

Condensed Interim Consolidated Financial Statements as at and for the three months ended September 30, 2018

## **DIRECTORS REPORT**

The Directors are pleased to submit their report on Cardinal Resources Limited for the three months ended 30 September 2018.

## **DIRECTORS**

The names of the directors who held office during or since the three months ended 30 September 2018 are:

DIRECTOR	TITLE	DATE OF APPOINTMENT	DATE OF RETIREMENT
Kevin Tomlinson	Non-Executive Chairman	7 November 2016	N/A
Archie Koimtsidis	Managing Director	24 December 2012	N/A
Malik Easah	Executive Director	24 December 2012	N/A
Robert Schafer	Non-Executive Director	10 July 2017	N/A
Michele Muscillo	Non-Executive Director	12 October 2017	N/A
Dr Kenneth G. Thomas	Non-Executive Director	31 October 2018	N/A
Jacques McMullen	Non-Executive Director	12 October 2017	31 October 2018

## **JULY 2018 – SEPTEMBER 2018 REVIEW OF OPERATIONS**

A review of operations of the consolidated entity during the period ended 30 September 2018 is provided in the Management Discussion & Analysis immediately following the consolidated financial statement.

## SUBSEQUENT EVENT

On October 3, 9, 2018 and November 2, 2018, 120,000, 65,900 and 224,000 Listed Options were exercised respectively.

On October 3, 2018, 177,001 fully paid ordinary shares were issued to employees of the Company.

Other than the above there has not been any matter or circumstance that has arisen since balance date that has significantly affected, or may significantly affect, the operations of the consolidated entity, the results of those operations or the state of affairs of the consolidated entity.

## **AUDITOR'S INDEPENDENCE DECLARATION**

A copy of the auditor's independence declaration as required under section 307C of the *Corporations Act 2001* is set out on page 26.

## APPROVED ON BEHALF OF THE BOARD OF DIRECTORS:

The directors of the Group declare that:

- 1. the financial statements and notes, as set out on pages 4 to 24 are in accordance with the Corporations Act 2001 and:
  - (a) comply with Accounting Standard AASB 134 Interim Financial Reporting and the Corporations Regulations 2001; and
  - (b) give a true and fair view of the financial position as at 30 September 2018 and of the performance for the 3 months ended on that date of the Group.
- 2. In the directors' opinion there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The declaration is made in accordance with a meeting of the Board of Directors.

(signed) "Archie Koimtsidis", Director Archie Koimtsidis <u>(signed) "Kevin Tomlinson"</u>, Director Kevin Tomlinson

See accompanying notes to the condensed interim consolidated financial statements.

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# CONDENSED INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As at September 30, 2018 and June 30, 2018 (Unaudited and expressed in Australian Dollars)

		September 30,	June 30,
As at	Note	2018	2018
ASSETS			
Current assets	4 .		
Cash and cash equivalents	13(a)	\$ 35,760,607	\$ 7,303,807
Trade and other receivables	3(a)	1,144,029	980,224
Other assets	3(b)	1,356,146	1,393,434
		38,260,782	9,677,465
Non-current assets			
Plant and equipment	4	520,422	564,149
		520,422	564,149
TOTAL ASSETS		\$ 38,781,204	\$ 10,241,614
Provisions	<u> </u>	74,633 3,932,382	59,958 4,766,976
Trade and other payables Provisions	5	\$ 3,857,749 74,633	\$ 4,707,018 59,958
		3,932,382	4,766,976
Non-current liabilities			
Borrowings	6	32,452,316	<u>-</u>
		32,452,316	-
TOTAL LIABILITIES		\$ 36,384,698	\$ 4,766,976
Shareholders' equity			
Issued capital	7	83,443,056	81,369,056
Reserves	8	6,450,796	6,003,878
Accumulated losses	-	(87,497,347)	(81,898,296)
		\$ 2,396,506	\$ 5,474,638
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		\$ 41,121,886	\$ 10,241,614

# CONDENSED INTERIM CONSOLIDATED STATEMENT OF LOSS AND COMPREHENSIVE LOSS

For the three months ended September 30, 2018 and 2017 (Unaudited and expressed in Australian Dollars)

For the three months ended	Note	Sept	ember 30, 2018	Sept	ember 30, 2017
Revenue	9	\$	14,693	\$	50,996
Operating expenses	10	1-	. 047 727\	,	2.466.746\
Corporate administration expenses  Amortization expenses	10	(2	2,917,737) (85,732)	(	2,466,716) (36,887)
Exploration and evaluation expenses		(2	2,688,805)	(	9,474,793)
Foreign exchange gain/(loss)		,-	78,530	,	(138,704)
Net Loss Income for the period		\$ (5	5,599,051)	\$ (1	2,066,104)
Other comprehensive gain (loss) Items that may be reclassified to profit or loss:					
Unrealized foreign exchange on translation			(129,636)		(405,826)
Comprehensive loss for the period		\$ (5	5,728,687)	\$ (1	2,471,930)
Loss per share, basic and diluted		\$	(1.50)	\$	(3.44)
Weighted average number of common shares outstanding	12	37	4,028,977	35	50,332,250

See accompanying notes to the condensed interim consolidated financial statements.

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# CONDENSED INTERIM CONSOLIDATED STATEMENT OF CASH FLOWS

For the three months ended September 30, 2018 and 2017 (Unaudited and expressed in Australian Dollars)

For the three months ended	Note	September 30, 2018	September 30, 2017
Operating activities			
Expenditure on mineral interests		\$ (3,903,862)	\$ (7,104,344)
Other payments to suppliers and employees		(2,268,180)	(1,525,855)
Interest received		18,137	54,001
Net cash outflow from operating activities	13(b)	(6,153,905)	(8,576,198)
Investing activities			
Purchase of plant and equipment		(43,119)	(85,550)
Net cash outflow from investing activities		(43,119)	(85,550)
Financing activities			
Issue of shares and options net of capital raising costs		76,500	69,990
Proceeds from borrowings net of costs	13(c)	33,921,932	-
Net cash inflow from financing activities		33,998,432	69,990
Increase/(decrease) in cash and cash equivalents		27,801,408	(8,591,758)
Cash and cash equivalents at the beginning of period		7,303,807	28,592,718
Effect of changes in exchange rates on cash		655,392	(138,704)
Cash and cash equivalents, end of period	13(a)	35,760,607	\$ 19,862,256

See accompanying notes to the condensed interim consolidated financial statements.

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# CONDENSED INTERIM CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the three months ended September 30, 2018 and 2017 (Unaudited and expressed in Australian Dollars)

	Share	Options	Foreign	Accumulated	Total
	Capital	Reserve	Exchange Reserve	Loss	Equity
Balance as at July 1, 2018	\$ 81,369,056	\$ 6,744,105	\$ (740,227)	\$ (81,898,296)	\$ 5,474,638
Profit/(loss) for the period	-	-	-	(5,599,051)	(5,599,051)
Other comprehensive income	-	-	(129,636)	-	(129,636)
Total comprehensive income	-	-	(129,636)	(5,599,051)	(5,728,687)
Transactions with owners in their					
capacity as owners					
Options exercised during the period	76,500	-	-	-	76,500
Share based payments	1,997,500	-	-	-	1,997,500
Employee option based payments	-	576,554	-	-	576,554
Balance as at September 30, 2018	\$ 83,443,056	\$ 7,320,659	\$ (869,863)	\$ (87,497,347)	\$ 2,396,506
Balance as at July 1, 2017	\$ 68,628,035	\$ 2,710,589	\$ (232,601)	\$ (44,899,452)	\$ 26,206,571
Profit/(loss) for the period	· · · · · · -	-	=	(12,066,104)	(12,066,104)
Other comprehensive income	-	-	(405,826)	-	(405,826)
Total comprehensive income	-	-	(405,826)	(12,066,104)	(12,471,930)
Transactions with owners in their					
capacity as owners					
Options exercised during the period	69,991	-	=	=	69,991
Employee option based payments	-	1,126,426	=	=	1,126,426
Balance as at September 30, 2017	\$ 68,698,026	\$ 3,837,015	\$ (638,427)	\$ (56,965,556)	\$ 14,931,058

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For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

#### 1. CORPORATE INFORMATION

Cardinal Resources Limited ("Cardinal Resources" or "the Company") is a company limited by shares, incorporated in Australia whose shares are publicly traded on the Australian Securities Exchange ("ASX") and Toronto Stock Exchange ("TSX"). The Company's registered office is Suite 1, 28 Ord Street, West Perth, Western Australia 6005, Australia.

The principal activity of the Company and its controlled entities ("the Group") is mineral exploration in Ghana.

These unaudited condensed interim consolidated financial statements were approved by the board of directors on November 14 2018.

## 2. BASIS OF PRESENTATION

The Company's condensed interim consolidated financial statements have been prepared in accordance with International Accounting Standard 34 Interim Financial Reporting ("IAS 34") as issued by the International Accounting Standards Board ("IASB"). These condensed interim consolidated financial statements do not include all of the disclosures required for annual financial statements and hence should be read in conjunction with the Company's audited annual consolidated financial statements for the year ended June 30, 2018. These condensed interim consolidated financial statements follow the same significant accounting policies as those included in the Company's audited annual consolidated financial statements for the year ended June 30, 2018.

There are a number of new or amended Accounting Standards and Interpretations issued by the IASB that are not yet mandatory. The Company does not plan to adopt these standards early. The Company's assessment of the impact of these new or amended Accounting Standards and Interpretations, most relevant to the Company, are set out below.

The following accounting standard was issued with an effective date of 1 July 2018:

- IFRS 9: Financial Instruments The Board has reviewed the new accounting standard and has assessed that the adoption of the new standard has no impact on the results of the Group for the review period ended 30 September 2018; and
- IFRS 15: Revenue from Contracts with Customers The Board has reviewed the new accounting standard and has assessed that the adoption of the new standard has no impact on the results of the Group for the review period ended 30 September 2018.

Accounting Standards issued by the AASB that are not yet mandatorily applicable to the Group, together with an assessment of the potential impact of such pronouncements on the Group when adopted in future periods, are discussed below:

IFRS 16: Leases (applicable to annual reporting periods beginning on or after 1 July 2019). When effective,
this Standard will replace the current accounting requirements applicable to leases in IAS 17: Leases and
related Interpretations. IFRS 16 introduces a single lessee accounting model that eliminates the requirement
for leases to be classified as operating or finance leases.

The main changes introduced by the new Standard are as follows:

- recognition of a right-of-use asset and lease liability for all leases (excluding short-term leases with a lease term 12 months or less of tenure and leases relating to low-value assets);
- depreciation of right-of-use assets in line with IAS 16: Property, Plant and Equipment in profit or loss and unwinding of the liability in principal and interest components;
- inclusion of variable lease payments that depend on an index or a rate in the initial measurement of the lease liability using the index or rate at the commencement date;

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

- application of a practical expedient to permit a lessee to elect not to separate non-lease components and instead account for all components as a lease; and
- inclusion of additional disclosure requirements.

The transitional provisions of IFRS 16 allow a lessee to either retrospectively apply the Standard to comparatives in line with IAS 8 or recognise the cumulative effect of retrospective application as an adjustment to opening equity on the date of initial application.

#### 3. CURRENT ASSETS

## (a) Trade and other receivables

	September 30,	June 30,
	2018	2018
Government taxes receivable	\$ 1,141,182	\$ 818,752
Interest receivable	2,847	6,292
Other	-	155,180
	\$ 1,144,029	\$ 980,224

GST (a Value-Added-Tax) and income tax amounts are non-interest bearing and have repayment terms applicable under the relevant government authorities. No trade and other receivables are impaired or past due.

# (b) Other assets

	September 30, 2018	June 30,
		2018
Prepayments (i)	\$1,348,321	\$ 1,393,434
Cash deposits	7,825	-
	\$ 1,356,146	\$ 1,393,434

(i) Prepayments include funding of \$4,000,674 to Savannah, a related entity to Director Mr Malik Easah. The purpose of the funding was for use by Savannah to defray the costs of acquisition under agreements entered into by Savannah with holders of small scale licences, which licences are intended ultimately to be effectively acquired by Cardinal as part of the development of the Nandini project. As at the date of this report, \$1,018,521 has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference is considered repaid by Savannah and has been applied toward the development of the mining licence and expensed during the period.

## 4. PLANT AND EQUIPMENT

	Plant and		
	Equipment	Vehicles	Total
Cost			
Balance as at July 1, 2018	1,031,395	384,299	1,415,694
Additions	43,119	-	43,119
Disposals	-	-	-
Foreign exchange movement	(8,338)	(5,976)	(14,314)
Balance as at September 30, 2018	\$ 1,066,176	\$ 378,323	\$ 1,444,499
Balance as at July 1, 2017	832,291	293,668	1,125,959
Additions	226,903	87,984	314,887
Disposals	(2,776)	=	(2,776)
Foreign exchange movement	(25,023)	2,647	(22,376)
Balance as at June 30, 2018	\$ 1,031,395	\$ 384,299	\$ 1,415,694

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

	Plant and		
	Equipment	Vehicles	Total
Accumulated depreciation			
Balance as at July 1, 2018	613,835	237,710	851,545
Depreciation for the period	37,277	48,455	85,732
Disposals	-	-	-
Foreign exchange movement	95,663	(108,863)	(13,200)
Balance as at September 30, 2018	\$ 746,775	\$ 177,302	\$ 924,077
Balance as at July 1, 2017	467,844	192,719	660,563
Depreciation for the period	188,154	29,300	217,454
Disposals	(2,132)	-	(2,132)
Foreign exchange movement	(40,031)	15,691	(24,340)
Balance as at June 30, 2018	\$ 613,835	\$ 237,710	\$ 851,545
Carrying amounts			
As at September 30, 2018	\$ 319,401	\$ 201,021	\$ 520,422
As at June 30, 2018	\$ 417,560	\$ 146,589	\$ 564,149

## 5. TRADE AND OTHER PAYABLES

	September 30,	June 30,
	2018	2018
Trade and other payables (i)	\$ 3,284,965	\$ 3,450,142
Other accrued expenses	572,784	1,256,876
	\$ 3,857,749	\$ 4,707,018

<sup>(</sup>i) Trade payables are unsecured. The carrying amounts of trade and other payables are considered to be the same as their fair values due to their short-term nature.

## 6. BORROWINGS

	September 30,	June 30,
	2018	2018
Secured credit facility	\$ 34,793,000	\$ -
Transaction costs	(2,340,684)	-
	\$ 32,452,316	\$ -

# (i) Secured Credit Facility

The credit facility is secured by Sprott Private Resources Lending (Collector), L.P completed on August 22, 2018. The key terms of the credit facility are as follows:

- Committed loan facility of US\$25 million;
- 30-month repayment term, being 28 February 2021; and
- Interest rate of LIBOR + 7.75%.

The credit facility is secured against assets of Cardinal and its wholly owned subsidiary, Cardinal Namdini Mining Limited.

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

#### (ii) Loan Covenants

Cardinal Resources has complied with the financial covenants of its credit facility during the September 30, 2018 reporting period.

- (i) Under the terms of the credit facility, Cardinal's Working Capital Ratio shall be equal to or greater than 1.20 to 1.00; and
- (ii) The amount of Cardinal's Unrestricted Cash is greater than US\$2,500,000 or if, denominated in AU\$ equivalent to US\$2,500,000.

Cardinal has complied with these covenants throughout the report period.

## 7. ISSUED CAPITAL

## **Ordinary shares**

The Company is authorised to issue an unlimited number of ordinary shares. All issued shares are fully paid and have no par value. Changes in ordinary shares for the three months ended September 30, 2018 and 2017 are as follows:

	Number of Shares	
As at July 1, 2017	350,062,957	\$ 68,628,035
Transactions during the period:		
Shares issued	-	-
Options exercise (ii)	466,602	69,991
Less: transaction costs (iii)	-	-
As at September 30, 2017	350,529,559	\$ 68,698,026
As at July 1, 2018	373,563,580	\$ 81,369,056
Transactions during the period:		
Shares issued (i)	4,250,000	1,997,500
Options exercise (ii)	510,000	76,500
Less: transaction costs (iii)	-	-
As at September 30, 2018	378,323,580	\$ 83,443,056

- (i) The following shares were issued during the three months ended September 30, 2018
  - On August 28, 2018 the Corporation issued 4,250,000 shares to Sprott Private Resources Lending (Collector), L.P as part of the Facility (and is included in transaction costs (Note 6); and
- (ii) Exercise of Listed Options
- (iii) Transactions costs represent the costs of issuing the shares.

