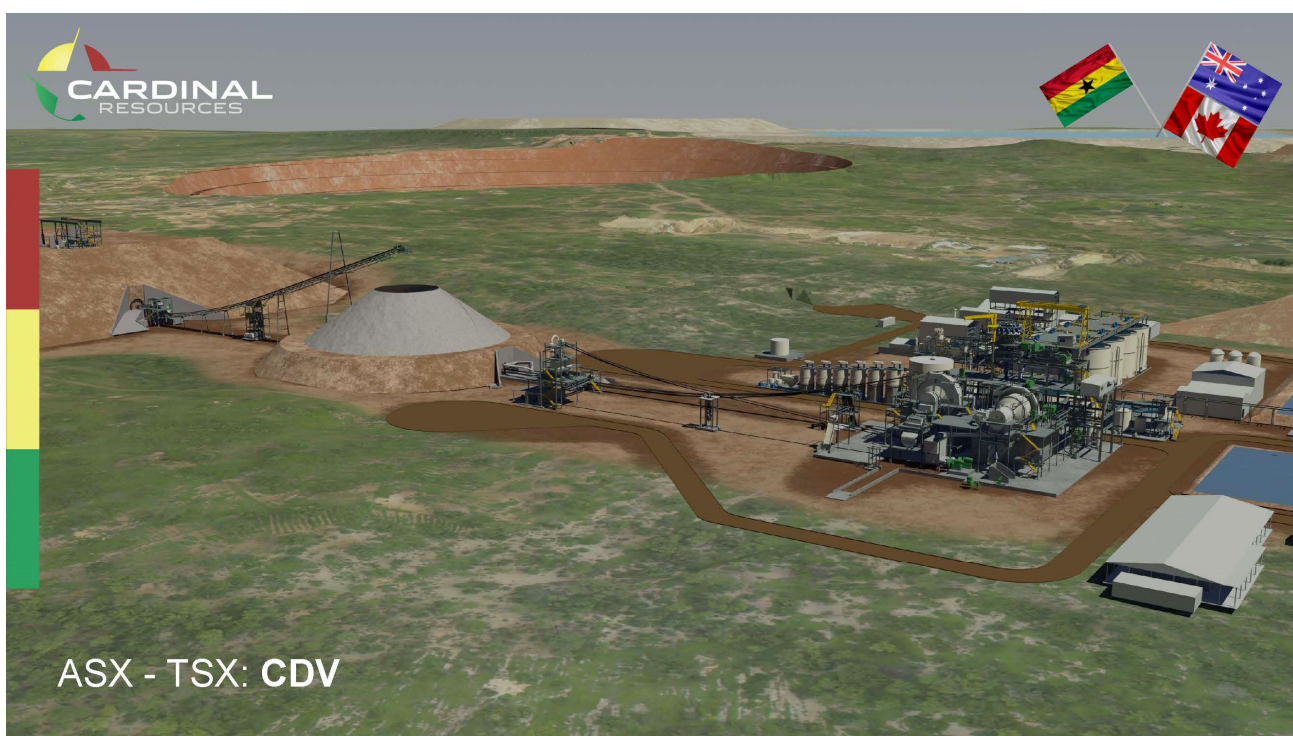




2019 ANNUAL REPORT



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Board of Directors	Kevin Tomlinson Archie Koimtsidis Malik Easah Michele Muscillo Dr. Kenneth G. Thomas Trevor Schultz	Non-Executive Chairman Managing Director Executive Director Non-Executive Director Non-Executive Director Non-Executive Director
Chief Financial Officer	Jon Grygorcewicz	
Company Secretary	<u>Australia</u> Sarah Shipway	<u>Canada</u> Charlotte May
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(the “Company” or the “Corporation” or “Cardinal”)

MANAGEMENT’S DISCUSSION AND ANALYSIS For the year ended June 30, 2019

GENERAL

This Management’s Discussion and Analysis (“**MD&A**”) supplements but does not form part of the audited consolidated financial statements of the Company for the three and twelve months ended June 30, 2019. The following information, prepared as of September 3, 2019, should be read in conjunction with the Company’s audited consolidated financial statements for the year ended June 30, 2019 and the audited consolidated 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 tenements prospective for gold mineralisation in Ghana in two granite-greenstone belts: the Bolgatanga Project and the Namdini Gold Project (“Namdini Gold Project” or “Namdini”), which are, respectively, located within the Greenstone Belts in northeast Ghana and the Subranum Project, which is located within the Sefwi Greenstone Belt.

The main focus of activity is the Namdini Gold Project which has a gold Mineral Reserve of 5.1 Moz (138.6Mt @ 1.13g/t Au; 0.5g/t Au cut-off) inclusive of 0.4 Moz Proved (7.4 Mt @ 1.31g/t Au; 0.5 g/t Au cut-off) and 4.7 Moz Probable (131.2 Mt @ 1.12 g/t Au; 0.5g/t Au cut-off).



Figure 1: Cardinal Resource’s Tenements in Ghana

OUTLOOK

The principal activity of the Company (and its subsidiaries) is gold exploration and mine development in Ghana. The Company holds interests in tenements prospective for gold mineralisation in Ghana in two NE-SW trending Paleo-Proterozoic granite-greenstone belts: the Bolgatanga Project and the Namdini Gold Project”, 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 gold Mineral Reserve of 5.1 Moz (138.6Mt @ 1.13g/t Au; 0.5g/t Au cut-off) inclusive of 0.4 Moz Proved (7.4 Mt @ 1.31g/t Au; 0.5 g/t Au cut-off) and 4.7 Moz Probable (131.2 Mt @ 1.12 g/t Au; 0.5g/t Au cut-off) and a soon to be completed Feasibility Study. The Company expects to continue to generate positive news flow from its ongoing greenfield exploration assets and Feasibility Study activities.

CORPORATE HIGHLIGHTS

- On April 3, 2019 the Company announced an updated Mineral Reserve for the Namdini Gold Project which included a Mineral Resource update and optimisation studies to improve the level of definition of the current pit design.
- On April 10, 2019 the Company announced its Feasibility Study status and project finance updates. The Company remains on schedule for delivery of the Feasibility Study by end of Q3 2019.
- On June 4, 2019 the Company announced positive metallurgical updates on the Namdini Gold Project as a result of investigation into the utilisation of the Aachen™ process. Results of preliminary testwork has demonstrated potential for material improvements to the projects economics, including possible reduction in both operating and capital costs. Further testwork is continuing, to provide definitive data.

Subsequent to end of Quarter

- On July 10, 2019 the Company reported further shallow drill results at the Ndongo East discovery located approximately 24km north and within hauling distance of the Company’s Namdini Gold Project. The close spaced drilling has delineated a well-defined mineralised zone over a strike length of 150 metres, within the initial 450 metre mineralised discovery zone.
- On July 12, 2019 the Company held a public hearing and a presentation for the Traditional Paramount Chief.
- On July 16, 2019 the Company announced the results of an infill program for the Namdini Deposit. The close spaced infill drilling, along with the previous Grade Control program within the proposed starter pit, confirms the robustness of the Namdini Mineral Resource.

Successful Public Hearing – Strong local support for the Namdini Project

Under the supervision of Ghana Government Ministries, Environmental Protection Agency and The Minerals Commission, Cardinal held a public hearing for the Namdini Gold project which exceeded expectations in relation to the current and future support of the Namdini Project proceeding into mine development.

Local invited dignitaries and participants from all the surrounding communities attended the public hearing which was well received. There were no objections or obstructions to the Namdini Project proceeding.

A separate presentation was conducted for the Traditional Paramount Chief of the Upper East Region, Tongraan Kugbilsong Nanlebegtang, and his Sub-Chiefs within the Talensi District, where the Namdini Project is located. This was also successful in garnishing continued support for the Namdini Project.



Public Hearing at Namdini Project site



Traditional Paramount Chief Presentation

THE NAMDINI GOLD PROJECT

Property Title / Mining Lease

A Large-Scale Mining License covering the Namdini Mining Lease was granted 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) in December 2017. The Large-Scale Mining License covers 19.54 km² in the Dakoto area of the Talensi District Assembly in Upper East Region of Ghana evidenced by a Mining Lease for an initial period of 15 years and is renewable.

Table 1 lists the coordinate extents of the Namdini Gold Project lease. Approximate central coordinates of the deposit are 756,400.0mN, 1,177,050.0mE in WGS (UTM) 84 Zone 30N projection or 10°38’ 21” N Longitude and 0°39’.23” W Latitude.

Corner	Longitude	Latitude
Top Left	10° 39' 42" N	0° 40' 15" W
Top Right	10° 40' 57" N	0° 38' 30" W
Bottom Right	10° 37' 00" N	0° 38' 30" W
Bottom Left	10° 36' 60" N	0° 40' 15" W

Table 1: Coordinates of the Namdini Gold Project Lease

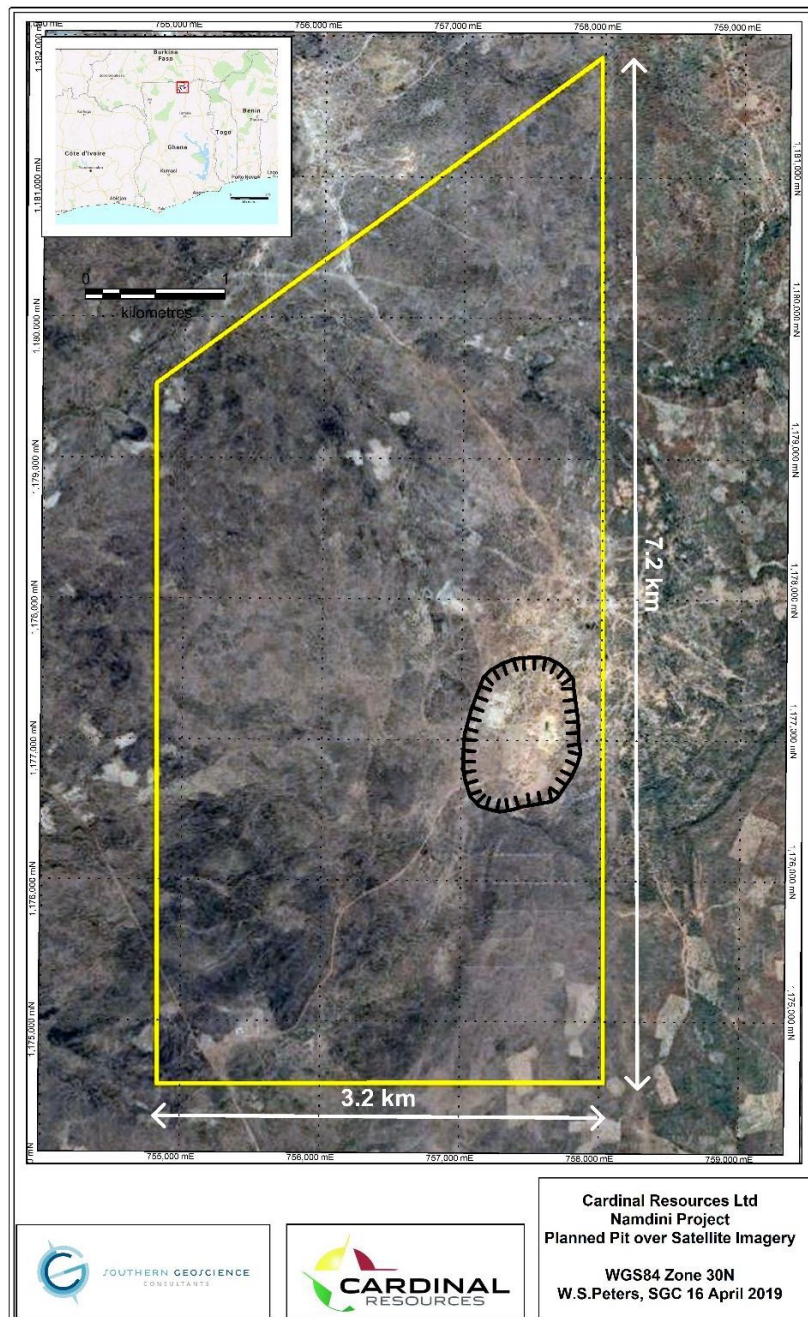


Figure 2: shows the lease and pit outline superimposed on the regional physiography image.

Mineral Resource and Mineral Reserves Update

The Mineral Resource incorporates the results from all resource drilling to February 5, 2019 comprising 175 HQ diamond core holes and 151 RC drill holes totalling 87,140 metres. (ASX / TSX Press Release April 3, and April 18, 2019)

Reverse circulation drilling (nominally 5¼ inch diameter) was generally 200 metres or less in depth.

Diamond drilling was HQ in both weathered and fresh rock. Most diamond holes and RC holes were downhole surveyed at intervals of generally 30 metres. All HQ core was orientated.

The resource drilling comprises east-west trending traverses of easterly inclined holes. Hole spacing varied from around 12.5 by 25 metres in shallow portions of the southern part of the deposit to around 50 by 50 metres and broader in the north and at depth.

Tables 2 and 3 highlight the Mineral Resource estimation reported at a 0.5 g/t Au cut-off grade. Currently, the 0.5 g/t Au cut-off grade approximates 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). The effective date of the Mineral Resource estimate is the April 3, 2019.

All figures in Tables 2 and 3 have been rounded to reflect the relative precision of the estimates and to include rounding errors. Mineral Resources are inclusive of Ore Reserves.

Mineral Resource Category	Material Type	Tonnes (Mt)	Gold Grade (g/t Au)	Contained Gold (Moz)
Measured	Oxide	1.1	1.23	0.04
Measured	Fresh	6.4	1.33	0.27
Measured Resource	Total	7.5	1.31	0.32
Indicated	Oxide	3.3	1.08	0.11
Indicated	Fresh	171	1.11	6.10
Indicated Resource	Total	174	1.11	6.21
Measured and Indicated	Oxide	4.40	1.12	0.16
Measured and Indicated	Fresh	177	1.12	6.38
Measured and Indicated	Total	182	1.12	6.53

Table 2: Namdini Measured and Indicated Mineral Resource estimate at 0.5g/t Au cut off – April 3, 2019

Mineral Resource Category	Type	Tonnes (Mt)	Gold Grade (g/t Au)	Contained Gold (Moz)
Inferred	Oxide	0.04	1.0	0.001
Inferred	Fresh	12	1.2	0.46
Inferred Resource	Total	12	1.2	0.46

Table 3: Namdini Mineral Resource Inferred estimate at 0.5 g/t Au cut off – April 3, 2019

Mineral Reserves were estimated for the Namdini Gold Project by Golder Associates, which is summarised in Table 4. The total Proved and Probable Ore Reserve is estimated at 138.6Mt at 1.13g/t Au with a contained gold content of 5.1 Moz at 0.5 g/t Au cut off.

The Mineral Reserve for the Project is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, JORC Code 2012 and Canadian Institute of Mining, Metallurgy and Petroleum “CIM Definition Standards for Mineral Resources and Mineral Reserves” (CIM, 2014). The Mineral Resource was converted after applying Modifying Factors. The Proved and Probable Mineral Reserve estimate are based on the Mineral Resource classified as Measured and Indicated. Table 4 presents a summary of the Ore Reserves on a 100% Project basis.

Mineral Reserve Category	Type	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Proved	Oxide	1.0	1.21	0.1
Proved	Fresh	6.4	1.33	0.3
Proved Reserve	Total	7.4	1.31	0.4
Probable	Oxide	3.0	1.08	0.1
Probable	Fresh	128.2	1.13	4.6
Probable Ore Reserve	Total	131.2	1.12	4.7
Proved and Probable	Oxide	4.1	1.11	0.2
Proved and Probable	Fresh	134.5	1.13	4.9
Proved and Probable	Total	138.6	1.13	5.1

Table 4: Summary of Namdini’s Proved and Probable Mineral Reserve estimate at 0.5 g/t Au cut off – April 3, 2019.

Table 4 Notes:

1. The Mineral Reserve reported in accordance with JORC Code 2012 guidelines and Canadian Institute of Mining, Metallurgy and Petroleum “CIM Definition Standards for Mineral Resources and Mineral Reserves” (CIM, 2014).
2. The Mineral Reserve was evaluated using a gold price of USD \$1,300 / oz with USD \$1,225 / oz optimised pit chosen for Mineral Reserve pit design to maximise cash flow.
3. The Mineral Reserve was evaluated using an average cut-off grade of 0.5 g/t Au.
4. Ore block grade and tonnage dilution was incorporated through the use of an MIK recoverable resource estimation model which was demonstrated to incorporate an expected level of equivalent ore loss and dilution for the scale of mining envisaged.
5. All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.

The mine design and Mineral Reserve estimate is based on the Mineral Resource model of April 3, 2019.

Trial open pit optimisations were run in Whittle 4X™ software to define the base of potentially economic material. Four cut back pits were then selected and full mine designs applied.

The Measured and Indicated Mineral Resource are inclusive of those Mineral Resources modified to produce the Mineral Reserves.

Project Development and Finance Update

Project Finance Adviser, Cutfield Freeman & Co, has been working closely with Cardinal to ensure that Cardinal is well positioned to execute project finance for the Namdini Gold Project as swiftly as possible following completion of the Feasibility Study.

There has been substantial interest received from a range of potential financiers, providing the Company with a strong degree of confidence that it will be capable of securing the required project funding package on favourable terms.

Cardinal's Project Finance team is continuing to evaluate Indicative Term Sheets from a number of project financiers including traditional senior debt lenders to possible corporate scenarios.

Project Development Partners

COMPANY	ROLE
Lycopodium	Feasibility Study Managers. Process plant and associated infrastructure. Capital and Process Operating cost estimation.
Golder Associates	Mine design, planning, optimisation and scheduling. Geotechnical, Hydrology and Hydrogeological engineering. Mine operational costs and compilation of the JORC (2012) and NI 43-101 Technical reports.
Orway Minerals Consultants	Comminution data analysis, crushing and grinding option studies.
ALS Laboratory (Perth)	Metallurgical testwork to support the process design criteria.
Knight Piésold Consulting	Tailings Storage Facility and selected infrastructure design.
Independent Metallurgical Operations	Metallurgical testwork management, analysis and process flowsheet development.
MPR Geological Consultants	Mineral Resource modelling of the Namdini Deposit.
Orefind	Geology and deposit structural genesis.
Sebbag Group International	Mine Design Review.
NEMAS Consult & Geoscience Consulting	Environmental Impact Assessment Study.
Whittle Consulting	Enterprise Optimisation of the Namdini Project.
Alastri Software	Tactical Scheduling, Haulage Modelling and Stockpile Management Software.
Maelgwyn Mineral Services Africa	Aachen™ process metallurgical optimisation.
BDO Advisory	Financial Model Integrity & Reviewer (PEA, PFS and FS).
MKM Social	Socio-Economic Study and Resettlement Action Plan.

Table 5: Study Team

Project Metallurgical Update

Cardinal has been working with Maelgwyn Mineral Services Africa (MMSA) for approximately two years. Initial positive leach results were returned from MMSA laboratories in South Africa from pilot scale testwork utilising the Aachen™ process which has led the Company to further the testwork as results were highly encouraging. These results were announced in ASX/TSX announcement on June 4, 2019. Aachen™ is a relatively simple, proven process being used by several gold producers. These operations have consistently demonstrated an uplift in gold recoveries.

Testwork on integrating the Aachen™ process into the Namdini flowsheet demonstrated potential to increase gold recovery for the Life of Mine study and also suggested an increase in the regrind size from sub 10 microns (µm). Further substantial testwork is ongoing to consider the optimal regrind size and target recovery. A detailed cost benefit analysis is underway as part of the programme.

Feasibility Study Update

Cardinal continued with its feasibility study (FS) engineering consultants in detailing the Namdini Gold Project design for further mining, processing and infrastructure definition. A number of site visits have been held to further define:

- Infrastructure (**Knight Piesold**):
 - Further geotechnical testing of the waste dump, tailings storage facility, water storage facility, air strip and access road;
 - Geological testing included test pitting of 124 different locations within the project area
 - A walkover survey of site was carried out in order to inspect the existing terrain in relation to the proposed infrastructure developments and potential borrow sources. A series of observations and photographs were collected during the walkover/inspection of the water storage facility site, airstrip site, access road alignment, potential drainage medium and concrete aggregate sources, process plant site and open pit footprint;
 - Bulk samples of sand were collected from a tributary of the White Volta River approximately 5km from Namdini in order to assess its suitability for use as drainage medium in construction of the TSF;
 - Three existing rock quarries located near to the town of Pwalugu 26 km from the Namdini Project on Highway 10 to Bolgatanga were visited in order to inspect the quarry operations, to sample the quarry products for suitability testing for use as fine and coarse concrete aggregate and to source typical prices for the various construction products; and
 - Representative samples of in-situ soils were collected from test pits and boreholes for lab testing.
- In-country Construction Capability (**Lycopodium**):
 - Meeting with in-country contractors and suppliers to ascertain capacity, capability and workload with the intent to select potential contractors and commence prequalification;
 - Improve understanding of local procurement availability;
 - Gain detailed insight into the local and government authorities involved with the project approval process regarding construction;

- Investigate the Government's list of local procurement suppliers suitable for the Namdini Gold Project;
- Perform due diligence on construction plant and equipment availability in-country; and
- Ascertain transportation and logistics requirements.
- Maelgwyn Minerals South Africa (MMSA) Visit (**Lycopodium and Cardinal Team**):
 - Visits to the MMSA laboratory facilities in Johannesburg, South Africa and three mining operations where the Aachen™ process is currently operating occurred in March and June 2019;
 - These visits were highly informative and encouraging in demonstrating successful scale up of the Aachen™ reactor from bench top and pilot laboratory testwork to full scale operation and its applicability to Namdini; and
 - MMSA offer a full installation and maintenance lease programme for their units, which have been proven to be successful by a number of gold producers.

The mining design at Namdini has focused on maximising value in extracting and processing the higher-grade areas of the pit during the initial years of production. Multiple mining schedules are being assessed with the best case being selected, including capital cost payback, profitability as well as sustainability.

The Namdini flowsheet design has been updated to include the Aachen™ unit which will be installed as part of the pre-leach aeration tank after the regrind circuit. The unit is effortlessly installed and requires a minimum footprint.

The FS engineering design for the process facility and associated infrastructure is nearing completion. Cardinal's engineering consultants, Lycopodium, have solicited detailed quotations and tenders for a principle equipment and materials in the design. Local companies have been approached to provide budget pricing for potential supply of construction materials and labour.

The capital and operating cost estimates are being populated with all recent tenders, quotations and data which will be developed into fully costed estimates, delivering a well-rounded feasibility study.

Environmental and Social Update

Developing a successful and sustainable gold mine is a key focus for Cardinal, as part of our Corporate Social Responsibility in ensuring Social Licence, including local and national participation, social and community uplift, whilst ensuring environmental rehabilitation and where possible enhancement. Cardinal currently employs three local consultants for its Environment Protection Agency (EPA) approval process and Relocation Action Plan (RAP) process. All environmental applications have been submitted and public hearings were recently concluded with no objections and positive feedback. It is anticipated that the necessary approvals and permitting will be in place by the end of this year.

Project Development Timeline

The Company continues to aim for delivery of the Feasibility Study by end of Q3 2019 upon receiving completed laboratory testwork, checks and sign-offs being delivered by Maelgwyn using its Aachen Process (ASX/TSX press release June 4, 2019).

The following schedule is subject to available funding, positive outcomes for the 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	H2 2022

Table 6: Namdini Project Development Timeline

Namdini Drilling

Programme	No. Holes	RC (m)	DD (m)	Total (m)	No. Samples	No. Duplicates	No. Blanks	No. Stds	Total Samples
Starter Pit Infill drilling	13	1,137	857.5	1,994.5	2,003	55	47	49	2,154
Sterilization Drilling	51	5,251	423.92	5,674.92	5,675	253	135	135	6,198
Southern Extension	3	-	597.08	597.08	605	-	15	14	634
Totals	67	6,388.0	1,878.5	8,266.5	8,283	308	197	198	8,986

Table 7: Namdini Drilling

Namdini Starter Pit Infill Drilling

A total of 8 reverse circulation (“RC”) and 5 diamond drill (“DD”) holes were drilled on the Namdini tenement for a total of 1,994.5m with 2,154 samples, including QAQC controls, submitted to SGS Ghana laboratory for gold analysis using the Fire Assay analytical method (Table 7).

The program was successfully completed in Q2 2019. The aim of this program was to test the current Mineral Resource model (ASX/TSX Press Release April 3, 2019 and April 18, 2019) with the closely spaced drilling over a selected area within the proposed starter pit which will provide the first two to three years of mill feed.

The close spaced infill drilling programme, within the proposed starter pit, confirms the robustness of the Mineral Resource, thereby providing higher confidence in predicting operational outcomes. (please see ASX/TSX announcement July 16, 2019).

Further drilling is planned for next financial year over this starter pit area.

Namdini Infrastructure Sterilization Drilling

A total of 50 RC and 1 DD sterilization holes were drilled within Namdini Mining License for a total of 5,674.92m with 6,198 samples, including QAQC controls, submitted to Intertek Ghana laboratory for gold analysis using the Fire Assay analytical method (Table 7). No significant mineralisation was intersected.

This drilling was conducted over the northern area of the mining lease and also covered the proposed plant area.

Further drilling is planned for next financial year over other proposed infrastructure areas to assess the suitability of tails storage areas and waste / low grade stockpile dumps and to ensure that potential mineralisation is not sterilized by construction of any infrastructure.

Namdini Southern Extension Drilling

3 DD holes were completed in the southern extension area of the Namdini deposit for a total of 597.08m with 634 samples, including QAQC controls, submitted to SGS Ghana laboratory for gold analysis using the Fire Assay analytical method (Table 6). Assays results for this drilling are still pending and the results will be analyzed in Q3 2019.

Drilling in this area was to determine whether the mineralization extended to the south of the current planned open pit. Further drilling is planned during this current quarter.

REGIONAL EXPLORATION UPDATE

The Company has two exploration projects: The Bolgatanga Project which includes the Bongo, Kungongo and Ndongo Prospecting License Areas (Figure 3) and the Subranum Project located in southwest Ghana (Figure 1). No exploration activities were completed on the Subranum project during this quarter.

The main focus of the Company’s DD and RC drilling was on the highly prospective areas along the Nangodi Shear Zone (within Ndongo) during this quarter. Detailed ground geophysical surveys were also ongoing over the Ndongo License area during the quarter. During the first six months of 2019, Cardinal reported several intersections of high-grade gold at its new Ndongo East discovery within the Ndongo License (refer to news releases dated January 23, 2019 and March 27, 2019).

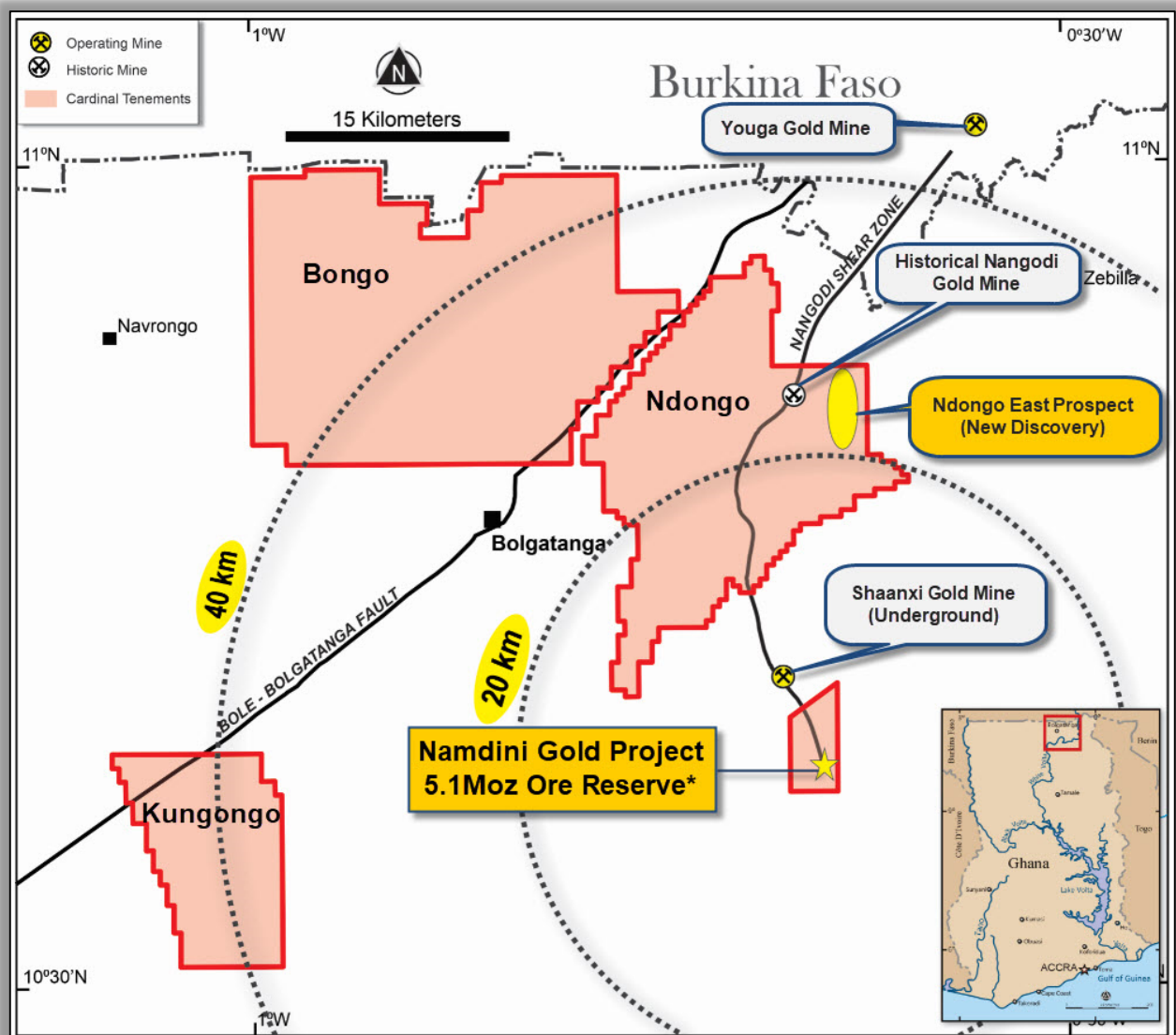


Figure 3: Bolgatanga Project Tenements

**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 cutoff*

BOLGATANGA PROJECT

Ndongo License Area

The Company has continued to concentrate its exploration focus this quarter on the Ndongo License which covers an area of 295km² (Figure 3). Exploration has defined seven prospects (Figure 4) totalling 70km in strike length only 15-25km north of the Namdini Gold Project.

The Nangodi Shear Zone which lies within the Ndongo tenement 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

A total of 13 DD holes were drilled on the Ndongo East Prospect during the quarter for a total of 817.56m with 872 samples, including QAQC controls, submitted to SGS Ghana analytical laboratory for analysis for gold using the Fire Assay analytical method (Table 8). Please see ASX/TSX announcement March 27, 2019.

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Ndongo East	DD	13	817.56	831	-	19	22	872

Table 8: Exploration Drilling for Q2 2019

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

During this quarter, a recently completed diamond drilling program has intercepted further high-grade gold zones (ASX/TSX release July 10, 2019) (Figure 5). Results provide further confidence in the potential to define high grade satellite pits within hauling distance of the Namdini Gold Project.

Currently, two diamond rigs continue to test the strike and depth extents of the mineralised system of this prospect. Geophysical surveys and auger soil drilling programmes are underway to identify additional drill targets within the much broader target area spanning approximately 7km.

Best intercepts in the new holes reported this quarter include:

- **5.3m @ 13.9g/t Au** from 78m in NDDD063
- **5.5m @ 3.8g/t Au** from 31m in NDDD072
- **3.7m @ 3.3g/t Au** from 59m in NDDD064
- **2.7m @ 7.7g/t Au** from 19m in NDDD068
- **2.0m @ 18.3g/t Au** from 59m in NDDD066

Gold mineralisation at Ndongo East is confined to specific gold-bearing, pyrite-silica-ankerite carbonate altered, shear zones which dip to the northwest. Drilling indicates two orientations to the mineralisation, namely a steeply-dipping northwest orientation and a shallower west-southwest plunging orientation.

A marker horizon comprising a very narrow, thinly bedded, black pyritic mudstone has been observed to occur at the base of the mineralised intersections within the metavolcanics and could mark a hiatus in the continuation of volcanic activity in the area. Although this marker horizon appears to be unrelated to mineralisation within the metavolcanics, it will be a very useful marker as more shallow diamond drilling is completed further along strike.

The mineralised system is open along a northeast-southwest strike and at depth with multiple mineralised intersections. The high-grade mineralised structures have been tested to a shallow depth of approximately 70m vertically below surface.

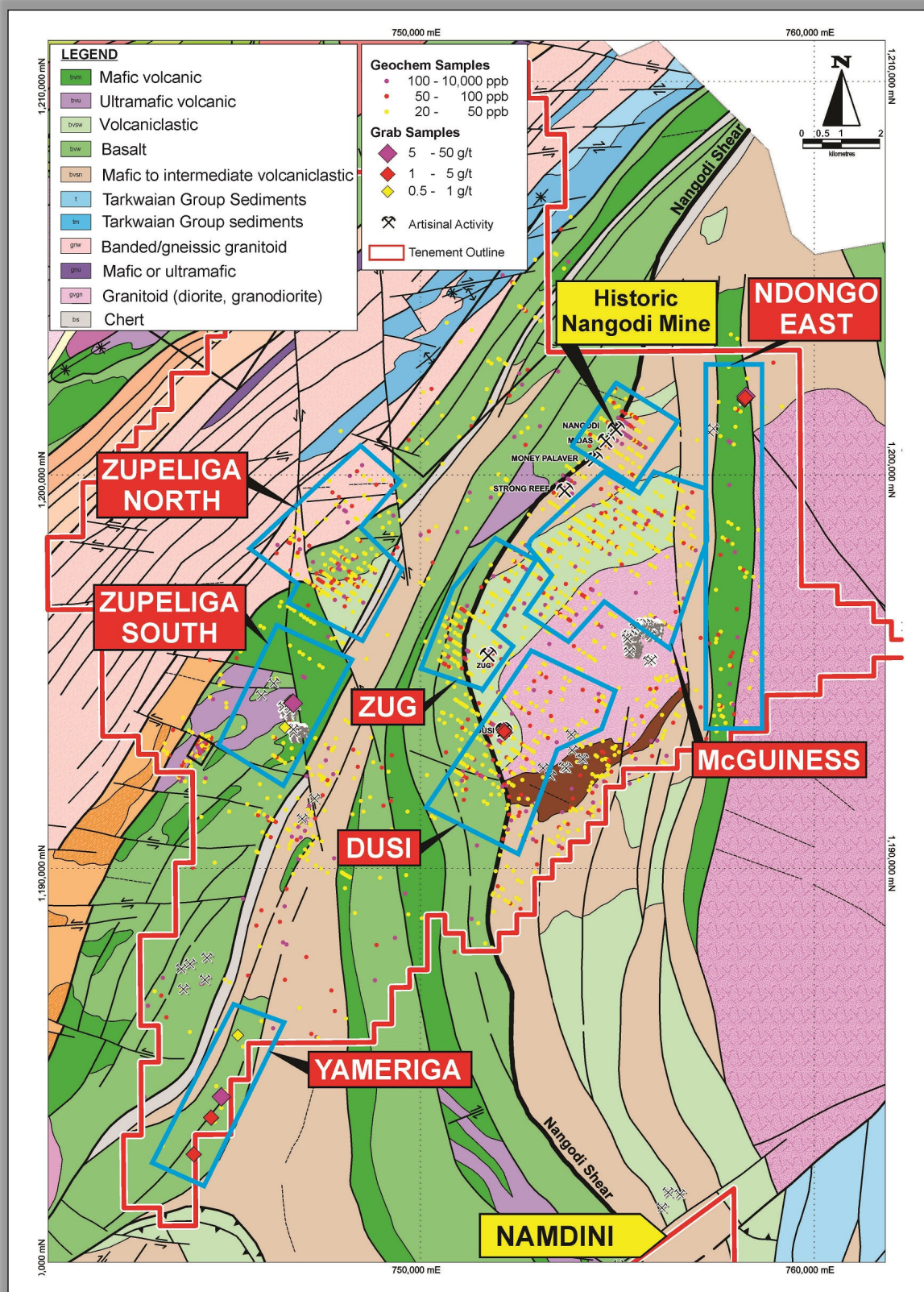


Figure 4: Ndongo Prospecting License showing local prospects

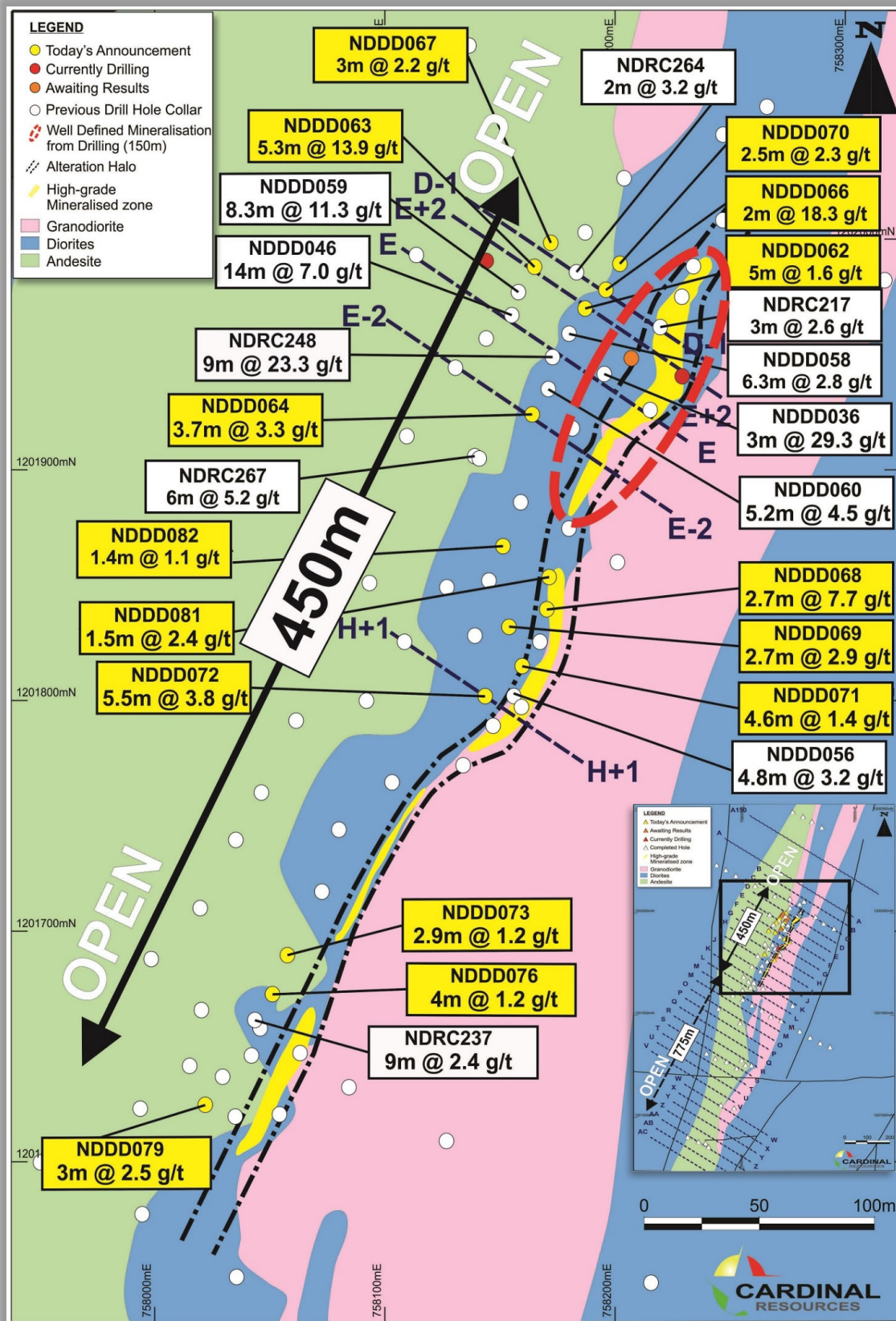


Figure 5: Ndongo East Prospect with drill locations showing NE-SW mineralised structures open along strike.

Kungongo Tenement

The Kungongo License is located in northeast Ghana some 40km west of the Company's Namdini Gold Project. The License covers an area of 122km² and is a renewable Exploration License (Figure 3).

No exploration activities were completed on this tenement during the quarter.

Bongo Tenement

The Bongo Licence covers an area of 453km² adjacent to the regional Bole-Bolgatanga Shear and is dominated by three major intrusive complexes, predominantly granitoids of intermediate to foliated felsic basin types intercalated with mafic volcanic flows (Figure 3).

No exploration activities were completed on this tenement during the quarter.

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 which is bounded by the regional Bibiani Shear Zone ("BSZ") stretching about 200km across southwestern Ghana.

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 volcanoclastics 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.

Only a very small portion of this 5km long gold target was diamond drilled during drilling programmes in 2018.

No exploration activities were undertaken on this tenement during this quarter.

TENEMENT SCHEDULE (ASX Listing Rule 5.3.3).

The following mining 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 30 June 2019.

Tenement	License Status	Ref	Interest Acquired During Quarter	Interest Divested During Quarter	Interest Held at End of Quarter
Ghana					
<i>Bolgatanga Project</i>					
Ndongo	Prospecting	PL9/13, PL9/19, PL9/22 & PL936	-	-	100%
Kungongo	Prospecting	RL9/28	-	-	100%
Bongo	Prospecting	PL9/29, PL9/37 & PL9/38	-	-	100%
<i>Namdini Project</i>					
Namdini	Mining License	LVB14619/09	-	-	100%
<i>Subranum Project</i>					
Subranum	Prospecting	PL/309	-	-	100%

Competent / Qualified Person Statement

All production targets for the Namdini Gold Mine referred to in this MD&A are underpinned by estimated Mineral Resources which were prepared by competent persons and qualified persons in accordance with the requirements of the JORC Code and National Instrument 43-101- Standards of Disclosure for Mineral Projects (“NI43-101”), respectively.

Scientific and technical information contained in this MD&A pertaining to the Aachen™ was reviewed by Mr. Daryl Evans, Independent Metallurgical Operations Pty Ltd (IMO), who is a ‘qualified person’ as defined by National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI43-101”). Mr. Evans holds a Qualified Professional status being a fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM). IMO is an independent consulting firm appointed by Cardinal. IMO and Mr. Evans consent to the inclusion of the matters in this MD&A of the statements based on the information in the form and context in which it appears.

The information in this MD&A that relates to Namdini Mineral Resources is based on information compiled and reviewed by Mr Nicholas Johnson, a Competent 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 MD&A of the matters based on his information in the form and context in which it appears.

