

**ASX & Media Release**

31 October 2017

**ASX Symbol**

ARL

**Ardea Resources Limited**

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**Directors**

Katina Law  
*Chair*

Matt Painter  
*Managing Director*

Ian Buchhorn  
*Technical Executive Director*

**Issued Capital**

*Shares*  
80,649,536

*Unlisted options*  
12,310,022

*Loyalty options*  
25,227,423

ABN 30 614 289 342

## QUARTERLY OPERATIONS REPORT

September Quarter, 2017

### Recent raisings place the Company in a sound financial position

- The Company successfully raised \$9.95 million through a share placement plan and a private placement.
- Cash at hand is now \$12.1 million.
- Funds are being used to accelerate R&D programs with the main focus on bringing forward drilling of the KNP Cobalt Zone and expanding the PFS scope.
- Full exercise of the \$0.77 loyalty options by May 2018 would see the Company fully funded through the KNP Cobalt Zone Definitive Feasibility Study.

### KNP Cobalt Zone Pre-Feasibility Study

- The Pre-Feasibility study is focused on defining a flowsheet that will produce cobalt sulphate and nickel sulphate for the battery industry.
- Several by-products, including scandium, platinum, palladium, manganese, high-purity aluminium, and chromium are also being assessed as an addendum to the cobalt-nickel flowsheet.
- Acid leach test work is achieving outstanding results with extraction of cobalt and nickel from the laterite and into solution commonly exceeding 98% for a variety of flowsheet options.
- Rolling resource upgrades, recently at Black Range and Scotia Dam, further enhance the KNP Cobalt Zone with improved resources at each deposit.

### Funding secures the path to production

This quarter, Ardea positioned itself financially to accelerate programs and provide certainty regarding ongoing funding for the Pre-Feasibility Study (PFS) on the KNP Cobalt Zone and, following on from that, the Definitive Feasibility Study (DFS).

Ardea is focused on the high-grade Cobalt Zone which comprises **64.4Mt at 0.13% cobalt + 0.77% nickel** (see Table 1 for resource breakdown). The PFS flowsheet research is focused on production of high purity cobalt and nickel sulphate for sale directly to the battery industry. Additional by-products, such as scandium, platinum, palladium, manganese, chromium, and high-purity alumina, are also being assessed as ancillary products. Mining operations of up to 2 Mtpa are being modelled, which would produce up to 2,500 tpa cobalt-in-sulphate and 15,000 tpa nickel-in-sulphate. At these rates, the KNP Cobalt Zone would be a significant producer of battery and technology commodities for decades to come.

The finances of the Company are secure thanks to the raising of almost \$10 million during the quarter. Furthermore, exercising of the “in-the-money” 77c Loyalty Options prior to their expiry at the end of May 2018 would provide an additional \$19.5 million, thereby fully funding the Company through to the end of the DFS.

The extra funding from the raising is expediting the forthcoming DFS by bringing forward and commencing drilling programs now as part of the PFS. High-resolution drilling of the KNP Cobalt Zone, for which government approvals have just been received, will focus on previously drilled resources which will enable:

- upgrading of resource classification and sampling for geo-metallurgical analysis through drilling for accurate definition of the mining schedule at Goongarrie, Black Range, Siberia, Aubils and Boyce Creek (at least 25,000 m RC drilling)
- reserve definition and geo-metallurgical analysis at the Patricia Anne and Elsie Tynan areas of Goongarrie (around 45,000 m RC drilling)
- metallurgical variability sampling in preparation for the DFS (~4,500m diamond drilling)

