



CARDINAL
ENERGY LTD.

TSX: CJ

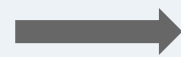
*Low Decline
Disciplined Growth*

Q1 2024 Update

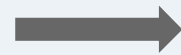
Our Business



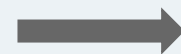
Cash Flow



- Amount of capital required to maintain our assets and keep production flat at $\pm 22,000$ boe/d

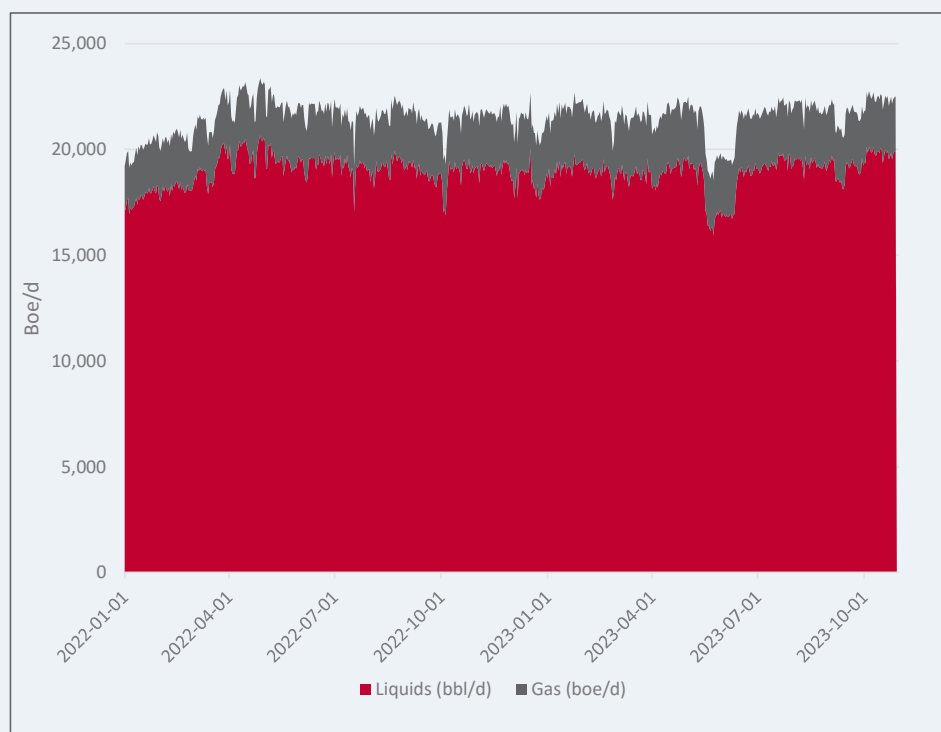


- Amount of capital required to fulfill our commitment to operating our business in a responsible manner



- Capital available to our shareholders
 - Increase the value of the business through debt reduction, cost reductions and now *disciplined growth*
 - Return capital directly to shareholders through dividends and/or share buybacks

Corporate Production



- Current production ±22,000 boe/d
- Majority of production under established water flood and/or CO₂ recovery schemes
- Base decline less than 10%
- Limited drilling required to maintain production

Year	Net Drills
2019	14
2020	9
2021	9
2022	25
2023	18
2024 Budget	22

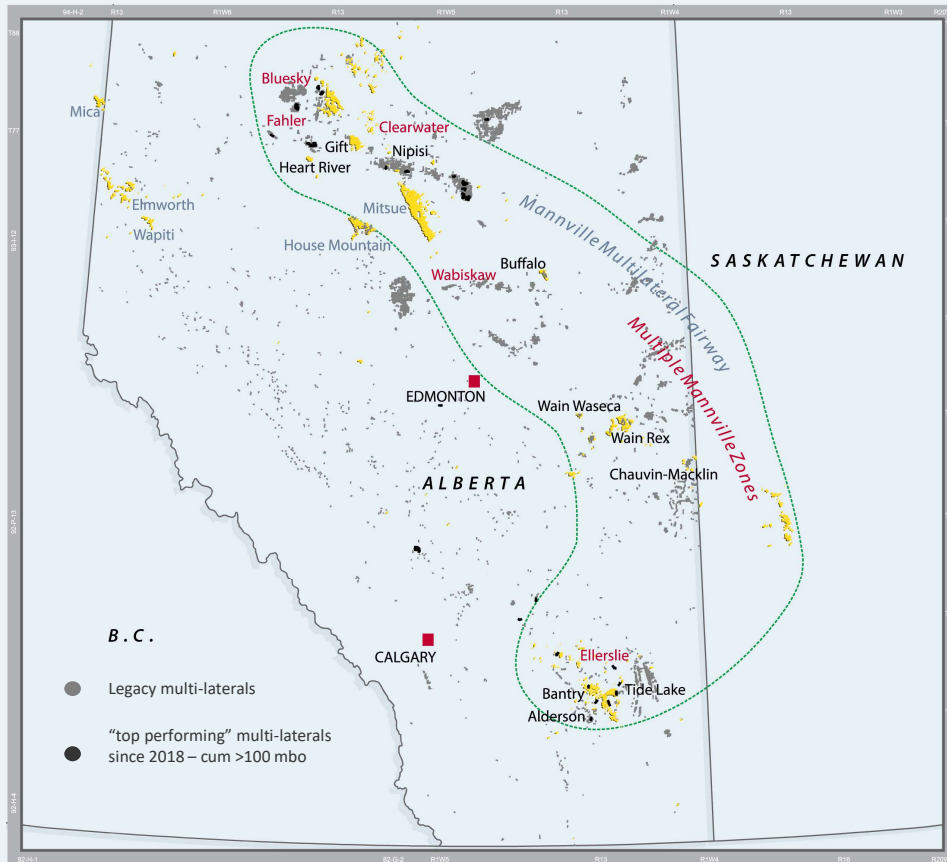
Inventory



District	Potential Locations (Gross)		2024 Drilling Program	Current Focus	Long-Term Opportunities
	Tier 1	Tier 2			
South	23	63	7	Ellerslie multi-lateral, multi-frac development at Tide Lake and Alderson	Expand multi-lateral applications to other zones/areas Targeted Hz multi-frac development
Central	70	97	4	Rex multi-laterals at Wainwright	"Mannville stack" multi-lateral potential across asset base
North	28	159	9	Clearwater multi-laterals at Nipisi Dunvegan Hz multi-frac at GP House Mountain Hz	Clearwater at Buffalo, Heart River and Gift, expansion of Dunvegan development, optimization of House Mountain and Mitsue fields
SK-Midale	60	140+	4	Optimizing EOR development	Expanding EOR development
TOTAL	181	459	24	5-10 years of tier 1 inventory identified	Substantial long-term potential inventory available to sustain production

- Tier 1 inventory are locations directly offsetting existing production or in broader areas with both existing production and significant vertical well control providing a high degree of confidence in resource boundaries
- Tier 2 locations are essentially those contingent on success of Tier 1 drilling

Mannville Multi-Lateral ("ML") Focus



North - Clearwater/Falher/Wabiskaw (*up to 65 future locations*)

- Nipisi – 8 ML wells drilled to date, continue development in 2024
- Buffalo – 10 ML wells drilled to date on property, up to 25 locations
- Heart River/Gift – 2025+ potential development

Central – Mannville stack (*over 100 future locations*)

- Wainwright Rex – 5 ML wells drilled to date, apply 2023 learnings, continue development, over 80 potential locations
- Chauvin – Macklin Channels – 1 exceptional ML well drilled in 2021, 10+ potential locations, defined by legacy vertical wells
- Wainwright Waseca – large resource in place on CJ lands, 2025 assessment pending

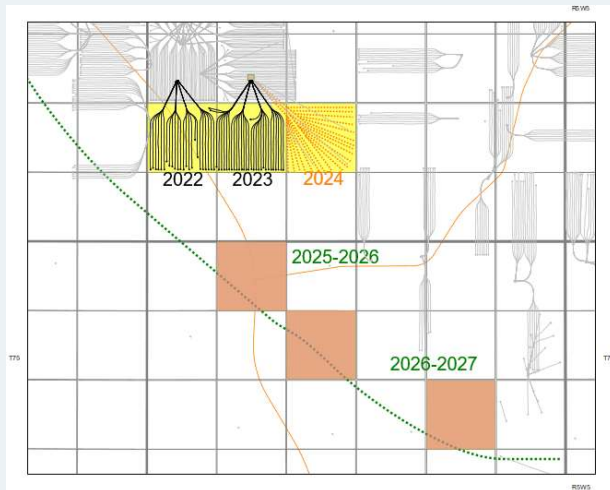
South – Ellerslie focus (*30-40 future locations*)

- Tide Lake – 11 ML wells drilled since 2018, 30+ potential locations
- Alderson – 2 ML wells drilled in 2023, 5+ potential locations
- Bantry – assessment ongoing

*Drilling Mannville multi-laterals since 2018
Large inventory across multiple portions of the play fairway
established*