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

## 8. RESERVES

Exercise of options

As at September 30, 2018

## (a) Movement in options reserve

	September 30,	September 3
	2018	201
As at the beginning of the period	\$ 6,744,105	\$ 2,710,58
Options granted/expensed during the period	576,554	1,126,42
Options exercised during the period	-	
Total	\$ 7,320,659	\$ 3,837,01
b) Movement in options exercisable at \$0.15 on or k	pefore September 30, 2019  NUMBER OF	
b) Movement in options exercisable at \$0.15 on or b	NUMBER OF	
	NUMBER OF OPTIONS	\$ 468.607
As at July 1, 2017 Transactions during the period:	NUMBER OF	\$ 468,607
As at July 1, 2017	NUMBER OF OPTIONS	\$ 468,607 -
As at July 1, 2017 Transactions during the period:	NUMBER OF OPTIONS 116,149,539	\$ 468,607 - \$ 468,607
As at July 1, 2017 Transactions during the period: Exercise of options	NUMBER OF OPTIONS 116,149,539 (466,602)	-
As at July 1, 2017 Transactions during the period: Exercise of options	NUMBER OF OPTIONS 116,149,539 (466,602)	-

(510,000)

113,619,906

# (c) Movement in unlisted options exercisable at \$0.22 on or before March 18, 2020

	NUMBER OF	
	OPTIONS	
As at July 1, 2017	8,000,000	\$ 736,000
Transactions during the period		
Expiry of options	-	=
As at September 30, 2017	8,000,000	\$ 736,000
A	5 000 000	<b>4</b> 552,000
As at July 1, 2018	6,000,000	\$ 552,000
Transactions during the period		
Expiry of options	-	-
As at September 30, 2018	6,000,000	\$ 552,000

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

# (d) Movement in unlisted milestones options exercisable at \$0.50 on or before April 12, 2022

	NUMBER OF	
	OPTIONS	
As at July 1, 2017	23,500,000	\$ 1,505,982
Transactions during the period:		
Options expensed	-	1,126,426
Cancelled or forfeited	-	-
As at September 30, 2017	23,500,000	\$ 2,632,408
As at July 1, 2018	18,500,000	\$ 3,962,711
Transactions during the period:		
Options expensed	-	332,547
Cancelled or forfeited	-	-
As at September 30, 2018	18,500,000	\$ 4,295,258

# (e) Movement in unlisted milestones options exercisable at \$0.825 on or before December 21, 2022

	NUMBER OF OPTIONS	
As at July 1, 2017	-	\$ -
Transactions during the period:		
Options expensed	-	-
Cancelled or forfeited	-	=
As at September 30, 2017	-	\$ -
As at July 1, 2018	5,758,000	\$ 961,821
Transactions during the period:		
Options expensed	-	123,940
Cancelled or forfeited	-	=
As at September 30, 2018	5,758,000	\$ 1,085,761

# (f) Movement in unlisted milestones options exercisable at \$0.965 on or before December 21, 2022

	NUMBER OF OPTIONS	
As at July 1, 2017	OPTIONS -	\$ -
Transactions during the period:		·
Options expensed	-	-
Cancelled or forfeited	-	-
As at September 30, 2017	-	\$ -
As at July 1, 2018	4,036,000	\$ 287,117
Transactions during the period:		
Options expensed	-	120,067
Cancelled or forfeited	-	=
As at September 30, 2018	4,036,000	\$ 407,184

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

# (g) Movement in unlisted milestones options exercisable at \$0.75 on or before December 21, 2022

As at September 30, 2018	1,000,000	\$ 511,748
Cancelled or forfeited	<u>-</u>	-
Options expensed	-	-
Transactions during the period:		
As at July 1, 2018	1,000,000	\$ 511,748
As at September 30, 2017	-	\$ -
Cancelled or forfeited	<u>-</u>	-
Options expensed	-	-
Transactions during the period:		
As at July 1, 2017	-	\$ -
	NUMBER OF OPTIONS	

The following table shows the movement of listed and unlisted options for the three months ended September 30, 2018 and 2017.

	Number of		ghted erage
	Options	Exercise	Price
Balance as at July 1, 2018	149,424,106	\$	0.25
Options granted	<del>-</del>		-
Options exercised (note 8(b))	(510,000)		0.15
Options forfeited	-		_
Balance as at September 30, 2018	148,914,106	\$	0.18
Balance as at July 1, 2017	147,649,539	\$	0.20
Options granted	-		-
Options exercised (note 8(b))	(466,602)		0.20
Options forfeited	· · · · · · · · · · · · · · · · · · ·		-
Balance as at September 30, 2017	147,182,937	\$	0.20

The table below shows outstanding options as at September 30, 2018 and 2017:

		Outstand	ding	Vest	ed
			Weighted		Weighted
			Average		Average
			Remaining		Remaining
		Number of	Contractual	Number of	Contractual
	<b>Exercise Price</b>	Options	life (days)	Options	life (days)
Sept. 2018	\$ 0.15	113,619,906	347	113,619,906	347
Sept. 2018	\$ 0.22	6,000,000	626	6,000,000	626
Sept. 2018	\$ 0.50	18,500,000	1,381	5,550,000	1,381
Sept. 2018	\$ 0.825	5,758,000	1,634	1,727,400	1,634
Sept. 2018	\$ 0.965	4,036,000	1,634	-	-
Sept. 2018	\$ 0.75	1,000,000	1,634	1,000,000	1,634
Sept. 2017	\$ 0.15	115,682,937	730	115,682,937	730
Sept. 2017	\$ 0.22	8,000,000	900	8,000,000	900
Sept. 2017	\$ 0.50	23,500,000	1,654	-	-

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

## (h) Movement in Performance Shares

	NUMBER OF	
	CLASS A	
	PERFORMANCE	
	SHARES	
As at July 1, 2017	50	\$ -
Transactions during the period:		
Performance Shares issued	-	-
As at September 30, 2017	50	\$ -
As at July 1, 2018	-	\$ _
Transactions during the period:		
Performance Shares issued	<del>-</del>	-
As at September 30, 2018	-	\$ -

General terms attaching to the Performance Shares are set out below. For further details, see the Notice of Meeting dated November 19, 2012.

#### **Class A Performance Shares**

- (a) Performance Shares: Each Class A Performance Share is a share in the capital of the Company.
- (b) Class A Performance Shares shall confer on the holder (the "Holder") the right to receive notices of general meetings and financial reports and accounts of the Company that are circulated to shareholders. Holders have the right to attend general meetings of shareholders of the Company.
- (c) The Class A Performance Shares do not entitle the Holder to vote on any resolutions proposed at a general meeting of shareholders of the Company.
- (d) The Class A Performance Shares do not entitle the Holder to any dividends.
- (e) The Class A Performance Shares are not transferable.
- (f) If at any time the issue capital of the Company is restructured, all rights of a Holder will be changed to the extent necessary to comply with the applicable Listing Rules at the time of reorganisation.
- (g) The Class A Performance Shares will not be quoted on the ASX. However, upon conversion of the Class A Performance Shares into shares, the Company must within 7 days after the conversion, apply for the official quotation of the shares arising from the conversion on the ASX.
- (h) The Class A Performance Shares give the Holders no rights other than those expressly provided by these terms and those provided at law where such rights at law cannot be required by the ASX.
- (i) The shares into which the Class A Performance Shares will convert will rank pari passu in all respects with the other shares on issue.

## Conversion of the Class A Performance Shares

(j) Each Class A Performance Share will convert into 100,000 Shares upon satisfaction of one of the following performance hurdles to the reasonable satisfaction of the Company by no later than 5 years from December 28, 2012:

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

- (i) The establishment of inferred resources (JORC compliant) of at least 1 million ounces of gold within the tenements owned by the Company or any of its subsidiaries comprised of the Ghanaian Projects and DRC Projects,;
- (ii) A project owned by the Company or any of its subsidiaries being comprised by the tenements the subject of all or part of the Ghanaian Projects or DRC Projects, being sold for at least \$25 million in cash or cash equivalent; or
- (iii) A joint venture arrangement being entered into in respect of any tenement or tenements owned by the Company or of any of its subsidiaries and being comprised by all or part of the Ghanaian Projects or DRC Projects resulting in a payment in cash or cash equivalent of the Company of not less than \$25 million.

(with all of the above performance hurdles constituting the "Class A Performance Hurdle")

(k) The Company will issue the Holder with new holding statements for the shares as soon as practicable following the conversion of the Class A Performance Shares into shares.

Ghanaian projects for the Class A Performance Shares was defined by the Notice of Meeting dated 2 October 2012, being the assets owned by Cardinal located in Ghana, being the Bolgatanga Project area (Kungongo, Bongo and Ndongo) and the Subranum Project.

The Directors are currently of the opinion that the vesting conditions are unlikely to be met within 5 years from completion date. As such, no value as been ascribed to the Class A performance shares in the Group's financial statements.

#### Class C Performance Shares

	NUMBER OF		
	CLASS C		
	PERFORMANCE		
	SHARES		
As at July 1, 2017	60	\$	-
Transactions during the period:			
Performance shares issued	-		-
As at September 30, 2017	60	\$	-
As at July 1, 2018	60	\$	-
Transactions during the period:			
Performance shares issued	-		-
As at September 30, 2018	60	\$	-
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On February 17, 2015, 60 performance shares were issued pursuant to the Asset Sale Agreement with Savannah to purchase the highly prospective Ndongo North concession adjacent to the exiting Ndongo area within the Bolgatanga project area in North-East Ghana.

There are 60 Performance Shares (convertible into a maximum of 6,000,000 shares) on issue as at September 30, 2018.

General terms attaching to the Performance Shares are set out below.

The Directors are currently of the opinion that the non-market vesting conditions are unlikely to be met within 5 years from the date of issue. As such, no value as been ascribed to the Performance Shares in the Group's consolidated financial statements.

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

The issue of 60 Performance Shares in the capital of the Company, each of which will convert to 100,000 shares ranking equally with the existing shares in the proportions set out below upon satisfaction of achieving a minimum JORC Inferred Resource of gold ounces within the Ndongo North Concession ("Performance Hurdles") by no later than five years after the date on which the Performance Shares are issued, being February 18, 2015:

Performance Shares	Performance Hurdles (JORC Inferred Au Resource)	Conversion to Ordinary Shares
10	500,000 ounces	1,000,000
5	750,000 ounces	500,000
5	1,000,000 ounces	500,000
5	1,250,000 ounces	500,000
5	1,500,000 ounces	500,000
5	1,750,000 ounces	500,000
5	2,000,000 ounces	500,000
5	2,250,000 ounces	500,000
5	2,500,000 ounces	500,000
5	2,750,000 ounces	500,000
5	3,000,000 ounces	500,000
60		6,000,000

In the event that the Company sells, transfers or otherwise disposes of all or part of the Ndongo North Concession to a third party prior to the issuing of any shares upon conversion of any Performance Shares, Savannah will be entitled to an amount equal to 49% of the sale proceeds less any related selling costs, exploration and mining costs (plus a fixed 30% overhead amount), purchase costs in connection with the acquisition of the Ndongo North Concession, and any other costs incurred with respect to the sale.

#### 9. REVENUE

	September 30,	September 30,
	2018	2017
Interest from financial institutions	\$ 14,693	\$ 50,996

## 10. EXPENSES

(i) Corporate general and administration expenses include the following expenses:

	September 30,	September 30,
	2018	2017
Salaries, fees and leave	\$ 418,134	\$ 283,234
Equity based payments (note 8)	576,554	1,152,825
Defined contribution superannuation expense	23,539	22,891
Accounting, legal and consulting fees	578,399	216,947
Audit fees	9,440	12,231
ASX, TSX and ASIC fees	52,193	209,747
Information technology expenses	21,295	22,457
Interest expense	376,112	-
Insurance expenses	15,262	15,025
Office expense	52,183	-
Promotional and conference expenses	75,011	97,310
Travel expenses	161,891	300,150
Other administration expenses	557,724	133,899
Total	\$ 2,917,737	\$ 2,466,716

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

## 11. KEY MANAGEMENT PERSONNEL

# (a) Compensation of key management personnel

Key management personnel are persons responsible for planning, directing and controlling the activities of an entity, and include certain directors and officers. Key management compensation comprises:

	September 30,	September 30,
	2018	2017
Salaries, fees and leave	\$ 322,126	\$ 301,441
Non-monetary	12,488	4,969
Post-employment benefits – superannuation	-	3,800
Equity based payments	486,678	877,132
	\$ 821,292	\$ 1,187,342

## (b) Other transactions with key management personnel

Tomlinson Consultancy, of which Kevin Tomlinson is a director, provided geological consulting services to the Company. Amounts that have been paid or payable total \$77,406 (2017: \$105,000) for the three months ended September 30, 2018.

HopgoodGanim of which Michele Muscillo, a director, is a partner of, provided legal services to the Company. Amounts that have been paid or payable total \$5,028 (2017: \$0) for the three months ended September 2018.

#### 12. LOSS PER SHARE

	September 30,	September 30,
	2018	2017
Loss attributable to the owners of the Company used in		
calculating basic and diluted loss per share	\$ (5,599,051)	(12,066,104)
Weighted average number of shares on issue during the		
financial year used in the calculation of basic earnings		
per share	374,028,977	350,332,250
Weighted average number of ordinary shares for		
diluted earnings per share	374,028,977	350,332,250

As the Company has a loss for the three months ended September 30, 2018 and 2017, all options on issue are considered anti-dilutive and have not been included in the calculation of diluted earnings per share. These options could potentially dilute basic earnings per share in the future.

## 13. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

## (a) Reconciliation of cash and cash equivalents

For the purposes of the Consolidated Statement of Cash Flows, cash and cash equivalents consist of cash at bank and in hand and short-term deposits with an original maturity of three months or less, net of outstanding bank overdrafts.

	September 30,	September 30,	
	2018	2017	
Current – cash at bank	\$ 35,741,921	\$ 10,018,325	
Term deposits	18,686	9,843,931	
	\$ 35,760,607	\$ 19,862,256	

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

# (b) Reconciliation of loss after tax to net cash flows from operations

	September 30, 2018	September 30, 2017
Loss after income tax	\$ (5,599,051)	\$ (12,066,104)
Non-cash flows in profit:		
Depreciation expense	85,732	36,887
Share based payments	576,554	1,126,426
Borrowing costs	167,191	-
Foreign exchange movement	(236,781)	(365,037)
Changes in assets and liabilities:		
Increase in trade and other receivables	(67,359)	68,296
(Increase)/decrease in prepayments	169,709	64,805
Increase/(decrease) in trade and other payables	(1,097,754)	2,541,136
Increase/(decrease) in provisions	14,675	16,393
	\$ (6,153,905)	\$ (8,576,198)

## (c) Reconciliation of cash and non-cash movements in liabilities arising from financing activities

			Non-	Non-Cash Changes			
	June 30, 2018	Cashflows	Transaction Costs	Foreign Exchange Movement	Interest	September 30, 2018	
	\$	\$	\$	\$	\$	\$	
Borrowings	-	33,921,932	(2,136,653)	478,017	189,020	32,452,316	
Total liabilities from financing liabilities	-	33,921,932	(2,136,653)	478,017	189,020	32,452,316	

## 14. COMMITMENTS AND CONTINGENCIES

## (a) Commitment

# Mineral exploration commitment

In order to maintain the current rights of tenure to exploration tenements, the Company has the following discretionary exploration expenditure requirements.

	September 30,	June 30,	
	2018	2018	
Not later than one year	\$ 138,416	135,366	
Later than one year but not later than two years	138,480	135,366	
	\$ 276,896	\$ 270,732	

## (b) Contingent liabilities and commitments

The Company consists of five wholly owned subsidiaries, the main activities of which are exploration. The effect of these subsidiaries is to make the Cardinal Resources owned subsidiaries contractually responsible for any transactions undertaken by the subsidiary. The parent entity has provided certain guarantees to third parties whereby certain liabilities of the subsidiary are guaranteed.

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

	September 30,	June 30,	
	2018	2018	
Not later than one year	\$ 100,646	385,329	
Later than one year but not later than two years	-	147,340	
	\$ 100,646	\$ 523,669	

The Corporation has commitments in respect to the use of an office premises in Perth, Western Australia, for \$5,300 per month, the lease is for three years from 30 September 2018.

The Corporation has commitments in respect to the use of an office outside of Australia, for C\$2,925 per month until 31 March 2019.

Cardinal Resources Subranum Limited will be required to pay Newmont Ghana Gold Limited US\$50,000 per annum from the date which Cardinal Resources Subranum Limited reports a "gold resource estimate" of 1Moz of gold. Subject to the grant of a Mining Lease under the 2006 Mining Act, Cardinal Resources Subranum Limited will be required to pay Newmont Ghana Gold Limited a 2% net smelter royalty.