The information in this MD&A that relates to Namdini Ore Reserves and mining studies is based on information compiled and reviewed by Mr Glenn Turnbull, a Competent 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 MD&A 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 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 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, 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”. Mr. Abbott is a full-time employee of Cardinal and holds equity securities in the Company.

JORC 2012 (ASX Listing Rule 5.23.2)

This MD&A contains information extracted from the following reports which are available for viewing on the Company’s website www.cardinalresources.com.au:

- 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
- 10 April 2019 Feasibility Study and Project Finance Updates
- 03 April 2019 Cardinal's Namdini Ore Reserve Now 5.1 Moz
- 27 March 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
- 18 Sept 2018 Cardinal Namdini Pre-Feasibility Study 4.76Moz Ore Reserve
- 29 Aug 2018 Cardinal Extends Ndongo East Discovery Strike Length
- 31 July 2018 Cardinal Executes U\$5 Million Term Sheet with Sprott
- 16 July 2018 Cardinal Makes New Gold Discovery at Ndongo East
- 28 May 2018 Encouraging First Pass Gold Results at Ndongo
- 19 April 2018 Technical Report on Namdini Gold Project Filed on SEDAR
- 04 April 2018 First Pass Regional Exploration Drilling Underway
- 05 Mar 2018 Cardinal Upgrades Indicated Mineral Resource to 6.5Moz
- 22 Feb 2018 Cardinal Infill Drilling Results Returned
- 05 Feb 2018 Namdini Gold Project Preliminary Economic Assessment
- 22 Jan 2018 Namdini Infill Drilling Results Returned
- 14 Dec 2017 Namdini Drilling and Regional Exploration Update
- 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 MD&A 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 ANNUAL INFORMATION

The following table provides information for the year ended June 30, 2019, 2018 and 2017:

	June 30, 2019	June 30, 2018	June 30, 2017
Exploration and evaluation expenditures	\$ 14,940,749	\$ 26,747,592	\$ 15,794,617
Corporate general and administration	10,407,136	5,945,652	3,637,864
Share based payments	1,792,292	4,742,362	1,964,324
Amortisation	314,731	217,454	426,572
Net comprehensive loss	27,050,962	37,182,844	21,790,704
Loss per share – basic and undiluted (cents)	7.12	10.22	7.12
Total assets	20,834,148	10,241,614	30,109,678
Total liabilities	38,975,858	4,766,976	3,903,107
Total non-current financial liabilities	35,604,680	-	-
Shareholders' equity	(18,141,710)	5,474,638	26,206,571

Exploration and evaluation expenditures were all incurred in Ghana. The Company maintains a policy to expense all exploration and evaluation expenses as incurred; these costs include tenement acquisition costs.

During the year ended June 30, 2019 exploration and evaluation expenditures have decreased from comparable period due to the Company ramp up of exploration during the period ended June 30, 2018 which included the preparation of an initial resource estimated through resource drilling. Infill exploration at Namdini is now minimal as the Company prepares its feasibility study.

During the year ended June 30, 2018 the Company released an updated resource was published in September 2017, in February 2018 the Company published its Preliminary Economic Assessment at Namdini and a Pre-Feasibility Study at Namdini published in September 2018.

The Company's focus during the year ended June 30, 2019 was completion of the feasibility study at the Namdini Project.

In conjunction with the reduced expenditure at Namdini, there is also reduced exploration expenditure on the Bongo, Kungongo and Subranum Projects.

During the year ended June 30, 2019, minimal expenditures were incurred on the Bolgatanga Project and Subranum Project.

The Company's corporate general and administration expenses have increased from the prior year due to an increase in the costs of the Company, which includes the Facility. There have been no significant changes to staff from the year ended June 30, 2019 and June 30, 2018 and as a result the expenses are regular.

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, and investor relations expenses.

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.

Share based payments have decreased due to the Milestone 1 hurdle, being the completion of a PEA, being achieved in February 2018 and being fully expensed.

The variances in total assets and shareholders' equity are mainly attributable to the Company entering into the Facility and increasing the liabilities of the Company.

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

SELECTED QUARTERLY INFORMATION

The following table provides information for the eight quarters:

	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018
Exploration and evaluation expenditures	\$ 6,426,350	\$ 3,148,110	\$ 2,677,484	\$2,688,805
Corporate general and administration	2,065,569	2,793,398	3,207,356	2,340,813
Share/Option based payments	984,879	437,274	(206,785)	576,924
Amortization	101,981	68,386	58,632	85,732
Net comprehensive loss	9,497,304	6,332,902	5,621,705	5,599,051
Loss per share – basic and undiluted (cents)	2.48	1.62	1.51	1.51
	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017
Exploration and evaluation expenditures	\$ 3,653,287	\$ 4,640,781	\$ 8,978,587	\$ 9,474,793
Corporate general and administration	1,646,341	1,151,889	1,833,531	1,313,891
Share/Option based payments	899,469	1,582,306	1,107,762	1,152,825
Amortization	67,080	50,674	62,813	36,887
Net comprehensive loss	6,148,313	7,357,850	12,249,188	12,066,104
Loss per share – basic and undiluted (cents)	1.62	1.87	3.29	3.44

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.

Since March 31, 2018 exploration and evaluation expenditure has remain consistent. In February 2018 the Company published its Preliminary Economic Assessment at Namdini which included the preparation of an initial resource estimated through resource drilling.

A Pre-Feasibility Study at Namdini was published in September 2018 and a feasibility study is expected to be released in the September 2019 quarter. Infill exploration at Namdini is now minimal as the Company prepares its feasibility study.

During the year ended June 30, 2019, minimal expenditures were incurred on the Bolgatanga Project and Subranum Project.

The Company's corporate general and administration expenses have increased from the prior year due to an increase in the costs of the Company, which includes the Facility. There have been no significant changes to staff from the year ended June 30, 2019 and June 30, 2018 and as a result these expenses are regular.

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, and investor relations expenses.

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.

Share based payments have decreased due to the Milestone 1 hurdle, being the completion of a PEA, being achieved in February 2018 and being fully expensed.

The movement in total assets and shareholders' equity are mainly attributable to the Company entering into the Facility and increasing the liabilities of the Company.

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

The increase in total liabilities for the year ended June 30, 2019 is mainly attributable to the Facility.

RESULTS OF OPERATIONS

	Three months ended June 30,		Twelve months ended June 30,	
	2019	2018	2019	2018
Exploration and evaluation expenditures	\$ 6,426,350	\$ 3,653,287	\$ 14,940,749	26,747,592
Corporate general and administration	2,065,569	1,646,341	10,407,136	5,945,652
Share/Option based payments	984,879	899,469	1,792,292	4,742,362
Amortization	101,981	67,080	314,731	217,454
Interest and other income	107,064	33,006	365,859	174,313
Foreign exchange loss (gain)	25,589	193,028	(38,087)	295,903
Net Loss for the period	9,497,304	6,040,143	27,050,962	37,182,844

- For the three months ended June 30, 2019, exploration and evaluation expenditures increased from comparable periods due to the increase in exploration activities at the Namdini Gold Project, which included infill drilling. There was minimal expenditures on the Bongo, Kungongo and Subranum Projects.
- For the twelve months ended June 30, 2019, exploration and evaluation expenditures decreased from comparable periods due to in February 2018 the Company published its Preliminary Economic Assessment at Namdini which included the preparation of an initial resource estimated through resource drilling.
- The Company's corporate general and administration expenses have increased from the prior year due to an increase in the costs of the Company, which includes the Facility. There have been no significant changes to staff from the year ended June 30, 2019 and June 30, 2018 and as a result the expenses are regular. Incremental costs were incurred in respect of the staffing, legal fees, office rental, professional fees and investor relations costs.
- 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.

For the three and twelve months ended June 30, 2019 and 2018, exploration and evaluation expenditures comprise:

	Three months ended June 30,		Twelve months ended June 30,	
	2019	2018	2019	2018
Direct exploration costs	4,806,918	2,788,986	10,417,041	19,352,705
Indirect exploration costs	943,975	590,126	2,697,315	5,189,502
Site general and administration costs	675,457	274,175	1,826,393	2,205,385
Exploration and evaluation expenditures	6,426,350	3,653,287	14,940,749	26,747,592

Direct and indirect exploration costs increased for three months ended June 30, 2019, compared to the same period in 2018, mainly due to the execution of the infill drill program to define and to upgrade gold resources at Namdini.

Direct and indirect exploration costs decreased for twelve months ended June 30, 2019, compared to the same period in 2018, due to in February 2018 the Company published its Preliminary Economic Assessment at Namdini which included the preparation of an initial resource estimated through resource drilling.

The cost in 2018 also included activities required for the preparation and completion of a Preliminary Economic Assessment and associated metallurgical test work. Costs were also attributable to engineering design and metallurgical testwork underway towards the Preliminary Feasibility Study due in Q3 2018.

Site general and administration costs decreased for the twelve months ended June 30, 2019, compared to the same period in 2018, mainly due to decrease salaries, office and administrative, professional fees and travel expenses associated with the decreased activities at Namdini and Ndongo.

Corporate, General and Administration Expenses

The Company's corporate general and administration expenses have increased from the prior year due to an increase in the costs of the Company, which includes the Facility. There have been no significant changes to staff from the year ended June 30, 2019 and June 30, 2018 and as a result these expenses are regular.

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, and investor relations expenses.

Share based Payments

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.

Share based payments have decreased due to the Milestone 1 hurdle, being the completion of a PEA, being achieved in February 2018 and being fully expensed.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

As at June 30, 2019, the Company had cash and cash equivalents of \$18,735,456 (June 30, 2018 - \$7,303,807) and current liabilities of \$3,371,178 (June 30, 2018 - \$4,766,976).

As at June 30, 2019, the Company had a working capital balance of \$15,620,928 (June 30, 2018 - \$3,517,055).

On August 22, 2018 the Company secured a credit facility with Sprott Private Resources Lending (Collector), L.P. The committed facility was for US\$25 million (AU\$34 million)

The increase in cash and working capital from June 30, 2018 to June 2019 was \$12,103,873 and was primarily due the Company increasing its cash and cash equivalents with the credit facility.

Funds raised from the credit facility are being used toward continued advancement and development of the Company's Projects and general working capital purposes. 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 Corporation has commitments in respect to the use of an office premises in Perth, Western Australia, for \$5,480 per month, the lease is for five years from 8 January 2019.

The Corporation has commitments in respect to the use of an office outside of Australia, for C\$2,702 per month until 31 March 2021.

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 (Ghana), 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 (“**Net Smelter Return**”) 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;
- Interest rate of LIBOR + 7.75%.; and
- 50% of the interest is capitalised and payable on loan maturity.

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 June 30, 2019 reporting period.

- a) 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
- b) 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 (the "Board") 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.

	June 30, 2019	June 30, 2018
Current – cash at bank	4,503,464	2,819,794
Term deposits	14,231,992	4,484,013
	18,735,456	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 financial liabilities have contractual maturities of less than 30 days and are subject to normal trade terms.

At June 30, 2019, the Company had cash and cash equivalents of \$18,735,456 (June 30, 2018 - \$7,303,807) available and current liabilities of \$3,371,178 (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. The Company monitors this exposure, but has no hedge positions.

As at June 30, 2019, the Company is exposed to currency risk through the following financial assets and liabilities denominated in currencies other than the Australian dollar:

		Net Financial Assets/(Liabilities) In AUD				
		AUD	USD	GHS	CAD	Total AUD
Australian dollar		3,935,628	(24,128,328)	85,202	(47,842)	(20,155,340)
GHS New Cedi		-	-	-	-	-
Statement of financial position exposure		3,935,628	(24,128,328)	85,202	(47,842)	(20,155,340)

		Net Financial Assets/(Liabilities) In AUD				
		AUD	USD	GHS	CAD	Total AUD
Australian dollar		3,843,939	374,412	(523,034)	(138,277)	3,557,040
GHS New Cedi		-	-	-	-	-
Statement of financial position exposure		3,843,939	374,412	(523,034)	(138,277)	3,557,040

Based on the statement of exposure at 30 June 2019, a 1% movement in foreign exchange rates would increase/decrease the loss for the year before taxation by \$343,065 (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 Company considers interest rate risk to not be significant.

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 June 30, 2019 and June 30, 2018, the Company's financial instruments are comprised of cash and cash equivalents, other receivables, value added tax receivable, accounts payable and accrued liabilities, and due to related parties. With the exception of cash and cash equivalents, 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 June 30, 2019.

RELATED PARTY TRANSACTIONS

The Company had transactions during the three and twelve months ended June 30, 2019 with related parties consisting of directors, officers and companies with common directors and/or officers:

Namdini Gold Project

During the year ended 30 June 2019, Cardinal Resources Limited has advanced funds to Savannah 2019: nil (2018: \$4,000,674), a related entity to Director Mr Malik Easah. The purpose of an advance was for the development of a mining licence in areas in respect of which Savannah had entered into agreements with holders of small scale licences. As at the date of this MD&A, \$280,300 (2018: \$916,362) has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference 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 \$309,624 (2018: \$337,218).

HopgoodGanim Lawyers 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 (2018: \$3,506).

Robert Schafer, a director, provided consulting services to the Company. Amounts that have been paid or payable total \$0 (2018: \$12,911). For the twelve months ended June 30, 2018 830,000 shares have been issued to employees of the Company as part consideration for services provided to the Company.

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:

	Three months ended June 30,		Twelve months ended June 30,	
	2019	2018	2019	2018
Salaries, fees and leave	\$ 280,589	\$ 403,203	\$ 1,175,732	\$ 1,239,277
Non-monetary	18,537	23,943	90,199	38,850
Superannuation expense	-	-	3,800	4,268
Equity based payments	323,908	478,619	1,183,751	2,955,160
Termination payments	-	-	67,126	-
	\$ 623,034	\$ 905,765	\$ 2,520,608	\$ 4,237,555

SHARE POSITION AND OUTSTANDING WARRANTS AND OPTIONS

The Company's outstanding share position as at the date hereof, is as follows:

	Number of shares
Common shares	387,028,921
Listed options	106,916,696
Unlisted options	8,867,817
Milestone Options	24,878,198
60 Class C Performance Shares	6,000,000
Fully diluted share capital	533,691,632

Common Shares

The Corporation is authorised to issue an unlimited number of Ordinary Shares, subject to certain restrictions prescribed in the ASX Listing Rules, the Corporations Act and the Corporation's constitution. Under the ASX Listing Rules, subject to certain exceptions and without the approval of shareholders of the Corporation, the Corporation 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 Corporation's annual general meeting held on October 31, 2018, shareholders approved the issue of an additional 10% of the Corporation's issued capital, subject to satisfaction of certain criteria prescribed in the ASX Listing Rules and the Corporation's notice of annual general meeting dated October 31, 2018.

Listed Options

Details of listed options (ASX: CDVOA) outstanding as of the date hereof are:

	Expiry	Number of Options	Weighted Average Exercise Price
Listed Options	September 30, 2019	106,916,696	\$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 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 and twelve months ended June 30, 2019:

Grant Date	Expiry Date	Exercise Price	During the period				Closing Balance	Vested and Exercisable	Unvested
			Opening Balance	Granted	Exercised	Expired / Cancelled			
03.18.16	03.18.20	\$0.220	6,000,000	nil	nil	nil	6,000,000	6,000,000	-
04.03.17	04.12.22	\$0.500	18,500,000	nil	nil	nil	18,500,000	5,550,000	12,950,000
12.21.17	12.21.22	\$0.750	1,000,000	nil	nil	nil	1,000,000	1,000,000	-
12.21.17	12.21.22	\$0.825	5,758,000	nil	nil	5,758,000	-	-	-
12.21.17	12.21.22	\$0.965	4,036,200	nil	nil	2,018,100	2,018,100	-	2,018,100
11.04.19	12.21.22	\$0.680	-	2,180,049	nil	nil	2,180,049	-	2,180,049
11.04.19	12.21.22	\$0.590	-	2,180,049	nil	nil	2,180,049	-	2,180,049
12.03.19	12.03.21	\$1.000	-	1,867,817	nil	nil	1,867,817	1,867,817	-
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 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

OTHER DATA

Additional information related to the Company, including the Company's Annual Information Form dated September 3, 2019 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 standards were 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 period ended 30 June 2019; 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 period ended 30 June 2019.

Accounting Standards issued by the Australian Accounting Standards Board (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 Corporation 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 Corporation not receiving an adequate return on its invested capital, and no assurance can be given that any exploration program of the Corporation will result in the establishment or expansion of resources or reserves.

The Corporation'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 Corporation. 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 Corporation.

Estimation of Mineralization, 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 Corporation'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 Corporation believes it is in substantial compliance with these laws and regulations; however, the Corporation 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 Corporation 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 Corporation might undertake.

All phases of the Corporation's operations are subject to environmental regulations in various jurisdictions. If the Corporation'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 Corporation'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 Corporation. Additionally, the Corporation 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 Corporation 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 Corporation'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 Corporation will compete with other parties in each of these respects, many of which have greater financial resources than the Corporation. Accordingly, there can be no assurance that any of the Corporation'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 Corporation.

Risks Related to the Business

Operational Risks

The Corporation 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 under-capitalisation, cash shortages and limitations with respect to personnel, financial and other resources as well as a lack of revenues. The Corporation 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 Corporation 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 Corporation 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 Corporation's properties when required, upon terms acceptable to the Corporation 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 Corporation.

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 Corporation 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 Corporation 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 Corporation (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 Corporation 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 Corporation'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 Corporation 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 Corporation. Situations may arise in connection with potential acquisitions in investments where the other interests of these directors may conflict with the interests of the Corporation. 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 the Company'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 Company 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 Corporation'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 Corporation's properties, it may be difficult, if not impossible, to provide sufficient bonding. If the Corporation 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 Corporation is not in a position to state whether a review in respect of any of the Corporation's projects in Ghana is imminent or whether the outcome of such a review would be detrimental to the funding needs of the Corporation.

Risks of Operating in Ghana

The Corporation'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 neighbouring countries), terrorist actions, criminal activity, nationalization, invalidation of governmental orders, failure to enforce existing laws, labour disputes, corruption, sovereign risk, political instability, the failure of foreign parties, courts or governments to honour or enforce contractual relations or uphold property rights, changing government regulations with respect to mining (including royalties, environmental requirements, labour, 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 Corporation 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 Corporation 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 Corporation 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 Corporation.

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

Government Policy Changes

The mineral exploration activities undertaken by the Corporation 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 Corporation's exploration programs with respect to the Corporation's projects in Ghana will, in general, be subject to approval by the Minerals Commission and other governmental agencies. Development of any of the Corporation'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 Corporation. The Corporation 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 Corporation.

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 Corporation. 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 Corporation'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 Corporation 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 Corporation 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 Corporation has an interest being challenged. Further, the Corporation'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 Corporation 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 Corporation.

Permitting and Licensing Risks

In addition to mineral rights, the Corporation 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 Corporation 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 Corporation 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 Corporation's property interests are held in areas of Ghana that have historically been mined by artisanal miners. As the Corporation 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 Corporation'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 Corporation will not be subject to environmental liabilities resulting from such operations in the future, which could have a material adverse impact on the Corporation. In addition, artisanal work practices are often unsafe and accidents and/or incidents may occur on the Corporation'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 Corporation in the event of accidents or incidents, which could have a material adverse impact on the Corporation.

General Risks

Market Conditions

Share market conditions may affect the value of the Corporation's quoted securities regardless of the Corporation'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 Corporation does not warrant the future performance of the Corporation or any return on an investment in the Corporation.

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 Corporation 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 Corporation's business, operating results and financial condition.

Current Global Financial Condition

Current global financial conditions have been subject to increased volatility. As such, the Corporation is subject to counterparty risk and liquidity. The Corporation is exposed to various counterparty risks including, but not limited to financial institutions that hold the Corporation's cash, and through companies that have payables to the Corporation. The Corporation 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 Corporation to obtain loans and other credit facilities in the future and, if obtained, on terms favourable to the Corporation. If these increased levels of volatility and market turmoil continue, the Corporation's operations could be adversely impacted and the trading price of the shares could be adversely affected.

Exchange Rate and Currency Risks

The Corporation undertakes certain transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. The Corporation does not hedge this exposure. The Corporation 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 Corporation may realise from its operations, since most mineral commodities are sold in a world market in USD. The Corporation's costs are incurred in AUD, GHS, USD and CAD.

Commodity Prices

The price of the Ordinary Shares, and the Corporation'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 Corporation, 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 Corporation'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 Corporation to raise capital. A sustained, significant decline in the price of gold could also cause development of any properties in which the Corporation may hold an interest from time to time to be impracticable. Future production from the Corporation'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 Corporation depends substantially on its senior management and its key personnel. There can be no assurance that there will be no detrimental impact on the Corporation 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 Corporation'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 June 30, 2019, 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 June 30, 2019, 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.

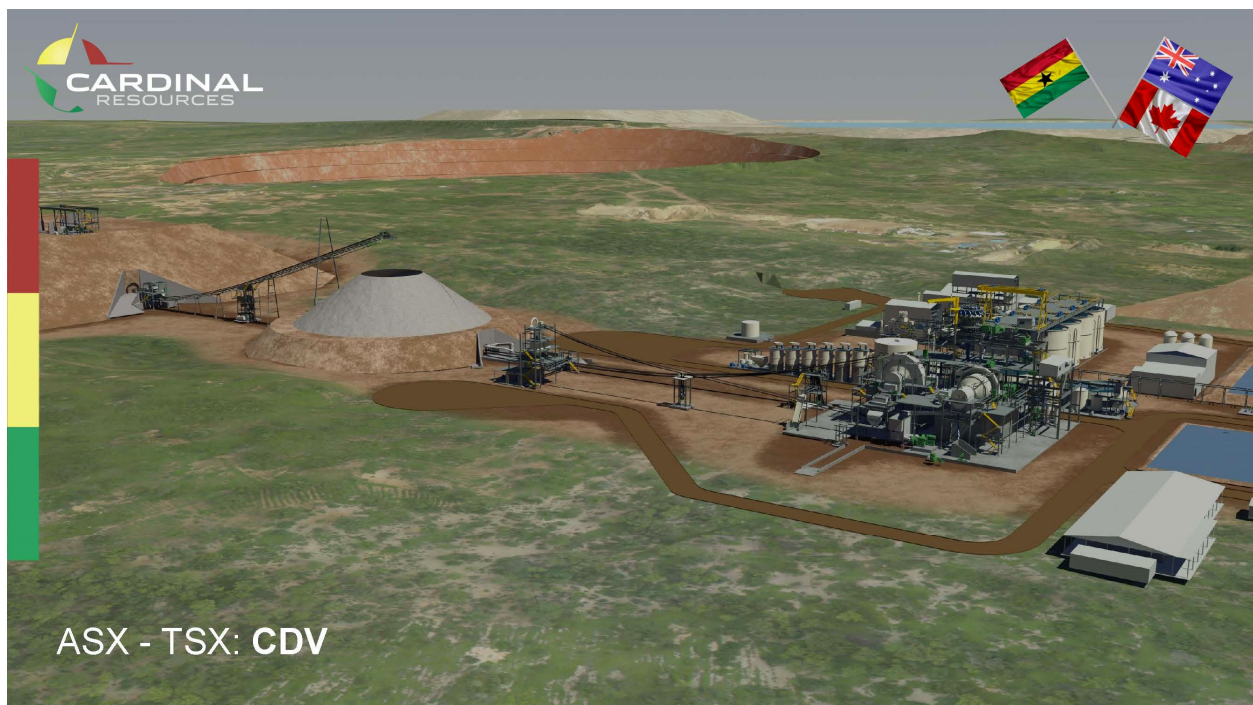
The Company is required under Canadian securities laws to disclose herein any change in the Company’s internal control over financial reporting that occurred during the Company’s most recent interim period that has materially affected, or is reasonably likely to materially affect, the Company’s internal 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 June 30, 2019 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 June 30, 2019, 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.

CONSOLIDATED FINANCIAL STATEMENTS (II)





**CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2019**



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The Directors of Cardinal Resources Limited submit herewith the annual financial report of Cardinal Resources Limited for the period 1 July 2018 to 30 June 2019. In order to comply with the provisions of the Corporations Act 2001, the Directors' report as follows:

DIRECTORS

The names and particulars of the directors of the Company as at 30 June 2019 and at the date of this report are as follows. Directors were in office for the entire period unless otherwise stated.

<p>Kevin Tomlinson Special Responsibilities Appointed Experience</p>	<p>Non-Executive Chairman Member of Technical Committee 7 November 2016 Mr Tomlinson possesses over 30 years' experience in Geology and Finance with enormous experience within the Toronto, Australian and London Stock Exchanges.</p> <p>Mr Tomlinson holds an MSc in Structural Geology and a Grad Dip in Finance. From 1998 Mr Tomlinson has worked in the finance sector raising over US\$2 billion in equity.</p> <p>Mr Tomlinson was previously Managing Director of Investment Banking at Westwind Partners/Stifel Nicolaus where he advised a number of resource companies including Centamin Plc, Platinum Group Metals, Trelawney Resources and Allied Gold. He was also an integral part of the Team raising finance for Osisko Mining and Semafo Inc.</p> <p>Mr Tomlinson was Director of Natural Resources at Williams de Broë and Head of Research for Hartleys Ltd in Australia. Recent Directorships include Centamin Plc (producer), Orbis Gold (developer) and Medusa Mining (producer) where he chaired the company through growth from \$30m to over \$700m market capitalisation in less than 4 years.</p> <p>Mr Tomlinson is a Fellow of the Institute of Directors, a Fellow of the Chartered Institute for Securities & Investment and a Liveryman of the Worshipful Company of International Bankers.</p>
<p>Other current listed company directorships</p>	<p>Plymouth Minerals Limited (since June 2017) Samco Gold Limited (since January 2012) Centamin Egypt Limited (since January 2012)</p>
<p>Former listed directorships in the last three years</p>	<p>Xanadu Mines Limited (May 2017 to April 2019)</p>

<p>Archie Koimtsidis MBA Appointed Experience</p>	<p>Managing Director 27 December 2012 Mr Koimtsidis has for the last 28 years been involved in all facets of gold exploration, discovery, production and refining in West Africa and South America.</p> <p>His most recent appointment prior to joining Cardinal was as the Deputy Country Manager of Ghana for PMI Gold Limited a joint TSXV and ASX listed company. During this time he was responsible for all field operational matters including coordination of exploration, drilling programs and human resource management in relation to the Company's projects in Ghana.</p>
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	Mr Koimtsidis has been instrumental in acquiring the Ghanaian projects on behalf of Cardinal and has a unique knowledge and understanding of geopolitical and operational matters relating to resources projects in West Africa.
Other current listed company directorships	None
Former listed directorships in the last three years	None

Malik Easah

Special Responsibilities

Appointed

Experience

Executive Director

Member of Health, Safety, Environment & Social Committee

27 December 2012

Mr Malik Easah is the principal of successful alluvial mining operations in the North West Adansi Gold Obotan concession and is currently developing additional payable gold permits within the Ashanti and Nangodi Gold belts of Ghana.

Mr Easah specializes in the manufacture of alluvial gold wash plants and recovery equipment and is regarded as an authority in the development of alluvial mining operations in Ghana.

Mr Easah is a resident in Ghana.

Other current listed company directorships

None

Former listed directorships in the last three years

None

Michele Muscillo

Special Responsibilities

Appointed

Experience

Non-Executive Director

Chairman of the Audit, Risk & Compliance Committee and the Remuneration and Nomination Committee

11 October 2017

Mr Muscillo is a Partner with HopgoodGanim Lawyers in Australia. Michele has practised exclusively in corporate law for over 15 years and has extensive experience in capital markets transactions, including the negotiation of significant commercial contracts and agreements. As part of this role, Mr Muscillo has acted on numerous IPOs and debt and equity raisings, and advised both bidders and targets on public market control transactions. His key areas of practice include Corporate Advisory and Governance, Capital Markets, Resources and Energy.

Other current listed company directorships

Xanadu Mines Limited (since August 2017)

Mako Gold Limited (since April 2017)

Aeris Resources (since May 2013)

Former listed directorships in the last three years

Orbis Gold Limited which is currently owned by TSX-Listed SEMAFO Inc. (TSX:SMF).

Dr Kenneth G. Thomas

Special Responsibilities

Appointed

Non-Executive Director

Chairman of the Technical Committee. Member of the Member of Audit, Risk & Compliance Committee, Health, Safety, Environmental & Social Committee and Remuneration and Nomination Committee

31 October 2018

Experience	<p>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.</p> <p>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.</p> <p>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).</p>
Other current listed company directorships	Continental Gold Inc (since June 2015)
Former listed directorships in the last three years	Avalon Advanced Minerals Inc. (from February 2014 to February 2019) Candente Gold Corp. (from December 2012 to January 2019)

Trevor Schultz	Non-Executive Director
Special Responsibilities	Chairman of the Health, Safety, Environmental & Social Committee Member of Audit, Risk & Compliance Committee, Technical Committee and the Remuneration and Nomination Committee.
Appointed	2 January 2019
Experience	Mr Schultz has over 45 years in the mining industry with experience in project development, construction and operations. Between 2008 and 2018 he was an Executive and Non-Executive Director with Centamin Egypt and was responsible for the construction of the 12Mtpa processing plant which has a similar flowsheet to Cardinal's proposed flowsheet. <p>Prior to this, he served as Chief Operating Officer at Ashanti Goldfields Corporation (now Anglo Gold Ashanti Ltd) and was a resident of Ghana for 6 years. Furthermore, he worked for BHP in Australia and America and in South Africa with Anglo American Corporation.</p> <p>Trevor has an MA in Economics from Trinity College, England (1968), an MSc in Mining Engineering, from Witwatersrand University, South Africa (1972) and an Advanced Management Programme Diploma from Harvard Business School, USA (1986).</p>
Other current listed company directorships	Centamin Egypt (since May 2005)
Former listed directorships in the last three years	None

Robert Schafer B.Sc (Hons)

Appointed

Retired

Experience

Non-Executive Director

10 July 2017

2 January 2019

Robert has over 30 years of international experience as a geologist exploring for mineral deposits in more than 70 countries. As an executive, manager and field geologist with companies including Billiton, BHP, Kinross and Hunter Dickinson, Robert led teams to the discovery of several deposits in the western USA (Briggs and Griffon gold mines), as well as developing strategies that led to brownfields discoveries in western Canada, southern Africa and far east Russia (Birkachan gold mine).

Robert is the immediate Past President of the Prospectors and Developers Association of Canada (PDAC) as well as Past President of both the Canadian Institute for Mining, Metallurgy and Petroleum (CIM) and the Mining and Metallurgical Society of America (MMSA). He is a Certified Corporate Director (ICD.D), a RPGeo and is also an active member of the Society for Mining, Metallurgy and Exploration (SME) in the USA, where he served on its Board for more than a decade.

Robert serves as a member of the Board of Directors for the National Mining Hall of Fame in the USA. He is the recipient of the William Lawrence Saunders Gold Medal from the American Institute of Mining, Metallurgical and Petroleum Engineers (AIME) and the Daniel C. Jackling Award from SME for career achievements, two of the highest mining recognitions in the USA.

Other current listed company directorships

Amur Minerals Inc (from February 2006), Trigon Mining Inc (from April 2017), Volcanic Gold Mines Inc. (from 14 March 2017) and Orosur Mining Inc. (from June 2018)

Former listed directorships in the last three years

Minera IRL (September 2016 to November 2016), Orex Exploration (September 2010 to May 2017), Lincoln Mining Corporation (April 2014 to December 2016)

Jacques McMullen

Appointed

Retired

Experience

Non-Executive Director

11 October 2017

31 October 2018

Mr McMullen retired in 2012 after a distinguished 35-year career in the mining industry of which the last 17 years were with Barrick Gold Corporation where he held the positions of Senior VP Special Projects and Technical Services. In his role as Senior VP of Barrick, Jacques was instrumental in the development of many mines including Goldstrike, Veladero, Lagunas Norte, Cowal and Bulyanhulu. His experience includes all phases of development including feasibility, construction, commissioning, ramp-up and operation's optimization.

Following his retirement, Mr. McMullen joined BBA as Principal, Mines & Metals and Director. BBA is a Canadian based, global engineering firm. At BBA, Jacques focused on the Borden Lake development project which was purchased by Goldcorp.

Other current listed company directorships

Excellon Resources (from November 2017) and Equinox Gold (from December 2017)

Former listed directorships in the last three years

New Castle Gold (October 2017 to December 2017) and Orvana Minerals Corp. (TSX: ORV)

COMPANY SECRETARY**Sarah Shipway** B Bus, CA

Appointed

Experience

Company Secretary

27 December 2012

Sarah Shipway was appointed Company Secretary of Cardinal Resources on 27 December 2012.

Sarah has a Bachelor of Commerce from Murdoch University and is a member of the Institute of Chartered Accountants.

DIRECTORS' INTEREST

At the date of this report, unless otherwise stated, the Directors held the following interests in Cardinal Resources.

Name	Ordinary Shares	Listed Options	Unlisted Options
Kevin Tomlinson	-	400,000	5,000,000
Archie Koimtsidis	8,017,565	4,191,731	7,500,000
Malik Easah	7,681,815	6,560,423	6,000,000
Michele Muscillo	-	-	2,018,100
Dr Kenneth G. Thomas	-	-	2,180,049
Trevor Schultz	-	-	2,180,049

Other than detailed below, the Directors have no interest, whether directly or indirectly, in a contract or proposed contract with Cardinal Resources Limited during the financial year end.

PRINCIPAL ACTIVITIES

The principal activity of the Group is mineral exploration in Ghana.

RESULTS AND REVIEW OF OPERATIONS

The result of the consolidated entity for the financial year from 1 July 2018 to 30 June 2019 after income tax was a loss of \$27,050,962 (2018: loss of 37,182,844).

The net assets of the consolidated group have decreased from \$5,474,638 at 30 June 2018 to (\$18,141,710) as at 30 June 2019. Total assets and Shareholder's equity decreased in 2019 due to borrowings of \$35,604,680 at 30 June 2019 compared to no borrowings at 30 June 2018.

The directors believe the Group is in a strong and stable financial position to expand and grow its current operations.

A review of operations of the consolidated entity during the year ended 30 June 2019 is provided in the Management Discussion & Analysis immediately preceding the consolidated financial statement.

LIKELY DEVELOPMENTS AND EXPECTED RESULTS OF OPERATIONS

The Group's focus over the next financial year will be on its key projects – the Ghanaian tenements. Further commentary on planned activities at these projects over the forthcoming year is provided in the Management Discussion & Analysis.

The Board will continue to focus on creating value from the Company's existing resource assets, as well as pursuing new opportunities in resources sector to complement the Company's current projects.

SIGNIFICANT CHANGES IN STATE OF AFFAIRS

There have not been any significant changes in the state of affairs of the Group during the financial year, other than as noted in this financial report.

ENVIRONMENTAL REGULATIONS

The Group is aware of its environmental obligations with regards to its exploration activities and ensures that it complies with all applicable regulations when carrying out exploration work.

DIVIDENDS PAID OR RECOMMENDED

The directors do not recommend the payment of a dividend and no amount has been paid or declared by way of a dividend to the date of this report.

DIRECTORS' MEETINGS

The following table sets out the number of meetings of the Company's Directors held during the financial year ended 30 June 2019 and the number of meetings attended by each Director. There were four committees of Directors in existence during the financial year, these being the Audit and Risk Committee, the Remuneration and Nomination Committee, the Health and Safety Committee and the Technical Committee. We refer to the Company's 2019 Corporate Governance Statement for more information.

	Note	Directors' Meeting	Audit and Risk Committee	Remuneration and Nomination Committee	Health and Safety Committee	Technical Committee
Number of Meetings Held	-	2	4	-	1	1
K Tomlinson	-	2	1*	-	1	-
A Koimtsidis	-	2	-	-	-	-
M Easah	-	2	-	-	-	-
M Muscillo	-	2	4	-	-	-
Dr K G Thomas	1	1	3	-	-	1
T Schultz	2	1	1	-	-	-
R Schafer	2	1	2	-	1	-
J McMullen	1	-	-	-	1	-

*By invitation

Note 1: Dr K G Thomas was appointed to the Board on 31 October 2018 and J McMullen retired from the Board on 31 October 2018.

Note 2: T Schultz was appointed to the Board on 2 January 2019 and R Schafer retired from the Board on 2 January 2019.

REMUNERATION REPORT – AUDITED
1. Remuneration Report overview

The Directors' of Cardinal Resources Limited present the Remuneration Report (the Report) for the Company and its controlled entities for the year ended 30 June 2019. This report forms part of the Directors' Report and has been audited in accordance with section 300A of the *Corporations Act 2001*.

The report details the remuneration arrangements for Cardinal's key management personnel (KMP):

- Non-Executive Directors (NEDs); and
- Executive Directors and Senior Executives (collectively the Executives).

KMP's are those persons who, directly or indirectly, have authority and responsibility for planning, directing and controlling the major activities of the Company and the Group.

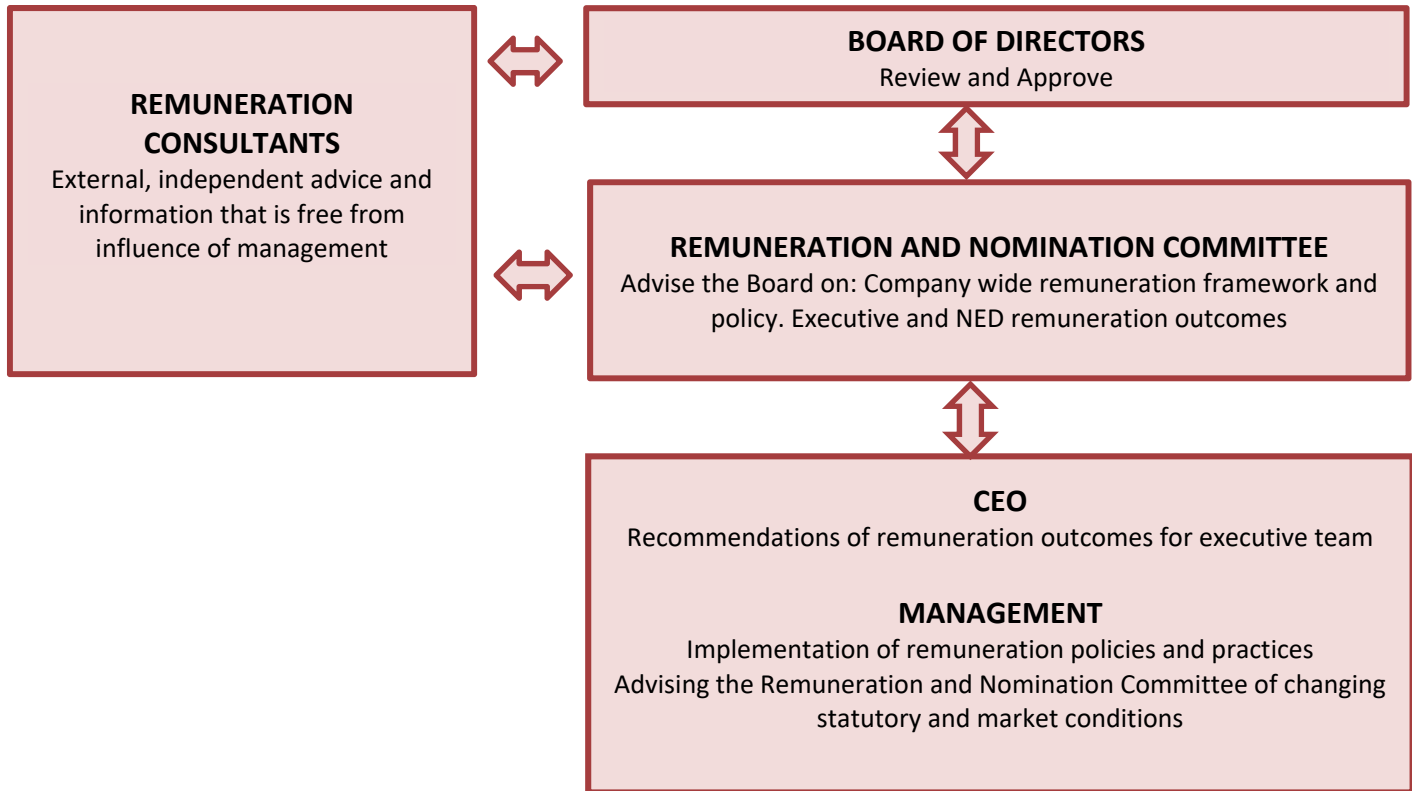
The table below outlines the KMP of the Group during FY 2019.

Name	Position	Term as KMP
Non-Executive Directors		
Kevin Tomlinson	Non-Executive Chairman	Full financial year
Michele Muscillo	Non-Executive Director	Full financial year
Dr Kenneth G. Thomas	Non-Executive Director	Appointed 31 October 2018
Trevor Schultz	Non-Executive Director	Appointed 2 January 2019
Executive Directors		
Archie Koimtsidis	Chief Executive Officer/Managing Director	Full financial year
Malik Easah	Executive Director	Full financial year
Senior Executives		
Jon Grygorewicz	Chief Financial Officer	Appointed on 31 October 2018
Former Non-Executive Directors		
Robert Schafer	Non-Executive Director	Retired 2 January 2019
Jacques McMullen	Non-Executive Director	Retired 31 October 2018
Former Senior Executives		
Derrick Weyrauch	Chief Financial Officer	Retired on 31 October 2018

2. How Remuneration of Governed

Remuneration Decision Making

The below diagram represents the Group's remuneration decision making framework.



Role of the Remuneration and Nomination Committee

The Remuneration and Nomination Committee (Committee) operates under a Board-approved Charter. The purpose of the Committee is to provide assistance and recommendations to the Board to ensure that it is able to fulfill its responsibilities relating to the following:

- Remuneration strategy;
- NED remuneration;
- KMP remuneration;
- Short term and long-term incentive plans;
- Annual performance review of the CEO and senior executives;
- Review remuneration reporting;
- Nomination and review of applications for Board of Directors positions;
- Diversity strategy and gender pay strategy;
- Board size and composition;
- Director induction and continuing professional development;
- Annual Board performance review; and
- Succession planning and talent management.

A copy of the Charter is available on the Company's website under the Corporate Governance section www.cardinalresources.com.au.

The composition of the Committee is set out below. The committee consists solely of NEDs. The CEO/MD and others may be invited to attend all or part of meetings by the Committee Chairman as required and appropriate, but have no vote on matters before the Committee.

Use of Remuneration Consultants

The Committee has the resources and authority appropriate to perform its duties and responsibilities, including the authority to engage external professional on terms it deems appropriate.

The Committee has established protocols to ensure that if remuneration recommendations, as defined by the *Corporations Act 2001*, are made by independent remuneration consultants they are free from bias and undue influence by members of the KMP to whom the recommendations relate. The Committee engages the remuneration consultant and receive all reports directly from the remuneration consultant.