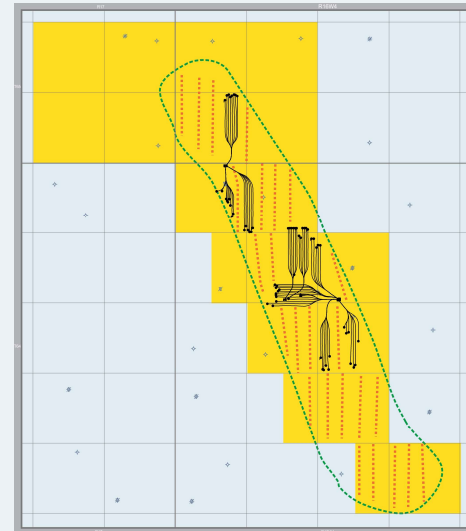
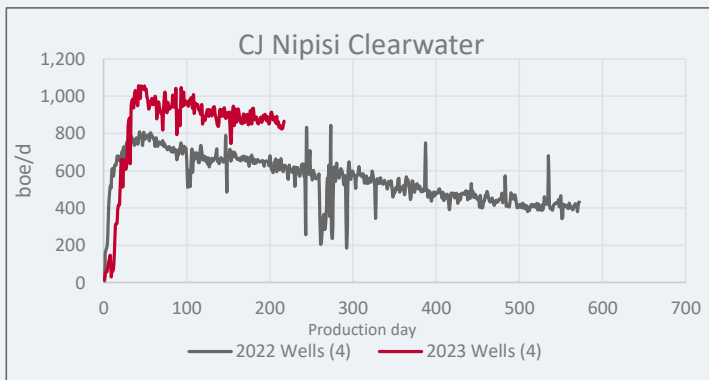
Please see "Advisory"

Clearwater: Nipisi, Buffalo, Heart River



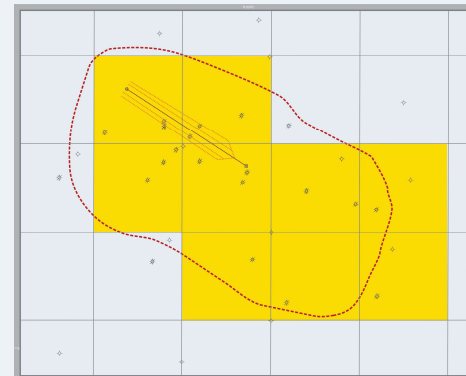
Nipisi

- Acquired 2018
- 8 multi-laterals drilled
- Completing development with 3 fan wells in 2024
- 2023 wells producing at ~30% higher rates than very successful 2022 wells
- Added 3 sections extending development horizon 2-3 years



Buffalo

- Acquired Q4 2023
- 10 multi-laterals drilled to date
- Up to 25 future locations
- 2 wells planned for 2024



Heart River

- Acquired through land sales
- Directly south of BTE Peavine
- 1st well on production
- 10-12 future locations with success

2024 Capital/ARO Plan



		<i>2024 Budget</i>	<i>Low Commodity Price Scenario*</i>
CONVENTIONAL	Development Drill, Complete, Equip and Tie In (24 gross wells)	<i>\$60 MM</i>	<i>\$30</i>
	Optimization Well Optimization, Water flood optimization, CO ₂ Purchases	<i>\$16 MM</i>	<i>\$8</i>
	Maintenance and Other Facility and Pipeline Maintenance, Turnarounds, Corporate	<i>\$40 MM</i>	<i>\$30</i>
THERMAL	Reford SAGD Project Finalize engineering of first CPF, Shop Fabrication, Earth Works and Pilings	<i>\$69 MM</i>	<i>\$42</i>
ARO EXPENDITURES	Well abandonments (~70), Facility decommissioning, Pipeline abandonments, Reclamation, <i>over 2x required spend</i>	<i>\$20 MM</i>	<i>\$10</i>

* Ability to reduce budget with minimal impact on 2024 production volumes



CARDINAL
ENERGY LTD.

Cardinal Saskatchewan Thermal Oil

TSX: CJ



11/09/2023

Why Thermal for Growth?



SUSTAINABILITY

Top Oil Producers in Canada

MAJORITY THERMAL

- CNRL
- Suncor
- Cenovus
- Imperial

All Transitioned from Conventional to Thermal – Why?

1. Decline
2. Inventory
3. Predictability
4. Economics

Saskatchewan Thermal Challenges and Learnings



HISTORICAL CHALLENGES AND BARRIERS

1. Technical Know How
 - CJ – three-person veteran team to start
2. Capital
 - Saskatchewan Projects 6,000 – 15,000 bbl/d are size appropriate for CJ
3. Facility Engineering
 - Off the shelf fixed cost facilities with 50% of project cost fixed
4. Regulatory
 - Saskatchewan environment industry friendly
5. Access
 - Saskatchewan projects on farmland with multiple oil sales points

RESOURCE DEVELOPMENT LEARNINGS

1. Extend Well Pair Length
 - Industry successfully moving to >1,250m well lengths reducing number of pads and well pairs required without sacrificing recovery
2. Patient Warm-up and Ramp-up Phases
 - Slow and steady to avoid anomalies in heat conformance
3. Well Spacing
 - Avoid future infill wells
4. Optimize CPF and Pad Layout
 - Reduce pipeline costs
5. Operational Experience
 - Improved ESP performance, sand control much better understood, improved flow control devices, reduced downtime

Reford 6,000 BBL/D Project Two Sections versus Two Townships



Reford:

- 28 well pairs over 20 years = 6,000 bbl/d⁽¹⁾

Tier 1: Clearwater

- ~160 wells over 20 years = 6,000 bbl/d⁽¹⁾

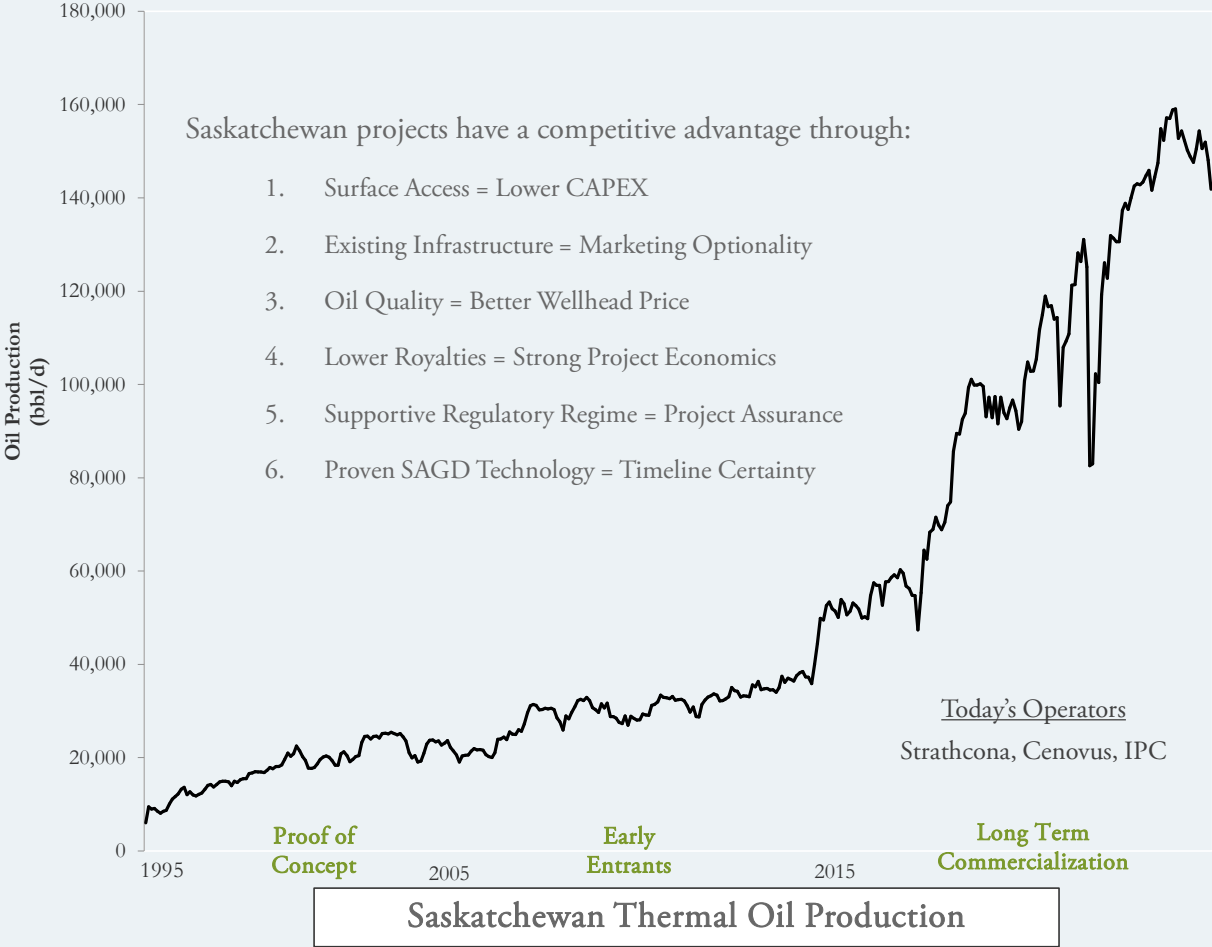
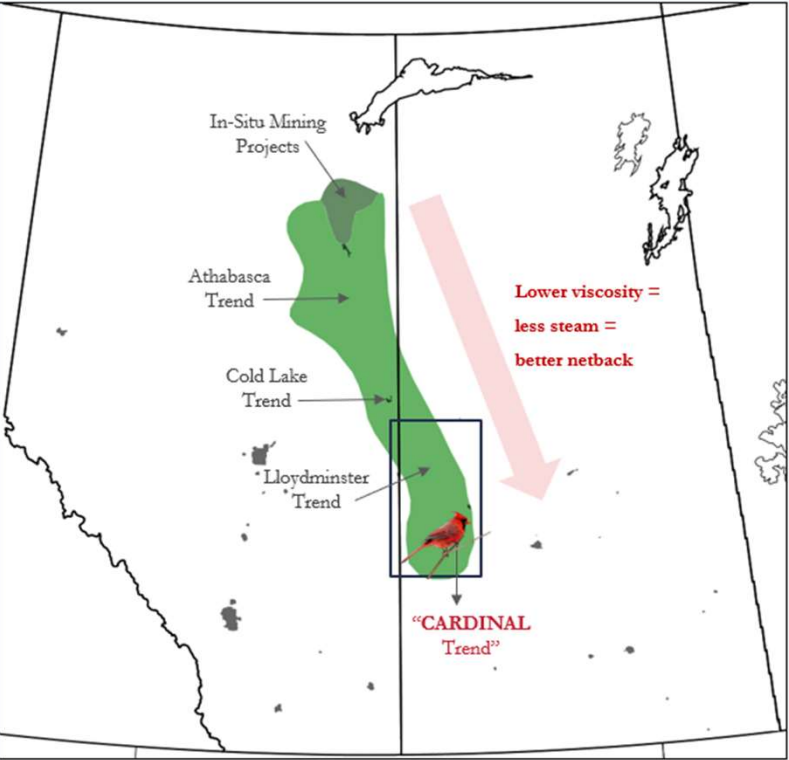
Mannville:

- ~250 wells over 20 years = 6,000 bbl/d⁽¹⁾

- ❖ Surface footprint significantly reduced

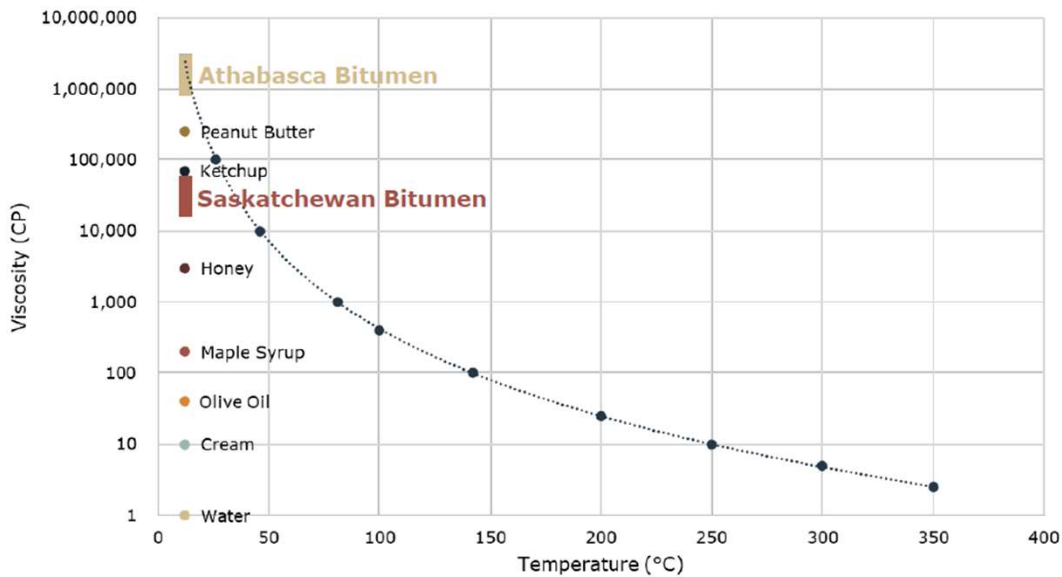
(1) Estimated average production

Saskatchewan Thermal Heavy Oil History & Advantages



Alberta Oil Sands vs. Saskatchewan Thermal Heavy Oil

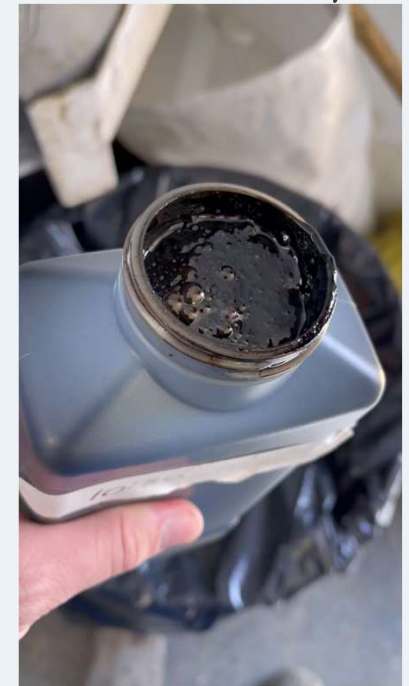
Bitumen Viscosity with Temperature



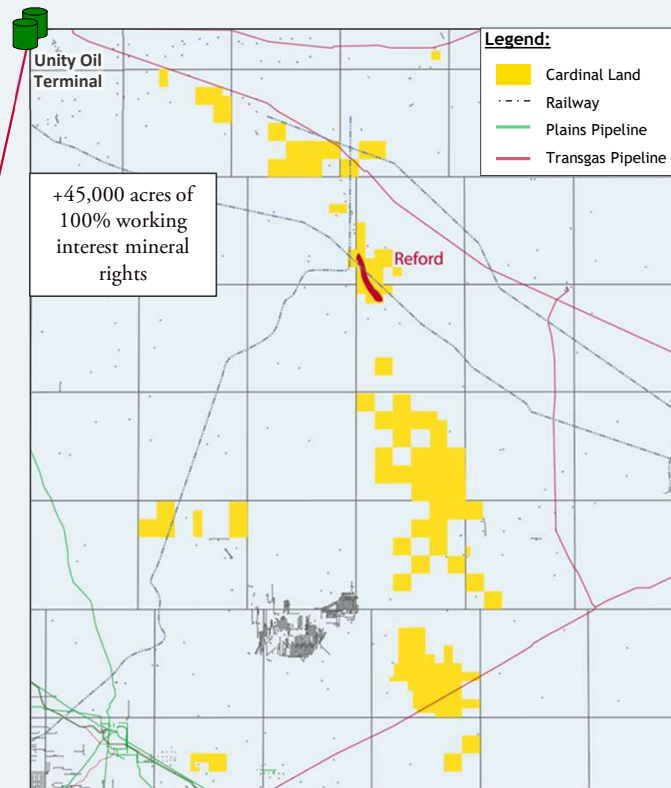
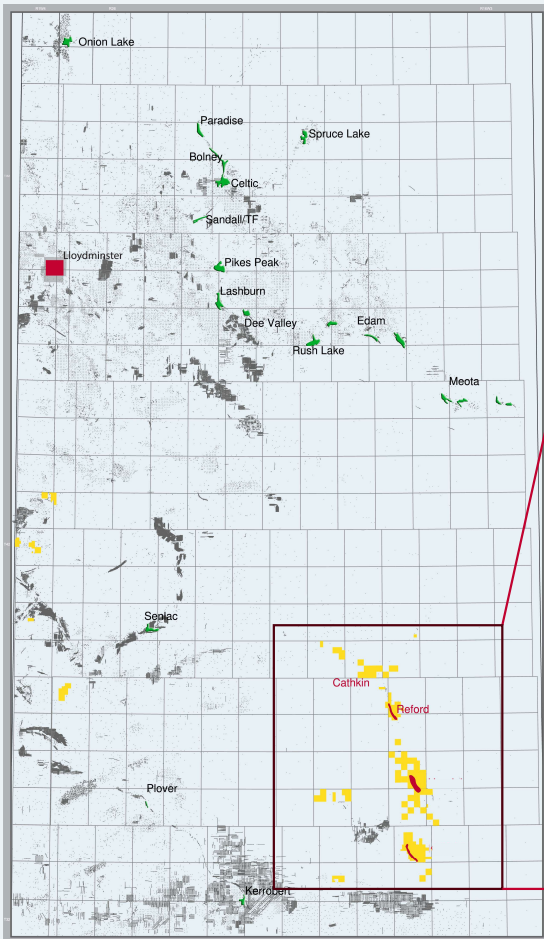
Alberta Oil Sands



Saskatchewan Mobile Heavy Oil



Cardinal Thermal Trend



1. Reford SAGD Project

- Project 1 ready; 18 months from commencement to first steam
- 2024 budget includes initial capital to develop **6,000 bbl/d SAGD Project** targeting onstream in the first quarter 2026