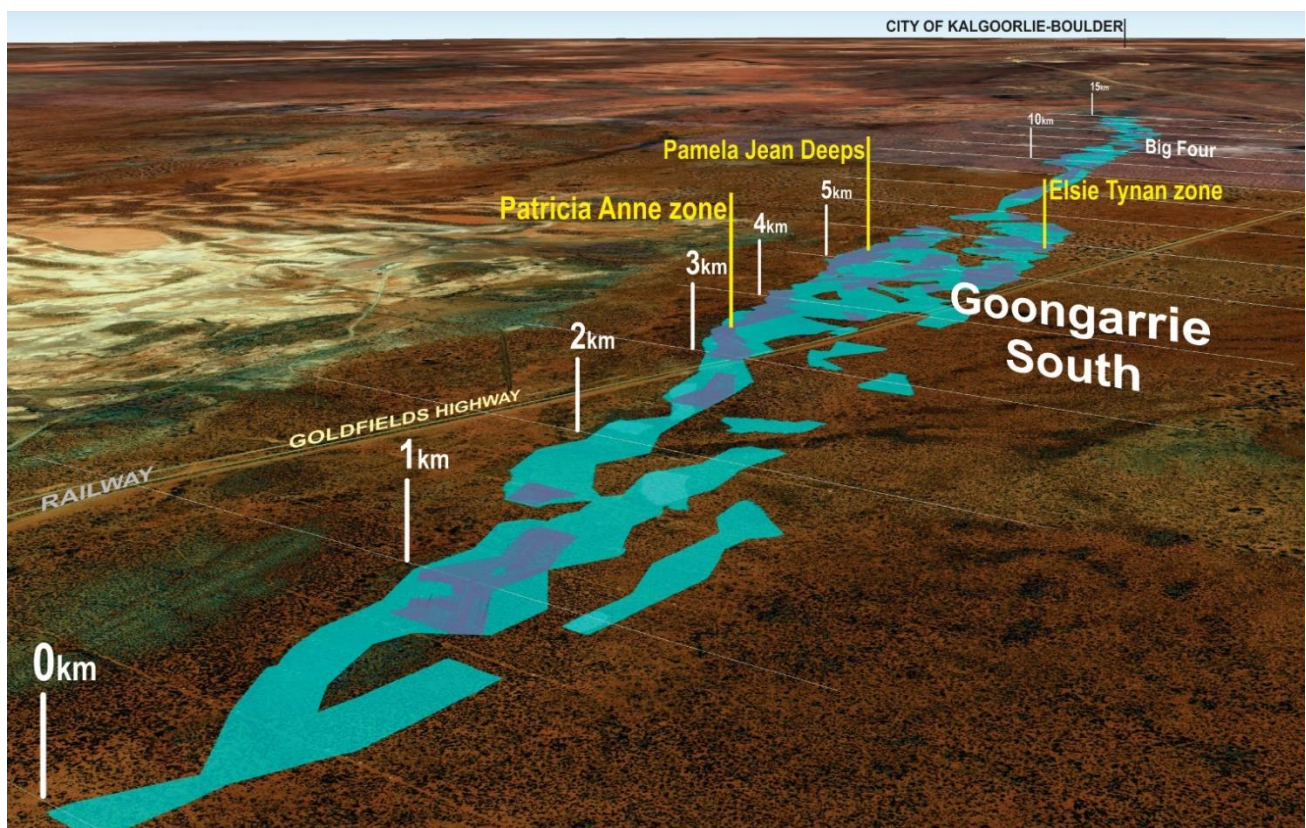


Figure 1 – Oblique view of 15 km long strike length of continuous mineralisation at the Goongarrie South and Big Four cobalt-nickel camps. This area is the main focus of Pre-Feasibility Studies on the KNP Cobalt Zone. Note the proximity of the project to the sealed Goldfields Highway, railway, and the City of Kalgoorlie-Boulder around 80 km to the south. Blue-green = 0.05% cobalt shell. Purple = 0.10% cobalt shell. Looking SSE.

In addition, the funding will also be used to:

- advance deposits from the Kalpini, Highway, and Yerilla areas to the KNP Cobalt Zone through strategic drilling (around 40,000 m RC drilling). This will be followed by metallurgical testing, resource definition and modelling of the defined deposits.
- evaluate the Company’s gold and base metal exploration projects with a view to consider custom mill production or alternatively spinning out once sufficient value has been added through new drilling programs.

