Ardea Resources Limited

QUARTERLY OPERATIONS REPORT

For the Quarter ended 31 December 2020

ASX & Media Release

21 January 2021

ASX Symbol

ARL

Ardea Resources Limited

Suite 2 / 45 Ord St
West Perth WA 6005

PO Box 1433
West Perth WA 6872

Telephone

+61 8 6244 5136

Email

ardea@ardearesources.com.au

Website

www.ardearesources.com.au

Directors

Mat Longworth
Non-Executive Chair

Andrew Penkethman
Managing Director & CEO

Ian Buchhorn
Executive Director

Executive Management

Sam Middlemas
Company Secretary & CFO

Matt Painter
General Manager Exploration

Issued Capital

Fully Paid Ordinary Shares
127,670,582

Directors/Employee Performance Rights
4,236,000

ABN 30 614 289 342

CORPORATE

Work programs on Ardea's Western Australian (WA) project portfolio, notably ongoing RC and diamond drilling, continue with no disruption from COVID-19.

Ardea remains debt free, with a tight capital structure and strong cash position with **$10.9M** at the end of the December Quarter.

The Company continues to consolidate its large WA project portfolio and focus on the development of the Goongarrie Nickel Cobalt Project (**GNCP**) and drilling of compelling nickel sulphide and gold exploration targets within Kalgoorlie Nickel Project (**KNP**) tenure. As part of this strategy, Ardea executed a Farm-in Joint Venture Agreement with gold producer Red 5 Limited on the Mt Zephyr/Darlot East Gold Projects and executed a Tenement Option Assignment and Variation Deed between a prospector and Metalicity Limited over the Mulga Plum tenements. Gold projects centred on Kalgoorlie Boulder are planned for spin-out in a new IPO.

DEVELOPMENT

Goongarrie Nickel Cobalt Project (GNCP)

- **Strategic Partner** process continues to attract strong interest as the inevitable nickel supply crunch draws closer with global vehicle manufacturers continuing to commit to Electric Vehicles. All well located nickel resources (laterite and sulphide) in ethical jurisdictions, such as Australia, are expected to require development to ensure sufficient nickel supply for lithium-ion batteries to help power a low-carbon future.
- **Goongarrie Line** resource update to be completed during the March Quarter 2021 with the Highway and Siberia resource updates also underway. These updates continue to target >1% nickel Leach Feed Grade (LFG) and plant optimisation complemented by mineralised neutraliser.

EXPLORATION

WA Nickel Sulphide and Gold

Exploration continues on Ardea's pipeline of compelling nickel-copper-PGE sulphide and gold targets with active exploration programs ensuring strong results.

- **Nickel Sulphide** – Initial Emu Lake diamond drill hole completed and four historic holes cleaned out. All five holes have been cased so that comprehensive down-hole electromagnetic surveys can be completed over a prospective strike length of approximately 1.2km where high grade nickel sulphides have been identified in historic drilling[2]. Additional geophysics and drilling planned on other compelling nickel sulphide targets.
- **Bardoc Tectonic Zone Gold** – Lily Albany and Zeus gold discoveries confirmed and reported to the WA mines department (DMIRS) with significant gold mineralisation below shallow transported cover, including[1]:
  - Lily Albany AANR0008: **10m at 3.55g/t Au** from 40m; and
  - Zeus ABFR0303: **10m at 12.97g/t Au** from 42m.
- **Excellent Metallurgical Results** from the Lily Albany discovery on the Aphrodite North Line with overall gold extractions of 95.1% and no refractory gold issues or deleterious contaminants.
- **CSIRO study of Critical Minerals/gold within GNCP continues.**

[1] ARL ASX releases 29 October and 9 November 2020 [2] ARL ASX release 30 September 2020

December Quarter, 2020

Nickel Sector Commentary

Governments around the world continue to commit to a lower carbon future which includes commitments to Electric Vehicles (EV) and energy storage which are both intrinsically linked to lithium-ion batteries (LIB). For example, the United Kingdom is one of the most recent countries within Europe to ban petrol and diesel vehicles from 2030 and from 2035, hybrid vehicles will also not be allowed. With recent US political change, the US is expected to adopt European-style EV policies. North American and European auto manufacturers are expected to challenge current PRC leadership and supply chain dominance in the EV sector, seeing the nickel price continue to appreciate from current levels of approximately US$18,000 per tonne.

Nickel is an essential mineral component in LIBs, as it helps provide critical journey range and battery life. Retail consumers continue to demand supply chain transparency to ensure sustainable, ethically sourced minerals are used in goods that they purchase with this factor especially relevant to the LIB supply chain where essential mineral components, such as nickel and cobalt, need to be ethically sourced.

With Ardea's Kalgoorlie Nickel Project (KNP) hosting one of the largest nickel-cobalt resources in the developed world, **773Mt at 0.7% nickel and 0.05% cobalt (5.5Mt of contained nickel metal and 405kt of contained cobalt metal)**†, Ardea is well placed to provide essential supplies of ethically sourced nickel and cobalt, along with other Critical Minerals (notably scandium and the Rare Earths neodymium and cerium).

1. GOONGARRIE NICKEL COBALT PROJECT

The Goongarrie Nickel Cobalt Project (GNCP) is located 70km northwest of the mining city of Kalgoorlie-Boulder and is Ardea's most advanced development project, within the broader Kalgoorlie Nickel Project (Figure 1 and 2). GNCP resources extend over 25km of strike and are located on granted mining leases within a single consolidated operation (Figure 1) with Native Title Agreement in place with tenure controlled 100% by Ardea, with no non-gold encumbrances. The project also has mobile coverage and ready access to high quality infrastructure with the Goldfields Highway, rail line and power infrastructure passing through the project area (Figure 3) and two port options serviced by the road and rail network. The Goldfields gas pipeline is located some 30km to the east (Figure 3).

Feasibility Programs

Ardea's "**WINNER**" (Water, In-pit Neutraliser and Nickel Enhanced Reserve study) strategy is aimed at adding further value to the development of the GNCP and supporting resources within the KNP. The upcoming Goongarrie Line resource update will be another large step forward in this initiative and in addition to nickel and cobalt resources will document the scandium, manganese and aluminium components. Follow-up open pit optimisations will target >1% nickel Leach Feed Grade (LFG) and plant optimisation complemented by mineralised neutraliser. Neutraliser that can be sourced during open pit mining at Goongarrie is considered a large advantage over peer projects, as it reduces the consumables that need to be purchased and transported to site which helps reduce carbon emissions and lowers operating cost.

The aim is to optimise plant feed grades to a 2Mtpa HPAL plant exceeding 1% nickel for at least 15 years. Options such as developing a second GNCP 2Mtpa HPAL train will also be considered, dependent upon the production requirements of the successful Strategic Partner.

Ardea is in a unique position within Australia of having this resource optionality due to the large size and exceptional quality of the nickel and cobalt resources, facilitating high grading and selective recovery of key geo-metallurgical mineralisation types.

---

† See Appendix 1 for resource breakdown, last disclosed in Ardea 2019 Annual Report, ASX Release 24 October 2019.
Per Goongarrie Expansion Study ASX release, 24 July 2018. All the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continue to apply and have not materially changed.

For personal use only

For personal use only

Resource Modelling

The Goongarrie Line resource update is due to be completed in the March Quarter 2021 and will continue to confirm that the GNCP hosts one of the world's largest nickel-cobalt deposits which extends over 25km of strike. Highway resource estimation work continues with the deposit a potential high grade satellite ore source for a process plant located at the GNCP, as it is located only 30km north, with ready access via the sealed Goldfields Highway.

Other KNP satellite deposits within short haulage distance of the planned GNCP High Pressure Acid Leach (HPAL) process plant, are also being appraised for resource update and then open pit optimisation to define selective high-grade (>1% nickel) plant feed, and include Siberia, Bulong and Kalpini.

High Grade Mine Schedule

Goongarrie and Highway will be included in the Life of Mine (LOM) plan and updated mining study once the Highway resource update has been completed, with the aim of maintaining HPAL feed grades over 1% nickel.

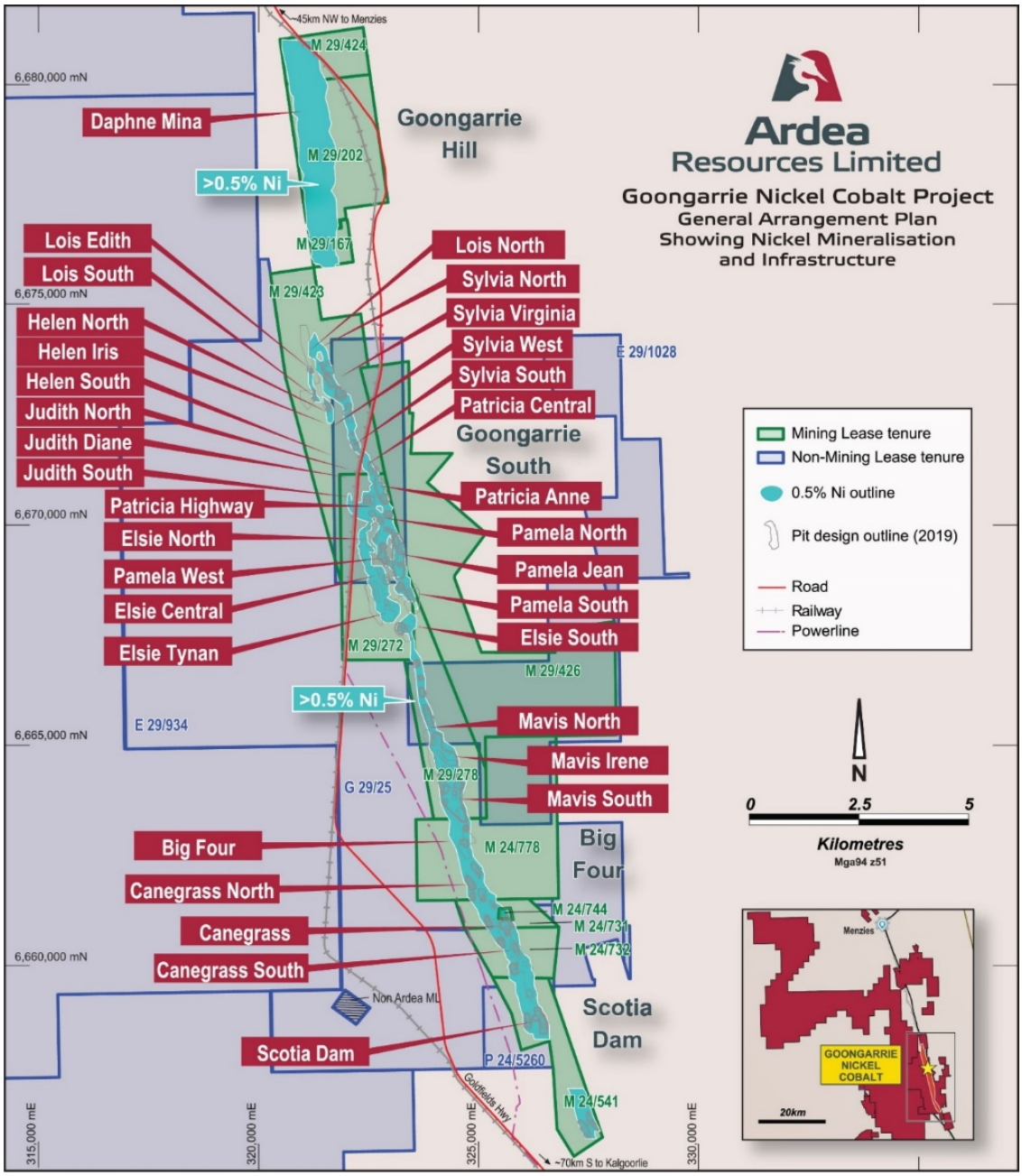


Figure 1: GNCP general arrangement plan highlighting the extensive zones of nickel mineralisation and current open pit mine designs at Goongarrie South, Big Four and Scotia Dam. Projection GDA94 MGA94 Zone 51.

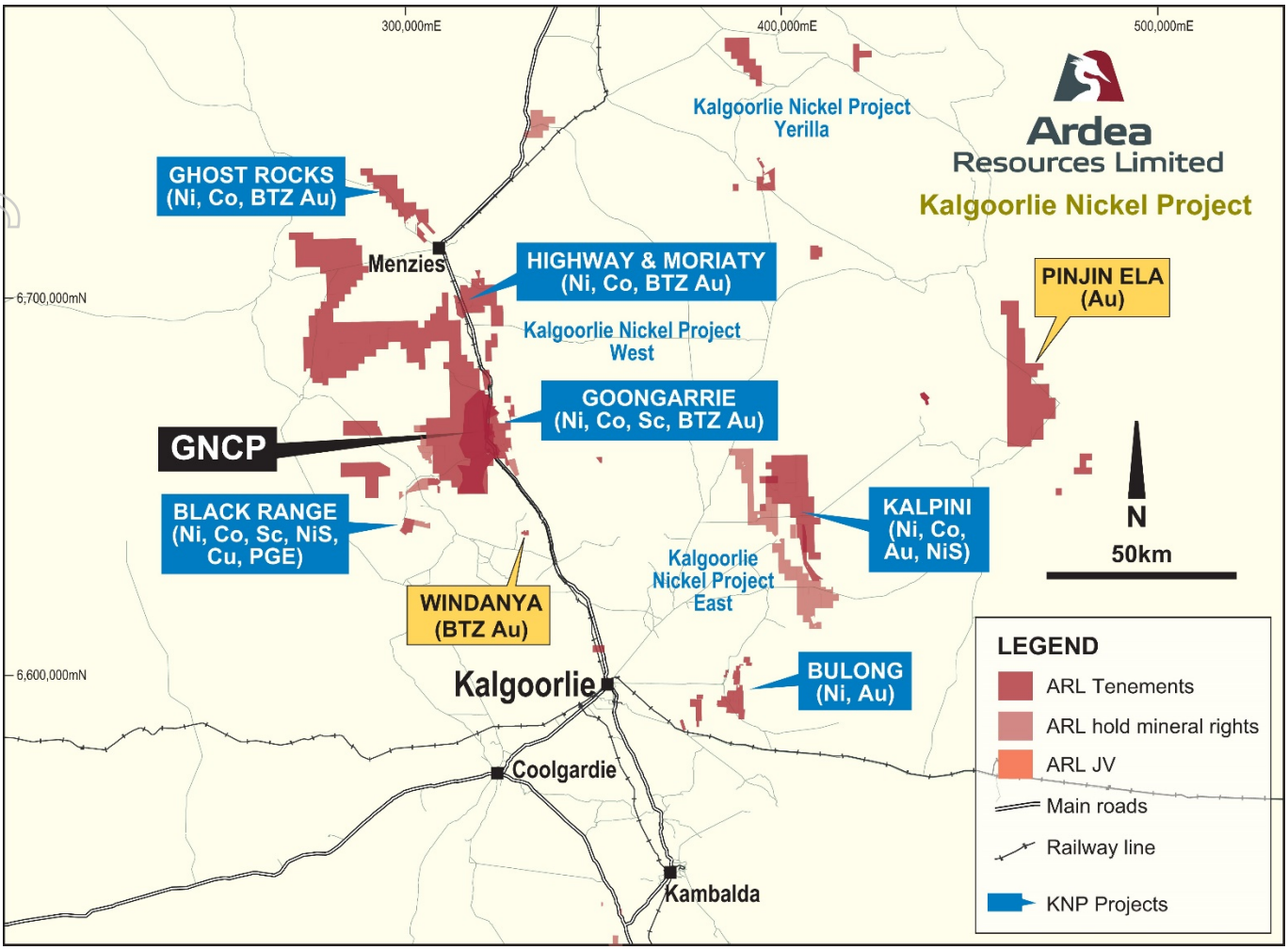


Figure 2: KNP location and infrastructure plan. Projection GDA94 MGA94 Zone 51.

Figure 3: Aerial image of Ardea's GNCP looking south, showing road and rail infrastructure within the project and the benign semi-arid environment, ideal for project development.

For personal use only

For personal use only

Processing Research and Development

Within Ardea's KNP tenure the priority Research and Development (R&D) focus continues upon the Critical Minerals essential for the new age technologies used in limiting carbon emissions, such as the Electric Vehicle (EV), Static Storage Battery (SSB) and wind-turbine sectors.