2. SAGD Project 2

- Project 2 to follow after Reford is commercially established

3. SAGD Project 3

- Project 3 to be further explored and delineated

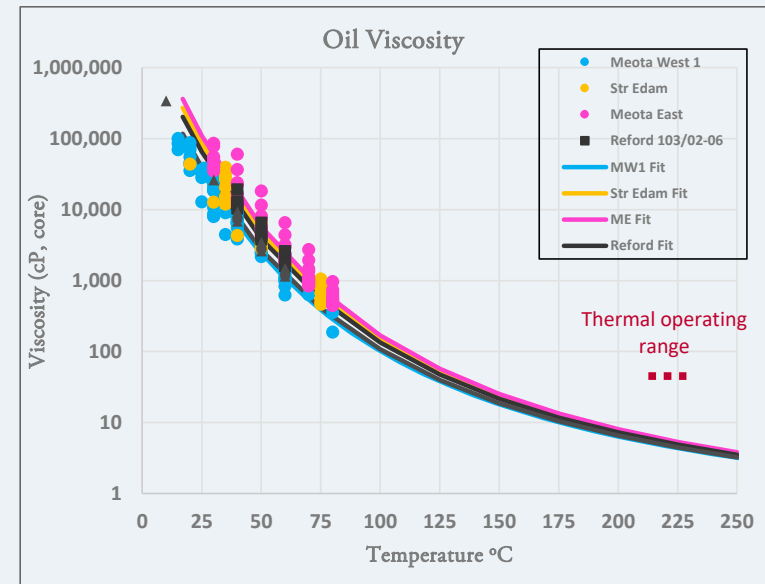
4. Conventional Mannville Upside

- Multi-lateral prospects

Reservoir Comparison

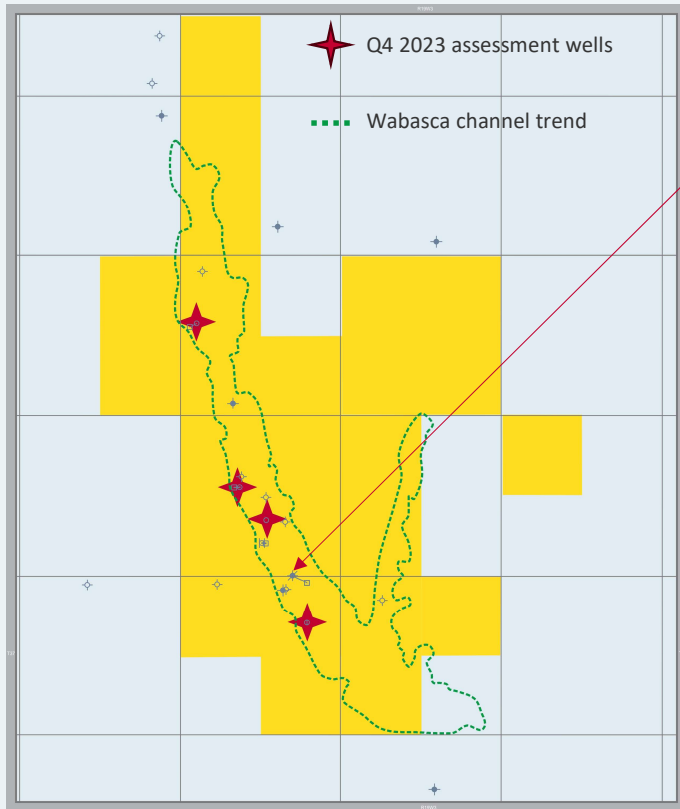


	<u>Dee Valley</u>	<u>Edam</u>	<u>Edam East</u>	<u>Edam West</u>	<u>Meota East</u>	<u>Meota West</u>	<u>Paradise Hills</u>	<u>Pikes Peak</u>	<u>Rush Lake</u>	<u>Sandall</u>	<u>Spruce Lake</u>	<i>Reford</i>	
Operator	CVE	SRC	CVE	CVE	SRC	SRC	CVE	CVE	CVE	CVE	CVE	<i>CJ</i>	
Year on stream	2019	2016	2016	2016	2018	2020	2012	2007	2011	2014	2020	<i>2026</i>	
Target Zone	Waseca	Lloyd	GP	Sparky	Colony	Lloyd, Waseca	Colony	Waseca	GP	McLaren	Waseca	<i>Waseca</i>	
Project Nameplate	bbl/d	10,000	8,000	10,000	5,000	10,000	10,000	5,000	12,000	24,000	5,000	10,000	<i>6,000</i>
Depth	m	470	480	450	440	460	530	475	500	480	450	475	<i>620</i>
Estimated average thickness	m	17	13	18	15	11	14	13	18	22	16	19	<i>15</i>
Average porosity	%	32-34%											
Oil saturation	%	75-85%											
Kmax	mD	8200	6500	6900	4500	4500	6900	10400	4200	4500	5800	5500	<i>7000</i>
Oil Gravity	API	12	11.5	n/a	12	10	10	12.5	12	12	12	10	<i>9</i>
Impairment Zones		bottom water	bottom water	bottom water		bottom water	bottom water	bottom water/top gas	bottom water/top gas	bottom water	bottom water / top gas	bottom water	<i>bottom water</i>

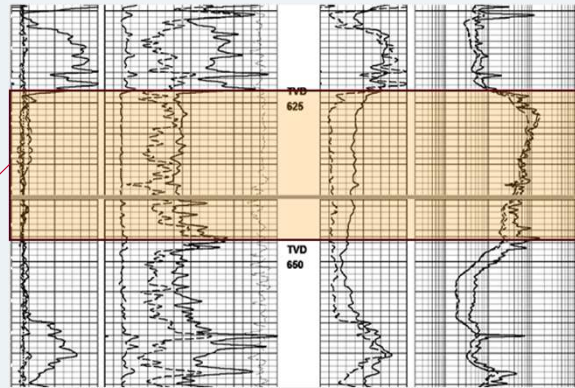


Reford trend shows comparable reservoir and oil quality characteristics to existing developed Saskatchewan thermal heavy oil projects

Reford Waseca Channel



2-6-38-19w3



Core from 102/11-06-038-19W3

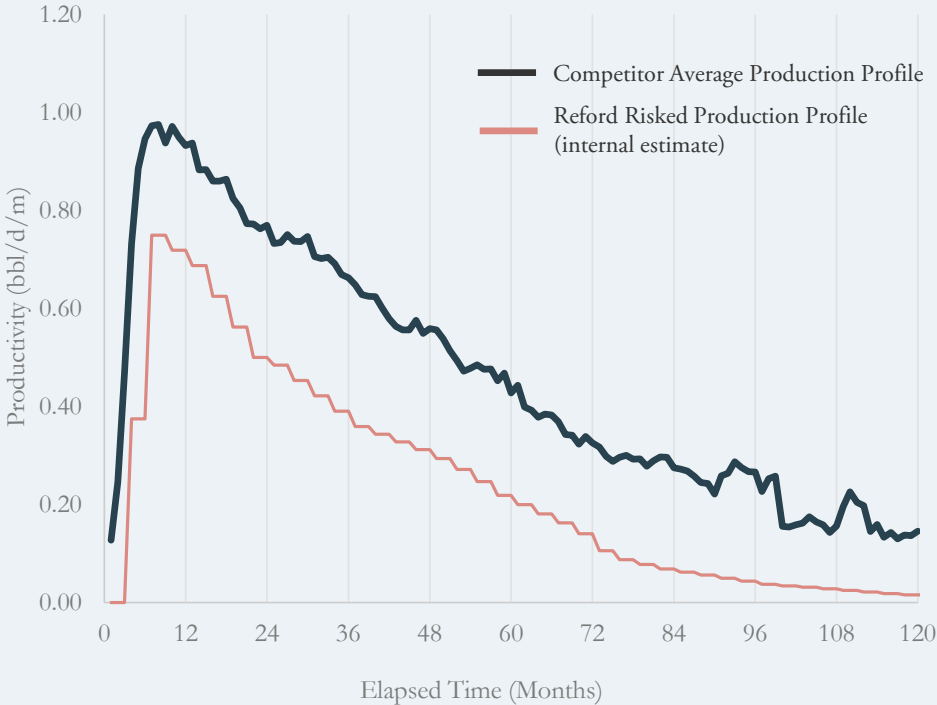
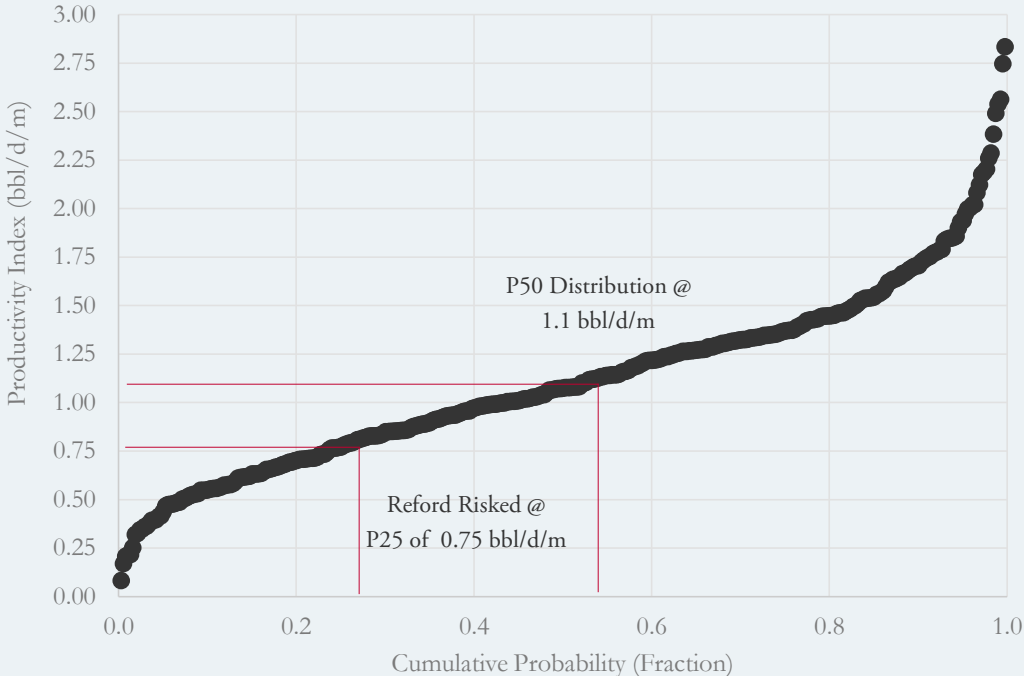
- ❑ Defined resource
 - 9 legacy verticals
 - 4 assessment wells drilled Q4 2023
 - 3D seismic across land base
 - Channel isopach up to 35m
 - Oil column up to 20m
 - Channel width 500-800m
 - Porosity 30-33%
 - Internally estimated OOIP > 80 MMbbls
- ❑ 100% working interest land established on core of oil accumulation
- ❑ Target depth ~650m