The Committee considers independent advice, where circumstances require, on the appropriateness of remuneration to ensure the Group attracts, motivates and retains high quality people. An advisor was engaged for the year ended 30 June 2019 and recommendations will be implemented through 30 June 2019/2020.

The Committee engaged the services of BDO (WA) Pty Ltd (BDO). The Committee is satisfied with the advice received from BDO is free from bias and undue influence. The remuneration review provided to the Committee as input into decision making only. The Committee will consider the review, along with other factors, in making its remuneration decisions.

The fees paid to BDO for the remuneration review was \$17,550. In addition to providing the remuneration review, BDO provided other advisory services and was paid a total of \$24,160 for these services. BDO also provides audit services to the Company and was paid a total of \$71,668 for these audit services.

BDO has confirmed that any remuneration reviews have been made free from undue influence by members of the group's key management personnel.

The following arrangements were made to ensure that the remuneration review results were free from undue influence:

- BDO was engaged by, and reported directly to, the chair and secretary of the remuneration committee. The agreement for the provision of remuneration consulting services was executed by the chair of the remuneration committee under delegated authority on behalf of the Board;
- The report containing the remuneration review results was provided by BDO directly to the chair and secretary of the remuneration committee; and
- BDO was permitted to speak to management throughout the engagement to understand company processes, practices and other business issues and obtain management perspectives.

As a consequence, the Board is satisfied that the recommendations were made free from undue influence from any members of the key management personnel.

Securities Trading Policy

Cardinal's Securities Trading Policy (Policy) provides clear guidance on how company securities, including shares and options, may be dealt with and applies to NED's, Executives and all other personnel of the Company including employees and contractors.

The Securities Trading Policy details acceptable and unacceptable periods for trading in Company Securities including the consequences of breaching the Policy.

The Policy also sets out specific governance approval of how the Chairman, Directors, officers and staff can deal in Company Securities. The Company's Policy can be accessed from the Corporate section at www.cardinalresources.com.au.

Remuneration Report approval at FY2018 Annual General Meeting (AGM)

The remuneration report for the FY2018 received positive shareholder support at the FY2018 AGM.

3. Executive Remuneration Policy and Practices

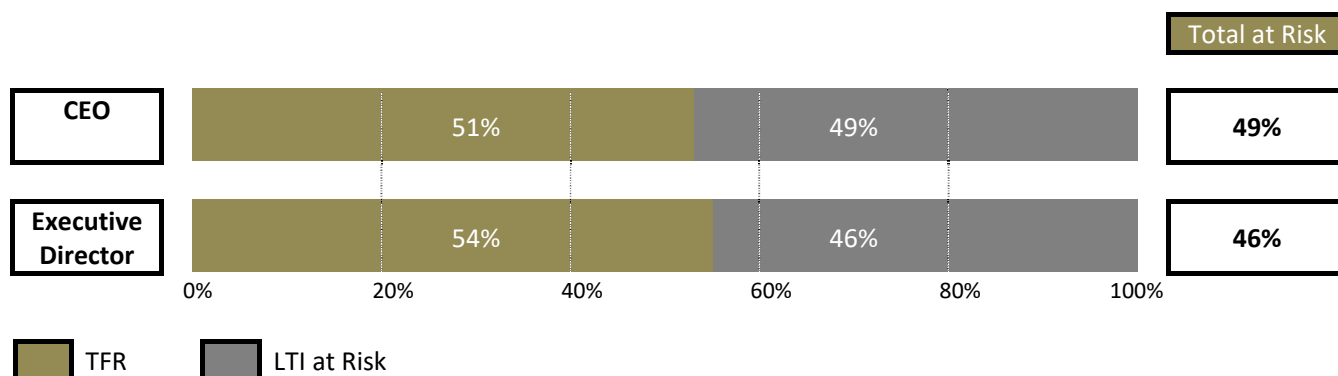
Cardinal's Board is committed to delivering remuneration strategy outcomes that:

- Align the interests of Executives with shareholders and further the Company's key business drivers;
- Attract, motivate and retain high performing Executives;
- Transparent and easily understood; and
- Acceptable to shareholders.

The remuneration strategy as the Company releases its feasibility study will identify and reward high performers and recognizes the contribution of each employee to the continued growth and success of the Group.

2019 Executive Remuneration Mix

The mix of fixed and at-risk remuneration varies depending on the role of the Executives. More senior positions have a greater proportion of at-risk remuneration.



Total Fixed Remuneration (TFR) and market positioning of TFR

Cardinal has adopted a market positioning strategy designed to attract and retain talented employees, and to reward them for delivering strong performance. The market positioning strategy also supports fair and equitable outcomes between employees.

TFR acts as a base-level reward and includes cash, compulsory superannuation and any salary-sacrificed items and is reviewed annually. Cardinal has set the baseline TFR for executives at the 75th percentile of the defined market. The Board considers variations to the benchmark based on:

- The size and complexity of the role;
- The criticality of the role to successful execution of the business strategy;
- Role accountabilities;
- Skills and experience of the individual;
- Period of service; and
- Market pay levels for comparable roles.

When determining the relevant market for each role, Cardinal considers the companies from which it sources talent, and to who it could potentially lose talent. During the year the Company engaged BDO, an independent remuneration advisor, to provide remuneration benchmarking data as input into setting remuneration for Executive KMP.

Give the stage of the Company it has been determined that short-term incentives paid in cash are not applicable. As a result, the Company has not initiated a short-term incentive plan.

Table 1 – LTI Plan: Key Questions and Answers

Long Term Incentive (LTI) Plan: Key Questions and Answers on how it works	
Why does the Board consider an LTI Plan to be appropriate?	<p>The Board believes that an LTI Plan can:</p> <ul style="list-style-type: none"> • Focus and motivate Executives to achieve outcomes that are aligned to optimizing shareholder value; • Ensure that business decisions and strategic planning have regard to the Company and Group's long-term performance; • Be consistent with remuneration governance guidelines; • Be consistent and competitive with current practices of comparable companies; and • Create an immediate ownership mindset among the executive participants, linking a substantial portion of the potential reward to Cardinal's on-going share price and returns to shareholders.
How is the award delivered?	Awards are in the form of performance rights (Rights) over ordinary shares in the Company for no consideration. The Rights carry neither a right to dividends or voting.
How often are grants made and was a grant made in 2019?	<p>Grants are made as KMP are appointed.</p> <p>Rights were granted to Non-Executive Directors upon receipt of shareholder approval during the year.</p>
What is the quantum of the award and what allocation methodology is used?	The quantum of Rights granted to an Executive is determined by the number of rights on issue and the exercise price is determined using a 50% mark up to 30-day VWAP from appointment.
What are the performance conditions?	<p>The two performance conditions, referred to as the vesting conditions are:</p> <ul style="list-style-type: none"> • Service Condition – The service condition is met if employment with Cardinal is continuous for the period commencing on or around the grant date until the Rights vest; and • Performance Condition – Upon meeting the milestone hurdle attached to each right.
Why are the performance conditions selected?	<p>The Board reviews the performance conditions to determine the appropriate hurdles based on Cardinal's strategy.</p> <p>Service based conditions are used to encourage retention.</p> <p>Setting long term incentive targets appropriate for different stages of the Company's cycle is complex and challenging. Whilst the Board holds long term incentives should not change during different phases of the Group's cycle and remain more stable over time (unlike short term incentives that should reflect the current operational environment and macroeconomic setting) it is also acknowledged a more nuanced approach may be required in the future.</p>
What is the performance period?	The performance period is for approximately 3 years and expire on 21 December 2022.
When is the LTI Plan schedule to be reviewed by the Board?	The LTI Plan is reviewed annually by the Board.
What happens to Rights granted under the LTI Plan	If the Executive's employment is terminated for cause, or due to resignation, all unvested performance rights will lapse.

when an Executive ceases employment?	If and when the performance rights vest, shares will be allocated in accordance with the plan rules and other condition of the grant.
Can Cardinal clawback LTI awards?	In the event of serious misconduct or material misstatement in the Company's financial statements, the Board may: <ul style="list-style-type: none"> • Reset the vesting condition and/or alter the performance period applying to the award; • Deem all awards which have not vested to have lapsed or been forfeited; and/or • Deem all or any shares following vesting of an award to have lapsed or been forfeited.
What happens in the event of a change of control?	In the event of a change in control the Options will vest and become exercisable in accordance with the term and conditions of the options.

4. Executive Remuneration outcomes in FY 2019

Company Performance

A summary of Cardinal's business performance as measured by a range of financial and other indicators, including disclosure required by the *Corporations Act 2001*, is outline below.

Table 2 – Company Performance for five years

	2019	2018	2017	2016	2015
Total Comprehensive Loss Attributable to Member of the Company	27,814,227	37,690,470	21,724,298	9,243,909	3,580,551
Cash and cash equivalents at year end	18,735,456	7,303,807	28,592,718	4,864,822	839,755
Basic Loss Per Share	7.12	10.22	7.12	5.55	3.82
ASX share price at the end of the year (\$)	\$0.34	\$0.43	\$0.53	\$0.30	\$0.05
Increase/(decrease) in share price (%)	(1.26)	(1.23)	+1.76	+6.00	+2.5

STI Performance and outcomes for FY2019

The Company during the year ended 30 June 2019 had no STI's in place. The Company has undertaken a review of STI for the financial year ended 30 June 2020.

LTI Plan Vesting Outcomes for FY2019

Long term incentive (LTI) benefits received in the form of milestone options are currently in place. LTI benefits are provided in the form of equity allocations.

The equity vest in the future subject to milestones being achieved. The objective of issuing the LTI's to all KMP's, including non-executive directors, is to align the interests of executives with those of shareholders. If shareholders do well, executives are rewarded. Conversely, where shareholders do not do well, neither does the executive.

Unvested equity is forfeited if the executive resigns before the end of the performance period.

During the FY2019 the below milestones had not vested:

- The beginning of earthworks for gold production at the Ghanaian Assets (Milestone 2); and
- The first pouring of gold at the Ghanaian Assets (Milestone 3).

The Company has undertaken a review of the Company LTI's for the financial year ended 30 June 2020.

Executive KMP Contracts

The Remuneration Committee reviews and agrees Executive Service and Employment Agreements for Key Management Personnel on a periodic basis. The Remuneration Committee is also assisted, where appropriate, by external consultants specialising in remuneration reviews and other employment issues.

The following employment agreements were in place as at 30 June 2019 and as at the date of this report, unless otherwise noted, based upon the following terms;

Table 3 – Executive KMP Contracts

Name	Term on Contract	Notice Period (Company)	Notice Period (KMP)	STI and LTI treatment on termination ¹
A Koimtsidis	On-going employment agreement	12 months	12 months	Vested LTI's the executive has 30 days to exercise. Unvested automatically lapse.
M Easah	On-going employment agreement	6 months	6 months	Vested LTI's the executive has 30 days to exercise. Unvested automatically lapse.
Jon Grygorewicz	On-going services agreement	2 months	2 months	Not Applicable

1. Subject to statutory limitations

Termination Payments

The Company made a termination payment during the year ended 30 June 2019 to the Company's prior CFO Derrick Weyrauch.

Other than the above, no termination payments have been made by the Company.

Executive KMP Remuneration Tables

The actual remuneration earned by Executive KMP in FY2019 is set out below. The information is considered relevant as it provides shareholders with a view of the remuneration actually paid to Executives for performance in FY2019. The value of remuneration includes equity grants where the Executive received control of the shares in FY2019 and different from the remuneration disclosures in Table 5, which discloses the value of LTI grants which may or may not vest in future years. The table discloses the value of LTI grants from previous years which have vested in FY2019.

Table 4 – Executive KMP Actual Remuneration Earned in FY2019

Name	Salary and Fees ¹	Benefits and Allowances	Short-Term Incentive	LTI Plan Rights	Total Actual Remuneration
	\$	\$	\$	\$	\$
A Koimtsidis	300,000	-	-	-	300,000
M Easah	298,780	-	-	-	298,780
Jon Grygorewicz	56,500	-	-	-	56,500
D Weyrauch	218,202	-	-	-	218,202

1. Salary and fees comprise base salary, superannuation and leave entitlements. It reflects the total of "salary and fees" and "superannuation" in the statutory remuneration table.

Statutory Executive KMP Remuneration

Table 5 sets out Executive KMP remuneration calculated in accordance with statutory accounting requirements.

Table 5 – Statutory Executive KMP Remuneration

Name	Short-term benefits		Long-term benefits	Post-employment	Share-based payments	Termination Payments	Total
	Salary, Fees and Leave	Non-Monetary (i)	Long Service Leave	Super-annuation	LTI Plan Rights		
	\$	\$	\$	\$	\$	\$	\$
A Koimtsidis							
2019	300,000	17,581	-	-	303,433	-	621,014
2018	300,000	8,386	-	-	675,548	-	983,934
M Easah							
2019	298,780	16,563	-	-	269,719	-	585,062
2018	271,013	7,492	-	-	600,487	-	878,992
J Grygorcewicz							
2019	56,500	1,646	-	-	-	-	58,146
2018	-	-	-	-	-	-	-
D Weyrauch							
2019	151,076	16,052	-	-	-	67,126	234,254
2018	307,821	6,781	-	-	480,961	-	795,563
Total							
2019	806,356	51,842	-	-	573,152	67,126	1,498,476
2018	878,834	22,659	-	-	1,756,996	-	2,658,489

- (i) Non-monetary benefits are for directors' and officers' liability and legal expense insurance premiums.
- (ii) Unlisted options were granted as part of remuneration. No cash benefit is received by the key management personnel of the Group, until the sale of the resultant shares, which cannot be done unless and until the rights have vested and the shares issued.
- (iii) D Weyrauch was appointed on 10 July 2017 and retired on 31 October 2018.
- (iv) J Grygorcewicz was appointed on 31 October 2018.

7. Non-Executive Director Remuneration
NED Remuneration Policy and Fee Structure

Cardinal's NED remuneration policy is designed to attract and retain suitably skilled Director who can discharge the roles and responsibilities required in terms of good governance, oversight, independence and objectivity. The Board seeks to attract Directors with different skills, experience, expertise and diversity.

Under the ASX Listing Rules, the total annual fee pool for NED's is determined by shareholders. The current maximum aggregate NED fee pool is \$573,000 per annum and was approved by Shareholders at the 2017 Annual General Meeting.

Within the aggregate amount, NED's fees are reviewed annually by the Remuneration and Nomination Committee (Committee), and set by the Board. The Committee considered the advice from external consultants when undertaking the annual review process.

Structure

The remuneration of NEDs consists of directors' fee, there was no committee fees paid to NEDs for serving on sub-committees. Further development of the fee structure for NEDs is proposed for 2019/2020 as part of the revised remuneration strategy designed to attract and retain talent on the Cardinal Board.

Statutory NED Remuneration

The following table sets out the NED fees calculated in accordance with statutory accounting requirements and which reflects the actual remuneration received.

Statutory NED Fee Disclosure
Table 6 - NED fees for the year ended 30 June 2019 and 30 June 2018

Name	Short-Term Benefits		Long-Term Benefits	Post-Employment	Total
	Base Fee \$	Non-Monetary (i) \$	LTI \$	Superannuation \$	
K Tomlinson					
2019	110,376	13,039	337,148	-	460,563
2018	110,375	7,402	750,609	-	868,386
M Muscillo (ii)					
2019	87,600	9,133	225,889	-	322,622
2018	62,050	1,768	143,559	-	207,377
Dr K G. Thomas (iii)					
2019	58,400	2,341	21,957	-	82,698
2018	-	-	-	-	-
T Schultz (iv)					
2019	40,000	2,022	25,605	3,800	71,427
2018	-	-	-	-	-
R Schafer (iv), (v)					
2019	43,800	10,971	-	-	54,771
2018	81,044	4,831	480,961	-	566,836
J McMullen (ii), (iii)					
2019	29,200	851	-	-	30,051
2018	62,050	1,768	143,559	-	207,377
M Connelly (ii)					
2019	-	-	-	-	-
2018	22,462	211	(160,262)	2,134	(135,455)
S Jackson (ii)					
2019	-	-	-	-	-
2018	22,462	211	(160,262)	2,134	(135,455)
Total Remuneration					
2019	369,376	38,357	610,599	3,800	1,022,132
2018	360,443	16,191	1,198,164	4,268	1,579,066

- (i) Non-Monetary benefits are for directors' and officers' liability and legal expense insurance premiums.
- (ii) J McMullen and M Muscillo were appointed on 11 October 2017 and M Connelly and S Jackson retired on 11 October 2017.
- (iii) Dr K G. Thomas was appointed on 31 October 2018 and J McMullen retired on 31 October 2018.
- (iv) T Schultz was appointed on 2 January 2019 and R Schafer retired on 2 January 2019.
- (v) R Schafer was appointed on 10 July 2017.

8. Equity Instrument Reporting
Rights Holdings of KMP

The following table sets out details of movements in performance rights held by Executive KMP, issued as part of LTI explained in section 3.

Table 7 – Executive KMP Milestone Options – LTI

Name	Balance at 1 July 2018	Granted	Vested	Lapsed ^D	Balance at 30 June 2019	Unvested	Value of unvested Rights
Archie Koimtsidis	4,500,000 ^A	-	-	-	4,500,000	3,150,000	303,433
Malik Easah	4,000,000 ^A	-	-	-	4,000,000	2,800,000	269,719
Former KMP's							
Derrick Weyrauch	2,879,000 ^B	-	-	(2,879,000)	-	-	-

A. This relates to the FY2017 and were granted on the approval from shareholders at the Company's shareholder meeting held on 3 April 2017. If vesting conditions are achieved these rights will vest on or before 12 April 2022.

B. This relates to the FY2018 and were granted on approval from shareholders at the Company's Annual General Meeting held on 22 November 2017. If vesting conditions are achieved these rights will vest on or before 21 December 2022.

The Rights on foot, including those granted as part of the FY2019 LTI award are detailed in the table below. Should the Rights not vest, the award will expire at vesting date.

Rights Holdings of NED

The following table sets out details of movements in performance rights held by NED's, issued as part of LTI explained in section 3.

Table 8 – NED Milestone Options – LTI

Name	Balance at 1 July 2018	Granted	Vested	Lapsed ^D	Balance at 30 June 2019	Unvested	Value of unvested Rights
Kevin Tomlinson	5,000,000 ^A	-	-	-	5,000,000	3,500,000	337,148
Michele Muscillo	2,018,100 ^B	-	-	-	2,018,100	2,018,100	225,889
Dr Kenneth G. Thomas	-	2,180,049 ^C	-	-	2,180,049	2,180,049	21,957
Trevor Schultz	-	2,180,049 ^C	-	-	2,180,049	2,180,049	25,605
Former NED's							
Jacques McMullen	2,018,100 ^B	-	-	(2,018,100)	-	-	-
Robert Schafer	2,879,000 ^B	-	-	(2,879,000)	-	-	-

A. This relates to the FY2017 and were granted on the approval from shareholders at the Company's shareholder meeting held on 3 April 2017. If vesting conditions are achieved these rights will vest on or before 12 April 2022.

B. This relates to the FY2018 and were granted on approval from shareholders at the Company's Annual General Meeting held on 22 November 2017. If vesting conditions are achieved these rights will vest on or before 21 December 2022.

C. This relates to the FY2019 and were granted on approval from shareholders at the Company's shareholder meeting held on 11 April 2019. If vesting conditions are achieved these rights will vest on or before 21 December 2022.

D. Lapsed due to retirement from the Company.

The Rights on foot, including those granted as part of the FY2019 LTI award are detailed in the table below. Should the Rights not vest, the award will expire at vesting date.

Table 9 – Rights – LTI

Name	Grant	Grant Date	Unlisted Options	Number of Rights ^A			Fair Value of Rights ^H	Expense for the Year (\$)	Performance and Service Period
				Milestone 1 ^B	Milestone 2 ^C	Milestone 3 ^C			
Archie Koimtsidis ^D	FY2017	27.02.17	-	1,350,000	1,350,000	1,800,000	1,782,900	303,433	-
	FY2016	18.03.17	3,000,000	-	-	-	-	-	-
Malik Easah ^D	FY2017	27.02.17	-	1,200,000	1,200,000	1,600,000	1,584,800	269,719	-
	FY2016	18.03.17	2,000,000	-	-	-	-	-	-
Kevin Tomlinson ^D	FY2017	27.02.17	-	1,500,000	1,500,000	2,000,000	1,981,000	337,148	-
Michele Muscillo ^E	FY2018	22.11.18	-	-	864,900	1,153,200	2,018,100	225,889	-
Dr Kenneth G. Thomas ^F	FY2019	11.04.19	-	-	934,307	1,245,742	207,417	21,957	-
Trevor Schultz ^G	FY2019	11.04.19	-	-	934,307	1,245,742	241,875	25,605	-

A. The Milestone Options shall vest and are exercisable at any time on and from:

(i) **Milestone 1** - the earlier of:

(A) the completion of a scoping study; or

(B) the completion of a preliminary economic assessment, of the Ghanaian Assets;

(ii) **Milestone 2** - on the beginning of earthworks for gold production at the Ghanaian Assets; and

(iii) **Milestone 3** - on the first pouring of gold at the Ghanaian Assets, until 12 April 2022.

A probability of 100% has been applied to the milestones occurring for the milestone options on issue.

B. During the year ended 30 June 2018 Milestone 1 vested.

C. The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

D. The milestone options were issued with an exercise price of \$0.50.

E. The milestone options were issued with an exercise price of \$0.965.

F. The milestone options were issued with an exercise price of \$0.679.

G. The milestone options were issued with an exercise price of \$0.59.

H. The value of the rights included in remuneration for the year is calculated in accordance with Australian Accounting Standards for further details please see note 13.

On satisfaction of certain milestone events, each Class C Performance Share converts into 500,000 ordinary shares (refer to note 13) in which case each key management personnel holding the Class C Performance Shares would become entitled to a further 500,000 ordinary shares.

Table 10 - Class C Performance Shareholdings of key management personnel

Key Management Personnel	Balance at 1 July 2018 (ii)	Granted as remuneration	Net other change (iii)	Balance at 30 June 2019 (i)
A Koimtsidis	-	-	-	-
M Easah	60	-	-	60
J Grygorcewicz	-	-	-	-
Former KMP's				
D Weyrauch	-	-	-	-
Total	60	-	-	60

(i) Balance at the end of the financial year or at date of retirement, for key management personnel who retired before financial year end.

(ii) Balance at the beginning of the financial year or at date of appointment, for those key management personnel who were appointed during the financial year.

(iii) Expired during the year.

- (iv) Mr. Easah is the sole shareholder of Savannah Mining Ghana Limited, which holds the 60 outstanding Class C Performance Shares.

Share and Option Holdings of KMP

The following table sets out the movements in the number of ordinary shares in the Company held, directly, by each KMP, including their related parties.

Table 11: Shareholdings of Key Management Personnel - 2019

	Balance 01.07.18 (ii)	Granted as Remuneration	Options Exercised	Net Change Other	Balance 30.06.19 (i)
Directors					
A Koimtsidis	8,017,565	-	-	-	8,017,565
M Easah	7,681,815	-	-	-	7,681,815
KMP					
J Grygorewicz	-	-	-	-	-
D Weyrauch	80,000	-	-	-	80,000

(i) Date of retirement, if applicable

(ii) Date of appointment, if applicable

Table 12: Listed Options holdings of Key Management Personnel - 2019

	Balance 01.07.18 (iii)	Granted as Remuneration	Options Exercised	Performance Rights Vested	Net Change Other (i)	Balance 30.06.19 (ii)	Vested at 30 June 2019	
							Total	Exercisable
Listed Options								
Directors								
A Koimtsidis	4,191,731	-	-	-	-	4,191,731	4,191,731	4,191,731
M Easah	6,560,423	-	-	-	-	6,560,423	6,560,423	6,560,423
KMP								
J Grygorewicz	-	-	-	-	20,000	20,000	20,000	20,000
D Weyrauch	-	-	-	-	-	-	-	-

(i) Purchased on market

(ii) Date of retirement, if applicable

(iii) Date of appointment, if applicable

Share and Option Holdings of NED's

The following table sets out the movements in the number of ordinary shares in the Company held, directly, by each NED's, including their related parties.

Table 13: Shareholdings of NED Personnel - 2019

	Balance 01.07.18 (ii)	Granted as Remuneration	Options Exercised	Net Change Other	Balance 30.06.19 (i)
Directors					
K Tomlinson	-	-	-	-	-
M Muscillo	-	-	-	-	-
K G Thomas	-	-	-	-	-
T Schultz	-	-	-	-	-
R Schafer	10,000	-	-	-	10,000
J McMullen	-	-	-	-	-

(iii) Date of retirement, if applicable

(iv) Date of appointment, if applicable

Table 12: Listed Options holdings of NED Personnel - 2019

	Balance 01.07.18 (iii)	Granted as Remuneration	Options Exercised	Performance Rights Vested	Net Change Other (i)	Balance 30.06.19 (ii)	Vested at 30 June 2019	
							Total	Exercisable
Listed Options								
Directors								
K Tomlinson	400,000	-	-	-	-	400,000	400,000	400,000
M Muscillo	-	-	-	-	-	-	-	-
K G Thomas	-	-	-	-	-	-	-	-
T Schultz	-	-	-	-	-	-	-	-
R Schafer	-	-	-	-	-	-	-	-
J McMullen	-	-	-	-	-	-	-	-

(iv) Purchased on market

(v) Date of retirement, if applicable

(vi) Date of appointment, if applicable

9. Other Transactions and balance with KMP and NED's and their related parties

Other Equity-related Key Management Personnel and NED's Transactions

There have been no other transactions involving equity instruments apart from those described in the tables above relating to options and shareholdings.

Other Transactions with Key Management Personnel and NED's and/or their Related Parties

Tomlinson Consultancy, of which Kevin Tomlinson is a director, provided geological consulting services to the Company. Amounts that have been paid or payable total \$309,624 (2018: \$337,218).

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 (2018: \$3,506).

Robert Schafer, a director, provided consulting services to the Company. Amount that have been paid or payable total \$0 (2018: \$\$12,911).

During the year ended 30 June 2019, Cardinal Resources Limited has advanced funds to Savannah 2019: nil (2018: \$4,000,674), a related entity to Director Mr Malik Easah. The purpose of an advance was for the development of a mining licence in areas in respect of which Savannah had entered into agreements with holders of small scale licences. As at the date of this report, \$280,300 (2018: \$916,362) has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference has been applied toward the development of the mining licence and expensed during the period.

Other than the above there were no other transactions conducted between the Group and Key Management Personnel or their related parties, apart from those disclosed above relating to equity and compensation, that were conducted other than in accordance with normal employee, customer or supplier relationships on terms no more favourable than those reasonably expected under arm's length dealings with unrelated persons.

END OF AUDITED REMUNERATION REPORT

INDEMNIFICATION AND INSURANCE OF DIRECTORS AND OFFICERS

In accordance with the constitution, except as may be prohibited by the Corporations Act 2001, every Officer or agent of the Company shall be indemnified out of the property of the entity against any liability incurred by him in his capacity as Officer or agent of the Company or any related corporation in respect of any act or omission whatsoever and howsoever occurring or in defending any proceedings, whether civil or criminal.

During the year the Company agreed to pay an annual insurance premium of \$90,200 (2018: \$38,850) in respect of directors' and officers' liability and legal expenses' insurance contracts, for directors, officers and employees of the Company. The insurance premium relates to:

- Costs and expenses incurred by the relevant officers in defending proceedings, whether civil or criminal and whatever the outcome.
- Other liabilities that may arise from their position, with the exception of conduct involving a willful breach of duty.

SHARES OPTIONS

Unissued shares

At the date of this report the Company had on issue 106,916,696 Listed Options in the Company, exercisable at \$0.15 on or before 30 September 2019. During the financial year 3,757,971 of these listed options were converted into fully paid shares.

As at the date of this report the Company had on issue the below options:

- 6,000,000 unlisted options exercisable at \$0.22 on or before 18 March 2020;
- 18,500,000 unlisted milestone options exercisable at \$0.50 on or before 12 April 2022,
- 2,018,100 unlisted milestone options exercisable at \$0.965 on or before 21 December 2022;
- 1,000,000 unlisted options, exercisable at \$0.75 on or before 21 December 2022;
- 2,180,049 unlisted milestone options, exercisable at \$0.679 on or before 21 December 2022;
- 2,180,049 unlisted milestone options, exercisable at \$0.59 on or before 21 December 2022; and
- 1,867,817 unlisted options exercisable at \$1.00 per share.

The milestone options vest on the Company achieving certain milestones. During the financial year none of these unlisted options were converted into fully paid shares.

Option holders do not have any rights to participate in any issues of shares of other interests in the Company or any other entity.

There have been no options granted over unissued shares or interests of any controlled entity within the Group during or since the end of the reporting period.

For details of options issued to directors and executives, refer to the remuneration report.

CORPORATE GOVERNANCE STATEMENT

Cardinal Resources is committed to ensuring that its policies and practices reflect a high standard of corporate governance. The Board has adopted a comprehensive framework of Corporate Governance Guidelines.

Throughout the 2019 financial year the Company's governance was consistent with the Corporate Governance Principles and Recommendations (3rd edition) published by the ASX Corporate Governance Council.

The Group's Corporate Governance Statement can be viewed at the Company's Corporate Governance page at <http://cardinalresources.com.au>.

EVENTS SUBSEQUENT TO REPORTING DATE

On 4 July 2019 the Company issued 59,975 fully paid ordinary shares on exercise of Listed Options.

On 11 July 2019 the Company issued 280,000 fully paid ordinary shares on exercise of Listed Options.

On 17 July 2019 the Company issued 600,000 fully paid ordinary shares on exercise of Listed Options. The Company also issued 73,530 and 635,161 shares at a deemed issue price of \$0.34 and \$0.336 respectively for services rendered to the Company.

On 24 July 2019 the Company issued 130,000 fully paid ordinary shares on exercise of Listed Options.

On 29 July 2019 the Company issued 126,000 fully paid ordinary shares on exercise of Listed Options.

On 7 August 2019 the Company issued 252,500 fully paid ordinary shares on exercise of Listed Options.

On 14 August 2019 the Company issued 220,261 fully paid ordinary shares on exercise of Listed Options.

On 19 August 2019 the Company issued 617,500 fully paid ordinary shares on exercise of Listed Options.

On 21 August 2019 the Company issued 827,048 fully paid ordinary shares on exercise of Listed Options.

Other than the above, no matters or circumstances have arisen since the end of the financial year which significantly affected or could significantly affect the operations of the Group, the results of those operations, or the state of the affairs of the Group in future financial years.

Non Audit Services

The Company may decide to employ the auditor on assignments additional to their statutory audit duties where the auditor's expertise and experience with the company and/or the group are important.

Details of the amounts paid or payable to the BDO (WA) Pty Ltd (BDO) for audit and non-audit services provided during the year are set out below.

The Board of Directors has considered the position and, in accordance with advice received from the audit committee, is satisfied that the provision of the non-audit services is compatible with the general standard of independence for auditors imposed by the *Corporations Act 2001*. The Directors are satisfied that the provision of non-audit services by the auditor, as set out below, did not compromise the auditor independence requirements of the *Corporations Act 2001* for the following reasons:

- all non-audit services have been reviewed by the audit committee to ensure they do not impact the impartiality and objectivity of the auditor
- none of the services undermine the general principles relating to auditor independence as set out in APES 110 Code of Ethics for Professional Accountants.

During the year the following fees were paid or payable for non-audit services provided by BDO, its related practices and non-related audit firms:

	2019 \$	2018 \$
Remuneration for non-audit services		
Remuneration advice	17,550	-
Taxation advice	5,660	39,695
Review of financial model	18,500	-
Total remuneration for non-audit services	<u>41,710</u>	<u>39,695</u>

AUDITOR'S INDEPENDENCE DECLARATION

The auditor's independence declaration for the year ended 30 June 2019 has been received and can be found on page 62 of the financial report.

Signed in accordance with a resolution of the directors made pursuant to s 298(2) of the Corporations Act 2001.

On behalf of the directors



ARCHIE KOIMTSIDIS

CEO/MD

Dated this 3 September 2019

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE THREE AND TWELVE MONTHS ENDED 30 JUNE 2019**

For the period ended	Note	Unaudited Three Months Ended		Audited Twelve Months Ended	
		June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Revenue	4	\$ 107,064	33,006	365,859	174,312
Operating expenses					
Corporate administration expenses	5	(3,050,448)	(2,545,810)	(12,199,428)	(10,688,014)
Depreciation expense	9	(101,981)	(67,080)	(314,731)	(217,454)
Exploration and evaluation expenses		(6,426,350)	(3,653,287)	(14,940,749)	(26,747,592)
Foreign exchange gain/(loss)		(25,589)	193,028	38,087	295,904
Net Loss for the period		\$ (9,497,304)	(6,040,143)	(27,050,962)	(37,182,844)
Income tax	6(a)	-	-	-	-
Loss after income tax		\$ (9,497,304)	(6,040,143)	(27,050,962)	(37,182,844)
Other comprehensive gain (loss)					
Items that may be reclassified to profit or loss:					
Unrealized foreign exchange on translation		(98,171)	(108,170)	(763,265)	(507,626)
Comprehensive loss for the period		\$ (9,595,475)	(6,148,313)	(27,814,227)	(37,690,470)
Loss per share, basic and diluted (cents)	15	\$ (2.48)	(1.62)	(7.12)	(10.22)
Weighted average number of common shares outstanding	15	382,864,991	372,820,197	379,752,526	363,630,782

The above consolidated statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2019**

As at	Note	June 30, 2019	June 30, 2018
ASSETS			
Current Assets			
Cash and cash equivalents	16(a)	18,735,456	7,303,807
Trade and other receivables	8(a)	256,650	980,224
Other assets	8(b)	847,392	1,393,434
		19,839,498	9,677,465
Non-Current Assets			
Plant and equipment	9	994,650	564,149
		994,650	564,149
TOTAL ASSETS		20,834,148	10,241,614
LIABILITIES AND SHAREHOLDERS' DEFICIT			
Current Liabilities			
Trade and other payables	10	3,286,116	4,707,018
Provisions		85,062	59,958
		3,371,178	4,766,976
Non-Current Liabilities			
Borrowings	11	35,604,680	-
		35,604,680	-
TOTAL LIABILITIES		38,975,858	4,766,976
Shareholders' Deficit			
Issued capital	12	84,460,427	81,369,056
Reserves	13	5,681,581	6,003,878
Accumulated losses	14	(108,283,718)	(81,898,296)
		(18,141,710)	5,474,638
TOTAL LIABILITIES AND SHAREHOLDERS' DEFICIT		20,834,148	10,241,614

The above consolidated statement of financial position should be read in conjunction with the accompanying notes

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE TWELVE MONTHS ENDED 30 JUNE 2019**

Australian (\$)	SHARE CAPITAL	OPTIONS RESERVE	FOREIGN EXCHANGE RESERVE	ACCUMULATED LOSSES	TOTAL EQUITY
	\$	\$	\$	\$	\$
Balance at 1 July 2018	81,369,056	6,744,105	(740,227)	(81,898,296)	5,474,638
Loss for the year	-	-	-	(27,050,962)	(27,050,962)
Other comprehensive loss	-	-	(763,265)	-	(763,265)
Total comprehensive loss	-	-	(763,265)	(27,050,962)	(27,814,227)
Shares issued during the year	-	-	-	-	-
Exercise/expiry of options	563,696	(1,351,324)	-	665,540	(122,088)
Share/Option based payments	2,535,378	1,792,292	-	-	4,327,670
Share issue expenses	(7,703)	-	-	-	(7,703)
Balance at 30 June 2019	84,460,427	7,185,073	(1,503,492)	(108,283,718)	(18,141,710)
Balance at 1 July 2017	68,628,035	2,710,589	(232,601)	(44,899,452)	26,206,571
Loss for the year	-	-	-	(37,182,844)	(37,182,844)
Other comprehensive loss	-	-	(507,626)	-	(507,626)
Total comprehensive loss	-	-	(507,626)	(37,182,844)	(37,690,470)
Shares issued during the year	12,396,736	-	-	-	12,396,736
Exercise/expiry of options	742,945	(184,000)	-	184,000	742,945
Share/Option based payments	524,846	4,217,516	-	-	4,742,362
Shares issue expenses	(923,506)	-	-	-	(923,506)
Balance at 30 June 2018	81,369,056	6,744,105	(740,227)	(81,898,296)	5,474,638

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes

**CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE THREE AND TWELVE MONTHS ENDED 30 JUNE 2019**

For the period ended	Note	Unaudited Three months ended		Audited Twelve months ended	
		June 30, 2019	June 30, 2018	30 June, 2019	30 June, 2018
Operating activities					
Expenditure on mineral interests		(4,270,510)	(4,661,452)	(14,171,472)	(26,726,883)
Payments to suppliers and employees		(1,606,463)	(1,169,548)	(5,995,737)	(6,183,954)
Interest received		113,801	22,316	322,733	161,864
Net cash outflow used in operating activities	16(b)	(5,763,172)	(5,808,684)	(19,844,476)	(32,748,973)
Investing activities					
Purchase of plant and equipment		(308,895)	(132,190)	(749,258)	(316,207)
Net cash outflow used in investing activities		(308,895)	(132,190)	(749,258)	(316,207)
Financing activities					
Issue of shares and options net of capital raising costs		39,891	45,299	555,993	12,145,849
Interest paid		(479,819)	-	(1,790,033)	-
Proceeds from borrowings net of costs		-	-	33,921,932	-
Net cash inflow from financing activities		(439,928)	45,299	32,687,892	12,145,849
Net increase/(decrease) in cash and cash equivalents		(6,511,995)	(5,895,575)	12,094,158	(20,919,331)
Cash and cash equivalents at the beginning of the period		24,985,941	13,304,533	7,303,807	28,592,718
Effect of changes in exchange rates on cash		261,510	(105,151)	(662,509)	(369,580)
Cash and cash equivalents at the end of the financial year	16(a)	18,735,456	7,303,807	18,735,456	7,303,807

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes

1. CORPORATE INFORMATION

The financial report of Cardinal Resources Limited (“Cardinal Resources” or “the Company”) and its controlled entities (“the Group”) for the three and twelve months ended 30 June 2019 was authorised for issue in accordance with a resolution of the directors on 3 September 2019.

Cardinal Resources Limited 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 consolidated financial statements of the Company for the year ended 30 June 2019 is comprised of the Company and its subsidiaries, together referred to as the Group or consolidated entity. The Company’s registered office is Suite 1, 28 Ord Street, West Perth, Western Australia 6005, Australia.

The nature of the operations and principal activity of the Group is described in the directors’ report.

2. BASIS OF PRESENTATION

(a) Statement of compliance

The financial report is a general-purpose financial report, which has been prepared in accordance with the requirements of the *Corporations Act 2001*, Accounting Standards and Interpretations, and complies with other requirements of the law. The financial report also complies with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

(b) Basis of preparation of the financial report

The financial report has been prepared on a historical cost basis.

The parent entity, Cardinal Resources Limited, has 100% interest in the below subsidiaries. Cardinal Resources Limited is required to make all the financial and operating policy decisions of these subsidiaries.

Subsidiaries of Cardinal Resources Limited	Country of incorporation	Percentage owned	
		2019	2018
Cardinal Resources (Australia) Pty Ltd	Australia	100%	100%
Cardinal Resources Ghana Limited	Ghana	100%	100%
Cardinal Resources Subranum Limited	Ghana	100%	100%
Cardinal Mining Services Limited	Ghana	100%	100%
Cardinal Namdini Mining Limited	Ghana	100%	100%

All inter-company balances have been eliminated in the consolidated financial statements.

(c) Functional and presentation currency

The functional currency of each of the Group’s entities is measured using the currency of the primary economic environment in which that entity operates. The consolidated financial statements are presented in Australian dollars, which is the Cardinal Resources’ functional currency. Cardinal Resources’ Ghanaian subsidiaries’, as detailed in note 2(b), functional currency is Ghana Cedis.

(d) Principles of consolidation

Subsidiaries

Subsidiaries are all entities (including structured entities) over which the group has control. The group controls an entity when the group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are deconsolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the group.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively.

When controlled entities have entered or left the Group during the year, the financial performance of those entities are included only for the period of year that they were controlled. A list of controlled entities is contained in note 2(b) to the financial statements.

In preparing the consolidated financial statements, all inter-group balances and transactions between entities in the consolidated group have been eliminated on consolidation. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with those adopted by the parent entity.

Non-controlling interests, being the equity in a subsidiary not attributable, directly or indirectly, to a parent, are shown separately within the equity section of the consolidated Statement of Financial Position and Statement of Profit or Loss and Other Comprehensive Income. The non-controlling interests in the net assets comprise their interests at the date of the original business combination and their share of changes in equity since that date.

(e) Significant accounting estimates and judgements

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:

Determination of functional currency

The functional currency of the Company has been assessed by management based on consideration of the currency and economic factors that mainly influence the Company's operations. Changes to these factors may have an impact on the judgment applied in the determination of the Company's functional currency.

Deferred taxation

The potential deferred tax asset arising from the tax losses and temporary differences have not been recognised as an asset because recovery of the tax losses is not yet considered probable (refer to note 6).

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 recognised 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.

Share-based payment transactions

The Group measures the cost of equity-settled transactions by reference to the fair value of the equity instrument at the date at which they are granted. The fair value of options granted is measured using the Black-Scholes option pricing model. The model uses assumptions and estimates as inputs (refer to note 17).

A probability of 100% has been applied to the milestones occurring for the milestone options on issue. During the 2018 financial year Milestone 1 vested. The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

A probability of 0% has been applied to the C Performance Shares hurdles occurring.

Impairment of non-financial assets

The Group assesses impairment at the end of each reporting period by evaluating conditions and events specific to the Group that may be indicative of impairment triggers. Recoverable amounts of relevant assets are reassessed using various key assumptions.

There are no impairment indicators for the year.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Exploration and evaluation expenditure

The Group expenses all exploration and evaluation expenditure incurred.

An area of interest is established where a discovery of economically recoverable resource is made. The area of interest will be established as a mineral project. All activity relating to the area of interest would then be subsequently capitalised. When development is anticipated, costs will be carried forward until the decision to develop is made.

(b) Revenue

Under IFRS 15 Revenue, revenue is recognised when a performance obligation is satisfied, being when control of the goods or services underlying the performance obligations is transferred to the customer.

(c) Employee benefits

Provision is made for the Group's liability for employee benefits arising from services rendered by employees to the statement of financial position date. Employee benefits expected to be settled within one year together with entitlements arising from wages and salaries and annual leave which will be settled after one year, are measured at the amounts expected to be paid when the liability is settled, plus related on-costs. Other employee benefits

payable later than one year are measured at the present value of the estimated cash outflows to be made to those benefits.

Contributions are made by the Group to employee superannuation funds and are charged as expenses when incurred.

(d) Share based payment transactions

The Company accounts for all equity-settled stock-based payments based on the 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 at the grant date and amortised over the vesting period. The amount recognised 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 reliably estimated.

