PRESS RELEASE 30 October 2020



ASX/TSX: CDV 2020-35

QUARTERLY ACTIVITIES FOR THE PERIOD ENDED 30 SEPTEMBER 2020

Cardinal Resources Limited (ASX: CDV; TSX: CDV) ("**Cardinal**" or "**the Company**") a Ghana gold focused exploration and development company, is pleased to present its Quarterly activities report for the period ended 30 September 2020.

HIGHLIGHTS

- On July 7, 2020 the Company announced that it had raised AU\$11,960,000 as a result of the issue of 26,000,000 fully paid ordinary shares to Shandong Gold Mining (Hong Kong) Co Ltd ("**Shandong Gold**") in accordance with the terms of the Bid Implementation Agreement.
- On July 15, 2020 Cardinal received an unconditional on-market takeover offer at AU\$0.66 per share from Nord Gold SE ("Nordgold"). Having regards to the unsolicited nature of the takeover bid and the provisions of the Bid Implementation Agreement with Shandong Gold, the Board of Cardinal recommended a 'take no action' at the time in relation to the Nordgold takeover bid.
- On July 20, 2020 the Company advised that its Namdini Mining Licence had officially received Sovereign Parliamentary Ratification in Ghana.
- On July 22, 2020 the Company advised that it had received a revised and improved proposal for an offmarket takeover from Shandong Gold, pursuant to which Shandong Gold will offer to acquire all of the shares in Cardinal it does not presently own at a cash price of AU\$0.70 per share.
- On July 27, 2020 the Company, after careful consideration of the Revised Shandong Gold Offer and Nordgold's unconditional on-market offer for Cardinal, Cardinal's Board of Directors (in consultation with the Special Committee, its financial and legal advisors), unanimously recommended that Cardinal shareholders
 - ACCEPT the Revised Shandong Gold Offer (in the absence of a superior proposal); and
 - **REJECT** the Nordgold Bid.
 - On July 30, 2020 the Company advised that it had entered into a deed with each of Shandong Gold to amend the Bid Implementation Agreement.
- On August 11, 2020 the Company released its Target Statement recommending shareholders accept Shandong Gold's offer.
- On August 20, 2020 Shandong Gold announced it had the Australian Foreign Investment Review Board (FIRB) approval for its takeover bid of Cardinal.
- On September 3, 2020 Nordgold announced an on-market increase in its bid to take over Cardinal.
- On September 7, 2020 Shandong Gold and the Company announced an increase and "acceptance recommendation" respectively to the Shandong Gold off-market offer for the takeover of Cardinal.



- On September 15, 2020 the Company Directors officially announced their acceptance of the Shandong Gold off-market bid, by each instructing their brokers / controlling participant to initiate acceptance of the Shandong Gold bid in respect to all Cardinal shares in their control, which amounted to 6.07% of total shares.
 - On September 21, 2020 Shandong Gold announced its takeover offer to be wholly "unconditional".
- On October 1, 2020 Nordgold announced that the offer period had been extended to close of trade on ASX on October 22, 2020.
- On October 8, 2020 the Company advised that 6,570,167 unlisted milestone options issued on December 10, 2019 had been exercised under the terms and conditions of Cardinal's Employee Stock Option Plan.
- On October 12, 2020 Shandong Gold announced its Offer Period will remain open for acceptance from the Offer Date until 7:00pm (Sydney time) on October 23, 2020.
- On October 15, 2020 Nordgold announced that the offer period had been extended to close of trade on ASX on November 3, 2020.
- On October 19, 2020 Shandong released its second supplementary Bidder's Statement and advised that the Offer price of AU\$1.00 per Cardinal Share was Best and Final in the absence of a higher competing offer.
- On October 21, 2020 Nordgold increased its offer price for the unconditional on-market all cash offer for all the ordinary shares in Cardinal from AU\$0.90 to AU\$1.00 cash per share.
- On October 23, 2020 the Company advised that it had received 28 letters from person who own or control 19.38% of the Company's shares to the effect that they intend to accept the unconditional off-market takeover offer by Shandong by Friday, October 30, 2020.
- On October 23, 2020 Shandong Gold announced its Offer Period will remain open for acceptance from the Offer Date until 7:00pm (Sydney time) on October 30, 2020.
- On October 26, 2020 Cardinal announced that Shareholders representing 22.81% of Cardinal's shares intend to accept Shandong Gold's offer in the absence of an increase from Nordgold or a superior offer.
- On October 26, 2020 Nordgold announced that it will not increase it's AU\$1.00 cash offer price for each Cardinal share under its on-market unconditional offer, unless there is a higher competing offer.
- On October 26, 2020 Shandong advised its intention to extend the Offer Period to December 31, 2020 and, if a higher competing offer were to be announced, to increase its Offer Price to AU\$1.05 per Cardinal Share.
- On October 28, 2020 Nordgold announced its intention to supplement its on-market unconditional cash offer with off-market offer on equivalent terms. If a higher completing offer is made, Nordgold may increase its offer price under its off-market offer, including to AU\$1.05 per share on another price that may defeat the higher competing offer and any competing offer from Shandong.
- On October 29, 2020 Nordgold announced that the offer period had been extended to close of trade on ASX on November 20, 2020.



OUTLOOK

The principal activity of the Company is gold exploration and mine development in Ghana. The Company holds tenements prospective for gold mineralisation in Ghana in two granite-greenstone belts: the Bolgatanga Project and the Namdini Gold Project ("Namdini"), which are, respectively, located within the 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 gold Ore Reserve of **5.1Moz** (138.6Mt @ 1.13g/t Au; 0.5g/t Au cut-off) inclusive of 0.4Moz Proved (7.4Mt @ 1.31g/t Au; 0.5 g/t Au cut-off) and 4.7Moz Probable (131.2Mt @ 1.12 g/t Au; 0.5g/t Au cut-off).

In response to the COVID-19 pandemic and following advice from the World Health Organization ("WHO") as well as the Australian, Ghanaian, and Canadian Governments, Cardinal has enacted changes to its exploration programme and on-site development programme, primarily focused on the safety and well-being of our workforce.

Most international travel to Ghana remains suspended. On the ground in Ghana, the workforce has been reduced to key personnel only. According to the latest WHO External Situation Report (October 18, 2020), there had been 47,372 confirmed cases of COVID-19 in Ghana, including cases via local transmission. 310 deaths from COVID-19 have been recorded in Ghana at the time of this report. At the time of writing, the Northern Region of Ghana, where Cardinal's main tenements are located, have recorded 547 COVID-19 cases with three recorded deaths. Some restrictions and lockdowns have been eased in Ghana with the international airport partially opened. Strict COVID-19 Operational Procedures have been introduced on site and in Cardinal Offices in Perth and Accra.

The Company is doing everything to ensure it is well placed to resume normal business as soon as practically possible. The Project technical team and its partners are still actively working on adding value to the Namdini Gold Project.



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Figure 1: Cardinal Resources Tenements in Ghana



THE NAMDINI GOLD PROJECT

Property Title / Mining Lease

A Large-Scale Mining License covering the Namdini Project Mining Licence was granted to Cardinal Namdini Mining Limited ("**Cardinal Namdini**"), a wholly owned subsidiary of Cardinal, by the Minister of Lands and Natural Resources ("**the Minister**") under the Ghanaian Minerals and Mining Act 2006 (Act 703) ("the Act") in December 2017.

In February 2020, the Minister - in accordance with the Act- approved the application to expand the original Mining Lease to the maximum allowable area. The expanded Large-Scale Mining Licence now totals 63km² and is valid for a renewable term of 15 years from 2020 (Figure 2).

