

Goldletter INTERNATIONAL

the international independent information and advice bulletin for gold and related investments

INVESTMENT ALERT – October 29, 2019

www.cardinalresources.com.au



Cardinal Resources Ltd. (A\$ 0.335)

ASX	: CDV
TSX	: CDV
H + L prices (12 months)	: A\$ 0.50 – 0.285
Net shares issued	: 382.5 million
Fully diluted shares	: 493.8 million
Market Capitalization	: A\$ 128.2 million (US\$ 87.5 million)

2020 price target: A\$ 0.90

INVESTMENT ALERT

Feasibility Study confirms Cardinal's Namdini Gold Project, Ghana as a Tier One gold project

On October 28, 2019, **Cardinal Resources** ("Cardinal") announced the results of the **Feasibility Study** ("FS") for the **Namdini Gold Project** in **Ghana, West Africa**.



Highlights are:

- **5.1 million ounces Ore Reserve** (Pre-Feasibility Study (PFS) 4.76 million ounces)
- **421,000 ounces in the first 12 months** (PFS 420,000 ounces); **1.1 million ounces for first 3 years of full production**
- **US\$ 1.46 billion in undiscounted, pre-tax free cash flow forecast with the current life of mine (LOM) plan** of 15 years at US\$ 1,350/oz
- **US\$ 348 million capital expenditure (CAPEX) plus US\$ 542 million contingency** allowed with a robust level of accuracy of +15/-5% (PFS US\$ 414 million total CAPEX; +30/-20% accuracy)
- **CAPEX payback of 21 months at US\$ 1,350/oz** (12 months at \$ 1,500/oz); driven by early higher grades and recoveries, low strip ratio and low costs, within the starter pit
- **Low all-in sustaining costs (AISC) of US\$ 585 during CAPEX payback** (PFS US\$ 599)
- Pit design LOM Strip Ratio (1.9:1); starter pit Strip Ratio of 0.9: 1; LOM pit design based on US\$ 1,235/oz (PFS US\$ 1,105/oz)
- **Financial Model based on US\$ 1,350/oz for 15 years** (PFS US\$ 1,250/oz)
- **4.2 Moz (130 metres tonnes) produced over 15 years** (PFS 3.9 Moz); **AISC US\$ 895/oz** (PFS US\$ 769/oz)
- Achen Process Technology has been adapted to provide economic benefits via operating cost savings; 85% gold recovery during the first three years; 83% gold recovery for current LOM plan
- **Namdini 9.5 Mtpa gold project is based upon a single, large open-pit with a conventional process plant design**; crush ground, float, regrind high shear oxidation (Aachen TM) and carbon in leach (CIL)
- **Namdini Project Net Present Value (NPV) and Internal Rate of Return (IRR) at US\$ 1,350/oz**

► **First gold pour targeted for H2 2022 (subject to financing in H1 2020)**

	Net Present Value (NPV₅)	Internal Rate of Return (IRR)
Pre-tax	US\$914 Million	43.0%
Post-tax	US\$590 Million	33.2%

Cardinal's Board has approved this Feasibility Study and plans to further de-risk the project by commencing the Front End Engineering Design (FEED) programme and further enhancement of the Project Execution Plan (PEP). Early site works and advancement of engineering towards construction, will be funded through **Cardinal's** strong cash position of circa A\$27 million.

* 138.6 Mt @ 1.13 g/t Au; 0.5 g/t cut-off, inclusive of 0.4Moz Proved (7.4 Mt @ 1.31 g/t Au) and 4.7Moz Probable (131.2 Mt @ 1.12 g/t Au); 0.5 g/t Au cut-off.

