD well pad. The fixed-price agreement with Propak, which represents approximately half of the total estimated project costs, provides cost certainty for Cardinal, in addition to reducing manufacturing uncertainty as a result of Propak's ability to manufacture and fabricate the modular facilities in a controlled indoor environment.

OPERATIONS

Cardinal's average production was 21,705 boe/d in 2023. The Company drilled 26 (24.6 net) wells in the year consisting of 17 (16.3 net) producing wells, three (2.3 net) injection wells and six (6.0 net) vertical stratigraphic wells. Highlights from our 2023 drilling include:

- At Nipisi, we drilled our second successful four-well program (4.0 net). These wells began production at the end of the first quarter, and delivered IP90 rates of approximately 240 boe/d per well. After producing

for nearly a full year, these wells continue to greatly exceed our initial expectations, with current combined production of approximately 750 boe/d; and

- In our Alderson area, near Brooks, Alberta, we continued with successful multi-lateral Ellerslie oil drilling. Two wells (2.0 net) were drilled coming on stream early in the third quarter. Initial production rates well-exceeded expectations, combining for approximately 600 boe/d over their initial 180 days of production.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE ("ESG")

Cardinal continued to successfully minimize our corporate emissions profile during 2023. This included ongoing CO₂ sequestration in Saskatchewan and further implementation of projects aimed at reducing both scope one and scope two emissions from our operations across all areas. Through our world class Carbon Capture and Sequestration ("CCS") enhanced oil recovery ("EOR") operation at Midale, the Company sequestered approximately 270,000 tonnes of CO₂ equivalent during 2023. This amount of carbon sequestration again exceeds our total scope one emissions. To date, the Midale CCS EOR project has sequestered 5.7 million tonnes of CO₂ and has reduced oil production decline rates from this project to approximately 3%.

Cardinal's safety record continues to be in the top tier of the industry, as is our regulatory compliance level.

In 2023, Cardinal continued its commitment to responsible, sustainable operations, spending \$23.2 million on asset retirement activities. Cardinal abandoned more than 120 gross operated wells, 190 kilometers of pipelines, and nine facilities during 2023. During the year Cardinal also reclaimed 69 gross operated sites (including 2 facility sites). These liability reduction activities, and associated spending, far exceeded all regulatory requirements for the year.

Cardinal will continue with our commitment to reduce our environmental footprint with planned spending on liability reduction activities in 2024 of approximately \$20 million.

OUTLOOK

Throughout 2023, Cardinal made a number of investments to further enhance the quality, predictability and sustainability of our low-decline asset base. The sanctioning of the Reford SAGD project is a cornerstone to extending our reserve life beyond our existing peer leading producing reserve base and decline profile. The project is being developed in a manner that will provide 20 plus years of incremental adjusted funds flow and positively impact Cardinal's per barrel operating cost metrics.

In addition to the focus on the development of the Reford SAGD project, Cardinal will continue development of its conventional asset base throughout 2024. Specifically, Cardinal will continue to expand our multi-lateral development inventory with a particular focus on the Clearwater and Mannville trends where Cardinal has had significant development success over the past several years.

With WTI oil prices currently in the high US\$70/bbl range, and the expectation of further tightening of Western Canadian Select oil price differentials from current levels due to the Trans Mountain pipeline expansion during 2024, Cardinal is confident in its ability to execute on its 2024 budget⁽¹⁾, directing a substantial portion of the capital towards the Reford SAGD project. We expect that adjusted funds flow for 2024 and 2025, driven by our low-decline conventional oil and gas assets, will fund ongoing returns to shareholders and the development of the Reford project. The execution of the Reford project, and the anticipated corresponding increase in adjusted cash flow in 2026, will allow Cardinal to revisit its framework for both shareholder returns and future capital spending budgets.

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

⁽¹⁾ See press release from 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" for additional details on the Company's 2024 budget.