Subsequent to the Quarter end the Company advised that its Namdini Project Mining Licence had officially received Sovereign Parliamentary Ratification in Ghana.



Figure 2: Location of 63 km² Namdini Project Mining Lease

*7.4Mt @ 1.31g/t Au for 0.4Moz Au Proved and 131.2Mt @ 1.12g/t Au for 4.7Moz Au Probable; 0.5g/t Au cut-off



Project Development Timeline

Table 1: Proposed Project	development schedule	(Subject to Finan	cing and COVID-19 impact)
		(••••)•••••••	

Milestone	Target timeline
Advance Front End Engineering and Design ("FEED") to completion	Q1 2021
Advance Resettlement Action Plan to substantial completion	Q2 2021
Target production commencement	H2 2023

Project Development Partners

Гаble	2:	FEED	Team:	
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COMPANY	ROLE
Lycopodium	Feasibility Study Managers. Process plant and associated infrastructure. Capital and Process Operating cost estimation.
AMC Consulting	Mine design, planning, optimization, scheduling and mining contractor tendering
Orway Mineral Consultants	Comminution data analysis, crushing and grinding option studies.
ALS Laboratory (Perth)	Metallurgical test work to support the process design criteria.
Knight Piésold Consulting	Tailings Storage Facility and selected infrastructure design.
Independent Metallurgical Operations	Metallurgical test work management and analysis
MPR Geological Consultants	Mineral Resource modelling of the Namdini Deposit.
Orefind	Geology and deposit structural genesis.
Sebbag Group International	Mine Design Management and Review.
NEMAS Consult & Geosystems Consulting	Environmental Impact Assessment Study.
Whittle Consulting	Enterprise Optimization of the Namdini Project.
Alastri Software	Tactical Scheduling, Haulage Modelling and Reserving Software.
Maelgwyn Mineral Services Africa	Aachen [™] process metallurgical optimization.
BDO Advisory	Financial Model Integrity & Reviewer (PEA, PFS and FS).
MKM Social	Socio-Economic Study and Resettlement Action Plan.

Project Permits and Approval Status

- July 2018 Environmental Impact Statement ("EIS") development and documentation process initiated
- December 2019 Cardinal submitted its Draft EIS for development of the Namdini Project with Ghanaian EPA
- January 2020 Ghanaian Environmental Protection Agency ("EPA") completed its review of the Draft Environmental Impact Statement (EIS) for the development of the Namdini Project. The EIS revised as needed and re-submitted in March 2020
- February 2020 Relocation Action Plan ("**RAP**") approved. The RAP was developed over an extended period, inclusive of extensive consultation with the Project Affected People (**PAP**) and several levels of the Government. It was signed off by all PAP and subsequently approved by the Ghanaian Minerals Commission



- February 2020 Water License granted. Permits the use of water for construction and mine operations purposes
- April 2020 Ghanaian EPA approves Cardinal's EIS, granting its Permit for the development of the Namdini Gold Project
- July 2020 The Namdini Project Mining Licence had officially received Sovereign Parliamentary Ratification in Ghana

Health, Safety & Environment

Developing a safe, successful, and sustainable gold mine continues to be a principal focus for Cardinal Resources. Progress on permitting and Occupational Health & Safety initiatives are as follows:

- A Coronavirus monitoring & management program is in place across the company. Daily meetings on Coronavirus update and prevention are ongoing on site.
- Cardinal submitted their application for Bulk Oil Facility permit from the Ghana EPA.
- The Principal Inspector of Mines (Minerals Commission) visited the Namdini site as part of a familiarization tour of the Upper East Region.
- Cardinal applied for certification from the EPA for the proposed Bulk Oil Storage Facility for the Namdini Gold Project
- Stakeholder engagement with Chiefs, farmers and landowners were completed for the proposed access road.
- The Register of Environmental Commitments was drafted.
- Aquatic biological and sediment baseline monitoring commenced as part of the EPA permit requirement
- Finalized HSE Standards, including Risk and Opportunity Management, Change Management, Legal Requirement, Document Control, Monitoring and Measurement.
- Flow monitoring of the Kubiliga and Zoan Buliga streams are ongoing.
- Aerial survey of the TSF impact area at Namdini was completed.
- The development of Cardinal's Safety Health Environmental and Training Management system is on-going as well as the development of environmental procedures and Register of Commitments.
- Submission of infrastructure plans for validation by Ghana National Fire Service Office in Bolgatanga was completed.
- Drafting of Environmental System Operating Procedures (SOP) is ongoing.
- Water monitoring returns were submitted to the Water Resource Commission as part or permit conditions.

Resettlement Action Plan (RAP)

The compensation for the 270 impacted households for loss of assets and livelihood has commenced at Namdini.

Further details are as follows:

- Community Relations Officer and Machinery Inspector from Minerals Commission visited site to discuss community relations and the resettlement project.
- Cardinal arranged Financial/Banking Education in collaboration with a regional institution for affected persons at Namdini's Accra Site
- Cardinal formally informed communities and stakeholders concerned about the Socio-economic and Livelihood Impact Study and scheduled engagement
- The Accra Site resettlement host site for regional survey was delineated and pegged
- Biung resettlement host site demarcation and acquisition is under review
- A RAP compensation report was completed by Golder Associates
- Data collection for the Socio-economic and Livelihood Impact Study is on-going
- A Biung Resettlement Committee meeting was held to update on sign-off exercise and address community concerns



• A facilitated meeting was held with the Tarkwa, Kejetia, Obuasi, Namoalug and Tindongo communities to complete data collection for the Socio-economic and the Livelihood Impact Study

Front End Engineering Design "FEED"

All works for the FEED program continue to be suspended due to the global spread of COVID-19 and the takeover bid process.

A summary of the FEED activities up to the point of suspension were as follows:

- Cardinal continued negotiating the separable Engineering Procurement and Construction Management contracts with Lycopodium
- An 11kV power supply selected for the river abstraction pumps as opposed to a diesel generator set
- Splitting of the oxygen demand into two separable oxygen plants for redundancy
- Specifications of the lease boundary fencing to be upgraded.
- A carbon-in-leach ("CIL") tower crane chosen as opposed to a gantry crane
- Addition of a semi-automatic Sodium Metabisulphite handling system
- Addition of a Lime Blower for delivery to the Process Plant outside of the Plant fence
- Haul truck crossovers for tailings and decant pipelines
- Flat pack versus block work for the permanent accommodation camp, fly camp and construction camp
- Reducing the size and hence cost of the primary crusher
- The site lay-out issued for final review
- The Project Execution Plan in the process of being reviewed by Cardinal
- An updated TSF dam breakage analysis completed and issued to Cardinal
- The WSF relocated and a new WSD designed to improve project economics.

The project execution schedule on the date of the suspension notice was ready for review by Cardinal.

Specific schedule target milestones remain defined as follows:

- Plant warehouse to be commissioned and handed over 12 months before first gold pour
- Incinerator to be commissioned and handed over 12 months before first gold pour
- Mining Service Area Facility to be commissioned and handed over 9 months before first gold pour
- Metallurgical laboratory to be commissioned and handed over 6 months before first gold pour

A constructability project review was completed during the FEED, to be ready for a planned Hazard Identification ("**HAZID**") analysis. The HAZID was cancelled due to the suspension.

The following procurement packages remain in various stages of evaluation as follows:

- Fly Camp Facilities, Operation and Camp Management
- Site Survey Services
- Infrastructure Bulk Earthworks
- Plant Bulk Earthworks
- Concrete Works
- Field Erected Tanks and Steel Framed Buildings
- Construction Camp Services

Mining contract tender expressions of interest were sent to thirteen (13) potential mining contractors, however this process was also suspended due to the same reasons described in this section.