Highly-sought Critical Minerals potentially within the KNP lateritic enrichment profile include:

- Nickel-manganese-cobalt (NMC) content in LIB precursor cathodes;
- EV electric motor REE magnet metals notably Nd-Pr, KNP has common Ce, and potential for Dy, La, Tb.
- Scandium for scandium-aluminium lightweight-high strength EV chassis;
- High Purity Alumina (HPA) for LIB separators, and sapphire glass in EVs and mobile devices such as phones and computers;
- Vanadium for SSBs;
- Critical Minerals targets identified during KNP R&D include:
  - Ba, Cr, Ga, In, Mo, Te, Ti, W, Y, Zr; and
  - Extra PGEs - Ru, Rh, Os (due to excessive assay cost, using Pt-Pd as a pathfinder in pulp re-assay).

Critical Minerals research and development is predicated on the Ardea multi-element assay suite used in all sampling programs. The main R&D focus for the Company continues to be searching the archived Ardea drilling sample pulps for re-assay for Critical Minerals (notably REE co-products and fertile nickel sulphide multi-element ratios for PGEs).

During the Quarter, the Kalpini, Bulong and Yerilla tenure have been the REE R&D focus, with some 4,000 pulp re-assays identified in the initial review. The GNCP resource update will include a maiden scandium component which reiterates the value that can be added from Ardea's R&D work programs. Additional Critical Mineral opportunities will continue to be assessed within Ardea's KNP tenure.

Modelling of the GNCP flowsheet has identified likely high-scandium residues as a feedstock for a scandium refinery.

Critical Minerals

Ardea continues to engage with the Commonwealth Critical Minerals Facilitation Office and other State and Federal agencies. Meetings with various industry groups have also been undertaken, seeking to be an active research member.

During the Quarter, research continued on the Ardea drill hole data base, defining multiple Critical Minerals REE settings. The REE enrichment mirrors nickel-cobalt enrichment at the Magnesia Discontinuity within the regolith profile. The R&D programs have focussed on HPAL REE recovery (notably cerium, neodymium and praseodymium) in parallel circuit with scandium (using Ion Exchange).

Historic drill assay pulps continue to be systematically re-assayed throughout the KNP on a nominal 80mx80m to 160mx80m collar spacing. During the Quarter, KNP pulps continued to be sourced from Ardea's Kalgoorlie storage facility and will be submitted for assay in the current Quarter. Pulp assay results continue to be reviewed and interpreted, with multiple anomalous REE intercepts identified within Ni-Co zones at GNCP, Bulong, Kalpini and Siberia.

Hydrology

Nano-filtration studies using GNCP process water composition continue at a north American research laboratory.

Gold Studies

Bench-scale testwork using drill sample composites was completed for GNCP gold production targets at Big Four and Lily Albany.

For personal use only

2. WA NICKEL SULPHIDE AND GOLD PROJECTS

Ardea's WA mineral exploration tenure represents a strategic land holding in the Eastern Goldfields of WA, Australia's premier nickel sulphide and gold province. In addition to the laterite-hosted nickel-cobalt-scandium opportunities, Ardea's tenure also hosts significant "greenfields" nickel sulphide and gold mineralisation (Figure 2, 4, 5 and 12).

The following summary updates Ardea's main WA projects detailing work undertaken during the December 2020 Quarter.

Ardea gold strategy

Ardea's KNP nickel laterite deposits are localised upon crustal-scale Tectonic Zones (TZ), which structures control geological events from initial olivine komatiite rift volcanism (with nickel sulphide potential), epiclastic sedimentation, Layered Mafic Complex dolerite emplacement (with PGE potential), late-stage alkaline diorite intrusion (with REE potential) and finally through to the late-stage crustal convective cells responsible for orogenic gold deposition.

The TZs are exceptional greenfields gold targets. The Bardoc Tectonic Zone (BTZ) is the northern strike continuation of the Boulder Lefroy TZ, which hosts major gold camps at Kalgoorlie-Boulder (>80Moz gold), New Celebration (>3.2Moz) and St Ives (>6.5Moz).

Despite the obvious gold pedigree of Ardea's tenure, during its first 23 years, the KNP has been solely developed as a nickel-cobalt laterite project, with ownership and control successively by Heron Resources and then Vale Inco (PFS 2009). Until recently by Ardea, there had been no systematic modern gold exploration.

With Ardea's acquisition of the project in 2017, for the first time in two decades, systematic Critical Mineral and gold evaluation commenced, through Ardea's gold and multi-element pathfinder assay suite and detailed geophysical data interpretation to help "see" through the cover lake sediments and blanket laterite.

In terms of developing a gold exploration model, Ardea's approach has highlighted the presence of intense deformation, iron-rich dolerite and late-stage alkaline diorite intrusives within the GNCP Bardoc Tectonic Zone, all the key elements for significant gold mineralisation within Kalgoorlie-Boulder's Eastern Goldfields gold province.

Ardea will continue to advance its gold strategy and has defined well over 100 targets, which have been ranked and are being systematically explored. The immediate priority is on the top ranked gold targets at the GNCP, where all drilling information helps provide critical information to assist with siting future nickel project development infrastructure.

To assist in unlocking gold exploration opportunities within and below the regolith which masks the majority of prospective basement rocks in the Eastern Goldfields of WA, Ardea's collaborative research with the CSIRO is continuing, with a major focus on Critical Minerals/gold within the GNCP project tenure. Learnings from this research will be applied to further refine exploration methodology and enhance the opportunities for discovery success throughout Ardea's KNP tenure.

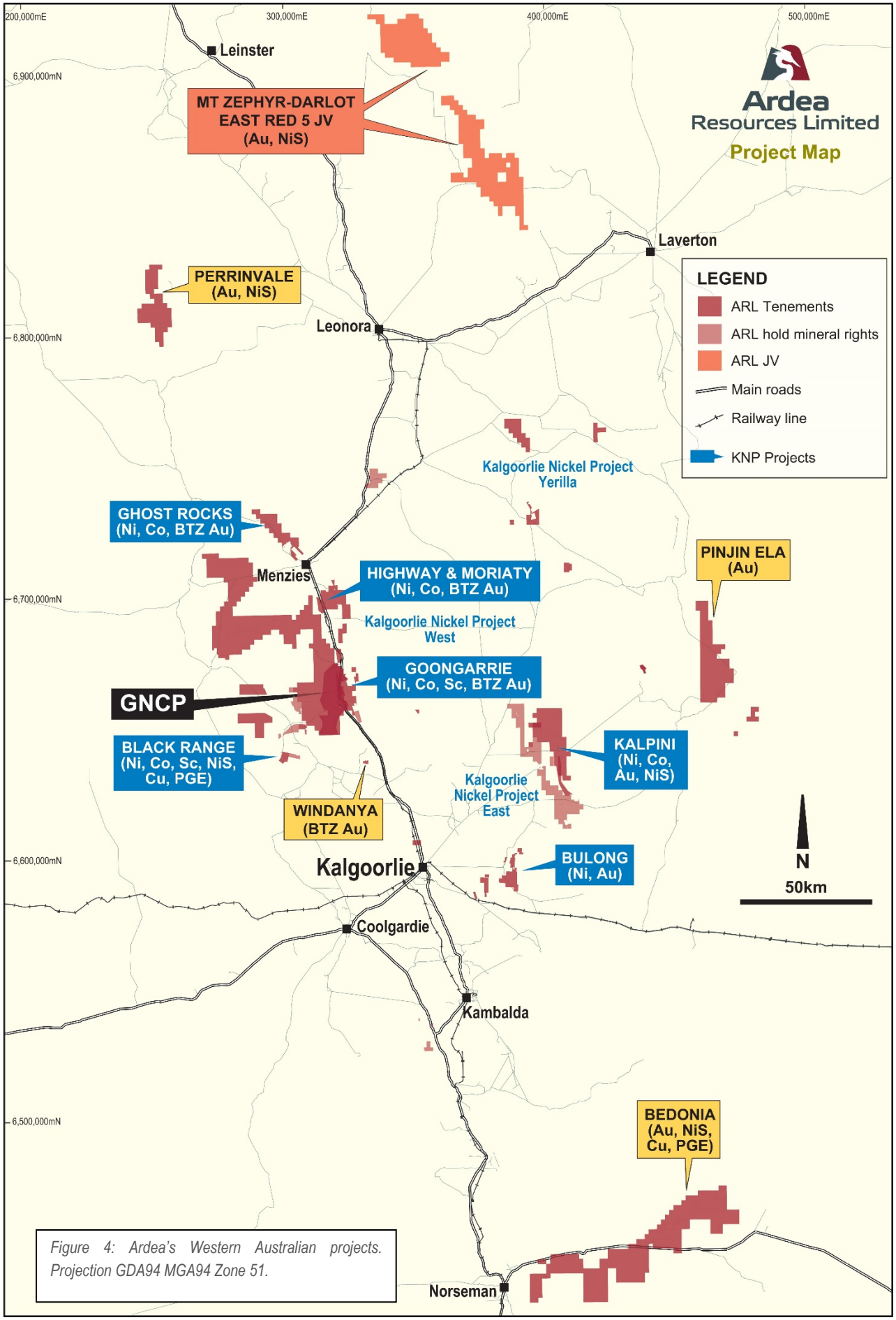


Figure 4: Ardea's Western Australian projects. Projection GDA94 MGA94 Zone 51.

For personal use only

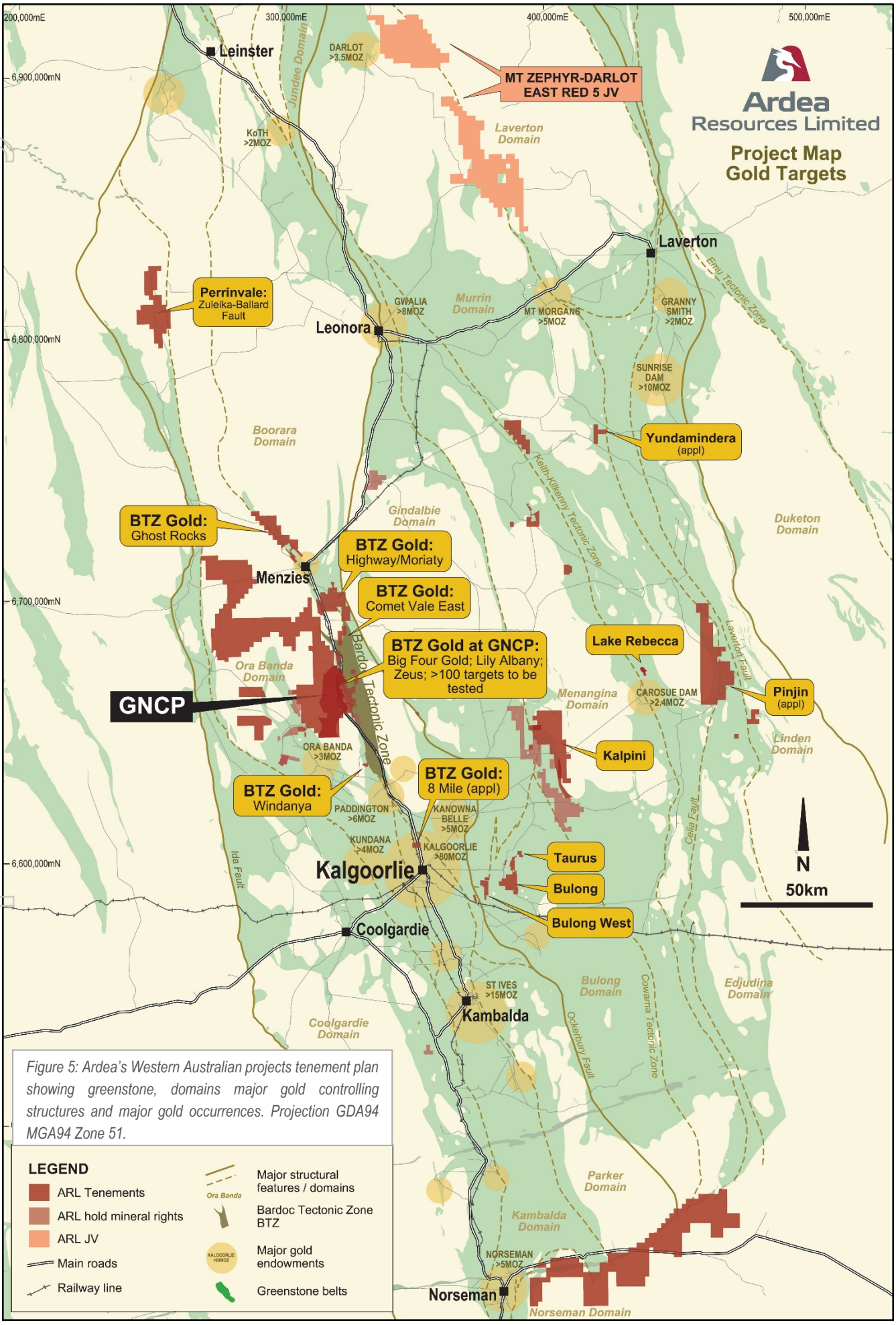


Figure 5: Ardea's Western Australian projects tenement plan showing greenstone, domains major gold controlling structures and major gold occurrences. Projection GDA94 MGA94 Zone 51.

For personal use only

For personal use only

Bardoc Tectonic Zone Gold

The BTZ is a major, gold-fertile, crustal-scale structure that transects the Kalgoorlie Terrane of the Eastern Goldfields. The regional shear/fault system strikes from Paddington in the south to northwest of Ghost Rocks in the north and extends over an approximate 125km total strike length. Approximately 65km of this regionally significant structural zone occurs within Ardea tenure. Ardea's GNCP is unique among the world's lateritic nickel-cobalt deposits in that it has developed upon ultramafic rocks that are within and are a part of a major, crustal-scale gold-mineralised structure.

The BTZ typically dips moderately to steeply westward, hosting from south to north the historic gold mining centres at Paddington, Goongarrie, Comet Vale, Yunndaga, Menzies, Lady Irene and Lady Isobel. To the south of Paddington, the BTZ is contiguous with the Boulder-Lefroy Fault (BLF) or Tectonic Zone, the host to the Kalgoorlie Golden Mile, New Celebration and St Ives gold mining centres and is considered to be part of a single gold-fertile crustal structural system stretching from St Ives in the south to Ghost Rocks in the north.

Ardea gold exploration throughout the GNCP is using a systematic multi-disciplinary camp-scale approach to assess the obscured greenstone sequence. For reference, the modelled GNCP gold camp is around the strike-length of the St Ives gold camp and more than twice the strike-length of the world-ranking Kundana gold camp (Figure 6).

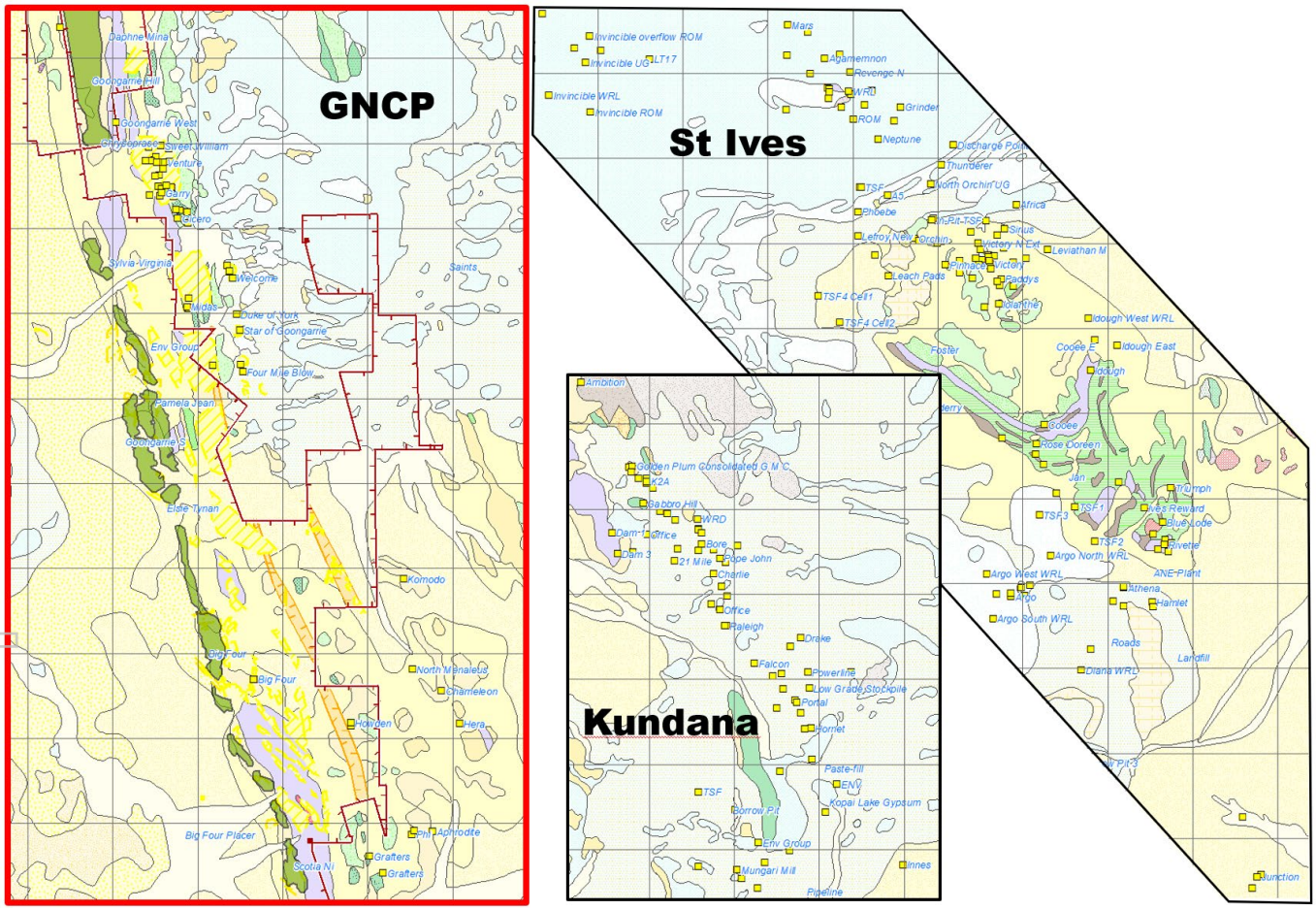


Figure 6: Comparison of various gold camps shown at the same scale as the GNCP. 2km grid. Olive green on the GNCP map are the nickel-cobalt deposits. Yellow squares show known gold occurrences.