Saskatchewan Thermal Productivity Data Analysis



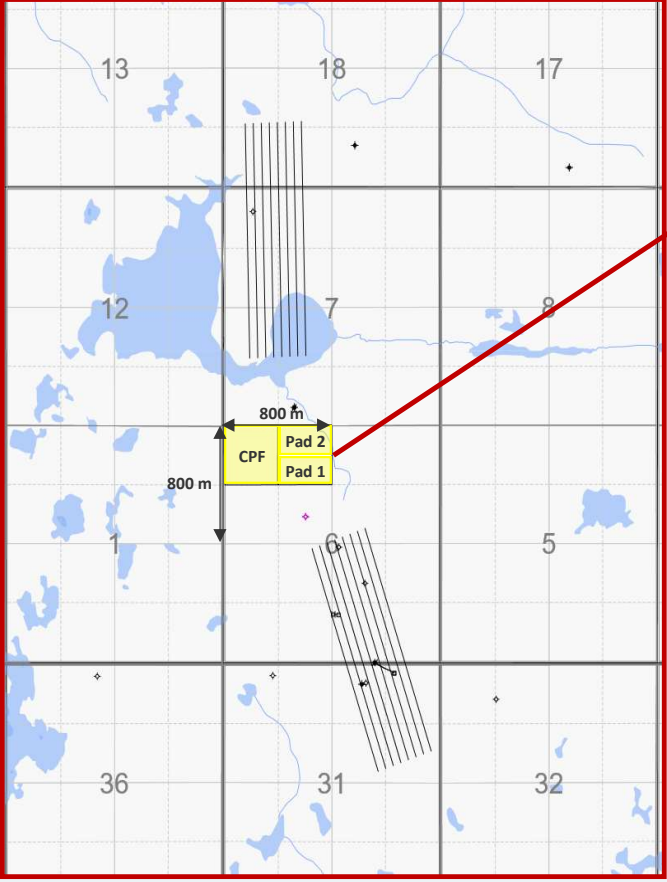
Summary of 380 Saskatchewan SAGD Well Pairs

Saskatchewan Thermal SAGD Properties, Productivity Distribution



Productivity Index Summary Of 18 Active Saskatchewan Thermal Projects

Reford SAGD Facility and Pad Sites

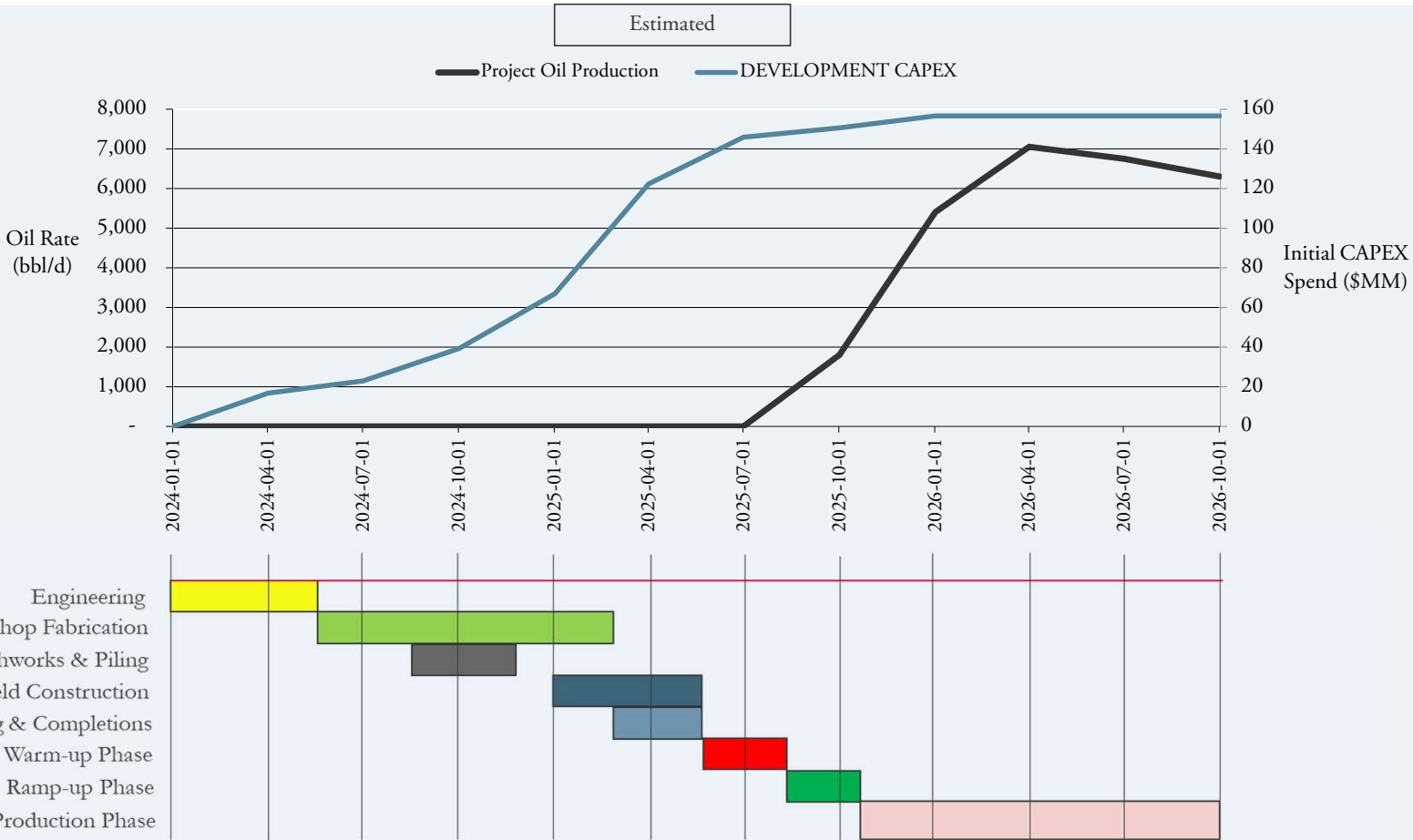


"Off the Shelf" Saskatchewan SAGD CPF



- Modular design allows all plant components to be fabricated in a shop environment, improving productivity and quality
- ~50% of total project costs are done on a fixed pricing contract
- Shop-built facility design is state of the art, tried and proven minimizing operational, reliability and safety issues