As optimism over the future of the battery industry continues to rise, demand for cobalt and nickel for use in most types of lithium ion batteries is expected to increase significantly into the 2020s. This bodes well for Ardea, and is reflected in the increasing share price, which has risen over the quarter from less than 60c at the start of July to over \$1.00 at the time of writing. Cobalt prices have not moved significantly, fluctuating around the US\$60,000 per tonne mark, but nickel prices have recovered substantially from less than \$9,000 per tonne at the start of the quarter to around \$12,000 per tonne at the time of writing. With little change in the price of cobalt over the quarter, it is clear that the share price is also being influenced by the nickel price.

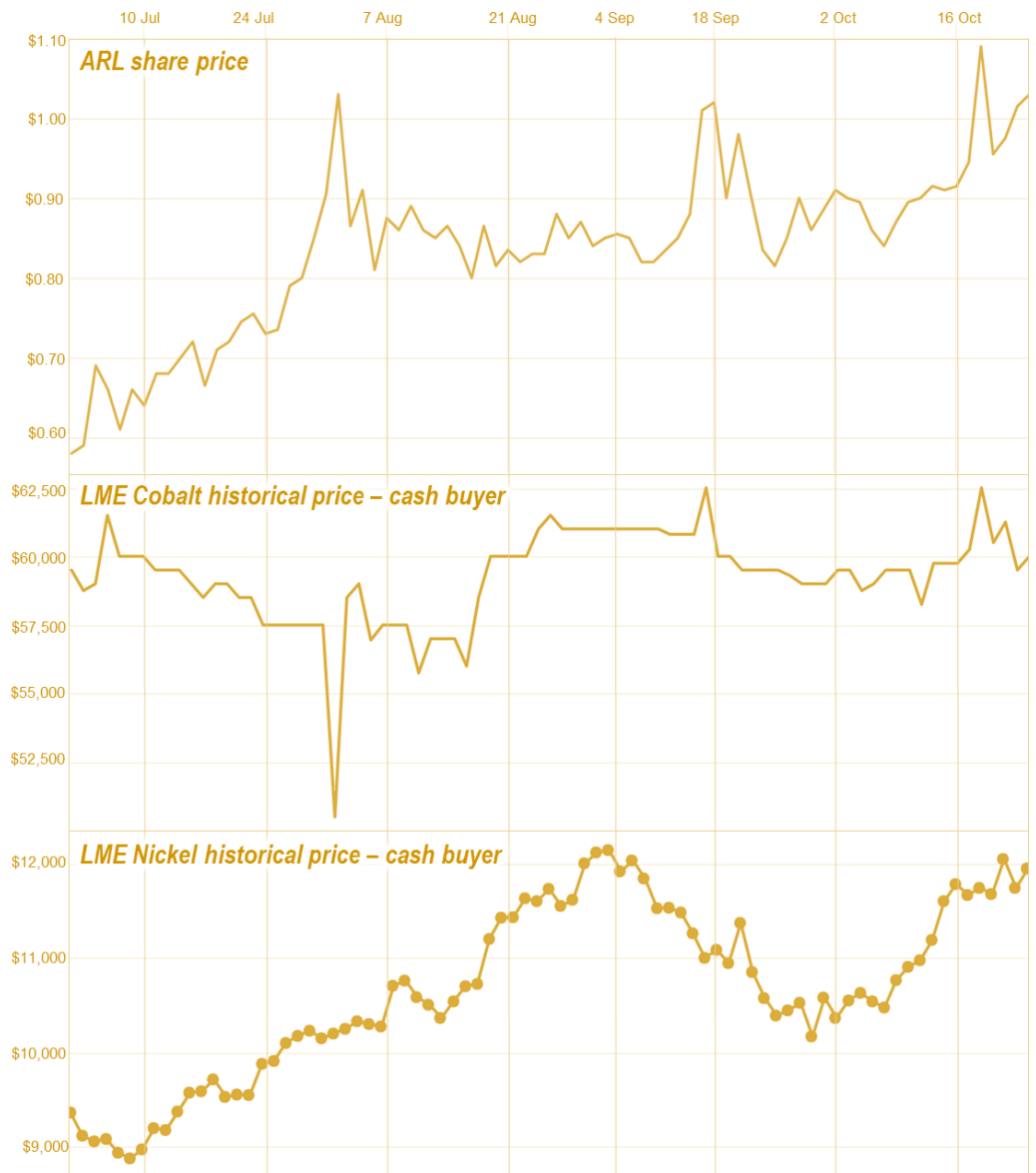


Figure 2 – Ardea’s share price (top), cobalt price (middle), and nickel price (bottom) over the course of the quarter. Same horizontal scale. Metal price data sourced from the London Metals Exchange ([www.lme.com](http://www.lme.com))