Exploration of the GNCP gold camp has the advantage of leveraging off the extensive but largely ineffective (for gold) GNCP historic drill programs and the GNCP's infrastructure rich location.

Gold exploration at Goongarrie is more challenging relative to more "traditional" outcropping areas due to the deep development of the laterite profile across the GNCP. The most effective exploration method at Goongarrie is a combined structural-geochemical target model, where the structural data is derived from interpretation of the Ardea magnetic datasets, and the geochemical data is derived from GNCP drill hole assay suites (which currently is only very sparse in terms of bottom-of-hole fresh rock samples). This exploration strategy from Ardea has been demonstrated to be effective as shown by the recent high grade gold discoveries at Lily Albany and Zeus (Figure 7).

Big Four gold deposit

The Big Four gold deposit is located 70km northwest of the City of Kalgoorlie Boulder, within the footprint of the GNCP (Figure 7). Infill and extensional drilling completed by Ardea in January 2020 and historic data collated by the Company enabled estimation of an Inferred Mineral Resource (ASX release 14 May 2020): 178kt at 2.7g/t gold, (0.5g/t Au cut off) for 15,300 oz gold. The deposit remains open down plunge to the north.

Definition of a gold resource at Big Four provides proof of concept of the gold mineralisation potential of the BTZ within Ardea's GNCP, which elsewhere is concealed by Quaternary sediments and the overprinting laterite profile.

During the Quarter, the first ever metallurgical testwork was undertaken on four composite metallurgical samples collected from Ardea's 2020 RC drilling samples. Laboratory testwork employing industry standard (gravity-leach) procedures attained very high gold recoveries of 97.7% under conditions and reagent consumptions matching industry norms. No refractory issues or deleterious contaminants were identified. The results are highly encouraging, and indicate that the resource has potential to achieve reasonable prospects for economic extraction of gold (ASX release 12 October 2020).

Aphrodite North gold line and Lily Albany gold discovery

The Aphrodite North area is located approximately 80km north of the City of Kalgoorlie-Boulder and 6km north along strike of the 1.7Moz Aphrodite gold deposit (BDC, ASX release 25 June 2020) (Figure 7). The area is entirely covered by transported material and thus exhibits no surface anomalism. The target structure extends in a north-northwest orientation throughout Ardea's granted Mining Lease, M29/426.

The Aphrodite North area was identified as a gold target following comprehensive in-house assessment, chiefly from geophysical datasets and the derived structural geological models. Ardea drilled the first regional exploration air core holes into the area in mid-2020 and defined strong gold anomalism. Prior to this, the main targets and their host structures had never been drilled.

Lily Albany is the first gold discovery in the Aphrodite North area by any company and was confirmed by Ardea during the Quarter. It is located 3km east of Ardea's 25km long line of nickel-cobalt laterite deposits that define the GNCP (Figure 7). Lily Albany is a proof-of-concept discovery that resoundingly illustrates the gold fertility of the BTZ within Ardea's tenure. As per the Western Australian government's guidelines, the discovery has been reported to the Department of Mines, Industry Regulation and Safety (DMIRS).

For personal use only

The second round of RC drilling completed at Lily Albany confirmed shallow to deep mineralisation, indicating vertical extent of an orogenic gold system over all depths drilled, with results including[‡]:

- AANR0008: **10m at 3.55g/t Au** from 40m
  - *including* **2m at 15.50g/t Au** from 44m
- AANR0009: **18m at 1.07g/t Au** from 216m
  - *including* 2m at 2.45g/t Au from 218m
- AANR0010: **10m at 1.30g/t Au** from 136m
  - *including* **2m at 3.06g/t Au** from 136m
- AANR0014: **6m at 1.68g/t Au** from 246m

Results supplement earlier reported results from the first round of RC drilling:

- AANR0001**: 6m at 3.60g/t Au** from 44m
  - *including* **2m at 9.99g/t Au** from 44m
- and **8m at 4.94g/t Au** from 172m to 180m EOH
  - *including* **4m at 9.42g/t Au** from 172m

The Lily Albany gold discovery is open in all directions. The most recent drilling confirms continuity on adjacent, 80m-spaced sections, but the original widely spaced (320m line spacing) drilling from earlier in 2020 shows strong gold anomalism over the entire ~2.6km strike length of the target structures. Numerous structural and geophysical gold targets within this area are yet to be drilled, even those contiguous with Lily Albany, so investigation of the potential of the area has only just begun.

The Lily Albany system is localised at the eastern contact of a geochemically distinctive, deformed Layered Mafic Complex which shows strong chlorite-pyrite-carbonate alteration. The deformed intrusion is located at the contact of the Victorious Basalt and the overlying Black Flag Group volcaniclastic sediments.

The alteration halo identified within drill hole, AANR0009, from 198-248m, is **50m at 0.7g/t gold, 22ppm tungsten, 454ppm arsenic**. This indicates that a large amount of fluid fluxed through these rocks at the eastern Layered Mafic Complex contact and highlights that the area has potential to host a significant gold mineral system.

Metallurgical testwork on four RC drill sample composites, employing industry standard (gravity-leach) procedures attained very high gold recoveries of >95% under conditions and reagent consumptions matching industry norms for both shallow supergene oxide mineralisation and deep sulphide-bearing mineralisation. No refractory issues or deleterious contaminants were identified. On this basis, metallurgical results are highly encouraging, and indicate that the Lily Albany discovery has potential to achieve reasonable prospects for economic extraction of gold (ASX release 25 November 2020).

To maintain momentum at Lily Albany and further refine the geological model and extents of gold mineralisation, RC drilling continued until 22 December 2020 and resumed on 11 January 2021.

The first diamond drill hole at Lily Albany commenced drilling on 15 January 2021 and will be critical in further refining the geological model and controls on lode gold mineralisation.

Further updates will be provided as assay results become available and have been interpreted.

[‡] ARL ASX releases 13 August and 29 October.

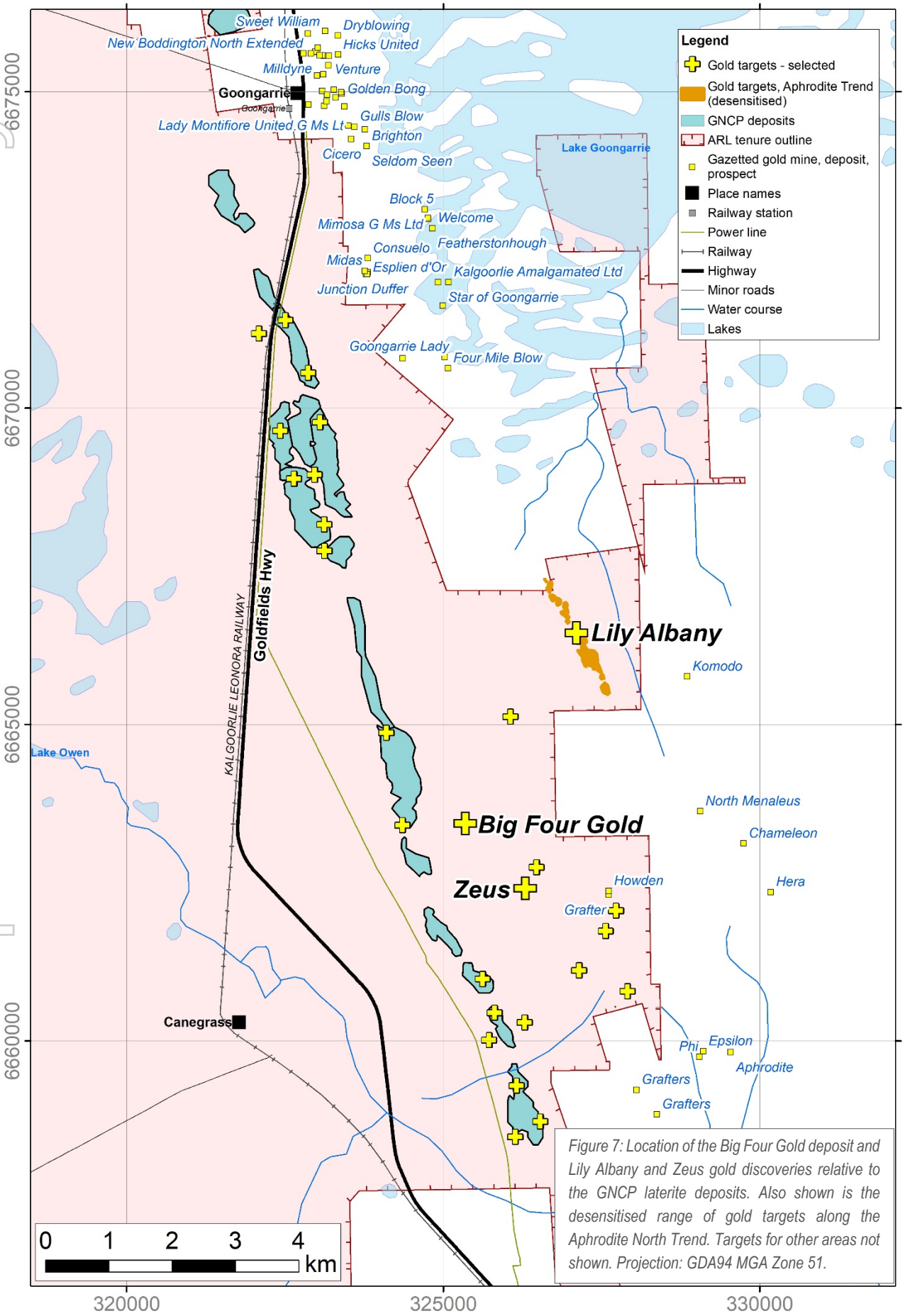


Figure 7: Location of the Big Four Gold deposit and Lily Albany and Zeus gold discoveries relative to the GNCP laterite deposits. Also shown is the desensitised range of gold targets along the Aphrodite North Trend. Targets for other areas not shown. Projection: GDA94 MGA Zone 51.

For personal use only

For personal use only

Zeus gold discovery

The recent Zeus gold discovery (ASX release 9 November 2020) is located around 4km south southwest of the recent Lily Albany gold discovery and is less than 2km east of Ardea's 25km long line of nickel-cobalt laterite deposits that define the GNCP (Figure 7). Zeus is located on one of the granted GNCP mining leases.

The Zeus discovery comes from a thorough reassessment of historic open file datasets that indicated strong gold anomalism that had not been adequately followed up, as historic drilling orientations were undertaken at a sub-optimal orientation to the gold mineralisation trend. Following Ardea's rigorous in-house reinterpretation and targeting process, a new south-westerly drill direction was defined and gold lode orientations determined. Ardea assay results include:

- ABFR0303: **10m at 12.97g/t Au** from 42m
  - including **4m at 28.25g/t Au** from 44m
- ABFR0304: **6m at 2.07g/t Au** from 68m

Historic assay results include[§]:

- SCR0806: **9m at 4.23g/t Au** from 67m (April 1999)
  - including **1m at 17.50g/t Au** from 68m
- SCRC0310: **8m at 3.52g/t Au** from 17m (July 1999)

Analysis of historic data and Ardea's detailed geological interpretation of the area suggests that gold mineralisation around Zeus may extend for over 1,000m of strike length. Gold anomalism encountered in historic drill holes up to 750m to the northwest and up to 250m to the southeast is consistent with the magnetic datasets and their derived interpretations. These show a distinct NW trending shear zone extending the full length of this trend that cross-cuts the Siberia Komatiite stratigraphy and coincides directly with the historic gold anomalism (Figure 8 and 9). Available data indicates that the host shear zone is approximately 50m wide, so the emerging discovery has scale potential and is a priority for follow-up exploration.

The return of multi-element assay data from Ardea's drilling indicates that there is a base metal sulphide signature which could prove to be a useful pathfinder to aid future exploration. To follow-up on this observation, a trial Induced Polarisation (IP) ground survey line is planned to be completed in the March Quarter 2021. If a distinct geophysical signature can be determined to be associated with the gold mineralisation, this could prove to be a valuable exploration tool to help fast track the identification of additional gold mineralisation under the extensive cover at Goongarrie. Indications of an intrusive alkaline diorite have also been noted, that may be playing a role in intrusive-related gold mineralisation within the emerging GNCP gold camp.

To follow-up on the encouraging start to exploration at Zeus, a second RC drilling program was completed just before the Christmas break with 19 holes completed for 1,150 metres. Further updates will be provided as assay results become available and have been interpreted.

[§] Source – DMIRS, WAMEX Open File reports.

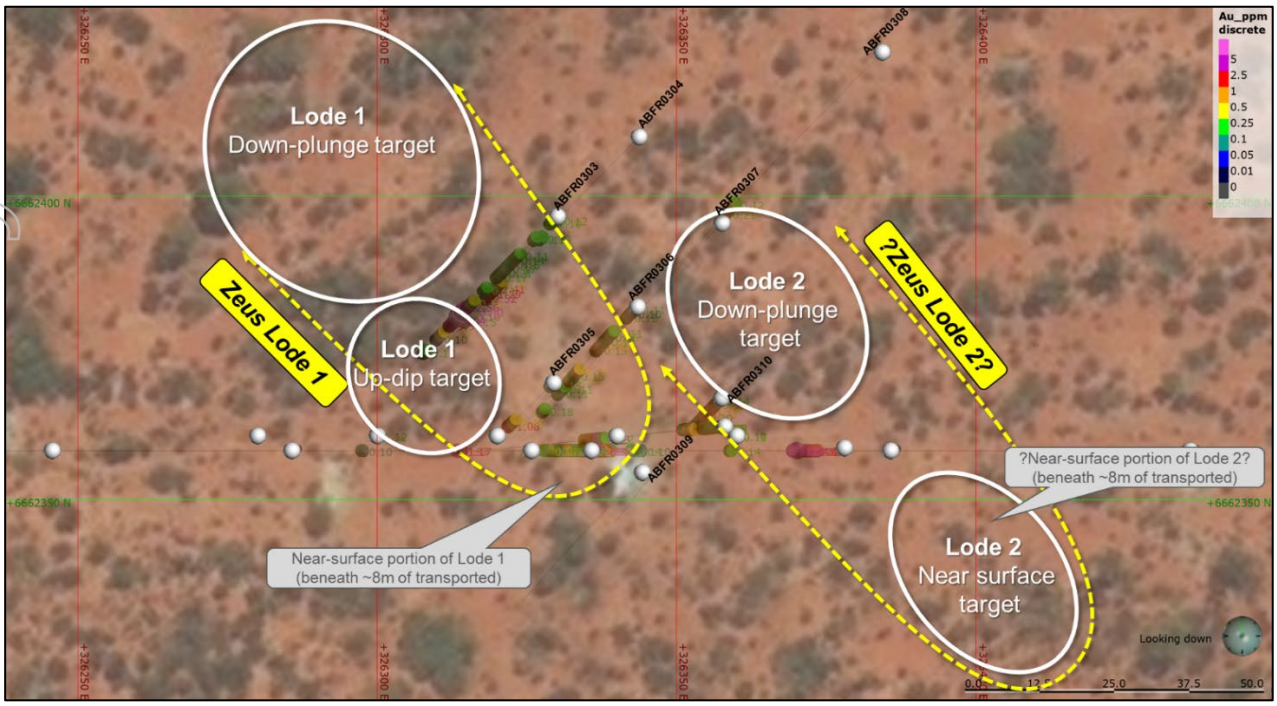


Figure 8: Plan view of the Zeus area (partially transparent surface imagery), showing the eight RC drill holes (labelled) completed by Ardea in October 2020 where assay results have been received. Historic drill holes are also shown (unlabelled). All Ardea holes were drilled to the southwest. The approximate footprint of the two interpreted lodes are shown, with the near-surface portion of each at the southeasternmost extent. Targets for follow-up drilling are shown with gold mineralisation open in every direction.