(e) Foreign currency translation

The Australian dollar is considered to be the functional currency of the Company. Monetary assets and liabilities of the Company's operations are translated into Australian dollars at the rate of exchange in effect at the statement of financial position date, and non-monetary assets and liabilities are translated at the historical rate of exchange. Transactions in foreign currencies are translated at the actual rates of exchange. Foreign currency gains and losses are recognised in profit or loss.

(f) Income tax

Current income tax refunded/(expensed) charged to profit or loss is tax refundable/(payable). Those amounts recognised are expected to be recovered from/(paid to) the relevant taxation authority.

Deferred income tax is provided on all temporary differences at the statement of financial position date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax liabilities are recognised for all taxable temporary differences:

- except where the deferred income tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither that accounting profit nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, except where the timing of the reversal of the temporary differences will not reverse in the foreseeable future.

Deferred income tax assets are recognised for all deductible temporary differences, carry-forward of unused tax assets and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry-forward of unused tax assets and unused tax losses can be utilised:

- except where the deferred income tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred income tax is reviewed at each statement of financial position date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred income tax asset to be utilised.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the statement of financial position date.

Income taxes relating to items recognised directly in equity are not in the statement of profit or loss and other comprehensive income. Deferred income tax assets and deferred tax liabilities are offset only if a legally enforceable right exists to set off current income tax assets against current income tax liabilities and the deferred income tax assets relate to the same taxable entity and the same taxation authority.

(g) Earnings per share

Basic earnings/(loss) per share is calculated as profit or loss attributable to members of the Company, adjusted to exclude any costs of servicing equity (other than dividends) and preference share dividends, divided by the weighted average number of ordinary shares outstanding in the year, adjusted for any bonus element.

Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account the after income tax effect of interest and other financing costs associated with dilutive potential shares and the weighted average number of additional shares that would have been outstanding assuming the conversion of all dilutive potential shares.

(h) Cash and cash equivalents

Cash and short-term deposits in the Consolidated Statement of Financial Position comprise cash in bank and in hand and short-term deposits with an original maturity of three months or less.

For the purposes of the Consolidated Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts.

(i) Plant and equipment

The Company's plant and equipment are measured at cost less accumulated depreciation and impairment losses. The cost of an item of plant and equipment includes expenditures that are directly attributable to the acquisition or construction of the asset. The cost includes the cost of materials and direct labour, site preparation costs, installation and assembly costs, and any other costs directly attributable to bringing the assets to the location and conditions necessary for the assets to be capable of operating in the manner intended by management.

Depreciation is recorded over the estimated useful lives as outlined below:

Plant and Equipment	– First year depreciation percentage is between 25% and 37.50%. Subsequent years depreciation percentage is between 18.75 and 25%.
Motor Vehicles	– 25% per year.

Significant components of plant and equipment that are identified as having different useful lives are depreciated separately over their respective useful lives. Depreciation methods, useful lives and residual values, if applicable, are reviewed and adjusted, if appropriate, at the end of each reporting period.

Gains and losses on disposal of plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of the plant and equipment and are recognised in profit or loss.

(j) Impairment of non-financial assets

The Group assesses impairment at the end of each reporting period by evaluating conditions and events specific to the Group that may be indicative of impairment triggers. Recoverable amount of relevant assets is the higher of value in use and using fair value less cost to sell. In such cases the asset is tested for impairment as part of the cash-generating unit to which it belongs. When the carrying amount of an asset or cash-generating unit exceeds its recoverable amount, the asset or cash-generating unit is considered impaired and it is written down to its recoverable amount.

In assessing the value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Impairment losses relating to continuing operations are recognised in those expense categories consistent with the function of the impaired asset unless the asset is carried at revalued amount (in which case the impairment loss is treated as a revaluation decrease).

Fair value less cost of disposal is the amount obtainable from the sale of an asset or cash-generating unit in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal. Costs of disposal are incremental costs directly attributable to the disposal of an asset or cash-generating unit, excluding finance costs and income tax expense.

An assessment is also made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the recoverable amount is estimated. A previously recognised impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case, the carrying amount of the asset is increased to its recoverable amount. That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in profit or loss unless the asset is carried at the revalued amount, in which case the reversal is treated as a revaluation increase. After such a reversal, the depreciation charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systemic basis over its remaining useful life.

(k) Contributed equity

Ordinary shares and options are classified as contributed equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

(l) Financial instruments

Financial assets

The Company initially recognises financial assets at fair value on the date that they originated. All financial assets are recognised initially on the date at which the Company becomes a party to the contractual provisions of the instrument. The Company derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Company is recognised as a separate asset or liability.

The Company classifies its financial assets, being cash and cash equivalents and trade and other receivables, as loans and receivables. Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest rate method, less any impairment losses.

Financial liabilities

The Company initially recognises financial liabilities at fair value on the date that they originate. All financial liabilities are recognised initially on the date at which the Company becomes a party to the contractual provisions of the instrument. The Company derecognises a financial liability when its contractual obligations are discharged or cancelled or expire.

The Company classifies its financial liabilities, being trade and other payables, as other liabilities. Subsequent to initial recognition, other liabilities are measured at amortised cost using the effective interest rate method.

Effective interest rate method

The effective interest rate method is a method of calculating the amortised cost of a financial instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial instrument or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Transaction costs

Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition.

Impairment of financial assets

Financial assets are assessed for indicators of impairment at the end of the reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

(m) Fair value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In assessing the fair value of a particular contract, the market participant would consider the credit risk of the counterparty to the contract. Consequently, when it is appropriate to do so, the Group adjusts its valuation models to incorporate a measure of credit risk.

In measuring fair value, the Group uses valuation techniques that would maximise the use of observable inputs and minimise the use of unobservable inputs.

For assets and liabilities for which fair value is measured or disclosed in the financial report, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

Level 1 – quoted prices (unadjusted) of identical instruments in active markets that the reporting entity has the ability to access at the measurement date.

Level 2 – inputs are quoted prices of similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; inputs other than quoted prices used in a valuation model that are observable for that instrument; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 – one or more significant inputs used in a valuation technique that are unobservable for the instruments.

Determination of fair value and the resulting hierarchy requires the use of observable market data whenever available. The classification of a financial instrument in the hierarchy is based upon the lowest level of input that is significant to the measurement of fair value.

(n) Goods and services tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the relevant taxation authority. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the consolidated Statement of Financial Position are shown inclusive of GST.

The net amount of GST recoverable from, or payable to, the relevant taxation authority is included as a current asset or liability in the Consolidated Statement of Financial Position.

Cash Flows are included in the Consolidated Statement of Cash Flows on a net basis. The GST components of cash flows arising from investing and financial activities which are recoverable from, or payable to, the relevant taxation authority are classified as operating cash flows.

(o) Provisions

Provisions are recognised when it is probable that the Company is required to settle an obligation, as a result of a past event, and the obligation can be reliably estimated. The provision represents the Company's best estimate of the amounts required to settle the obligation at the end of the reporting period. When a provision is determined using the expected cash flow method, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material). When some or all of the amounts required to settle a provision are expected to be recoverable from a third party, a receivable is recognised when it is virtually certain reimbursement is receivable and the expected reimbursement can be reliably measured.

(p) Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors.

(q) Adoption of new and revised standards

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 standards were 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 period ended 30 June 2019; 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 period ended 30 June 2019.

Accounting Standards issued by the Australian Accounting Standards Board (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.

4. REVENUE

	June 30, 2019	June 30, 2018
Other income		
Interest from financial institutions	364,445	161,962
Reimbursements	-	11,032
Insurance proceeds	1,414	1,318
	365,859	174,312

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

5. EXPENSES

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

	June 30, 2019	June 30, 2018
Employee benefit expense		
Salaries, fees and leave	1,329,580	1,272,896
Equity based payments (note 17)	1,158,705	4,871,593
Defined contribution superannuation expense	101,384	85,015
Other corporate general and administration expenses		
Accounting, legal and consulting fees	1,976,212	1,917,148
Audit fees (note 5(ii))	71,668	67,144
Borrowing expenses	919,554	-
Regulatory fees	154,839	272,656
Information technology expenses	104,188	91,080
Insurance expenses	86,954	79,730
Interest expense	3,204,817	-
Office expenses	249,504	-
Promotional and conference expenses	795,700	580,777
Travel expenses	717,751	989,730
Other administration expenses	1,328,572	460,245
Total	12,199,428	10,688,014

(ii) Auditors' Remuneration

	June, 30 2019	June, 30 2018
Auditing and review of the Company's consolidated financial statements:		
BDO (WA) Pty Ltd	71,668	67,144
	71,668	67,144

The Company engaged BDO (WA) Pty Ltd for non-audit services, which included but not limited to tax advice and review of financial model to the Company for \$41,710 (2018: \$39,695).

6. INCOME TAX

(a) **Prima facie income tax benefit at 27.5% (2018: 27.5%) on loss from ordinary activities is reconciled to the income tax provided in the consolidated financial statements.**

	30 JUNE 2019 \$	30 JUNE 2018 \$
Loss before income tax	(27,050,962)	(37,182,844)
Income tax calculated at 27.5%	(7,439,014)	(10,225,282)
Tax effect of:		
Expenses not allowed	1,310	3,232
Sundry – temporary differences	4,210,082	(785,890)
Section 40-880 deduction	(16,489)	(5,417)
Future income tax benefit not brought to account	3,244,111	11,013,357
Income tax refund (payable) attributable to operating losses	-	-

(b) Deferred tax assets

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

The benefits will only be obtained if:

- (i) The Group derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deduction for the losses to be realised;
- (ii) The Group continues to comply with the conditions in deductibility imposed by the Law; and
- (iii) No change in tax legislation adversely affects the Group in realising the benefits from the deductions or the losses.

(c) Tax losses

As at June 30, 2019, the Company's Australian tax losses that can be applied against future taxable profit in the amount of \$45,463,133.

The Company's also has Ghanaian tax losses that can be applied against future taxable profit in the amount of \$55,101,666.

7. KEY MANAGEMENT PERSONNEL

(a) Details of key management personnel

Executive KMP

Archie Koimtsidis – Managing Director

Malik Easah – Executive Director

Jon Grygorcewicz – Chief Financial Officer – Appointed on 31 October 2018

Derrick Weyrauch – Chief Financial Officer – Appointed 10 July 2017 and retired on 31 October 2018

NED's

Kevin Tomlinson – Non-Executive Chairman

Michele Muscillo - Non-Executive Director - Appointed on 11 October 2017

Dr Kenneth G. Thomas – Non-Executive Director – Appointed on 31 October 2018

Trevor Schultz – Non-Executive Director – Appointed on 2 January 2019

Robert Schafer - Non-Executive Director – Appointed on 10 July 2017 and retired on 2 January 2019

Jacques McMullen - Non-Executive Director Appointed on 11 October 2017 and retired on 31 October 2018

(b) Compensation of executive key management personnel and non-executive directors

	30 JUNE 2019	30 JUNE 2018
	\$	\$
Salaries, fees and leave	1,175,732	1,239,277
Non-monetary (i)	90,199	38,850
Post employment benefits – superannuation	3,800	4,268
Equity based payments – Note 17	1,183,751	2,955,160
Termination Payments	67,126	-
	<u>2,520,608</u>	<u>4,237,555</u>

- (i) Non-monetary benefits are for directors' and officers' liability and legal expense insurance premiums.

Refer to the remuneration report contained in the directors' report for details of the remuneration paid/payable and share and option holdings in relation to each of Group's key management personnel for the year ended 30 June 2019.

(c) 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 \$309,624 (2018: \$337,218).

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 (2018: \$3,506).

Robert Schafer, a director, provided consulting services to the Company. Amount that have been paid or payable total \$0 (2018: \$12,911).

During the year ended 30 June 2019, Cardinal Resources Limited has advanced funds to Savannah 2019: nil (2018: \$4,000,674), a related entity to Director Mr Malik Easah. The purpose of an advance was for the development of a mining licence in areas in respect of which Savannah had entered into agreements with holders of small scale licences. As at the date of this report, \$280,300 (2018: \$916,362) has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference has been applied toward the development of the mining licence and expensed during the period.

Other than the above there were no other transactions conducted between the Group and Key Management Personnel or their related parties, apart from those disclosed above relating to equity and compensation, that were conducted other than in accordance with normal employee, customer or supplier relationships on terms no more favourable than those reasonably expected under arm's length dealings with unrelated persons.

8. CURRENT ASSETS

(a) Trade and other receivables

	June 30, 2019	June 30, 2018
Government taxes receivable	186,992	818,752
Interest receivable	48,003	6,292
Other	21,655	155,180
	256,650	980,224

GST 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

	June 30, 2019	June 30, 2018
Prepayments (i)	839,824	1,393,434
Cash deposits	7,568	-
	847,392	1,393,434

(i) Prepayments include an advance of \$280,300 to Savannah Mining Ghana Limited ("Savannah"), a related entity to Director Mr Malik Easah. The purpose of the advance was development of a mining licence in areas in respect of which Savannah had entered into agreements with holders of small-scale licences. During the year ended 30 June 2018, Cardinal Resources Limited advanced \$4,000,674 to Savannah. As at the date of this report, \$280,300 has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference has been applied toward the development of the mining licence and expensed during the period.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

9. PLANT AND EQUIPMENT

	Plant and Equipment	Vehicles	Total
Cost			
Balance as at July 1, 2018	\$1,031,395	\$384,299	\$1,415,694
Additions	317,392	397,026	714,418
Disposals	(4,024)	(1,122)	(5,146)
Foreign exchange movement	(27,677)	(24,015)	(51,692)
Balance as at June 30, 2019	\$1,317,086	\$756,188	\$2,073,274
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
Accumulated depreciation			
Balance as at July 1, 2018	\$613,835	\$237,710	\$851,545
Depreciation for the period	299,168	15,563	314,731
Disposals	-	-	-
Foreign exchange movement	(81,757)	(5,895)	(87,652)
Balance as at June 30, 2019	\$831,246	\$247,378	\$1,078,624
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 30 June 2019	\$485,840	\$508,810	\$994,650
As at 30 June 2018	\$417,560	\$146,589	\$564,149

10. TRADE AND OTHER PAYABLES

	June 30, 2019	June 30, 2018
Trade and other payables (i)	2,689,016	3,450,142
Other accrued expenses	597,100	1,256,876
	3,286,116	4,707,018

(i) Trade payables are unsecured and are usually paid within 30 days of recognition. The carrying amounts of trade and other payables are considered to be the same as their fair values due to their short-term nature.

11. BORROWINGS

	June 30, 2019	June 30, 2018
Secured credit facility	\$ 36,134,808	\$ -
Foreign exchange on credit facility	1,308,979	-
Transaction costs	(1,839,107)	-
	\$ 35,604,680	\$ -

(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;
- Interest rate of LIBOR + 7.75%; and
- 50% of the interest is accrued and payable on loan maturity.

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

(ii) Loan Covenants

Cardinal Resources has complied with the financial covenants of its credit facility during the June 30, 2019 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 year.

12. ISSUED CAPITAL

(a) 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 year ended 30 June 2018 and 2019 are as follows:

	Number of Shares	Amount \$
As at July 1, 2017	350,062,957	\$68,628,035
Transactions during the year		
Shares issued (i)	18,461,600	12,396,736
Share based payments (ii)	1,019,390	524,846
Options exercised (iii)	2,019,633	302,945
Unlisted options exercise (iv)	2,000,000	440,000
Less: transaction costs (vi)	-	(923,506)
As at June 30, 2018	373,563,580	81,369,056

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

	Number of Shares	Amount \$
As at July 1, 2018	373,563,580	\$81,369,056
Transactions during the year		
Shares issued	-	-
Share based payments (v)	5,543,440	2,535,378
Options exercised (iii)	3,757,971	563,696
Less: transaction costs (vi)	-	(7,703)
As at June 30, 2019	382,864,991	84,460,427

(i) The following shares were issued during the financial year ended 30 June 2018

- On 22 November 2017, 18,461,600 shares were issued at \$0.671 (C\$0.65) per share pursuant to a placement to a 'brought deal' basis with a syndicate of underwriters.

(ii) Share based payments (refer to note 17) for the year ended 30 June 2018

A total of 1,019,390 shares were issued to employees of the Company for consideration for services provided to the Company.

- (a) On 21 December 2017, 190,000 shares at \$0.50 per share issued for services provided;
- (b) On 2 May 2018, 300,000 shares at \$0.50 per share issued for services provided; and
- (c) On 12 June 2018 340,000 shares at \$0.50 per share issued for services provided.

The shares were valued as per the trading price as at the date issue, refer to note 17(iv).

On 21 December 2017, 189,390 shares at \$0.58 per share issued to Dr Julian Barnes for consideration for services provided to the Company, for more information please see Notice of Meeting dated 28 September 2017.

The shares were valued as per the trading price as at the date issue, refer to note 17(iii).

(iii) Exercise of Listed Options

(iv) Exercise of unlisted options, exercise price \$0.22 per share.

(v) Share based payments (refer to note 17) for the year ended 30 June 2019

A total of 357,952 shares were issued to employees of the Company for consideration for services provided to the Company.

- (a) On 1 October 2018, 177,001 shares at \$0.46 per share issued for services provided;
- (b) On 19 November 2018, 116,848 shares at \$0.41 per share issued for services provided; and
- (c) On 12 June 2018 64,103 shares at \$0.39 per share issued for services provided.

On 28 August 2018 the Company issued 4,250,000 shares at \$0.47 per shares to Spratt in relation to the Facility, refer to Note 11.

On 19 November 2018 the Company issued 935,488 shares at \$0.41 per share to a consultant in relation to services rendered to the Company.

(vi) Transactions costs represent the costs of issuing the shares.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

13. RESERVES

(a) Movement in options reserve

	June 30, 2019 \$	June 30, 2018 \$
As at the beginning of the year	6,744,105	2,710,589
Options issued during the year	1,792,292	4,217,516
Expiry of unlisted options	(1,351,324)	(184,000)
As at reporting date	7,185,073	6,744,105

(i) The below options were on issue as at 30 June 2019.

Grant Date		2019 Number of Options Balance at 30 June 2019	2019 Expense During the Period	2018 Number of Options Balance at 30 June 2018	2018 Expense During the Period
-	Listed Options	110,371,935	-	114,129,906	
18 March 2016	Unlisted Options Ex. \$0.22	6,000,000	-	6,000,000	-
12 April 2017	Milestone Options Ex. \$0.50	18,500,000	1,247,595	18,500,000	2,456,729
21 December 2017	Milestone Options Ex. \$0.825	-	185,911	5,758,000	961,921
21 December 2017	Milestone Options Ex. \$0.965	2,018,100	285,823	4,036,200	287,117
21 December 2017	Unlisted Options Ex. \$0.75	1,000,000	-	1,000,000	511,749
30 April 2019	Milestone Options Ex. \$0.679	2,180,049	21,957	-	-
30 April 2019	Milestone Options Ex. \$0.59	2,180,049	25,605	-	-
12 March 2019	Unlisted Options Ex. \$1.00	1,867,817	25,401	-	-
Total	-	144,177,950	1,792,292	149,424,106	4,217,516

(b) Movement in options exercisable at \$0.15 on or before 30 September 2019

	Number of Options	\$
As at 1 July 2017	116,149,539	468,607
Transactions during the year		
Exercise of options	(2,019,633)	-
As at 30 June 2018	114,129,906	468,607
As at 1 July 2018	114,129,906	468,607
Transactions during the year		
Exercise of options	(3,757,971)	-
As at 30 June 2019	110,371,935	468,607

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

	Number of Options	\$
As at 1 July 2017	8,000,000	736,000
Transactions during the year		
Exercise of options (ii)	(2,000,000)	(184,000)
Expiry of options	-	-
As at 30 June 2018	6,000,000	552,000

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

	Number of Options	\$
As at 1 July 2018	6,000,000	552,000
Transactions during the year		
Exercise of options	-	-
Expiry of options	-	-
As at 30 June 2019	6,000,000	552,000

- (i) On 18 March 2016, the Company issued 9,500,000 unlisted options to employees and directors of the Company.
- (ii) On 19 October 2017 1,000,000 unlisted options were exercised and on 10 November 2017 1,000,000 unlisted options were exercised.

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

	Number of Options	\$
As at 1 July 2017	23,500,000	1,505,982
Transactions during the year		
Options issued	-	-
Options expense during the period	-	2,777,253
Cancelled or forfeited during the year	(5,000,000)	(320,524)
As at 30 June 2018	18,500,000	\$3,962,711

As at 1 July 2018	18,500,000	3,962,711
Transactions during the year		
Options issued	-	-
Options expense during the period	-	1,247,595
Cancelled or forfeited during the year	-	-
As at 30 June 2019	18,500,000	\$5,210,306

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

	Number of Options	\$
As at 1 July 2017	-	-
Transactions during the year		
Options issued	5,758,000	961,821
Cancelled or forfeited during the year	-	-
As at 30 June 2018	5,758,000	961,821

	Number of Options	\$
As at 1 July 2018	5,758,000	961,821
Transactions during the year		
Options expensed	-	185,911
Cancelled or forfeited during the year	(5,758,000)	(1,147,732)
As at 30 June 2019	-	-

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

	Number of Options	\$
As at 1 July 2017	-	-
Transactions during the year		
Options issued	4,036,200	287,117
Cancelled or forfeited during the year	-	-
As at 30 June 2018	4,036,200	287,117

	Number of Options	\$
As at 1 July 2019	4,036,200	287,117
Transactions during the year		
Options expense	-	285,823
Cancelled or forfeited during the year	(2,018,100)	(203,349)
As at 30 June 2019	2,018,100	369,448

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

	Number of Options	\$
As at 1 July 2017	-	-
Transactions during the year		
Options issued	1,000,000	511,748
Cancelled or forfeited during the year	-	-
As at 30 June 2018	1,000,000	511,748

	Number of Options	\$
As at 1 July 2019	1,000,000	511,748
Transactions during the year		
Options issued	-	-
Cancelled or forfeited during the year	-	-
As at 30 June 2019	1,000,000	511,748

(h) Movement in unlisted milestones options exercisable at \$0.679 on or before 21 December 2022

	Number of Options	\$
As at 1 July 2018	-	-
Transactions during the year		
Options issued	2,180,049	21,957
Cancelled or forfeited during the year	-	-
As at 30 June 2019	2,180,049	21,957

(i) Movement in unlisted milestones options exercisable at \$0.59 on or before 21 December 2022

	Number of Options	\$
As at 1 July 2018	-	-
Transactions during the year		
Options issued	2,180,049	25,605
Cancelled or forfeited during the year	-	-
As at 30 June 2019	2,180,049	25,605

(j) Movement in unlisted options exercisable at \$1.00 on or before 12 March 2021

	Number of Options	\$
As at 1 July 2018	-	-
Transactions during the year		
Options issued	1,867,817	25,401
Cancelled or forfeited during the year	-	-
As at 30 June 2019	1,867,817	25,401

The following table shows the movement of listed and unlisted options for the years ended 30 June 2019 and 2018:

	Number of Options	Weighted Average Exercise Price \$
Balance as at 1 July 2018	149,424,106	\$0.25
Options granted (note 13 (h),(i),(j))	6,227,915	\$0.77
Options forfeited/exercised (note 13 (b), (c) and (d))	(11,474,071)	(\$0.63)
Balance as at 30 June 2019	144,177,950	\$0.24
Balance as at 1 July 2017	147,649,539	\$0.20
Options granted (note 13 (e),(f),(g))	10,794,200	\$0.87
Options forfeited/exercised (note 13 (b), (c) and (d))	(9,019,633)	(\$0.36)
Balance as at 30 June 2018	149,424,106	\$0.25

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

The table below shows the outstanding options as at 30 June 2019 and 2018:

30 June	Exercise Price \$	Outstanding		Vested	
		Number of Options	Remaining Contractual life (days)	Number of Options	Weighted Average Remaining Contractual life (days)
2019	0.150	110,371,935	92	110,371,935	70
2019	0.220	6,000,000	262	6,000,000	11
2019	0.500	18,500,000	1,017	5,550,000	39
2019	0.965	2,018,100	1,270	-	-
2019	0.750	1,000,000	1,270	1,000,000	9
2019	0.679	2,180,049	1,270	-	-
2019	0.590	2,180,049	1,270	-	-
2019	1.000	1,867,817	619	1,867,817	8
2018	0.150	114,129,906	457	114,129,906	349
2018	0.220	6,000,000	627	6,000,000	25
2018	0.500	18,500,000	1,382	5,550,000	51
2018	0.825	5,578,000	1,635	1,727,400	19
2018	0.965	4,036,200	1,635	-	-
2018	0.750	1,000,000	1,635	1,000,000	11

(i) Movement in Performance Shares

	Number of Class A Performance Shares	\$
As at 1 July 2017	50	-
Transactions during the year		
Performance Shares expired (i)	(50)	-
As at 30 June 2018	-	-
As at 1 July 2018	-	-
Transactions during the year		
Performance Shares expired	-	-
As at 30 June 2019	-	-

(i) During the year 50 Class A Performance Shares expired.

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

Class C Performance Shares

	Number of Performance Shares	
As at 1 July 2017	60	-
Transactions during the year		
Performance shares issued	-	-
As at 30 June 2018	60	-

	Number of Performance Shares	
As at 1 July 2018	60	-
Transactions during the year		
Performance shares issued	-	-
As at 30 June 2019	60	-

The following Class C Performance Shares were issued during the financial year ended 30 June 2015

On 17 February 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 at 30 June 2019.

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 has been ascribed to the Performance Shares in the Group's consolidated financial statements.

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 18 February 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

14. ACCUMULATED LOSSES

	June 30, 2019	June 30, 2018
Opening balance	81,898,296	44,899,452
Loss for the year	27,050,962	37,182,844
Expiry of options	(665,540)	(184,000)
	108,283,718	81,898,296

15. LOSS PER SHARE

	Unaudited Three months ended June 30,		Audited Twelve months ended June 30,	
	2019	2018	2019	2018
Net loss	\$ (9,497,304)	\$ (6,040,143)	\$ (27,050,962)	\$ (37,182,844)
Weighted average number of shares outstanding	382,864,991	372,820,197	379,752,526	363,630,782
Basic and undiluted loss per share (cents)	\$ (2.48)	\$ (1.62)	\$ (7.12)	\$ (10.22)

16. 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.

	June 30, 2019	June 30, 2018
Current – cash at bank	4,503,464	2,819,794
Term deposits (i)	14,231,992	4,484,013
	18,735,456	7,303,807

(i) Terms of term deposits

Term	Interest Rate
30 days	1.50%
60 days	2.50%

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

	June 30, 2019	June 30, 2018
Loss after income tax	(27,050,962)	(37,182,844)
Non-cash flows in profit		
Depreciation expense	314,731	217,454
Equity based payments	1,158,705	4,871,593
Borrowing costs	1,558,320	-
Capitalised interest on borrowings	1,883,196	-
Foreign exchange movement	(373,881)	295,904
Changes in assets and liabilities		
Increase in trade and other receivables	723,574	(847,673)
Increase in prepayments	546,042	(147,798)
Increase/(decrease) in trade and other payables	1,420,902	4,131
Increase/(decrease) in provisions	(25,103)	40,260
	(19,844,476)	(32,748,973)

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

	June 30, 2018	Cashflows	Non-Cash Changes			June 30, 2019
			Transaction	Foreign	Interest	
			Costs	Exchange		
	\$	\$	\$	\$	\$	\$
Borrowings	-	33,921,932	(1,839,107)	1,308,979	2,212,876	35,604,680
Total liabilities from financing liabilities	-	33,921,932	(1,839,107)	1,308,979	2,212,876	35,604,680

17. SHARE BASED PAYMENTS

- (i) The Company agreed and approved at the Company's General Meeting held on 3 April 2017 to allot and issue a total of 26,000,000 Milestone Options to key management personnel and employees of the Company; 5,000,000 Milestone Options were cancelled during the year (2018: 2,500,000). As at 30 June 2019, the Company had 18,500,000 milestone options on issue of which 13,500,000 milestone options relate to key management personnel.

The terms and conditions of the options are detailed in the Notice of General Meeting dated 1 March 2017.

The Milestone Options shall vest and are exercisable at any time on and from:

- (i) **Milestone 1** - the earlier of:
 (A) the completion of a scoping study; or
 (B) the completion of a preliminary economic assessment, of the Ghanaian Assets;
 (ii) **Milestone 2** - on the beginning of earthworks for gold production at the Ghanaian Assets; and
 (iii) **Milestone 3** - on the first pouring of gold at the Ghanaian Assets, until 12 April 2022.

During the year ended 30 June 2018 Milestone 1 vested. The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

Using the Black-Scholes option model and based on the assumption below, the Options were ascribed the following value:

Class of Options	Number of Options	Valuation Date	Market Price of Shares	Exercise Price	Expiry Date	Risk Free Interest Rate	Volatility (discount)	Indicative Value per Option	Total Value (\$)	Expense for the year (\$)
Milestone 1	5,550,000	27.02.17	\$0.525	\$0.50	18.04.22	2.17%	99.50%	\$0.39	2,198,910	-
Milestone 2	5,550,000	27.02.17	\$0.525	\$0.50	18.04.22	2.17%	99.50%	\$0.39	2,198,910	661,072
Milestone 3	7,400,000	27.02.17	\$0.525	\$0.50	18.04.22	2.17%	99.50%	\$0.39	2,931,880	586,376
Total	18,500,000		\$0.525	\$0.50		2.17%	99.50%	\$0.39	7,329,700	1,247,448

A probability of 100% has been applied to the milestones occurring.

During the year no milestone options issued to key management were forfeited or exercised.

- (ii) During the year ended 30 June 2019 the Company issued 5,758,000 options to key management personnel of the Company, which have an exercise price of \$0.825. During the year 5,758,000 milestone options were cancelled.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

The terms and conditions of the options are detailed in the Notice of General Meeting dated 18 October 2017.

The Milestone Options shall vest and are exercisable at any time on and from:

- (i) **Milestone 1** - the earlier of:
 - (A) the completion of a scoping study; or
 - (B) the completion of a preliminary economic assessment, of the Ghanaian Assets;
- (ii) **Milestone 2** - on the beginning of earthworks for gold production at the Ghanaian Assets; and
- (iii) **Milestone 3** - on the first pouring of gold at the Ghanaian Assets, until 21 December 2022.

During the year Milestone 1 was met. The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

Using the Black & Scholes option model and based on the assumption below, the Options were ascribed the following value:

Class of Options	Number Options	Valuation Date	Market Price of Shares	Exercise Price	Expiry Date	Risk Free Interest Rate	Volatility (discount)	Indicative Value per Option	Total Value (\$)	Expense for the year (\$)
Milestone 1	-	22.11.17	\$0.555	\$0.825	21.12.22	1.50%	99.50%	\$0.385	-	185,911
Milestone 2	-	22.11.17	\$0.555	\$0.825	21.12.22	1.50%	99.50%	\$0.385	-	-
Milestone 3	-	22.11.17	\$0.555	\$0.825	21.12.22	1.50%	99.50%	\$0.385	-	-
Total	-		\$0.555	\$0.825		1.50%	99.50%	\$0.385	-	185,911

A probability of 100% has been applied to the milestones occurring.

The milestone options vest on meeting of the milestones.

- (iii) During the year ended 30 June 2018 the Company 4,036,200 options to key management personnel of the Company, which have an exercise price of \$0.965. 2,018,100 milestone options were cancelled during the year. As at 30 June 2019, the Company had 2,018,100 milestone options on issue.

The terms and conditions of the options are detailed in the Notice of General Meeting dated 18 October 2017.

The Milestone Options shall vest and are exercisable at any time on and from:

- (i) **Milestone 2** - on the beginning of earthworks for gold production at the Ghanaian Assets; and
- (ii) **Milestone 3** - on the first pouring of gold at the Ghanaian Assets, until 21 December 2022.

The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

Using the Black & Scholes option model and based on the assumption below, the Options were ascribed the following value:

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

Class of Options	Number Options	Valuation Date	Market Price of Shares	Exercise Price	Expiry Date	Risk Free Interest Rate	Volatility (discount)	Indicative Value per Option	Total Value (\$)	Expense for the year (\$)
Milestone 2	864,900	22.11.17	\$0.555	\$0.965	21.12.22	1.50%	99.50%	\$0.37	210,101	161,343
Milestone 3	1,153,200	22.11.17	\$0.555	\$0.965	21.12.22	1.50%	99.50%	\$0.37	159,347	124,480
Total	2,018,100		\$0.555	\$0.965		1.50%	99.50%	\$0.37	369,448	285,823

A probability of 100% has been applied to the milestones occurring.

- (iv) During the year 2,180,049 milestone options were issued to a Director of the Company, which have an exercise price of \$0.679.

The terms and conditions of the options are detailed in the Notice of General Meeting dated 5 March 2019.

The Milestone Options shall vest and are exercisable at any time on and from:

- (i) **Milestone 2** - on the beginning of earthworks for gold production at the Ghanaian Assets; and
(ii) **Milestone 3** - on the first pouring of gold at the Ghanaian Assets, until 21 December 2022.

The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

Using the Black & Scholes option model and based on the assumption below, the Options were ascribed the following value:

Class of Options	Number Options	Valuation Date	Market Price of Shares	Exercise Price	Expiry Date	Risk Free Interest Rate	Volatility (discount)	Indicative Value per Option	Total Value (\$)	Expense for the year (\$)
Milestone 2	934,307	11.04.19	\$0.405	\$0.679	21.12.22	1.65%	50%	\$0.095	88,893	13,218
Milestone 3	1,245,742	11.04.19	\$0.405	\$0.679	21.12.22	1.65%	50%	\$0.095	118,524	8,739
Total	2,180,049		\$0.405	\$0.679		1.65%	50%	\$0.095	207,417	21,957

A probability of 100% has been applied to the milestones occurring.

- (v) During the year 2,180,049 milestone options were issued to a Director of the Company, which have an exercise price of \$0.590.

The terms and conditions of the options are detailed in the Notice of General Meeting dated 5 March 2019.

The Milestone Options shall vest and are exercisable at any time on and from:

- (i) **Milestone 2** - on the beginning of earthworks for gold production at the Ghanaian Assets; and
(ii) **Milestone 3** - on the first pouring of gold at the Ghanaian Assets, until 21 December 2022.

The expected accounting vesting date determined at grant date for Milestones 2 and 3 was 30 September 2020 and 31 March 2022, respectively.

Using the Black & Scholes option model and based on the assumption below, the Options were ascribed the following value:

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

Class of Options	Number of Options	Valuation Date	Market Price of Shares	Exercise Price	Expiry Date	Risk Free Interest Rate	Volatility (discount)	Indicative Value per Option	Total Value (\$)	Expense for the year (\$)
Milestone 2	934,307	11.04.19	\$0.405	\$0.590	21.12.22	1.65%	50%	\$0.111	103,660	15,414
Milestone 3	1,245,742	11.04.19	\$0.405	\$0.590	21.12.22	1.65%	50%	\$0.111	138,214	10,191
Total	2,180,049		\$0.405	\$0.590		1.65%	50%	\$0.111	241,874	25,605

A probability of 100% has been applied to the milestones occurring.

- (vi) During the year, 4,250,000 fully paid ordinary shares were issued to Sprott Private Resources Lending (Collector), L.P. as part of the secured credit facility; the shares were ascribed the following value:

Date of Issue	Number of Shares	Price of Shares (a)	Total Value (\$)	Expense for the year (\$)
28.08.2018	4,250,000	\$0.47	1,997,500	1,997,500

- (a) The value of the shares was determined at the date it was agreed to issue the shares for services.

- (vii) During the year, 935,488 fully paid ordinary shares were issued for services rendered; the shares were ascribed the following value:

Date of Issue	Number of Shares	Price of Shares (a)	Total Value (\$)	Expense for the year (\$)
19.11.2018	935,488	\$0.41	383,550	383,550

The value of the shares was determined at the date it was agreed to issue the shares for services

- (viii) During the year, 357,952 fully paid ordinary shares to employees of the Company for services rendered to the Company; the shares were ascribed the following value:

Date of Issue	Number of Shares	Price of Shares (a)	Total Value (\$)	Expense for the year (\$)
01.10.2018	177,001	\$0.46	81,420	81,420
19.11.2018	116,848	\$0.41	47,908	47,908
04.06.2019	64,103	\$0.39	25,000	25,000

- (a) The value of the shares was determined at the date it was agreed to issue the shares for services.

- (ix) During the year the Company agreed to issue 1,867,817 unlisted options to a consultant of the Company for services rendered to the Company. The value of the service was unable to be reliably measured and as such the options were measured at their fair value.

Using the Black-Scholes option model and based on the assumption below, the Options were ascribed the following value:

Class of Options	Number of Options	Valuation Date	Market Price of Shares	Exercise Price	Expiry Date	Risk Free Interest Rate	Volatility (discount)	Indicative Value per Option	Expense for the year (\$)
Unlisted Options	1,867,817	12.03.19	\$0.40	\$1.00	12.03.21	1.66%	44.33%	\$0.014	25,401

18. CONTINGENT ASSETS

A subsidiary, Cardinal Resources Ghana Limited, has lodged a claim to refund Value Added Tax (VAT) paid in Ghana during the course of business. The refund is expected to be received once the Company has moved into production. However, the contingent asset has not been recognised as a receivable as at 30 June 2019, as receipt of the funds is contingent on the Company being in production.

There are no other contingent assets as at 30 June 2019.

19. COMMITMENTS AND CONTINGENCIES

(a) Commitment

Mineral exploration commitment

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

	2019	2018
Not later than one year	499,814	135,366
Later than one year but not later than two years	488,018	135,366
	987,832	270,732

(b) Contingent liabilities and commitments

The Group fully owns five 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.

	2019	2018
Not later than one year	97,864	385,329
Later than one year but not later than two years	87,325	147,340
	185,189	532,669

The Corporation has commitments in respect to the use of an office premises in Perth, Western Australia, for \$5,480 per month, the lease is for five years from 8 January 2019.

The Corporation has commitments in respect to the use of an office outside of Australia, for C\$2,702 per month until 31 March 2021.

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:

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS THREE AND TWELVE MONTHS ENDED 30 JUNE 2019

- (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 licence 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.

20. 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:

2019	Note	Floating interest rate	Fixed interest rate	Non-interest bearing	Total	Weighted average interest rate
Financial assets						
Cash and cash equivalents	16	1,615,539	14,213,306	2,906,611	18,735,456	1.95%
Trade and other receivables	8(a)	-	-	256,650	256,650	-
Cash deposits	8(b)	-	-	7,568	7,568	-
		1,615,539	14,213,306	3,170,829	18,999,674	
Financial liabilities						
Trade and other payables	10	-	-	3,286,116	3,286,116	-
Borrowings	11	35,604,680	-	-	35,604,680	11.11%
		35,604,680	-	3,286,116	38,890,796	
2018						
	Note	Floating interest rate	Fixed interest rate	Non-interest bearing	Total	Weighted average interest rate
Financial assets						
Cash and cash equivalents	16 (a)	4,465,327	18,686	2,819,794	7,303,807	0.76%
Trade and other receivables	8 (a)	-	-	980,224	980,224	-
Cash deposits	8 (b)	-	-	-	-	-
		4,465,327	18,686	3,800,018	8,284,031	-
Financial liabilities						
Trade and other payables	10	-	-	4,707,018	4,707,018	-
		-	-	4,707,018	4,707,018	

Based on the balances as at 30 June 2019, a 1% movement in interest rates would increase/decrease the loss for the year before taxation by \$4,829 (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 3 to the financial statements.

(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, accounts payable and borrowings. 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 cashflows 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.

2019		Net Financial Assets/(Liabilities) In AUD				
		AUD	USD	GHS	CAD	Total AUD
Australian dollar		3,935,628	(24,128,328)	85,202	(47,842)	(20,155,340)
GHS New Cedi		-	-	-	-	-
Statement of financial position exposure		3,935,628	(24,128,328)	85,202	(47,842)	(20,155,340)

2018		Net Financial Assets/(Liabilities) In AUD				
		AUD	USD	GHS	CAD	Total AUD
Australian dollar		3,843,939	374,412	(523,034)	(138,276)	3,557,041
GHS New Cedi		-	-	-	-	-
Statement of financial position exposure		3,843,939	374,412	(523,034)	(138,276)	3,557,041

Based on the statement of exposure at 30 June 2019, a 1% movement in foreign exchange rates would increase/decrease the loss for the year before taxation by \$343,065 (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.

(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:

	June 30, 2019	June 30, 2018
Within one month:		
Trade and other payables	\$ 3,286,116	\$ 4,707,108
Later than one month and no later than one year:		
Trade and other payables	-	-
	\$ 3,286,116	\$ 4,707,108

Contractual maturities of financial liabilities As at March 31, 2019	Less than 6 months	6 – 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years	Total contractual cash flows	Carrying amount (assets)/liabilities
Non-derivatives							
Trade payables	-	-	-	-	-	-	-
Borrowings	881,092	910,556	38,495,085	-	-	40,286,733	35,604,680
Total non-derivatives	881,092	910,556	38,495,085	-	-	40,286,733	35,604,680

21. RELATED PARTY TRANSACTIONS

Tomlinson Consultancy, of which Kevin Tomlinson is a director, provided geological consulting services to the Company. Amounts that have been paid or payable total \$309,624 (2018: \$337,218).

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 (2018: \$3,506).

Robert Schafer, a director, provided consulting services to the Company. Amount that have been paid or payable total \$0 (2018: \$12,911).

During the year ended 30 June 2019, Cardinal Resources Limited has advanced funds to Savannah 2019: nil (2018: \$4,000,674), a related entity to Director Mr Malik Easah. The purpose of an advance was for the development of a mining licence in areas in respect of which Savannah had entered into agreements with holders

of small scale licences. As at the date of this report, \$280,300 (2018: \$916,362) has been recorded as a prepayment in the consolidated financial statements of Cardinal Resources Limited. The difference has been applied toward the development of the mining licence and expensed during the period.

Other than the above there were no other transactions conducted between the Group and Key Management Personnel or their related parties, apart from those disclosed above relating to equity and compensation, that were conducted other than in accordance with normal employee, customer or supplier relationships on terms no more favourable than those reasonably expected under arm's length dealings with unrelated persons.

22. 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.

23. UNCONSOLIDATED PARENT COMPANY DISCLOSURE

(a) Financial position for the year ended 30 June 2019

As at	June 30 ,2019	June 30, 2018
Assets		
Current assets	18,808,888	5,138,918
Non-current assets	170,000	186,144
Total assets	18,978,888	5,325,062
Liabilities		
Current liabilities	1,975,005	2,008,057
Non-current liabilities	35,604,680	-
Total liabilities	37,579,685	2,008,057
Equity		
Issued capital	84,582,327	81,369,056
Reserves	7,185,072	6,744,105
Accumulated losses	(110,368,196)	(84,796,156)
Total equity/deficiency in equity	(18,600,797)	3,317,005

(b) Financial performance for the year ended 30 June 2019

	30 JUNE 2019	30 JUNE 2018
	\$	\$
Loss for the year	(26,115,681)	(25,695,715)
Other comprehensive income	-	-
Total comprehensive loss	(26,115,681)	(25,695,715)

24. EVENTS SUBSEQUENT TO STATEMENT OF FINANCIAL POSITION DATE

On 4 July 2019 the Company issued 59,975 fully paid ordinary shares on exercise of Listed Options.