Cardinal Namdini Mining Limited (Cardinal Namdini), entered into a Net Smelter Royalty Deed ("Royalty Deed") in January 2018, whereby Cardinal Namdini will pay to Savannah Mining Limited ("Savannah") a net smelter return royalty ("Royalty") equal to:

- (a) 4% of the Net Smelter Return on the first 50,000 ounces of Specified Minerals (as defined in the Royalty Deed) produced within each small-scale license which was purchased by Savannah within the Large Scale Mining License (as defined in the Royalty Deed); and
- (b) A 2% Net Smelter Return, effective from production of the 50,001 ounces of Specified Minerals produced within each small-scale licence which was purchased by Savannah within the Large Scale Mining License.

Cardinal entered into a definitive agreement with Kinross Gold Group subsidiary Red Back Mining Ghana Limited (Red Back) in 2017 to acquire 100% ownership of two large scale prospecting licences located in North East Ghana. Cardinal has entered into a Royalty Agreement with Red Back, whereby Cardinal shall pay to Red back a 1% net

smelter return royalty on any minerals produced from the properties.

## 15. FINANCIAL INSTRUMENTS

## (a) Interest rate risk

The Group's exposure to interest rate risk, which is the risk that the financial instrument's value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rates on those financial assets and financial liabilities, is as follows:

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

	Note	Floating interest rate	Fixed interest rate	Non- interest bearing	Total	Weighted average interest rate
September 30, 2018		\$	\$	\$	\$	%
Financial assets						
Cash and cash equivalents	13 (a)	34,776,506	18,686	965,415	35,760,607	0.20%
Trade and other receivables	3 (a)	-	-	1,144,029	1,144,029	-
Cash deposits	3 (b)	-	-	7,825	7,825	-
		34,766,506	18,686	2,117,269	36,912,461	-
Financial liabilities						
Trade and other payables	5	-	-	3,857,749	3,857,749	-
Borrowings	6	32,452,316	-	-	32,452,316	10.08%
		32,452,316	-	3,857,749	36,310,065	-

	Note	Floating interest rate	Fixed interest rate	Non- interest bearing	Total	Weighted average interest rate
June 30, 2018		\$	Ş	\$	Ş	%
Financial assets						
Cash and cash equivalents	13 (a)	4,465,327	18,686	2,819,794	7,303,807	0.76%
Trade and other receivables	3 (a)	-	-	980,224	980,224	-
Cash deposits	3 (b)	_	-	-	-	-
		4,465,327	18,686	3,800,018	8,284,031	-
Financial liabilities						
Trade and other payables	5	-	-	3,746,767	3,746,767	-
		-	-	3,746,767	3,746,767	-

Based on the balances as at September 30, 2018, a 1% movement in interest rates would increase/decrease the loss for the year before taxation by \$28,980 (June 30, 2018: \$3,721).

## (b) Credit risk

The maximum exposure to credit risk, excluding the value of any collateral or other security, at the statement of financial position date to recognised financial assets is the carrying amount of those assets, net of any allowance for doubtful debts, as disclosed in the statement of financial position and notes to the financial report.

The Group does not have any material credit risk exposure to any single debtor or group of debtors under financial instruments entered into by the Group.

To manage credit risk from cash and cash equivalents, it is the Group's policy to only deposit with banks maintaining a minimum independent rating of 'AA'.

## (c) Net fair values

The carrying amount of financial assets and financial liabilities recorded in the consolidated financial statements represents their respective net fair value and is determined in accordance with the accounting policies disclosed in note 2 to the financial statements.

The group did not measure and recognise any financial assets or financial liabilities at fair value at September 30, 2017 and 2018 on a recurring basis

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

## (d) Financial risk management

The Group's financial instruments consist mainly of deposits with recognised banks, investment in term deposits up to 90 days, accounts receivable and accounts payable. Liquidity is managed, when sufficient funds are available, by holding sufficient funds in a current account to service current obligations and surplus funds invested in term deposits. The directors analyse interest rate exposure and evaluate treasury management strategies in the context of the most recent economic conditions and forecasts. The main risks the Group is exposed to through its financial instruments are the depository banking institution itself, holding the funds, and interest rates. The Group's credit risk is minimal as being an exploration company, it has no significant financial assets other than cash and term deposits.

## (e) Foreign currency risk

Exposure to foreign exchange risk may result in the fair value or future cash flows of a financial instrument to fluctuate due to movements in foreign exchange rates of currencies, in which the Group holds financial instruments, which are other than the AUD functional currency of the Group.

The following table shows the foreign currency risk on the financial assets and liabilities of the Group's operations, denominated in currencies other than the functional currency of the operations. The foreign currency risk of the parent entity is considered immaterial and is therefore not shown.

September 30, 2018	Net Financial Assets/(Liabilities) In AUD					
	AUD USD GHS Total AU					
Australian dollar	-	(8,329,276)	101,069	8,228,207		
GHS New Cedi	-	-	-	=		
Statement of financial position exposure	-	(8,329,276)	101,069	8,228,207		

June 30, 2018	Net Financial Assets/(Liabilities) In AUD						
	AUD	USD	GHS	CAD	<b>Total AUD</b>		
Australian dollar	3,843,939	374,412	(523,034)	(138,276)	3,557,040		
GHS New Cedi	=	-	-		-		
Statement of financial							
position exposure	3,843,939	374,412	(523,034)	(138,276)	3,557,040		

Based on the statement of exposure as at September 30, 2018, a 1% movement in foreign exchange rates would increase/decrease the loss for the year before taxation by \$115,290 (June 30, 2018: \$3,585).

## (f) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity risk is to ensure, as far as possible, that it will maintain cash or credit terms with its suppliers to meet the operating requirements of the business and invest excess funds in highly liquid short term cash deposits, Maintaining surplus working capital in highly liquid short term deposits allows the Group to meet its primary objectives by being able to fund new development and acquisition opportunities at short notice.

The responsibility for liquidity risk rests with the Board of Directors. The Group's liquidity needs can likely be met through cash on hand, short and long term borrowings subject to the current forecast operating parameters being met.

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

## (g) Borrowings

Loans and borrowings are initially recognised at the fair value of the consideration received, net of transaction costs. They are subsequently measured at amortised costs using the effective interest method.

Where there is an unconditional right to defer settlement of the liability for at least 12 months after the reporting date, the loans or borrowings are classified as non-current.

The contractual maturities of the Group's financial liabilities are as follows:

	September 30,	June 30,		
	2018	2018		
Within one month:				
Trade and other payables	\$ 3,857,749	\$ 3,746,767		
Later than one month and no later than one year:				
Trade and other payables	-	-		
	\$ 3,857,749	\$ 3,746,767		

Contractual maturities of	Less	6 – 12	Between	Between 2	Over 5	Total	Carrying amount	
financial liabilities	than 6 months	months	1 and 2 vears	and 5 vears	years	contractual cash flows	(assets)/liabilities	
As at 30 September 2018	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	
Non-derivatives								
Trade payables	-	-	-	-	-	-	=	
Borrowing	-	-	-	32,452,316	-	-	32,452,316	
Total non-derivatives	-	-	-	32,452,316	-	-	32,452,316	

#### 16. RELATED PARTY TRANSACTIONS

The Company had transactions during the three months ended September 30, 2018 with related parties consisting of directors, officers and companies with common directors and/or officers:

# Namdini Gold Project

Cardinal Resources Limited has provided funding of \$4,000,674 to Savannah, a related entity to Director Mr Malik Easah. The purpose of the funding was for use by Savannah to defray the costs of acquisition under agreements entered into by Savannah with holders of small scale licences, which licences are intended ultimately to be effectively acquired by Cardinal as part of the development of the Nandini project. As at the date of this report, \$1,018,521 has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference is considered repaid by Savannah and has been applied toward the development of the mining licence and expensed during the period.

## Consulting Agreement

Tomlinson Consultancy, of which Kevin Tomlinson is a director, provided geological consulting services to the Company. Amounts that have been paid or payable total \$77,406 (2017: \$105,000) for the three months ended September 30, 2018.

HopgoodGanim of which Michele Muscillo, a director, is a partner of, provided legal services to the Company. Amounts that have been paid or payable total \$5,028 (2017: \$0) for the three months ended September 2018.

For the three months ended September 30, 2018 and 2017 (Expressed in Australian Dollars)

## 17. SEGMENT REPORTING

For management purposes, the Group is organised into one main operating segment, which involves the exploration of minerals in Ghana. All of the Group's activities are interrelated, and discrete financial information is reported to the Board as a single segment. Accordingly, all significant operating decisions are based upon analysis of the Group as one segment.

The financial results from this segment are equivalent to the financial statements of the Group as a whole.

The accounting policies applied for internal reporting purposes are consistent with those applied in the preparation of these consolidated financial statements.

## 18. SUBSEQUENT EVENT

On October 3, 9, 2018 and November 2, 2018, 120,000, 65,900 and 224,000 Listed Options were exercised respectively.

On October 3, 2018, 177,001 fully paid ordinary shares were issued to employees of the Company.

Other than the above there has not been any matter or circumstance that has arisen since balance date that has significantly affected, or may significantly affect, the operations of the consolidated entity, the results of those operations or the state of affairs of the consolidated entity.



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# DECLARATION OF INDEPENDENCE BY JARRAD PRUE TO THE DIRECTORS OF CARDINAL RESOURCES LIMITED

As lead auditor for the review of Cardinal Resources Limited for the three months ended 30 September 2018, I declare that, to the best of my knowledge and belief, there have been:

- 1. No contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the review; and
- 2. No contraventions of any applicable code of professional conduct in relation to the review.

This declaration is in respect of Cardinal Resources Limited and the entities it controlled during the period.

Jarrad Prue

Director

BDO Audit (WA) Pty Ltd

Perth, 14 November 2018



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## INDEPENDENT AUDITOR'S REVIEW REPORT

To the members of Cardinal Resources Limited

# Report on the Interim Financial Report

## Conclusion

We have reviewed the interim financial report of Cardinal Resources Limited (the Company) and its subsidiaries (the Group), which comprises the condensed interim statement of financial position as at 30 September 2018 the condensed interim statement of profit or loss and other comprehensive income, the condensed interim statement of changes in equity and the condensed interim statement of cash flows for the three months ended on that date, and notes comprising a statement of accounting policies and other explanatory information, and the directors' declaration.

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the interim financial report of the Group is not in accordance with the Corporations Act 2001 including:

- (i) Giving a true and fair view of the Group's financial position as at 30 September 2018 and of its financial performance for the three months ended on that date; and
- (ii) Complying with Accounting Standard IAS 34 Interim Financial Reporting and the Corporations Regulations 2001.

Directors' responsibility for the Interim Financial Report

The directors of the company are responsible for the preparation of the interim financial report that gives a true and fair view in accordance with International Financial Reporting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the interim financial report that is free from material misstatement, whether due to fraud or error.

## Auditor's responsibility

Our responsibility is to express a conclusion on the interim financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410 Review of a Financial Report Performed by the Independent Auditor of the Entity, in order to state whether, on the basis of the procedures described, we have become aware of any matter that makes us believe that the interim financial report is not in accordance with the Corporations Act 2001 including giving a true and fair view of the Group's financial position as at 30 September 2018 and its financial performance for the three months ended on that date and complying with Accounting Standard IAS 34 Interim Financial Reporting and the Corporations Regulations 2001. As the auditor of the Group, ASRE 2410 requires that we comply with the ethical requirements relevant to the audit of the annual financial report.



A review of an interim financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Financial Reporting Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

# Independence

In conducting our review, we have complied with the independence requirements of International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA code), together with the ethical requirements that are relevant to our review of the financial statements in Australia. We confirm that the independence declaration, which has been given to the directors of the Group, would be in the same terms if given to the directors as at the time of this auditor's review report.

BDO Audit (WA) Pty Ltd

Jarrad Prue

Director

Perth, 14 November 2018



("Cardinal" or the "Company")

# MANAGEMENT'S DISCUSSION AND ANALYSIS For the three months ended September 30, 2018

#### **GENERAL**

This Management's Discussion and Analysis ("MD&A") supplements, but does not form part of the unaudited condensed interim consolidated financial statements of the Company for the three months ended September 30, 2018. The following information, prepared as of November 14, 2018, should be read in conjunction with the Company's unaudited condensed interim consolidated financial statements for the three months ended September 30, 2018 and the audited consolidated audited financial statements for the year ended June 30, 2018. The Company reports its financial position, results of operations and cash flows in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All amounts are expressed in Australian dollars unless otherwise indicated.

Additional information relevant to the Company's activities can be found on SEDAR at www.sedar.com.

Cardinal's shares are listed on the Australian Securities Exchange ("ASX") and Toronto Stock Exchange ("TSX") under the symbol "CDV", while its listed stock options (warrants) are listed on the ASX under the symbol "CDVOA"

## FORWARD LOOKING INFORMATION

This MD&A may contain "forward-looking information" under applicable Canadian securities laws that reflects the Company's current expectations and projections about its future results. When used in this MD&A, words such as "will", "may", "should", "estimate", "intend", "expect", "anticipate" and similar expressions are intended to identify forward-looking information, which, by its very nature, is not a guarantee of the Company's future operational or financial performance.

Forward-looking information includes statements that are not historical facts and includes but is not limited to:

Estimates and their underlying assumptions;

- A. Statements regarding plans, objectives and expectations with respect to the effectiveness of the Company's business model, future operations, the impact of regulatory initiatives on the Company's operations and market opportunities;
- B. General industry and macroeconomic growth rates;
- C. Expectations related to possible joint or strategic ventures; and
- D. Statements regarding future performance.

Forward-looking information used in this MD&A is subject to various known and unknown risks, uncertainties and other factors, most of which are difficult to predict and generally beyond the control of the Company. These risks, uncertainties and other factors may include, but are not limited to, unavailability of financing, failure to identify commercially viable mineral reserves, fluctuations in the market valuation for commodities, difficulties in obtaining required approvals for the development of a mineral project, and other factors.

With respect to forward-looking information contained in this MD&A, the Company has made assumptions.



Readers are cautioned not to place undue reliance on forward-looking information, which speaks only as of the date of this MD&A or as of the date otherwise specifically indicated herein. Due to risks, uncertainties and other factors, including the risks, uncertainties and other factors identified above and elsewhere in this MD&A, actual events may differ materially from those anticipated in such forward-looking information. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by securities law.

#### **DESCRIPTION OF BUSINESS**

The principal activity of the Company (and its subsidiaries) is gold exploration and mine development in Ghana. The Company holds interests in five tenements prospective for gold mineralization in Ghana in two NE-SW trending Paleo-Proterozoic granite-greenstone belts: the Bolgatanga Project and the Namdini Gold Project ("Namdini Gold Project" or "Namdini"), which are, respectively, located within the Nangodi and Bole-Bolgatanga Greenstone Belts in northeast Ghana and the Subranum Project, which is located within the Sefwi Greenstone Belt in southwest Ghana.

The main focus of activity is the Namdini Gold Project which has a maiden Probable Ore Reserve of **129.6 Mt** grading **1.14 g/t Au** for **4.76 Moz Au** at a 0.5 g/t Au cut-off grade. The map below shows the location of the Namdini Gold Project and the Company's other properties in Ghana.