This bullishness regarding the battery industry and the commodities it requires is reflected in recent announcements by industry giants like BHP and Vale. Both have expressed intentions to become substantial suppliers. BHP intends to produce nickel and cobalt sulphate by dissolving nickel/cobalt briquettes or powder in acid to ensure precipitation of high purity sulphate product. In contrast, Vale highlights their focus on production of similarly pure material by precipitating them directly from the liquors that are the result of direct dissolution of nickel-cobalt laterite in acid. All laterite-type deposits are different and require unique solutions to produce cobalt and nickel products, but Vale’s deposits and flowsheets are in some ways analogous to Ardea’s, so the focus of such companies on meeting the demands of the battery industry highlight the strength of Ardea’s current and future market positions.

**Ardea views the KNP Cobalt Zone as a world class multi-commodity deposit in a stable and mature mining location that is well-placed to deliver materials of high purity and accepted provenance into a rapidly expanding battery and electrified vehicle sector.**

## Company objectives

Ardea’s aim is to expedite research to advance its key development projects, the KNP Cobalt Zone in WA and the Lewis Ponds zinc-gold-silver deposit in NSW, towards production for the benefit of shareholders. In addition, it will leverage its broad, high-quality exploration portfolio to drive value. This may mean exploration, mine development, spinning out or other divestment of projects as appropriate to the project’s prospectivity and the Company’s strategic requirements.