On 11 July 2019 the Company issued 280,000 fully paid ordinary shares on exercise of Listed Options.

On 17 July 2019 the Company issued 600,000 fully paid ordinary shares on exercise of Listed Options. The Company also issued 73,530 and 635,161 shares at a deemed issue price of \$0.34 and \$0.336 respectively for services rendered to the Company.

On 24 July 2019 the Company issued 130,000 fully paid ordinary shares on exercise of Listed Options.

On 29 July 2019 the Company issued 126,000 fully paid ordinary shares on exercise of Listed Options.

On 7 August 2019 the Company issued 252,500 fully paid ordinary shares on exercise of Listed Options.

On 19 August 2019 the Company issued 617,500 fully paid ordinary shares on exercise of Listed Options.

On 21 August 2019 the Company issued 827,048 fully paid ordinary shares on exercise of Listed Options.

Other than the above, no matters or circumstances have arisen since the end of the financial year which significantly affected or could significantly affect the operations of the Group, the results of those operations, or the state of the affairs of the Group in future financial years.

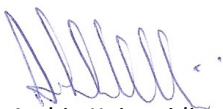
In the opinion of the Directors of Cardinal Resources Limited ("the Company")

- (a) The financial statements and the notes and the additional disclosures included in the directors' report designated as audited of the Group are in accordance with the Corporations Act 2001, including:
 - (i) Giving a true and fair view of the Group's financial position as at 30 June 2019 and of its performance for the year ended that date; and
 - (ii) Complying with Accounting Standards and Corporations Regulations 2001, and other mandatory professional reporting requirements:
- (b) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.
- (c) The financial statements and notes comply with International Financial Reporting Standards as disclosed in note 2.

This declaration has been made after receiving the declarations required to be made to the directors in accordance with section 295A of the Corporations Act 2001 for the financial year ended 30 June 2019.

Signed in accordance with a resolution of the Directors made pursuant to section 295(5) of the Corporations Act 2001.

On behalf of the Board



Archie Koimtsidis
CEO/MD

Dated this 3 September 2019
Perth, Western Australia

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

As lead auditor of Cardinal Resources Limited for the year ended 30 June 2019, 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 audit; and
2. No contraventions of any applicable code of professional conduct in relation to the audit.

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, 3 September 2019

INDEPENDENT AUDITOR'S REPORT

To the members of Cardinal Resources Limited

Report on the Audit of the Financial Report

Opinion

We have audited the financial report of Cardinal Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2019 and 2018, and the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the years then ended, and notes to the financial report, including a summary of significant accounting policies and the directors' declaration.

In our opinion the accompanying financial report of the Group, is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 30 June 2019 and 2018, and of its financial performance for the years then ended; and
- (ii) Complying with International Financial Reporting Standards and the Corporations Regulations 2001.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the Financial Report section of our report. We are independent of the Group in accordance with the Corporations Act 2001 and the ethical requirements of the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the IESBA Code.

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Measurement of Share-based Payments

Key audit matter	How the matter was addressed in our audit
<p>During the financial year ended 30 June 2019, the Group issued options and shares to key management personnel, consultants and employees, which have been accounted for as share-based payments.</p> <p>Refer to Note 2(e) and Note 3(d) of the financial report for a description of the accounting policy and significant estimates and judgements applied to these arrangements and Notes 12, 13, and 17 of the financial report for disclosure of the arrangements.</p> <p>Share-based payments are a complex accounting area and due to the complex and judgemental estimates used in determining the fair value of the share-based payments in accordance with IFRS 2: Share Based Payments, we consider the Group's calculation of the share-based payment expense to be a key audit matter.</p>	<p>Our procedures included, but were not limited to:</p> <ul style="list-style-type: none"> • Reviewing market announcements and board minutes to ensure all the new share-based payments granted during the year have been accounted for; • Reviewing relevant supporting documentation to obtain an understanding of the contractual nature and terms and conditions of the share-based payment arrangements; • Evaluating management's methodology for calculating the fair value of the share-based payments including assessing the valuation inputs using internal specialists where required; • Recalculating estimated fair value of the share based payments using relevant valuation methodologies; • Assessing the allocation of the share-based payment expense over management's expected vesting period; • Assessing management's determination of achieving milestones; and • Assessing the adequacy of the related disclosures in Notes 2(e), 3(d), 12, 13 and 17 to the financial report.

Other information

The directors are responsible for the other information. The other information comprises the information in the Group's annual report for the year ended 30 June 2019, but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the Financial Report

The directors of the Company are responsible for the preparation of the 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 financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the International Financial Reporting Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located in Appendix 1 to this report.

This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in pages 9 to 21 of the directors' report for the year ended 30 June 2019.

In our opinion, the Remuneration Report of Cardinal Resources Limited, for the year ended 30 June 2019, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with International Standards on Auditing.

BDO Audit (WA) Pty Ltd

BDO



Jarrad Prue

Director

Perth, 3 September 2019

APPENDIX 1

As part of an audit in accordance with International Standards on Auditing, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

1 Distribution of holders

As at 3 September 2019 the distribution of shareholders was as follows:

Ordinary shares

Size of holding	Number of holders
1 – 1,000	83
1,001 – 5,000	147
5,001 – 10,000	167
10,001 – 100,000	419
100,001 and over	173
Total	989

2 Voting rights

There are no restrictions to voting rights attached to the ordinary shares. On a show of hands every member present in person will have one vote and upon a poll, every member present or by proxy will have one vote each share held.

3 Substantial shareholders

The names of the substantial shareholders who have notified the Company in accordance with Section 671B of the Corporation Act 2001 are;

Shareholder	Shares held	Percentage interest %
Corporate International Holdings BV (together, the Gold Fields Group)	32,227,379	9.77%
Van Eck Associates Corporation (and its associates)	24,698,305	6.41%

4 Top 20 shareholders

The names of the 20 largest shareholders on the share register as at 3 September 2019, who hold 78.29% of the ordinary shares of the Company, were as follows;

Shareholder	Number
HSBC Custody Nominees (Australia) Limited	103,769,173
Corporate International Holdings BV	42,818,182
Canadian Register Control	33,429,879
Citicorp Nominees Pty Ltd	24,115,086
J P Morgan Nominees Australia Limited	20,012,138
Zero Nominees Pty Ltd	17,250,000
Oceanic Capital Pty Ltd	10,535,045
Mr Malik Mohammad Easah	7,681,815
Arredo Pty Ltd	6,500,000
National Nominees Limited	4,283,342
Neon Capital Ltd	4,000,000
Panga Pty Ltd	3,920,000
St Barnabas Investments Pty Ltd	3,865,625
Redland Plains Pty Ltd <Brian Bernard Rodan S/F A/C>	3,757,860

SHAREHOLDER INFORMATION

Invia Custodian Pty Ltd <Mark Thomas Family A/C>	3,733,334
Macquarie Bank Limited <Metals Mining and AG A/C>	3,116,308
CS Third Nominees Pty Limited <HSBC Cust Nom AU Ltd 13 A/C>	2,807,992
AWD Consultants Pty Ltd	2,800,000
Yarandi Investments Pty Ltd <Griffith Family No 2 A/C>	2,498,288
Payzone Pty Ltd <St Barnaba's Superfund A/C>	2,390,625

5 Top 20 option holders

The names of the 20 largest option holders on the share register as at 3 September 2019, who hold 85.22% of the listed options of the Company, were as follows;

Optionholder	Number
Corporate International Holdings BV	38,220,051
Oceanic Capital Pty Ltd	8,058,390
Mr Malik Mohammad Easah	6,560,423
HSBC Custody Nominees (Australia) Limited	5,320,191
JP Morgan Nominees Australian Pty Limited	4,591,731
Yarandi Investments Pty Ltd <Griffith Family No 2 A/C>	3,200,000
Dixtru Pty Limited	3,000,000
Citicorp Nominees Pty Ltd	2,740,055
Redland Plains Pty Ltd <Brian Bernard Rodan S/F A/C>	2,200,000
Arredo Pty Ltd	2,000,000
Invia Custodian Pty Ltd <Mark Thomas Family A/C>	1,950,000
Mr Hendrick Hartmann	1,852,120
Mrs Sophie Kyriazis	1,767,944
Mr Sean Andrew Morrison	1,586,073
Mr David Ian Raymond Hall + Mrs Denise Allison Hall	1,300,027
Mr Owen Barry Merrett + Mrs Joanne Ross Merrett <Merrett Super Fund A/C>	1,300,000
ACP Investments Pty Ltd <The ACP Investment A/C>	1,200,000
Panga Pty Ltd	1,168,380
Caves Road Investments Pty Ltd	1,100,000
ACP Investments Pty Ltd	1,000,000
Riverfront Nominees Pty Ltd <MCM Family A/C>	1,000,000

6 Consistency with business objectives

The Company has used its cash and assets in a form readily convertible to cash that it had at the time of listing in a way the consistent with its stated objectives.

TENEMENT INFORMATION

Cardinal Resources Limited mineral interest as at 3 September 2019

Tenement	Licence Status	Ref	Note	Interest Acquired During Quarter	Interest Divested During Quarter	Interest Held at End of Quarter
Ghana						
<i>Bolgatanga Project</i>						
Ndongo	Prospecting	PL9/22	-	-	-	100%
Kungongo	Reconnaissance	RL9/28	-	-	-	100%
Bongo	Reconnaissance	RL9/29	-	-	-	100%
Nangodi	Prospecting	PL9/13	-	-	-	100%
Yamergia	Prospecting	PL9/19	-	-	-	100%
<i>Namdini Project</i>						
Namdini	Mining Licence	LVB14619/09	-	-	-	100%
<i>Subranum Project</i>						
Subranum	Prospecting	PL/309	-	-	-	100%

ANNUAL INFORMATION FORM (III)





ANNUAL INFORMATION FORM

For the year ended June 30, 2019

Dated September 3, 2019

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INTRODUCTORY NOTES

In this Annual Information Form (the “AIF”), Cardinal Resources Limited is referred to as “Cardinal” or the “Corporation”. Unless otherwise indicated, all information contained herein is as at September 3, 2019. Unless otherwise indicated, in this AIF all references to (i) “\$” or “AUD” are to Australian dollars; (ii) “US\$” and “USD” are to United States dollars; (iii) “C\$” or “CAD” are to Canadian dollars; and (iv) “GHS” are to Ghanaian cedi.

The Canadian dollar rates of exchange on September 3, 2019 were:

United States dollar ⁽¹⁾	Australian dollar ⁽¹⁾
C\$1.00=\$1.323	C\$1.00 = \$0.947

Note:

- (1) Bank of Canada average exchange rate for September 3, 2019 as reported on the Bank of Canada website.

Financial Statements

This AIF should be read in conjunction with the Corporation’s consolidated financial statements and management’s discussion and analysis for the 12 months ended June 30, 2019. The consolidated financial statements and management’s discussion and analysis are available on the Corporation’s website at www.cardinalresources.com.au and under the Corporation’s profile on the SEDAR website at www.sedar.com. All financial statements are prepared in accordance with International Financial Reporting Standards and are reported in Australian dollars.

Cautionary Statement Regarding Forward-Looking Information

Certain statements contained in this AIF constitute forward-looking information under applicable Canadian securities laws. These statements relate to future events or future performance. All statements other than statements of historical fact may be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as “seek”, “anticipate”, “plan”, “continue”, “objectives”, “strategies”, “estimate”, “expect”, “may”, “will”, “project”, “predict”, “potential”, “targeting”, “intend”, “could”, “might”, “should”, “believe” and similar expressions. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. The Corporation believes the expectations reflected in those forward-looking statements are reasonable but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in its AIF should not be unduly relied upon.

In particular, this AIF contains forward-looking statements pertaining to the following:

- Mineral Resource estimates;
- targeting additional Mineral Resources and expansion of deposits;
- the Corporation’s expectations, strategies and plans for the Ghanaian Projects, including the Corporation’s planned exploration activities;

-
- the amount of funds required to fund the development of the mining licence in areas in respect of which Savannah had entered into agreements with holders of small-scale mining licences;
 - the results of future exploration and drilling and estimated completion dates for certain milestones;
 - successfully adding or upgrading Mineral Resources and successfully developing new deposits;
 - the timing, receipt and maintenance of approvals, licences and permits from the Ghanaian government and from any other applicable government, regulator or administrative body;
 - future financial or operating performance and condition of the Corporation and its business, operations and properties; and
 - any other statement that may predict, forecast, indicate or imply future plans, intentions, levels of activity, results, performance or achievements.

The actual results could differ materially from those anticipated in these forward-looking statements or information as a result of the risk factors set forth below and elsewhere in this AIF:

- mineral exploration, development and operating risks;
- estimation of mineralization, resources and reserves;
- environmental, health and safety regulations of the resource industry;
- competitive conditions;
- operational risks;
- liquidity and financing risks;
- funding risk;
- exploration costs;
- uninsurable risks;
- environmental bonds;
- conflicts of interest;
- risks of operating in Ghana;
- government policy changes;
- ownership risks;
- permitting and licencing risks;
- artisanal miners;
- difficulty in enforcement of judgments;
- market conditions;
- stress in the global economy;
- current global financial condition;
- reliance on key personnel;
- dilution risk;
- exchange rate and currency risks;
- commodity prices;
- other factors discussed under “*Risk Factors*”; and
- other risks and uncertainties described elsewhere in this AIF.

Although the forward-looking statements contained in this AIF are based upon assumptions which the Corporation believes to be reasonable, there can be no assurance that actual results will be consistent with these forward-looking statements. With respect to forward-looking statements contained in this AIF, the Corporation has made assumptions regarding: future commodity prices and royalty regimes; availability of

skilled labour; timing and amount of capital expenditures; future currency exchange and interest rates; the impact of increasing competition; general conditions in economic and financial markets; availability of drilling and related equipment; effects of regulation by governmental agencies; royalty rates; future tax rates; future operating costs; availability of future sources of funding; ability to obtain financing and assumptions underlying estimates related to adjusted funds from operations. The Corporation has included the above summary of assumptions and risks related to forward-looking information provided in this AIF in order to provide readers with a more complete perspective on the Corporation's future operations and such information may not be appropriate for other purposes. The Corporation's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits the Corporation will derive therefrom. These forward-looking statements are made as of the date of this AIF and the Corporation disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

Technical Information

Except where indicated, the disclosure contained in this AIF that is of an economic, scientific or technical nature has been summarized or extracted from the technical report titled "National Instrument 43-101 Namdini Gold Project Preliminary Feasibility Study Technical Report Ghana, West Africa", dated effective October 25, 2018 (the "**Technical Report**"). The Technical Report was prepared by (i) Mr. Glenn Turnbull, Principal Mining Engineer of Golder Associates Pty Ltd; (ii) Mr. Nicolas Johnson, Consulting Geologist with MPR Geological Consultants Pty Ltd; and (iii) Mr. Daryl Evans, Consulting Metallurgist with Independent Metallurgical Operations Pty Ltd. Each of Mr. Glenn Turnbull, Mr. Nicolas Johnson and Mr. Daryl Evans is an independent "qualified person" as such term is defined in NI 43-101 and has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that he is undertaking to qualify as a "Competent Person" as such term is defined in the JORC Code. Each of Mr. Glenn Turnbull, Mr. Nicolas Johnson and Mr. Daryl Evans consents to the inclusion in this AIF of such scientific and technical information in the form and context in which it appears and confirms that such information is based on and fairly represents the Technical Report. Readers should consult the Technical Report to obtain further particulars regarding the Namdini Gold Project. The Technical Report, which constitutes the current technical report for the Namdini Gold Project, was filed on SEDAR on October 25, 2018 and, other than the extract of the Executive Summary thereof, which is included in this AIF, is incorporated by reference in its entirety in this AIF.

The Technical Report is subject to certain assumptions, qualifications and procedures described therein. Reference should be made to the full text of the Technical Report, which has been filed with Canadian securities regulatory authorities pursuant to NI 43-101 and is available for review under the Corporation's profile on SEDAR at www.sedar.com.

The scientific and technical information in this AIF that relates to exploration results at the Bolgatanga Project and Subranum Project is based on information prepared by Mr. Paul Abbott, a full-time employee of Cardinal Resources Limited, 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 to 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".

Where appropriate, certain information contained in this AIF that relates to exploration and drilling results, metallurgical testing, the Mineral Resource estimate and the Ore Reserve estimate, updates information derived from the Technical Report. Any updates to the scientific and technical information derived from the

Technical Report were prepared by or under the supervision of Mr. Glenn Turnbull, FIMM, MAusIMM, Eur. Ing. C. Eng, an employee of Golder (as defined below). Mr. Glenn Turnbull is a “qualified person” for the purposes of NI 43-101.

The scientific and technical information in this AIF 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 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 Corporation.

Mineral Resource Estimates

The Ore Reserves and Mineral Resources for the Corporation’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 Proved 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 Proved Ore Reserve.

“Proved Ore Reserve” means the economically mineable part of a Measured Mineral Resource. A Proved Mineral Ore 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 US Shareholders Concerning Estimates of Mineral Reserves and Mineral Resources

This AIF 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 Securities Exchange Commission (“SEC”) does not recognize 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 AIF also uses the terms **“Probable Ore Reserves”** and **“Proved Ore Reserves”** as such terms are used under NI 43-101, CIM Definition 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 AIF concerning descriptions of mineralization and resources and reserves under NI 43-101, CIM Definition 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.

Glossary

In this AIF, unless otherwise indicated or the context otherwise requires, the following terms shall have the meaning set forth below:

“**2006 Mining Act**” means the Minerals and Mining Act 2006 (Act 703) (Ghana);

“**affiliate**” has the meaning ascribed thereto in National Instrument 62-104 — *Take-Over Bids and Issuer Bids*;

“**AIF**” means this Annual Information Form;

“**Amended Proposal**” has the meaning ascribed thereto in the section “*Cease Trade Orders, Bankruptcies, Penalties or Sanctions*” of this AIF;

“**ASX**” means ASX Limited (ABN 98 008 624 691) or the Australian Securities Exchange operated by ASX Limited (as the context requires);

“**ASX Listing Rules**” means the official listing rules of the ASX, as amended from time to time;

“**Au**” means gold;

“**Audit and Risk Committee**” means the audit and risk committee of the Board;

“**Banro**” means Banro Corporation;

“**Besra**” means Besra Gold Inc.;

“**Besra Cease Trade Order**” has the meaning ascribed thereto in the section “*Cease Trade Orders, Bankruptcies, Penalties or Sanctions*” of this AIF;

“**BIA**” means the *Bankruptcy and Insolvency Act*, R.S.C. 1985, c. B-3;

“**Board**” means the board of directors of the Corporation;

“**Bolgatanga Project**” or “**Bolgatanga**” means, collectively, the Ndongo Licence Area, the Kungongo Licence Area and the Bongo Licence Area in the upper east region of Ghana;

“**Bongo Licence Area**” means the property located in the upper east region of the Town of Bolgatanga covered by reconnaissance licence number 2/2011 issued by the Government of Ghana through the Minister and of which an application for renewal has been granted and is pending the signature of the Minister. The Bongo licence covers an area of 453km²;

“**BQR**” means bulk quantity request;

“**Cardinal**” or the “**Corporation**” means Cardinal Resources Limited, a corporation incorporated under the laws of Australia, and unless otherwise stated or the context otherwise requires, references to the Corporation mean the Corporation and its current and proposed subsidiaries on a consolidated basis;

“**Cardinal Subranum**” means Cardinal Resources Subranum Limited, a subsidiary of the Corporation;

“**CCAA**” means the *Companies’ Creditors Arrangement Act*, R.S.C. 1985, c. C-36;

“**CCAA Plan**” has the meaning ascribed thereto in the section “*Cease Trade Orders, Bankruptcies, Penalties or Sanctions*” of this AIF;

“**Charter**” means the charter of the Audit and Risk Committee;

“**CIL**” means carbon-in-leach;

“**CIM Definition Standards**” means the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves;

“**Class C Performance Shares**” means the Class C performance shares of the Corporation, each of which is convertible into 100,000 Ordinary Shares;

“**cm**” means centimeter;

“**CMN**” means Cardinal Namdini Mining Limited, a subsidiary of the Corporation;

“**COG**” means cut-off grade (in g/t Au);

“**Computershare (Australia)**” means Computershare Investor Services Pty Ltd;

“**Computershare (Canada)**” means Computershare Investor Services Inc.;

“**Corporations Act**” means the *Corporations Act, 2001* (Commonwealth of Australia), as amended, including the regulations promulgated thereunder;

“**Credit Facility**” means the credit agreement entered into on August 22, 2018 by the Corporation (together with its wholly owned subsidiaries) with Sprott Private Resource Lending (Collector), LP with respect to a US\$25 million senior secured credit facility in favour of the Corporation, as borrower;

“**Court**” means the Superior Court of the Province of Quebec;

“**Director**” means a director of the Corporation;

“**EIA**” means Environmental Impact Assessment;

“**EIS**” means Environmental Impact Statement;

“**EPA**” means the Ghana Environmental Protection Agency;

“**Exploration Tenements**” means the tenements forming part of the Bolgatanga Project and the Subranum Project. For the avoidance of doubt, the Exploration Tenements do not include the tenements forming the Namdini Gold Project;

“**g**” means grams;

“**g/t**” means grams per tonne;

“**Ghanaian Projects**” means the Namdini Gold Project, the Bolgatanga Project and the Subranum Project;

“Ghanaian Subsidiaries” means, collectively, Cardinal Subranum, Cardinal Mining Services Limited, Cardinal Resources Ghana Limited and Cardinal Namdini Mining Limited;

“Golder” means Golder Associates Pty Ltd;

“GRIDCo” means Ghana Grid Company Ltd;

“IFRS” means International Financial Reporting Standards as adopted by the International Accounting Standards Board;

“Jaguar” means Jaguar Mining Inc.;

“JK Drop Weight Test” means the Julius Kruttschnitt drop weight test;

“JORC” means the Australasian Joint Ore Reserves Committee;

“JORC Code” means the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves;

“July 2016 Placement” means the Corporation’s issuance on July 19, 2016, of 55,518,670 fully paid Ordinary Shares at a price of \$0.29 per Ordinary Share as the first part of a placement;

“kg” means kilogram;

“km” means kilometre;

“km²” means square kilometre;

“Kungongo Licence Area” means the property located in the upper east region of the Town of Bolgatanga covered by reconnaissance licence number 1/2011 issued by the Government of Ghana through the Minister. The Kungongo licence covers an area of 122km²;

“kV” means kilovolt;

“Listed Option” means a listed option (warrant) to purchase Ordinary Shares;

“LOM” means life of mine;

“Lycopodium” means Lycopodium Minerals Pty Ltd;

“m” means metre;

“Maudore” means Maudore Minerals Ltd.;

“MIK” means multiple indicator kriging;

“Minerals Commission” means the Minerals Commission of the Government of Ghana.

“Minister” means the Minister responsible for Lands and Natural Resources of Ghana;

“mm” means millimetre;

“**MOX**” means moderately oxidized weathered rock;

“**MPR Geological**” means MPR Geological Consultants Pty Ltd.;

“**Mt**” means million tonnes;

“**Mtpa**” means million tonnes a year;

“**NAG**” means net acid generating;

“**Namdini Gold Project**” or “**Namdini**” means the large-scale mining licence covering the Namdini mining lease. The large-scale mining licence covers 19.54km² in the Datoko area of the Talensi District Assembly in the upper east region of Ghana.

“**NAPP**” means net acid producing potential;

“**Ndongo Licence**” means the combined Ndongo prospecting licence number 17/2010 and the Nangodi and Yameriga prospecting licence number PL9/19 located in the upper east region of the town of Bolgatanga issued by the Government of Ghana through the Minister;

“**Ndongo Licence Area**” means the property covered by the combined Ndongo prospecting licence number 17/2010 and the Nangodi and Yameriga prospecting licence number PL9/19 located in the upper east region of the town of Bolgatanga issued by the Government of Ghana through the Minister. The Ndongo Licence covers an area of 295km²;

“**NEMAS**” means NEMAS Consult Ltd;

“**NI 43-101**” means National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*, as amended from time to time;

“**NI 52-110**” means National Instrument 52-110 – *Audit Committees*, as amended from time to time;

“**Notice of Intention**” has the meaning ascribed thereto in the section “*Cease Trade Orders, Bankruptcies, Penalties or Sanctions*” of this AIF;

“**NYSE**” means the New York Stock Exchange;

“**October 2016 Order**” has the meaning ascribed thereto in the section “*Cease Trade Orders, Bankruptcies, Penalties or Sanctions*” of this AIF;

“**October 2017 Placement**” mean the issuance of 18,461,600 ordinary shares of the Corporation at a price of C\$0.65 per ordinary share for aggregate proceeds to the Corporation of C\$12,000,040 under the agreement with Clarus Securities Inc., on behalf of a syndicate of underwriters, pursuant to which the underwriters have agreed to purchase, on a “brought deal” basis.

“**OMC**” means Orway Mineral Consultants;

“**Ordinary Shares**” means ordinary shares in the capital of the Corporation;

“**Orefind**” means Orefind Pty Ltd;

“**oz**” means Troy ounces (31.1035 g);

“**PEA**” means preliminary economic assessment;

“**Performance Shares**” means, the Class C Performance Shares;

“**PFS**” means preliminary feasibility study;

“**Properties**” means, collectively, the Bolgatanga Project, the Namdini Gold Project and the Subranum Project;

“**Proposal**” has the meaning ascribed thereto in the section “*Cease Trade Orders, Bankruptcies, Penalties or Sanctions*” of this AIF;

“**QAQC**” means quality control and quality assurance;

“**RC**” means reverse circulation;

“**Remuneration and Nomination Committee**” means the remuneration and nomination committee of the Board;

“**Ridge**” means Ridge Resources Limited;

“**SABC**” means SAG mill followed by closed circuit ball mill and recycle pebble crushing;

“**SAG**” means semi-autogenous grinding (mill);

“**Savannah**” means Savannah Mining Ghana Limited, of which Malik Easah is the sole shareholder;

“**SEC**” means the United States Securities and Exchange Commission;

“**September 2015 Placement**” means the Corporation’s issuance of 52,215,000 fully paid Ordinary Shares at \$0.10 per Ordinary Share, together with one free attaching Listed Option for every two Ordinary Shares subscribed for, on September 21, 2015.

“**Shareholders**” means the holders of Ordinary Shares;

“**SMC Variability Test**” means semi-autogenous mill comminution variability testwork;

“**SOX**” means sulfur oxides;

“**Subin Kasu Prospecting Licence**” means prospecting licence number PL6/309 issued by the Government of Ghana through the Minister;

“**Subranum Project**” or “**Subranum**” means the Subranum project, consisting of the Subin Kasu Prospecting Licence, in southwest Ghana;

“**t**” means metric tonne;

“**Technical Report**” means the technical report titled “National Instrument 43-101 Namdini Gold Project Preliminary Feasibility Study Technical Report Ghana, West Africa”, dated effective October 25, 2018;

“**TRANS**” means transition zone of partially weathered rock below MOX zone;

“**TSX**” means the Toronto Stock Exchange;

“**TSXV**” means the TSX Venture Exchange;

“**µm**” means micron (millionth of mm);

“**Unlisted Option**” means an unlisted option to purchase Ordinary Shares;

“**US**” means the United States of America; and

“**w/w**” means weight for weight (e.g. for slurry density).

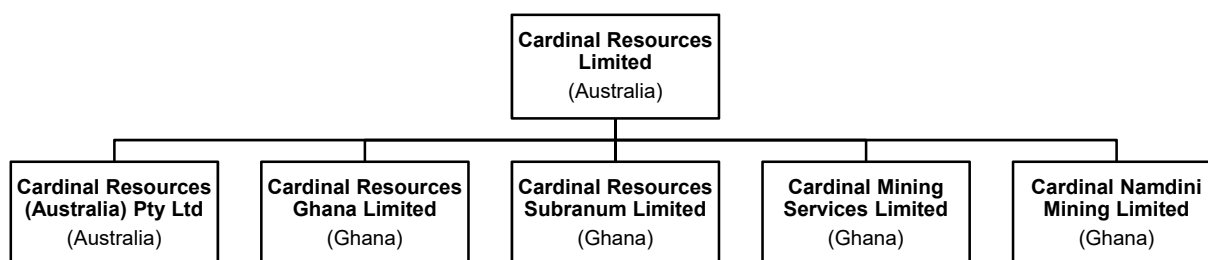
CORPORATE STRUCTURE

Cardinal Resources Limited was incorporated as Heguy Resources Limited under the Corporations Act on November 11, 2010 and changed its name to Ridge Resources Limited ("**Ridge**") on May 9, 2011 and then to Cardinal Resources Limited on December 27, 2012. The Corporation's head and registered office is at Suite 1, 28 Ord Street, West Perth, Australia, 6005. The Corporation maintains offices outside of Australia.

On August 27, 2012, Ridge announced that it had entered into an implementation agreement with Cardinal Resources Limited, whereby Ridge would acquire 100% of the share capital of Cardinal. Ridge completed the acquisition of Cardinal on December 27, 2012 and subsequently changed its name to Cardinal Resources Limited.

The Corporation's business under Ridge was operating as a Western Australian mineral exploration company. The Corporation's business since December 27, 2012 has been to explore and develop its Ghanaian Projects, which consist of the Namdini Gold Project, the Bolgatanga Project and the Subranum Project.

The corporate structure is shown in the chart below. All of Cardinal's subsidiaries are 100% owned.



The Corporation is a reporting issuer in the province of Ontario, Canada. The Corporation's Ordinary Shares are listed and posted for trading on the Toronto Stock Exchange in Canada (the "**TSX**") and on the Australian Securities Exchange (the "**ASX**") in Australia, in each case under the symbol "**CDV**".

DESCRIPTION OF THE BUSINESS

The Corporation

The principal activity of the Corporation (and its subsidiaries) is gold exploration in Ghana. The Corporation holds interests in seven prospective tenements for gold mineralization in Ghana in two NE-SW trending paleo-proterozoic granite-greenstone belts: the Bolgatanga Project and the Namdini Gold Project, 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. The maps that follow show the location of the Namdini Gold Project and the Corporation's other properties in Ghana.

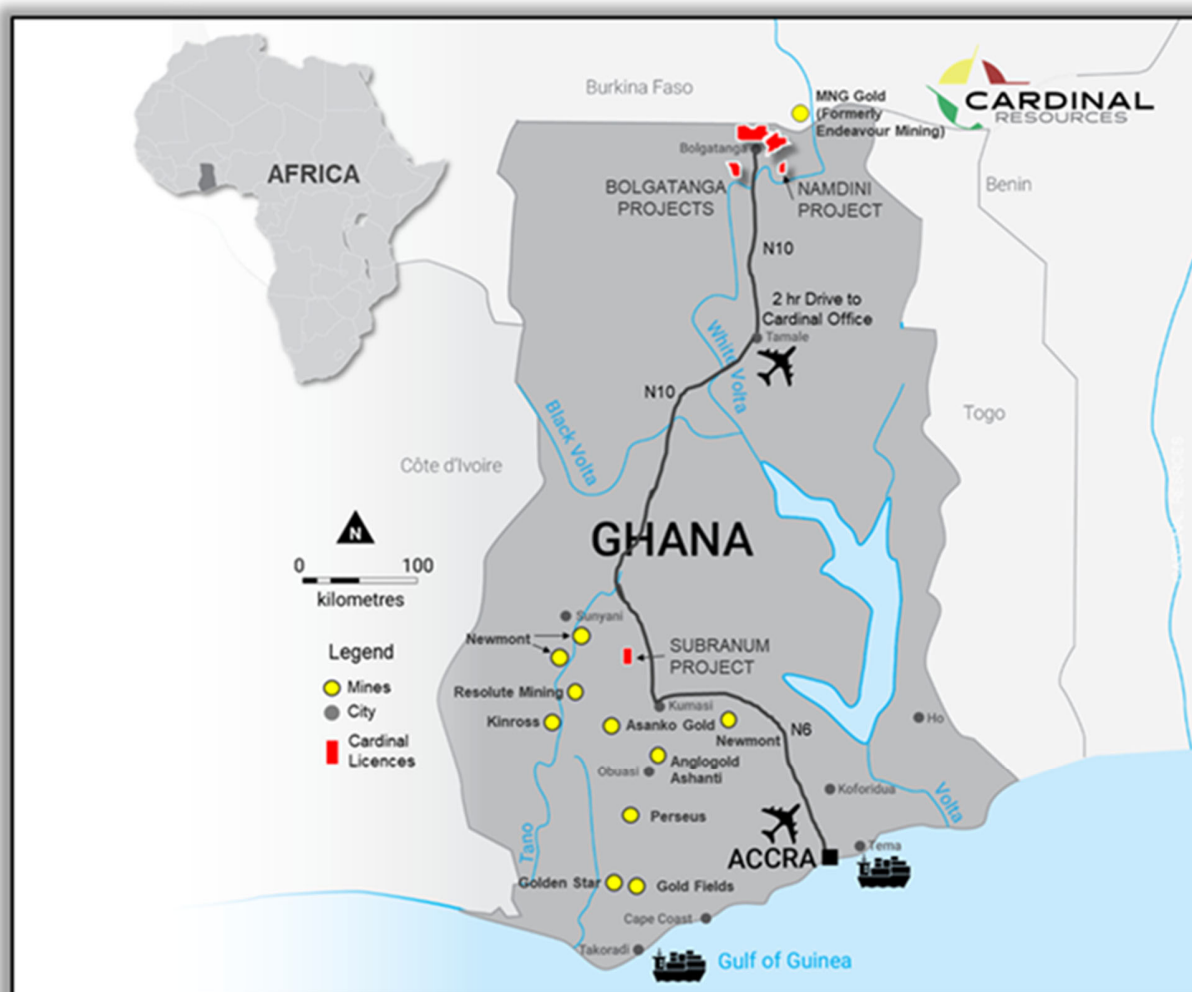


Figure 1 Cardinal Resource's Tenements in Ghana

Employees

The Corporation employed 53 full-time employees as of June 30, 2019 and continued to employ 48 full-time employees as of the date of this AIF.

Three Year History

The following summary sets out the notable events in the Corporation's history since the beginning of the financial year ended June 30, 2017:

On July 19, 2016, the Corporation announced that it had issued 55,518,670 fully paid Ordinary Shares at a price of \$0.29 per Ordinary Share as the first part of a placement (the "**July 2016 Placement**"). On August 26, 2016, the Corporation announced the completion of the second tranche of the July 2016 Placement and that, following shareholder approval at the general meeting of Shareholders, 19,481,330 fully paid Ordinary Shares had been issued at a price of \$0.29 per Ordinary Share.

On September 5, 2016, 50 Class B performance shares (the "**Class B Performance Shares**") were converted to

5,000,000 Ordinary Shares when the Corporation satisfied the vesting requirement of the Class B Performance Shares.

Between August 26, 2016 and October 28, 2016, 1,435,000 Listed Options were exercised.

On November 7, 2016, Cardinal reported an initial resource estimate for the Namdini Gold Project of 3.8 million ounces of inferred gold resources and 0.25 million ounces of indicated gold resources, calculated in accordance with the JORC Code.

On November 7, 2016, the Corporation announced that Mr. Kevin Tomlinson had been appointed to the Board and would serve as non-executive chairman, that Mr. Mark Connelly, who had previously served as non-executive chairman, would remain as a non-executive Director and that Mr. Mark Thomas, previously a non-executive Director, had retired as a Director.

On November 28, 2016, 476,247 Ordinary Shares were issued to Mr. Julian Barnes for services provided to the Corporation. The issue was approved at the Corporation's annual general meeting held on November 7, 2016.

On January 4, 2017, the Corporation announced that Mr. Bruce Lilford had been appointed Project Manager at the Namdini Gold Project, effective January 3, 2017.

On February 2, 2017, Cardinal reported an interim metallurgical update for the Namdini Gold Project identifying a number of conventional gold recovery techniques to enhance recoveries.

On February 6, 2017, the Corporation announced that Mr. Erik Palmbachs had been appointed as the Corporation's Chief Financial Officer, effective March 1, 2017. Mr. Palmbachs' appointment as Chief Financial Officer ended on May 24, 2017.

On February 7, 2017, Cardinal reporting drilling assay results at the Namdini Gold Project that demonstrated resource extensions to the east and south and at depth.

On February 28, 2017, the Corporation announced that BDO (WA) Pty Ltd. had been appointed as auditor for the Corporation.

On March 21, 2017, Cardinal reported that conventional gold recovery techniques for the Namdini Gold Project showed overall gold recoveries of 84% are achievable and that crush-float-fine grind processing would allow for a low mass flotation concentrate with superior operating costs due to low volumes of high grade concentrate to be processed.

On April 12, 2017, following the receipt of Shareholder approval, 26,000,000 Unlisted Options were issued to Directors and certain officers of the Corporation. Such Unlisted Options vest in three tranches upon the achievement of certain specified performance criteria, have an exercise price of \$0.50 and expire on April 12, 2022.

On April 21, 2017, the Corporation announced the completion of a share placement of 45,598,266 Ordinary Shares at an issue price of \$0.50 per Ordinary Share for aggregate gross proceeds of \$22,799,133.

On May 24, 2017, Sarah Shipway was appointed interim Chief Financial Officer of the Corporation.

On May 25, 2017, 476,247 Ordinary Shares were issued to Mr. Julian Barnes for services provided to the Corporation. The issue was approved at the Corporation's annual general meeting held on November 7, 2016.

On July 10, 2017, the Corporation's Ordinary Shares commenced trading on the TSX.

On July 10, 2017, Robert Schafer was appointed non-executive Director of the Corporation and Derrick Weyrauch was appointed as Chief Financial Officer of the Corporation.

On July 12, 2017, the Corporation announced that it had been granted a large-scale mining licence over an area of approximately 19.54 sq km covering the Corporation's Namdini Gold Project and that an initial Environmental Impact Statement ("EIS") was lodged with the EPA.

On July 26, 2017, the Corporation announced that interim results for phase two of its metallurgical test programme for the Namdini Gold Project had demonstrated an overall increased gold recovery rate of 86% utilizing standard gold recovery techniques.

On August 14, 2017, the Corporation announced two auger gold-in-soil anomalies (4.2 km long x 300 m wide and 800 m x 250 m) were discovered with +100ppb gold anomaly along the entire strike of both anomalies from exploration activities on its Kungongo prospect.

On August 15, 2017, the Corporation announced that it had entered into a definitive agreement with Red Back Mining Ghana Limited, a wholly-owned subsidiary of Kinross Gold Corp., to acquire two large-scale prospecting licences that encompassed the Namdini regional shear and which contained the historic producing "Nangodi" gold mine and that combined with the Corporation's existing Ndongo holdings, increases the land area to 287.67 km².

On September 18, 2017, the Corporation announced an updated Mineral Resource estimate for its Namdini Gold Project, including an Indicated Mineral Resource of 120 M tonnes grading 1.1 g/t Au for 4.3 Moz Au and an Inferred Mineral Resource of 84 M tonnes grading 1.2 g/t Au for 3.1 Moz Au at 0.5 g/t Au cut-off. The effective date of the Mineral Resource Estimate is September 11, 2017.

On October 12, 2017, the Corporation announced the appointment of two new Non-Executive Directors, namely Jacques McMullen and Michele Muscillo. The Corporation also advised that Mark Connelly and Simon Jackson had resigned from the Board of Directors.

On October 20, 2017, the Corporation filed on SEDAR an updated technical report titled "Technical Report Mineral Resource Estimation for the Namdini Gold Project, Ghana", in respect of the Corporation's Namdini Gold Project in Ghana, West Africa.

On October 20, 2017, 1,000,000 fully paid ordinary shares were issued on exercise of Unlisted Options and 5,000,000 Unlisted Options expired, unexercised.

On October 23, 2017, the Corporation announced that it had entered into an agreement with Clarus Securities Inc., on behalf of a syndicate of underwriters, pursuant to which the underwriters have agreed to purchase, on a "brought deal" basis, 18,461,600 ordinary shares of the Corporation at a price of C\$0.65 per ordinary share for aggregate proceeds to the Corporation of C\$12,000,040. On November 22, 2017 the brought deal was closed.

On November 10, 2017, 1,000,000 Unlisted Options were exercised.

On November 22, 2017, 5,758,000 Unlisted Options exercisable at \$0.825 on or before 21 December 2022, 4,036,200 Unlisted Options exercisable at \$0.965 on or before 21 December 2022, 1,000,000 Unlisted Options exercisable at \$0.75 on or before 21 December 2022 and 379,390 fully paid ordinary shares were issued.

On December 21, 2017, the Corporation issued 379,390 shares for services, 190,000 at a deemed value of \$0.50 and 189,390 at a deemed value of \$0.58.

On January 3, 2018, 50 Class A Performance Shares expired.

On February 5, 2018, the Corporation released the results of its preliminary economic assessment/scoping study for the Namdini Gold Project in Ghana, West Africa.

On March 1, 2018, 160,500 fully paid ordinary shares were issued on exercise of Listed Options.

On March 5, 2018, the Corporation advised that it had completed an update to the Mineral Resource estimate for its Namdini Gold Project in Ghana, West Africa. As a result of an additional 15,684m of HQ diamond drilling within 35 holes since the last Mineral Resource estimate in September 2017, the infill drill program was successful in delivering a substantial conversion of the inferred category ounces into the Indicated Mineral Resource category increasing it to 6.5Moz of Indicated Mineral Resource and 0.5Moz of Inferred Mineral Resources.

On March 12, 2018, 189,500 fully paid ordinary shares were issued on exercise of Listed Options.

On March 14, 2018, the Corporation announced that it had filed a National Instrument 43-101 Technical Report in respect of the preliminary economic analysis announced on February 5, 2018.

On March 28, 2018, 403,500 fully paid ordinary shares were issued on exercise of Listed Options.

On April 10, 2018, 100,000 fully paid ordinary shares were issued on exercise of Listed Options.

On April 18, 2018, the Corporation announced that it had filed a National Instrument 43-101 Technical Report in respect of the Mineral Resource Estimation announced on March 5, 2018.

On April 19, 2018, 500,000 fully paid ordinary shares were issued on exercise of Listed Options.

On May 2, 2018, 150,000 fully paid ordinary shares were issued on exercise of Listed Options. 300,000 fully paid ordinary shares were issued for services rendered to the Corporation.

On May 29, 2018, 49,507 fully paid ordinary shares were issued on exercise of Listed Options.

On June 12, 2018, 24 ordinary fully paid shares were issued on exercise of Listed Options. 340,000 fully paid ordinary shares were issued for services rendered to the Corporation.