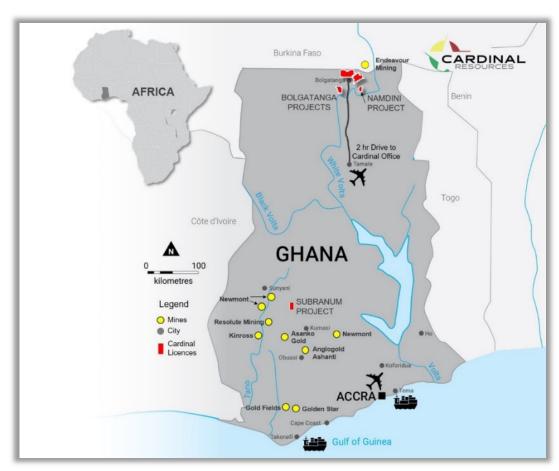


Figure 1: Cardinal Resources Tenements in Ghana



#### HIGHLIGHTS DURING THE QUARTER

- On September 28, 2018 the Company released its annual report on activities for the financial year of 2017/2018. The financial year has seen the expansion in the Namdini Mineral Resource through infill drill programmes, Maiden Ore Reserve and initial success in greenfield exploration.
- On September 18, 2018 the Company announced the completion of the Namdini Gold Project Pre-Feasibility Report ("PFS") with a maiden Probable Ore Reserve of 4.76 Moz at a 0.5 g/t Au cut-off grade.
- On August 29, 2018 the Company announced extensions to the Ndongo East Discovery strike length from approximately 400m to 1.2km. Additional shallow gold intersections to the exploration drill results previously announced on July 16, 2018, were located at the new Ndongo East Discovery on the Ndongo License area.
- On July 31, 2018, the Company announced that it had received investment committee approval from and executed a term sheet with Sprott Private Resource Lending (Collector), L.P. ("Sprott") to be provided with a US\$25 million senior secured credit facility ("Facility") maturing February 28, 2021. The Facility was subject to mutually satisfactory documentation and other customary conditions precedent, which were competed on August 22, 2018. In connection with the completion of the Facility, the Company issued 4,250,000 ordinary shares to Sprott. The Facility provided working capital and funding to complete the PFS and will continue to fund completion of a definitive feasibility study for Namdini in 2019. Key terms of the Facility include:
  - Committed loan facility for US\$25 million funded on the closing date
  - o 30-month repayment term
  - o Interest rate of LIBOR + 7.75%
  - Early repayment flexibility
  - The Facility is secured against assets of Cardinal and its wholly owned subsidiary, Cardinal Namdini Mining Limited.
- On July 16, 2018 the Company announced that it had intersected further gold mineralization at a new discovery named Ndongo East on its 100% owned Ndongo License, located approximately 20 km north of the Company's flagship Namdini Gold Project which has a 6.5 Moz Indicated Mineral Resource (Figure 3).

## SUBSEQUENT TO THE QUARTER END

On October 31, 2018, the Company announced the appointment of Jon Grygorcewicz as Chief Financial Officer of Cardinal. Mr Grygorcewicz brings 30 years financial management experience, gained in senior financial management positions on the Australian Securities Exchange (ASX) and Singapore Exchange Limited (SGX).

Jon has significant experience in implementing new debt facilities with Australian and international banks for developing gold and iron ore resource projects particularly to de-risk projects in the early start-up development phase.

Mr. Grygorcewicz replaced Derrick Weyrauch, who stepped down as CFO to focus on his other commitments.



#### **OUTLOOK**

The principal activity of the Company (and its subsidiaries) is gold exploration in Ghana. The main focus of activity is the development of the Namdini Gold Project. The Namdini Gold Project is located in Ghana, a jurisdiction with a long history of mining, and stable political system. Ghana is home to several junior, intermediate and senior mining companies and Ghana has an established mining and tax regime in place that provides a clear framework for advancing projects.

Development work includes progressing all necessary permits and design study phases required to construct and commission a fully operational mine.

Further evaluations and trade-offs in relation to mine scheduling, plant design and costings have been initiated to support the definitive feasibility study ("FS") stage.

Diamond ("**DD**"), Reverse Circulation ("**RC**") and Auger drilling is also planned for Cardinal's regional tenements in the Bolgatanga area which consist of the Ndongo Prospect, the Kungongo Prospect and the Bongo Prospect. Detailed ground Geophysical surveys have also been in progress at these tenements.

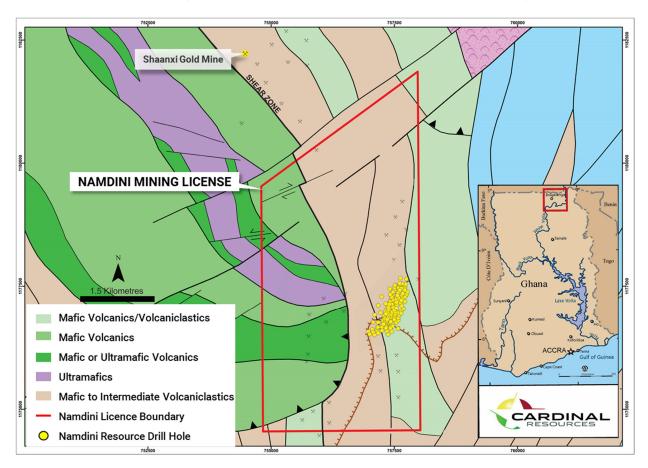
Drill results from the Subranum Project located in the southwest of Ghana, are pending and depending on the results, further work is anticipated to enhance value to this prospect.



## THE NAMDINI GOLD PROJECT

## **Property Title**

During the December 2017 quarter, a Large-Scale Mining Licence covering the Namdini Mining Lease was assigned to Cardinal Namdini Mining Limited ("Cardinal Namdini"), a wholly owned subsidiary of Cardinal, by the Minister of Lands and Natural Resources under the Ghanaian Minerals and Mining Act 2006 (Act 703). The Large-Scale Mining Licence, which covers 19.54 km2 in the Dakoto area of the Talensi District Assembly in Upper East Region of Ghana evidenced by a Mining Lease is for an initial period of 15 years and is renewable (Figure 2).



**Figure 2 Namdini Project Proximity Map** 



#### **Mineral Resources and Ore Reserves**

In March 2018, Cardinal released an updated Mineral Resource estimate for its Namdini Gold Project in Ghana, West Africa which incorporates the results from the latest infill drilling program completed in Q4 of 2017 totaling approximately 15,684m in 35 drill holes. The primary aim of the drilling program was to infill the deposit within the conceptual pit to focus on converting the remaining Inferred Mineral Resources to the Indicated category.

Lower cut-off grade (Au g/t)	Million Tonnes (Mt)	Average Grade (Au g/t)	Million Ounces (Au Moz)				
	Indicated Mineral Resources						
0.4	210	1.0	6.9				
0.5	180	1.1	6.5				
0.6	152	1.2	6.0				
Inferred Mineral Resources							
0.4	15	1.1	0.6				
0.5	13	1.2	0.5				
0.6	11	1.4	0.5				

Table 1: March 2018 MPR MIK NI43-101 and JORC 2012 compliant Mineral Resource estimate

#### **Notes**

- 1. JORC (2012) Code was followed for the Mineral Resources. MPR has reconciled the Mineral Resources to CIM Definition Standards (2014) and there are no material differences.
- 2. Mineral Resources are estimated at a cut-off grade of 0.5 g/t Au constrained by a preliminary pit shell.
- 3. Incorporates drill holes completed as of February 2018.
- 4. Numbers may not add due to rounding.

The table above (Table 1) highlights Mineral Resource estimations at a series of cut-off grades. Currently, the 0.5 g/t Au cut-off grade approximates to an operational parameter that the Company believes to be applicable. This is in accordance with the guidelines of Reasonable Prospects for Eventual Economic Extraction ("RPEEE") per the Canadian Institute of Mining, Metallurgy and Petroleum "CIM Definition Standards for Mineral Resources and Mineral Reserves" (CIM, 2014) and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code 2012).

Lower cut-off grade (Au g/t)	Million Tonnes (Mt)	Average Grade (Au g/t)	Million Ounces (Au Moz)			
Probable Ore Reserve						
0.5	129.6	1.14	4.76			

Table 2: September 2018 CIM 2014 and JORC 2012 compliant Maiden Ore Reserve estimate

#### **Notes**

- The term 'Ore Reserve' is synonymous with the term 'Mineral Reserve' as used by Canadian National Instrument 43-101
  'Standards of Disclosure for Mineral Projects' (NI 43-101, 2014) and conforms with CIM (2014). The JORC Code (2012) is
  defined as an 'acceptable foreign code' under NI 43-101.
- 2. The PFS referred to in this announcement is based upon a Probable Ore Reserve derived from Indicated Mineral Resources. No Inferred Mineral Resources have been included in the estimation of Ore Reserves. The Company advises that the Probable Ore Reserve provides 100% of the total tonnage and 100% of the total gold metal underpinning the forecast production target and financial projections. No Inferred Mineral Resource material is included in the Life of Mine plan.
- 3. Mineral Resources are estimated at a cut-off grade of 0.5 g/t Au constrained by a preliminary pit shell.
- 4. Incorporates drill holes completed as of February 2018.
- 5. Numbers may not add due to rounding.



This Ore Reserve estimate is based on the revised Mineral Resource model referred to in the press release by Cardinal to the ASX and TSX, dated March 5, 2018 titled 'Cardinal Upgrades Indicated Mineral Resource to 6.5 Moz' (Cardinal, 2018). Golder provided an estimate of mining, including haulage, drill and blast, rehabilitation and administration costs. Lycopodium provided processing cost estimates.

The Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and considering material and relevant modifying factors including mining, processing, infrastructure, environmental, legal, social and commercial factors. The Probable Ore Reserve estimate is based on Indicated Mineral Resources. No Inferred Mineral Resource was included in the Ore Reserve. The Ore Reserve represents the economically mineable part of the Indicated Mineral Resources. There is no Proved Ore Reserve since no Measured Mineral Resource has yet been defined.

## **Project Development Activities**

Cardinal is progressing with its feasibility study programme to further advance the Namdini Gold Project. This consists of continuing with previously selected and newly selected consultants to assist with the phased development of the Namdini Gold Project. The consultants and their roles are tabulated below (Table 3):

COMPANY	ROLE
Lycopodium Limited	Study Managers. Process plant and associated infrastructure. Capital and Operating cost estimation and input into the NI 43-101 reports
Golder Associates Pty Ltd	Mine planning and Whittle Optimisation. Pit design and mine scheduling. Geotechnical, Hydrology and Hydrogeology engineering. Responsible for the compilation of the NI 43-101 reports
Orway Minerals Consultants	Comminution data analysis and crushing and grinding circuit option study
ALS Laboratory (Perth)	Metallurgical testwork to support the process design and criteria
Knight Piésold Consulting	Tailings Storage Facility and associated infrastructure design
Independent Metallurgical Operations Pty Ltd	Metallurgical testwork analysis and process flowsheet development
MPR Geological Consultants Pty Ltd	Mineral Resource Modelling of the Namdini Deposit
Orefind Pty Ltd	Geology and deposit structural genesis
Intermine Engineering Consults Pty Ltd	Mine Schedule Optimisation
NEMAS Consult Pty Ltd	Environmental Impact Assessment Study

Table 3: Study Team



#### **Project Development Timeline**

The following preliminary schedule (Table 4) is subject to available funding, positive outcomes for the PFS and FS and favorable timelines for permitting;

Milestone	Target Timeline
Completion of PFS (Completed)	Q3 2018
Completion of FS	Q3 2019
Final Investment Decision	Q4 2019
Target Production Commencement	H1 2022

**Table 4: Namdini Gold Project Development Timeline** 

The in-situ deposit Mineral Resource model is the basis for the mining model used for the Starter Pit and life of mine ("**LOM**") pit planning and assessment reporting. The Mineral Resource model has cell dimensions of 12.5m (east) by 25m (north) by 5m (elevation). The MIK adjustment assumes a moderately selective mining unit (SMU) of 10 m x 5 m x 2.5 m, which has been applied to Namdini's large-tonnage, disseminated deposit.

A gold cut-off grade of 0.5 g/t Au (the "**Cut-off Grade**") was applied to the mineralised material. Process costs and mining costs were supplied by independent consultants and compared with similar gold projects. Gold grades were supplied with the model as estimated proportional grades using the MIK recoverable resource estimation technique.

Metallurgical test work was used to estimate the recoverable fraction from the Oxide, Transition and Fresh ore components, with gold grade and proportion of the block at varying MIK cut-off points coded in the block model.

Using the identified marginal Cut-off Grade, the proportion of ore per parcel and gold grade above the Cut-off Grade were included within the mining model to allow export of the parcelled (ore + waste) blocks to the pit optimiser for open pit optimisation.

No consideration has been made for underground extensions of the operation in this PFS study. A minimum mining width of 60m was assumed. Mining dilution and recovery are addressed in the modelling method (MIK with variance adjustment) and the utilization of flitch mining. No Inferred Mineral Resources have been included for the PFS within the LOM planning. Mining Infrastructure requirements were assumed to be provided by the selected mining contractor with the mining performed on an outsourced basis.

Further studies are being conducted on HV power supply which include back-up power and alternative power supply opportunities. This includes assessment of the current power generation capabilities through grid connection and an independent power generation solution on the basis of an independent power producer (IPP) or build own operate transfer (BOOT) type contract structure. The first option is a total independent heavy fuel oil (HFO), Solar Photovoltaic (PV) and Battery energy storage hybrid system and the second option is a Solar PV and battery system with grid connection.

In support of the mine design, Golder has carried out a study of existing geotechnical information, reviewed information on Mineral Resource estimates, conducted a site visit and gathered detailed core logging data from specific geotechnically targeted drill locations within the project area. The life-of-mine pit design considers slope performance based on models developed from laboratory results of sampled drill core. The report presented feasibility-level slope designs based on data collected in the field and reports made available by Cardinal.



A hydrogeological fieldwork programme was undertaken comprising a hydro-census of surrounding properties to identify groundwater users. Groundwater exploration drilling of five pairs of boreholes converted to deep and shallow monitoring wells was completed. Characterisation of groundwater quality by sampling and laboratory analysis, groundwater monitoring and hydraulic testing was completed. Development of a conceptual model for assessment of pit inflows, potential impacts on mine dewatering on local, plus regional groundwater and surface water systems, has been completed in support of the mine design.

A hydrology programme including the development of a stormwater plan and overall site water balance was also completed. Hydrological design criteria are being developed, largely based on International Finance Corporation ("IFC") requirements.

An EIS for Namdini was filed with the Environmental Protection Agency ("EPA") in 2017. In accordance with EPA Regulations 15(1b) and (1c) of the Environmental Assessment Regulations, 1999 (LI 1652) and Ghana's Environmental Impact Assessment (EIA) Procedures, the EPA issued a public notification on the proposed Namdini Gold Mining Project. Cardinal will submit to the Minerals Commission an updated EIS and an application for an Operating Permit for the project scale envisioned in the PFS.

The proposed mine plan is technically achievable. All technical proposals made for the operational phase involve the application of conventional technology that is widely utilized in the gold industry. Financial modelling completed as part of the PFS shows that the Project is economically viable under current assumptions. Modifying Factors (mining, processing, infrastructure, environmental, legal, social and commercial) were considered during the Ore Reserve estimation process. The PFS incorporates a number of factors and assumptions as outlined in the sections below.

The financial model was completed as a real discounted model. A LOM financial analysis was performed using the discounted cash flow (DCF) method and varying real discount rates. The financial analysis was used to determine the potential economic return of the project over the LOM.

## **Namdini Sterilization Drilling**

A total of 22 RC and 6 DD holes were drilled on the Namdini tenement during the quarter with 3,452 samples, including QA/QC controls, submitted to Ghana based laboratories for gold analysis using the Fire Assay analytical method (Table 5).

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Namdini	RC Drilling	22	2,431	2,381	102	46	46	2,473
	DD Drilling	6	1441.51	923		28	28	979
Total		28	3,872.51	3,304	102	74	74	3,452

Table 5: Namdini Sterilization Drilling for Q3 2018

Lithologies include metavolcanics, thin granitoid slivers in the metasediments and diorite.



# **REGIONAL EXPLORATION UPDATE**

# Bolgatanga Project

The Bolgatanga Project includes the Ndongo, Kungongo and Bongo License areas (Figure 3). The main focus of the Company's DD and RC drilling was on the highly prospective areas along the Nangodi Shear Zone during this quarter. Detailed ground geophysical surveys were also in progress over the Ndongo and Kungongo Licenses.

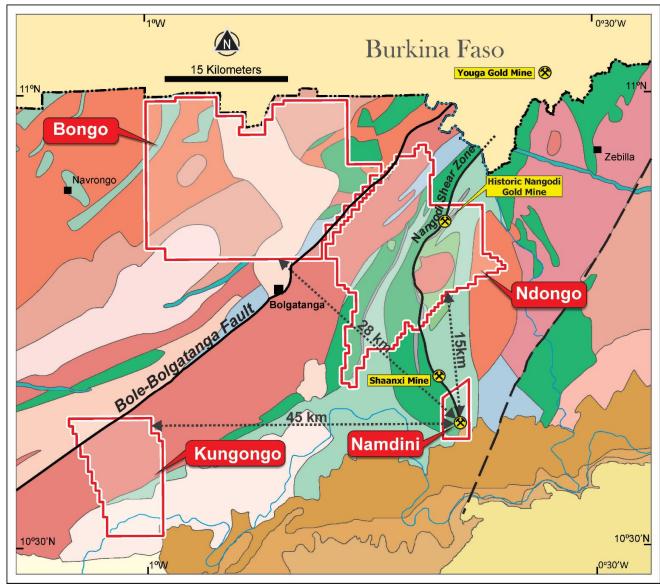


Figure 3: Bolgatanga Project Tenements

# Subranum Project

The Subranum Project is located in southwest Ghana (Figure 1). Diamond drilling was completed on this project late in the quarter and a full disclosure of results is expected to be provided in the final months of 2018.