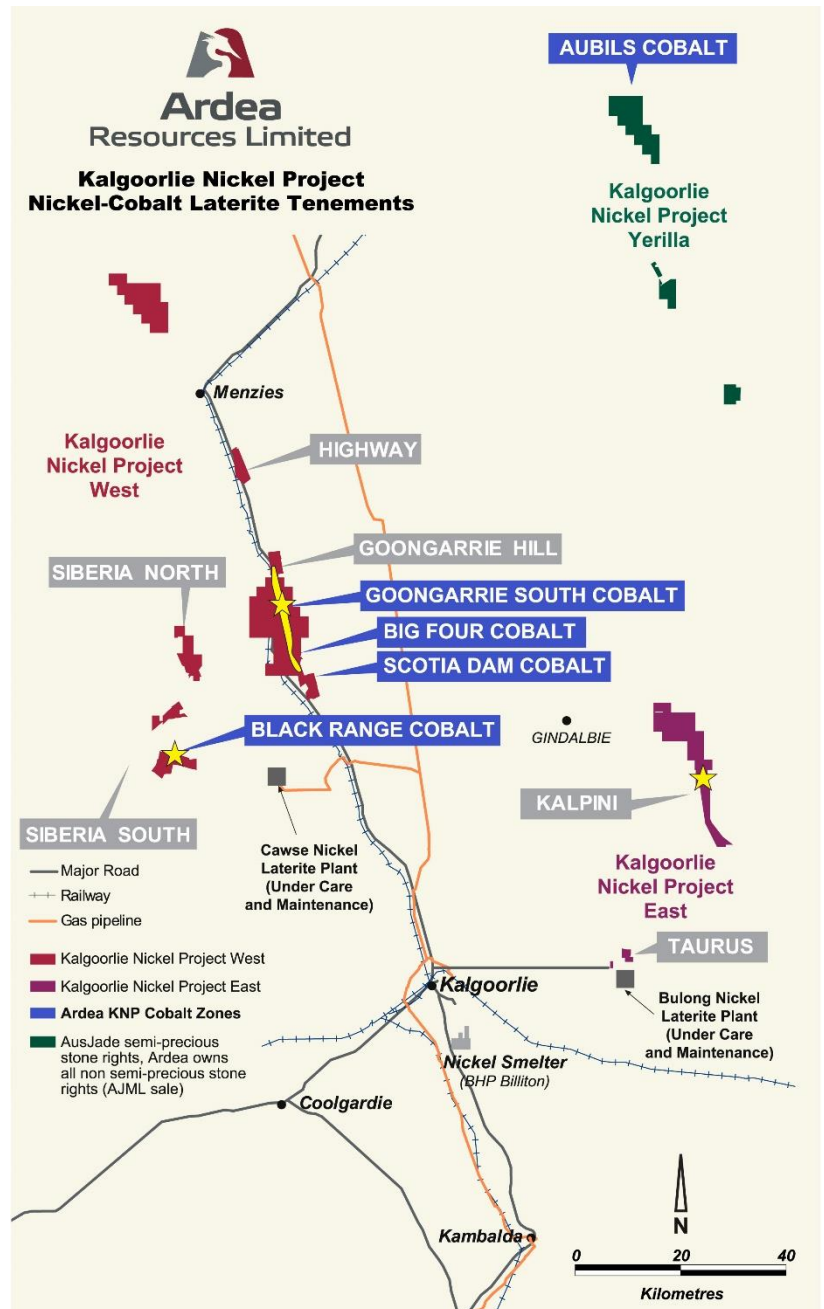


Figure 3 – Location of drill programs (yellow stars) and resource remodels (yellow polygon) throughout the KNP Cobalt Zone during the September quarter of 2017.

Ardea is seeking to become a significant producer of cobalt and nickel sulphate from the KNP Cobalt Project, and zinc, gold and silver in concentrates from Lewis Ponds, for global commodity markets.

## The KNP Cobalt Zone, WA

The KNP Cobalt Zone advanced during the quarter as research results came in for the drilling for geo-metallurgical testwork and resource remodelling programs. These included:

- Goongarrie South and Big Four resource remodel and upgrade
- Goongarrie diamond drill program
- Black Range RC drill program
- Kalpini RC drill program

### A new resource model for the KNP Cobalt Zone

An updated resource for the KNP Cobalt Zone was released during the quarter, incorporating changes to the Black Range resource. The resource now stands at **64.4 Mt at 0.13 % cobalt and 0.77 % nickel** (reported using 0.08 % cobalt lower cut-off generally, and a 0.5 % nickel cut-off at Black Range, see **Error! Reference source not found.** below for breakdown).

*Table 1 – KNP Cobalt Zone, Resource Statement from RMRC and HGMC consulting groups. All figures are appropriately rounded to reflect the degree of certainty.*

Area	Prospect	Resource category	Cut-off (% Co)	Size (Mt)	Co (%)	Ni (%)	Contained cobalt (t)	Contained nickel (t)
Goongarrie	Goongarrie South	Measured	0.08	4.6	0.16	1.12	7,200	51,600
		Indicated	0.08	12.9	0.13	0.79	17,300	101,300
		Inferred	0.08	7.8	0.14	0.72	10,500	56,100
		Subtotal	0.08	25.3	0.14	0.83	35,000	209,000
	Big Four	Indicated	0.08	9.2	0.13	0.75	12,100	68,500
		Inferred	0.08	2.2	0.13	0.57	2,800	12,500
		Subtotal	0.08	11.4	0.13	0.71	14,900	81,000
	Scotia	Indicated	0.08	1.13	0.18	0.86	2,000	9,700
		Inferred	0.08	1.37	0.17	0.79	2,300	10,900
		Subtotal	0.08	2.50	0.17	0.82	4,300	20,600
	Goongarrie subtotal	0.08	39.6	0.14	0.80	54,200	310,600	
Siberia	Black Range	Indicated	0.50(Ni)	9.3	0.09	0.67	8,200	62,300
		Inferred	0.50(Ni)	9.9	0.10	0.69	9,600	68,300
		Subtotal	0.50(Ni)	19.2	0.09	0.68	17,800	130,600
Yerilla	Aubils	Inferred	0.08	6.0	0.15	0.90	9,000	54,000
<b>KNP COBALT ZONE</b>		<b>Total</b>		<b>64.4</b>	<b>0.13</b>	<b>0.77</b>	<b>81,000</b>	<b>495,200</b>

For full details of the resource upgrade, see the announcement “ [Black Range and Scotia Dam cobalt and nickel interim resource updates](#)”, 28 August 2017.