On July 16, 2018, the Corporation announced that it had intersected further gold at a new discovery named Ndongo East on its 100% owned Ndongo Licence, located approximately 15km north of the Corporation's flagship Namdini Gold Project that had a 6.5Moz indicated Mineral Resource.

On July 31, 2018, the Corporation announced that it had executed a term sheet with Sprott Private Resource Lending (Collector), L.P. for a US\$25 million senior secured credit facility. The Corporation announced on August 22, 2018 that the facility had been finalised.

On July 31, 2018, 385,000 fully paid ordinary shares were issued on exercise of Listed Options.

On August 28, 2018, 4,250,000 fully paid ordinary shares were issued to Sprott Private Resource Lending (Collector), L.P. as part of the senior secured credit facility.

On September 18, 2018, the Corporation announced the results of its pre-feasibility study on the Namdini Gold Project, highlighted by a 4.76 Moz maiden probable ore reserve at a 1.14 g/t cut-off.

On September 19, 2018, 125,000 fully paid ordinary shares were issued on exercise of Listed Options.

On October 25 2018, the Corporation filed a technical report titled “National Instrument 43-101 Preliminary Feasibility Study Technical Report Namdini Gold Project Ghana West Africa”.

On October 31, 2018, Derrick Weyrauch resigned from the Corporation. Mr. Weyrauch’s position as an executive officer was concurrently filled by the appointment of Mr. Jon Grygorcewicz as CFO. Also on October 31, 2018, Mr. Jacques McMullen resigned as a Director of the Corporation and Dr. Kenneth G. Thomas was appointed as a Director.

On November 2, 2018, 224,000 fully paid ordinary shares were issued on exercise of Listed Options.

On November 19, 2018, 130,000 fully paid ordinary shares were issued on exercise of Listed Options and 47,801, 20,877, 48,170 and 935,488 fully paid ordinary shares were issued at a deemed issue price of \$0.523, \$0.479, \$0.519 and \$0.45 per share respectively to employees and consultants of the Corporation in consideration for services rendered to the Corporation.

On November 28, 2018 the Corporation released first drilling results, encountering further high-grade and shallow gold mineralization at the Ndongo East tenement.

On November 30, 2018 the Corporation filled an amended annual information from which amended and replaced the annual information form file on September 28, 2018. The amended AIF was updated to included current technical disclosure, as required by s 5.4 of the National Instrument 51-102F2, on the basis of the pre-feasibility study entitled “National Instrument 43-101 Namdini Gold Project Preliminary Feasibility Study Technical Report, Ghana, West Africa” dated October 25, 2018.

On December 6, 2018, 145,000 fully paid ordinary shares were issued on exercise of Listed Options.

On January 2, 2019 the Corporation announced the appointment of Mr. Trevor Schultz as Non-Executive Director. Mr. Robert Schafer retired from the Board on January 2, 2019.

On January 2, 2019, 243,000 fully paid ordinary shares were issued on exercise of Listed Options.

On January 23, 2019 the Corporation announced first drilling results from the Ndongo Prospecting License.

On January 30, 2019, 690,000 fully paid ordinary shares were issued on exercise of Listed Options.

On February 2, 2019 a change in substantial holder notice was lodged, Bank of Nova Scotia and each of its associates/affiliates voting power decreased from 9.77% undiluted to 8.65% undiluted.

On February 8, 2019, 900,000 fully paid ordinary shares were issued on exercise of Listed Options.

On February 22, 2019, 150,000 fully paid ordinary shares were issued on exercise of Listed Options.

On March 12, 2019, 116,571 fully paid ordinary shares were issued on exercise of Listed Options. 1,867,571 Unlisted Options exercisable at \$1.00 on or before March 12, 2021 were issued to a consultant of the Corporation in consideration for services rendered to the Corporation. The Corporation also cancelled 2,018,100 milestone options exercisable at \$0.965 on or before December, 21 2022 and 5,758,000 milestone

options exercisable at \$0.825 on or before December, 21 2022.

On March 22, 2019, 185,000 fully paid ordinary shares were issued on exercise of Listed Options.

On March 27, 2019 the Corporation announced further intersections of high-grade, shallow gold mineralization at the Ndongo East deposit.

On April 3, 2019 the Corporation announced an optimized Ore Reserve estimate for the Namdini Gold Project. 5.1 million ounces Proved and Probable Ore Reserve estimate from 138.6 Mt @ 1.13 g/t Au (0.5 g/t Au cut-off).

On April 10, 2019 the Corporation announced an updated to its feasibility study and project finance activities in respect to the Corporation's Ore Reserve at the Namdini Gold Project.

On April 11, 2019 the Corporation received shareholder approval to issue milestone options to Directors' Dr. Kenneth G. Thomas and Mr/ Trevor Schultz, Directors of the Corporation. On March 11, 2019 the Corporation issued a notice of meeting to approve the issue of milestone options to Dr. Kenneth G. Thomas and Mr. Trevor Schultz.

On April 18, 2019, 112,000 fully paid ordinary shares were issued on exercise of Listed Options.

On April 30, 2019, 2,180,049 milestone options exercisable at \$0.697 on or before December, 21 2022 and 2,180,049 milestone options exercisable at \$0.590 on or before December, 21 2022 where issued, the milestone options were approved at the shareholder meeting held on April 11, 2019.

On May 7, 2019, 18,500 fully paid ordinary shares were issued on exercise of Listed Options.

On May 10, 2019 a ceasing to be substantial holder in the Corporation was provided the Corporation. Royal Bank of Canada and its related bodies corporate advised that their shareholder has fallen below 5%.

On June 4, 2019 Cardinal advised that positive leach results had been received which are expected to enhance the Namdini project economics and further testwork had been initiated.

On June 4, 2019, 148,000 fully paid ordinary shares were issued on exercise of Listed Options. A further 64,103 fully paid ordinary shares at a deemed issue price of \$0.39 were issued to an employee of the Corporation for services rendered to the Corporation.

On July 4, 2019, 59,975 fully paid ordinary shares were issued on exercise of Listed Options.

On July 10, 2019 the Corporation announced further intersections of shallow, high-grade gold mineralization from a 15-hole, 883m diamond drill programme at Ndongo East.

On July 11, 2019, 280,000 fully paid ordinary shares were issued on exercise of Listed Options.

On July 16, 2019 the Corporation announced positive results from a selected area within the proposed started pit that encompasses the first 2 to 3 years of production at the Namdini Gold Project.

On July 17, 2019, 600,000 fully paid ordinary shares were issued on exercise of Listed Options. 73,530 and 635,161 fully paid ordinary shares at a deemed issue price of \$0.34 and \$0.336 per share respectively were issued to an employee and consultant of the Corporation in consideration for services rendered to the Corporation.

On July 23, 2019, 130,000 fully paid ordinary shares were issued on exercise of Listed Options.

On July 26, 2019, 126,000 fully paid ordinary shares were issued on exercise of Listed Options.

On July 31, 2019, 341,955 fully paid ordinary shares were issued on exercise of Listed Options.

On August 7, 2019, 252,500 fully paid ordinary shares were issued on exercise of Listed Options.

On August 14, 2019, 220,261 fully paid ordinary shares were issued on exercise of Listed Options.

On August 19, 2019, 617,500 fully paid ordinary shares were issued on exercise of Listed Options.

On August 21, 2019, 827,048 fully paid ordinary shares were issued on exercise of Listed Options.

The Ghanaian Mining Industry

Mining in Ghana

Ghana

Ghana is situated on the west coast of Africa, approximately 600 km north of the Equator on the Gulf of Guinea. Accra, the capital city of Ghana, is located almost exactly on the Prime Meridian. The former British colony changed its name from the Gold Coast to Ghana on achieving independence on March 6, 1957. Ghana is now a republic with a population of approximately 25 million people and a democratically elected government. English remains the official and commercial language.

The total land area of the country is approximately 238,000 km² and the topography is relatively flat. Ghana has a tropical climate with two rainy seasons and two dry seasons in the southern sector each year. The climate condition in the upper east region of Ghana, where the Namdini Gold Project and the Bolgatanga Project are located, is tropical with a rainy season from May to October and a long dry season with virtually no rainfall from October to April. Temperatures range between a maximum of 40°C in March/April and a minimum of 12°C in December. The natural vegetation in the western region, where the Subranum Project is located, is moist tropical forest with a majority of the land converted to agricultural pursuits. The physiography of the Namdini Gold Project area is primarily savannah grassland characterized by short scattered drought-resistant trees, scattered scrub, and grass that gets burnt by bushfire or scorched by the sun during the long dry season. The climate is very dry. The most common trees are the Sheanut, Dawadawa, and Baobab.

The Ghanaian legal system is generally modelled after and based on British common law. The laws of Ghana include the Constitution, national laws passed by Parliament (or under authority granted by Parliament) and the common law of Ghana. The common law of Ghana includes customary rules which apply to particular communities in Ghana.

The Corporation has found Ghana to be stable (politically and economically) over the time in which it has engaged in operations in Ghana.

Mining Rights

The Constitution of Ghana vests title in every mineral in its natural state to the President of Ghana on behalf of, and in trust for, the people of Ghana. The exercise of any mineral right in the form of reconnaissance, exploration or exploitation of any mineral in Ghana requires an appropriate mineral right to be issued by the Government of Ghana acting through the Minister responsible for Lands and Natural Resources (the

“Minister”). The Minister administers, promotes and regulates Ghana’s mineral wealth through the Minerals Commission, a governmental organization established in accordance with the Minerals Commission Act 1993 (Act 450) and the Minerals and Mining Act 2006 (Act 703) (the “**2006 Mining Act**”).

Pursuant to the 2006 Mining Act, a number of regulations were passed in 2012 to clarify and implement provisions of the 2006 Mining Act. These regulations relate to matters such as licensing, local content, technical issues, mineral right holding costs, mine support services and resettlement and payment of compensation to persons impacted by mining operations.

The 2006 Mining Act provides for a number of categories of licences.

A reconnaissance licence confers on the holder the right to search for a specific mineral or commodity within the licence area by geochemical and photo-geological surveys or other remote sensing techniques. Except as otherwise provided in the licence, it does not permit drilling, excavation or other sub-surface techniques. A reconnaissance licence is normally granted for up to one year and may be renewed by the Minister from time to time for periods up to one year at a time upon application by the holder. The size of the area over which a reconnaissance licence may be granted is limited to 5,000 contiguous blocks or 1,050 km².

A corporate body duly registered in Ghana can apply to the Minerals Commission for a renewable exploration (prospecting) licence granting exclusive rights to explore for a particular mineral in a selected area for an initial period not exceeding three years. A prospecting licence may be renewed for a maximum of two further terms of up to three years each, subject to surrender of a portion of the area.

When exploration has successfully delineated a mineral reserve, an application may be made to the Minerals Commission for conversion to a mining lease, granting a company the right to produce a specific product from the concession area, normally for a period of 30 years or a lesser period that may be agreed upon with the applicant.

Once a mineral right is issued to an entity by the Government of Ghana, Ghanaian mining laws prevent that mineral right from being transferred, assigned or mortgaged by the licensee or mineral right holder without the prior written approval of the Minister. The Ghana Minerals Commission is also required to maintain a public register of all applications, grants, variations, transfers, suspensions and cancellations of such licences or mineral rights. Official searches may be conducted in the public register to obtain information regarding any mineral right granted by the Government of Ghana.

The 2006 Mining Act requires that any person who intends to acquire a controlling share of the equity of any mining company that has been granted a mineral right must first give notice of its intent to the Minister and also obtain the no objection of the Minister prior to acquiring a controlling share.

Under the 2006 Mining Act, the Government of Ghana is entitled to a 10% free carried interest in all companies that hold mining leases. The 10% free carried interest entitles the Government of Ghana to a pro-rata share of future dividends. The Government of Ghana has no obligation to contribute development capital or to operating expenses.

The Government of Ghana also has the right to acquire an additional interest in such companies for a price fixed by agreement.

Under the 2006 Mining Act, the Government of Ghana is empowered to acquire a special or “golden” share in any mining company. The special share would constitute a separate class of shares with such rights as the Government of Ghana and the mining company might agree. Though deemed a preference share, it could be

redeemed without any consideration or for a consideration determined by the mining company and payable to the holder on behalf of the Government of Ghana.

In the absence of any such agreement, the special share would have the following rights:

- it would carry no voting rights but the holder would be entitled to receive notice of, and to attend and speak at, any general meeting of the members or any separate meeting of the holders of any class of shares;
- it could only be issued to, held by, or transferred to the Government of Ghana or a person acting on behalf of the Government of Ghana;
- the written consent of the holder would be required for all amendments to the organizational documents of the Corporation, the voluntary winding-up or liquidation of the Corporation, or the disposal of any mining lease, or the whole or any material part of the assets of the Corporation;
- it would not confer a right to participate in the dividends, profits or assets of the Corporation or a return of assets in a winding-up or liquidation of the Corporation; and
- the holder of a special share may require the Corporation to redeem the special share at any time for no consideration or for a consideration determined by the Corporation.

To the Corporation's knowledge, for as long as it has been operating in Ghana, no mining company has been requested to issue a special share.

The Government of Ghana has a pre-emptive right to purchase all gold and other minerals produced by mines in Ghana. The purchase price would be agreed by the Government of Ghana and the mining company, or the price established by any gold hedging arrangement between the Corporation and any third party approved by the Government of Ghana, or the publicly quoted market price prevailing for the minerals or products as delivered at the mine or plant where the right of pre-emption was exercised. The Corporation understands that the Government of Ghana has indicated it does not intend to take pre-emptive action pursuant to its right to purchase gold or other minerals so long as mining companies sell gold in accordance with certain procedures approved by the Bank of Ghana.

Ghanaian Royalties and Taxes

Ghanaian law sets mineral royalties at a flat rate of 5% of mineral revenues. The corporate income tax rate is 35% of taxable income for mining companies. Capital expenditures (tax depreciation) are deductible at a flat rate of 20% per year over a five-year period.

The tax regulations disallow expenditures from one mining area as a deduction from revenues in a separate mining area belonging to the same company in determining the Corporation's taxable income for tax purposes.

Under the 2006 Mining Act, the Government of Ghana may enter into a stability agreement with the holder of a mining lease, to ensure that the holder of the mining lease will not, for a period not exceeding 15 years from the date of the agreement,

1. be adversely affected by a new enactment, order, instrument or other action made under a new enactment or changes to an enactment, order, instrument that existed at the time of the stability agreement, or other action taken under these that have the effect or purport to have the effect of

- imposing obligations upon the holder or applicant of the mining lease, and
2. be adversely affected by subsequent changes to:
 - (a) the level of and payment of customs or other duties relating to the entry of materials, goods, equipment and any other inputs necessary to the mining operations or project,
 - (b) the level of and payment of royalties, taxes, fees and other fiscal imports, and
 - (c) laws relating to exchange control, transfer of capital and dividend remittance.

A stability agreement entered into is subject to ratification by the Parliament of Ghana.

In 2011, the Government of Ghana established a tax stability renegotiation team to review the existing tax stability agreements of some major mining companies operating in Ghana.

Environmental and Other Laws and Regulations

All phases of mineral exploration, project development, and operations are subject to environmental laws and regulations. These laws and regulations may define, among other things, air and water quality standards, waste management requirements, and closure and rehabilitation obligations. In general, environmental legislation is evolving to require stricter operating standards, more detailed socio-economic and environmental impact assessments for proposed projects, and a heightened degree of accountability of companies and their officers, directors, and employees for corporate social responsibility, and health and safety. Changes in environmental regulations, and the way they are interpreted by the regulatory authorities, could affect the way the Corporation operates, resulting in higher environmental and social operating costs that may affect the viability of operations.

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 Inspectorate Division of the Minerals Commission. The EPA has laws and regulations that 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 Corporation's operations are subject. Additional provisions governing mine environmental management are provided in the 2006 Mining Act and the various Minerals and Mining Regulations which came into force in 2012.

The Corporation 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. There has been a trend to longer lead times in obtaining environmental permits.

The Corporation's mineral exploration activities and anticipated development, mining and processing operations will also be subject to various laws governing prospecting, development, production, taxes, labor standards, occupational health and safety, land rights of local people and other matters. New rules and regulations may be enacted or existing rules and regulations may be modified and applied in a manner that could have an adverse effect on the Corporation's financial position and results of operations.

The Corporation established objectives to achieve regulatory requirements in its exploration, development, operation, closure, and post-closure activities so that its employees, the local environment, and its stakeholder

communities are protected and that the next land use contributes to the sustainability of the local economy. In order to meet its objectives, the Corporation:

- educates its managers so that they are committed to creating a culture that makes social and environmental matters an integral part of short-term and long-term operations and performance management systems;
- works with its employees so they understand and accept environmental and social policies and procedures as a fundamental part of the business;
- established, and continues to improve, operating standards and procedures that aim to meet or exceed requirements in relevant laws and regulations, the commitments made in its environmental impact statements, environmental and socio-economic management plans, rehabilitation and closure plans, and any international protocols to which the Corporation is a signatory;
- incorporated environmental and human rights performance requirements into relevant contracts;
- provides training to employees and contractors in environmental matters;
- regularly prepares, reviews, updates, and implements site-specific environmental management and rehabilitation and closure plans;
- works to progressively rehabilitate disturbed areas in conformance with site-specific environmental plans;
- consults with local communities and regulators to communicate its environmental management policies and procedures;
- regularly reviews its environmental performance;
- intends to complete resettlement projects in accordance with the International Finance Corporation Performance Standard 5 on land acquisition and involuntary resettlement when required; and
- publicly reports social, health, safety and environmental performance.

NAMDINI PROJECT TECHNICAL REPORT SUMMARY

The following is an extract of Section 1 – Summary of the Technical Report prepared by Golder. See also “Technical Information”. The balance of the Technical Report is incorporated herein by reference.

Introduction

The principal activity of the Corporation is gold exploration and development in Ghana. The Corporation 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, 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 where a Mineral Resource at a 0.5 g/t Au cut-off grade has been established comprising: an Indicated Mineral Resource of 180 Mt grading 1.1 g/t Au for 6.5 Moz Au, and an Inferred Mineral Resource of 13 Mt grading 1.2 g/t Au for 0.5 Moz Au. Figure 1 of the Technical Report

shows the location of the Namdini Gold Project and the Corporation's other properties in Ghana.

The Technical Report presents the result of the preliminary feasibility study ("PFS") carried out by Cardinal on the Namdini Gold Project.

PFS parameters and material assumptions

The PFS capital cost estimates were completed to an accuracy of +30/-20% for the 9.5 Mtpa option and undertaken based on open pit mining from the existing March 2018 Mineral Resources.

Metallurgical testwork carried out to date indicates that gold can be satisfactorily recovered from Namdini ore using conventional flotation, regrind and carbon-in-leach ("CIL") of the flotation concentrate. The testwork is considered sufficient to determine that the Namdini Gold Project Mineral Resource represents a deposit with potential economic extraction. Estimation of capital costs was prepared by Lycopodium Minerals Pty Ltd ("Lycopodium") for the process plant and associated infrastructure.

The proposed plant incorporates primary crushing, grinding and re-crush (SABC), gravity, flotation, concentrate regrind and CIL gold extraction. Three production throughputs were assessed by Cardinal, namely 9.5, 7.0 and 4.5 Mtpa. The 9.5 and 4.5 Mtpa throughput options were factored from the 7.0 Mtpa option (+20/-15% accuracy) and are therefore lower in accuracy at +30/-20%. A contingency factor of 5% was added to the 9.5 and 4.5 Mtpa options over and above the project contingency.

Golder provided open pit mine engineering services. The work comprised collation of input parameters, open pit optimization studies, pit designs and detailed NPV optimized mine schedules. A series of shells from the open pit optimizations was selected and used to generate engineering pit designs that included starter pit and life of mine ("LOM") stages for the LOM production schedule.

Golder estimated the Ore Reserve in accordance with the JORC Code. The term 'Ore Reserve' is synonymous with the term 'Mineral Reserve' as used by Canadian NI 43-101 and conforms with the CIM Definition Standards. The JORC Code is defined as an 'acceptable foreign code' under NI 43-101. For the purposes of reporting under NI 43-101 a JORC Table 1 is not required, but it was provided as Appendix 1 to the Technical Report.

The Ore Reserve estimate is based on the revised Mineral Resource model referred to in the press release by Cardinal Resources Limited to the ASX and TSX, dated March 5, 2018 titled 'Cardinal Upgrades Indicated Mineral Resource to 6.5 Moz'. Golder provided an estimate of mining costs, including drill and blast, haulage, 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. Mineral Resource estimates are reported inclusive of those Mineral Resources converted to Ore Reserves.

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 show that the Namdini Gold 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 within the report.

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

The preliminary schedule is shown in Section 26.4 (Table 154) of the Technical Report and is subject to available funding, positive outcomes for the PFS and the feasibility study and favorable timelines for permitting.

The gold price assumptions used for the purposes of the PFS and the project gold price for the financial analysis are presented in Table 144 of the Technical Report.

Mining Licence

During the quarter ended 31 December 2017, a large-scale mining licence covering the Namdini mining lease was assigned to CMN, 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 fifteen (15) years and is renewable for up to a further thirty (30) years.

Savannah has completed an EIS scoping report for Namdini and has filed the EIS with the EPA. 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 Project. Cardinal will submit to the EPA and Minerals Commission an updated EIS for the selected project scale option envisioned for the feasibility study prior to commencement thereof.

Namdini Mineral Resources

Independent mining industry consultant, MPR Geological was commissioned by Cardinal to estimate the Mineral Resources of the Namdini deposit. The Mineral Resource estimate was reported in accordance with the JORC Code. The JORC Table 1 was provided as Appendix 1 of the Technical Summary provided to the ASX and TSX in the press release by Cardinal, dated March 5, 2018 titled 'Cardinal Upgrades Indicated Mineral Resource to 6.5 Moz.'

The Mineral Resource estimate, summarized in Table 81 and Table 82 of the Technical Report, reports the Mineral Resources by category and material type (weathering) above a 0.5 g/t gold cut-off grade. The classification categories of Inferred and Indicated Mineral Resources under the JORC Code are equivalent to the CIM Definition Standards categories of the same name.

Geology

The Namdini gold deposit is a large, structurally controlled, orogenic gold deposit within the Nangodi Greenstone Belt, with numerous features similar to deposits found elsewhere in late Proterozoic Birimian terranes of West Africa. To date the Namdini gold deposit has been delineated over a strike length of 1.15 km, up to 300 m wide and 700 m deep.

In 2016, geological consultants from Orefind Pty Ltd ("**Orefind**") conducted an on-site study and developed a structural framework of the controls and geometry of gold mineralization comprising the Namdini deposit.

Orefind concluded that the rock types comprising the Namdini Gold Project included a steeply west dipping

Birimian sequence of interbedded, foliated, metasedimentary and metavolcanic units which have been intruded by a medium-grained granitoid and diorite. The southern part of the Namdini Gold Project is covered by flat-lying Voltaian Basin clastic sedimentary rocks that have been deposited unconformably on the Birimian sequence and postdate mineralization and the host sequence.

Underneath the weathering profile, the Birimian units include metasedimentary, metavolcanic, granitoid (tonalite) and diorite. The metasedimentary and volcanoclastic lithologies have been intensely altered with a resulting pyrite-carbonate-muscovite-chlorite-quartz assemblage. Alteration is most prevalent in the volcanoclastic units. Similarly, the tonalite is extensively altered and has been overprinted by silica-sericite-carbonate assemblages.

In all rock types, the mineralization is accompanied by visible disseminated sulfides of pyrite and very minor arsenopyrite in both the veins and wall rocks. In diamond drill core, the mineralized zones are visually distinctive due to the presence of millimetre to centimetre wide quartz-carbonate veins that are commonly folded and possess yellow-brown sericite-carbonate selvages. Rare visible gold occurs in strongly altered granite and is associated with sub-millimetre wide silica-sericite shears.

Drilling techniques

The input dataset used for the Namdini Mineral Resource estimate comprises a total of 167 HQ diamond core holes and 144 RC drill holes totalling 82,870 m.

Reverse circulation drilling of 140 (nominally 5¼ inch) or 125 mm diameter was usually 200 m or less in depth. All reverse circulation holes were downhole surveyed at 30 m intervals.

Diamond drilling was HQ in both weathered and fresh rock. All diamond holes were downhole surveyed at 30 m intervals. All HQ core was orientated.

Sampling

All reverse circulation samples were collected at the drill site over 1 m intervals and split using a multi-stage riffle splitter.

Diamond core was generally sawn in half; with half sent for assaying, and half retained in core trays for future reference. One metre samples were taken and submitted to an independent laboratory for assaying. At the laboratory, both core and reverse circulation samples followed a standard procedure of drying, crushing and grinding. The pulverized samples were thoroughly mixed on a rolling mat ('carpet rolled') and then 200 g of sub-sample was collected. Internal laboratory checks required at least 90% of the pulp passing 75 microns. A 50 g charge was produced for subsequent fire assay analysis.

Very good recovery of both core and reverse circulation samples were recorded and considered to be representative of the mineralization defined by the drilling.

Sample analytical methods

Cardinal used two laboratories for its geological sample submissions: SGS Ouagadougou Laboratory in Burkina Faso, and SGS Tarkwa Laboratory in Ghana. The independent SGS commercial geochemical analytical laboratories are officially recognized by the South African National Accreditation System for meeting the requirements of the ISO/IEC 17025 standard for specific registered tests for the Minerals Industry.

As part of the Cardinal QAQC, a suite of internationally accredited and certified reference material (standards)

and locally sourced blanks were included in the sample submission sequence. The standards cover gold grade ranges expected at Namdini. Interlaboratory umpire analyses were also conducted.

Certified reference material (blanks and standards) were submitted into the sample stream at a rate of 1 in 22 samples. Duplicate samples of reverse circulation chips were taken at a rate of 1 in 22.

No employee, officer, director, or associate of Cardinal carried out any sample preparation on samples from the Namdini Gold Project exploration programme.

Drill core was transported from the drill site by a Cardinal vehicle to the secure core yard facility at the Bolgatanga field exploration office only.

All samples collected for assaying are retained in a locked, secure storage facility until they are collected and transported by the SGS laboratory personnel. Retained drill core is securely stored in the core storage facility and pulps and coarse rejects returned from the laboratories are securely stored in the exploration core logging area and at a nearby secure location in Bolgatanga, Ghana.

Estimation methodology

MPR Geological estimated recoverable resources for Namdini using multiple indicator kriging (“**MIK**”) with block support adjustment, a method that has been demonstrated to provide reliable estimates of recoverable open pit resources in gold deposits of diverse geological styles. The Mineral Resource was estimated by MIK using GS3M resource modelling software developed by FSSI Consultants (Australia) Pty Ltd.

Estimation was constrained within a mineralization envelope (wireframe) based on geological logging and grade thresholds. The three-main host lithologies are granite, metavolcanics and diorite. Where geological contacts were not clearly controlling the distribution of mineralization, a grade cut-off of approximately 0.1 g/t Au was used to construct Mineral Resource boundaries.

The domain trends north-northeast over 1.3 km and dips approximately 60° to the west with an average horizontal width of approximately 350 m. The Mineral Resource can reasonably be expected to provide appropriately reliable estimates of potential mining outcomes at the assumed selectivity, without application of additional mining dilution or mining recovery factors. Validation of the MIK model was undertaken visually and statistically and reviewed independently.

Parent block dimensions of 12.5 mE by 25 mN by 5 m RL were used for estimation. All sample assays were composited to 2 m prior to estimation.

Classification

The Namdini Mineral Resource has been classified into the Indicated and Inferred categories, in accordance with the JORC Code and the CIM Definition Standards. A range of criteria were considered in determining this classification including geological and grade continuity, data quality and drill hole spacing.

Resource model blocks have been classified as Indicated or Inferred on the basis of search passes and a wire-frame outlining more closely drilled portions of the mineralization. Blocks within the classification wire-frame informed by all search passes were classified as Indicated. Blocks outside the classification wire-frame and estimated by iteration 1 are classified as Indicated. All remaining blocks estimated by iterations 2 and 3 were assigned to the Inferred category.

The three progressively more relaxed search criteria used for MIK estimation are presented in Table 68 of the

Technical Report. The search ellipsoids were aligned with the general mineralization orientation.

MPR Geological considers the estimation technique and parameters appropriate for this style of mineralization.

Based on the information presented in the PFS, the Ore Reserve estimation process has converted 73% of the Indicated Mineral Resources to Probable Ore Reserves.

Mining

The mine design and Ore Reserve estimate is based on the revised Mineral Resource model referred to in the press release by Cardinal Resources Limited to the ASX and TSX, dated 5 March 2018.

Trial open pit optimizations were run in Whittle 4X at a US\$1,300/oz gold price (which was the appropriate gold price at the time of the optimization runs) to define the base of potentially economic material. Four cut back pits were then selected and full mine designs applied.

The Ore Reserve reported in the PFS is a sub-set of the Indicated Mineral Resource which can be extracted from the mine and processed with an economically acceptable outcome.

Mining of the Namdini Gold Project has been assumed to be medium-scale using conventional open pit mining equipment. The mining process will include drill and blast as well as conventional load and haul operations. There is expected to be a very limited amount of free-dig material with the majority of material assumed to require drilling and blasting.

Mining will be carried out using staged cut backs with four identified stages incorporated within the LOM final pit. The mining schedule incorporates movement of ore and waste on 10 m mining benches, by year for each of the four mining stages.

Except for the initial plant commissioning, oxide ore will be stockpiled temporarily and batch-fed into the process plant when suitable volumes are available, ensuring that no more than 10% of the plant available time is used to process oxide in any one year. Waste rock will be stockpiled separately on the western side of the pit.

Metallurgical work carried out to date indicates that gold can be satisfactorily recovered from Namdini ore using conventional flotation, regrind and CIL cyanidation techniques. The work is considered sufficient to determine that the Namdini Gold Project Mineral Resource represents a deposit with potential for economic extraction.

Mining factors

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

Mining will consist of a conventional hydraulic shovel operation typically using 400 t class excavators in a face-shovel configuration and 150 t class (Cat 785 or similar) rigid body dump trucks hauling on designed access roads. An auxiliary mining fleet of dozers, graders, water carts and utility vehicles will support the mining operation. The appropriately-sized equipment is of medium scale and is less amenable to selective mining. With 60 m minimum mining width as noted, selective mining practices are limited for development of this orebody.

Mining is proposed on 5 m flitches in the ore, within 10 m benches. The base case optimization was determined as part of the PFS and was run using Indicated Mineral Resources only. There is currently no Measured Mineral Resource within the Namdini resource model.

A gold cut-off grade of 0.5 g/t Au was applied to the mineralized 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.

For purposes of selecting the optimum Whittle pit for mine design purposes, Golder estimated a mining cost of US\$3.50 per tonne of rock mined (see Section 16.14 of the Technical Report) based on experience with similar mining operations in the region, which includes grade control sampling, laboratory assay, analysis and supervision costs. The input process and general and administration cost for the baseline 7.0 Mtpa option was estimated at US\$14.50/t milled plus an additional US\$1.50/t allowance for stockpile reclaim. All tonnes were assumed to be on a dry basis.

Once the optimum selected Whittle pit was selected and mine design completed, a detailed mining movement schedule was supplied to two prospective mining contract companies to assist with the provision of a detailed mining cost estimate. Quotations were provided by both companies which supported an all-in contract mining cost used in the PFS. Further discussions and negotiations will continue with suitable mining contractors prior to any award of the mining contract.

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 optimization.

No consideration has been made for underground extensions of the operation in the PFS. A minimum mining width of 60 m 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.

Grade control will be based on sampling from RC drilling spaced at approximately 10 mE by 15 mN with samples taken at 1.5 m intervals downhole. All grade control sampling assays are assumed to be determined by fire assay on the mine site. Standard QAQC protocols will be applied comprising 1 in every 10 samples.

Geotechnical parameters

In support of the mine design, Golder carried out a study of existing geotechnical information, reviewed information on mineral resource estimates, conducted a detailed pit geotechnical drilling campaign supervised by a site visit by a senior Golder engineer and gathered detailed rotary core logging data from selected drill locations within the Namdini Gold Project area.

The LOM pit design considers slope performance based on models developed from laboratory results of sampled drill core. The results present feasibility-level slope designs based on data collected in the field, plus data and reports made available by Cardinal.

Based on geotechnical and hydrogeological considerations from site investigations at the project area, the design sectors were designated around Namdini Gold Project pit.

Inter-ramps (bench stacks) in slightly weathered to fresh rock should consist of four benches. These are to be separated by 25 m ramps or geotechnical berms (this means that a 25 m geotechnical berm should be included after every 80 m of fresh rock benches). The design table includes an alternative berm width of 5 m, along with the corresponding inter-ramp angle.

Golder recommended that at the beginning of excavation the narrower width be used for benches in SOX, MOX and TRANS materials in temporary walls. Should this geometry perform well then it could be applied to the final walls as well. Should it prove inadequate or problematic, the wider 6-m berms could be used for the final walls in SOX, MOX and TRANS materials.

Pit optimizations

Pit optimizations were completed using the Lerchs-Grossman algorithm in Whittle 4X to calculate the optimal pit at specified input parameters that were determined prior to the study. A wireframe pit shell for each gold price considered was the resultant output. One of these was selected as the base for the final LOM pit design. A smaller pit approximately 1 Moz was chosen for the starter pit to maximize discounted cash flow and minimize time for capital payback.

Mine scheduling

Mine scheduling was used to maximize value through deferring of larger strip ratio cut-backs until later in the mine life. The maximum value pit was selected using a discounted average net present value and determined to align with a revenue factor shell of approximately \$1,105/oz using estimated LOM input prices and costs. Pit shells were converted into engineering designs prior to export of the contained resource model for scheduling purposes.

Minemax Scheduler, a commercial linear programming software package was used to model the mining sequence, the processing plant and different ore feeds to maximize net present value for the nominated parameters and constraints. Major constraints included mill throughput, mining limits and oxide feed proportion. The material selection to satisfy processing requirements was based on cut-off grade, mineable ore, processing and selling costs.

The mine scheduling programme includes revenue and cost information. The scheduling software assesses the value generated by each block to determine whether the block is fed directly to the plant, stockpiled or treated as waste. Further financial analysis to determine more realistic absolute financial indicators and sensitivity analysis are performed separately, using the tonnes and grades extracted from the schedule.

The mine design of the Namdini Gold Project consists of a series of nested conventional pit layouts with orebody access provided by a series of ramps. The orebody can be considered a layered sequence consisting of strongly oxidized, moderately oxidized, transition, and fresh mineralized zones.

High level mine production schedules were evaluated for the three scenarios considered (9.5, 7.0 and 4.5 Mtpa mill throughputs) using a starter pit with subsequent pushbacks to the final LOM pit extent.

The schedules allowed an initial ramp up for the process plant in each case before full process plant production was assumed. In order to gain maximum value from the 9.5 Mtpa option, an estimated total peak rock movement of some 30 Mtpa is required in year 7 of the schedule, whereas the 7.0 Mtpa option indicated a

total peak required movement of some 17 Mtpa. The 4.5 Mtpa option saw a peak total required rock movement of some 15 Mtpa.

Mine design criteria

The mine design criteria were developed to allow for development and assessment of designs to provide plant feed rates of 9.5, 7.0 and 4.5 Mtpa.

For the mining study, the maximum mining movement has allowed for a strip ratio of up to 2:1 in order that the initial optimizations are not 'mining-limited'.

For the conceptual pit design, two geotechnical domains namely Zone 1 – Slightly and Moderately Oxidized Weathering Domain and Zone 2 – Transitional and Fresh Weathering Domain, were used to define pit bench heights, berm widths and slope angles.

Pit design criteria were based on Golder's geotechnical recommendations with the deposit broadly broken up into weathered (oxide), partially weathered (transition) and fresh domains, with two distinct domains on the hangingwall and footwall sides of the ore zone (bearing 295°). Refer to Table 96 of the Technical Report for the geotechnical configurations used for the mine pit design criteria.

For practical pit design purposes, the berm widths were rationalized to an 8 m wide berm to avoid having multiple berm widths required on the same mining bench. Analysis of the block model indicated that the semi-weathered (transition) material reaches a maximum depth of 160 m RL. Thus, it was deemed prudent to maintain single benches with 6 m berm widths above this level and adopt double-benching (20 m) with 8 m berms below it. Adoption of the 6 m berm in both the oxide and transition zones adds a level of increased safety and ease of management in the weathered part of the deposit. Detailed geotechnical zones were then flagged into the mining resource model with which to guide the pit design angles.

The pit was designed with four stages. The initial stage (starter pit) provides early access to the higher-grade ore near the surface. The second stage is largely an expansion of the initial stage targeting the ore to a greater depth. The stage designs were created for optimal ore delivery from the first two stages, due to their low strip ratio and waste rock movement. The third and fourth stages contain a greater proportion of waste rock. A minimum mining width of 60 m was established between the stages.

The pit designs have targeted the maximum discounted value pit shell at a US\$1,300/oz gold price (note that the US\$1,300/oz gold price was applicable at the time of the Whittle optimizations performed in Q2 2018). Pit optimization using Whittle software was used to identify the optimum pit shell with the Inferred Resource material considered as waste rock. The identified pit was then considered for practical staging to minimize waste movement and improve the cashflow for the project. The analysis allowed the selection of four stages with the initial stage targeting a relatively higher-grade area of ore near surface. Access was allowed to the first three stages by a ramp from the northern edge of the pit as the volume of waste rock in the first three stages is considered modest. The final fourth stage has a main access ramp on the western side of the pit to provide a shorter haul to the waste rock dump, given that the final stage has a higher strip ratio than the preceding three stages. Having the primary access on the western side of the pit reduces waste rock haulage costs and thus improves the overall value.

Given limited opportunity outside the starter pit to target higher grade zones, stage design was largely focused on targeting maximum value change points within practical mining constraint limits, such as the minimum mining width for the pushbacks. The first stage is a relatively small 'mini-pit' on the northeast side of the deposit. The first stage contains an estimated 19.9 Mt of fresh ore with an additional 4.0 Mt of oxide and

transition ore. This will be stockpiled and processed in campaigns such that a maximum of 10% of available processing time is used for treating the oxide and transition ore in any annual period. The remaining three pit stages follow a traditional pit expansion with the pits pushing out towards the dip of the ore and the pit deepening with each stage.

The indicative production schedules are outlined in Table 152 of the Technical Report.

Mining cost

The PFS assumes the mining contractor will bear the total mining capital cost under an outsourced mining arrangement with the costs recovered by the mining contractor on a cost per tonne mined basis.

Mining costs were solicited from two of the largest in-country mining contractors. The estimated base mining cost has an applied incremental cost with depth, to account for increased haulage costs and the depth of mining increases in line with standard mining cost principles.

All costs in the Technical Report have been determined on a US dollar basis.

Cut-off grade

An estimated marginal cut-off grade was established at 0.5 g/t using an assumed long-term gold price of US\$1,300/ounce. The provided Mineral Resource model was validated and used to develop a mining model, as the basis for the LOM plan and economic assessment.

Gold royalties were assumed at 5% of gold price, with payable gold estimated at 99.8% of doré exported. The net gold price was thus \$39.63/g. The input processing cost provided in May 2018 was \$14.49/t plus an additional \$1.50/t allowed for stockpile reclaim giving a total of \$15.99/t of mill feed (as dry tonnes). Thus, the marginal cut-off grade (“COG”) was estimated as: process cost/(net gold price * process recovery) giving 0.5 g/t (to one significant figure).

Using this marginal COG, the proportion of ore and the gold grade above the COG, were defined in the mining model and the parcelled proportions of ore, above cut-off within the blocks were exported for open pit optimization.

The 0.5 g/t Au cut-off approximates an operational parameter that the Corporation believes to be applicable. This is in accordance with the guidelines of Reasonable Prospects for Eventual Economic Extraction in the CIM Definition Standards and the JORC Code.

Ore Reserve

Ore Reserves were estimated for the Namdini Gold Project as part of the PFS by Golder. The total Probable Ore Reserve is estimated at 129.6 Mt at 1.14 g/t Au with a contained gold content of 4,760 koz.

The Ore Reserve for the Namdini Gold Project is reported according to the JORC Code and CIM Definition Standards. The Mineral Resource was converted by applying Modifying Factors. The Probable Ore Reserve estimate is based on the Mineral Resource classified as Indicated. Table 83 of the Technical Report presents a summary of the Ore Reserves on a 100% project basis at a US\$1,300/oz gold price.

Mineral processing and metallurgical testing

Introduction

The PFS phase of metallurgical testwork focused on development of the flowsheet as presented in Cardinal's preliminary economic assessment ("PEA"). The flowsheet is described as a conventional primary crush, SAG/ball mill and re-crush, gravity, flotation, regrind and carbon-in-leach process. Metallurgical results proved to be consistent and strongly supported the flowsheet as described above.

All fresh rock metallurgical testwork for the PFS was carried out by ALS Laboratory in Perth, Australia. This work followed on from the PEA metallurgical testwork completed by Suntech Geomet Laboratories in Johannesburg, South Africa.

Further oxide (weathered rock) metallurgical testwork was not necessary. The oxide PEA results were carried into the PFS.

The PFS fresh rock was metallurgically tested in four parts:

- Starter pit and flotation specific testwork (to test for initial ore metallurgical response):
 - Mineralogy and gold deportment
 - Gravity recoverable gold
 - Flotation
 - Cyanide leach testwork of bulk rougher flotation concentrate at various regrind sizes.
- LOM testwork (to test for ore metallurgical response for the entire mine life):
 - Mineralogy and gold deportment
 - Gravity recoverable gold
 - Flotation
 - Cyanide leach testwork of bulk rougher flotation concentrate at various regrind sizes.
- Variability testwork (to test for combinations of gold and varying sulfur grades):
 - Mineralogy and gold deportment
 - Gravity recoverable gold
 - Flotation
 - Cyanide leach testwork of bulk rougher flotation concentrate at various regrind sizes.
- Comminution testwork:
 - Semi-autogenous mill comminution variability testwork using HQ core samples
 - Julius Kruttschnitt Drop Weight Test testwork using PQ core samples.

The ALS Laboratory test scope focused on optimization of the flotation and cyanide leach response across a range of representative master and variability composites formed from selected drill core samples.

Metallurgical flowsheet development testwork has been supported based on a wide range of testwork, including:

- Comprehensive master and variability composite head assay analysis, XRD and QEMSCAN mineralogy, and diagnostic leach characterisation.
- Coupled gravity recovery and flotation optimization across a range of primary grind sizes and including assessment of alternative reagent regimes and conditions.
- Flotation variability testing based on the optimal regime derived from the master composite tests.
- Comparative whole ore leach testing over a range of grind sizes, including: direct cyanidation, CIL, lead nitrate dosing, air and oxygen sparging.
- Flotation concentrate leaching based on bulk flotation concentrates formed from master composites, LOM and variability composites. The test scope covered a wide range of regrind sizes and leach methodologies including lead nitrate assisted leaching.
- Comminution characterisation, including: Julius Kruttschnitt drop weight test (“**JK Drop Weight Test**”), uniaxial compressive strength, bond suite and semi-autogenous mill comminution style testwork (“**SMC Variability Test**”) applied to HQ drill core variability lithological composites and PQ drill core lithological composites.