#### **BOLGATANGA PROJECT**

# **Exploration Drilling**

A total of 62 RC holes were drilled on the enlarged Ndongo License with 1 DD and 1 RC holes on Kungongo Extension during the quarter with 6,884 samples, including QAQC controls, submitted to Ghana based laboratories for analysis for gold using the Fire Assay analytical method. (Table 6).

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Ndongo	RC Drilling	62	5,917	5917	291	149	147	6,504
Kungongo Ext	RC Drilling	1	70	70	3	2	2	77
	DD Drilling	1	289.54	290	-	6	7	303
Total		64	6276.54	6,277	294	157	156	6,884

Table 6: Exploration Drilling for Q3 2018

# **Ndongo License Area**

The Company has continued to concentrate its exploration focus this quarter on the Ndongo Licence which covers an area of 295km<sup>2</sup>. The area was recently expanded by the purchase of two exploration licence areas from Kinross Gold in August 2017 (Figure 4). Exploration has defined six prospects totalling 70km in strike length only 15-20km north of the Namdini Gold Project.

The Company considers the Ndongo Licence area to be highly prospective for the discovery of economic gold mineralisation associated with the prolific Nangodi Shear Zone, a splay fault off the main regional-scale Bole-Bolgatanga Shear. Elsewhere, the Nangodi Shear Zone is spatially related to no fewer than four major gold discoveries, including the Company's Namdini Gold Project, the Shaanxi Mine, the historic Nangodi Gold Mine and the Youga Gold Mine in Burkina Faso, adjacent to the Ghana border (Figure 4). In addition, there are numerous historic shallow artisanal workings along many parts of this shear zone.

# Ndongo East Prospect

The Ndongo East Prospect is located within NE-SW trending Birimian metavolcanics and metasediments.

Previously announced drilling intersected higher-grade gold mineralised structures concentrated in the northern portion of the shear zone over a 450m strike length on coincident gold-in-soil and geophysical targets.

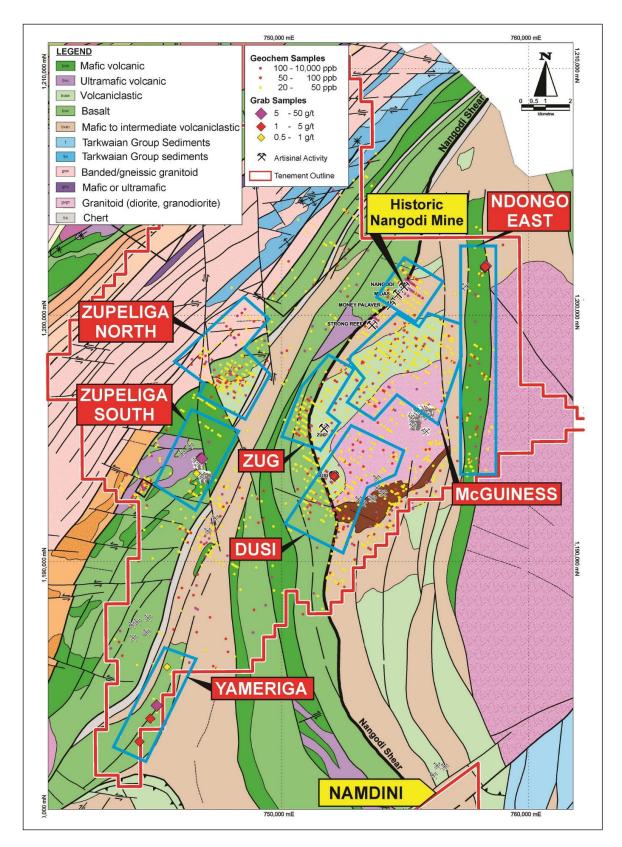
Cardinal's most recent RC drilling along fence lines to test mineralisation further to the southwest along strike and at depth has proven encouraging. Further significant intercepts within the mineralised structures suggests the mineralisation continues. The furthest drill fence to the southwest intercepted a narrow zone of mineralisation of **2m grading 27.0 g/t Au** from 10m downhole in NDRC247 which indicates a strike potential of up to 1.2km of mineralised structures. Further infill drilling is planned for Q4 2018 to test this extended zone.

Intersections encountered as part of the RC drilling, has gold mineralisation developed at, or near, the diorite-granodiorite contacts, where competency differences create brittle fracturing which allows the ingress and precipitation of mineralising fluids. The mineralised horizons contain variable chlorite-silica-carbonate-sericite alteration with sulphides (mainly pyrite with very minor arsenopyrite).

The mineralised system is open along a northeast-southwest strike and at depth with multiple mineralised intersections.

Cardinal expects to recommence drilling after the wet season during November 2018 in order to test the strike and depth extents of the mineralised system.





**Figure 4: Ndongo Prospecting Licence showing local prospects** 



# **Kungongo Tenement**

The Kungongo Licence is located in northeast Ghana some 45km west of the Company's Namdini Gold Project. The Licence covers an area of 122 km<sup>2</sup> and is a renewable Exploration Licence (Figure 3).

Recent drilling focused mainly on the northern section of Kungongo to test rock chips gold anomalies, possible extensions of artisanal workings and ground magnetic anomalies. Lithologies encountered by drilling include metasediments and mafic volcanics. The initial RC/DD programme was planned on fences 200m apart with collars at 100m covering approximately 1.6km of strike length along the geophysical target. Assay results are pending and will be reported in Q4 2018

A ground magnetic survey was completed over 249 lines totalling 666.25-line kilometres on a line spacing of 50m covering the entire prospective Bole-Bolgatanga shear zone.

#### SUBRANUM PROJECT

The Subranum Project covers an area of 69km² located in southwest Ghana. The license straddles the eastern margin of the Sefwi Gold Belt. There is 9km of prospective sheared contact between Birimian phyllites and greywackes to the east and mafic to intermediate volcanics and volcaniclastics to the west. Granitoid stocks of the Dixcove suite intrude this shear zone. The Sefwi Belt is highly prospective and is spatially related to major discoveries including the 7Moz Bibiani Gold Mine (approximately 70 km southwest), Newmont's Ahafo 23Moz Gold Mine (approximately 53 km west) and Kinross' Chirano 5Moz Gold Mine (approximately 110 km southwest).

The planned drill programme was to drill approximately 1,200m to assess the gold potential of this tenement after acquiring the exploration geophysical and RC drilling data from Newmont Corporation. The planned programme included drilling twin holes where possible to compare and confirm the Newmont results.

The near surface portions of each hole were drilled by HQ, totalling 487.60m, while the deeper portions were drilled by NQ, totalling 716.40m. The total DD amount drilled for this programme for the quarter was 1,204m.

The core was transported to Cardinal's Bolgatanga Exploration facilities. Longitudinally half core splitting and sampling was conducted, with the remaining half core stored at the Cardinal storage shed in Bolgatanga. Assay results are pending. Results when received will be assessed and reported in Q4 2018.

A summary of the drilling is in Table 7:

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Subranum	DD Drilling	3	508.4	856	-	19	22	897
Total		3	508.4	856	-	19	22	897*

Table 7: Subranum Exploration Drilling Q3 2018

Note:

A soil auger programme planned for the remaining 3.8km strike length in the NE portion of the tenement to initially cover a  $\sim$ 400m width across the strike of the Bibiani Shear Zone was delayed due to extensive rain and will commence in Q4 2018, weather permitting.



<sup>\*</sup>Includes samples from drilling completed in previous quarter

#### **CORPORATE**

# SUBSEQUENT TO THE QUARTER END

The Company was pleased to announce the appointment of Non-Executive Director Dr. Kenneth G. Thomas.

Dr. Thomas has over 45 years in the mining industry with experience in project development, construction and operations. Until July 2012 he was Senior Vice President, Projects, Kinross Gold Corporation and previously, for 6 years, a Global Managing Director and Board Director at Hatch Ltd, a leading international engineering and construction firm.

From 1987 to 2001 he served in progressively senior roles at Barrick Gold Corporation to Senior Vice President, Technical Services. Prior to Barrick Gold Corporation, he also worked for 10 years in Zambia and South Africa with Anglo American Corporation.

Ken has a doctorate in Technical Sciences (Project Implementation) from Delft University of Technology and in 2001 he was awarded the Selwyn G. Blaylock Medal by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) for advancements in mining internationally. In addition, he is a Fellow and Past President of the CIM. Ken is an experienced public company director, including his current appointment as director of Continental Gold (TSX: CNL).

# Archie Koimtsidis, CEO / MD of Cardinal, said:

"We are pleased to have Ken join the Cardinal Board where his many years of expertise in project development will be of significant value to Cardinal and its stakeholders as the company moves the Namdini Gold Project towards the next level, its Definitive Feasibility Study which is anticipated Q3 - 2019.

"The Board, Management and study managers, would like to sincerely thank Mr Jacques McMullan for his invaluable technical contribution to the completion of the Namdini Gold Project PFS. We all appreciate Jacques' offer to provide advice as an independent consultant and wish him the best in his future endeavors."

# **Competent / Qualified Person Statement**

All technical information for the Namdini Gold Project referred to in this report is supported by the PFS, which was prepared in accordance with the requirements of National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("**NI 43-101**").

The information in this report that relates to Namdini Mineral Resources is based on information compiled and reviewed by Mr Nicholas Johnson, a "qualified person" who is a Member of the Australian Institute of Geoscientists and a full-time employee of MPR Geological Consultants Pty Ltd. Mr Johnson has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code 2012 and is a qualified person for the purposes of NI43-101. Mr Johnson has no economic, financial or pecuniary interest in the company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Namdini Ore Reserves and mining studies is based on information compiled and reviewed by Mr Glenn Turnbull, a "qualified person" who is a Chartered Engineer and Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Golder. Mr Turnbull has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code 2012 and is a qualified person for the purposes of NI43-101. Mr Turnbull has no economic, financial or pecuniary interest in the



company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The scientific and technical information in this MD&A that relates to the Namdini Gold Project has been reviewed and approved by Mr. Richard Bray, a Registered Professional Geologist with the Australian Institute of Geoscientists and Mr. Ekow Taylor, a Chartered Professional Geologist with the Australasian Institute of Mining and Metallurgy. Mr. Bray and Mr. Taylor have more than five years' experience relevant to the styles of mineralization and type of deposits under consideration and to the activity which is being undertaken to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" and as a Qualified Person for the purposes of NI43-101. Mr. Bray and Mr. Taylor are full-time employees of Cardinal and hold equity securities in the Company.

The scientific and technical information in this MD&A that relates to Exploration Results, Mineral Resources or Ore Reserves at the Bolgatanga Project and Subranum Project is based on information prepared by Mr. Paul Abbott, a full-time employee of Cardinal Resources, who is a member of the Geological Society of South Africa. Mr. Abbott has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

#### **JORC 2012**

This report contains information extracted from the following reports which are available for viewing on the Company's website <a href="https://www.cardinalresources.com.au">www.cardinalresources.com.au</a>:

0	18 Sep 2018	Cardinal Namdini Pre-Feasibility Study 4.76Moz Ore Reserve
0	16 July 2018	Cardinal Makes New Gold Discovery at Ndongo East
0	28 May 2018	Encouraging First Pass Gold Results at Ndongo
0	19 April 2018	Technical Report on Namdini Gold Project Filed on SEDAR
0	04 April 2018	First Pass Regional Exploration Drilling Underway
0	05 Mar 2018	Cardinal Upgrades Indicated Mineral Resource to 6.5Moz
0	22 Feb 2018	Cardinal Infill Drilling Results Returned
0	05 Feb 2018	Namdini Gold Project Preliminary Economic Assessment
0	22 Jan 2018	Namdini Infill Drilling Results Returned
0	14 Dec 2017	Namdini Drilling and Regional Exploration Update
0	12 Dec 2017	Cardinal Grade Control Drill Results Returned

The Company confirms it is not aware of any new information or data that materially affects the information included in this report relating to exploration activities and all material assumptions and technical parameters underpinning the exploration activities in those market announcements continue to apply and have not been changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.



# **SELECTED QUARTERLY INFORMATION**

The following table provides information for the eight quarters:

	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017
Exploration and evaluation expenditures	\$ 2,688,805	\$ 3,653,287	\$ 4,640,781	\$ 8,978,587
Corporate general and administration	2,340,813	1,646,341	1,151,889	1,833,531
Share based payments	576,924	899,469	1,582,306	1,107,762
Amortisation	85,732	67,080	50,674	62,813
Net comprehensive loss	5,728,687	6,148,313	7,357,850	12,249,188
Loss per share – basic and fully diluted	1.50	1.62	0.02	0.03
Total assets	38,781,204	10,241,614	15,406,176	20,938,595
Total liabilities	36,384,698	4,766,976	4,789,126	4,617,683
Shareholders' equity	2,396,506	5,474,638	10,617,050	16,320,912

	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016
Exploration and evaluation				
expenditures	\$ 9,474,793	\$ 5,561,110	\$ 3,996,084	\$ 4,529,757
Corporate general and	1,313,891			
administration		1,327,354	1,395,836	504,573
Share based payments	1,152,825	1,416,544	433,481	114,299
Amortisation	36,887	40,856	30,653	37,559
Net comprehensive loss	12,066,104	8,422,184	5,963,935	5,113,088
Loss per share – basic and fully	3.44			
diluted		4.98	2.14	0.02
Total assets	21,342,325	30,109,678	13,327,164	19,133,568
Total liabilities	6,411,267	3,903,107	1,416,759	1,692,945
Shareholders' equity	14,931,058	26,206,571	11,910,405	17,440,623

Exploration and evaluation expenditures were all incurred in respect of the Company's Ghanaian mining assets. The Company maintains a policy to expense all exploration and evaluation expenditures as incurred. These costs include tenement license acquisition costs.

Starting in 2015 to 2017, due to the exploration success at the Company's Namdini Gold Project, the Company has on a year-over-year basis increased exploration and evaluation spending, in order to outline and ultimately increase the confidence level in the Namdini resource base and to prepare initial technical evaluations of development scenarios.

As the Company continues to prepare its feasibility reports exploration expenditure at Namdini has remained consistent.

During this period, minimal expenditures were incurred on the Bolgatanga Project and Subranum Project.

Corporate general and administration expenses increases are due to increased corporate activity, as a result of the exploration success at Namdini, which led to a TSX listing in July 2017, the C\$12 million financing that occurred in Q4 2017, the Company entering into the Facility and increased legal, staffing, professional fees, travel and promotional costs.



From January 1, 2017, the Company's corporate general and administration expenses have increased due to an increase of Perth staff from 3 personnel to 7 personnel, which included the appointment of a Project Manager, Geology Manager, Canadian Corporate Secretary and Chief Financial Officer. There have been no significant changes to staff from the quarter ended September 30, 2017 to September 30, 2018.

During the quarter the Company completed the Facility. All the initial expenses and on-going expenses in relation to the Facility has been included in corporate general and administration expenses.

Corporate general and administration expenses consist of corporate administration costs incurred by the corporate office in Perth. Perth office expenses include personnel, professional fees, compliance and regulatory fees, investor relations expenses and expenses incurred in relation to the Facility.

Share based payments represents the expensing of fair value of the award on grant date. Under the fair value-based method, compensation cost attributable to options granted is measured at fair value on the grant date and amortized over the vesting period. The amount recognized as an expense is adjusted to reflect any changes in the Company's estimate of the shares that will eventually vest and the effect of any non-market vesting conditions.

Share based payment arrangements in which the Company receives goods or services as consideration are measured at the fair value of the good or service received, unless that fair value cannot be estimated.

The variances in total assets and shareholders' equity are mainly attributable to equity placements, which increased cash resources, while funding the Company's exploration and evaluation expenditures and administration expenses decreased cash resources.

The increase in total liabilities for the three months ended September 30, 2018 is mainly attributable to the completion of the Facility.

As the Company is in the exploration stage, it does not generate operating revenue.