⊖ Pre-Feasibility Study (PFS) released on ASX / TSX 18th September 2018

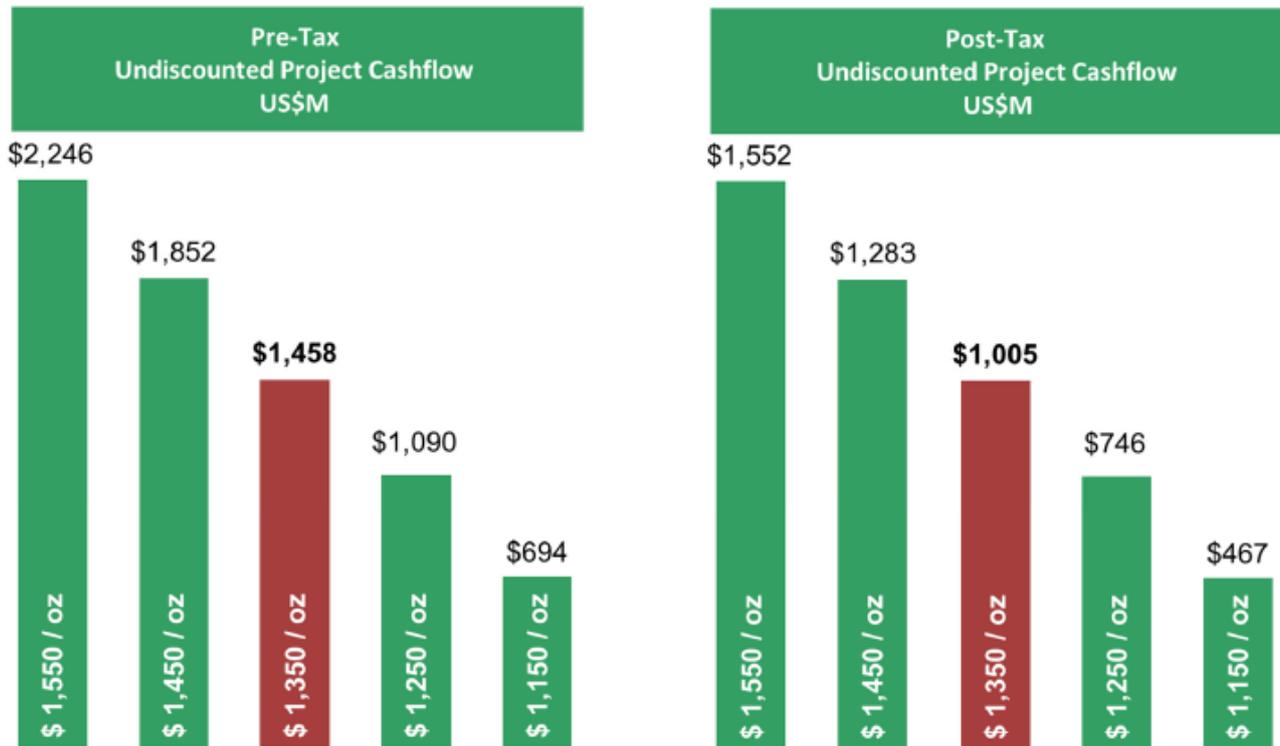
† 129.6 Mt @ 1.14 g/t Au; 0.5 g/t cut-off, inclusive of 4.76 Moz Probable (129.6 Mt @ 1.14 g/t Au); 0.5 g/t Au cut-off.

On October 3, 2019, **Cardinal** advised that a total of approximately 117.4 million of the Listed Options were exercised, being 99.84% of the Listed Options on issue, raising approximately A\$ 17.8 million in cash proceeds.

Per the same date the Company's cash at bank was A\$ 27 million.

Project Sensitivity Analysis

Sensitivity to US\$ Gold Price; Pre and Post-Tax



Capital Cost Estimate

The following Table compares the major Project parameters for the FS with those for the PFS:

Direct	FS (\$US Million) <i>+15/-5% accuracy</i>	PFS (\$US Million) <i>+30/-20% accuracy</i>
Process Plant	230	205
Infrastructure & Utilities	57	76
Sub-total direct	287	281
Indirect	FS (\$US Million)	PFS (\$US Million)
Engineering & Contractors	36	37
Owners costs	25	35
Sub-total indirect	61	72
Contingency	42	61
Total Capital Cost	390	414

Development Timeline

	2019	2020	2020	2021	2021	2022	2022
	Q4	H1	H2	H1	H2	H1	H2
Front End Engineering & Design (FEED)	■						
Construction			■*				
Commissioning					■*		
Gold Production							■*

* The Company's Construction, Commissioning and Gold Production schedules within the development timeline assumes that the Company is fully funded. The actual timelines will depend upon the manner and timing of the Company's financing plans. Dates are therefore indicative only.

Investment comments:

Cardinal's main focus is the flagship **Namdini Gold Project** in **Ghana**, with the completed Feasibility Study confirming Namdini as a Tier one gold project. **Based on the 5.1 million ounces Ore Reserve gold production in the first 12 months will be 421,000 ounces and is calculated at 1.1 million ounces for the first 3 years of full production.**

The resource could generate US\$ 1.45 billion in undiscounted pre-tax free cash flow forecast with the current life of mine plan of 15 years at US\$ 1,350/oz.

With **Ghana** to be considered Africa's highest ranked destination for investing in gold mine, based upon its low comparison valuation, at a current market valuation of US\$ 87.5 million, **Cardinal Resources**, in my view, offers a highly attractive investment opportunity.

With the Company to benefit from a significantly improved gold investment sentiment, my 2020 price target remains A\$ 0.90.