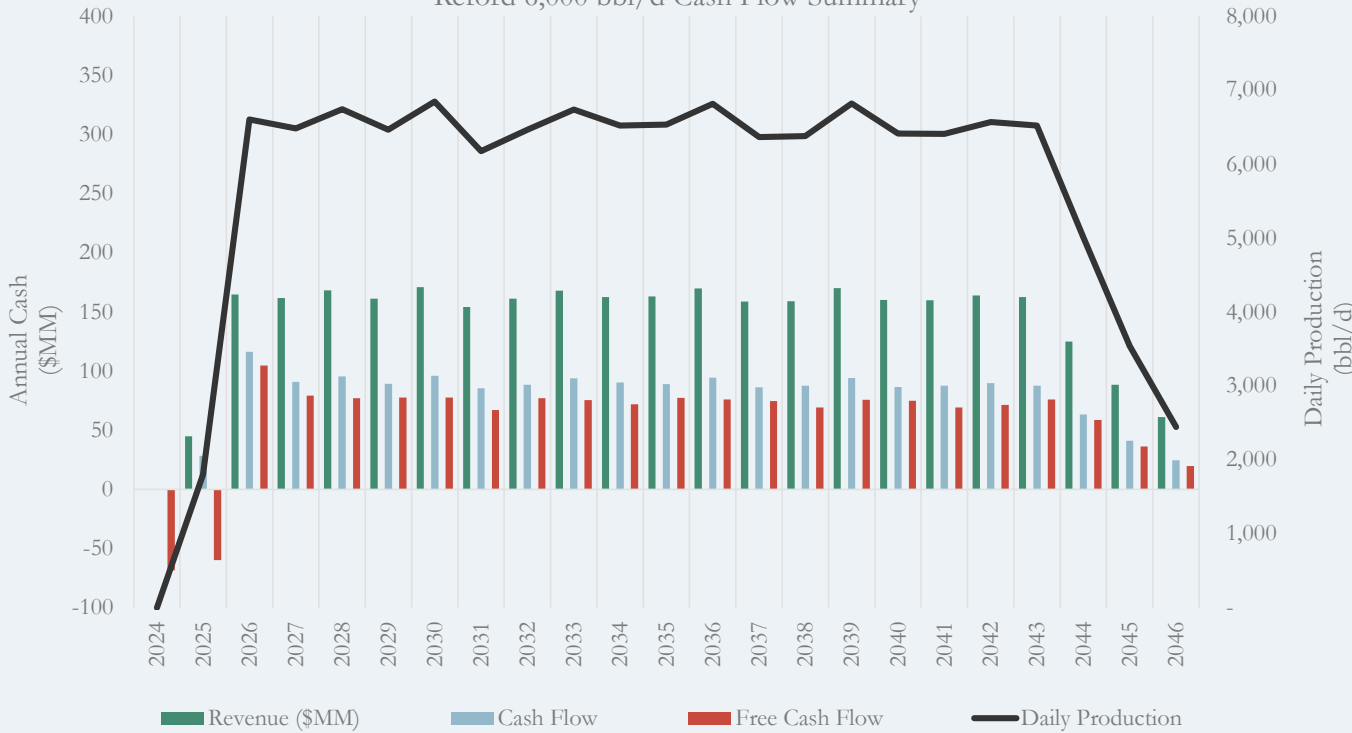
Reford Thermal Project Timeline



Reford SAGD Project Economics



Reford 6,000 bbl/d Cash Flow Summary



-  Project payout within 18 months initial production
-  Cumulative free cash flow of \$975 Million - \$1.36 Billion over 15 - 20 years
-  NPV10 of \$395 - \$455 MM
-  PIR of 170% - 182%
-  IRR of 48% - 52%
-  Initial Project CAPEX of \$156 MM
Sustaining CAPEX of \$228 MM to \$292 MM
Total Project F&D of \$9.40/bbl - \$10.10/bbl
-  Strong demand for Neat Bit (ie. undiluted bitumen)
Reford location provides marketing optionality

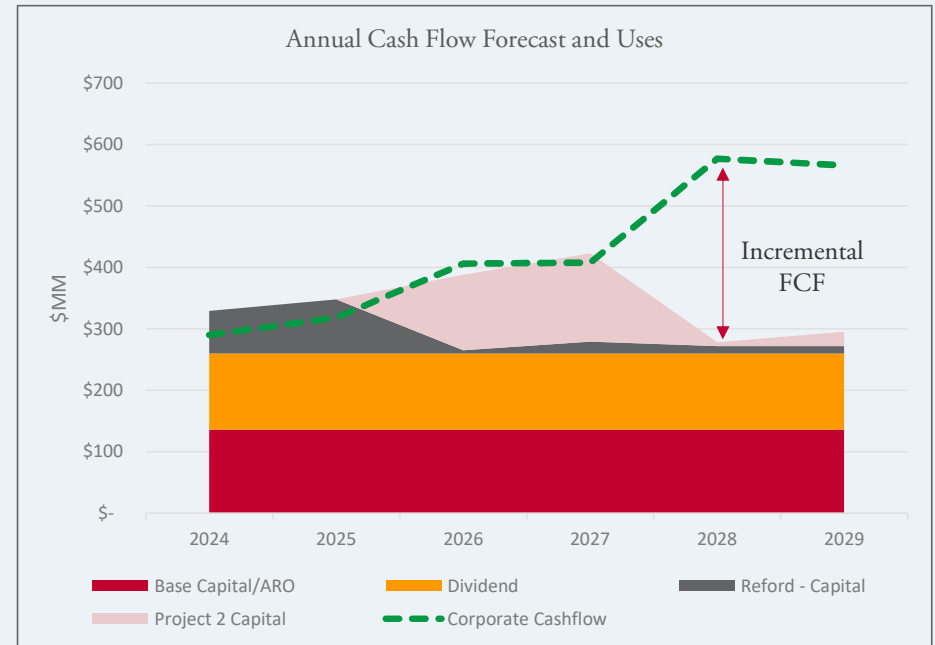
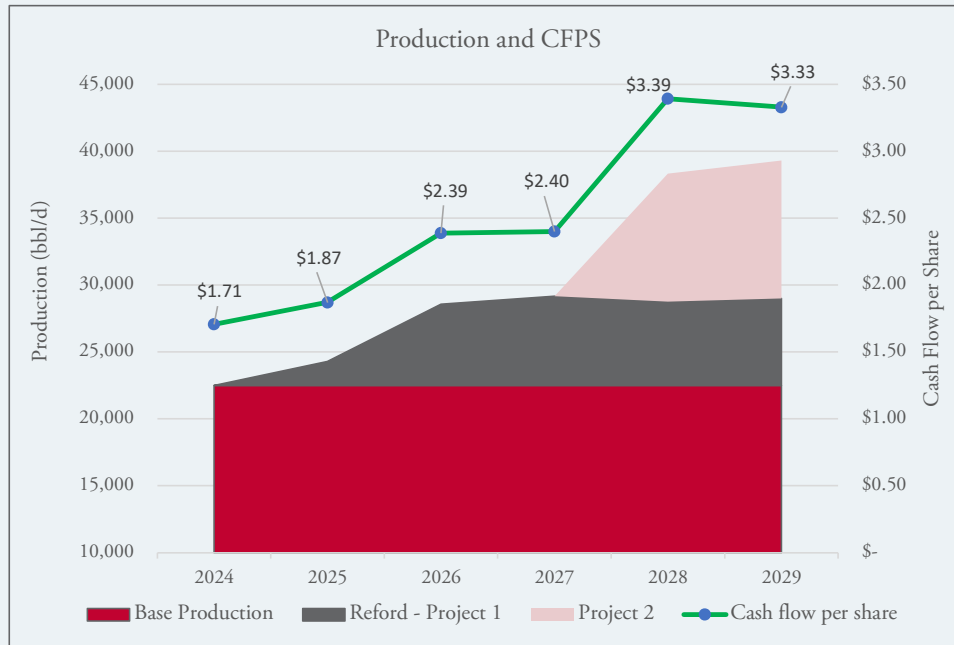
Economic Model Assumptions:

- WTI flat at \$79/bbl USD
- WCS diff. flat at \$16.50/bbl USD
- AECO flat at \$3.00/MMBtu

Potential to sustain 6,000 bopd for up to 20 years

Please see "Advisory"

Cardinal – 2024-2029 Preliminary Plan



- Maintain base production
- Add material, sustainable, long-term growth wedge**
 - Reford 2024 FID, mid 25 first steam, late 25 first production
 - Project #2 2025 FID, late 26 first steam, mid 27 first production
 - Project #3 to follow

- Further improvement to long-term sustainability
- Potential for material long-term growth in free cash flow
- Ability to fund within existing balance sheet while maintaining current dividend

ARO Focus

Operated Work Completed in 2023

- 121 Wells Cut and Capped
- 9 Facilities Abandoned and Decommissioned
- 123 wells/sites reclaimed
- 31 Reclamation Certificates (including 1 facility)
- Abandoned 107 segments (194 km) of pipeline
- 128 environmental investigative reviews for preparation of future reclamation and the remediation of 11 sites

	2020	2021	2022	2023	Total
	(million \$'s)				
CJ ARO Spend & Ongoing Remediation	\$6	\$8	\$22	\$25	\$61
Government Funded Programs	\$14	\$9	\$5	-	\$28
Non-Core Disposition	-	\$3	\$11	\$30	\$44
Total Liability Spend	\$20	\$20	\$38	\$55	\$133

Assets Retired between 2019-2023



669
Wells Abandoned



760
Pipeline Segments
Abandoned



67
Facilities
Decommissioned

Cardinal Snapshot



As at September, 2023 (unless stated)

Shares Outstanding	158 MM
Market Capitalization (January 5, 2024)	~\$1.0 billion
Monthly Dividend	\$0.06 per share
Bank Debt	\$44 MM
Net Debt	\$62 MM
Credit Facility Capacity	\$155 MM
Estimated Annual Production Decline	~10%
Q3 Production (% Oil +NGLs)	21,872 (88%)
2024 Conventional Capital Expenditures Forecast	\$116 MM
2024 Thermal Development Expenditure Forecast	\$68 MM
2024 ARO Expenditure Forecast	\$20 MM
Tax Pools	~\$1.2 Billion