### Goongarrie South, KNP Cobalt Zone

A Program of Works (PoW) for planned infill geo-metallurgical drilling on the southern half of Goongarrie South was submitted to the WA Department of Mines, Industry Regulation and Safety (DMIRS).

The PoW was approved on 25 October, with drill access line clearing starting immediately. Infill RC drilling at the Pamela Jean West and Elsie Tynan deposits will commence as soon as possible.

Outstanding results from the 200 metre pattern diamond drill program at the Pamela Jean Deeps deposit at Goongarrie South were reported in early July, so were recorded in the previous quarterly report. Results included:

- AGSD0001** 131.0 m at 0.10 % cobalt and 1.06 % nickel from 34.0 m\*,  
*including* 7.2 m at 0.92 % cobalt and 2.19 % nickel from 95.6 m,
- AGSD0002** 54.0 m at 0.11 % cobalt and 1.52 % nickel from 10.0 m,  
*including* 38.7 m at 0.13 % cobalt and 1.52 % nickel from 18.0 m
- AGSD0003** 49.3 m at 0.11 % cobalt and 1.31 % nickel from 16.6 m,  
*including* 21.0 m at 0.13 % cobalt and 1.49 % nickel from 24.0 m,
- AGSD0004** 39.0 m at 0.20 % cobalt and 1.35 % nickel from 18.7 m,  
*including* 28.0 m at 0.27 % cobalt and 1.57 % nickel from 22 m

For full details of the drill program and metallurgical research outcomes, see the announcement “[Thick, high-grade cobalt-nickel intersections at Goongarrie South](#)”, 4 July 2017.

### Black Range, KNP Cobalt Zone

The resource at Black Range was upgraded during the quarter to 19.2 Mt at 0.09 % Co and 0.68 % Ni†. Whilst this represents a marginal decrease in tonnes, the resource is now of significantly better quality and is internally more robust, with around half of the resource upgraded to Indicated. This is the first Indicated Mineral Resource at Black Range.

Additionally, this new model depicted the distribution of scandium, platinum, and palladium concentrations within the Black Range deposit area for the first time. Exploration Targets (see below) for these metals are defined as:

- 10–20 Mt at 50–80 g/t scandium
- 10–20 Mt at 0.4–0.6 g/t platinum + palladium

These targets are not intended to be stand-alone resources, but rather to be subsets of the cobalt-nickel resource. The aim is to recover these metals as by-products of cobalt and nickel mining from material that would be mined and in some instances processed in any case. As per JORC 2012 requirements regarding Exploration Targets, we note that the potential quantities and grades of these Exploration Targets are currently conceptual in nature, that there has been insufficient work to estimate a Mineral Resource at this point in time, and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Work is nearing completion on initial PGM and a scandium resources within the Exploration Target ranges defined. It is expected that further drilling will continue to expand these and the nickel-based resources. Ardea has now included research on the extraction and recovery of scandium, manganese, chromium, alumina and PGMs into the Simulus Engineers KNP scope of work (for finalising at DFS stage).

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† Comprising Indicated and Inferred resources reported at a 0.5 % Ni cut-off

## Scotia Dam, KNP Cobalt Zone

Detailed work at Scotia Dam at the southern end of the Goongarrie Line also resulted in a new resource of 2.5 Mt at 0.17 % Co and 0.82 % Ni (see breakdown in Table 1). As at Black Range, a substantial portion of the new resource has been upgraded to Indicated status (Table 1), confirming greater internal certainty.

## Kalpini nickel-cobalt camp

Since first-pass drilling at Kalpini in the March quarter of this year, planning at the 30 km long Kalpini cobalt-nickel camp east of Goongarrie has identified several areas that require further drilling in order to better define cobalt-rich deposits. With an historic Inferred Mineral Resource at Kalpini of 75.0 Mt at 0.044 % cobalt and 0.73 % nickel (see Ardea Prospectus November 2016, page 85 Table 1), the Kalpini camp is considered to have significant potential for upgrading of cobalt-nickel resources. Just prior to writing, the Company received approval for a Program of Works (PoW) in the area that will allow testing of a number of areas at Kalpini. Plans are being finalised and preparations are underway to commence further drilling. This program is expected to commence once the Goongarrie South program is well underway.