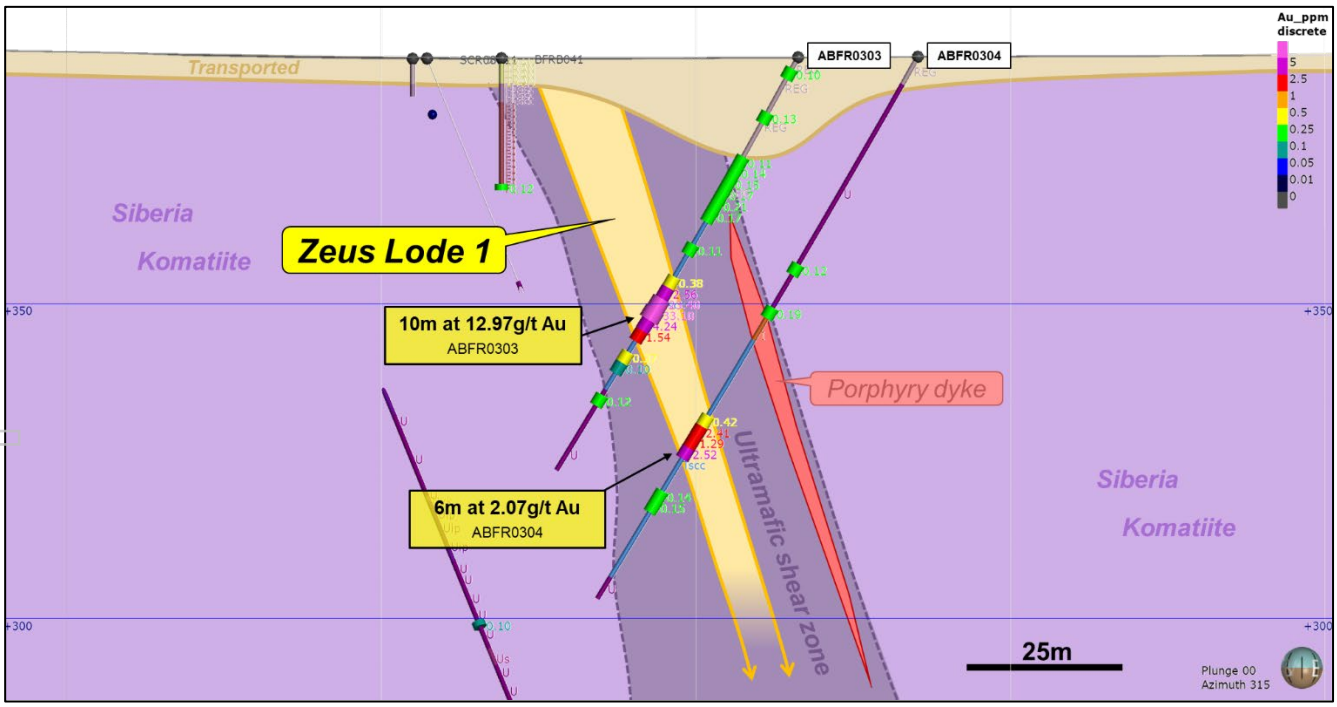


Figure 9: Interpreted cross section for drill holes ABFR0303 and 0304, showing continuity of gold mineralisation at Zeus, looking northwest. This is the north-western most drilling, meaning that the high-grade mineralisation shown is open in every direction, but hidden from surface by about 8m of transported cover. Note that one of the historic holes (which were drilled off section) is subparallel to the mineralisation, showing why historic efforts could not adequately define gold mineralisation at Zeus.

For personal use only

For personal use only

Grafter gold prospect

The Grafter gold prospect is an underexplored area, covering 3.7 x 1.5km at the south-eastern end of the GNCP (Figure 7). Around 80% of the area is covered by transported and laterite cover and has been interpreted from a combination of field work and desk top studies as a deformed mafic sequence highly prone to gold mineralisation. As the area was previously held by prospectors, there has been no modern systematic exploration. The Ardea exploration team have identified similar gross structural relationships to BTZ-BLF kinks as documented at the Paddington, Kalgoorlie, and New Celebration gold camps.

Initial Ardea RC drilling results from the Grafter area, including Lady Charlotte, have shown numerous zones of gold anomalism. Work is ongoing in the area to better define the controls on gold mineralisation, with initial observations supporting this area as being highly prospective for hosting orogenic gold mineralisation and including:

- As at Lily Albany, Lady Charlotte high grade intercept occurs within a Layered Mafic Complex (LMC).
- As at Big Four and Zeus, there is a diagnostic alkaline intermediate association (assumed to be an intrusive alkaline diorite based on grain size).
- Localised on the north northwest striking regional Brighton Grafters Trend.

The learnings from the first phase drilling program have been included in refining targets for future exploration that will be ranked against other targets to ensure that the Company prioritises the top ranked projects.

Windanya gold prospect

Ardea's Windanya project is located 50km northwest of the City of Kalgoorlie-Boulder and is a historical gold mining centre that was operational in the earliest 1900s (see Figure 2, 4 and 5). Significant historic gold workings are evident on the tenement and extend as a corridor to other workings to the north and south of Ardea's Windanya tenements. The strike trend of the mineralised zone is northwest to southeast with a moderate to steep dip to the northeast. Half Mile Reef was a major underground gold mine at its peak in the early 1900s, and was the location of the regional State gold production battery. Historic records sourced for the Half Mile Reef indicate that between 1897 and 1906, 23,480 tonnes of ore were mined from an underground operation, producing 12,993 ounces of gold. This indicates a recovered gold grade of 17.2 g/t, with head grade likely to be considerably higher.

Compilation of historical data, including old mine plans and a long section, along with detailed interpretation of geophysical datasets was used to complete detailed geological interpretation and design a first phase RC program aimed at locating near surface gold mineralisation with open pit mining potential around high-grade plunging reefs extending from historically mined areas and remnant stope selvedge mineralisation.

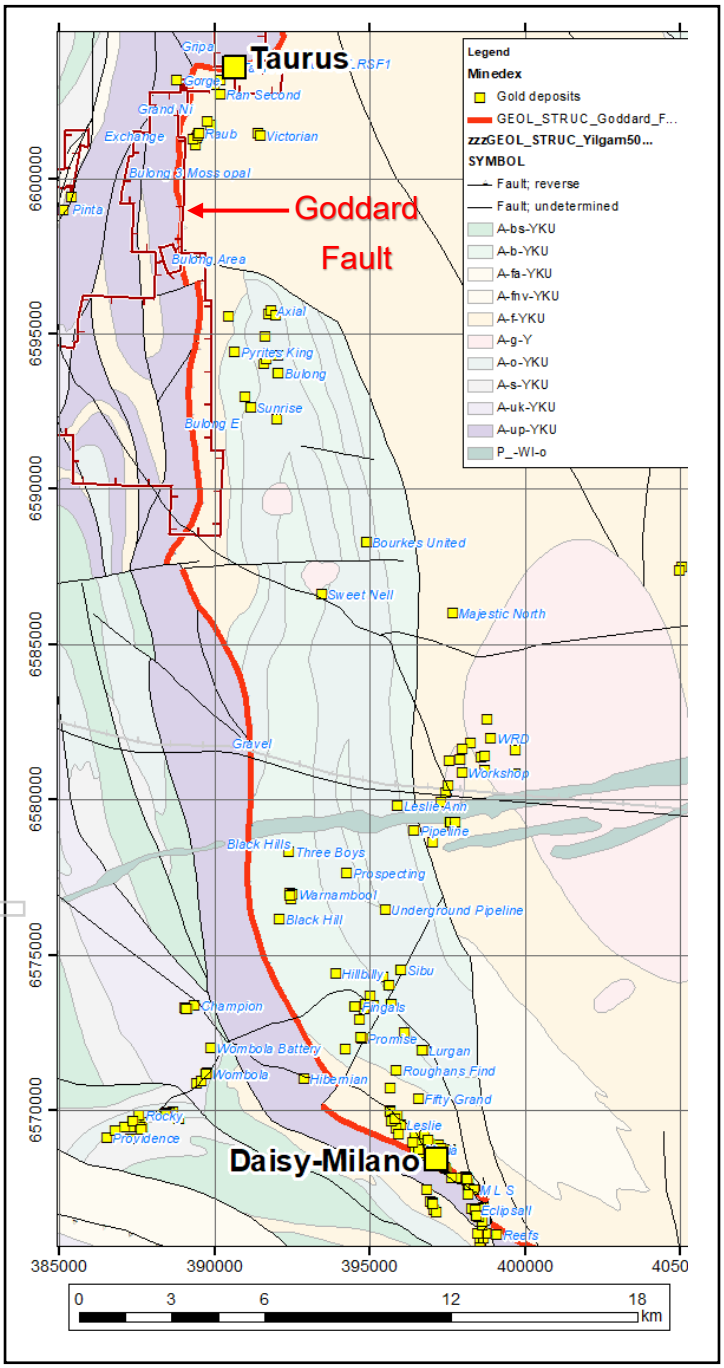
As a first test of Ardea's geological model, 11 RC holes were completed for 1,196m to determine the orientation and controls on gold mineralisation around Half Mile Reef. Ardea's 2020 drilling has confirmed that the Half Mile Reef structure and parallel lode structures occurs at the contact of a Mafic Complex, the Mt Ellis Gabbro with the underlying Big Dick Basalt (high Mg basalt at Half Mile). The shear host is typically 50-100m drill width, although historically mined lodes were typically narrow with stope widths around one to four metres. There is a Footwall Reef which may coalesce with the main Half Mile lode structure. Additionally, there is an upper, hanging wall lode in basalt at the Mt Ellis Gabbro contact.

Ardea submitted an Exploration Incentive Scheme drilling co-funding proposal for Windanya, which has been successful. A deep stratigraphic hole at Windanya, targeting the down plunge extents of the Half Mile Reef and another 10 subparallel interpreted structures has been planned. Future work at Windanya will be ranked against other targets within Ardea's portfolio and followed up accordingly.

Bulong and Taurus gold prospect

Ardea's Bulong tenements are located approximately 30km east of the City of Kalgoorlie Boulder. The regionally significant crustal scale gold-controlling structure, the Goddard Fault, trends north-south and passes through Ardea's Bulong tenure (Figure 10). This structure represents a northern splay of the regionally significant Mount Monger Fault, which hosts gold mineralisation to the south, with the best-known operating mine in the area at Daisy Milano.

Historically, the focus on the Bulong tenements has been on laterite hosted nickel-cobalt mineralisation (54.1Mt at 0.88% nickel and 0.05% cobalt, for 476.1kt nickel and 28.8kt cobalt – Ardea 2019 Annual Report), with limited gold exploration completed by Ardea. A detailed mapping and sampling program around the historic Taurus underlay shaft and multiple workings in the area has helped further refine the controls on gold mineralisation in this region.



In addition to the significant nickel-cobalt resources hosted at Bulong, **36 exploration targets** have been defined. These include gold, PGE, REEs and base metals (nickel, copper, lead and zinc), and additional gold-focussed targeting is underway.

Some historic nickel-cobalt laterite drill holes have been located over some of the gold targets and 768 historic pulps have been sourced from Ardea's Kalgoorlie sample storage facilities and assayed using Ardea's 65 multi-element Critical Minerals assay suite, including gold, for the first time. This is a low impact and cost-effective form of exploration, as it removes the need to redrill holes. Twenty five surface rock chip samples were also taken. Results will be reviewed and follow-up work planned.

Initial interpretation of these results has defined some zones of gold anomalism and more importantly for the nickel laterite strategy, REE and neutraliser that will be subject to further metallurgical follow-up work.

Figure 10: Bulong Project location plan showing Ardea's tenements in red and the regionally significant Goddard Fault.

For personal use only

For personal use only

Moriaty gold and nickel sulphide prospects

The Moriaty tenements, at the eastern margin of the Highway nickel laterite project are located immediately north of the GNCP tenements (Figure 2 and 5) within the BTZ. Detailed compilation of over 50 years of historic exploration has been completed, including assessment of old mines department reports, plans and drill logs, the open file drill hole database, nickel sulphide petrology and legacy EM survey information. All historic data has been digitised by Ardea and compiled into a GIS platform with detailed geological interpretation continuing. A number of nickel sulphide and gold exploration targets have been defined, including an interpreted extension of the Mount Pleasant Sill that has seen limited historic exploration. This layered mafic complex will be one of several targets for future exploration.

The exploration data and structural review also identified GNCP process water exploration targets within bedrock structures, upon which tenure was applied for.

Laverton Tectonic Zone – Pinjin gold

The Laverton Tectonic Zone (LTZ) hosts some of the largest gold camps in Western Australia, including Sunrise Dam and Granny Smith. The LTZ also hosts several recent gold discoveries such as Rebecca and Duchess. Additionally, the Mount Weld REE deposit is associated with the LTZ.

Ardea continues to evaluate other mineral exploration opportunities that can complement its existing project portfolio and has applied for a number of exploration licences and acquired another in the LTZ, in the Pinjin area. With the regolith obscuring the prospective basement rocks, Ardea can apply the same exploration methodology that has been successful in making gold discoveries under cover at Goongarrie, to the Pinjin leases to help ensure the best chance of exploration success.

This area covered by Ardea's tenement applications is considered highly prospective for gold and Critical Mineral mineralisation and is under explored. The recently acquired tenure is suited to the proposed gold spin-out IPO, as well as REE targets for the GNCP.

Ardea nickel sulphide strategy

Ardea's principal focus continues to be the development of the GNCP nickel laterite, the 25km long series of nickel-cobalt laterite deposits on the Goldfields Highway north of Kalgoorlie. Ardea's strategic tenure in the heart of the Eastern Goldfields of Western Australia is also highly prospective for both nickel sulphide and gold, which are mined extensively throughout the region. Ardea's nickel sulphide and gold strategies complement the development of the GNCP (and indeed the entire KNP) and aim to maximise returns for shareholders.

Ardea controls an extensive holding of ultramafic stratigraphy in the Eastern Goldfields of Western Australia which host the KNP nickel laterite resources. This same tenure is highly prospective for Kambalda style komatiite lava flow and intrusive related nickel sulphide mineralisation. It is important to note that any nickel sulphide discovery has the potential to be processed supplementary to laterite mineralisation through the High Pressure Acid Leach (HPAL) autoclave planned for Ardea's GNCP. Although sulphides would only be processed in limited quantities relative to the lateritic throughput, they have the added benefit of helping control autoclave oxidising potential and typically improving recoveries. An additional bonus is that metal concentrations considered deleterious to regular nickel sulphide flotation processing (and that have historically curtailed development of several Eastern Goldfields deposits) do not appear to affect the HPAL process, opening the possibility of mineral extraction from nickel sulphide deposits that may otherwise be overlooked.

During the Quarter, Ardea's nickel sulphide strategy continued to gain momentum with a formal target ranking system defined and targets prioritised for exploration within the KNP. Electromagnetic surveys and diamond drilling also commenced at Emu Lake.

For personal use only

Emu Lake nickel sulphide and gold prospect

The Emu Lake Project, located 70km north-east of Kalgoorlie, has been the subject of a recent detailed consultant review with several compelling targets identified. In particular, the area directly south of Binti Gossan is considered a high priority with a number of down hole electromagnetic (DHEM) anomalies warranting drill testing. Previous drilling in the Binti Gossan area has returned several high-grade intercepts including**:

- ELD015: **2.0m @ 6.2% Ni and 1.78% Cu** from 336.0m; and
- ELD036: **1.6m @ 3.7% Ni and 1.33% Cu** from 320.6m.