Pioneer Access Road

- Agreement is in place with the Department of Feeder Road and the Talensi District Assembly to progress the pioneer road development.
- Construction activities (bush clearing) has commenced.
- Pegging activities in the Red Volta Forest Reserve has commenced.
- Survey works for the first 10 km of the Pioneer Road has been completed.



Figure 3 – Progress of Namdini Clearing for the Pioneer Access Road

Namdini Project Drilling

During the Quarter a diamond hole, NMDD182, was collared near the western edge of the proposed Life of Mine ("LOM") pit, some 200m west of previous drilling (Figure 4). Significant assay results to date from this drill hole are listed below in Appendix 1.

The drillhole was terminated at 917.9m downhole depth once the drilling intersected unaltered metasediments in the footwall (Figure 5).

Recent structural analyses of Namdini drill core have identified a broad west dipping shear with orientated core consistently indicating dextral reverse displacement on this shear which may offset the depth extension of the Namdini deposit to the West and South West.

The main mineralised lithological units (altered volcaniclastics and granitoids) found in the Namdini deposit were intersected in this drill hole. The volcanic units intersected consisted mainly of intermediate andesitic and mafic volcanics. Occasional narrow contorted shear zones with quartz veining and some alteration were mineralised.

The west dipping shear and different lithologies to those found in the Namdini deposit indicate that this drill hole should be placed into a semi-regional context to more fully understand the broader Namdini mineralising event and to aid further exploration.







Figure 4: Namdini Project Showing Completed NMDD182 Drill Location





Figure 5: Namdini Project Showing Cross Section of Completed Drill Holes

Namdini Infrastructure Sterilisation Drilling

During the Quarter, sterilisation drilling was suspended due to the COVID-19 restrictions. Sterilisation drilling to date has returned no significant mineralisation.



Namdini Infrastructure Geotechnical Drilling

No Geotechnical drilling and test-pitting were undertaken for the project infrastructure during the Quarter, due to the COVID-19 restrictions.

REGIONAL EXPLORATION UPDATE

The Company owns exploration rights to two exploration projects: The Bolgatanga Project which includes Bongo Licence Area, Kungongo Licence and Ndongo Licence Area (Figures 1 and 6) located in the northeast of Ghana and the Subranum Project located in the southwest of Ghana.

Exploration activities have included varying levels of airborne magnetic and radiometric surveying, regional and prospect-scale ground magnetic, gravity, chargeability, resistivity and radiometric geophysical surveys, regional and detailed geological mapping, rock chip and auger soil sampling and reverse circulation and diamond drilling programmes.

The Company's regional exploration programme during the Quarter was limited to field mapping, groundtruthing, trenching and some scout RC drilling initiated after a review of structures and targets generated from geophysical data, historical RC results and a follow up on identified geophysical targets with trenching and sampling programme at Yameriga (RL9/19) within the Ndongo Licence Area (Figure 6).



Figure 6: Namdini Gold Project and Bolgatanga Project Tenements

*7.4Mt @ 1.31g/t Au for 0.4Moz Au Proved and 131.2Mt @ 1.12g/t Au for 4.7Moz Au Probable; 0.5g/t Au cut-off



BOLGATANGA PROJECT

Ndongo Licence Area

The Ndongo Licence Area, hosts part of the extensive regional Bole-Bolgatanga Fault in the northwest and the prospective Nangodi Shear Zone in the centre of the licence area. The licence area wraps around the southern end of the Palungu granitoid intrusive, in the south-eastern region of the licence and forms the main area of perspectivity on the tenement (Figure 6).

The Ndongo Licence Area, comprises of the combined, Nangodi Prospecting Licence (PL9/13, covering a land size of 84.7km²), Ndongo Prospecting Licence (PL9/22, covering a land area of 157km²), and Yameriga Prospecting Licence (RL9/19, covering a land size of 36.78km²), granted to Cardinal to prospect for gold in the Bolgatanga and Talensi Nabdam District in the Upper East Region in the Republic of Ghana. The combined land area of the Ndongo Licence Area is 278.48km².

The Company exploration activities during the Quarter was limited to Yameriga Prospecting Licence, RL9/19 (Figures 6 and 7) due to COVID-19 restrictions. The Company continued the previous Quarter exploration activities conducting field mapping, ground truthing, trenching, pitting and some scout RC drilling following a review of geophysical targets, historical RC results and artisanal workings. Samples collected from the trenches and pits returned some encouraging results including:

- 1m @ 26.7g/t Au from surface in trench YMTR015;
- 1m @ 1.4g/t Au from4m in pit YMPT002; and
- 2m @ 0.98g/t Au from 3m in pit YMPT004.

The trench and pit samples were mainly weathered material (oxidised to sap-rock) with iron stained quartz veins (milky and smoky) in places. Occasionally panned and washed samples had visible specks of gold. Primary rocks encountered were variably altered and weathered quartz feldspar porphyry to the west of a shear zone and hematite and/or limonite altered and weathered volcaniclastics to the east (Table 3 and Figure 7).

A total of 5 scout RC drillholes totaling 425m were also completed during the Quarter (Table 3, Figure 7 and Schedule 1). All assay results were received from the RC drilling with significant intercepts including:

- 1m @ 2.2g/t Au from 42m in YMRC003;
- 1m @ 1.6g/t Au from 27m in YMRC020; and
- 1m @ 1.5g/t Au from 44m in YMRC020.

The results indicate the potential for discovery of economic gold mineralisation at Yameriga and warrant further detailed exploration work.

Programme	No. Holes	RC (m)	DD (m)	Total (m)	No. Samples	No. Duplicates	No. Blanks	No. Stds	Total Samples
Drilling	4	425	-	425	510	25	14	12	561
Pitting	4	25	-	25	22	1	-	1	24
Trenching	4	54	-	54	48	3	1	1	53

Table 3: Yameriga First Pass RC Drilling, Trenching and Pits



Figure 7: Yameriga Prospect with Drillholes, Trenches and Previous Grab Sample Locations.



Kungongo Licence Area

The Kungongo Prospecting Licence (RL9/28) is located approximately 40km west of Namdini Gold Project and covers a total land size of 122.4km². The licence hosts the extensive regional Bole-Bolgatanga fault over a length of 6km in the northwest corner of the tenement. The tenement is underlain by Birimian greenstones which have been extensively intruded by younger granitoids (Figure 6).

As part of the Company's precautionary measures put in place to minimize the risk of exposure of employees amid the COVID-19 pandemic, all exploration activity at Kungongo was placed on hold during the Quarter.

Bongo Licence Area

The Bongo Licence Area covers a total land area of 465km². It hosts part of the regional Bole-Bolgatanga Fault (Figure 6).

The Bongo Licence Area comprises of the combined, Bongo Prospecting Licence (RL9/29 covering a land size of 155km²) located in the Bongo area, Kandiga-Atibisi Prospecting Licence (PL9/38 covering a land size of 155km²) located in the Kandiga-Atibabisi area, and Zoko-Tarongo Prospecting Licence (PL9/37 covering a land size of 155km²) located in the Zoko-Tarongo area all in the Upper East region of Ghana.

As part of the precautionary measures put in place by the Company to minimise the risk of exposure of employees amid the COVID-19 pandemic, the Company suspended all exploration activity at the Bongo Licence Area during the Quarter.