Results

Key findings from the testwork were:

Comminution:

- The JK Drop Weight Test showed A*b values ranged between 30 and 42 for the PQ samples.
- The SMC Variability Test showed derived A*b values between 30 and 47 for the HQ samples.
- The bond ball mix work index test indicated a range between 14.7 and 19.7 with an average of 16.9 kwh/t.
- Bond abrasion index ranged between 0.03 and 0.29, with the granite ore type having the highest values.

Mineralogy:

- Native gold is the predominant gold bearing mineral with very low silver content (<2 ppm Ag average).
- Pyrite is the dominant sulfide mineral in the composites where the majority of the gold is associated.
- P80 of the pyrite ranged from 82 µm to 93 µm.
- Pyrite is classified as ‘well-liberated’ from the host rock minerals with close to 85% liberation.
- Free gold particles were detected during a thorough optical search (using a binocular stereo-microscope) of the unmounted gravity concentrates. These gold grains are approximately 200 µm in diameter and rounded in appearance.
- Separate testing of the mineralization confirms that it is not preg-robbing.

Flotation:

- High gold recoveries averaging 95% to concentrate for the majority of composites.
- Fast flotation kinetics observed with majority of the gold recovered in less than 5 minutes.
- Addition of a co-collector blended with base case (potassium amyl xanthate) collector did not show a definite benefit to gold recovery.

- Upfront gravity gold recovery improved total gold recovery and mostly eliminated variability in the flotation tails grade.
- Gravity and flotation resulted in average tail grades ranging from 0.05 to 0.14 g/t.
- Flotation mass recovery to concentrate averaged 7% w/w; concentrate grade based on the starter pit composite averaged approximately 30 g/t without gravity recovery and approximately 20 g/t with prior gravity recovery.
- All gravity gold, flotation, regrind and leach results were analysed to produce regression recovery curves for the starter pit and for the LOM samples. These curves were then applied to the varying head grades of the mine schedule to yield an overall recovery result which for the starter pit was 86% and LOM (including the starter pit) was 84%. These overall recoveries include oxide ore, which were applied at an average of 90% based on previous testwork. These were achieved at a grind P98 of 15 µm.

Leach:

- Concentrate leach feed grades based on starter pit and separate LOM lithology composites ranged between 10 g/t and 27.5 g/t, ranging between 15 and 17 g/t on average.
- Leach residues ranged from 1.94 g/t for the starter pit composite to 2.28 g/t for the separate LOM lithology composites at a grind P98 of 15 µm. This range in leach residue grade is equivalent to 0.14-0.16 g/t on a whole ore basis, assuming an average flotation concentrate mass recovery of 7%.

Comminution and metallurgical testwork has provided preliminary information about the physical characteristics and metallurgical response of the three Namdini lithologies.

The processing route for the Namdini ores would be a conventional: crush, primary grind, sulfide flotation followed by regrind and CIL cyanidation of the flotation concentrate.

Orway Mineral Consultants has utilized the comminution results for comminution circuit selection and mill sizing. A primary crushing and SABC comminution circuit (open circuit SAG mill with recycle pebble crushing followed by closed circuit ball mill/hydrocyclones) was selected by Orway Mineral Consultants based on the available comminution parameters.

Metallurgical testing conclusion

Key results supporting selection of the process flowsheet from the metallurgical testing are as follows:

Comminution:

- From uniaxial compressive strength testing, the Namdini ore is amenable to conventional jaw or gyratory crushing.
- SAG mill comminution testing supports configuration of the comminution circuit based on the proposed SABC flowsheet, incorporating SAG milling and recycle crushing of SAG mill scats, coupled with ball milling to a finished primary grind (P80) size of 106 µm.

Gravity:

- Gravity testwork proved the requirement of an upfront gravity recovery process. Prior gravity treatment lifted base-line recovery, mitigating lower flotation recovery of free gold. The inclusion of a gravity circuit is justified based on recoveries achieved for the starter pit composite.

Flotation:

- Metallurgical response was very consistent for all lithologies.
- Gold and sulfur flotation kinetics were rapid with high recovery (> 90%) achieved after five minutes with an industry standard reagent regime.
- Variable grind and flotation testing confirmed a primary grind and flotation P80 of 106 µm suitable for on-going development. However, scope for increasing the primary grind to P80 of 150 µm without compromising flotation recovery is a possibility.
- Site water analysis indicated low concentrations of sulfate and multi-valent cations, also indicating little impact on flotation. Subsequent testing in site water confirmed no measurable impact on flotation kinetics or recovery.

Leach:

- Leach kinetics were rapid with extraction plateauing after 24-36 hours retention. Consistent with the current flowsheet, CIL leaching and recovery are supported. However, an opportunity exists to reduce the process design leach residence time allowed which is currently 72 hours.
- Leach residue grade is predicated primarily on grind size and leach feed grade; separate lithology residues tended toward a relatively constant (terminal) grade at low leach feed grade.
- Leach residue grade reduces with decreasing regrind size.
- Starter pit composite reported 87.9% extraction at a calculated head of 1.96 g/t and a regrind P98 of 15 µm. Gold recovery based on the average starter pit head grade of 1.31 g/t is calculated at 85.1% based on a concentrate regrind P98 of 15 µm. A combination of oxide and fresh material yields an overall recovery of for the starter pit of 86%.
- Gold recovery based on LOM blend proportions: 60% metavolcanics, 30% granite and 10% diorite and LOM head grading 1.15 g/t is calculated at 84% based on a fine concentrate regrind P98 of 15 µm.

Flowsheet development:

- Metallurgical testwork carried out to date indicates that the Namdini Gold Project can utilise a standard gold recovery process plant design with no innovative technology required.
- The metallurgical process uses well-tested technology for all unit operations.
- No deleterious elements were identified in the testwork that could affect the saleability or price of the gold doré produced.
- Namdini will produce readily saleable gold doré which will be exported for refining.
- Gold is recovered using primary crushing, SAG and ball mill grinding with re-crush, gravity recovery (Knelson Concentrator), flotation, concentrate regrind circuit and a CIL circuit.
- A grind P80 of 106 µm was utilized for the primary grind design of the PFS assessment.
- Gravity recovery has been incorporated given the presence of gravity recoverable gold.
- Laboratory flotation testwork indicated fast sulfide flotation kinetics; the circuit comprises six stages of rougher flotation.
- The flotation concentrate is reground and subjected to pre-aeration before CIL.
- Gold recovery will be by a conventional CIL with elution circuit, electrowinning and gold smelting to recover gold from the loaded carbon to produce doré.

- Industry typical design parameters were assumed for the study where testwork was not completed.
- Detailed metallurgical testwork is continuing for the Namdini Gold Project under the direction of Cardinal to support completion of the feasibility study.

Process Plant

Annual nominal throughput processing options of 9.5, 7.0 and 4.5 Mtpa were investigated as part of the PFS. Note that all options were designed to meet the International Cyanide Management Code for the manufacture, transport, and use of cyanide in the production of gold.

Assessment of the comminution circuit identified upper and lower throughput limits as follows:

- 9.5 Mtpa as the largest throughput that could be achieved with dual pinion mill drives.
- 7.0 Mtpa throughput that could be accommodated with dual pinion mill drives.
- 4.5 Mtpa as the largest throughput that could be accommodated by a jaw crusher.

Flowsheet

The process plant design incorporates the following unit process operations:

- Single stage primary crushing with a gyratory crusher to produce a P80 of 150 mm.
- Crushed ore feeding a coarse ore stockpile (12 hours live) with ore reclaim via two apron feeders.
- Two stage SAG/ball mill grinding in closed circuit with cyclones to produce a grind P80 of 106 µm. This includes recrushing of pebbles from the SAG mill.
- Gravity recovery including a scalping screen, a single 70-inch centrifugal concentrator and a CS4000 intensive leach reactor.
- Rougher flotation to produce a gold-rich sulfide concentrate.
- High intensity regrind of the flotation concentrate followed by thickening to minimize CIL tankage and reduce overall reagent consumption.
- Commercially recognised high intensity grinding mill technology is utilized to regrind flotation concentrate.
- Thickening of the flotation tails for water recovery prior to disposal in a separate non-cyanide tailings storage facility.
- A concentrate CIL circuit incorporating one pre-leach tank and seven CIL tanks for gold and silver adsorption.
- A 3.5 tonne split AngloAmerican Research Laboratory elution circuit, electrowinning and smelting to recover gold and silver and produce doré.
- CIL tailings treatment incorporating cyanide destruction by sulfur dioxide and oxygen.
- Concentrate CIL tailings disposal in a lined tailings storage facility.
- Figure 130 indicates the selected PFS flowsheet for the Namdini Gold Project.

Infrastructure

Roads and power

Lycopodium has completed PFS level analysis covering all related aspects of the infrastructure requirement

including power, water, road access and waste management.

The site will be accessed by road from the west with a new, approximately 25 km, gravel road linking the site to the existing national road N10 between Pwalagu and Winkogo. The N10 provides good access to the major cities and ports in southern Ghana and no upgrades of the N10 will be required. The site access road will follow a similar route to the proposed new power line for the existing substation north of Pwalagu.

Infrastructure will include the following dedicated elements:

- Unsealed road;
- HV power line;
- Water supply line from the White Volta River.

The site is located approximately 20 km outside Bolgatanga and 180 km from Tamale. Serviced camp style accommodation will also be integrated in the proximity of the operation. A shuttle bus service will operate from Bolgatanga to and from site as required.

Cardinal has sufficient area on its leases to cater for its planned land requirements.

The study assumed that a new, approximately 30 km dual high voltage transmission power line will be constructed.

Power supply to the process plant includes the modifications necessary in the electricity grid connection, and associated Ghana Grid Company Ltd (“GRIDCo”) substations as well as the 161 kV high voltage power line to the process plant.

GRIDCo currently supplies a 161 kV high voltage power line from Tamale substation to the Bolgatanga substation. The connection point for the Namdini Gold Project will be near Pwalagu and will traverse a corridor to a new GRIDCo substation close to the Namdini mine.

The GRIDCo substation will transform power at 11 kV to a plant feeder circuit breaker terminal in the Namdini mine substation at the plant site which will then be distributed mine-wide, including the accommodation and other site infrastructure facilities.

Site facilities and layout

The location of the plant, pit and waste dump is shown in Figure 132 of the Technical Report.

Hydrogeology and hydrology

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. Characterization 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 requirements.

Geotechnical investigation

A geotechnical investigation of the proposed site facilities is summarized in Section 18.4 of the Technical Report.

Water supply

A river abstraction system will be installed to provide any shortfall in process water requirements during the operation. An abstraction tower will be constructed on the northern bank of the White Volta River approximately 8.5 km to the west of the process plant. This will comprise submersible pumps situated within an intake tower located within a trench excavated into the northern bank of the White Volta River. A water storage facility will store 30 days' supply of process water to account for periods during which pumping from the river is not permitted. The facility will comprise a lined 'turkey's nest' pond located directly to the north of the process plant.

A pipe branch from the main raw water pipeline will supply the potable water treatment plant located at the camp that will purify the water after which it will be reticulated across the site.

A vendor packaged modular potable water treatment plant including filtration, ultraviolet sterilization and chlorination will be installed at the accommodation camp with the treated water reticulated to the site buildings, ablutions, safety showers and other potable water outlets.

Tailings Storage Facilities

Tailings testing

Tailings were subject to physical testing. Results indicate that flotation tails will have a rapid rate of supernatant release of 46% of contained water excluding rainfall. CIL tails would be similar but at a slower rate. Ultimate settled density (air dried) was 1.47 t/m³ for CIL tails and 1.67 t/m³ for flotation tails.

Geochemical testing indicated the following:

The flotation tailings samples recorded negative net acid producing potential ("**NAPP**") values and weakly alkaline net acid generating ("**NAG**") pH values. Therefore, the diorite and metavolcanic flotation tailings are classified as acid consuming and the granite rougher tailings as non-acid forming.

The CIL tailings sample recorded a positive NAPP and a low NAG pH, resulting in a classification of potentially acid forming.

On the basis of the multi-element results, both the flotation and CIL tailings storage facilities will be designed to prevent the loss of solids. The flotation tailings storage facility will require a basic cover system on closure. The cover system for the CIL tailings storage facility will be driven by the need to control potential acid generation by precluding oxygen and water ingress to limit on-going oxidation of the tailings and seepage.

Based on supernatant analysis, the flotation tailings facility will require a compacted soil liner to limit seepage. In addition, the facility will have an under-drainage system to limit the hydraulic head acting on the soil liner. The CIL tailings facility will require a robust engineered liner system, likely comprising of a compacted soil liner with overlying high-density polyethylene liner and underdrainage system.

Tailings Storage Facility design

Flotation Tailings Storage Facility

The flotation tailings storage facility will be constructed as a side valley-type storage facility to the southwest of the open pit. The facility will be constructed as two cells with zoned earth fill perimeter embankments and will be lined with a low permeability compacted soil liner. The total basin area will be 311 Ha and is designed to accommodate 120 Mt of tailings. The tailings storage facility embankments will be constructed in stages to suit storage requirements with stage 1 constructed initially to provide capacity for the first 12 months of operation and subsequent stages constructed using downstream method.

The tailings storage facility basin area will be cleared, grubbed and stripped of topsoil. A 300 mm depth compacted soil liner will be constructed over the entire tailings storage facility basin area as either reworked in situ material (assumed 70%) or imported Zone A (30%) material.

The tailings storage facility design incorporates an underdrainage system comprising a network of branch and collector drains in each cell. The underdrainage system drains by gravity to a collection sump located at the lowest point in each cell.

Supernatant water will be removed from the tailings storage facility via a submersible pump (designed by others) mounted in a decant tower. Temporary decants will be provided to suit the tailings deposition schedule in each cell. The final decants will be located along the divider embankment between the two cells.

CIL Tailings Storage Facility

The CIL tailings storage facility will be constructed as a paddock-type storage facility to the south of the open pit. The facility will be constructed as a single cell with zoned earthfill perimeter embankments and will be lined with compacted soil liner overlain by a synthetic high-density polyethylene geomembrane. The total basin area will be approximately 45 Ha and is designed to accommodate 9.6 Mt of tailings. The tailings storage facility embankments will be constructed in stages to suit storage requirements with stage 1 constructed initially to provide capacity for the first 12 months of operation and subsequent stages constructed using downstream raise construction methods to a final elevation of RL266.0 m (all throughput options). Staged embankment crest elevations will vary between throughput options.

The tailings storage facility basin area will be cleared, grubbed and topsoil stripped, and a 200 mm depth compacted soil liner will be constructed over the entire tailings storage facility basin area as either re-worked in situ material (assumed 30%) or imported Zone A (70%) material. This will be overlain by a 1.5 mm thick smooth high-density polyethylene geomembrane liner.

The tailings storage facility design incorporates an underdrainage system comprising a network of branch and collector drains. The underdrainage system drains by gravity to two collection sumps located at the lowest points in the cell at the southeast and southwest corners.

Supernatant water will be removed from the tailings storage facility via a submersible pump (designed by others) mounted in a decant tower located along the western embankment of the facility.

In order to mitigate seepage losses through the basin area, minimize the phreatic surface in the embankments, and increase the settled density of the deposited tailings, a number of seepage control and underdrainage collection features have been integrated into the design of each facility. The seepage control and underdrainage collection systems will consist of the following components:

- Cut-off trench.
- Low permeability soil liner.
- Synthetic high-density polyethylene geomembrane.
- Basin underdrainage collection system.
- Underdrainage collection sump.
- Leak collection system.
- Upstream toe drain.

Each cell of the flotation tailings storage facility will operate with a series of three decant towers which will be constructed, operated and subsequently decommissioned to suit the staged development of the facility and of the tailings beaches in each cell. The CIL tailings storage facility will operate with a single decant tower throughout the life of the facility.

The decant towers will be raised as required with each embankment lift and will consist of the following components:

- An access causeway constructed of local coarse gravel material.
- A slotted concrete decant tower consisting of 1.8 m square slotted precast concrete sections surrounded by clean waste rock with a minimum size of 100 mm.
- A submersible pump with float control switches mounted on a lifting hoist.
- The decant pump in each tower will be raised on a regular basis to ensure that no tailings enters the pump intake.
- The tailings storage facilities have been designed to completely contain storm events during operation up to and including an annual exceedance probability of 1 in 1,000 (flotation tailings storage facility cell 2) or 1 in 10,000 (flotation tailings storage facility cell 1 and CIL tailings storage facility) on top of the predicted maximum pond level under average climatic conditions, without the emergency spillways operating. Consequently, exceeding the storm storage capacity of the facilities at any stage of operation is unlikely. Regardless, in the event that the storage capacity of a facility is exceeded, water which cannot be stored within the facility will discharge via an engineered spillway.

Operating costs

The purpose of this operating cost estimate is to provide substantiated costs which can be utilized for a preliminary assessment of the viability of the Namdini Gold Project. The operating costs have been developed by:

- Lycopodium – processing and general and administration costs.
- Golder – mining costs.
- Cardinal – owners costs.

Operating costs have been determined for a mine that operates 24 hours per day, 365 days per year. The operating estimate is considered to have an accuracy of $\pm 25\%$, is presented in United States dollars (US\$) and is based on prices obtained during the first quarter of 2018 (1Q18). Study currency exchange rates were confirmed by Cardinal.

The 9.5 Mtpa and 4.5 Mtpa options were factored from the 7.0 Mtpa option.

The operating costs have been compiled from a variety of sources, including the following:

- The LOM design mass recovery to flotation concentrate of 7.5% (this is based on recent testwork showing good gold recovery to concentrate at this mass pull).
- Flotation reagent consumption based on recent prefeasibility optimization testwork.
- Leaching reagent consumption based on industry norms in anticipation of final testwork results.
- Calculated reagent usage regimes for cyanide detoxification prior to testwork.
- Modelling by OMC for crushing and grinding energy and consumables based on the final comminution testwork.
- Typical industry data from equipment vendors.
- Budget pricing or Lycopodium's database of prices for consumables.
- Lycopodium's database of costs for similar sized operations.
- Additional operating costs added by Cardinal to allow for the finer grind results.
- Mining costs solicited from two of the largest in-country mining contractors. The estimated base mining cost has an applied incremental cost with depth, to account for increased haulage costs and the depth of mining increases in line with standard mining cost principles.

Operating costs per tonne of ore processed (129.6 Mt of ore) are tabulated in Table 141 of the Technical Report. Owners costs are tabulated in Table 142 of the Technical Report.

Sustaining capital costs provided by consultants and Cardinal were compiled from a variety of sources and compared against existing and planned operations elsewhere in Ghana.

Sustaining capital costs which include rehabilitation and mine closure are tabulated in Table 143 of the Technical Report.

Capital costs

The mining establishment cost was provided by in-country mining contractors. The process plant and infrastructure costs were estimated by Lycopodium. The costs for the tailings storage facility were provided by Knight Piésold. The capital costs include owner's project cost and contingency as calculated by Lycopodium.

The PFS capital cost estimate was completed to an accuracy of +30 %/-20 % for the 9.5 Mtpa option and was undertaken based on open pit mining from the existing March 2018 Mineral Resource. The proposed plant comprises primary crushing, SABC, gravity recovery, flotation, concentrate regrind and CIL recovery. Three production throughputs were assessed by Cardinal, namely 9.5, 7.0 and 4.5 Mtpa. The 9.5 and 4.5 Mtpa throughput options were factored from the 7.0 Mtpa option (+20/-15% accuracy) and are therefore lower in accuracy at +30/-20%. A contingency factor of 5% was added to the 9.5 and 4.5 Mtpa options over and above the project contingency.

The factored estimates were established by assessing the correlation between cost and the process design criteria with factors being determined by discipline for all areas of the estimate.

Capital costs are summarized below from Table 150 of the Technical Report.

Unit	9.5 Mtpa	7.0 Mtpa	4.5 Mtpa
US\$ (M)	414	348	300

The capital cost in all three throughput scenarios reduced compared to those in the PEA. The main contributors to the reduction were:

- Flotation recovery mass pull was reduced from 15% to 7.5%, based on flotation testwork optimization. This reduction effectively reduced this section of the processing plant by 50% in terms of duty.
- Optimized plant layout, which reduced the plant footprint.
- Optimized steel structures, which ensured that all structures are fit for purpose.
- More accurately designed plant based off engineered quantities, which allowed a reduction in the growth allowance and contingency.

Overall plant layout and equipment sizing was prepared with sufficient detail to permit an assessment of the engineering quantities for the majority of the facilities for earthworks, concrete, steelwork and mechanical items. The layouts enabled preliminary estimates of quantities to be taken for all areas and for interconnecting items such as pipe racks.

Unit rates for labour and materials were derived from responses to BQRs sent to fabricators and contractors experienced in the scale and type of work in the region.

Budget pricing for equipment was obtained from reputable suppliers with the exception of low value items which were costed from Lycopodium's database of recent project costs.

For the accommodation camp, offices, workshops and similar items, appropriate budget pricing was obtained from reputable suppliers of similar prefabricated designs.

Knight Piésold provided the design and quantities of the following infrastructure items that were subsequently costed by Lycopodium.

The capital cost estimate includes:

- Direct costs of the project development.
- Indirect costs associated with the design, construction and commissioning of the new facilities.
- Owner's cost associated with the management of the project from design, engineering and construction up to the handover to operations and project close-out.
- Insurance and operating spares, first fills.
- Costs associated with operational readiness and pre-production operations.
- Growth allowance on quantity, pricing and unit rates variance.
- Contingency on project scope definition and risks.

The material quantities and unit cost estimates were developed from engineering drawings, estimates and calculations at the level required for PFS and validated against estimates from similar sized projects.

Cardinal allowed for additional capital costs for a finer grind. These were factored costs obtained from Lycopodium.

Environmental

NEMAS Consult Ltd (“NEMAS”) has undertaken a site reconnaissance visit and completed the scoping stage of the process in accordance with the Ghanaian Environmental Protection Agency procedures for the Environmental Impact Assessment (“EIA”). The NEMAS scoping study included preliminary field surveys, literature reviews and examination of appropriate legal and regulatory frameworks.

In compliance with the above regulations, the Namdini Gold Project was registered with the Ghana EPA for environmental permitting. The EPA in response to the registration application by the proponent in a letter dated 23 November 2016, indicated that the project which falls under Schedule 2 makes mandatory a full-scale EIA study and submission of EIS to the EPA.

In compliance with directives by the EPA, a scoping report was prepared and submitted to the agency on 22 June 2017, which also set out the Terms of Reference for the EIA and EIS study. The scoping study report highlighted the following issues among others: project description, environmental and social baseline conditions (mostly from secondary sources) and key environmental and social issues of impact and some preliminary proposed mitigation measures. The scoping study report also captured the various national and internal laws, policies and guidelines that shall be triggered. Additionally, the concerns of some key stakeholders consulted were captured in the report as consulted. Other key stakeholders that need to be consulted were also identified.

On receiving the scoping report the EPA posted a scoping report notification on page 24 of the August 18, 2017 edition of the Ghanaian Times (a government-owned daily newspaper with a wide national circulation) requesting persons who have an interest, concern or special knowledge relating to the potential environmental effect of the proposed undertaking to contact or submit such concerns, etc., before the EIS notification, to the Executive Director at its national office in Accra and/or the Regional Director at its regional office in Bolgatanga or the Managing Director of the proponent’s company in Bolgatanga. The EPA also provided copies of the Scoping Report to the Talensi District Assembly in Tongu and to its Regional Office in Bolgatanga.

NEMAS are in the process of a detailed EIS which will be submitted to the Ghanaian EPA for approval.

Social

The PFS environmental study was progressed by NEMAS, including active engagement of local and state regulatory bodies.

Cardinal has an excellent relationship with neighbouring stakeholders, including engagement with the local stakeholders. Granted mining leases cover all of the proposed mining and processing assets. There are no title claims pending.

Expatriate and skilled Ghanaians from outside the local community will be accommodated in a single status camp on site. An allowance for an accommodation camp to house up to 200 people has been made in the capital cost estimate.

The local workforce will be bussed from the neighbouring population centers. Compensation agreements are being negotiated for the proposed mining operation.

Economic evaluation

Key economic statistics for the comparison of the 9.5 Mtpa, 7.0 Mtpa and 4.5 Mtpa option are included in Table 150 of the Technical Report.

The starter pit key estimated production comparison results are presented in Table 151 of the Technical Report. The starter pit includes the first 2.5 years of operation (24 Mt at 1.31 g/t for 1.06 Moz at 0.5 g/t cut off).

The LOM key estimated production comparison results for the 3 throughput options are presented in Table 152 of the Technical Report.

Figure 137 of the Technical Report to Figure 140 of the Technical Report illustrate the 9.5 Mtpa option pre-tax and post-tax sensitivities at a gold price of US\$1,250/oz.

Based upon LOM production and cost parameters, the post-tax net present value sensitivities are shown in Table 149 of the Technical Report for the 9.5 Mtpa option.

The results of a study on higher throughput options is provided in Section 24.1 of the Technical Report.

A staged funding approach for the on-going development of the Namdini Gold Project is discussed in Section 22.6 of the Technical Report.

Next stages

Based on the positive PFS outcome, the Board has approved the immediate progression to a feasibility study of the Namdini Gold Project to further define and support the case for full project funding and development.

The feasibility study budget for the Namdini Gold Project is summarised below, from Table 153 of the Technical Report.

Item	Cost (US\$ k)
Feasibility Study Value Engineering	101
Feasibility Study	1,408
Detailed design and long lead equipment procurement	5,732
Namdini drilling	1,121
Namdini geophysics	13
Total	8,375

OTHER PROPERTIES AND ASSETS

In addition to the Namdini Gold Project, the Corporation is carrying out exploration activities on its other licences, although its main focus is on the Namdini Gold Project. Cardinal during the year has also focused its attention at the Ndonggo Licence, with an exploration program being completed at Ndonggo during the year.

Cardinal does not consider the other properties to be material. No resources have as yet been established on the Corporation's other properties.

Bolgatanga Project

The Bolgatanga Project consists of the Ndonggo Licence Area, the Kungongo Licence Area and the Bongo Licence Area.

Ndonggo Licence Area

The Ndonggo Licence comprises the combined, Ndonggo prospecting licence, Nangodi prospecting licence and Yameriga prospecting licence granted to Cardinal to prospect for and prove gold in the Bolgatanga and Telensi Nabdam district in the upper east region in the Republic of Ghana.

The Ndonggo prospecting licence number 17/2010 covering a land size of 173.36 km² was granted to Cardinal Resources Ghana Limited on July 7, 2014 for a period of two years ending July 6, 2016. On October 31, 2016, the Minerals Commission extended the Ndonggo prospecting licence until October 31, 2017. On February 27, 2017, the Minerals Commission confirmed that Cardinal Resources Ghana Limited is the holder and owner of the Ndonggo prospecting licence.

In August 2017, Cardinal entered into a definitive agreement with Red Back Mining Ghana Limited to acquire 100% ownership of Nangodi and Yameriga prospecting licences PL9/19, located adjacent to the Ndonggo prospect which expanded the combined Ndonggo Licence Area to 286.67km².

Kungongo Licence Area

The Kungongo prospecting licence was originally granted to Cardinal Resources Ghana Limited on January 21, 2011 as a reconnaissance licence for one year ending January 20, 2012. After the expiration of the reconnaissance licence, the Minerals Commission on its own upgraded the Kungongo reconnaissance licence to a prospecting licence. On October 13, 2015, the Minerals Commission wrote to Cardinal Resources Ghana Limited requesting it to pay for the extension of the Kungongo prospecting licence for a period of 12 months. Cardinal Resources Ghana Limited made the payment for the extension of the Kungongo prospecting licence on June 17, 2016. On July 26, 2016, the Minerals Commission extended the Kungongo prospecting licence to July 25, 2017. On February 27, 2017, the Minerals Commission confirmed that Cardinal Resources Ghana Limited is the holder and owner of the Kungongo prospecting licence.

The Kungongo prospecting licence covers a total land size of 120.12 km² and is eligible for renewal.

Bongo Licence Area

The Bongo reconnaissance licence was granted to Cardinal Resources Ghana Limited on January 21, 2011 for a period of one year ending January 20, 2012. Cardinal Resources Ghana Limited has applied for a renewal of the Bongo reconnaissance licence and the Minerals Commission has recommended that the Minister renew the Bongo reconnaissance licence in the name of Cardinal Resources Ghana Limited. As at the date of this AIF, the

renewal letter has not been signed by the Minister, however, on February 27, 2017, the Minerals Commission confirmed that Cardinal Resources Ghana Limited is the holder and owner of the Bongo reconnaissance licence.

Subranum Project

Cardinal Resources Subranum Limited (“**Cardinal Subranum**”) is the beneficial and title holder of the Subin-Kasu prospecting licence, which comprises the Subranum Project.

The Subin-Kasu prospecting licence was originally granted to Newmont Ghana Gold Limited. On April 6, 2012, Newmont Ghana Gold Limited entered into a Purchase and Sale Agreement with Cardinal Subranum and assigned the Subin-Kasu prospecting licence to Cardinal Subranum, in consideration for certain cash payments and Cardinal’s agreement to incur certain exploration expenses and grant.

A two percent net smelter returns royalty on all minerals mined, removed and sold in respect of the Subin-Kasu prospecting licence.

On November 24, 2015, the Minister approved the Purchase and Sale Agreement and Cardinal Subranum became the title holder of Subin-Kasu prospecting licence until September 15, 2016. On November 18, 2016, the Minerals Commission wrote to Cardinal Subranum requesting it to make payment for the extension of the Subin-Kasu prospecting licence for a period of 12 months. Cardinal Subranum made the payment for the extension of the Subin-Kasu prospecting licence on December 14, 2016. On February 27, 2017, the Minerals Commission confirmed that Cardinal Resources Ghana Limited is the holder and owner of the Subin-Kasu prospecting licence.

The Subin-Kasu prospecting licence covers a total land size of 68.70 km² located in the Offinso and Ahafo-Ano south district of the Ashanti region in the Republic of Ghana, expires on September 15, 2017, and is eligible for renewal.

Cardinal’s Operations in Ghana

The Corporation holds its material assets and carries on its business in Ghana largely through separate, wholly-owned, operating subsidiaries. As discussed above, Cardinal Subranum, Cardinal Mining Services Limited, Cardinal Resources Ghana Limited and Cardinal Namdini Mining Limited (collectively, the “**Ghanaian Subsidiaries**”) are incorporated under the laws of the Republic of Ghana. The Ghanaian Subsidiaries are indirectly wholly owned by the Corporation.

The Corporation has established systems of corporate governance, internal controls over financial reporting and disclosure controls and procedures that apply at all levels of the Corporation’s corporate structure. Such systems are overseen by the Board and implemented by senior management of the Corporation. Certain significant features of these systems are described below:

Control over Subsidiaries – The Corporation’s corporate structure has been designed to ensure that the Corporation is able to direct the operations of its subsidiaries. All of the Corporation’s subsidiaries, including the Ghanaian Subsidiaries, are wholly-owned. Accordingly, the Corporation controls the appointments of the directors of the Corporation’s subsidiaries and the directors of such subsidiaries are ultimately accountable to the Board and senior management. Mr. Koimtsidis and Mr. Easah, both of whom are directors of the Corporation, are the only directors of the Ghanaian Subsidiaries. The corporate records, including minute books, of the Ghanaian Subsidiaries are kept at the Corporation’s head office.

Under Ghanaian law, the shareholders of a corporation are entitled to remove directors at a duly convened

general meeting of a corporation. In the event that the Corporation wished to remove a director of a Ghanaian Subsidiary, the Corporation would cause the shares in such Ghanaian Subsidiary to be voted for the removal of such director. Removal would take place at a meeting duly convened for the purpose of such removal and held at least 35 days after the notice of the meeting has been served on such director and any other directors of such Ghanaian Subsidiary who are entitled to attend the general meeting.

The only directors of Ghanaian Subsidiaries also serve as directors of the Corporation. In the event that the Corporation wished to remove an officer of a Ghanaian Subsidiary, the directors of such Ghanaian Subsidiary would take the requisite corporate action to remove such officer.

Risk Assessment – The Board is responsible for the management of the Corporation and, as such, supervises the management of the business and affairs of the Corporation. The Board is responsible for approving any capital expenditures and other transactions and matters that are considered material to the Corporation, including matters of the Corporation’s subsidiaries that are considered material to the Corporation. In addition, the Board has delegated certain risk-management functions to the Audit and Risk Committee. The Audit and Risk Committee is responsible for overseeing the Corporation’s risk management systems, practices and procedures, for identifying and managing business, economic, environmental and social sustainability risks and for reviewing the Corporation’s risk management framework at least annually.

Internal Control over Financial Reporting – The Corporation prepares its consolidated financial statements and MD&A on a quarterly and annual basis, using International Financial Reporting Standards (IFRS), which require financial information and disclosures from the Corporation’s subsidiaries. The Corporation implements internal controls over the preparation of its financial statements and other financial disclosures to provide reasonable assurance that its financial reporting is reliable and that the quarterly and annual financial statements and MD&A are being prepared in accordance with IFRS. These internal controls include the following:

- Management of the Corporation has direct access to relevant financial management of the Corporation’s subsidiaries in order to verify and clarify all information required.
- All public documents and statements relating to the Corporation and its subsidiaries containing material information (including financial information) are reviewed by senior management (including the Chief Executive Officer and Managing Director) before such material information is disclosed, to make sure that all material information has been considered by management of the Corporation and properly disclosed.
- The Audit and Risk Committee will review and approve the Corporation’s quarterly financial statements and MD&A and will recommend to the Board for the Board’s approval the Corporation’s annual financial statements and MD&A, and any other financial information requiring Board approval, prior to their publication or release.
- The Audit and Risk Committee assesses and evaluates the adequacy of the procedures in place for the review of the Corporation’s public disclosure of financial information extracted or derived from the Corporation’s financial statements, other than annual and quarterly financial disclosure.

In addition, the Corporation engages its external auditor to perform an audit of the annual consolidated financial statements in accordance with IFRS.

Disclosure Controls and Procedures – The responsibilities of the Audit and Risk Committee include oversight of the Corporation’s internal control systems including identifying, monitoring and mitigating business risks as well as compliance with legal, ethical and regulatory requirements.

CEO and CFO Certifications – In order for the Corporation’s Managing Director and Chief Executive Officer and its Chief Financial Officer to be in a position to attest to the matters addressed in the quarterly and annual certifications required by National Instrument 52-109 – *Certification of Disclosure in Issuers’ Annual and Interim Filings*, the Corporation has developed internal procedures and responsibilities throughout the organization for its regular periodic and special situation reporting, in order to provide assurances that information that may constitute material information will reach the appropriate individuals who review public documents and statements relating to the Corporation and its subsidiaries containing material information, is prepared with input from the responsible officers and employees, and is available for review by the Managing Director and Chief Executive Officer and the Chief Financial Officer in a timely manner.

These systems of corporate governance, internal control over financial reporting and disclosure controls and procedures are designed to ensure that, among other things, the Corporation has access to all material information about its subsidiaries, including the books and records of its subsidiaries.

The Corporation provides funds to the Ghanaian Subsidiaries for exploration activities. As part of its corporate governance practices, Cardinal has developed a Delegation of Authority Manual. The Delegation of Authority Manual contains guidelines for delegated authorities that help in maintaining adequate controls within the organization, including the flow of funds between Australia and Ghana.

RISK FACTORS

Prospective investors should carefully consider the following risk factors in addition to the other information contained in this AIF. The risks and uncertainties described below are not the only ones facing the Corporation. Additional risks and uncertainties not presently known to the Corporation or that the Corporation currently considers immaterial may also impair the business and operations of the Corporation and cause the price of the Ordinary Shares to decline. If any of the following risks actually occur, the Corporation’s business may be harmed and the financial condition and results of operations may suffer significantly. In that event, the trading price of the Ordinary Shares could decline and holders of the Ordinary Shares may lose all or part of their investment.

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 Corporation 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 Corporation not receiving an adequate return on its invested capital, and no assurance can be given that any exploration program of the Corporation will result in the establishment or expansion of resources or reserves.

The Corporation'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 Corporation. 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 Corporation.

Estimation of Mineralization, 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 change 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 resources 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 Corporation'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 Corporation believes it is in substantial compliance with these laws and regulations; however, the Corporation 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 Corporation 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 Corporation might undertake.

All phases of the Corporation's operations are subject to environmental regulations in various jurisdictions. If the Corporation'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 Corporation'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 Corporation. Additionally, the Corporation 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 regulation 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 Corporation 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 Corporation'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 Corporation will compete with other parties in each of these respects, many of which have greater financial resources than the Corporation. Accordingly, there can be no assurance that any of the Corporation'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 Corporation.

Risks Related to the Business

Operational Risks

The Corporation 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 under-capitalization, cash shortages and limitations with respect to personnel, financial and other resources as well as a lack of revenues. The Corporation 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 Corporation 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 Corporation 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 Corporation’s properties when required, upon terms acceptable to the Corporation 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 Corporation.

Funding Risk

At the date of this AIF, the Corporation 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 Corporation 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 Corporation (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 Corporation are based on certain 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 realized in practice, which may materially and adversely affect the Corporation’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 Corporation 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 Corporation. Situations may arise in connection with potential acquisitions in investments where the other interests of these directors may conflict with the interests of the Corporation. 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.

Risks Related to Operating in Ghana***Environmental Bonds***

The EPA from time to time reviews the reclamation bonds that are placed on the Corporation'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 Corporation's properties, it may be difficult, if not impossible, to provide sufficient bonding. If the Corporation 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 Corporation is not in a position to state whether a review in respect of any of the Corporation's projects in Ghana is imminent or whether the outcome of such a review would be detrimental to the funding needs of the Corporation.

Risks of Operating in Ghana

The Corporation'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 neighbouring countries), terrorist actions, criminal activity, nationalization, invalidation of governmental orders, failure to enforce existing laws, labour disputes, corruption, sovereign risk, political instability, the failure of foreign parties, courts or governments to honour or enforce contractual relations or uphold property rights, changing government regulations with respect to mining (including royalties, environmental requirements, labour, 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 Corporation has interests, problems or delays renewing licences 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 Corporation 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 Corporation 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 Corporation.

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

Government Policy Changes

The mineral exploration activities undertaken by the Corporation 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 Corporation's exploration programs with respect to the Corporation's projects in Ghana will, in general, be subject to approval by the Minerals Commission and other governmental agencies. Development of any of the Corporation'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 Corporation. The Corporation 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 Corporation.

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 Corporation. 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 Corporation's properties without adequate compensation.

Ownership Risks

The Corporation holds its interests in the Namdini Gold Project through a large-scale mining licence. For more information, please see "*Namdini Gold Project*".

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 licence 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 Corporation 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 Corporation 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 Corporation has an interest being challenged. Further, the Corporation'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 Corporation 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 Corporation.

Permitting and Licensing Risks

In addition to mineral rights, the Corporation will require some or all of the following permits, licences 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) licences to export, sell or dispose of minerals; (vii) permits/licences 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 Corporation believes that it will be able to obtain and maintain in the future all such necessary licences 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 licences and permits.

There can be no guarantee, however, that the Corporation will be able to obtain and maintain, at all times, all the necessary licences 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 Corporation's property interests are held in areas of Ghana that have historically been mined by artisanal miners. As the Corporation further explores and advances its projects, it may be required to require the removal of any artisanal miners operating on its properties. There is a risk that such artisanal miners may oppose the Corporation'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 Corporation will not be subject to environmental liabilities resulting from such operations in the future, which could have a material adverse impact on the Corporation. In addition, artisanal work practices are often unsafe and accidents and/or incidents may occur on the Corporation'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 Corporation in the event of accidents or incidents, which could have a material adverse impact on the Corporation.

Difficulty in Enforcement of Judgements

All of the subsidiaries of the Corporation and the majority of its assets are located outside of Canada. Accordingly, it may be difficult for investors to enforce within Canada any judgments obtained against the Corporation, including judgments predicated upon the civil liability provisions of applicable Canadian securities laws. Consequently, investors may be effectively prevented from pursuing remedies against the Corporation under Canadian securities laws or otherwise.

The Corporation has subsidiaries incorporated in Australia and Ghana. Many of the directors and officers of the Corporation reside outside of Canada, and substantially all of the assets of these persons are located outside of Canada. It may not be possible for shareholders to effect service of process against the Corporation's directors and officers who are not resident in Canada. In the event a judgment is obtained in a Canadian court against one or more of the Corporation's directors or officers for violations of Canadian securities laws, it may not be possible to enforce such judgment against those directors and officers. Additionally, it may be difficult for an investor, or any other person or entity, to assert Canadian securities law claims in original actions instituted in Australia or Ghana. Courts in these jurisdictions may refuse to hear a claim based on a violation of Canadian securities laws on the grounds that such jurisdiction is not the most appropriate forum to bring such a claim. Even if a foreign court agrees to hear a claim, it may determine that the local law, and not Canadian law, is applicable to the claim. If Canadian law is found to be applicable, the content of applicable Canadian law must be proven as a fact, which can be a time-consuming and costly process. Certain matters of procedure will also be governed by foreign law.

General Risks

Market Conditions

Share market conditions may affect the value of the Corporation's quoted securities regardless of the Corporation'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 Corporation does not warrant the future performance of the Corporation or any return on an investment in the Corporation.

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 Corporation 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 Corporation's business, operating results and financial condition.

Current Global Financial Condition

Current global financial conditions have been subject to increased volatility. As such, the Corporation is subject to counterparty risk and liquidity. The Corporation is exposed to various counterparty risks including, but not limited to, financial institutions that hold the Corporation's cash, and through companies that have payables to the Corporation. The Corporation 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 Corporation to obtain loans and other credit facilities in the future and, if obtained, on terms favourable to the Corporation. If these increased levels of volatility and market turmoil continue, the Corporation's operations could be adversely impacted and the trading price of the shares could be adversely affected.

Exchange Rate and Currency Risks

The Corporation undertakes certain transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. The Corporation does not hedge this exposure. The Corporation 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 Corporation may realize from its operations, since most mineral commodities are sold in a world market in USD. The Corporation's costs are incurred in AUD, GHS, USD and CAD.

Commodity Prices

The price of the Ordinary Shares, and the Corporation'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 Corporation, 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 Corporation'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 Corporation to raise capital. A sustained, significant decline in the price of gold could also cause development of any properties in which the Corporation may hold an interest from time to time to be impracticable. Future production from the Corporation'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 Corporation depends substantially on its senior management and its key personnel. There can be no assurance that there will be no detrimental impact on the Corporation if one or more of these employees cease their employment.

Dilution Risk

Cardinal has outstanding options and Performance Shares, as detailed in the most recent financial statements for the year ended June 30, 2019 and elsewhere in this AIF. 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.