The large number of historic nickel-copper intercepts are mostly from an area of drilling below and immediately along strike form the Binti Gossan covering a 1.3km strike length. These results demonstrate the fertility of the ultramafic flow whilst highlighting that only a small portion of the host unit has been effectively explored. Field work is underway and further work planned along the 20km strike length of this fertile and under-explored ultramafic horizon at Kalpini.

Several areas have been identified where higher-powered and more effective Moving Loop EM (MLEM) surveys can be undertaken such as the Binti North, Binti South and Heron prospects (Figures 13 and 14). Historic drilling at each of these sites intersected strong mineralisation indicators representing potential "near-miss" cases.

Other project work being undertaken at the Kalpini Project includes detailed assessment of drill hole geochemical data to determine where zones of anomalism are located and if additional assay data is required. Where the original drill hole pulps are still available at Ardea's West Kalgoorlie Operations Office, these are being sourced and sent for assay as part of the Critical Minerals R&D. Following the receipt of assay results, detailed data review will be undertaken with additional targets for Critical Minerals, nickel sulphides, REE and gold are expected to be defined.

Ardea was successful in obtaining Exploration Incentive Scheme funding (50% of drilling costs) for a 600m deep diamond drill hole targeting an off-hole conductor at Emu Lake. The target ultramafic unit has seen almost no historic drill testing, despite the intense nearby drilling of the Binti Gossan Prospect, due to the geometry of the nickel-sulphide mineralisation. The final location of the hole will be confirmed following the completion of the upcoming DHEM survey and is planned to be drilled in the first half of 2021.

The initial diamond drillhole at Emu Lake (AELD0001) was completed at 450m in mid-December 2020, targeting a strong DHEM conductor at 400m depth (Figure 14). The hole passed through the prospective Western Ultramafic basal contact at 382m but no massive sulphides were present and the target EM plate remains unexplained. A number of dolerite intrusive units occur above and below the contact and it is possible that where drilled, any sulphides associated with the conductor have been stoped out by the intrusive dolerite units. PVC has been installed and the hole will be DHEM surveyed in early 2021 for "near-miss" massive sulphides.

A thin (0.65m) nickel sulphide stringer was intersected at 336.7m in a sheared mafic unit (Figure 11). The stringer zone is remobilised sulphides from a primary source and finding the primary source is the aim of the upcoming DHEM surveys. A number of zones of sericite/pyrite and carbonate alteration with quartz veining have also been selected for assay as potential distal style gold and/or VMS mineralisation. Assay results are expected in February 2021.

Four historic holes (ELD47, ELD034, ELD030 and ELD035), drilled by Xstrata in the early 2000s, were cleaned out by the drilling rig and PVC casing placed inside. These holes provide an excellent platform for DHEM below and to the south of the Binti Gossan zone (Figure 14).

Figure 11: Drill core from hole ALED0001 at 337m showing remobilised nickel sulphide stringer in strongly deformed and altered mafic unit.

** Source – DMIRS, WAMEX Open File reports.

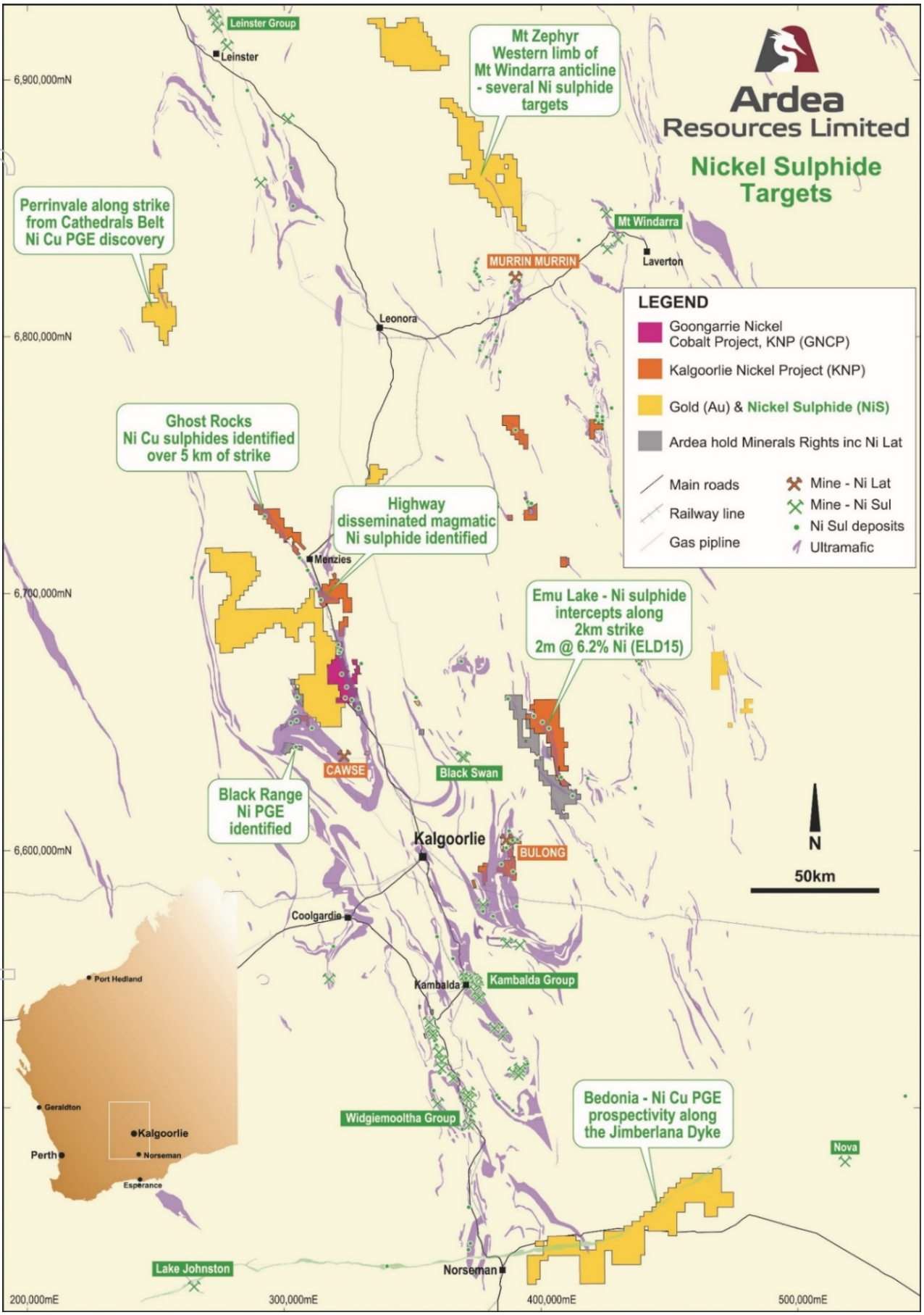


Figure 12: Ardea's tenure, key nickel sulphide and PGE targets, Eastern Goldfields, WA. Projection: GDA94 MGA Zone 51.

For personal use only

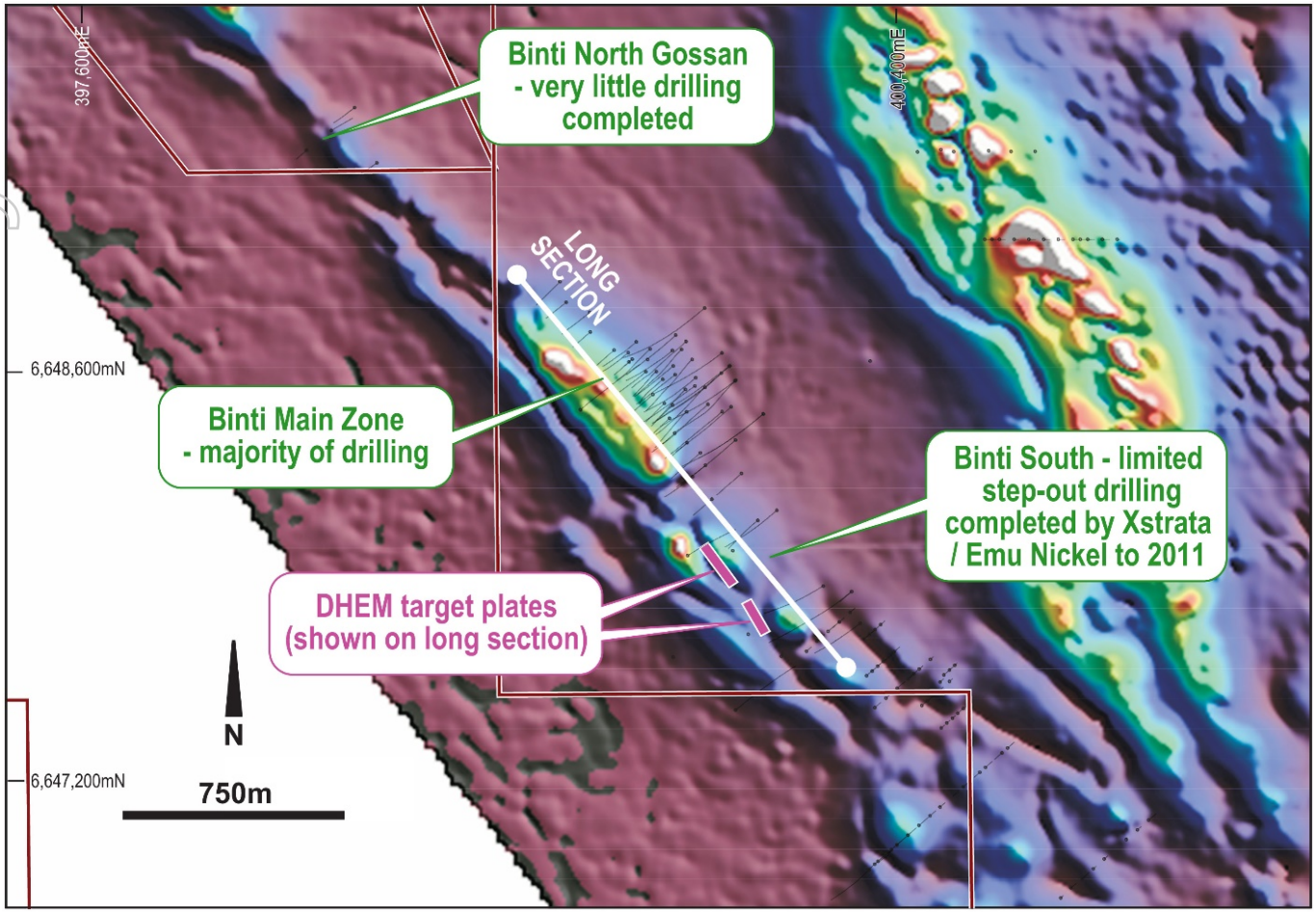


Figure 13: Emu Lake - Binti Gossan Prospect on aeromagnetic image showing drill hole traces and target EM plates. Projection: GDA94 MGA Zone 51.

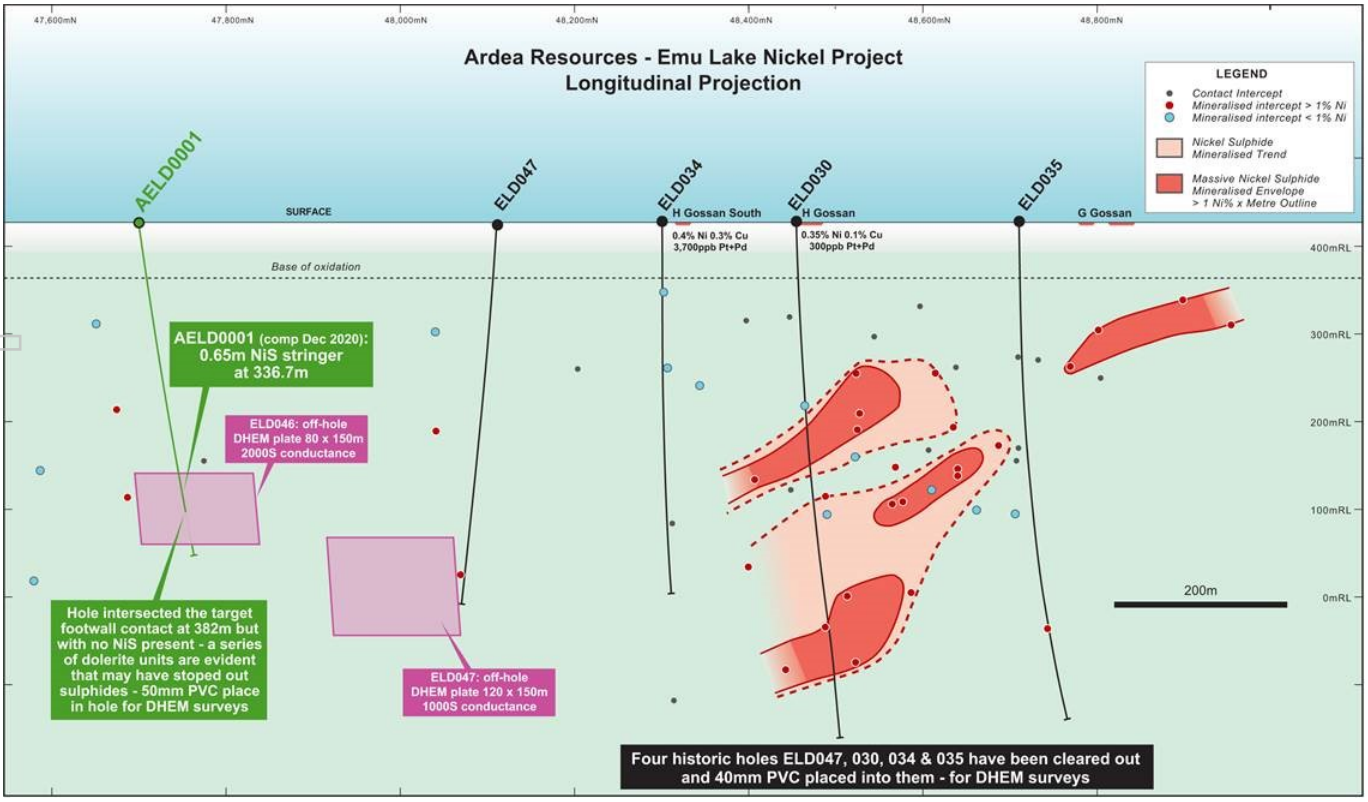


Figure 14: Binti Gossan Long Section, looking west, with local grid coordinates – showing existing drilling pierce points and modelled DHEM plates south of the main gossan zone. Projection: GDA94 MGA Zone 51.

For personal use only

Jump-Up Dam – Nickel Sulphide Target

The Jump-Up Dam Project, located 150km north east of Kalgoorlie Boulder and wholly owned by Ardea, contains a modest nickel laterite resource of 64Mt at 0.75% nickel and 0.04% cobalt for 479kt nickel and 26.1kt cobalt††, associated with an Archaean ultramafic complex. Drilling on the eastern side of the ultramafic has defined a 400m long, north-south trending, zone of copper-nickel enrichment in the regolith profile and in places extending into the upper saprolite (Figure 15). The anomalous zone includes an intercept of 18m at 0.10% copper and 0.52% nickel from 18m to end of hole in hole JDRC0127. Interestingly, gold is also slightly anomalous in this intercept – up to 0.21g/t Au over 2m. The litho-geochemistry is strongly suggesting a sulphide source for these metals which has resulted in the observed copper plume in the regolith.

To follow-up on this strong geochemical anomaly, a MLEM survey is being planned to quickly test for any bedrock conductors associated with massive sulphides. Drilling will then test any conductors identified.