SUBRANUM PROJECT

The Subranum Project covers an area of 71.4km² located in southwest Ghana. The license straddles the eastern margin of the Sefwi Gold Belt which is bounded by the regional Bibiani Shear Zone (**BSZ**) stretching about 200km across southwestern Ghana (Figures 1 and 8).

There is 9km of the BSZ developed within the Subranum license trending NE to SW. The BSZ forms a very prospective, sheared contact between Birimian phyllites and greywackes to the southeast and mafic to intermediate volcanics and volcaniclastics to the northwest. Granitoid stocks of the Dixcove suite intrude this shear zone.

The portion of the Bibiani Shear Zone occurring within the Subranum tenement is 9km long, trending SW to NE. Previous extensive exploration has outlined a 5km long gold target, extending from the SW tenement boundary towards the NE, with the remaining 4km of the 9km strike length remaining relatively unexplored.

All exploration activities were on hold during this Quarter as part of the Company's precautionary measures to minimize the risk of exposure of employees to COVID-19.





Figure 8: Subranum Project Tenement Straddling Bibiani Shear Zone

TENEMENT SCHEDULE - ASX LISTING RULE 5.3.3

The following tenement information is provided pursuant to ASX Listing Rule 5.3.3. No tenements in part or whole were relinquished, surrendered or otherwise divested during the Quarter ended September 30, 2020.

Project	Licence Area	Tenement Name	Tenement Number	Licence Type	Interest Acquired During Quarter	Interest Divested During Quarter	Interest Held at End of Quarter
		Bongo	RL9/29	Prospecting	-	-	100%
	Bongo	Kandiga- Atibabisi	PL9/38	Prospecting	-	-	100%
Bolgatanga		Zoko-Tarongo	PL9/37	Prospecting	-	-	100%
		Nangodi	PL9/13	Prospecting	-	-	100%
	Ndongo	Ndongo	PL9/22	Prospecting	-	-	100%
		Yameriga	RL9/19	Prospecting	-	-	100%
	Kungongo	Kungongo	RL9/28	Prospecting	-	-	100%
Namdini	Namdini	Datoko	PL9/29	Mining Lease	-	-	100%
Subranum	Subranum	Subin-Kaso	PL9/309	Prospecting	-	-	100%



CORPORATE UPDATE

On July 7, 2020 the Company issued 26,000,000 fully paid ordinary shares to Shandong Gold to raise AU\$11.96 million in accordance with the BIA. Shareholder approval was not required for this Placement as the Company issued the shares under its Listing Rule 7.1 placement capacity.

The funds raised by the Placement will be used to ensure Cardinal may continue advancing the Namdini Project towards development and working capital.

Takeover Offers for Cardinal Resources Limited

Shandong Gold

On June 18, 2020 the Company advised that it had entered into a Bid Implementation Agreement with Shandong Gold Mining (HongKong) Co, Ltd (a subsidiary of Shandong Gold Mining Co, Ltd) (**"Shandong Gold**"), pursuant to which Shandong Gold had agreed to acquire 100% of the issued and outstanding ordinary shares in Cardinal at a price of A\$0.60 cash per share, by way of an off-market takeover offer.

On July 22, 2020 the Company advised that it had received a revised and improved proposal for an off-market takeover offer from Shandong Gold, pursuant to which Shandong Gold will offer to acquire all the shares in Cardinal it does not presently own at a cash price of A\$0.70 per share.

On August 19, 2020 Shandong Gold advised that condition set out in clause 6.1(b) of Appendix 1 of the Bidders Statement (FRIB Approval) had been fulfilled (so that the Offer has become free of that condition) as the Shandong Gold received the no objection notification in relation to the acquisition of all the Cardinal shares by the Bidder from the Treasurer's delegate today.

On September 7, 2020 The Company advised that Shandong Gold remained committed to acquiring 100% of the Shares in Cardinal and increased the Offer Price of the Shandong Gold Offer to A\$1.00 per share.

On September 15, 2020 the Company announced that the Cardinal Directors, who collectively held approximately 6.07% of the Cardinal ordinary shares had instructed their broker/controlling participant to initiate acceptance of the off-market takeover offer by Shandong Gold in respect of all the Cardinal shares they own or control.

On September 21, 2020 Shandong Gold declared the Offer unconditional in accordance with section 650F of the *Corporations Act 2001* (Cth).

On October 12, 2020 Shandong Gold advised the extension of the Offer Period such that the Offer would remain open for acceptance from the Offer Date until 7:00pm (Sydney time) on 23 October 2020.

On October 19, 2020 Shandong released its second supplementary Bidder's Statement and advised that the Offer price of \$1.00 per Cardinal Share was Best and Final in the absence of a higher competing offer.

On October 23, 2020 the Company advised that it had received 28 letters from person who own or control 19.38% of the Company's shares to the effect that they intend to accept the unconditional off-market takeover offer by Shandong by Friday, October 30, 2020.

On October 23, 2020 Shandong Gold announced its Offer Period will remain open for acceptance from the Offer Date until 7:00pm (Sydney time) on October 30, 2020.

On October 26, 2020 Cardinal announced that Shareholders representing 22.81% of Cardinal's shares intend to accept Shandong Gold's offer in the absence of an increase from Nordgold or a superior offer.

On October 26, 2020 Shandong advised its intention to extend the Offer Period to December 31, 2020 and, if a higher competing offer were to be announced, to increase its Offer Price to \$1.05 per Cardinal Share.

Nordgold

On March 16, 2020 Nordgold announced that it had submitted a non-binding indicative and conditional proposal to acquire all the issued share capital of Cardinal not already owned by Nordgold at A\$0.45775 per Cardinal Shares.

On July 15, 2020 Nord Gold SE (Nordgold) announced an offer to acquire on-market for \$0.66 per Cardinal share all the fully paid ordinary shares in Cardinal which are listed for quotation on the official list of the Australian Securities Exchange that exist or will exist at any time during the offer period and that are not already owned by Nordgold and its associates.

On September 2, 2020 Nordgold increased its offer price under its unconditional on-market takeover offer for Cardinal from \$0.66 to \$0.90 cash per share.

On September 10, 2020 Nordgold advised that it would extend its offer period to close of trade on September 24, 2020.

On September 17, 2020 Nordgold advised that it would extend its offer period to close of trade on October 8, 2020.

On October 15, 2020 Nordgold announced that the offer period had been extended to close of trade on ASX on November 3, 2020.

On October 21, 2020 Nordgold increased its offer price for the unconditional on-market all cash offer for all the ordinary shares in Cardinal from \$0.90 to \$1.00 cash per share.

On October 26, 2020 Nordgold announced that it will not increase it's \$1.00 cash offer price for each Cardinal share under its on-market unconditional offer, unless there is a higher competing offer.

On October 28, 2020 Nordgold announced its intention to supplement its on-market unconditional cash offer with off-market offer on equivalent terms. If a higher completing offer is made, Nordgold may increase its offer price under its off-market offer, including to \$1.05 per share on another price that may defeat the higher competing offer and any competing offer from Shandong.

On October 29, 2020 Nordgold announced that the offer period had been extended to close of trade on ASX on November 20, 2020.

The Cardinal Board continues to unanimously recommend that Cardinal Shareholders **ACCEPT the Shandong Gold Offer** (in the absence of a Superior Proposal) and **TAKE NO ACTION in respect of the Nordgold Offer**.