ANNUAL FILINGS

Cardinal also announces the filing of its Audited Financial Statements for the year ended December 31, 2023 and related Management's Discussion and Analysis with the Canadian securities regulatory authorities on SEDAR+ at www.sedarplus.ca ("SEDAR+"). In addition, Cardinal will file its Annual Information Form for the year ended December 31, 2023 on SEDAR+ on or prior to April 1, 2024. Electronic copies may be obtained on Cardinal's website at www.cardinalenergy.ca and on Cardinal's SEDAR+ profile at www.sedarplus.ca.

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 planned Saskatchewan thermal project in its Reford, Saskatchewan operating area including the expected financial and operational benefits therefrom (including extending the Company's reserves life), future production levels, the potential incremental adjusted funds flow from Cardinal's SAGD project, the timing of completion of the project, future impacts on per barrel environmental metrics, length of the and capital and E&E costs to complete the project, the benefits of the fixed-price agreement with Propak as it relates to this project, the ability to continue to efficiently deploy capital to enhance the quality, predictability, and sustainability of the Company's low decline asset base including the future benefit on reserves, the ongoing and future benefits of the Company's 2023 drilling results, the benefit, if any, on financial and operational performance of the Company as a result of future drilling opportunities and locations, the expectation of further tightening of Western Canadian Select oil price differentials from current levels due to the anticipated opening of the Trans Mountain pipeline expansion, the timing, quantum and benefits of the Company's current and future environmental and decommissioning activities (including planned spending on liability reduction activities in 2024), the benefits of the Company's low decline asset base on future capital expenditures, the benefits and timing of the Company's enhanced oil recovery program(s), the benefits and ability to further develop the Company's land base through drilling programs or other relevant means, that adjusted funds flow for 2024 and 2025 will fund ongoing returns to shareholders and the development of the Reford project; the Company's ability to mitigate local area operating costs, the ability to fund and execute the Company's 2024 budget and capital program, Cardinal's intention to continue to improve its sustainability, reduce risk and provide current and future returns to shareholders, the Company business strategies, plans and objectives, future ESG and related environmental performance, and the quality of the asset base and decline rates.

In addition, information and statements relating to reserves are deemed to be forward-looking statements, as they involve implied assessment, based on certain estimates and assumptions, that the reserves described exist in quantities predicted or estimated, and that the reserves can be profitably produced in the future.

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, project development costs, 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 sufficiency and timing of budgeted capital expenditures in carrying out planned activities, that Cardinal will complete its capital budget in the manner as currently contemplated, 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.

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 off of. The following table is intended to provide the product type composition as defined by NI 51-101.

	Light/Medium Crude Oil	Heavy Oil	NGL	Conventional Natural Gas	Total (boe/d)
Q4/2023	50%	34%	4%	12%	22,164
Q4/2022	49%	35%	4%	12%	21,281
2023	49%	34%	4%	12%	21,705
2022	50%	34%	4%	12%	21,471
Nipisi – IP90	-	97%	-	3%	240
Nipisi – current		92%		8%	750
Alderson	90%			10%	600
Acquired assets	35%	55%	4%	6%	900
Disposed assets	91%	-	-	9%	200

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.

	Three months ended		Year ended	
	Dec 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Operating expenses	48,222	51,301	196,740	199,197
Less: Processing and other revenue	(946)	(950)	(4,131)	(4,250)
Net operating expenses	47,276	50,351	192,609	194,947

Netback

Cardinal utilizes netback as a 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		Year ended	
	Dec 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Petroleum and natural gas revenue	148,042	154,894	589,605	737,590
Royalties	(29,806)	(30,201)	(112,618)	(150,001)
Net operating expenses	(47,276)	(50,351)	(192,609)	(194,947)
Transportation expenses	(2,239)	(1,699)	(7,946)	(6,275)
Netback	68,721	72,643	276,432	386,367