Financial
Security



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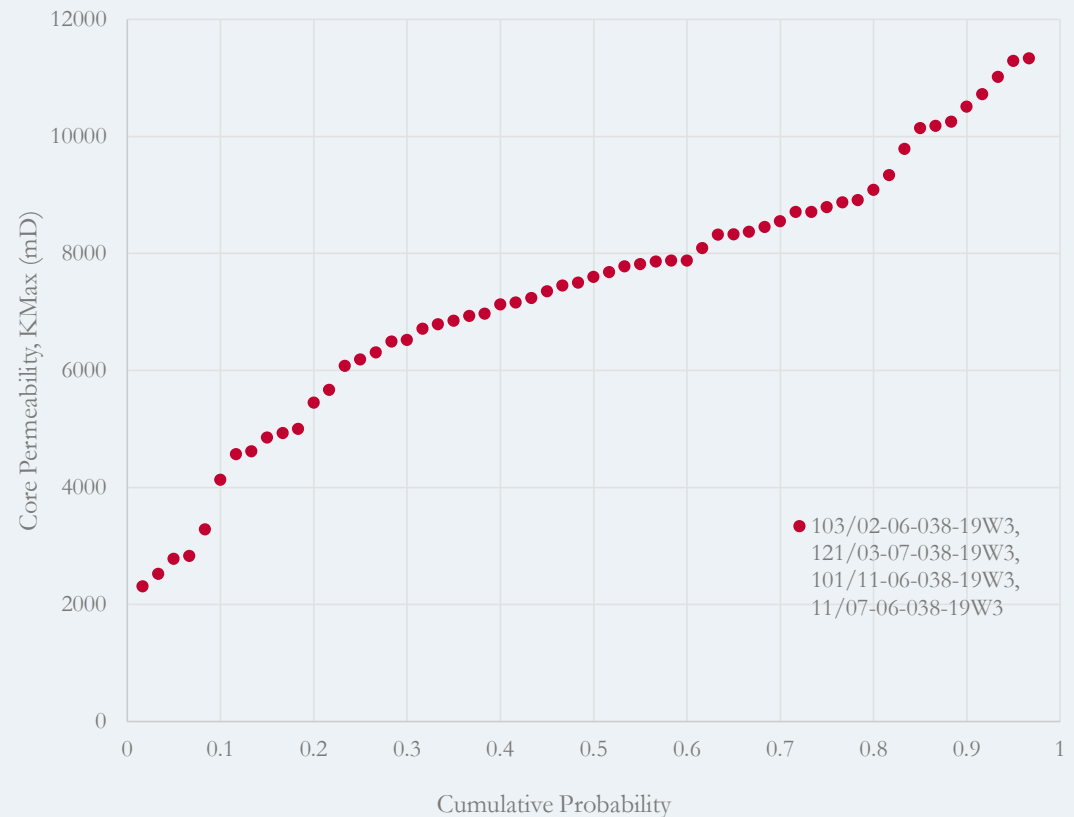
Appendix

Reford Core Analysis – Permeability

- Permeability Data demonstrating high quality sands
- Permeability values are typically >5,000 mD
- P50 permeability outcomes are approximately 7,000 mD
- K_v/K_h ratios were generally 0.9 (not shown on graphs)



Core from 102/11-06-038-19W3

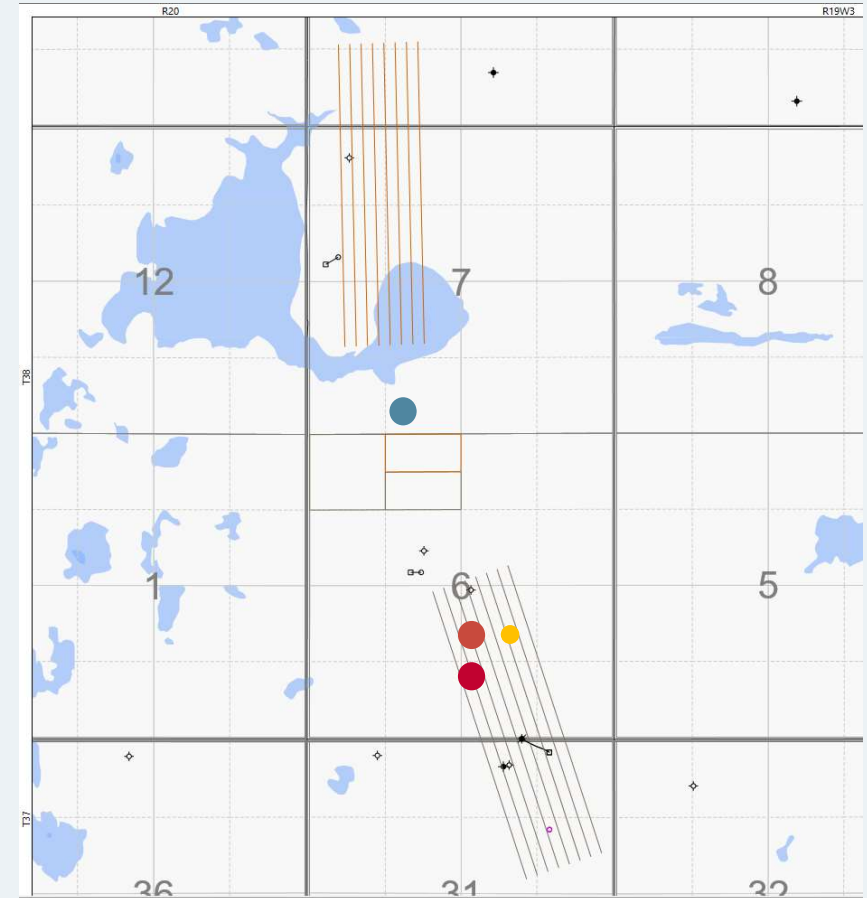
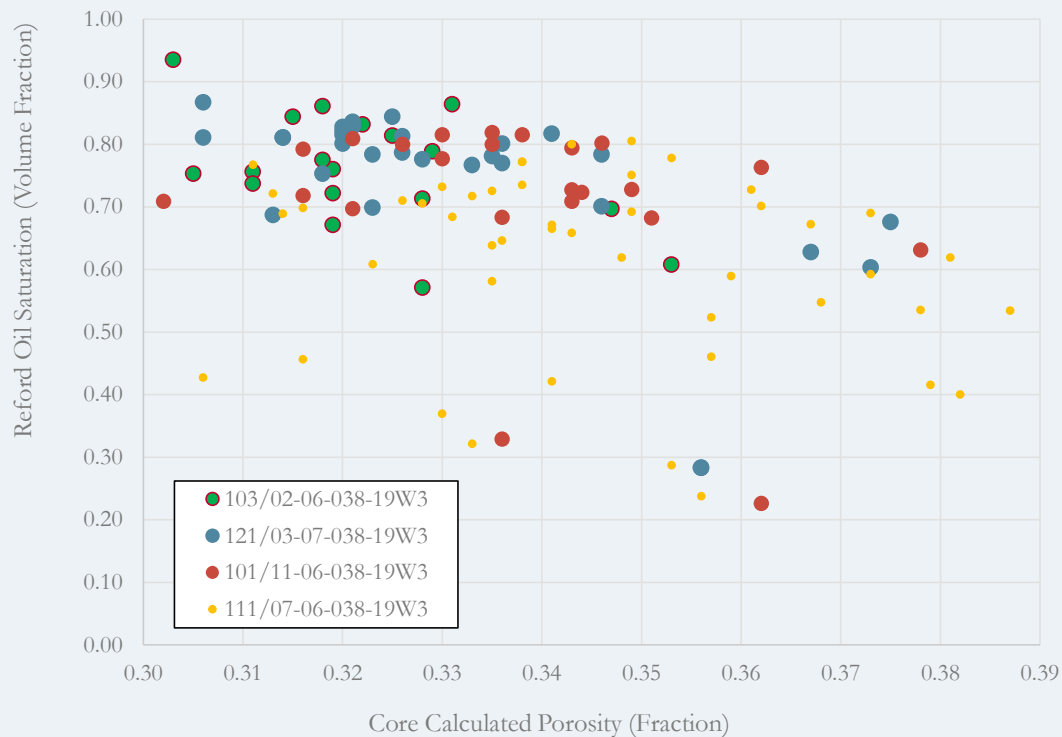


Data Set to be Updated with 2023 Stratigraphic Test Wells

Reford Core Analysis – Oil Saturation



➤ Significant dataset has been measured >80% So



Advisory



Note Regarding Forward Looking Statements

This presentation 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 presentation speak only as of the date thereof and are expressly qualified by this cautionary statement.

Specifically, this presentation contains forward-looking statements relating to: our business goals, strategies, plans and objectives, future budgets, (including expenditure types and dividend amounts) drilling inventory and future locations, estimated payouts, expected future drilling and operating costs, SAGD project economics, 2024-2029 forecast production, cash flows per share and forecast uses of cash flows, future potential SAGD projects, productivity potential of the Reford project, anticipated timeline on the Reford project, potential future Reford project economics, production decline rates, expected realized pricing, the benefits of our risk management program, future free cash flow, future dividends and share buybacks, plans to increase sustainability and reduce risk by, among other things, improving our ability to replace production, lowering operating costs and increasing netbacks, and by reducing debt, ARO exposure (an ARO reductions), carbon capture and related strategies, and reliance on third parties and variable costs, our capital budget and the allocation thereof, our drilling and optimization plans, targeted debt to cash flow, plans with respect to use of future free cash flow, production capability, economic returns, timing and other matters related thereto.