CAPITAL STRUCTURE

As at October 30, 2020 the Company had the following capital structure:

	Capital Structure	Listed	Unlisted	Total
	Fully Paid Ordinary Shares (CDV)	537,870,609	-	537,870,609
	Unlisted Options Ex. \$0.75 on or before 21 Dec 2022	-	1,000,000	1,000,000
2	Milestone Options Ex. \$0.50 on or before 12 Apr 2022	-	18,500,000	18,500,000
	Milestone Options Ex. \$0.965 on or before 21 Dec 2022	-	2,018,100	2,018,100
	Milestone Options Ex. \$0.679 on or before 21 Dec 2022	-	2,180,049	2,180,049
	Milestone Options Ex. \$0.59 on or before 21 Dec 2022	-	2,180,049	2,180,049
	Unlisted Options Ex. \$1.00 on or before 21 Dec 2022	-	1,867,817	1,867,817

Cash Balance

The Company's cash balance at September 30, 2020 was approximately AU\$9.47 million.

APPENDIX 5B

Cardinal Resources Limited provides the following information in relation to payments to related parties and their associates, as required by 6.1 and 6.2 for the September 30, 2020 Appendix 5B.

HopgoodGanim Lawyers of which Michele Muscillo, a Non-Executive Director, is a partner of, provided legal services to the Company. Amounts that have been paid or payable total AU\$400,337 for the three months ended September 30, 2020.

During the Quarter ended September 30, 2020 a total of AU\$410,097 was paid to all Directors' of the Company as remuneration.

ABOUT CARDINAL

Cardinal Resources Limited (ASX/TSX: CDV) is a West African gold-focused exploration and development Company that holds interests in tenements within Ghana, West Africa.

The Company is focused on the development of the Namdini Gold Project and released its Feasibility Study on 28 October 2019.

Cardinal confirms that it is not aware of any new information or data that materially affects the information included in its announcement of the Ore Reserve of October 15, 2019. All material assumptions and technical parameters underpinning this estimate continue to apply and have not materially changed.

The Namdini Project has a published gold **Ore Reserve of 5.1Moz** (138.6Mt @ 1.13g/t Au; 0.5g/t cut-off), inclusive of 0.4Moz Proved (7.4Mt @ 1.31g/t Au; 0.5g/t cut-off) and 4.7Moz Probable (131.2Mt @ 1.12g/t Au; 0.5g/t cut-off).

Authorized for release by the Board of Cardinal Resources Limited.



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Competent / Qualified Person Statement

The information in this press release that relates to Exploration Results 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 mineralisation 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".

The scientific and technical information in this announcement that relates to Exploration Results, Mineral Resources and Ore Reserves at 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 mineralisation 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.

Cardinal confirms that it is not aware of any new information or data that materially affects the information included in its announcement Ore Reserve of 03 April 2019. All material assumptions and technical parameters underpinning this estimate continue to apply and have not materially changed.

ASX Listing Rule 5.23.2

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

- 26 Mar 2020 Cardinal Expands Namdini Mining Licence Area
- 11 Mar 2020 Cardinal Receives Approval for Resettlement Action Plan
- 27 Feb 2020 Cardinal Receives Key Water Extraction Permits
- 31 Jan 2020 31 Dec 2019 Quarterly Activities and Cashflow Report
- 29 Jan 2020 Namdini Project Finance Update
- 28 Nov 2019 Cardinal Files Feasibility Study NI 43-101 Technical Report
- 31 Oct 2019 Sep 2019 Quarterly Activities and Cashflow Report
- 28 Oct 2019 Feasibility Study Confirms Namdini as Tier One Gold Project
- 15 Oct 2019 Mineral Resource and Ore Reserve Statement
- 30 Sept 2019 Feasibility Study Update
- 16 July 2019 Cardinal's Starter Pit Infill Drilling Results
- 10 July 2019 Cardinal Reports Further Shallow High-Grade Gold
- 04 June 2019 Positive Metallurgical Update on the Namdini Project



- 18 April 2019 Addendum to Namdini Ore Reserve Press Release
- 03 April 2019 Cardinal's Namdini Ore Reserve Now 5.1 Moz
- 27 Mar 2019 Cardinal Intercepts High-Grade Shallow Gold at Ndongo East
- 23 Jan 2019 Cardinal Hits More High-Grade Shallow Gold at Ndongo East
- 28 Nov 2018 New Drill Season hits high-grade shallow gold at Ndongo East
- 29 Aug 2018 Cardinal Extends Ndongo East Discovery Strike Length
- 16 July 2018 Cardinal Makes New Gold Discovery at Ndongo East
- 28 May 2018 Encouraging First Pass Gold Results at Ndongo

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. Cardinal is not aware of any new information or data that materially affects the information included in its announcement of the Ore Reserve of October 15, 2019. All material assumptions and technical parameters underpinning this estimate continue to apply and have not materially changed.

Disclaimer

This ASX / TSX press release has been prepared by Cardinal Resources Limited (ABN: 56 147 325 620) ("Cardinal" or "the Company"). Neither the ASX or the TSX, nor their regulation service providers accept responsibility for the adequacy or accuracy of this press release.

This press release contains summary information about Cardinal, its subsidiaries and their activities, which is current as at the date of this press release. The information in this press release is of a general nature and does not purport to be complete nor does it contain all the information, which a prospective investor may require in evaluating a possible investment in Cardinal.

By its very nature exploration for minerals is a high-risk business and is not suitable for certain investors. Cardinal's securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to Cardinal and of a general nature which may affect the future operating and financial performance of Cardinal and the value of an investment in Cardinal including but not limited to economic conditions, stock market fluctuations, gold price movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

Except for statutory liability which cannot be excluded and subject to applicable law, each of Cardinal's officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this press release and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this Announcement or any error or omission here from. Except as required by applicable law, the Company is under no obligation to update any person regarding any inaccuracy, omission or change in information in this press release or any other information made available to a person nor any obligation to furnish the person with any further information. Recipients of this press release should make their own independent assessment and determination as to the Company's prospects, its business, assets and liabilities as well as the matters covered in this press release.

Forward-looking statements

Certain statements contained in this press release, including information as to the future financial or operating performance of Cardinal and its projects may also include statements which are 'forward-looking statements' that may include, amongst other things, statements regarding targets, anticipated timing of the feasibility study (FS) on the Namdini project, estimates and assumptions in respect of Mineral Resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These

'forward – looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Cardinal, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Cardinal disclaims any intent or obligation to update publicly or release any revisions to any forward-looking statements, whether as a result of new information, future events, circumstances or results or otherwise after today's date or to reflect the occurrence of unanticipated events, other than required by the Corporations Act and ASX and TSX Listing Rules. The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements.

All forward-looking statements made in this press release are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.



APPENDIX 1 NAMDINI MINING LICENCE DIAMOND DRILL RESULTS

	HoleID	Depth (m)	Dip (°)	Azimuth (°)	GridID	mEast	mNorth	mRL		
	NMDD182	917.97	-75	80	UTM WGS84 Zone 30 North	757,114.7	1,177,318.75	208.3		
)	Meta-Data Listing of Diamond Drillholes									

SampleID	GridID	mFrom	mTo	mWidth	Au (g/t)
NMDD182	UTM WGS84 Zone 30 North	194	197	3	1.1
NMDD182	UTM WGS84 Zone 30 North	406	409	3	1.0
NMDD182	UTM WGS84 Zone 30 North	535	540	5	0.6
NMDD182	UTM WGS84 Zone 30 North	562	573	11	1.5
NMDD182	UTM WGS84 Zone 30 North	704	712	8	0.8

YAMERIGA PROSPECTING LICENCE RC, TRENCH AND PIT RESULTS

Trench/PitID	GridID	mEast	mNorth	mFrom	mTo	mWidth	Au (g/t)
YMTR015	UTM WGS84 Zone 30 North	743,424	1,186,356	0	1	1	26.7
YMTR016	UTM WGS84 Zone 30 North	743,068	1,186,422	11	12	1	0.8
YMPT002	UTM WGS84 Zone 30 North	743,549	1,186,441	4	5	1	1.1
YMPT004	UTM WGS84 Zone 30 North	743,640	1,186,441	3	5	2	1.0

Summary of Individual Trench and Pit Significant intercepts at Yameriga Prospect.