Capital expenditures and development capital expenditures

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

Cardinal utilizes development capital expenditures as a measure of capital investment on property, plant and equipment excluding capitalized G&A, other assets and property acquisitions and is compared to the annual budgeted capital expenditures. Other capital expenditures includes 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		Year ended	
	Dec 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Cash flow from investing activities	39,140	30,186	114,635	116,181
Change in non-cash working capital	6,482	4,722	7,518	4,051
Exploration and evaluation expenditures	(4,320)	-	(4,895)	-
Capital expenditures	41,302	34,908	117,258	120,232
Less:				
Capitalized G&A	(364)	(495)	(1,996)	(1,949)
Other assets	(127)	(395)	(575)	(854)
Acquisitions, net	(25,290)	(1,862)	(17,720)	(2,007)
Development capital expenditures	15,521	32,156	96,967	115,422

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 deficiency to adjusted working capital deficiency:

As at	Dec 31, 2023	Dec 31, 2022
Working capital deficiency	49,077	39,919
Lease liabilities	1,370	1,487
Decommissioning obligation	9,081	8,573
Fair value of financial instruments	(104)	(1,533)
Adjusted working capital deficiency	38,730	31,392

Net debt

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

Net bank debt

Management utilizes net bank debt to analyze the financial position, liquidity, leverage and borrowing capacity on Cardinal's bank line. Net bank debt is calculated as net debt plus adjusted working capital deficiency.

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

As at	Dec 31, 2023	Dec 31, 2022
Bank debt	44,920	31,280
Adjusted working capital deficiency	38,730	31,392
Net bank debt	83,650	62,672

Funds flow

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

Adjusted funds flow

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

Free cash flow

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

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

	Three months ended		Year ended	
	Dec 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Cash flow from operating activities	69,305	68,685	230,261	337,263
Change in non-cash working capital	(14,308)	(5,159)	274	5,910
Funds flow	54,997	63,526	230,535	343,173
Decommissioning expenditures	8,971	4,722	23,163	19,610
Adjusted funds flow	63,968	68,248	253,698	362,783
Total development capital expenditures	(15,521)	(32,156)	(96,967)	(115,422)
Free cash flow	48,447	36,092	156,731	247,361

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		Year ended	
	Dec 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Petroleum and natural gas revenue	72.60	79.11	74.43	94.12
Royalties	(14.62)	(15.43)	(14.22)	(19.14)
Net operating expenses	(23.19)	(25.72)	(24.31)	(24.88)
Transportation expenses	(1.10)	(0.87)	(1.00)	(0.80)
Netback per boe	33.69	37.09	34.90	49.30

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 annualized adjusted funds flow for the applicable period.

Total payout ratio

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

Net operating expenses per boe

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

Adjusted funds flow per boe

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

Adjusted funds flow per basic share

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

Adjusted funds flow per diluted share

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

Supplementary Financial Measures

NI 52-112 defines a supplementary financial measure as a financial measure that: (i) is, or is intended to be, disclosed on a periodic basis to depict the historical or expected future financial performance, financial position or cash flow of an entity; (ii) is not disclosed in the financial statements of the entity; (iii) is not a non-GAAP financial measure; and (iv) is not a non-GAAP ratio. The supplementary financial measures used in this 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.

Reserves Advisories

Unless otherwise indicated, all reserves reported in this news release are Company share gross reserves which represent Cardinal's total working interest reserves prior to the deduction of royalties payable.

Future net revenue is a forecast of revenue, estimated using forecast prices and costs arising from the anticipated development and production of resources, net of associated royalties, operating costs, development costs and all corporate abandonment and reclamation costs for all active and inactive wells, pipelines and facilities. It should not be assumed that the future net revenues undiscounted and discounted at 10% included in this news release represent the fair market value of the reserves.

Oil and Gas Metrics

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. While encouraging, readers are cautioned not to place reliance on such rates in calculating the aggregate production for Cardinal.

Drilling Locations

This press release discloses Cardinal's inventory of approximately 12 are unbooked. 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 10 obtained and other factors. While a certain number of the unbooked drilling locations have been derisked 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 has recently announced the commencement of its first thermal SAGD oil development project which will further increase the long-term sustainability of the Company. Cardinal works to continually improve its Environmental, Social and Governance profile and operates its assets in a responsible and environmentally sensitive manner.

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