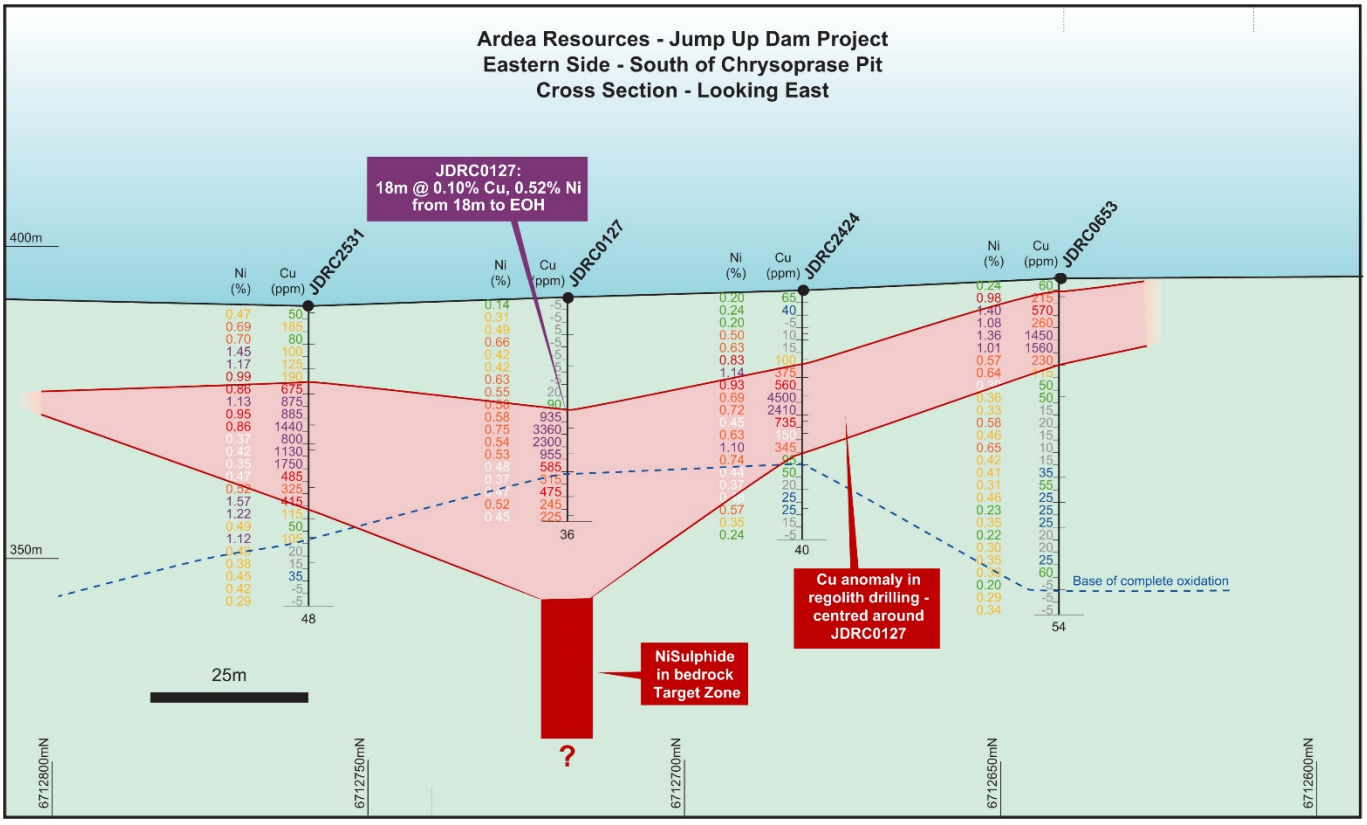


Figure 15: Jump Up Dam Project – Copper anomaly Long-Section view – looking east. Bedrock lithologies consist of olivine cumulate units with some mafic components which are part of the broader ultramafic/mafic complex.

Bardoc Tectonic Zone Nickel Sulphide

Exploration to unlock the nickel sulphide potential throughout Ardea's ground holding in the Bardoc Tectonic Zone (BTZ) has been accelerated with the appointment to Ardea of a dedicated nickel sulphide expert. Several defined occurrences and anomalies have been identified at Big Four East, Highway and Moriaty. Ardea is also continuing to do research work with the CSIRO to further assess the ultramafic sequences of the GNCP, where nickel sulphide mineralisation, if it exists, would be located in undrilled fresh rock beneath the lateritic deposits. Using various geochemical markers and re-evaluating historical geophysical data, new targets are being developed for potential drill testing.

†† Ardea Annual Report 2019 (24 October 2019)

For personal use only

For personal use only

Highway nickel prospect

The Highway prospect, located 110km north of Kalgoorlie Boulder, is within a wholly owned and granted mining lease which hosts the Company's Highway nickel laterite resource (87.0Mt at 0.65% nickel and 0.04% cobalt, for 567.2kt nickel and 35.1kt cobalt)[‡‡].

Magmatic nickel sulphide has been identified in RC drilling near the basal contact of the Walter Williams Formation (Figures 16 and 17). A MLEM survey in 2009 identified two subtle conductors along strike from the disseminated sulphide occurrence, however, drilling did not intersect massive sulphides. The fact that this portion of the Walter Williams Formation is fertile for nickel sulphides is significant with little or no focus on such occurrences over the last 20 years. It also raises the possibility of nickel sulphide occurrences beneath the GNCP to the south.

With modern geophysical techniques, such as Induced Polarisation (IP), it is possible to map disseminated sulphides to extensive depths (>800m) and this approach is proposed at Highway where an IP survey has been planned and is scheduled to be completed in Q1, 2021. Using IP to firstly map the broader "halo" disseminated sulphides and use this as a vector to massive sulphide zones. Shallow IP-style data (100m depth limit) collected in 2007 and used to map the nickel laterite is being re-assessed with at least one conductive zone of interest, associated with an EM conductor, being prioritised. The prize of finding economic nickel sulphides in the Walter Williams Formation is significant as it immediately opens up a large new search space, of which Ardea is overwhelmingly the major ground holder, controlling 40km of strike.

In addition, at Moriaty immediately east of the Highway Project, historical drilling has reportedly intersected fine disseminated pyrrhotite, chalcopyrite and violarite (nickel sulphide) in a talc-carbonate komatiite unit. This area is also being reviewed for IP and MLEM follow up.

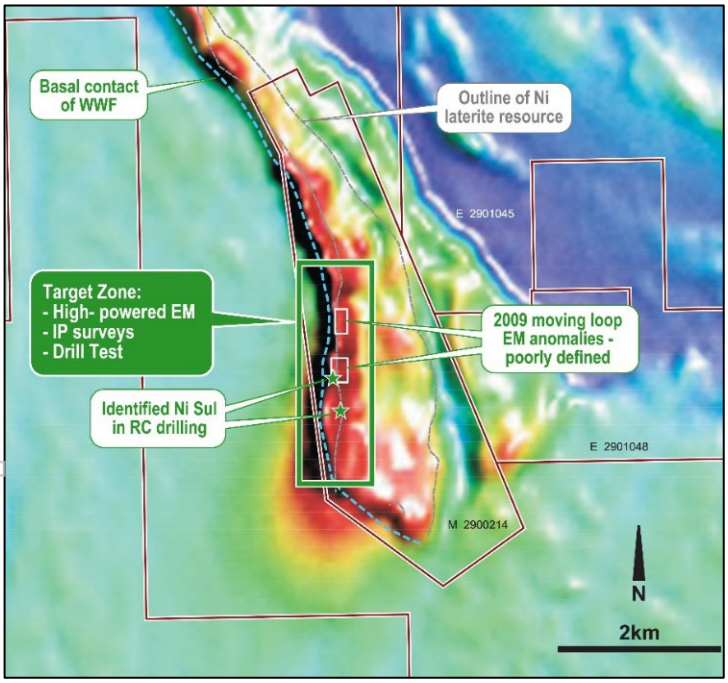
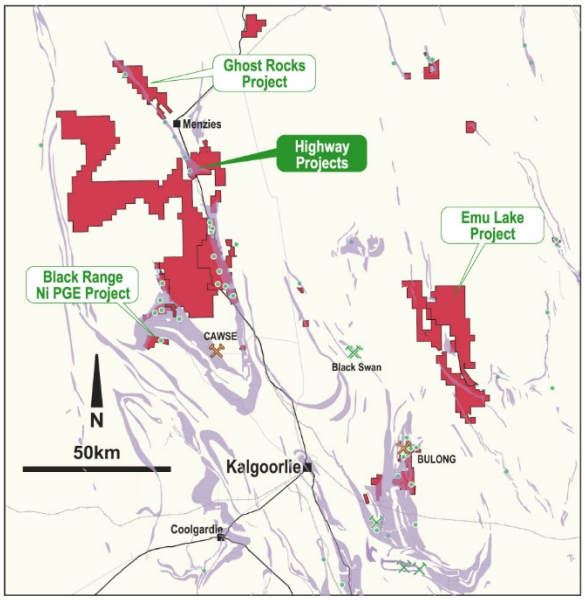


Figure 16: Highway Project – aeromagnetic image showing location of magmatic nickel sulphide and EM anomalies.



[‡‡] Ardea Annual Report 2019 (24 October 2019)

For personal use only

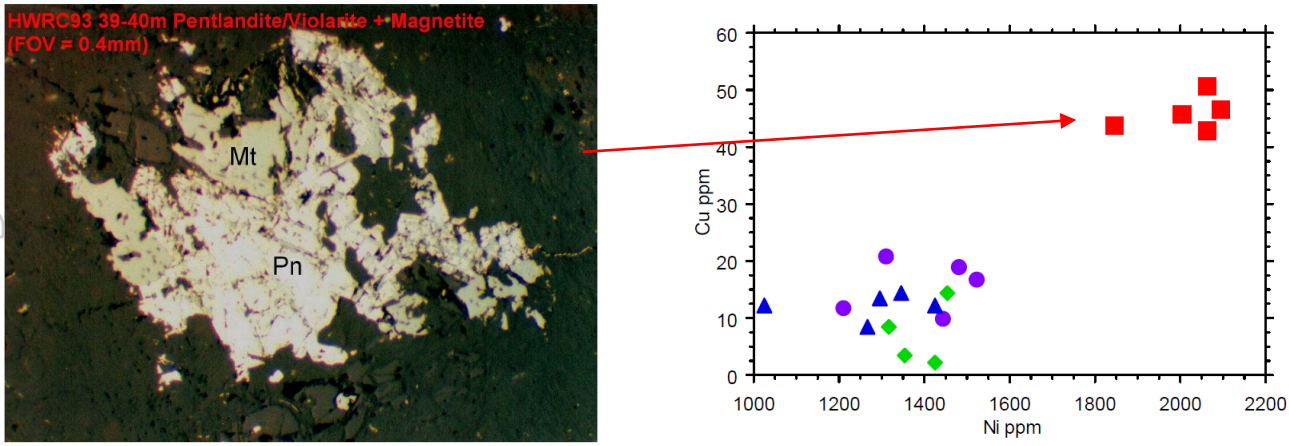


Figure 17: Photomicrograph of nickel sulphides in RC chips at the Highway project, with nickel-copper geochemistry of the sulphide bearing sample in comparison to non-sulphide samples from the same area. Mt = Magnetite and Pn = Pentlandite, which is the most common nickel bearing mineral.

Ghost Rocks Project

The Ghost Rocks Project, located 140km north of Kalgoorlie Boulder contains a mixed package of mafic and ultramafic stratigraphy associated with the Walter Williams Formation (Figure 18) and hosts Ardea's Ghost Rocks laterite resource (47.3Mt at 0.66% nickel and 0.04% cobalt, for 312.9kt nickel and 19.9kt cobalt)[§§]. It was extensively prospected for nickel and copper sulphide deposits in the late 1960s and early 1970s where copper gossan zones were mapped in the mafic/ultramafic package. Drilling of these gossan zones by Newmont in the early 1970s returned a best result in the oxide zone of 3.3m (10 foot) grading 2.14% copper to end of hole from 12m depth.

Work by Heron Resources in 2008/09 identified a number of MLEM anomalies that were drilled and intersected broad zones of "cloud nickel sulphides" in ultramafic rocks and copper assays up to 0.53% over 2m in a differentiated mafic unit. No follow-up was completed at the time.

Re-assessing the MLEM anomalies and effectiveness of the drilling is a priority at Ghost Rocks. There is potential to complete DHEM on the existing drilling to vector towards massive sulphides. The broad zone of copper mineralisation is also of significant interest and an IP survey is being considered to map out this sulphide zone which extends for some 4km along strike.

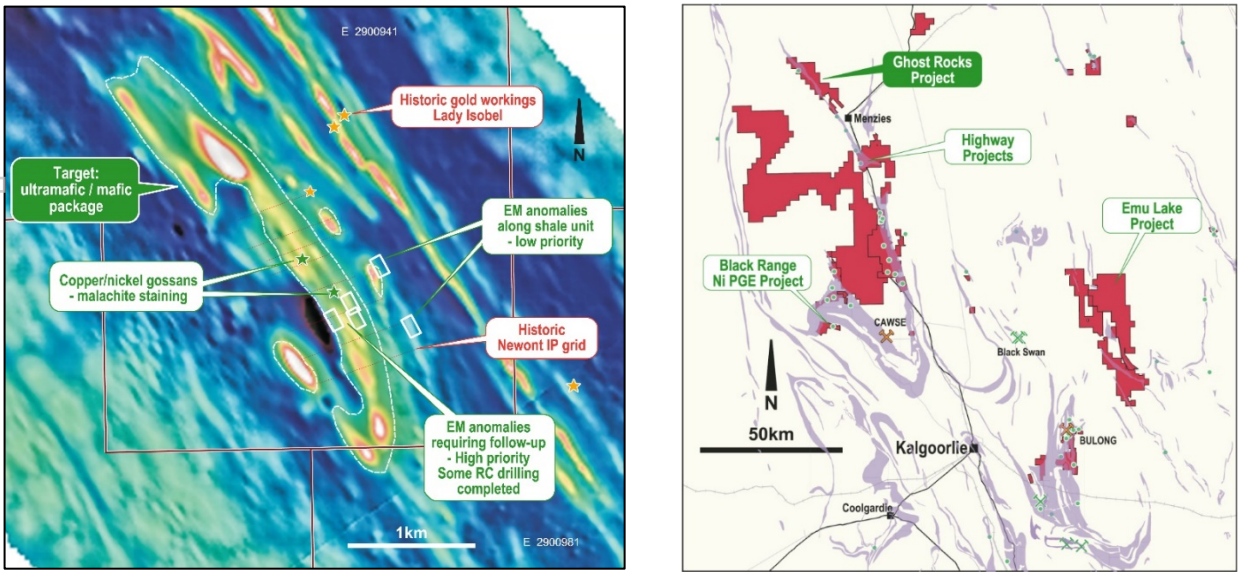


Figure 18: Ghost Rocks Project – aeromagnetic image showing target package of mafic and ultramafic rocks and key EM targets.

[§§] Ardea Annual Report 2019 (24 October 2019)

For personal use only

Black Range Project

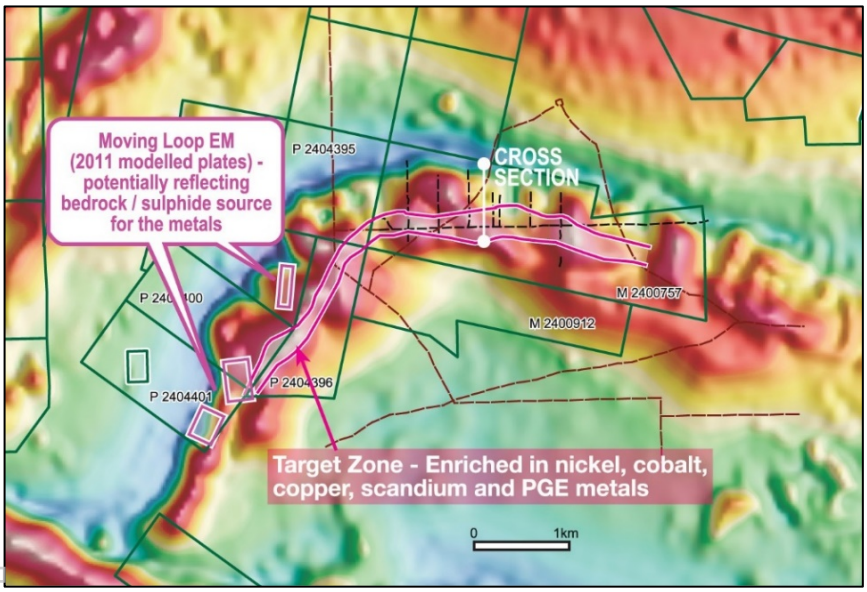
The Black Range Project is located 65km north-west of Kalgoorlie Boulder and contains a 5km zone of the Ora Banda Sill mafic/ultramafic complex enriched in nickel, cobalt, copper, scandium and PGE metals (Figures 19 and 20). The Ardea Black Range resource comprises 19.2Mt at 0.68% nickel and 0.09% cobalt, for 130.7kt nickel and 17.8kt cobalt, as well as 8.70Mt at 65.6g/t Scandium for 570,000kg scandium, and 6.55Mt at 0.33g/t Pt and 0.21g/t Pd for 70,300oz Platinum and 44,000oz Palladium[***],

Past drilling programs have delineated a zoned lateritic distribution of nickel, cobalt, copper, scandium and PGE metals, as shown in the cross section below (Figure 20). Highly anomalous copper-PGE zones include:

- ABR0001/4-20m 16m at 0.24% Ni, 0.11% Cu, 0.29g/t Pd, 0.38g/t Pt
- ABR0016/2-18m 16m at 0.45% Ni, 0.17% Cu, 0.15g/t Pd, 0.26g/t Pt
- ABR0021/4-24m 20m at 0.18% Ni, 0.09% Cu, 0.29g/t Pd, 0.36g/t Pt

This geochemical signature is consistent with a sulphidic nickel metal source and is different to the usual KNP nickel laterite geochemistry. The target zone is located at a specific rock unit contact within the Layered Mafic Complex with potential for Nova or Julimar style intrusion-related nickel-copper-PGE sulphide.