SampleID	GridID	mFrom	mTo	mWidth	Au (g/t)
YMRC003	UTM WGS84 Zone 30 North	27	30	3	0.6
YMRC011	UTM WGS84 Zone 30 North	0	1	1	0.7
YMRC013	UTM WGS84 Zone 30 North	11	12	1	0.6
YMRC017	UTM WGS84 Zone 30 North	42	43	1	2.2
YMRC020	UTM WGS84 Zone 30 North	6	7	1	0.5
YMRC020	UTM WGS84 Zone 30 North	27	28	1	1.6
YMRC020	UTM WGS84 Zone 30 North	44	45	1	1.5
YMRC020	UTM WGS84 Zone 30 North	55	56	1	0.9

Summary of Individual RC Drilling Significant intercepts at Yameriga Prospect



APPENDIX 2

JORC CODE 2012 EDITION TABLE 1 REPORTING OF EXPLORATION RESULTS – NAMDINI AND YAMERIGA TENEMENTS

Section 1 – Sampling Technique and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Random Rock Chip samples comprise of sampling of random surface rocks by collecting rock pieces suitable for assaying. Samples weigh on average 1.5kg. Samples are photographed both wet and dry and geologically logged. Trench Channel samples comprise of sampling of continuous 1m or 2m interval channel near the base on the entire length of the west face with intervals dictated by observed alterations and mineralisation. Each homogenised sample weighs on the average 2.0kg. Reverse Circulation (RC) drill samples are collected by using downhole sampling hammers with nominal 140mm diameters. Samples are collected through a cyclone and immediately weighed to determine recoveries; the entire sample is then split by a three-tier riffle splitter. Two samples (~2.5-3.0 kg) are collected, one for the laboratory, the other a duplicate stored at the Bolgatanga sample shed. Diamond drill sampling is by longitudinal half-core samples of HQ core size.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sampling is guided by Cardinal Resources protocols and Quality Control procedures as per industry standard. To ensure representative sampling: Trench Channel sample tool and sampling site are cleaned between samples and sample material collected over the same interval and volume to ensure representative nature of the samples. 1m RC samples are collected from a cyclone, passing them through a 3-tier riffle splitter, and taking duplicate samples every 20 th sample.



	Criteria	JORC Code Explanation	Commentary
			HQ core samples are taken selectively through the altered, silicified and shear zones, with minimum 0.5m and maximum 1.5m lengths of sample.
D		Aspects of the determination of mineralisation that are Material to the Public Report.	The determination of mineralisation is based on observed alterations, silicification and shearing of the lithologies.
		In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other	Random Rock Chip, Trench Channel and RC samples are crushed to -2mm, then a <1kg split sample is pulverised via LM2 Ring Pulveriser to a nominal 85% passing - 75µm.
		cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine	Diamond drill samples are crushed to - 2mm, and a <1kg split sample is then pulverised via LM2 Ring Pulveriser to a nominal 85% passing -75µm.
		nodules) may warrant disclosure of detailed information.	For Random Rock Chip, RC and Diamond drill samples, a 200g sub-sample is taken from the pulverised material for analysis. A 50g charge weight is fused with litharge- based flux, cupelled and the prill dissolved in aqua regia. The gold tenor is then determined by AAS.
			For Trench Channel samples, a 1.5kg sub- sample is taken from the pulverised material and gold analysed using Active Cyanide Leach, 24-hour solvent extraction method.
ſ	Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details	Reverse circulation drilling uses sampling hammer of nominal 140mm diameter.
		(e.g. core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Diamond core drilling is completed with core size of HQ with a standard tube. Triple tube is used in saprolite at the tops of the holes. Core is orientated to determine both azimuth and dip using digital Reflex ACT II RD orientation tool.
			Drillholes are inclined at -45° to -60° angles for optimal zone intersection. All drill collars are surveyed using Trimble R8 RTK GPS with downhole surveying every 30m using Reflex digital surveying instruments.
		Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond core recovery is logged and captured into the database. The method of recording RC Chip and Core sample



Criteria	JORC Code Explanation	Commentary
		recoveries was to enter the relevant data on a hand-held Motion F5te Tablet PC using a set of standard templates supplied by Maxwell Geoservices, Perth (Maxwell).
		Reverse circulation sampling is good. RC chips are logged, weighed and captured to the database. RC sample recoveries are assessed by weighing 1m samples from the cyclone on a scale in the field and comparing with the theoretical volume contained in a 1m by 140mm diameter hole to calculate an estimated percentage sample recovery.
		Core recovered from each drill run is measured and compared with the drill run length drilled to calculate an estimated percentage core recovery. For core drilling the overall recoveries are excellent with weighted average recovery greater than 98%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Measures taken include the use of bigger HQ core size diamond drilling to maximise recovery, having a geologist onsite to examine core and core metres marked and orientated to check against the driller's blocks and ensuring that all core loss is taken into account.
		At the reverse circulation rig, sampling systems are routinely cleaned to minimise the opportunity for contamination and drilling methods are focused on sample quality. The measures taken to maximise RC sample recovery are through a cyclone and a 3-tier riffle splitter. Each 1m sample is passed twice through the splitter before sampling to ensure maximum homogenisation of each sample and to collect an unbiased representative sample to be assayed.
		The reverse circulation rigs have auxiliary compressors and boosters to help maintain dry samples. Where wet samples are encountered, the reverse circulation drilling is discontinued.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have	No relationship is seen to exist between sample recovery and grade, and no sample bias has occurred due to preferential

Criteria	JORC Code Explanation	Commentary
	occurred due to preferential loss/gain	loss/gain of any fine/coarse material due
	of fine/coarse material.	to the acceptable sample recoveries
		obtained by the drilling methods
		employed.
Logging	Whether core and chip samples have	Random Rock Chip samples are fully
	been geologically and geotechnically logged to a level of detail to support	logged.
	appropriate Mineral Resource estimation, mining studies and metallurgical studies.	All the exposed surfaces along the west trench wall sampled is geologically logged and entered directly to a digital Field Tough book laptop logging system using Cardinal geological codes.
		All drillholes are fully logged. The lithology, alteration and geotechnical characteristics of core are logged directly to a digital format on a Field Toughbook laptop logging system following procedures and using Cardinal geologic codes. Data is imported into Cardinal's central database after validation in LogChief [™] .
		Random Rock Chip and Trench Channel samples are only relevant to early stage exploration and not suitable to support Mineral Resource estimation.
		In the opinion of the Component Persons, all geological logging of RC and Core is to a level of detail to support future Mineral Resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is both quantitative and qualitative.
		All trench exposures are photographed.
		Both Random Rock Chip samples, Trench Channel samples, RC chips in trays and HQ core are photographed both in dry and wet form.
		The rock outcrop from where the Rock Chip sample was obtained is photographed with co-ordinates taken; portions of each sample submitted are retained as reference material.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full and to the total length of each drill hole.
Sub-sampling	If core, whether cut or sawn and	Orientation of core is completed for all
techniques and	whether quarter, half or all core taken.	diamond holes and all are marked prior to
sample preparation	,,	sampling. Longitudinally cut half core
	<u>I</u>	