## **RESULTS OF OPERATIONS**

# Three months ended September 30,

	2018	2017
Exploration and evaluation expenditures	\$ 2,688,805	\$ 9,474,793
Corporate general and administration	2,340,813	1,313,891
Share/Option based payments	576,924	1,152,825
Amortisation	85,732	36,887
Interest and other income	14,693	50,996
Foreign exchange loss (gain)	(78,530)	138,704
Net Loss for the period	\$ 5,728,687	\$ 12,066,104

- For the three months ended September 30, 2018, exploration and evaluation expenditures decreased from comparable period due to the Company's increased exploration and development activities at the Namdini Gold Project during the three months ended 30 September 2017, which included the preparation of an initial resource estimate through resource drilling. Infill exploration at Namdini is now minimal as the Company prepares its FS.
- In conjunction with the reduced expenditure at Namdini there is also reduced expenditure on the Bongo, Kungongo and Subranum Projects.



- The Company's corporate general and administration expenses have increased from the prior year due to an increase in costs from the Company which during the quarter included the Company entering into the Facility.
- For the three months ended September 30, 2018, share based payments have decreased due to the
  milestone 1 hurdle, being the completion of a PEA, which was achieved in February 2018 which has been
  fully expensed. The fair value of the option grants, are being amortized to income over their respective
  vesting periods.

For the three months ended September 30, 2018 and 2017, exploration and evaluation expenditures comprise:

# Three months ended September 30,

	2018	2017
Direct exploration costs	\$ 1,607,844	\$ 5,794,721
Indirect exploration costs	714,675	2,789,812
Site general and administration costs	366,286	890,260
Exploration and evaluation expenditures	\$ 2,688,805	\$ 9,474,793

Exploration and evaluation expenditures decreased from comparable periods due to exploration at Namdini now minimal as the Company prepares its FS. The Company increased exploration activities at the Namdini Gold Project during the three months ended 30 September 2017 which included the preparation of an initial resource estimate through resource drilling.

The costs in the prior quarter included the execution of larger drill programs to define and upgrade gold resources at Namdini, coupled with increased regional exploration activity.

General site and administration costs decreased for the three months ended September 30, 2018, compared to the same period in 2017, due to a decrease in drilling activities at Namdini as the Company focuses on its Feasibility Studies.

# Corporate Administration Expenses

Corporate administration expenditures for the three months ended September 30, 2018 increased, compared to the same period in 2017, mainly attributable to the Company completing the Facility.

# Share based Payments

For the three months ended September 30, 2018, share based payments decreased, compared to the same period in 2017, mainly attributable to the Company issuing a notice of meeting on October 23, 2017 to issue milestone options to key management personnel, including directors, of the Company. The milestone options were issued on December 21, 2017.

The decrease in share-based payments is mainly attributable to the milestone 1 hurdle, being the completion of a PEA, which was achieved in February 2018 and has been fully expensed. The fair value of the option grants is being amortized to income over their respective vesting periods.



#### FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

As at September 30, 2018, the Company had cash and cash equivalents of \$35,760,607 (June 30, 2018 - \$7,303,807) and current liabilities of \$3,932,382 (June 30, 2018 - \$4,766,976).

As at September 30, 2018, the Company had a working capital balance of \$32,972,54 (June 30, 2018 - \$3,517,055).

On August 22, 2018 the Company entered into a US\$25 million senior secured credit facility with Sprott.

The increase in cash and working capital from September 30, 2018 to June 30, 2018 was \$29,529,832 and was primarily due to the US\$25 million credit facility with Sprott.

Funds raised from the US\$25 million facility are being used towards working capital and funding to completion of Feasibility Studies at Namdini. The Company expects its current capital resources to be sufficient to advance its planned activities.

Actual funding requirements may vary from those planned due to a number of factors, including the progress of the Company's business activities and current economic and financial market conditions. The Company will continue to pursue opportunities to raise additional capital through equity markets to fund its future exploration, development and operating activities; however, there can be no assurance that such financing will be available on a timely basis and under terms which are acceptable to the Company.

#### **COMMITMENTS AND CONTINGENCIES**

The Company has commitments in respect to the use of an office premises in Perth, Western Australia, for \$5,300 per month, the lease is for three years from 30 September 2018.

The Company has commitments in respect to the use of an office outside of Australia, for C\$1,863 per month until 31 March 2019.

Cardinal Resources Subranum Limited entered into a sale and purchase agreement dated 6 April 2012 with Newmont Ghana Gold Limited (a subsidiary of Newmont Mining Corporation) for the purchase of the Subranum Project. On 24 November 2015, the relevant Minister of the 2006 Mining Act approved the sale. Cardinal Resources Subranum Limited acquired 100% of the Subin Kasu Prospecting License and paid to Newmont Ghana Gold Limited US\$50,000 on 12 June 2016.

On 7 November 2017 US\$50,000 was paid to Newmont Ghana Gold Limited on the one year anniversary and on 23 November 2017 a final payment of US\$100,000 was made for the second anniversary date. In addition, Cardinal Resources Subranum Limited will be required to spend US\$250,000 on exploration within the first year from 21 June 2016 and a further US\$750,000 being 12 June 2018. The Company has met the minimum expenditure requirements.

Cardinal Namdini Mining Limited (Cardinal Namdini), entered into a Net Smelter Royalty Deed ("Royalty Deed") in January 2018, whereby Cardinal Namdini will pay to Savannah Mining Limited ("Savannah") a net smelter return royalty ("Royalty") equal to:

(a) 4% of the Net Smelter Return on the first 50,000 ounces of Specified Minerals (as defined in the Royalty Deed) produced within each small-scale license which was purchased by Savannah within the Large Scale Mining License (as defined in the Royalty Deed); and



(b) A 2% Net Smelter Return, effective from production of the 50,001 ounces of Specified Minerals produced within each small-scale licence which was purchased by Savannah within the Large Scale Mining License.

Cardinal entered into a definitive agreement with Kinross Gold Group subsidiary Red Back Mining Ghana Limited (Red Back) in 2017 to acquire 100% ownership of two large scale prospecting licences located in North East Ghana. Cardinal has entered into a Royalty Agreement with Red Back, whereby Cardinal shall pay to Red back a 1% net smelter return royalty on any minerals produced from the properties.

The Company has commitments in respect to the Facility. The key terms of the Facility are as follows:

- Committed loan facility of US\$25 million;
- 30-month repayment term, being 28 February 2021; and
- Interest rate of LIBOR + 7.75%.

The credit facility is secured against assets of Cardinal and its wholly owned subsidiary, Cardinal Namdini Mining Limited.

## (i) Loan Covenants

Cardinal Resources has complied with the financial covenants of its credit facility during the September 30, 2018 reporting period.

- (i) Under the terms of the credit facility, Cardinal's Working Capital Ratio shall be equal to or greater than 1.20 to 1.00; and
- (ii) The amount of Cardinal's Unrestricted Cash is greater than US\$2,500,000 or if, denominated in AU\$ equivalent to US\$2,500,000.

Cardinal has complied with these covenants throughout the report period.

## **OFF-BALANCE SHEET ARRANGEMENTS**

There are no off-balance sheet arrangements to which the Company is committed.

# PROPOSED TRANSACTIONS

There are no proposed transactions that have not been disclosed herein.

## FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

In common with all other businesses, the Company is exposed to risks that arise from its use of financial instruments. This note describes the Company's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout the consolidated financial statements.

The Company is exposed to the following financial risks: credit risk, liquidity risk, market risk, currency risk and interest rate risk.

The Board of Directors has overall responsibility for the determination of the Company's risk management objectives and policies and, whilst retaining ultimate responsibility for them, it has delegated the authority for designing and operating processes that ensure the effective implementation of the objectives and policies to the Company's management.



The overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the Company's competitiveness and flexibility.

The Company's risk exposure and the impact on the Company's financial instruments are summarized below:

#### **Credit Risk**

Credit risk is the risk of an unexpected loss if a customer or third party to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its cash and cash equivalents. The Company limits exposure to credit risk by maintaining its cash and cash equivalents with large financial institutions.

	September 30,	June 30,
	2018	2018
Cash held in bank accounts	\$ 35,741,921	\$ 2,819,794
Term deposits	18,686	4,484,013
	\$ 35,760,607	\$ 7,303,807

# **Liquidity Risk**

Liquidity risk is the risk that the Company will encounter difficulty in satisfying financial obligations as they become due. The Company's approach to managing liquidity risk is to provide reasonable assurance that it will have sufficient funds to meet liabilities when due. The Company manages its liquidity risk by forecasting cash flows required by operations and anticipated investing and financing activities. All of the Company's current financial liabilities have contractual maturities of less than 30 days and are subject to normal trade terms.

At September 30, 2018, the Company had cash and cash equivalents of \$35,760,607 (June 30, 2018 - \$7,303,807) available and current liabilities of \$3,932,382 (June 30, 2018 - \$4,766,976). All of the Company's financial liabilities have contractual maturities of less than 30 days and are subject to normal trade terms.

# **Market Risk**

Market risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in market prices. The value of financial instruments can be affected by changes in interest rates and foreign exchange rates. Management closely monitors commodity prices, individual equity movements and the stock market to determine the appropriate course of action to be taken by the Company.

# **Currency Risk**

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in foreign exchange rates. The Company is exposed to fluctuations in foreign currencies through its operations in Ghana and through its US\$25m senior credit facility. The Company monitors this exposure, but has no hedge positions.



As at September 30, 2018, the Company is exposed to currency risk through the following financial assets and liabilities denominated in currencies other than the Australian dollar:

	September 30, 2018		June 30, 2018	
	US\$ AUD	<b>Ghana Cede</b>	US\$ AUD	Ghana Cede
DESCRIPTION	Equivalent	AUD Equivalent	Equivalent	AUD Equivalent
Cash	\$ 29,387,551	101,069	\$ 2,681,665	\$ 93,508
Other receivables	0	0	0	0
Value added tax receivables	0	1,095,548	0	724,137
Accounts payable and accrued liabilities	(2,923,827)	-	(3,267,257)	(616,542)
Borrowings	(38,871,204)	-	-	-
Total	\$ (12,407,480)	\$ 1,196,617	\$ (585,592)	\$ 201,103

Based on the balances as at September 30, 2018, a 1% movement in interest rates would increase/decrease the loss for the year before taxation by \$155,290 (June 30, 2018: \$3,585).

#### Interest Rate Risk

Interest rate risk consists of two components:

- To the extent that payments made or received on the Company's monetary assets and liabilities are affected by changes in the prevailing market interest rates, the Company is exposed to interest rate cash flow risk.
- To the extent that changes in prevailing market rates differ from the interest rate in the Company's monetary assets and liabilities, the Company is exposed to interest rate price risk.
- The financial instrument that primarily expose the Group to interest rate risk is borrowings. Interest rate risk is managed by the credit facility having a fixed interest component and a variable interest component, i.e. LIBOR + 7.75%.

# **Determination of Fair Value**

Fair values have been determined for measurement and/or disclosure purposes based on the following methods. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

The carrying amounts for accounts payable and accrued liabilities and due to related parties' approximate fair values due to their short-term nature. Due to the use of subjective judgments and uncertainties in the determination of fair values these values should not be interpreted as being realizable in an immediate settlement of the financial instruments.

# **Fair Value Hierarchy**

Financial instruments that are measured subsequent to initial recognition at fair value are grouped in levels 1 to 3 based on the degree to which the fair value is observable:

Level 1	Unadjusted quoted prices in active markets for identical assets or liabilities;
Level 2	Inputs other than quoted prices included in Level 1 that are observable for the asset or
	liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
Level 3	Inputs for the asset or liability that are not based on observable market data (unobservable
	inputs).



As at September 30, 2018 and June 30, 2018, the Company's financial instruments are comprised of cash and cash equivalents, other receivables, value added tax receivable, accounts payable accrued liabilities, and borrowings. With the exception of cash and cash equivalents and borrowings all financial instruments held by the Company are measured at amortized cost.

#### CAPITAL MANAGEMENT

The Company's objective when managing capital is to safeguard the Company's ability to continue as a going concern in order to advance its mineral properties. The Company defines its capital as all components of equity and short-term debt. The Company manages its capital structure and makes adjustments to it to effectively support the acquisition and exploration of mineral properties. The property in which the Company currently has an interest is in the exploration stage; as such, the Company is dependent on external financing to fund its activities.

The Company will spend its existing working capital and seek to raise additional amounts as needed by way of equity financing or debt to carry out its planned corporate development and general administrative costs. The Company will continue to assess new properties and seek to acquire an interest in additional properties if it feels there is sufficient geologic or economic potential and if it has adequate financial resources to do so.

Management reviews its capital management approach on an ongoing basis and believes that this approach, given the relative size of the Company, is reasonable. The Company's investment policy is to hold cash in interest-bearing bank accounts or highly liquid short-term interest-bearing investments with maturities of one year or less and which can be liquidated at any time without penalties. The Company is not subject to externally imposed capital requirements and does not have exposure to asset-backed commercial paper or similar products. The Company expects its current capital resources to be sufficient to cover its operating costs and to carry out its exploration activities through the next twelve months. As such, the Company will seek to raise additional capital and believes it will be able to do so, but recognizes the uncertainty attached thereto. There have been no changes to the Company's approach to capital management during the three months ended September 30, 2018.

## **RELATED PARTY TRANSACTIONS**

The Company had transactions during the three September 30, 2018 with related parties consisting of directors, officers and companies with common directors and/or officers:

# Namdini Gold Project

Cardinal Resources Limited has provided funding of \$4,000,674 to Savannah, a related entity to Director Mr Malik Easah. The purpose of the funding was for use by Savannah to defray the costs of acquisition under agreements entered into by Savannah with holders of small scale licences, which licences are intended ultimately to be effectively acquired by Cardinal as part of the development of the Nandini project. As at the date of this report, \$1,018,521 has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference is considered repaid by Savannah and has been applied toward the development of the mining licence and expensed during the period.

# Consulting Agreement

Tomlinson Consultancy, of which Kevin Tomlinson is a director, provided geological consulting services to the Company. Amounts that have been paid or payable total \$77,406 (2017: \$105,000) for the three months ended September 30, 2018.



HopgoodGanim of which Michele Muscillo, a director, is a partner of, provided legal services to the Company. Amounts that have been paid or payable total \$5,028 (2017: \$0) for the three months ended September 2018.

# **KEY MANAGEMENT COMPENSATION**

Key management personnel are persons responsible for planning, directing and controlling the activities of an entity, and include certain directors and officers. Key management compensation comprises:

	September 30, 2018	September 30, 2017	
Salaries, fees and leave	\$ 322,169	\$	301,441
Non-monetary	12,488		4,969
Post-employment benefits – superannuation	-		3,800
Equity based payments	486,678		877,132
	\$ 821,292	\$	1,187,342

# SHARE POSITION AND OUTSTANDING WARRANTS AND OPTIONS

The Company's outstanding share position as at November 14, 2018 is as follows:

	Number of shares
Ordinary shares	378,910,481
Listed options	113,210,006
Unlisted options	35,294,200
60 Class C Performance Shares	6,000,000
Fully diluted share capital – November 14, 2018	533,414,687

# **Ordinary Shares**

The Company is authorised to issue an unlimited number of Ordinary Shares, subject to certain restrictions prescribed in the ASX Listing Rules, the Corporations Act (Australia) and the Company's constitution. Under the ASX Listing Rules, subject to certain exceptions and without the approval of shareholders of the Company, the Company may not issue or agree to issue during any 12-month period equity securities (including options and other securities convertible into equity) if the number of securities issued or agreed to be issued would exceed 15% of the total equity securities on issue at the commencement of the 12-month period. At the Company's annual general meeting held on October 31, 2018, shareholders approved the issue of an additional 10% of the Company's issued capital, subject to satisfaction of certain criteria prescribed in the ASX Listing Rules and the Company's notice of annual general meeting dated September 25, 2018.

# **Listed Options**

Details of listed options (ASX: CDVOA) outstanding as of November 14, 2018 are:

	Expiry	Number of Options	Weighted Average Exercise Price
Listed Options	September 30, 2019	113,210,006	\$0.15



## Stock Options ("Unlisted Options")

The Company has in place a stock option plan (the "Plan"), which allows the Company to issue options to certain directors, officers, employees and consultants of the Company. The aggregate number of securities reserved for issuance will be not more than 5% of the number of ordinary shares issued and outstanding from time to time. The Plan provides that the number of stock options held by any one individual may not exceed 5% of the number of issued and outstanding ordinary shares. Options granted under the Plan may have a maximum term of ten years. The exercise price of options granted under the Plan will not be less than the market price of the Company's shares on the day prior to the grant date. Stock options granted under the Plan may be subject to vesting terms if imposed by the Board of Directors or required by the TSX. The milestone options were not issued under the Company's stock option plan.