Forward-looking statements regarding Cardinal are based on certain key expectations and assumptions of Cardinal concerning anticipated financial performance, business prospects, strategies, regulatory developments, production curtailments, current and future commodity prices and exchange rates, applicable royalty rates, tax laws, future well production rates and reserve volumes, project cost estimates, future operating costs, the performance of existing and future wells, the success of our exploration and development activities, the sufficiency and timing of budgeted capital expenditures in carrying out planned activities, the availability and cost of labor and services, the impact of 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, drilling success and potential timing delays.

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.

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 commodity prices and differentials; power costs; industry conditions; currency fluctuations; imprecision of reserve estimates; geological and reservoir risks, 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; increase in the costs of developing new projects, changes in income tax laws or changes in royalty rates and incentive programs relating to the oil and gas industry; changes in 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 presentation 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 presentation 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.

This presentation contains future-oriented financial information and financial outlook information (collectively, "FOFI") about our prospective results of operations, cash flows, free cash flows, revenues, adjusted funds flow, capital expenditures and components thereof, all of which are subject to the same assumptions, risk factors, limitations, and qualifications as set forth in the above paragraphs. FOFI contained in this presentation were made as of the date hereof and is provided for the purpose of describing our anticipated future business operations. We disclaim any intention or obligation to update or revise any FOFI contained in this presentation, whether as a result of new information, future events or otherwise, unless required pursuant to applicable law. Readers are cautioned that the FOFI contained in this presentation should not be used for purposes other than for which it is disclosed herein.

Advisory



Oil and Gas Advisories

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.

Any references in this presentation 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.

Cardinal has used a number of oil and gas metrics herein which do not have standardized meanings and therefore may be calculated differently from the metrics presented by other oil and gas companies. Such metrics include "payout", "IRR", "PIR" and "NPV10". Payout means the anticipated years of production from a well required to fully pay for the drilling completion and tie in (or equivalent) of such wells. IRR means the before tax rate of return of a well (before giving effect to any taxes) or the discount rate required to arrive at a net present value equal to zero. The Company uses IRR as a measure of return on capital investment. NPV10 means net present value, before tax discounted at 10%. PIR means the profit investment ratio, which is the present value of the expected future cash flows of a project divided by the expected amount of investment in the project.

These oil and gas metrics do not have any standardized meanings or standard methods of calculation and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. As such, they should not be used to make comparisons. Cardinal management uses these 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.

Production & Product Type Information

References to petroleum, crude oil and natural gas liquids ("NGLs"), natural gas and average daily production in this presentation refer to the light and medium crude oil, heavy oil, conventional natural gas and NGLs product types, as applicable, as defined in National Instrument 51-101 ("NI51-101").

	Slide	Light/Medium Crude Oil	Heavy Oil	NGLs	Conventional Natural Gas	Total (boe/d)
Q3/23	3	45%	39%	3%	13%	21,872
Q2/23	3	45%	39%	3%	13%	21,047
Current Corporate	4	45%	40%	4%	12%	>22,000
Current New Well	6	36%	63%	-	1%	1,800
Wainwright Rex	9	-	92%	-	8%	80-200

Reserve & Product Type Information

References to petroleum, crude oil, natural gas and natural gas liquids ("NGLs") reserves in this presentation refer to the light and medium crude oil, heavy oil, conventional natural gas and NGLs product types, as applicable, as defined in National Instrument 51-101 ("NI51-101").

	Light and Medium Oil	Heavy Oil	NGLs	Conventional Natural Gas	Total (MMBOE)
Proved Producing	56%	32%	3%	9%	77.6
Total Proved	58%	30%	3%	9%	85.3
Proved plus Probable	58%	30%	3%	9%	113.0
Tide Lake YE 22 EUR	-	89%	-	11%	varied

Original Oil in Place ("OOIP") means Discovered Petroleum Initially in Place ("DPIIP"). DPIIP is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production. The recoverable portion of DPIIP includes production, reserves and Resources Other Than Reserves (ROTR). OOIP/DPIIP and potential recovery rate estimates are based on current recovery technologies. There is significant uncertainty as to the ultimate recoverability and commercial viability of any of the resource associated with OOIP/DPIIP, and as such a recovery project cannot be defined for a volume of OOIP/DPIIP at this time.

Drilling Locations

This presentation discloses years of drilling inventory which reflects a combination of booked proved and probable locations derived from GLJ's reserves evaluation effective December 31, 2022 and account for drilling locations that have associated proved and/or probable reserves, as applicable and unbooked locations refer to locations assigned to internally estimated reserves potential and are not otherwise included in the GLJ reserves evaluation divided by average future forecast drilling activity.

Advisory



The following tables provide a detailed breakdown of the current Cardinal net drilling locations included in this presentation:

	Total Drilling Inventory	Booked at Year-end 2022		
		Proved Locations	Probable Locations	Unbooked Locations
Slide 5 – Clearwater	65	-	-	65
Slide 5,6 – Buffalo	25	-	-	25
Slide 6 - Heart River	12	-	-	12
Slide 5 - Mannville Stack	100+	2	1	100+
Slide 5 – Ellerslie	40+	1	-	40+

	Potential Locations	TIER 1 Booked at Year-end 2022			TIER 2 Booked at Year-end 2022			
		Proved Locations	Probable Locations	Unbooked Locations	Potential Locations	Proved Locations	Probable Locations	Unbooked Locations
South District	23	8	4	11	63	6	4	53
Central District	70	2	1	47	97	0	0	97
North District	28	10	1	17	159	7	0	152
Midale	60	13	9	38	140	0	0	140

Cardinal 2024-2029 Preliminary Plan

Flat pricing assumed through out period

WTI	\$79 USD
WTI-WCS	-\$16.50 USD
AECO	\$2.65/GJ

Non-GAAP and other measures

Throughout this presentation and in other materials disclosed by the Company, Cardinal employs certain measures to analyze its financial performance, financial position, and cash flow. These non-GAAP financial measures, non-GAAP ratios, capital management measures and supplementary financial measures as further described herein are not standardized financial measures under IFRS and may not be comparable to similar financial measures disclosed by other issuers. The non-GAAP and other financial measures should not be considered to be more meaningful than GAAP measures which are determined in accordance with IFRS, such as net earnings (loss), cash flow from operating activities, and cash flow used in investing activities, as indicators of Cardinal's performance. See "Non-GAAP and Other Financial Measures" in the Company's MD&A as at and for the three and nine months ended September 30, 2023 for an explanation of each measure noted below, as well as a detailed calculation and reconciliation to each of their most directly comparable IFRS measure.

Netback

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

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.

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.

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, and capital expenditures. 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.

Future Estimates of Adjusted Funds Flow Forecast, Capital Expenditure Estimate and Free Cash Flow

Future estimates of free cash flow, adjusted funds flow, capital expenditures are forward looking non-GAAP financial measures that are not disclosed by other issuers. Please see "Non-GAAP and Other Financial Measures" in the September 30, 2023 MD&A for an explanation of how such measures provide useful information and for what purposes management uses these measures and a quantitative reconciliation of the historical non-GAAP financial measure to the most similar applicable financial measure. There is no significant difference between the non-GAAP financial measure that are forward-looking information and the equivalent historical non-GAAP financial measures.

Advisory



Netback per boe

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

Net debt to adjusted funds flow ratio

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

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, and capital expenditures on a per boe basis. Adjusted funds flow per boe is calculated using adjusted funds flow divided by total production for the applicable period.

Forward Looking Financial Information

This presentation, including in respect of Company's guidance for 2023 as well as forecasted adjusted funds flow, revenues, capital expenditure and free cash flow may contain future oriented financial information ("FOFI") within the meaning of applicable securities laws. The FOFI has been prepared by management to provide an outlook of the Company's activities and results. The FOFI has been prepared based on a number of assumptions including the assumptions discussed and disclosed above and elsewhere in this presentation, including the slide entitled "Assumptions and Sensitivities". Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on FOFI. The Company's actual results, performance or achievement could differ materially from those expressed in, or implied by, these FOFI, or if any of them do so, what benefits the Company will derive therefrom. The Company has included the FOFI in order to provide readers with a more complete perspective on the Company's future operations and such information may not be appropriate for other purposes. The Company disclaims any intention or obligation to update or revise any FOFI statements, whether as a result of new information, future events or otherwise, except as required by law.

Market, Independent Third Party and Industry Data

Certain market, independent third party and industry data contained in this presentation is based upon information from government or other independent industry publications and reports or based on estimates derived from such publications and reports. Government and industry publications and reports generally indicate that they have obtained their information from sources believed to be reliable, but Cardinal has not conducted its own independent verification of such information. This presentation also includes certain data derived from independent third parties. While Cardinal believes this data to be reliable, market and industry data is subject to variations and cannot be verified with complete certainty due to limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties inherent in any statistical survey. Cardinal has not independently verified any of the data from independent third-party sources referred to in this presentation or ascertained the underlying assumptions relied upon by such sources.