30 September 2020 Quarterly Activities and Cashflow Report



JORC Code Explanation	Commentary
	samples are produced using a Core Saw with diamond impregnated blades. Samples are weighed and recorded.
If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RC samples are split using a three-tier riffle splitter. The majority of RC samples are dry. On occasions that wet samples are encountered, they are dried prior to splitting with a riffle splitter.
For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Random Rock Chip samples and Trench Channel samples are dried at 105°C for four hours and weighed. Samples are firstly Jaw Crushed and a second stage crushing is effected through a RSD Jaques crusher to a nominal -2 mm and then split to <1.0 kg. The reject sample is retained in the original bag and stored. The split is pulverised in a LM2 Ring Pulveriser to a nominal 85% passing 75µm.
	Approximately 200g sub-sample of the pulverised material of Random Rock Chip sample is used for assay. A 1.5kg sub-sample of the pulverised Trench Channel sample material was used for cyanidation bottle roll analysis for gold.
	RC drill samples are sorted and dried in an oven for 8 hours and weighed. They are then crushed to -2mm using a RSD Boyd crusher and a <1.0kg split is taken. The reject sample is retained in the original bag and stored. The split is pulverised in a LM2 Ring Pulveriser to a nominal 85% passing 75µm and a 200g sub-sample is used for analysis.
	Drill core samples are sorted, dried at 105°C for 4 hours and weighed. Samples are crushed through Jaques crusher to nominal -10mm. A second stage crushing is through Boyd crusher to nominal -2mm and then split to <1.0kg. The reject sample is retained in the original bag and stored. The split is pulverised in a LM2 Ring Pulveriser to a nominal 85% passing 75%µm and approximately 200g subsample of the pulverised material is used for fire assay.

Criteria

Criteria	JORC Code Explanation	Commentary
		All preparation equipment is flushed with barren material prior to commencement of the job.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Cardinal Resources has protocols that cover the sample preparation at the laboratories and the collection and assessment of data to ensure that accurate steps are used in producing representative samples for the analytical process. Key performance indices include: Contamination index of 95% (that is at least 95% of blanks pass); failures can only be attributed to probable minor laboratory contamination. Crushed Size index of 95% passing 2 mm (1:50 sample screened). Grind Size index of 85% passing 75 microns (minimum 1:50 sample screened). Check Samples returning at worst 20% precision at 90th percentile and bias of 5% or better.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Crusher and pulveriser are flushed with barren material at the start of every batch. Measures taken to ensure that the Trench Channel sampling is representative of the in-situ material collected is to take approximately 2.0kg homogenised samples across the entire 1m or 2m sampling interval.
		Measures taken to ensure that the RC sampling is representative of the in-situ material collected are to take field duplicate samples every 20 th sample. Approximately 3kg samples from the splitter are retained from each sample and stored at the company's secured premises for possible re-assay.
		Measures taken to ensure that the core sampling is representative is to sample half core at 0.5m (minimum) to 1.5m (maximum) intervals through the recognisable altered, silicified, mineralised shear zones.
		Results of field duplicates for RC samples and Check Samples for both RC and DD samples are all evaluated to ensure that



Criteria	JORC Code Explanation	Commentary
		the results of each assay batch are acceptable.
		1:20 grind quality checks are completed for 85% passing 75µm criteria to ensure the representativeness of sub-samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to the grain size.
Quality of Assay data and laboratory tests	Sampled. The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the	Trench Channel samples are analysed for gold using Active Cyanide Leach, 24-hour Solvent Extraction of a 1.5kg sample with AAS Finish: This analysis was undertaken at the Intertek laboratory in Ghana. Though, the cyanide leach method is considered a partial extraction technique, the 24-hour leach time should ensure high extraction. The larger sample volumes used for the leach method usually result in better representativity of grade where coarse grained gold/nuggety gold could potentially exist when compared to fire assay method which uses a much smaller sample volume that may not be representative due to coarse grained gold/nuggety gold existing in the sample volume. Random Rock Chip samples, RC samples and DD samples are analysed for gold by lead collection fire assay of a 50g charge with AAS finish; the assay charge is fused with the litharge-based flux, cupelled and prill dissolved in aqua regia with gold tenor determined by flame AAS. Fire assay is considered a total assay technique. In the opinion of the Competent Persons, the analytical methods are considered appropriate for the mineralisation style and is of industry standard. No hand-held geophysical tools are used.
	parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of	Cardinal's QAQC protocol is considered industry standard with certified reference materials (CRMs) submitted on a regular basis with routine samples. The CRMs



Criteria		JORC Code Explanation	Commentary
		accuracy (i.e. lack of bias) and precision have been established.	having a range of values and blanks are inserted in the ratio of 1:20. Duplicates are taken at the riffle splitter every 20 th sample. No duplicate samples are taken from DD core samples and trench samples.
			Pulps are submitted to a secondary laboratory for checks on the accuracy and precision of the primary laboratory.
			Coarse rejects are submitted back to the primary laboratory to assess the adequacy of the sub-sampling process.
			Laboratories' QAQC involves the use of internal laboratory standards using certified reference material and blanks.
			No standards are used for Rock Chip samples.
Verification sampling and assaying		The verification of significant intersections by either independent or alternative company personnel.	Significant results from Random Rock Chip sample and Trench Channel sample results have been verified by alternative company personnel.
			Significant drill intersections have been verified by alternative company personnel.
		The use of twinned holes.	None of the drill holes in this report are twinned.
		Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data are captured on field tough book laptops using LogChief [™] Software. The software has validation routines and data is then imported onto a secure central database.
		Discuss any adjustment to assay data.	The primary data is always kept and is never replaced by adjusted or interpreted data.
Location o points	f data	Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral	Random Rock Chip sample locations and Trench Channel sample sites are picked-up using hand-held GPS.
		Resource estimation.	Initially drill hole collar coordinates are obtained using handheld Garmin GPSmap 64s GPS within ±3m accuracy.
			Subsequently all drill collars are accurately surveyed using Trimble R8 RTK DGPS system within ±10mm of accuracy (X, Y, Z).
			Accuracy and quality of downhole surveys of RC and DD drill holes are determined by



	Criteria	JORC Code Explanation	Commentary
			using Reflex Ez-Shot survey instrument at regular 30m intervals.
		Specification of the grid system used.	Coordinate and azimuth are reported in UTM WGS84 Zone 30 North.
Э		Quality and adequacy of topographic control.	Topographic control at Yameriga was supplied by Southern Geoscience Consultants (Perth) using satellite imagery.
	Data spacing and distribution	Data spacing for reporting of exploration results.	Random Rock Chip sampling involved collecting surface samples from areas of interest with visible gold mineralisation. Sampling has therefore not been completed on a regular grid.
			The trenches were located at 335m spacings and they were designed to cut across previously identified coincident gold-in-soil and geophysical anomalies. Data spacing is appropriate for reconnaissance stage exploration sampling programmes.
			The RC drilling was carried out on variably spaced fence lines (25m to 400m apart) with hole spacing of 50m along lines testing mineralisation up to a vertical depth of approximately 65m and covering a strike length up to 400m.
		Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Exploration is at the early stage, and as such drill data spacing and distribution are insufficient to establish geological and grade continuity that are appropriate for reporting Mineral Resources and Ore Reserves.
	Orientation of data in relation to	Whether sample compositing has been applied.	No sample compositing has been applied.
_	geological structure	Whether the orientation of sampling achieves unbiased sampling of possible	Rock Chip sampling has been selectively conducted.
		structures and the extent to which this is known, considering the deposit type.	The orientation of trenches is not likely to bias the assay results and is not relevant given the early stages of exploration. Drillholes are orientated to achieve intersection angles as close to perpendicular to the mineralisation as practicable based on geophysical modelling and field mapping data. Some sampling bias may occur.