The following is a summary of share purchase options activity for the three months ended September 30, 2018:

			During the period						
Grant	Expiry	Exercise	Opening			Expired /	Closing	Vested and	
Date	Date	Price	Balance	Granted	Exercised	Cancelled	Balance	Exercisable	Unvested
03.18.16	03.18.20	\$0.22	8,000,000	nil	2,000,000	nil	6,000,000	6,000,000	-
04.03.17	04.12.22	\$0.50	23,500,000	nil	nil	5,000,000	18,500,000	5,550,000	12,950,000
12.21.17	12.21.22	\$0.75	nil	1,000,000	nil	nil	1,000,000	1,000,000	-
12.21.17	12.21.22	\$0.825	nil	5,758,000	nil	nil	5,758,000	1,727,400	4,030,600
12.21.17	12.21.22	\$0.965	nil	4,036,200	nil	nil	4,036,200	nil	4,036,200

# Weighted average exercise price \$0.57

# **Performance Shares**

The conversion of Class C Performance Shares will occur upon satisfaction of achieving a minimum inferred resource (JORC compliant) of gold within the Ndongo Prospect by February 18, 2020, being no later than five years after the date on which the Class C Performance Shares were issued. The table below sets out the conversion of the Class C Performance Shares based on the achievement of performance hurdles.

Performance Shares	Performance Hurdles (JORC	Conversion to Ordinary		
	Inferred Au Resource)	Shares		
10	500,000 ounces	1,000,000		
5	750,000 ounces	500,000		
5	1,000,000 ounces	500,000		
5	1,250,000 ounces	500,000		
5	1,500,000 ounces	500,000		
5	1,750,000 ounces	500,000		
5	2,000,000 ounces	500,000		
5	2,250,000 ounces	500,000		
5	2,500,000 ounces	500,000		
5	2,750,000 ounces	500,000		
5	3,000,000 ounces	500,000		
60		6,000,000		

# **OTHER DATA**

Additional information related to the Company is available for viewing at www.sedar.com.



#### ADOPTION OF NEW AND AMENDED IFRS PRONOUNCEMENTS

There are a number of new or amended Accounting Standards and Interpretations issued by the IASB that are not yet mandatory. The Company does not plan to adopt these standards early. The Company's assessment of the impact of these new or amended Accounting Standards and Interpretations, most relevant to the Company, are set out below.

The following accounting standard was issued with an effective date of 1 July 2018:

- IFRS 9: Financial Instruments The Board has reviewed the new accounting standard and has assessed that the adoption of the new standard has no impact on the results of the Group for the review period ended 30 September 2018; and
- IFRS 15: Revenue from Contracts with Customers The Board has reviewed the new accounting standard and
  has assessed that the adoption of the new standard has no impact on the results of the Group for the review
  period ended 30 September 2018.

Accounting Standards issued by the AASB that are not yet mandatorily applicable to the Group, together with an assessment of the potential impact of such pronouncements on the Group when adopted in future periods, are discussed below:

IFRS 16: Leases (applicable to annual reporting periods beginning on or after 1 July 2019). When effective, this
Standard will replace the current accounting requirements applicable to leases in IAS 17: Leases and related
Interpretations. IFRS 16 introduces a single lessee accounting model that eliminates the requirement for
leases to be classified as operating or finance leases.

The main changes introduced by the new Standard are as follows:

- recognition of a right-of-use asset and lease liability for all leases (excluding short-term leases with a lease term 12 months or less of tenure and leases relating to low-value assets);
- depreciation of right-of-use assets in line with IAS 16: Property, Plant and Equipment in profit or loss and unwinding of the liability in principal and interest components;
- inclusion of variable lease payments that depend on an index or a rate in the initial measurement of the lease liability using the index or rate at the commencement date;
- application of a practical expedient to permit a lessee to elect not to separate non-lease components and instead account for all components as a lease; and
- inclusion of additional disclosure requirements.

The transitional provisions of IFRS 16 allow a lessee to either retrospectively apply the Standard to comparatives in line with IAS 8 or recognise the cumulative effect of retrospective application as an adjustment to opening equity on the date of initial application.

# **RISKS AND UNCERTAINTIES**

# Risks Related to the Industry

# Mineral Exploration, Development and Operating Risks

Mineral exploration is highly speculative in nature, generally involves a high degree of risk and frequently is non-productive. The mineral tenements of the Compnay are at various stages of exploration, and potential investors should understand that mineral exploration and development are high-risk undertakings. There can be no assurance that exploration of these tenements, or any other tenements that may be acquired in the future, will result in the discovery of an economic ore deposit. Even if an apparently viable deposit is identified, there is no guarantee that it can be economically exploited or will result in a profitable commercial mining operation.



Resource acquisition, exploration, development and operation involve significant financial and other risks over an extended period of time, which even a combination of careful evaluation, experience and knowledge may not eliminate. Significant expenses are required to locate and establish economically viable mineral deposits, to acquire equipment, and to fund construction, exploration and related operations, and few mining properties that are explored are ultimately developed into producing mines.

Success in establishing an economically viable project is the result of a number of factors, including the quantity and quality of minerals discovered, proximity to infrastructure, metal and mineral prices which are highly cyclical, costs and efficiencies of the recovery methods that can be employed, the quality of management, available technical expertise, taxes, royalties, environmental matters, government regulation (including land tenure, land use and import/export regulations) and other factors. Even in the event that mineralization is discovered on a given property, it may take several years in the initial phases of drilling until production is possible, during which time the economic feasibility of production may change as a result of such factors. The effect of these factors cannot be accurately predicted, but the combination of these factors may result in the Company not receiving an adequate return on its invested capital, and no assurance can be given that any exploration program of the Company will result in the establishment or expansion of resources or reserves.

The Company's operations are subject to all the hazards and risks normally encountered in the exploration, development and production of gold and other minerals, including hazards relating to the discharge of pollutants or hazardous chemicals, changes in anticipated grade and tonnage of ore, unusual or unexpected adverse geological or geotechnical formations, unusual or unexpected adverse operating conditions, slope failures, rock bursts, cave-ins, seismic activity, the failure of pit walls, pillars or dams, fire, explosions, and natural phenomena and 'acts of God' such as inclement weather conditions, floods, earthquakes or other conditions, any of which could result in damage to, or destruction of, mineral properties or production facilities, personal injury or death, damage to property, environmental damage, unexpected delays, monetary payments and possible legal liability, which could have a material adverse impact upon the Company. In addition, any future mining operations will be subject to the risks inherent in mining, including adverse fluctuations in fuel prices, commodity prices, exchange rates and metal prices, increases in the costs of constructing and operating mining and processing facilities, availability of energy and water supplies, access and transportation costs, delays and repair costs resulting from equipment failure, changes in the regulatory environment, and industrial accidents and labour actions or unrest. The occurrence of any of these risks could materially and adversely affect the development of a project or the operations of a facility, which could have a material adverse impact upon the Company.

## **Estimation of Mineralisation, Resources and Reserves**

There is a degree of uncertainty attributable to the calculation of mineralization, resources and reserves and corresponding grades being mined or dedicated to future production. Until reserves or mineralization are actually mined and processed, the quantity of mineralization and reserve grades must be considered estimates only. These estimates depend upon geological interpretation and statistical inference drawn from drilling and sampling analysis, which may prove unreliable. There can be no assurance such estimates will be accurate. In addition, the quantity of reserves and mineralization may vary depending on commodity prices. Any material changes in quantity of reserves, mineralization, grade or stripping ratio may affect the economic viability of a mine. In addition, there can be no assurance that recoveries from laboratory tests will be duplicated in tests under on-site conditions or during production. The inclusion of mineral resource estimates should not be regarded as a representation that these amounts can be economically exploited and no assurances can be given that such resource estimates will be converted into reserves. Different experts may provide different interpretations of resource estimates.

# Environmental, Health and Safety Regulations of the Resource Industry

Environmental matters in Ghana, including those related to mining, fall primarily under the oversight of the EPA, as well as the Minerals Commission and the Mines Inspectorate Division of the Minerals Commission. The Environmental Protection Agency Act, 1994 (Act 490), and the Environmental Assessment Regulations, 1999 (L.I.



1652) govern, among other things, environmental and socio-economic impact assessments and statements, environmental management plans, emissions into the environment, environmental auditing and review, and mine closure and reclamation, to which the Company's operations are subject.

Additional provisions governing mine environmental management are provided in the Minerals and Mining Act, 2006 (Act 703), and Minerals and Mining Regulations (Health, Safety and Technical) 2012 (L.I. 2182). The Company believes it is in substantial compliance with these laws and regulations; however, the Compnay notes a continuing trend toward substantially increased environmental requirements and evolving corporate social responsibility expectations in Ghana, including the requirement for more permits, analysis, data gathering, community hearings and negotiations than have been required in the past for both routine operational needs and for new development projects.

Due to bureaucratic delays, there can be no assurance that all permits which the Company may require for construction of mining facilities and conduct of mining operations, particularly environmental permits, will be obtainable on reasonable terms or timeframes or that compliance with such laws and regulations would not have an adverse effect on the profitability of any mining project that the Company might undertake.

All phases of the Company's operations are subject to environmental regulations in various jurisdictions. If the Company's properties are proven to host economic reserves of metals, mining operations will be subject to national and local laws relating to the protection of the environment, including laws regulating removal of natural resources from the ground and the discharge of materials into the environment.

Mining operations will be subject to national and local laws and regulations which seek to maintain health and safety standards by regulating the design and use of mining methods and equipment. Various permits from government bodies are required for mining operations to be conducted; no assurance can be given that such permits will be received.

No assurance can be given that environmental standards imposed by national or local authorities will not be changed or that any such changes would not have material adverse effects on the Company's activities. Moreover, compliance with such laws may cause substantial delays or require capital outlays in excess of those anticipated, thus causing an adverse effect on the Company. Additionally, the Company may be subject to liability for pollution or other environmental damage, which it may not be able to insure against.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions. Parties engaged in mining operations may be required to compensate those suffering loss or damage by reason of the mining activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations and, in particular, environmental laws.

Amendments to current laws, regulations and permits governing operations and activities of mining companies, or more stringent implementation thereof, could have a material adverse impact on the Company and cause increases in capital expenditures or production costs or reduction in levels of production at producing properties or require abandonment or delays in development of new mining properties.

# **Competitive Conditions**

There is aggressive competition within the mineral exploration and mining industry for the discovery and acquisition of properties considered to have commercial potential, and for management and technical personnel. The Company 's ability to acquire projects in the future is highly dependent on its ability to operate and develop its current assets and its ability to obtain or generate the necessary financial resources. The Company will compete with other parties in each of these respects, many of which have greater financial resources than the Company. Accordingly, there can be no assurance that any of the Company's future acquisition efforts will be successful, or



that it will be able to attract and retain required personnel. Any such failure could have a material adverse impact upon the Company.

# Risks Related to the Business

## **Operational Risks**

The Company has not previously generated revenues from operations and its mineral projects are at an exploration stage. Therefore, it is subject to many risks common to comparable companies, including undercapitalisation, cash shortages and limitations with respect to personnel, financial and other resources as well as a lack of revenues. The Company has historically incurred significant losses as it has no sources of revenue (other than interest income), and has significant cash requirements to meet its exploration commitments, administrative overhead and maintain its mineral interests. The Company expects to continue to incur net losses unless or until one or more of its properties enters into commercial production and generates sufficient revenue to fund continuing operations. There can be no assurance that current exploration or development programs will result in the discovery of commercial deposits or, ultimately, in profitable mining operations. See also "Liquidity and Financing Risk" and "Funding Risk" below.

# **Liquidity and Financing Risk**

The Company has no source of operating cash flow and may need to raise additional funding in the future through the sale of equity or debt securities or by optioning or selling its properties. Any additional equity financing will dilute shareholdings, and debt financing, if available, may involve restrictions on financing and operating activities. No assurance can be given that additional funding will be available for further exploration and development of the Company's properties when required, upon terms acceptable to the Company or at all. Failure to obtain such additional financing could result in the delay or indefinite postponement of further exploration and development of its properties, or even a loss of property interest, which would have a material adverse impact upon the Company.

## **Borrowing Risk**

Lenders to the Company, including Sprott as primary lender under the Facility, impose covenants and obligations on the part of the Company to maintain the good standing of the agreements and security arrangements of the borrowed funds. In particular, the Facility contains certain covenants and representations and warranties, the breach of which could result in a default and the acceleration of maturity of the Facility, the lender realizing on its security, or diminished availability of refinancing alternatives or increase the associated costs thereof. Though the Company anticipates being able to remain in compliance with all positive covenants under its credit arrangements, there is no assurance that unforeseen events or circumstances may lead to the breach of the Company's obligations to its lenders, under the Facility or otherwise, which, if not waived by the lender, would have a material adverse impact on the Company.

# **Funding Risk**

At the date of this MD&A, the Company has no income producing assets and will generate losses for the foreseeable future. Until it is able to develop a project and generate appropriate cash flow, it is dependent upon being able to obtain future equity or debt funding to support long term exploration. Neither the Company nor any of the Directors nor any other party can provide any guarantee or assurance that if further funding is required, such funding can be raised on terms favourable to the Company (or at all). Any additional equity funding will dilute existing shareholders. Also, no guarantee or assurance can be given as to when a project can be developed to the stage where it will generate cash flow. As such, a project would be dependent on many factors, for example exploration success, subsequent development, commissioning and operational performance.

# **Exploration Costs**

The exploration costs of the Company are based on certain cost estimates and assumptions with respect to the method and timing of exploration. By their nature, these estimates and assumptions are subject to significant



uncertainties and, accordingly, the actual costs may materially differ from these estimates and assumptions. Accordingly, no assurance can be given that the cost estimates and the underlying assumptions will be realised in practice, which may materially and adversely affect the Company's viability.

#### **Uninsurable Risks**

In the course of exploration, development and production of mineral properties, risks, including, but not limited to, unexpected or unusual geological or operating conditions, natural disasters, inclement weather conditions, pollution, rock bursts, cave-ins, fires, flooding, earthquakes, civil unrest, terrorism and political violence may occur. It is not always possible to fully insure against all risks associated with Cardinal's operations and Cardinal may decide not to take out insurance against certain risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the securities of Cardinal.

#### **Conflicts of Interest**

Certain directors of the Company are, and may continue to be, involved in the mining and mineral exploration industry through their direct and indirect participation in corporations, partnerships or joint ventures which are potential competitors of the Company. Situations may arise in connection with potential acquisitions in investments where the other interests of these directors may conflict with the interests of the Company. Any Directors with conflicts of interest will be subject to and will follow the procedures set out in applicable corporate and securities legislation, regulations, rules and policies.

# Foreign currency risk

Exposure to foreign currency risk may result in the fair value or future cash flows of a financial instrument fluctuating due to movement in foreign exchange rates of currencies in which the Company holds financial instruments which are other than the AUD functional currency of the Company.

With instruments being held by overseas operations, fluctuations in the US dollar and Ghanaian Cedis may impact on the Group's financial results.

# **Interest Rate Risk**

Exposure to interest rate risk arises on financial assets and financial liabilities recognised at the end of the reporting period whereby a future change in interest rates will affect future cash flows or the fair value of fixed rate financial instruments.

The financial instruments that primarily expose the Group to interest rate risk are borrowings (including the Facility) and cash and cash equivalents.

# Risks Related to Operating in Ghana

## **Environmental Bonds**

The EPA from time to time reviews the reclamation bonds that are placed on the Company's projects in Ghana. As part of its periodic assessment of mine reclamation and closure costs, the EPA reviews the adequacy of reclamation bonds and guarantees.

In certain cases, the EPA has requested higher levels of bonding based on its findings. If the EPA were to require additional bonding at the Company's properties, it may be difficult, if not impossible, to provide sufficient bonding. If the Company is unable to meet any such increased bonding requirements or negotiate an acceptable solution with the Government of Ghana, its operations and exploration and development activities in Ghana may be materially adversely affected.



The Company is not in a position to state whether a review in respect of any of the Company's projects in Ghana is imminent or whether the outcome of such a review would be detrimental to the funding needs of the Company.

# Risks of Operating in Ghana

The Company's projects in Ghana are subject to the risks of operating in foreign countries, including political and economic considerations such as civil and tribal unrest, war (including in neighboring countries), terrorist actions, criminal activity, nationalization, invalidation of governmental orders, failure to enforce existing laws, labor disputes, corruption, sovereign risk, political instability, the failure of foreign parties, courts or governments to honor or enforce contractual relations or uphold property rights, changing government regulations with respect to mining (including royalties, environmental requirements, labor, taxation, land tenure, foreign investments, income repatriation and capital recovery), fluctuations in currency exchange and inflation rates, import and export restrictions, challenges to the title to properties or mineral rights in which the Company has interests, problems or delays renewing licenses and permits, opposition to mining from local, environmental or other non-governmental organizations, increased financing costs, instability due to economic under-development, inadequate infrastructure, and the expropriation of property interests, as well as by laws and policies of Canada affecting foreign trade, investment and taxation. As African governments continue to struggle with deficits and depressed economies, the strength of commodity prices has resulted in the gold mining sector being targeted as a source of revenue. Governments are continually assessing the terms for a mining company to exploit resources in their country.