A Moving Loop EM survey from 2011 identified a number of conductors on the western side of the package and these are being reviewed and possibly re-surveyed with modern higher-powered EM systems. Concentration of PGEs and related metals is clearly happening in the lateritic regolith and is an economic target in its own right, however, finding the bedrock sulphide source of the nickel-copper PGE metals is the current focus.



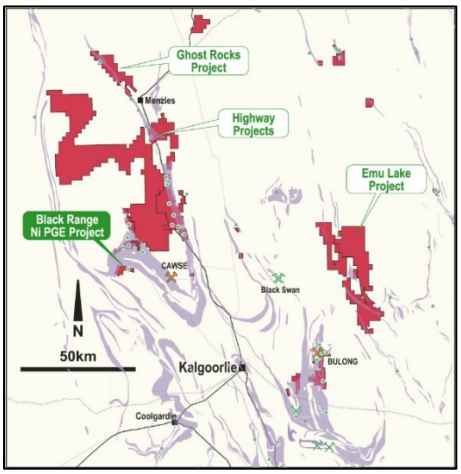


Figure 19: Black Range project, Ardea tenements over TMI aeromagnetic image showing the outline of the zone enriched in nickel, cobalt, copper, scandium and PGE metals, Ardea ASX announcements 13 June 2017, 28 August 2017, 31 October 2017.

[***] Ardea ASX announcement "Black Range cobalt, nickel, scandium and platinum/palladium resources" (31 October 2017).

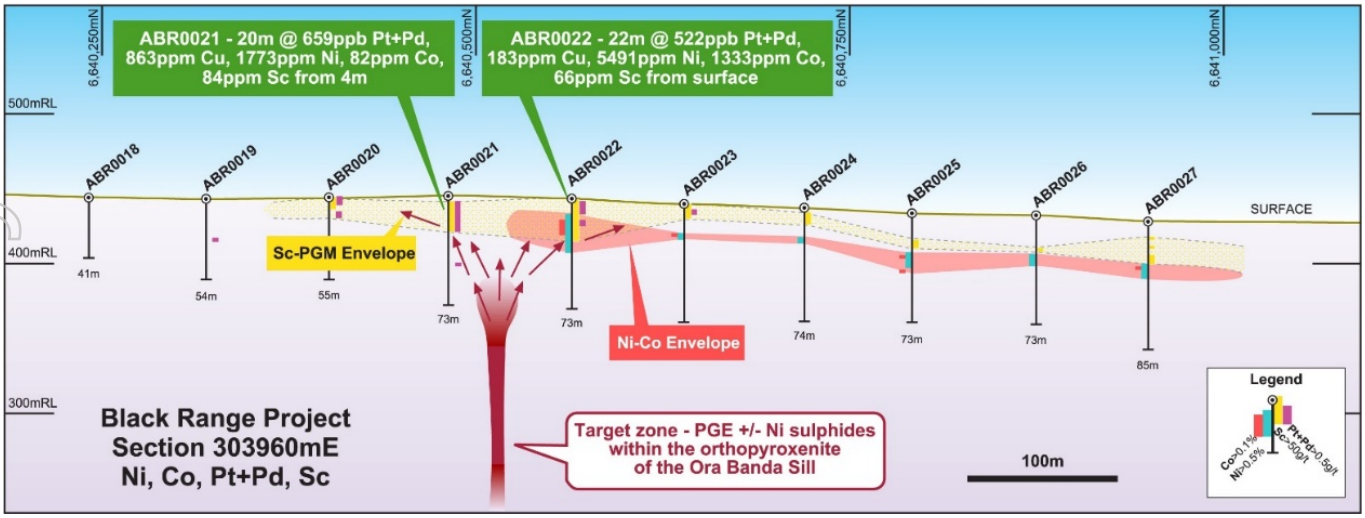


Figure 20: Black Range Cross Section looking west. Zone of enriched PGE metals and Sc in the laterite regolith are potentially derived from a narrow source within the Ora Banda Sill, Ardea ASX announcements 13 June 2017, 28 August 2017, 31 October 2017.

3. CORPORATE

Strategy

Ardea is well funded to continue multiple work streams with a priority on the GNCP "**WINNER**" enhancements focused on resource updates as part of the high-grade nickel strategy. The GNCP Strategic Partner process will continue as will accelerated nickel sulphide and gold exploration. With multiple nickel sulphide and gold exploration targets defined within the nickel laterite tenure footprint, Ardea believes it has the project portfolio, targets, and personnel to make a significant mineral discovery that will further complement the globally significant KNP nickel-cobalt resource.

Ardea continues to consolidate its large West Australian project portfolio and focus on the development of the GNCP and drilling of compelling nickel sulphide and gold exploration targets within KNP tenure. To further consolidate its tenement position, during the Quarter Ardea executed a Farm-in Joint Venture Agreement with ASX-listed gold producer Red 5 Limited on the Mt Zephyr and Darlot East Gold Projects and executed a Tenement Option Assignment and Variation Deed between a prospector and Metalicity Limited over the Mulga Plum tenements.

Finance

The Company's cash position was **$10.9M** at Quarter end.

Issued capital as at 31 December 2020 was 127,670,583, with 4,236,000 Performance Rights on issue.

Summary of Expenditures for the Quarter

During the Quarter the Company incurred a total net expenditure from operating activities of $1,963k. This was made up of $1,422k expended on exploration and evaluation activities, $229k on development activities, $127k on staff costs and $201k on administrative and corporate costs with the balance on minor items.

Included in these costs were payments made to Directors of the entity and their associates. These payments were Directors Salaries and Superannuation payments and Consulting fees of $195k and rental on the Company Kalgoorlie office of $19k for the quarter. All payments were made on an arm's length basis.

Cash flows from financing activities included funds of $1.4m received from the Company's Share Purchase Plan to existing shareholders at a share price of $0.47 per share.

Further details on Quarterly expenditures are included in the Appendix 5B – Quarterly Cashflow Report attached to this Quarterly Report.

For personal use only

4. LOOKING FORWARD

During the March Quarter 2021, Ardea will focus upon the following programs.

Kalgoorlie Nickel Project

Ongoing review of KNP geological settings favourable for Critical Minerals, nickel sulphide and gold. This work will continue to be cost effectively undertaken using Ardea's extensive database, sample drill pulps available for re-assay at the Kalgoorlie Boulder office and detailed geophysical datasets.

Goongarrie Nickel Cobalt Project

Strategic Partner Process

Continue active due diligence discussions and accelerate the search process with the assistance of KPMG, once the Goongarrie Line resource update has been completed which is expected to further demonstrate the strategic value and global significance of the project.

Engagement with groups such as the Australian Government-backed Critical Minerals Facilitation Office and collaborative research groups will continue.

Resource Upgrades

Continue the Highway and Kalpini data review and resource update and then commence Siberia North, Bulong, Lake Rebecca, Yerilla and other satellite nickel-cobalt prospects within hauling distance of the GNCP to define the optimum mine plan and maximise HPAL nickel feed grades as part of the WINNER initiative.

GNCP Flowsheet Research and Development

The SysCAD model will continue to be refined based on expected water sources, quality and in-pit sourced neutraliser with outputs used to optimise the flow sheet. The core focus is minimising the project development footprint and carbon emissions and adhering to Western Australia's world-class safety, health, environmental and operating standards which ensures ethical and sustainable production.

WA Nickel Sulphide and Gold Projects

Review and interpret the results from the ongoing RC and diamond gold exploration drilling. These results will be integrated into the Company target ranking system to ensure that the highest priority targets continue to be prioritised. With over 100 gold targets defined the exploration pipeline continues to be replenished.

Nickel sulphide exploration will continue to accelerate with an immediate priority on completing the DHEM surveys at the Binti Gossan, Emu Lake and completing MLEM surveys on the Eastern Ultramafic at Emu Lake. An IP survey will be completed at Highway and MLEM surveys at Ghost Rocks and Black Range. Compelling targets will have fit for purpose exploration drill holes planned and completed.

Gold Spin-out

Ardea continues to move forward with its planned Kalgoorlie-focussed gold spin-out and will provide more information on this Corporate initiative as projects are selected for inclusion. A number of additional projects are also being considered, along with Corporate structures, to ensure the optimum outcome for Ardea Shareholders. However, discussions are ongoing and incomplete, with a more detailed update to be provided in due course.

This announcement is authorised for release by the Board of Ardea Resources Limited.

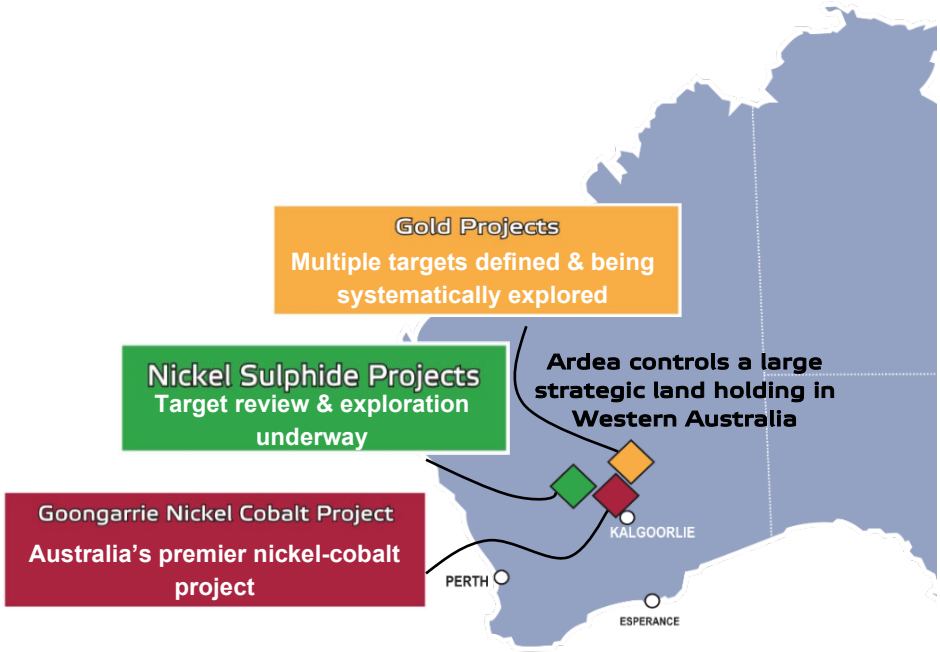
For personal use only

For personal use only

About Ardea Resources

Ardea Resources (ASX Code: **ARL**) is an ASX-listed resources company, with a large portfolio of 100%-controlled West Australian-based projects, focussed on:

- Development of the Goongarrie Nickel Cobalt Project, which is part of the Kalgoorlie Nickel Project, a globally significant series of nickel-cobalt deposits which host the largest nickel-cobalt resource in the developed world, coincidentally located as a cover sequence overlying fertile orogenic gold targets; and
- Advanced-stage exploration at WA nickel sulphide, gold and Critical Minerals targets within the Eastern Goldfields world-class nickel-gold province.



For further information regarding Ardea, please visit https://ardearesources.com.au/ or contact:

Andrew Penkethman
Managing Director and Chief Executive Officer
Tel +61 8 6244 5136

For personal use only

COMPLIANCE STATEMENT (JORC 2012)

A competent person's statement for the purposes of Listing Rule 5.22 has previously been announced by the Company for:

1. *Kalgoorlie Nickel Project on 21 October 2013 and 31 July 2014, October 2016, 2016 Heron Resources Annual Report and 6 January 2017;*
2. *KNP Cobalt Zone Study on 7 August 2017, PFS 28 March 2018 and Expansion Study 24 July 2018;*
3. *Goongarrie Nickel Cobalt Project, Supplementary Prospectuses 10 February 2017, Ardea Annual Report Nov 2017, ASX announcements 28 June 2017, 4 July 2017, 28 August 2017, 14 March 2018, 24 July 2018, 8 October 2018;*
4. *Ardea Resources Prospectus November 2016, Ardea Supplementary Prospectuses 6 January 2017, ASX announcements 9 March 2017, 16 March 2017, 26 April 2017.*
5. *Ardea Annual Report 2019, ASX announcement 24 October 2019.*
6. *Maiden Resource for Big Four Gold Project, WA, ASX announcement 14 May 2020.*
7. *Significant gold exploration results from new target at Goongarrie, ASX announcement 26 June 2020.*
8. *CSIRO research project commences to define gold behaviour within the critical mineral deposits of the Goongarrie Nickel Cobalt Project ASX announcement, 12 August 2020.*
9. *Significant gold in first RC drilling at Aphrodite North, ASX announcement 13 August 2020.*
10. *Ardea BTZ gold exploration success at Lady Charlotte, ASX announcement 24 August 2020.*
11. *Ardea Annual Report 2020, ASX announcement 29 September 2019.*
12. *Nickel Sulphide Targets within the Ardea Tenement Portfolio including KNP, ASX announcement 30 September 2020.*
13. *First metallurgical tests: very high gold recoveries from Big Four Gold deposit, ASX announcement 12 October 2020.*
14. *"Lily Albany" gold discovery confirmed by RC drilling at Aphrodite North, ASX announcement 29 October 2020.*
15. *High-grade, shallow gold discovery at Zeus, 10m at 13g/t gold, ASX announcement 9 November 2020.*
16. *Free Milling Gold confirmed for Lily Albany Discovery, ASX announcement 25 November 2020.*
17. *Ardea commences nickel sulphide core drilling at Emu Lake, ASX announcement 30 November 2020.*
18. *Drilling recommences at Zeus gold discovery, Lily Albany to follow, ASX announcement 15 December 2020.*

The Company confirms that it is not aware of any new information or data that materially affects information included in previous announcements, and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. All projects are subject to new work programs, notably drilling, metallurgy and JORC Code 2012 resource estimation as applicable.

The information in this report that relates to Exploration Results and Resource Estimates for the Goongarrie Nickel Cobalt Project is based on information originally compiled by previous and current full-time employees of Heron Resources Limited and current full-time employees of Ardea Resources Limited. The Exploration Results, Resource Estimates and data collection processes have been reviewed, verified and re-interpreted by Mr Ian Buchhorn who is a Member of the Australasian Institute of Mining and Metallurgy and currently a director of Ardea Resources Limited. Mr Buchhorn has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activities 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'. Mr Buchhorn consents to the inclusion in this report of the matters based on his information in the form and context that it appears.

The exploration and industry benchmarking summaries are based on information reviewed by Dr Matthew Painter, who is a Member of the Australian Institute of Geoscientists. Dr Painter is a full-time employee of Ardea Resources Limited and 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'. Dr Painter has reviewed this press release and consents to the inclusion in this report of the information in the form and context in which it appears.

ASX CHAPTER 5 COMPLIANCE AND PFS CAUTIONARY STATEMENT

The Company has concluded that it has a reasonable basis for providing the forward-looking statements and forecast financial information included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and all material assumptions, including the JORC modifying factors, upon which the forecast financial information is based are disclosed in this announcement. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules.

The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain material factors were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information.

The Goongarrie Nickel Cobalt Project is at the PFS phase and although reasonable care has been taken to ensure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments of projects and the scandium market development may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

A key conclusion of the PFS and Expansion Study, which are based on forward looking statements, is that the Goongarrie Nickel Cobalt Project is considered to have positive economic potential.

The Mineral Resource used for the PFS was classified under JORC 2012 Guidelines and announced by the Company on 14 March 2018. The cut-off grades adapted for the PFS and reported in Table 3.1 are the basis of the production target assumed for the PFS.