Criteria	JORC Code Explanation	Commentary
		Systematic geological mapping and structural information from the current diamond drilling are required to determine the true orientation of dips and structures of the mineralisation.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No significant orientation-based sampling bias is known at this time.
Sample security	he measures taken to ensure sample security.	An independent Ghanaian security contractor is used to ensure sample security.
		The drilling contractor is accountable for drill core and RC chip production at the drill site. Final delivery from the drill site to the laydown area within the core yard is managed by Cardinal. The core yard technicians, field technicians and Geologists ensure the core and chips are logged, prepared and stored under security until conveyed to a nearby accredited sample preparation laboratory by Cardinal. At the time of sample delivery at the laboratory, a sign-off process between Cardinal and the laboratory ensures that
		samples and paperwork correspond and samples are receipted against the Cardinal submission sheets. The sample preparation laboratory is responsible for the samples from the time of collection from Cardinal until pulps and rejects are collected and checked by Cardinal Geologists.
		Two pulp samples are produced: one pulp dispatched by Cardinal to the appropriate laboratory for assay; the duplicate pulp and reject stored by Cardinal in a secure storage facility for possible re-assay or other testwork.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques are of industry standards.



Section 2 – Reporting of Exploration Results

(Criteria listed in section 1 will also apply to this section where relevant)

	Criteria	JORC Code Explanation	Commentary
	Mineral	Type, name/reference number, location and	Cardinal has 100% ownership of Yameriga
D	Tenement and Land Status	ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	Prospecting Licence PL9/19 covering a land size of 36.78km ² to prospect for gold in the Bolgatanga and Talensi Nabdam District in the Upper East Region in the Republic of Ghana. The Licence was originally owned by Red Back Mining Ghana Limited. In August 2017, Cardinal entered into a definitive agreement with Red Back Mining Ghana Limited to acquire total ownership of Yameriga Prospecting Licence. The
		The security of the tenure held at the time of	Yameriga Prospecting Licence: The Yameriga Prospecting Licences is subject to a 1% NSR royalty payable to Kinross Gold Limited (via its acquisition of Red Back Mining) on all minerals mined, removed and sold. The Yameriga Prospecting Licence is
		reporting along with any known impediments to obtaining a license to operate in the area.	current and in good standing at the Ghanaian Mineral Commission.
	Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Prior to Cardinal acquiring ownership of Yameriga from Red Back Mining Ghana Limited in August 2017, the Licence has been the subject of previous exploration by BHP, Africwest, Etruscan (JV with Red Back) and Abzu (JV with Red Back).
	Geology	Deposit type, geological setting and style of mineralisation	The geological setting is a Paleoproterozoic Greenstone Belt comprising Birimian metavolcanics, volcaniclastics and metasediments located in close proximity to the Nangodi Shear Zone, a splay off the extensive Bole- Bolgatanga Fault.
			Gold mineralisation occurs within shear zones comprising alteration haloes containing higher grade lenses of altered, silicified, sheared metavolcanics and disseminated sulphides
	Drill hole information	A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes: Easting and northing of the drill hole collar Elevation or RL (Reduced Level	A summary of the Random Chip sampling, Trench Channel sampling and drillhole information is provided in this document.



Criteria	JORC Code Explanation	Commentary
	levation above sea level in meters) of the drill hole collar Dip and azimuth of the hole Down hole length and interception depth Hole length If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	There has been no exclusion of information.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No weighting averaging techniques nor cutting of high grades have yet been undertaken.
	Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Aggregated intersections incorporating short lengths of high-grade results within the shear zones are calculated to include no more than intervals of 3m below grades of <0.5 g/t Au when assay results are reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are used in the intersection calculation.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results.	Random Rock Chip and Trench Channel sampling are designed to assess the potential of gold mineralisation sources.Therelationshipbetween mineralisationwidths and intersection lengths from DD and RC drilling are not yet fully understood.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole	The geometry of the mineralisation with respect to the drillhole angles is not yet known. The geometry of the mineralisation is unknown; only downhole length is reported (no true width of mineralisation
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.	is reported (no true with or mineralisation is reported). Appropriate locality map, cross sections of the drilling, interpreted geology and assays are included within the body of the accompanying document.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be	The accompanying document is considered to represent a balanced report.

Criteria	JORC Code Explanation	Commentary
	practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical	Other exploration data collected is not considered material to this document at this stage.
	survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Further data collection will be reviewed and reported when considered material.
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Geological mapping, surface rock sampling, trenching, geochemical surveys, geophysical surveys and DD/RC drilling are continuing.



Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
Cardinal Resources Limited	
ABN	Quarter ended ("current quarter")
56 147 325 620	30 September 2020

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	_
1.2	Payments for		
	(a) exploration & evaluation	(1,649)	(1,649)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(1,119)	(1,119)
	(e) administration and corporate costs	(1,714)	(1,714)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	6	6
1.5	Interest and other costs of finance paid	(399)	(399)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	55	55
1.8	Other (provide details if material)	(156)	(156)
1.9	Net cash from / (used in) operating activities	(4,976)	(4,976)

Cas	h flows from investing activities		
Pay	ments to acquire or for:		
(a)	entities	-	-
(b)	tenements	-	-
(c)	property, plant and equipment	(13)	(13)
(d)	exploration & evaluation	-	-
(e)	investments	-	-
(f)	other non-current assets	-	-
	Pay (a) (b) (c) (d) (e)	 (b) tenements (c) property, plant and equipment (d) exploration & evaluation (e) investments 	Payments to acquire or for:(a) entities(b) tenements(c) property, plant and equipment(13)(d) exploration & evaluation(e) investments

Appendix 5B
Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Cons	olidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements		-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)		-
2.6	Net cash from / (used in) investing activities	(13)	(13)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	11,960	11,960
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(40)	(40)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	(1,181)	(1,181)
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	10,739	10,739

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,709	3,709
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(4,976)	(4,976)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(13)	(13)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	10,739	10,739

Appendix 5B Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Conse	olidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	18	18
4.6	Cash and cash equivalents at end of period	9,477	9,477

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	8,865	3,402
5.2	Call deposits	612	307
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	9,477	3,709

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	810
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation fo such payments.

7.	Financing facilities Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	35,680	35,680
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	_
7.4	Total financing facilities	35,680	35,680

7.5 Unused financing facilities available at quarter end

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

The credit facility is secured by Ghana Infrastructure Fund completed on 1 June 2020. The key terms of the credit facility are as follows:

- Committed loan facility of US\$25 million;
- 24-month repayment term, being 1 June 2022;
- Interest rate of greater of LIBOR or 1% + 7.75%; and
- 50% of the interest if accrued and payable on maturity.

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

8.	Estimated cash available for future operating activities	\$A'000		
8.1	Net cash from / (used in) operating activities (item 1.9)	(4,976)		
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-		
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(4,976)		
8.4	Cash and cash equivalents at quarter end (item 4.6)	9,477		
8.5	Unused finance facilities available at quarter end (item 7.5)	-		
8.6	Total available funding (item 8.4 + item 8.5)	9,477		
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	Approximately 2		
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.			
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:			
	8.9.1 Does the entity expect that it will continue to have the current level of not operating each			

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Not Applicable

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: Not Applicable

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Not Applicable

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 30 October 2020

Authorised by: Sarah Shipway

Company Secretary (Name of body or officer authorising release – see note 4)

Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.