DIVIDENDS

To date, the Corporation has not paid any dividends on its Ordinary Shares and anticipates that it will retain all future earnings and other cash resources for the future operation and development of its business. The Corporation does not intend to declare or pay any cash dividends in the foreseeable future. Payment of any future dividends will be at the discretion of the Board after taking into account many factors, including the Corporation's operating results, financial condition and current and anticipated cash needs.

DESCRIPTION OF CAPITAL STRUCTURE

Ordinary Shares

The Corporation's authorized capital stock consists of an unlimited number of Ordinary Shares, of which 387,028,921 Ordinary Shares are issued and outstanding as of the date of this AIF.

All Ordinary Shares rank equally as to dividends, voting powers and participation in the distribution of assets. All holders of Ordinary Shares are entitled to receive notice of any meetings of Shareholders of the Corporation, and to attend and cast one vote per Ordinary Share at all such meetings. Holders of Ordinary Shares do not have cumulative voting rights with respect to the election of directors. Holders of Ordinary Shares are entitled to receive on a pro rata basis such dividends, if any, as and when declared by the Board at its discretion from funds legally available therefor, and upon the liquidation, dissolution or winding up of the Corporation are entitled to receive on a pro rata basis the net assets of the Corporation after payment of liabilities, in each case subject to the rights, privileges, restrictions and conditions attaching to any other series or class of shares ranking senior in priority to or on a pro rata basis with the holders of Ordinary Shares with respect to dividends or liquidation. The Ordinary Shares do not carry any pre-emptive, subscription, redemption or conversion rights, nor do they contain any sinking or purchase fund provisions.

The Corporation is authorized to issue an unlimited number of Ordinary Shares, subject to certain restrictions

prescribed in the ASX Listing Rules, the Corporations Act and the Corporation's constitution. Under the ASX Listing Rules, subject to certain exceptions and without the approval of Shareholders, the Corporation 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 Corporation's annual general meeting held on October 31, 2018 Shareholders approved the issue of an additional 10% of the Corporation's issued capital, subject to satisfaction of certain criteria prescribed in the ASX Listing Rules and the Corporation's notice of annual general meeting dated September 25, 2018.

Listed Options (Warrants)

As of the date of this AIF, the Corporation has 106,916,696 Listed Options outstanding. Each Listed Option is exercisable until September 30, 2019 and, upon payment of \$0.15, a holder of such Listed Option is entitled to receivable one Ordinary Share. The Listed Options are listed and posted for trading on the ASX under the symbol "CDVOA".

Unlisted Options

The Corporation's share option plan permits the Board to grant to directors, officers, consultants and employees of the Corporation Unlisted Options to purchase Ordinary Shares from the Corporation. As at the date of this AIF, the Corporation has issued 7,000,000 Unlisted Options under the share option plan.

As at the date of this AIF, there were 33,746,015 Unlisted Options to acquire Ordinary Shares outstanding.

Performance Shares

The Corporation is authorized to grant an unlimited number of Class C Performance Shares. As at the date of this AIF, there was 60 Class C Performance Shares issued and outstanding. Holders of Performance Shares are entitled to conversion of each Performance Share into 100,000 Ordinary Shares upon the achievement of certain milestones or events as outlined below. The total number of Ordinary Shares that would be issuable upon the conversion of all Class C Performance Shares pursuant to the milestones and events having been achieved would be 6 million Ordinary 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 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

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

Class C Performance Shares

- (a) Each Class C Performance Share is a share in the capital of the Corporation.
- (b) Class C Performance Shares shall confer on the holder the right to receive notices of general meetings and financial reports and accounts of the Corporation that are circulated to shareholders. Holders have the right to attend general meetings of shareholders of the Corporation.
- (c) The Class C Performance Shares do not entitle the holder to vote on any resolutions proposed at a general meeting of shareholders of the Corporation.
- (d) The Class C Performance Shares do not entitle the holder to any dividends.
- (e) The Class C Performance Shares are not transferable.
- (f) If at any time the issued capital of the Corporation is reorganized, 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 C Performance Shares will not be quoted on ASX. However, upon conversion of the Class C Performance Shares into Ordinary Shares, the Corporation must, within seven days after the conversion, apply for the official quotation of the Ordinary Shares arising from the conversion on ASX.
- (h) The Class C 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 ASX.
- (l) The Ordinary Shares into which the Class C Performance Shares will convert will rank pari passu in all respects with the other Ordinary Shares on issue.

MARKET FOR SECURITIES

Trading Price and Volume

Ordinary Shares

The Ordinary Shares are listed on the ASX and TSX and trade under the symbol "CDV". The following table sets forth the price range and trading volume of the Ordinary Shares on the ASX for each month during the most

recently completed financial year. The Ordinary Shares commenced trading on the TSX on July 10, 2017.

Month	ASX Trading			TSX Trading		
	Price Per Ordinary Share		Trading Volume	Price Per Ordinary Share		Trading Volume
	High (\$)	Low (\$)		High (CA\$)	Low (CA\$)	
2018						
July	0.50	0.41	3,142,599	0.5	0.38	1,646,295
August	0.45	0.385	2,549,611	0.45	0.365	1,011,711
September	0.485	0.455	1,909,336	0.475	0.4	385,075
October	0.46	0.42	5,991,325	0.44	0.38	427,388
November	0.44	0.38	2,711,572	0.425	0.35	282,900
December	0.43	0.37	2,551,207	0.42	0.35	183,455
2019						
January	0.442	0.345	2,408,869	0.44	0.36	467,200
February	0.44	0.375	3,047,995	0.425	0.34	2,219,506
March	0.39	0.33	3,475,060	0.36	0.32	2,368,004
April	0.425	0.32	4,869,367	0.395	0.32	740,873
May	0.40	0.36	2,593,627	0.36	0.34	586,800
June	0.375	0.295	16,791,039	0.36	0.295	785,500
July	0.38	0.325	15,812,717	0.36	0.285	2,308,994
August	0.53	0.355	17,995,888	0.46	0.325	1,849,521

Source: Bloomberg

Prior Sales of Unlisted Securities

As at the date of this AIF, the only securities of the Corporation that are outstanding but not listed or quoted on a marketplace are the Unlisted Options which total 33,746,015 and 60 Class C Performance Shares. The following table sets forth information with respect to Unlisted Options issued during the financial year ended June 30, 2019. No Performance Shares were issued during the most recently completed financial year.

Unlisted Options

During the financial year ended June 30, 2019, the Corporation issued the following Unlisted Options to acquire Ordinary Shares.

Date of Issuance	Number of Securities Issued	Exercise Price per Ordinary Share	Expiry Date
April 30, 2019	2,180,049 ⁽¹⁾	\$0.679	December 21, 2022
April 30, 2019	2,180,049 ⁽¹⁾	\$0.590	December 21, 2022
March 12, 2019	1,867,817	\$1.00	March 12, 2021

Notes:

(1) The vesting provisions of the 2,180,049 Unlisted Options are as follows:

- 934,307 options vest on the beginning of earthworks for gold production at the Ghanaian assets; and
- 1,245,742 options vest on the first pouring of gold at the Ghanaian assets.

DIRECTORS AND OFFICERS

The following table sets forth the name and residence of each director and executive officer of the Corporation as well as such individual's positions and offices held with the Corporation, period of service as a Director (if applicable), and principal occupation(s) during the five preceding years. The term of office of each of the Directors (other than the Corporation's Managing Director) expires at the end of the third annual general meeting of Shareholders of the Corporation after such Director's last election or appointment, provided that one-third of the Directors (other than the Managing Director) must retire at each annual general meeting. Retiring Directors are eligible for re-election. The term of office of the Corporation's Managing Director expires at the discretion of the Corporation's Directors, in accordance with his employment contract. On August 8, 2019, pursuant to section 401.1 of the TSX Company Manual, the Corporation received an exemption relating to annual director elections.

Name, Province or State, and Country of Residence	Positions and Offices Held and Date of Appointment	Number and Class of Securities Beneficially Owned or Controlled ⁽¹⁾	Principal Occupation(s) During Past Five Years
Kevin Tomlinson ⁽³⁾⁽⁴⁾ London, United Kingdom	Director, Non-Executive Chairman November 7, 2016	Shares: 0 Listed Options: 400,000 Unlisted Options: 5,000,000 Class C Performance Shares: 0	Non-executive Chairman of the Corporation since November 2016; Plymouth Minerals Limited since June 2017, Samco Gold Limited since January 2012 and Centamin Egypt Limited since January 2012. Former Director, Xanadu Mines Limited (2017 to 2019), Centamin plc (2012 to 2016); Orbis Gold Ltd (2015 to 2017); Besra Gold Inc. (2012 to 2015); Maudore Minerals Ltd. (2012 to 2014)

Name, Province or State, and Country of Residence	Positions and Offices Held and Date of Appointment	Number and Class of Securities Beneficially Owned or Controlled ⁽¹⁾	Principal Occupation(s) During Past Five Years
Arthur (Archie) Koimtsidis Western Australia, Australia	Managing Director December 27, 2012	Shares: 8,017,565 Listed Options: 4,191,731 Unlisted Options: 7,500,000 Class C Performance Shares: 0	Co-founder and Managing Director of the Corporation since December 2012
Malik Easah ⁽⁸⁾ Accra, Ghana	Executive Director December 27, 2012	Shares: 7,681,815 Listed Options: 6,560,423 Unlisted Options: 6,000,000 Class C Performance Shares: 60 ⁽²⁾	Co-founder and Executive Director of the Corporation since December 2012
Michele Muscillo ⁽¹⁾⁽²⁾ Queensland, Australia	Non-Executive Director October 11, 2017	Shares: 0 Listed Options: 0 Unlisted Options: 2,018,100 Class C Performance Shares: 0	Partner, Hopgood Ganim Lawyers since 2008; Director Aeris Resources Limited, since 2013, Xanadu Mines Limited, since 2017 and Mako Gold Limited, since 2017. Formerly, Director of Orbis Gold Limited which is currently owned by TSX-Listed SEMAFO Inc.
Dr. Kenneth G. Thomas ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾ Canada	Non-Executive Director October 31, 2018	Shares: 0 Listed Options: 0 Unlisted Options: 2,180,049 Class C Performance Shares: 0	Director, Continental Gold Inc, since 2015. Former Director Avalon Advanced Minerals Inc., from 2014 to 2019 and Candente Gold Corp., from 2012 to 2019.
Trevor Schultz ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁷⁾	Non-Executive Director January 2, 2019	Shares: 0 Listed Options: 0 Unlisted Options: 2,180,049 Class C Performance Shares: 0	Former Director, Centamin Egypt, from 2008 to 2018.
Jon Grygorcewicz ⁽⁶⁾	CFO	Shares: 0 Listed Options: 20,000 Unlisted Options: 0 Class C Performance Shares: 0	CFO, Latin Resources Ltd since 2017 and Oakdale Resources Ltd since May 2019. Former CFO Venture Minerals Ltd from 2012 to 2014 and Politis Central Services Group from 2017 to 2018.

Notes:

- (1) Member of the Audit and Risk Committee.
- (2) Member of the Remuneration and Nomination Committee.
- (3) Member of the Health, Safety and Environmental Committee.
- (4) Member of the Technical Committee

- (5) On October 31, 2018, Dr. Kenneth G. Thomas was appointed as a director.
- (6) On October 31, 2018, Jon Grygorcewicz was appointed as CFO.
- (7) On January 2, 2019, Trevor Schultz was appointed as a director.

- (8) Mr. Easah is the sole shareholder of Savannah Mining Ghana Limited, which holds the 60 outstanding Class C Performance Shares. For a description of the conversion conditions for the Class C Performance Shares, see “Description of Capital Structure” above.

Based on the disclosure available on the System for Electronic Disclosure by Insiders (“SEDI”), as of the date of this AIF, the directors and executive officers of the Corporation, as a group, beneficially owned, or controlled or directed, directly or indirectly, a total of 15,699,380 Ordinary Shares, representing approximately 4.05% of the total number of Ordinary Shares outstanding.

Set forth below is a brief description of the background of the directors and executive officers of the Corporation, including a description of each individual’s principal occupation(s) during the past five years.

Kevin Tomlinson – Director, Non-Executive Chairman

Kevin Tomlinson possesses over 30 years’ experience in Geology and Finance with enormous experience within the Toronto, Australian and London Stock Exchanges.

Mr. Tomlinson holds a MSc in Structural Geology and a Graduate Diploma in Finance. From 1998 Mr. Tomlinson has worked in the finance sector raising over US\$2 billion in equity.

Mr. Tomlinson was previously Managing Director of Investment Banking at Westwind Partners/Stifel Nicolaus where he advised a number of resource companies including Centamin Plc, Platinum Group Metals, Trelawney Resources and Allied Gold. He was also an integral part of the team raising finance for Osisko Mining and Semafo Inc.

Mr. Tomlinson was Director of Natural Resources at Williams de Broë and Head of Research for Hartleys Ltd in Australia. Recent Directorships include Centamin Plc (producer), Orbis Gold Limited (developer) and Medusa Mining (producer) where he chaired the company through growth from \$30 million to over \$700 million market capitalisation in less than four years.

Mr. Tomlinson is a Fellow of the Institute of Directors, a Fellow of the Chartered Institute for Securities & Investment and a Liveryman of the Worshipful Company of International Bankers.

Arthur (Archie) Koimtsidis – Co-founder, Managing Director

Archie Koimtsidis has 27 years’ experience in business in Ghana and has for the last 23 years been involved in all facets of gold exploration, discovery, production and refining in West Africa and South America. His most recent appointment prior to joining Cardinal was as the Deputy Country Manager of Ghana for PMI Gold Limited, a joint TSXV- and ASX-listed company. During this time, he was responsible for all field operational matters including coordination of exploration, drilling programs and human resource management in relation to the Corporation’s projects in Ghana.

Mr. Koimtsidis has been instrumental in acquiring the Ghanaian Projects on behalf of Cardinal and has a unique knowledge and understanding of geopolitical and operational matters relating to resource projects in West Africa.

Malik Easah – Co-founder, Executive Director

Malik Easah is the principal of successful alluvial mining operations in the North West Adansi Gold Obotan concession and is currently developing additional payable gold permits within the Ashanti and Nangodi Gold belts of Ghana.

Mr. Easah specializes in the manufacture of alluvial gold wash plants and recovery equipment and is regarded as an authority in the development of alluvial mining operations in Ghana. Mr. Easah has worked in the mining industry in Ghana for over 12 years.

Michele Muscillo – Non-Executive Director

Michele Muscillo is a Partner with HopgoodGanim Lawyers in Australia. Mr Muscillo has practised exclusively in corporate law for over 15 years and has extensive experience in capital markets transactions, including the negotiation of significant commercial contracts and agreements. Mr Muscillo has acted on numerous IPOs and debt and equity raisings, and has advised both bidders and targets on public market control transactions. His key areas of practice include Corporate Advisory and Governance, Capital Markets, Resources and Energy.

Mr Muscillo is currently a Non-Executive Director with Aeris Resources Limited (ASX:AIS), Xanadu Mines Limited (ASX: XAM) and Mako Gold Limited (ASX:MKG). Formerly, Mr. Michele Michele was also Non-Executive Director of Orbis Gold Limited which is currently owned by TSX-Listed SEMAFO Inc. (TSX:SMF).

Dr Kenneth G. Thomas – Non-Executive Director

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 six years, 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.

Dr. Thomas 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. He is an experienced public company director, including his current appointment as director of Continental Gold (TSX: CNL).

Trevor Schultz – Non-Executive Director

Mr Schultz has over 45 years in the mining industry with experience in project development, construction and operations. Between 2008 and 2018 he was an Executive and Non-Executive Director with Centamin Egypt and was responsible for the construction of the 12Mtpa processing plant which has a similar flowsheet to Cardinal's proposed flowsheet.

Prior to this, he served as Chief Operating Officer at Ashanti Goldfields Corporation (now Anglo Gold Ashanti Ltd) and was a resident of Ghana for 6 years. Furthermore, he worked for BHP in Australia and America and in South Africa with Anglo American Corporation.

Trevor has an MA in Economics from Trinity College, England (1968), an MSc in Mining Engineering, from

Witwatersrand University, South Africa (1972) and an Advanced Management Programme Diploma from Harvard Business School, USA (1986).

Jon Grygorcewicz – CFO

Mr. Grygorcewicz has 30 years financial management experience, gained in senior financial management positions on the ASX and Singapore Exchange Limited (SGX).

Mr. Grygorcewicz 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.

In prior CFO roles he gained extensive financial and commercial experience within the heavy engineering services and manufacturing industries across operations spanning Australia and South East Asia.

In his position at Venture Minerals Limited he was an integral part of the development team in bringing the Riley Iron Ore Project to the brink of production and previously successfully transitioned Focus Minerals Limited's Coolgardie Gold Projects through the respective open pit and underground mining development phases to become, at the time, a substantial Australian gold producer.

Sarah Shipway – Company Secretary

Sarah Shipway has been involved with the Corporation since inception. Prior to joining Cardinal, Ms. Shipway was an accountant. Ms. Shipway holds a Bachelor of Commerce from Murdoch University and is a member of the Institute of Chartered Accountants. Ms. Shipway is also non-executive director for Beacon Minerals Limited and St. George Mining Limited.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

No director or executive officer of the Corporation, nor any personal holding company of any director or executive officer of the Corporation, is, as at the date hereof, or was, within 10 years before the date hereof, a director, chief executive officer or chief financial officer of any company (including the Corporation) that:

- (a) was subject to a cease trade order, an order similar to a cease trade order, or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days, that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or
- (b) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days, that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer, and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

Other than as set out below, no director or executive officer of the Corporation or shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation, nor any personal holding company of any such individual:

- (i) is, as at of the date hereof, or has been within 10 years before the date hereof, a director or executive officer of any company (including the Corporation) that, while that person was acting in that capacity,

- or within a year of such individual ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
- (ii) has, within the 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of such individual; or
 - (iii) has been subject to (i) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority, or has entered into a settlement agreement with a securities regulatory authority, or (ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

Kevin Tomlinson served as a director of Maudore Minerals Ltd. (“**Maudore**”) until May 22, 2014, and of Besra Gold Inc. (“**Besra**”) until April 10, 2015. On September 8, 2014, Maudore announced that it had filed a notice of intention to make a proposal under the *Bankruptcy and Insolvency Act* (the “**BIA**”). On March 2, 2015, Maudore announced that the Superior Court of the Province of Quebec (the “**Court**”) had granted an order whereby Maudore’s proposal to creditors, which had initially been filed under the BIA, had been continued under the CCAA and that the Court had granted an initial stay of proceedings under the CCAA. Maudore made further announcements on March 27, 2015, June 19, 2015, September 22, 2015 and February 29, 2016 that the Court had granted extensions of the stay of proceedings under the CCAA. On May 16, 2016, Maudore announced that Maudore had, under the BIA, made an assignment of its property to a trustee for the benefit of its creditors generally. On October 19, 2015, Besra announced that its board of directors had decided to file a notice of intention to make a proposal (the “**Notice of Intention**”) under the BIA. On January 29, 2016, Besra announced that, through its appointed proposal trustee, it had submitted a proposal (the “**Proposal**”) to its creditors in accordance with the Notice of Intention to make a proposal. The Proposal was subsequently amended on March 13, 2016 (the “**Amended Proposal**”). A meeting of creditors (the “**Meeting**”) was initially called for March 17, 2016 and was adjourned until April 7, 2016 in order to permit creditors to consider the Amended Proposal. On April 7, 2016, Besra announced that at the Meeting, the Amended Proposal had been approved by a majority of unsecured creditors holding in excess of two-thirds of the value of proven unsecured creditor claims. The Amended Proposal was approved by the Ontario Superior Court of Justice (Commercial List) on May 17, 2016. On December 17, 2014, the OSC issued a temporary cease trade order for the securities of Besra, and on December 29, 2014, the OSC issued a further cease trade order directing that trading in the securities of Besra cease until further order by the Director (together, the “**Besra Cease Trade Order**”). The British Columbia Securities Commission issued a cease trade order on December 17, 2014; the Autorité des marchés financiers issued a cease trade order on January 5, 2015; and the Alberta Securities Commission issued a cease trade order on March 30, 2015. The OSC partially revoked the Besra Cease Trade Order on March 4, 2015 to permit trades and acts in furtherance of trades in connection with a proposed private placement financing by Besra for proceeds of up to C\$15 million. On April 7, 2015, the first tranche of such financing, with gross proceeds of C\$2 million, was completed. Besra received no further proceeds from such financing. On October 14, 2016, the OSC issued an order (the “**October 2016 Order**”) partially revoking the Besra Cease Trade Order to permit trades and acts in furtherance of trades that are necessary for and are in connection with the Amended Proposal and a \$10 million tranche of an exit financing. The October 2016 Order was subsequently varied by the OSC on November 18, 2016, and Besra announced on November 18, 2016 that it had closed a C\$10 million “exit financing” and intended to deliver to the Proposal trustee the consideration necessary to satisfy the elections made by creditors under the Proposal. Besra expects that once all requirements of the Proposal have been satisfied, the Proposal trustee will issue a certificate of full performance. In October 2014 trading in the common shares of Besra on the ASX was suspended and Besra’s common shares were delisted

from the TSX because of Besra's failure to file its financial statements for the year ended June 30, 2014.

Conflicts of Interest

To the best of the Corporation's knowledge, and other than as disclosed in this AIF, there are no known existing or potential material conflicts of interest between the Corporation or a subsidiary of the Corporation and any director or officer of the Corporation or a subsidiary of the Corporation, except that certain of the directors and officers serve as directors and officers of other public companies, and therefore it is possible that a conflict may arise between their duties as a director or officer of the Corporation and their duties as a director or officer of such other companies. See "*Description of the Business – Risk Factors – Risks Associated with Conflicts of Interest*".

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The Corporation is not a party to, and its property is not the subject of, any material legal proceedings, and the Corporation was not a party to, and its property was not the subject of, any material legal proceedings during the Corporation's most recently completed financial year. The Corporation is not aware of any contemplated legal proceedings.

During the most recently completed financial year, no penalties or sanctions were imposed against the Corporation by a court relating to securities legislation or by a securities regulatory authority, no penalties or sanctions were imposed by a court or regulatory body against the Corporation that would likely be considered important to a reasonable investor in making an investment decision, and no settlement agreements were entered into by the Corporation before a court relating to securities legislation or with a securities regulatory authority.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as disclosed in this AIF, the Corporation is not aware of any material interest, direct or indirect, of any director or officer of the Corporation, any person or company that beneficially owns, or controls or directs, directly or indirectly, more than 10% of the Corporation's voting securities, or any associate or affiliate of any such persons or companies in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Corporation.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Ordinary Shares and the Listed Options of the Corporation in Australia is Computershare Investor Services Pty Ltd ("**Computershare (Australia)**"), and the Ordinary Shares and Listed Options are transferable at the offices of Computershare (Australia) in Perth.

The transfer agent and registrar for the Ordinary Shares of the Corporation in Canada is Computershare Investor Services Inc. ("**Computershare (Canada)**"), and the Ordinary Shares are transferable at the offices of Computershare (Canada) in Toronto.

AUDIT COMMITTEE AND RELATED INFORMATION

The Audit and Risk Committee's Charter

The responsibilities and duties of the audit and risk committee (the "**Audit and Risk Committee**") of the Board are set out in the Audit and Risk Committee's Charter (the "**Charter**"), the text of which is set forth in Appendix A to this AIF.

Composition of the Audit and Risk Committee

The Audit and Risk Committee is comprised of Michele Muscillo (Chair), Dr. Kenneth G. Thomas and Trevor Schultz. The following chart sets out the Corporation's assessment of the independence, financial literacy and relevant educational background and experience supporting such financial literacy of each member of the Audit and Risk Committee. Additional information about relevant experience of each member of the Audit and Risk Committee can be found in such member's biography under the heading "*Directors and Executive Officers*" above.

Name	Independent ⁽¹⁾	Financially Literate ⁽²⁾	Relevant Education and Experience
Michele Muscillo	Yes	Yes	Bachelor of Laws Chair of audit committee of Aeris Resources Limited and Xanadu Mines Limited.
Dr. Kenneth G. Thomas	Yes	Yes	Over 45 years' experience in the mining industry in project development, construction and operations. Dr. Thomas has held numerous senior roles during his career and has been involved in compensation matters throughout this time.
Trevor Schultz	Yes	Yes	Over 45 years' experience in the mining industry. He has experience in project development, construction and operations. Mr. Schultz has experience in numerous senior roles with involvement in a number of compensation matters.

Notes:

- (1) To be considered independent, a member of the Audit and Risk Committee must not have any direct or indirect “material relationship” with the Corporation. A “material relationship” is a relationship which could, in the view of the Board, be reasonably expected to interfere with the exercise of a member’s independent judgment.
- (2) To be considered financially literate, a member of the Audit and Risk Committee must have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Corporation’s financial statements.

Reliance on Certain Exemptions

At no time since the commencement of the Corporation’s most recently completed financial year, has the Corporation relied on the exemption in section 2.4 of NI 52-110 (*De Minimis Non-audit Services*), the exemption in section 3.2 of NI 52-110 (*Initial Public Offerings*), the exemption in subsection 3.3(2) of NI 52-110 (*Controlled Companies*), the exemption in section 3.4 of NI 52-110 (*Events Outside Control of Member*), the exemption in section 3.5 of NI 52-110 (*Death, Disability or Resignation of Audit Committee Member*), the exemption in section 3.6 of NI 52-110 (*Temporary Exemption for Limited and Exceptional Circumstances*) or an exemption from NI 52-110, in whole or in part, granted under Part 8 of NI 52-110 (Exemptions).

Audit Committee Oversight

At no time since the commencement of the Corporation’s most recently completed financial year has a recommendation of the Audit and Risk Committee to nominate or compensate an external auditor not been adopted by the Board.

Pre-Approval Policies and Procedures

The Corporation has adopted policies and procedures with respect to the pre-approval of audit and permitted non-audit services to be provided by its external auditor as set forth in the Charter. It is expected that the Audit and Risk Committee will approve the provision of a specified list of audit and permitted non-audit services that the Audit and Risk Committee believes to be typical, reoccurring or otherwise likely to be provided by the Corporation’s external auditor during the current fiscal year.

External Auditor Service Fees

The following table provides detail in respect of audit, audit related, tax and other fees paid by the Corporation to the external auditors for professional services:

Reporting Period	Audit Fees ⁽¹⁾	Audited-Related Fees ⁽²⁾	Tax Fees ⁽³⁾	All Other Fees ⁽⁴⁾
June 30, 2019	\$71,668	Nil	\$5,660	\$36,050
June 30, 2018	\$67,143	Nil	\$4,400	\$35,295

Notes:

- (1) “Audit Fees” include the aggregate fees billed by the Corporation’s external auditor for the audit of the annual financial statements and other regulatory audits and filings.

- (2) "Audit-Related Fees" include the aggregate fees billed for assurance and related services by the Corporation's external auditor that are reasonably related to the performance of the audit or review of the Corporation's financial statements but not included in "Audit Fees".
- (3) "Tax Fees" include the aggregate fees billed for professional services rendered by the Corporation's external auditor for tax compliance, tax advice and tax planning.
- (4) "All Other Fees" include the aggregate fees billed for products and services provided by the Corporation's external auditor, other than as set out under the headings "Audit Fees", "Audit Related Fees" and "Tax Fees".

MATERIAL CONTRACTS

During the financial year ended June 30, 2019, the Corporation (together with its wholly owned subsidiaries) entered into a credit agreement with Sprott Private Resource Lending (Collector), LP with respect to a US\$25 million senior secured credit facility in favour of the Corporation, as borrower (the "**Credit Facility**"). The Credit Facility was entered into to provide the Corporation with working capitals to advance the Namdini Gold Project. Amounts drawn by the Corporation under the Credit Facility bear interest at a floating rate equal to 7.75% per annum plus the greater of (i) LIBOR and (ii) 1.00%, per annum, calculated and compounded monthly on the last day of every month, and be payable on the last business Day of each month. The Credit Facility matures on February 28, 2021. The Credit Facility is secured by: (i) a first priority encumbrance granted by the Corporation and each of its wholly-owned subsidiaries, being Cardinal Mining Services Limited, Cardinal Namdini Mining Limited, Cardinal Resources Ghana Limited and Cardinal Resources Subranum Limited (the "**Subsidiaries**") in favour of Sprott; (ii) a guarantee of the obligations of the Corporation as borrower by each of the Subsidiaries; and (iii) a pledge by the Corporation of the shares of each of the Subsidiaries via a share charge agreement under the laws of Ghana to Sprott. In connection with the completion of the Credit Facility, the Corporation agreed to issue to Sprott and its affiliates 4,250,000 ordinary shares of the Corporation on a private placement as a work fee.

INTERESTS OF EXPERTS

The following persons or companies are named as having prepared or certified a report, valuation, statement or opinion described or included in a filing, or referred to in a filing, made by the Corporation under National Instrument 51-102 – *Continuous Disclosure Obligations* of the Canadian Securities Administrators during, or relating to, the financial year ended June 30, 2018, and whose profession or business gives authority to the report, valuation, statement or opinion made by the person or company:

- Glenn Turnbull, MAusIMM (CP) of Golder Associates Pty Ltd.;
- Marc LeVier, MMSA (QP) of K. Marc LeVier & Associates, Inc.;
- Nicolas Johnson, MAIG of MPR Geological Consultants Pty Ltd.; and
- BDO (WA) Pty Ltd.

To the best knowledge of the Corporation, the persons and companies referenced above each hold less than 1% of any outstanding securities of the Corporation, or of any associate or affiliate of the Corporation.

None of the persons referenced above or directors, officers or employees of a person or company referenced above is or is expected to be elected, appointed or employed as a director, officer or employee of the

Corporation or of any associate or affiliate of the Corporation.

ADDITIONAL INFORMATION

Additional information relating to the Corporation can be found under the Corporation's profile on the SEDAR website at www.sedar.com. Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, if applicable, is contained in the Corporation's information circular for its most recent annual meeting of shareholders. Additional financial information is provided in the Corporation's audited consolidated financial statements and management's discussion and analysis for its most recently completed financial year.

APPENDIX A - AUDIT AND RISK COMMITTEE CHARTER

1. ROLE

The role of the Audit and Risk Committee is to assist the Board in monitoring and reviewing any matters of significance affecting financial reporting and compliance. This Charter defines the Audit and Risk Committee's function, composition, mode of operation, authority and responsibilities.

2. COMPOSITION

The Board will adhere to the following composition requirements for the Committee.

- (a) The Committee must comprise at least three members.
- (b) All members of the Committee must be non-executive Directors.
- (c) Except as permitted by NI 52-110, all members of the Committee must be independent in accordance with the criteria set out in Annexure A.
- (d) The Board will appoint members of the Committee. The Board may remove and replace members of the Committee by resolution.
- (e) All members of the Committee must be able to read and understand financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and level of complexity of the issues reasonably expected to be raised by the Corporation's financial statements.
- (f) The Chairman of the Committee shall have leadership experience and a strong finance, accounting or business background and will not be the Chair of the Board.
- (g) The external auditors, the other Directors, the Managing Director, Chief Financial Officer, Company Secretary and other senior executives may be invited to Committee meetings at the discretion of the Committee.

3. PURPOSE

The primary purpose of the Committee is to assist the Board in fulfilling its statutory and fiduciary responsibilities relating to:

- (a) the quality and integrity of the Corporation's financial statements, accounting policies and financial reporting and public disclosure practices;
- (b) compliance with all applicable laws, regulations and company policy;
- (c) the effectiveness and adequacy of internal control processes;
- (d) the performance of the Corporation's external auditors and their appointment and removal;
- (e) the independence of the external auditor and the rotation of the lead engagement partner;

- (f) the scope and adequacy of the external audit;
- (g) any proposal for the external auditor to provide non-audit services and whether it might compromise the independence of the external auditor;
- (h) the identification and management of business, economic, environmental and social sustainability risks; and
- (i) the review of the Corporation's risk management framework at least annually to satisfy itself that it continues to be sound and to determine whether there have been any changes in the material business risks the Corporation faces and to ensure that they remain within the risk appetite set by the Board.

A secondary function of the Committee is to perform such special reviews or investigations as the Board may consider necessary.

4. DUTIES AND RESPONSIBILITIES OF THE COMMITTEE

4.1 Review of Financial Reports

- (a) Review the appropriateness of the accounting principles adopted by management in the financial reports and the integrity of the Corporation's financial reporting.
- (b) Directly oversee the work of the external auditor engaged to prepare or issue an auditor's report and the results of the external audits of those reports.
- (c) Assess whether external reporting is adequate for shareholder needs.
- (d) Assess management processes supporting external reporting.
- (e) Establish procedures for receipt, retention and treatment of accounting complaints and confidential, anonymous submission by employees of the Corporation of complaints regarding questionable accounting or auditing matters.
- (f) Directly oversee the resolution of disagreements between management and the external auditor regarding financial reporting.
- (g) Review the impact of any proposed changes in accounting policies on the financial statements.
- (h) Review the financial statements, MD&A and annual and interim profit or loss press releases before the Corporation publicly discloses the information.
- (i) Ensure that, before the Board approves the Corporation's financial statements for a financial period, the Chief Executive Officer and Chief Financial Officer (or, if none, the person(s) fulfilling those functions) have declared that, in their opinion, the financial records of the Corporation have been properly maintained and that the financial statements comply with the appropriate accounting standards and give true and fair view of the financial position and performance of the Corporation and that the opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.
- (j) Ensure that adequate procedures are in place for the review of the Corporation's public

disclosure of financial information extracted or derived from its financial statements and periodically assess the adequacy of those procedures.

4.2 Relationship with External Auditors

- (a) Recommend to the Board (i) the external auditor to be nominated for the purpose of preparing or issuing an auditor's report or performing another audit, review or attestation services for the Corporation and (ii) the compensation of the external auditor.
- (b) Review performance, succession plans and rotation of lead engagement partner.
- (c) Approve the external audit plan and fees proposed for audit work to be performed.
- (d) Discuss any necessary recommendations to the Board for the approval of quarterly, half yearly or annual reports.
- (e) Review the adequacy of accounting and financial controls together with the implementation of any recommendations of the external auditor in relation thereto.
- (f) Meet with the external auditors at least twice in each financial year and at any other time the Committee considers appropriate.
- (g) Provide pre-approval of audit and non-audit services that are to be undertaken by the external auditor.
- (h) Ensure adequate disclosure as may be required by law of the Committee's approval of all non-audit services provided by the external auditor.
- (i) Review the Corporation's public disclosure required by applicable securities laws concerning the audit committee and its members to ensure it is accurate and complete.
- (j) Ensure that the external auditor prepares and delivers an annual statement as to their independence which includes details of all relationships with the Corporation.
- (k) Receive from the external auditor their report on, among other things, critical accounting policies and alternative accounting treatment, prior to the filing of their audit report in compliance with applicable securities law requirements and/or the Corporations Act.
- (l) Ensure that the external auditor attends the Corporation's Annual General Meeting and is available to answer questions from security holders relevant to the audit.

4.3 Internal Audit Function

- (a) Monitor the need for a formal internal audit function and its scope.
- (b) Review and monitor the appointment or removal of the head of internal audit.
- (c) Assess the performance and objectivity of any internal audit procedures that may be in place.
- (d) Review risk management and internal compliance procedures.

- (e) Monitor the quality of the accounting function.
- (f) Review the internal controls of the Corporation via consideration of any comments from the Corporation's internal and/or external auditors and/or commissioning an independent report on the Corporation's internal controls.

4.4 Risk Management

- (a) Oversee the Corporation's risk management systems, practices and procedures to ensure effective risk identification and management and compliance with the Corporation's Risk Management Policy, internal guidelines and external requirements.
- (b) Assist in identifying and managing potential or apparent business, economic, environmental and social sustainability risks (if appropriate) that could adversely affect the Corporation's prospects currently and for future financial years.
- (c) Review the Corporation's Risk Management Policy at least annually to satisfy itself that it continues to be sound.
- (d) Review reports by management on the efficiency and effectiveness of the Corporation's Risk Management Policy and associated internal compliance and control procedures.

4.5 Other

- (a) The Committee will oversee the Corporation's environmental risk management, insurance and occupational health and safety processes.
- (b) The Committee will oversee procedures for whistleblower protection.
- (c) As contemplated by the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, and to the extent that such deviation or waiver does not result in any breach of the law, the Committee may approve any deviation or waiver from the "*Corporate code of conduct*". Any such waiver or deviation will be promptly disclosed where required by applicable law.
- (d) The Committee will monitor related party transactions.
- (e) The Committee will review and approve the Corporation's hiring policy regarding partners, employees and former partners and employees of the present and former external auditor of the Corporation.

5. MEETINGS

- (a) The Committee will meet at least twice in each financial year and additionally as circumstances may require for it to undertake its role effectively.
- (b) Meetings are called by the Secretary as directed by the Board or at the request of the Chairman of the Committee.
- (c) Where deemed appropriate by the Chairman of the Committee, meetings and subsequent approvals and recommendations can be implemented by a circular written resolution or

conference call.

- (d) A quorum shall consist of two members of the Committee. In the absence of the Chairman of the Committee or their nominees, the members shall elect one of their members as Chairman of that meeting.
- (e) Decisions will be based on a majority of votes with the Chairman having a casting vote.
- (f) The Committee Chairman, through the Secretary, will prepare a report of the actions of the Committee to be included in the Board papers for the next Board meeting.
- (g) Minutes of each meeting are included in the papers for the next full Board meeting after each Committee meeting.

6. SECRETARY

- (a) The Company Secretary or their nominee shall be the Secretary of the Committee and shall attend meetings of the Committee as required.
- (b) The Secretary will be responsible for keeping the minutes of meetings of the Committee and circulating them to Committee members and to the other members of the Board.
- (c) The Secretary shall distribute supporting papers for each meeting of the Committee as far in advance as possible.

7. RELIANCE ON INFORMATION OR PROFESSIONAL OR EXPERT ADVICE

Each member of the Committee is entitled to rely on information, or professional or expert advice, to the extent permitted by law, given or prepared by:

- (a) an employee of the Group whom the member believes on reasonable grounds to be reliable and competent in relation to the matters concerned;
- (b) a professional adviser or expert in relation to matters that the member believes on reasonable grounds to be within the person's professional or expert competence; or
- (c) another Director or officer of the Group in relation to matters within the Director's or officer's authority.

8. ACCESS TO ADVICE

- (a) Members of the Committee have rights of access to management and to the books and records of the Corporation to enable them to discharge their duties as Committee members, except where the Board determines that such access would be adverse to the Corporation's interests.
- (b) Members of the Committee may meet with the auditors, both internal and external, without management being present.
- (c) Members of the Committee may engage independent legal counsel or other advisers they consider necessary to assist them in carrying out their duties and responsibilities and set and

pay the compensation for any advisors employed by the Committee. Any costs incurred as a result of the Committee consulting an independent expert will be borne by the Corporation.

9. REVIEW OF CHARTER

- (a) The Board will conduct an annual review of the membership to ensure that the Committee has carried out its functions in an effective manner, and will update the Charter and Risk Management Policy as required or as a result of new laws or regulations.
- (b) The Charter and Risk Management Policy shall be made available to members on request, to senior management, to the external auditor and to other parties as deemed appropriate, will be posted to the Corporation's website and will be included, where required, in the Corporation's public disclosure documents.

10. REPORT TO THE BOARD

- (a) The Committee must report to the Board formally at the next Board meeting following from the last Committee meeting on matters relevant to the Committee's role and responsibilities.
- (b) The Committee must brief the Board promptly on all urgent and significant matters.

ANNEXURE A – DEFINITION OF INDEPENDENCE

An audit committee member is independent if he or she:

- (a) has no direct or indirect material relationship with the Corporation, being a relationship which could, in the view of the Corporation's board of directors, be reasonably expected to interfere with the exercise of a member's independent judgement; and
- (b) is free of any interest, position, association or relationship that might influence, or reasonably be perceived to influence, in a material respect his or her capacity to bring an independent judgement to bear on issues before the board and to act in the best interests of the entity and its security holders generally.

Material relationships

Subject to certain exemptions and further clarification set out in Canadian securities laws applicable to the Corporation, the following individuals are considered to have a material relationship with the Corporation:

- (a) an individual who (i) accepts, directly or indirectly, any consulting, advisory or other compensatory fee from the Corporation or any subsidiary entity of the Corporation, other than as remuneration for acting in his or her capacity as a member of the board of directors or any board committee, or as a part-time chair or vice-chair of the board or any board committee; or (ii) is an affiliated entity of the Corporation or any of its subsidiary entities,
- (b) an individual who is, or has been within the last three years, an employee or executive officer of the Corporation;
- (c) an individual whose immediate family member is, or has been within the last three years, an executive officer of the Corporation;

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- (d) an individual who:
- i. is a partner of a firm that is the Corporation's internal or external auditor,
 - ii. is an employee of that firm, or
 - iii. was within the last three years a partner or employee of that firm and personally worked on the Corporation's audit within that time;
- (e) an individual whose spouse, minor child or stepchild, or child or stepchild who shares a home with the individual:
- i. is a partner of a firm that is the Corporation's internal or external auditor,
 - ii. is an employee of that firm and participates in its audit, assurance or tax compliance (but not tax planning) practice, or
 - iii. was within the last three years a partner or employee of that firm and personally worked on the Corporation's audit within that time;
- (f) an individual who, or whose immediate family member, is or has been within the last three years, an executive officer of an entity if any of the Corporation's current executive officers serves or served at that same time on the entity's compensation committee; and
- (g) an individual who received, or whose immediate family member who is employed as an executive officer of the Corporation received, more than \$75,000 in direct compensation from the Corporation during any 12 month period within the last three years.

Examples of interests, positions, associations or relationships affecting independence

Examples of interests, positions, associations and relationships that might cause doubts about the independence of a director include if the director:

- (a) is, or has been, employed in an executive capacity by the Corporation or any of its child entities and there has not been a period of at least three years between ceasing such employment and serving on the board;
- (b) is, or has within the last three years been, a partner, director or senior employee of a provider of material professional services or a material consultant to the Corporation or any of its child entities;
- (c) is, or has been within the last three years, in a material business relationship (e.g. as a supplier or customer) with the Corporation or any of its child entities, or an officer of, or otherwise associated with, someone with such a relationship;
- (d) is a substantial security holder of the Corporation or an officer of, or otherwise associated with, a substantial security holder of the Corporation;
- (e) has a material contractual relationship with the Corporation or its child entities other than as a director;
- (f) has close family ties with any person who falls within any of the categories described above; or

- (g) has been a director of the Corporation for such a period that his or her independence may have been compromised.

In each case, the materiality of the interest, position, association or relationship needs to be assessed to determine whether it might interfere, or might reasonably be seen to interfere, with the director's capacity to bring an independent judgment to bear on issues before the Board and to act in the best interests of the Corporation and its security holders generally.