Furthermore, the Company requires consultants and employees to work in Ghana to carry out its planned exploration and development programs. It may be difficult from time to time to find or hire qualified people in the mineral exploration industry who are situated in Ghana, or to obtain all of the necessary services or expertise in Ghana, or to conduct operations on its projects at reasonable rates. If qualified people and services or expertise cannot be obtained in Ghana, the Company may need to seek and obtain those services from service providers located outside of Ghana which could result in delays and higher costs to the Company.

Ghana's *Income Tax Act*, 2015, Act 896 (together with its subsequent amendments, the "Ghanaian Tax Act") provides for a withholding tax on payments to goods and service providers. The Ghanaian Tax Act provides for withholding tax in the range of 5-20% depending on the nature of the item or service acquired. Additionally, the Ghanaian Tax Act provides for a withholding tax of 3% on the supply or use of goods to a resident. The Company is required to make assessments as liabilities are incurred to ensure the appropriate amount is withheld and remitted to the Ghanaian Revenue Authority. Failure to withhold the applicable amounts could result in penalties and interest for late payment. Failure to comply with the Ghanaian Tax Act, as the same may be amended from time to time, could result in adverse tax consequences which may have a material adverse effect on the Company's financial condition. Further, no assurance can be given that new taxation rules or accounting policies will not be enacted by the government of Ghana or that existing rules will not be applied in a manner which could result in Cardinal being subject to additional taxation or which could otherwise have a material adverse effect on Cardinal's profitability, results of operations, financial condition and the trading price of Cardinal's securities.

Mineral resource companies face increasing public scrutiny of their activities, and are under pressure to demonstrate that their operations have potential to generate satisfactory returns not only to their shareholders, but also to benefit local governments and the communities surrounding its properties where it operates. The potential consequences of these pressures include reputational damage, lawsuits, increasing social investment obligations and pressure to increase taxes and future royalties payable to local governments and surrounding



communities. As a result of these considerations, the Company may incur increased costs and delays in permitting and other operational matters with respect to its property interests in Ghana.

Any of the above events could delay or prevent the Company from exploring or developing its properties even if economic quantities of minerals are found, and could have a material adverse impact upon the Company's foreign operations.

# **Government Policy Changes**

The mineral exploration activities undertaken by the Company are subject to laws and regulations governing health and worker safety, employment standards, exports, taxation, waste disposal, management and use of toxic substances and explosives, protection of the environment, mine development and production, protection of endangered and protected species, reclamation, historic and cultural preservation and other matters. Exploration activities may also be affected in varying degrees by government regulations with respect to, but not limited to, restrictions on future exploration and production, price controls, royalties, export controls, currency availability, foreign exchange controls, income taxes, delays in obtaining or the inability to obtain necessary permits, opposition to mining from environmental and other non-governmental organizations, limitations on foreign ownership, expropriation of property, ownership of assets, environmental legislation, labour relations, limitations on repatriation of income and return of capital, limitations on mineral exports, high rates of inflation, increased financing costs, and site safety.

The Company's exploration programs with respect to the Company's projects in Ghana will, in general, be subject to approval by the Minerals Commission and other governmental agencies. Development of any of the Company's properties will be dependent on the Namdini Gold Project meeting environmental guidelines set by EPA and, where required, being approved by governmental authorities such as the Minerals Commission.

Failure to comply with applicable laws, regulations and permits, even if inadvertent, may result in enforcement actions thereunder, including the forfeiture of claims, orders by regulatory or judicial authorities requiring operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or costly remedial actions, which could have a material adverse impact upon the Company. The Company may be required to compensate those claiming to suffer loss or damage by reason of its activities and may have civil or criminal fines or penalties imposed for violations of such laws, regulations and permits, which could have a material adverse impact upon the Company.

In addition, no assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail development or future potential production. Adverse changes in government policies or legislation may affect ownership of mineral interests, taxation, royalties, land access, labour relations, and mining and exploration activities of the Company. It is possible that the current system of exploration and mine permitting in Ghana may change, resulting in impairment of rights and possibly expropriation of the Company's properties without adequate compensation.

# **Ownership Risks**

The Constitution of Ghana vests title in every mineral in its natural state to the Government of Ghana. The exercise of any mineral right in the form of reconnaissance, exploration or exploitation of any mineral in Ghana requires an appropriate license or mineral right to be issued by the Government of Ghana acting through the Minister. There is no assurance that title to the properties in which the Company has interests will not be challenged. The acquisition of title to mineral exploration properties is a very detailed and time-consuming process. Title to and the area of mineral properties may be disputed. While the Company has diligently investigated title to the properties in which it has an interest, it may be subject to prior unregistered agreements or transfers or indigenous land claims and title may be affected by undetected defects. Consequently, the boundaries may be disputed.

There can be no assurance that there are no prior unregistered agreements, claims or defects that may result in the title to the properties in which the Company has an interest being challenged. Further, the Company's interests



in the properties are subject to the risks that counterparties will fail to honour their contractual commitments, that courts will not enforce such contractual obligations and that required governmental approvals will not be obtained. A successful challenge to the precise area and location of these claims, or the failure of counterparties to honour or of courts to enforce such contractual obligations could result in the Company being unable to operate on its properties as anticipated or being unable to enforce its rights with respect to its properties which could have a material adverse impact upon the Company.

# **Permitting and Licensing Risks**

In addition to mineral rights, the Company will require some or all of the following permits, licenses or other regulatory approvals to be able to carry out business operations in Ghana as it advances its projects: (i) environmental permits; (ii) approved environmental management plans and environmental certificates; (iii) reclamation bonds and approved reclamation plans; (iv) water usage permits; (v) business operating permits; (vi) licenses to export, sell or dispose of minerals; (vii) permits/licenses to retain a specified percentage of mineral export proceeds for purposes of debt servicing, dividend payment to foreign shareholders and acquisition of plant and machinery for the mining project; (viii) permits to operate foreign exchange retention accounts with a trustee bank; and (ix) immigration quotas to employ a specified number of non-Ghanaians to work on mining projects. The Company believes that it will be able to obtain and maintain in the future all such necessary licenses and permits to carry on the activities which it intends to conduct, and intends to comply in all material respects with the terms of such licenses and permits.

There can be no guarantee, however, that the Company will be able to obtain and maintain, at all times, all the necessary licenses and permits required to undertake the proposed exploration and development or to place its properties into commercial production and to operate mining facilities thereon. In the event of commercial production, the cost of compliance with changes in governmental regulations has the potential to reduce the profitability of operations or preclude the economic development of a particular property.

## **Artisanal Miners**

The Company's property interests are held in areas of Ghana that have historically been mined by artisanal miners. As the Company further explores and advances its projects, the removal of any artisanal miners operating on its properties may be required. There is a risk that such artisanal miners may oppose the Company's operations, which may result in a disruption to any planned development and/or mining and processing operations. In addition, artisanal miners have historically used chemicals that are harmful to the environment to separate the precious metals from the ore. There can be no assurance that the Company will not be subject to environmental liabilities resulting from such operations in the future, which could have a material adverse impact on the Company. In addition, artisanal work practices are often unsafe and accidents and/or incidents may occur on the Company's property, and there is an added reputational risk that third parties may wish to link the activities of the artisanal miners to that of the Company in the event of accidents or incidents, which could have a material adverse impact on the Company.

## **General Risks**

# **Market Conditions**

Share market conditions may affect the value of the Company's quoted securities regardless of the Company's operating performance. Share market conditions are affected by many factors such as: general economic outlook; introduction of tax reform or other new legislation; interest rates and inflation rates; changes in investor sentiment toward particular market sectors; the demand for, and supply of, capital; and terrorism or other hostilities. The market price of securities can fall as well as rise and may be subject to varied and unpredictable influences on the market for equities in general and resource exploration stocks in particular. The Company does not warrant the future performance of the Company or any return on an investment in the Company.



## Stress in the Global Economy

Reduction in credit, combined with reduced economic activity and the fluctuations in the Australian dollar may adversely affect businesses and industries that purchase commodities, affecting commodity prices in more significant and unpredictable ways than the normal risks associated with commodity prices. The availability of services such as drilling contractors and geological service companies and/or the terms on which these services are provided may be adversely affected by the economic impact on the service providers. The adverse effects on the capital markets generally make the raising of capital by equity or debt financing much more difficult and the Company is dependent upon the capital markets to raise financing. Any of these events, or any other events causing turmoil in world financial markets, may have a material adverse effect on the Company's business, operating results and financial condition.

#### **Current Global Financial Condition**

Current global financial conditions have been subject to increased volatility. As such, the Company is subject to counterparty risk and liquidity. The Company is exposed to various counterparty risks including, but not limited to financial institutions that hold the Company's cash, and through companies that have payables to the v. The Company is also exposed to liquidity risks in meeting its operating expenditure requirements in instances where cash positions are unable to be maintained or appropriate financing is unavailable. These factors may impact the ability of the Company to obtain loans and other credit facilities in the future and, if obtained, on terms favourable to the Company. If these increased levels of volatility and market turmoil continue, the Company's operations could be adversely impacted and the trading price of the shares could be adversely affected.

## **Exchange Rate and Currency Risks**

The Company undertakes certain transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. The Company does not hedge this exposure. The Company manages its foreign exchange risk by constantly reviewing its exposure and ensuring that there are appropriate cash balances in order to meet its commitments.

Currency fluctuations may affect the cash flow which the Company may realise from its operations, since most mineral commodities are sold in a world market in USD. The Company's costs are incurred in AUD, GHS, USD and CAD.

# **Commodity Prices**

The price of the Ordinary Shares, and the Company's profitability, financial results and exploration activities may in the future be significantly adversely affected by declines in the price of precious metals. Precious metal prices fluctuate on a daily basis and are affected by a number of factors beyond the control of the Company, including the US dollar and other foreign currency exchange rates, central bank and financial institution lending and sales, producer hedging activities, global and regional supply and demand, production costs, confidence in the global monetary system, expectations of the future rate of inflation, the availability and attractiveness of alternative investment vehicles, interest rates, terrorism and war, and other global or regional political or economic events or conditions.

The price of gold has fluctuated widely in recent years, and future trends cannot be predicted with any degree of certainty. In addition to adversely affecting the Company's financial condition and exploration and development activities, declining commodity prices can impact operations by requiring a reassessment of the feasibility of a particular project, as well as have an impact on the perceptions of investors with respect to gold equities, and therefore, the ability of the Company to raise capital. A sustained, significant decline in the price of gold could also cause development of any properties in which the Company may hold an interest from time to time to be impracticable. Future production from the Company's future properties, if any, will be dependent upon, among other things, the price of gold being adequate to make these properties economic. There can be no assurance that the market price of gold will remain at current levels, that such price will increase or that market prices will not fall.



## **Reliance on Key Personnel**

The responsibility of overseeing the day-to-day operations and the strategic management of the Company depends substantially on its senior management and its key personnel. There can be no assurance that there will be no detrimental impact on the Company if one or more of these employees cease their employment.

#### **Dilution Risk**

Cardinal has outstanding options and Performance Shares. Should these securities be exercised or converted (as applicable), the holders have the right to acquire additional Ordinary Shares, in accordance with the terms of such securities. During the life of these securities, the holders have the opportunity to profit from a rise in the market price of the Cardinal shares, possibly resulting in the dilution of existing securities.

#### **CRITICAL ACCOUNTING ESTIMATES**

The carrying amount of certain assets and liabilities are often determined based on estimates and assumptions of future events. The key estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of certain assets and liabilities within the next annual reporting period are:

#### **Deferred taxation**

The potential deferred tax asset arising from the tax losses and temporary differences have not been recognized as an asset because recovery of the tax losses is not yet considered probable.

#### **Provisions**

On an ongoing basis, the Company is subject to various claims and other legal disputes for which the outcomes cannot be assessed with a high degree of certainty. A liability is recognized where, based on the Company's legal views and advice, it is considered probable that an outflow of resources will be required to settle a present obligation that can be measured reliably.

By their nature, these provisions will only be resolved when one or more future events occur or fail to occur. The assessment of such provisions inherently involves the exercise of significant judgment of the potential outcome of future events.

## MINERAL RESOURCE ESTIMATES

The Mineral Resources for the Company's properties have been estimated in accordance with the JORC Code and reconciled with the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves adopted by the CIM Council on May 10, 2014 (the "CIM Definition Standards").

# JORC Code

The following definitions are reproduced from the JORC Code:

"Mineral Resource" means a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

"Inferred Mineral Resource" means that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource (as defined herein) and must not be converted to an Ore



Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

"Indicated Mineral Resource" means that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors (as defined herein) as described below in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource (as defined herein) and may only be converted to a Probable Ore Reserve (as defined herein).

"Measured Mineral Resource" means that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Ore Reserve (as defined herein) or to a Probable Ore Reserve.

"Ore Reserve" means the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Ore Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

"Probable Ore Reserve" means the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proven Ore Reserve.

"Proved Ore Reserve" means the economically mineable part of a Measured Mineral Resource. A Proved Mineral Reserve implies a high degree of confidence in the Modifying Factors.

For the purposes of the JORC Code and CIM Definition Standards, "Modifying Factors" are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

There can be no assurance that those portions of such Mineral Resources will ultimately be converted into Ore Reserves. Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

# CAUTIONARY NOTE TO UNITED STATES SHAREHOLDERS CONCERNING ESTIMATES OF MINERAL RESERVES AND MINERAL RESOURCES

This MD&A uses the terms "Probable Ore Reserve", "Measured Mineral Resource", "Indicated Mineral Resource" and "Inferred Mineral Resource". United States Shareholders are advised that while such terms are recognized and required by Canadian and Australian standards or regulations, the SEC does not recognise them. In particular, and without limiting the generality of this cautionary note, the term "Mineral Resource" does not equate to the term "Ore Reserve". This MD&A may use the terms "Probable Ore Reserves" and "Proved Ore Reserves" as such terms are used under NI 43-101, CIM Standards and the JORC Code, which standards differ from



the standards that apply under SEC Industry Guide 7. Under United States standards, mineralization may not be classified as an "Ore Reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. As such, certain information contained in this MD&A concerning descriptions of mineralization and resources and reserves under NI 43-101, CIM Standards and the JORC Code are not comparable to disclosures made by United States reporting companies. "Inferred Mineral Resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of a Probable Ore Reserve, Measured Mineral Resource, Indicated Mineral Resource or an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian and Australian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or other economic studies. United States Shareholders are cautioned not to assume that all or any part of Measured, Indicated or Inferred Mineral Resources will ever be converted into Ore Reserves. United States Shareholders are also cautioned not to assume that all or any part of an Inferred Mineral Resource exists, or is economically or legally mineable.

#### INTERNAL CONTROL OVER FINANCIAL REPORTING

Internal controls have been designed to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. As at September 30, 2018, the Company's Chief Executive Officer and Chief Financial Officer evaluated or caused to be evaluated under their supervision the effectiveness of the Company's internal control over financial reporting. The Chief Executive Officer and the Chief Financial Officer concluded that, as of September 30, 2018, the Company's internal control over financial reporting was effective and no material weaknesses were identified.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Company's management, including the Chief Executive Officer and Chief Financial Officer, does not expect that its disclosure controls and procedures or internal controls and procedures will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

The Company is required under Canadian securities laws to disclose herein any change in the Company's internal control over financial reporting that occurred during the Company's most recent interim period that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. There have been no changes in the Company's internal control over financial reporting that occurred during the Company's most recent interim period that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.



## **DISCLOSURE CONTROLS AND PROCEDURES**

Management is responsible for establishing and maintaining adequate internal controls over disclosure controls and procedures, as defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings of the Canadian Securities Administrators and Rules 13a-15(e) and Rule 15d-15(e) under the United States Exchange Act of 1934, as amended. Disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the Company's Chief Executive Officer and Chief Financial Officer, on a timely basis so that appropriate decisions can be made regarding public disclosure. As at September 30, 2018 management of the Company, with the participation of the Chief Executive Officer and the Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as required by Canadian securities laws. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that, as of September 30, 2018, the disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the publicly filed reports is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