The Company believes it has a reasonable basis to expect to be able to fund and further develop the Goongarrie Nickel Cobalt Project. However, there is no certainty that the Company can raise funding when required.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This news release contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of this news release.

This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing and amount of funding required to execute the Company's programs, development and business plans, capital and exploration expenditures, the effect on the Company of any changes to existing legislation or policy, government regulation of mining operations, the length of time required to obtain permits, certifications and approvals, the success of exploration, development and mining activities, the geology of the Company's properties, environmental risks, the availability of labour, the focus of the Company in the future, demand and market outlook for precious metals and the prices thereof, progress in development of mineral properties, the Company's ability to raise funding privately or on a public market in the future, the Company's future growth, results of operations, performance, and business prospects and opportunities. Wherever possible, words such as "anticipate", "believe", "expect", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time. Forward-looking information involves significant risks, uncertainties, assumptions, and other factors that could cause actual results, performance or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, diminishing quantities and grades of mineral reserves, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully. Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information.

Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

For personal use only

For personal use only

APPENDIX 1 – Mineral Resource Estimate

Kalgoorlie Nickel Project nickel-cobalt mineral resource (JORC 2012) (Ardea Annual Report 2019, 24 October 2019)

Resource Category	Quantity (Mt)	Nickel (%)	Cobalt (%)	Contained nickel (t)	Contained cobalt (t)
Measured	9.6	1.02	0.10	98,800	9,700
Indicated	232.9	0.75	0.06	1,759,700	141,200
Inferred	530.5	0.68	0.05	3,600,000	254,400
KNP Total Resources	**773.0**	**0.70**	**0.05**	**5,458,400**	**405,400**

Note: 0.5% nickel cut-off grade used to report resources. Note figures are rounded to reflect degree of certainty and may not tally.

In accordance with the Australian Securities Exchange Limited Listing Rules Appendix 5A:

The information in this report that relates to Resource Estimates for the Kalgoorlie Nickel Project is based on information originally compiled by previous and current full-time employees of Heron Resources Limited and current full-time employees of Ardea Resources Limited. The Resource Estimates and data collection processes have been reviewed, verified and re-interpreted by Mr Ian Buchhorn who is a Member of the Australasian Institute of Mining and Metallurgy and currently a director of Ardea Resources Limited. Mr Buchhorn has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activities 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'. Mr Buchhorn consents to the inclusion in this report of the matters based on his information in the form and context that it appears.

There has been no Material Change or Re-estimation of the Mineral Resource since the last formal announcement by Ardea Resources in the Ardea Annual Report 2019, ASX Release 24 October 2019.

Appendix 5B

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

For personal use only

Name of entity

Ardea Resources Limited

ABN	Quarter ended ("current quarter")
30 614 289 342	31 December 2020

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(1,422)	(2,402)
	(b) development	(229)	(700)
	(c) production	-	-
	(d) staff costs	(127)	(278)
	(e) administration and corporate costs	(201)	(324)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	16	43
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(1,963)**	**(3,661)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	(120)	(120)
	(c) property, plant and equipment	(4)	(12)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

For personal use only

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	82	82
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(42)**	**(50)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,378	4,878
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(53)	(265)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**1,325**	**4,613**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**	(680)	902
4.1	Cash and cash equivalents at beginning of period	11,587	10,005
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,963)	(3,661)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(42)	(50)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,325	4,613

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	
4.6	**Cash and cash equivalents at end of period**	**10,907**	**10,907**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	498	5,184
5.2	Call deposits	10,409	6,403
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**10,907**	**11,587**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	195
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

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

Salaries, Directors fees and Consulting fees paid to Directors - $176,653

Payments for Kalgoorlie Office to a Director related entity for the quarter - $18,750

For personal use only

For personal use only

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-
7.5	**Unused financing facilities available at quarter end**		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(1,963)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,963)
8.4	Cash and cash equivalents at quarter end (item 4.6)	10,907
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	10,907
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	5.5

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

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

Answer: N/A

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

Answer: N/A

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

Answer: N/A

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

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 21 January 2021

Authorised by: Ardea Board of Directors

Notes

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

For personal use only

For personal use only

Ardea Resources Limited Tenement Schedule (WA) as at 31 December 2020

Goongarrie Nickel Cobalt Project

Tenure	Location	Ardea Interest (%)	Status	Note	Tenure	Location	Ardea Interest (%)	Status	Note
E24/196	Goongarrie	100	Live		**M24/731**	Goongarrie	100	Live	3
E24/209	Goongarrie	100	Live		**M24/732**	Goongarrie	100	Live	3
E24/211	Goongarrie	100	Pending		**M24/744**	Goongarrie	100	Live	
E29/934	Goongarrie	100	Live		**M24/778**	Goongarrie	100	Live	3
E29/1028	Goongarrie	100	Live		**M29/167**	Goongarrie	100	Live	
E29/1038	Goongarrie	100	Live		**M29/202**	Goongarrie	100	Live	
E29/1039	Goongarrie	100	Pending		**M29/272**	Goongarrie	100	Live	
E29/1045	Goongarrie	100	Live		**M29/278**	Goongarrie	100	Live	
E29/1048	Goongarrie	100	Live		**M29/423**	Goongarrie	100	Live	
E30/500	Goongarrie	100	Live		**M29/424**	Goongarrie	100	Live	
E30/501	Goongarrie	100	Live		**M29/426**	Goongarrie	100	Live	
E30/502	Goongarrie	100	Live		**P24/5260**	Goongarrie	100	Live	
G29/25	Goongarrie	100	Pending		**P24/5328**	Goongarrie	100	Live	
L24/239	Goongarrie	100	Live		**P24/5329**	Goongarrie	100	Live	
L29/134	Goongarrie	100	Live		**P24/5265**	Goongarrie-Carr Boyd	100	Live	
L29/135	Goongarrie	100	Live		**P24/5169**	Goongarrie-Windanya	100	Live	
L30/67	Goongarrie	100	Live		**P24/5480**	Goongarrie-Windanya	100	Pending	
L30/68	Goongarrie	100	Live		**M24/919**	Goongarrie-Scotia	100 Ni rights	Live	6
L16/141	Goongarrie	100	Pending		**M24/959**	Goongarrie-Scotia	100 Ni rights	Live	6
L30/85	Goongarrie	100	Pending		**M24/541**	Goongarrie	100	Live	

GNCP Expansion
Siberia

Tenure	Location	Ardea Interest (%)	Status	Note
E24/203	Siberia	100 non Au-Ag rights	Live	4
E29/889	Siberia	100 non Au-Ag rights	Live	4
M24/634	Siberia	100 non Au-Ag rights	Live	1,4
M24/660	Siberia	100 non Au-Ag rights	Live	4
M24/663	Siberia	100 non Au-Ag rights	Live	4
M24/664	Siberia	100 non Au-Ag rights	Live	4
M24/665	Siberia	90 non Au-Ag rights	Live	2,4
M24/683	Siberia	100 non Au-Ag rights	Live	4
M24/686	Siberia	100 non Au-Ag rights	Live	4
M24/772	Siberia	100 non Au-Ag rights	Live	4
M24/797	Siberia	100 non Au-Ag rights	Live	4
M24/915	Siberia	100 non Au-Ag rights	Live	4
M24/916	Siberia	100 non Au-Ag rights	Live	4
P24/5235	Siberia	100	Live	
P24/5236	Siberia	100	Live	
P29/2484	Siberia	100	Live	
P29/2485	Siberia	100	Live	
P24/5416	Siberia	100	Pending	
P24/5417	Siberia	100	Pending	
P24/5418	Siberia	100	Pending	

GNCP Expansion
Black Range

Tenure	Location	Ardea Interest (%)	Status	Note
M24/757	Black Range	100 non Au-Ag rights	Live	4
M24/973	Black Range	100 non Au-Ag rights	Pending	4
P24/4395	Black Range	100 non Au-Ag rights	Live	4
P24/4396	Black Range	100 non Au-Ag rights	Live	4
P24/4400	Black Range	100 non Au-Ag rights	Live	4
P24/4401	Black Range	100 non Au-Ag rights	Live	4
P24/4402	Black Range	100 non Au-Ag rights	Live	4
P24/4403	Black Range	100 non Au-Ag rights	Live	4

For personal use only

Kalpini Hub

GNCP Expansion

Tenure	Location	Ardea Interest (%)	Status	Note	Tenure	Location	Ardea Interest (%)	Status	Note
E27/524	Kalpini	100 non-Au rights	Live	9	**P25/2454**	Kalpini-Bulong	100	Live	
E27/606	Kalpini	100	Live		**P25/2455**	Kalpini-Bulong	100	Live	
E27/607	Kalpini	100	Live		**P25/2456**	Kalpini-Bulong	100	Live	
E28/1224	Kalpini	100	Live		**P25/2457**	Kalpini-Bulong	100	Live	
E28/2978	Kalpini	100	Pending		**P25/2458**	Kalpini-Bulong	100	Live	
M27/395	Kalpini	100	Live		**P25/2459**	Kalpini-Bulong	100	Live	
M27/506	Kalpini	100	Live		**P25/2460**	Kalpini-Bulong	100	Live	
M27/512	Kalpini	100	Pending		**P25/2461**	Kalpini-Bulong	100	Live	
M28/199	Kalpini	100	Live		**P25/2482**	Kalpini-Bulong	100	Live	
M28/201	Kalpini	100	Live		**P25/2483**	Kalpini-Bulong	100	Live	
M28/205	Kalpini	100	Live		**P25/2484**	Kalpini-Bulong	100	Live	
E27/278	Kalpini-Pioneer	100 Ni Lat Ore	Live	5	**P25/2559**	Kalpini-Bulong	100	Live	
E27/438	Kalpini-Pioneer	100 Ni Lat Ore	Live	5	**P25/2560**	Kalpini-Bulong	100	Live	
E27/520	Kalpini-Pioneer	100 Ni Lat Ore	Live	5	**P25/2561**	Kalpini-Bulong	100	Live	
E27/579	Kalpini-Pioneer	100 Ni Lat Ore	Live	5	**P25/2609**	Kalpini-Bulong	100	Live	
E28/1746	Kalpini-Pioneer	100 Ni Lat Ore	Live	5	**P25/2613**	Kalpini-Bulong	100	Live	
E28/2483	Kalpini-Pioneer	100 Ni Lat Ore	Live	5	**P25/2614**	Kalpini-Bulong	100	Live	
E25/578	Kalpini-Bulong	100	Live		**P25/2615**	Kalpini-Bulong	100	Live	
M25/59	Kalpini-Bulong	100	Live		**P25/2650**	Kalpini-Bulong	100	Live	
M25/134	Kalpini-Bulong	100	Live		**P26/4542**	Kalpini-Bulong	100	Pending	
M25/145	Kalpini-Bulong	100	Live		**P26/4543**	Kalpini-Bulong	100	Pending	
M25/151	Kalpini-Bulong	100	Live		**M31/488**	Kalpini-Lake Rebecca	100	Pending	
M25/161	Kalpini-Bulong	100	Live		**P31/2038**	Kalpini-Lake Rebecca	100	Live	
M25/171	Kalpini-Bulong	100	Live		**P31/2039**	Kalpini-Lake Rebecca	100	Live	
M25/187	Kalpini-Bulong	100	Live		**P31/2040**	Kalpini-Lake Rebecca	100	Live	
M25/209	Kalpini-Bulong	100	Live		**E27/643**	Kalpini	100	Pending	

Yerilla Hub

GNCP Expansion

Tenure	Location	Ardea Interest (%)	Status	Note
E39/1954	Yeriall-Aubils	100	Live	
E31/1092	Yerilla-Boyce Creek	100	Live	
E31/1169	Yerilla-Boyce Creek	100	Live	
E31/1208	Yerilla-Boyce Creek	100	Live	
E31/1213	Yerilla-Boyce Creek	100	Live	
M31/483	Yerilla-Boyce Creek	100	Live	
M31/475	Yerilla-Jump Up Dam	100	Live	
M31/477	Yerilla-Jump Up Dam	100	Live	
M31/479	Yerilla-Jump Up Dam	100	Live	

WA Regional

Tenure	Location	Ardea Interest (%)	Status	Note
E39/2188	Yundamindra	100	Pending	
M15/1101	WA Regional	Pre-emp Ni-Co Lat	Live	7
M15/1263	WA Regional	Pre-emp Ni-Co Lat	Live	7
M15/1264	WA Regional	Pre-emp Ni-Co Lat	Live	7
M15/1323	WA Regional	Pre-emp Ni-Co Lat	Live	7
M15/1338	WA Regional	Pre-emp Ni-Co Lat	Live	7
M27/510	WA Regional	100 Ni Lat Ore	Live	8
M27/272	Kanowna East	Non-Au Rights	Live	10
E31/1261	Pinjin	100	Pending	
E28/3036	Pinjin South	100	Pending	
E28/3040	Pinjin South	100	Pending	
E26/228	Gidji	100	Pending	

Kookynie Gold-Nickel

Tenure	Location	Ardea Interest (%)	Status	Note
E40/350	Kookynie	0	Live	11
E40/357	Kookynie	0	Live	11

Perrinvale Nickel-Gold

Tenure	Location	Ardea Interest (%)	Status	Note
E29/1006	Perrinvale	100	Live	
E29/1078	Perrinvale	100	Live	

Mt Zephyr Gold-Nickel

Tenure	Location	Ardea Interest (%)	Status	Note	Tenure	Location	Ardea Interest (%)	Status	Note
E37/1271	Mt Zephyr	100	Live	12	**E39/1706**	Mt Zephyr	100	Live	12
E37/1272	Darlot East	100	Live	12	**E39/1854**	Mt Zephyr	100	Live	12
E37/1273	Darlot East	100	Live	12	**E39/1985**	Mt Zephyr	100	Live	12
E37/1274	Mt Zephyr	100	Live	12					

Bedonia Gold-Nickel

Tenure	Location	Ardea Interest (%)	Status	Note	Tenure	Location	Ardea Interest (%)	Status	Note
E63/1827	Bedonia	100	Live		**E63/1929**	Bedonia	100	Live	
E63/1828	Bedonia	100	Live		**E63/1974**	Bedonia	100	Live	
E63/1856	Bedonia	100	Live		**E63/1976**	Bedonia	100	Live	
E63/1857	Bedonia	100	Live		**E63/1995**	Bedonia	100	Pending	
E63/1928	Bedonia	100	Live		**E63/2008**	Bedonia	100	Live	

Ardea Resources Limited Tenement Schedule (NSW) as at 31 December 2020

Lachlan Fold Belt – Ardea

Tenure	Location	Ardea Interest (%)	Status	Note
EL 8557	Restdown Lithium	100	Live	

Notes:	
1.	Britannia Gold Ltd retains precious metal rights.
2.	Impress Ventures Ltd has a 10% equity free-carried interest to a decision to mine.
3.	Barrick (PD) Australia Limited retains certain Au claw-back rights and royalty receivable.
4.	Ora Banda Mining Ltd holds Au-Ag rights while Ardea retains all non Au-Ag rights.
5.	Acra JV – Northern Star Resources Ltd earn-in with Pioneer Resources Ltd. Former holds gold rights while latter retains nickel sulphide rights. Ardea retains rights to Ni laterite ore.
6.	Black Mountain Gold Limited all rights with exception of Ardea retaining Ni rights.
7.	Ramelius Resources Limited assignee (Maximus Resources Ltd) all rights, Ardea pre-emptive right to Ni-Co laterite.
8.	Pioneer Resources Limited assignee (Paddington Gold Pty Ltd) owns all mineral rights (except nickel sulphide) while Ardea retains rights to nickel laterite ore.
9.	Kalnorth Gold Ltd owns Au rights while Ardea retains non-Au rights.
10.	Northern Star (Kanowna) Limited holds Au rights. Ardea retains non-Au rights.
11.	The Option to purchase the tenements was transferred to Metalicity Limited on 21 November 2020. Ardea retains non Au rights.
12.	The Mt Zephyr/Darlot East tenements were farmed out to Red 5 Limited on 18 November 2020 whereby Red 5 Limited may earn 80% equity interest. Ardea is free carried to Decision to Mine.

Interests in Mining Tenements and Petroleum Tenements Acquired or Increased during the December Quarter 2020

Ardea WA Tenements

Tenure	Location	Nature of Interest	Ardea Interest beginning Quarter (%)	Ardea Interest end Quarter (%)
E26/228	Gidji	Application	0	100
E27/643	Kalpini	Application	0	100
L16/141	Goongarrie	Application	0	100
L30/85	Goongarrie	Application	0	100

For personal use only