The Kalpini deposits are not presently part of the KNP Cobalt Zone. With known historic cobalt mineralisation, research was commenced to define higher-grade portions of Kalpini that could be incorporated into the KNP Cobalt Zone flowsheet.

## KNP Cobalt Zone Pre-Feasibility Study

The PFS flowsheet is being designed to produce high purity cobalt and nickel sulphate directly to the battery industry. Additional by-products, such as manganese, scandium, platinum, palladium, chromium, and high-purity alumina, are also being assessed. Mining operations of up to 2 Mtpa are being modelled, which would produce up to 2,500 tpa cobalt-in-sulphate and 15,000 tpa nickel-in-sulphate.

Hydro-metallurgical research was the focus of the KNP Cobalt Zone PFS during the quarter. To date, work has focused on extraction of the metals from run-of-mine samples, with the focus on optimising cobalt and nickel. Research will now focus on recovery of ancillary metals from solution, with a series of tests in a mini-pilot plant about to be completed (using a 250 kg bulk sample of 2017 Ardea KNP drill samples).

In total, five potential process types are being researched for their suitability for Goongarrie mineralisation:

- Sulphuric acid high-pressure acid leach (HPAL)
- Sulphuric acid atmospheric leach
- Hydrochloric acid reducing leach
- Hydrochloric acid oxidising leach
- Hydrochloric acid salt electrolyte leach

Metal extractions from mineralised laterite exceeded expectations for all processes tested, with **extractions of cobalt and nickel into solution usually exceeding 98%**. For scandium, over 90% of the metal was regularly extracted into solution. For lateritic nickel and cobalt deposits, the extraction of metals into solution is usually the most problematic part of the flowsheet, but from new research it seems that the Goongarrie South run-of-mine samples are particularly amenable to acid leaching. Without poorly performing test results to clearly define the culling of unsuitable extraction processes, financial and logistical modelling of each process is underway to define the optimal means of extraction of metals from Goongarrie South. The Company will finalise the research ahead of adopting the PFS final report.

## Lewis Ponds zinc-gold-silver deposit, NSW

Ongoing research at Lewis Ponds continues to show positive results from metallurgical test work. Flotation variability test work shows excellent zinc recoveries, with further work required for other metals.

Detailed examination of mineralised zones and the surrounding host rocks was undertaken to help constrain metallurgical process test work. Hyperspectral scans of zinc-rich stringer and disseminated mineralisation undertaken in research at CSIRO in Perth and petrographic examination of similar rocks have defined textural and mineralogical constraints for refinement of the metallurgical test work program.

Work is underway on re-examination of historic drill core at the Lewis Ponds core yard. With all core stored for the past one or two decades in the open, much of it has deteriorated and requires rehabilitation. However, it is clear that there are significant intercepts containing mineralisation (now largely oxidised due to poor storage) that have not been sampled previously. These drill cores are being sampled and assayed as appropriate. The assays will be used to validate the hypothesis that stringer and disseminated mineralisation is through-going, and will assist with targeting of drill holes for the forthcoming second round of drilling. Additionally, the program is researching the potential for orogenic gold mineralisation at Lewis Ponds, bearing in mind the project is 20km north along structure from Regis Resources' McPhillamy's gold project.

Relogging and resampling of the historic drill core is expected to be completed before Christmas. With the Company's drilling earlier in the year on 200 m spaced sections, relogging is initially focusing on all available drill core on each of those sections, it is now progressing to the intervening 100 m-spaced sections. This relogging, when combined with historical data and new assay data will assist in defining the distribution of mineralisation, developing the Company's models, and with targeting of the drill holes in the forthcoming drill program in 2018.

This redefinition of the scope of the current study, the poorer than expected state of drill core, and the identification of additional styles of mineralisation mean that further work is required to define the next phase of drilling. As such, the program for the current study is being extended to gather further information regarding mineralisation distributions and relationships from the 100 m lines at Lewis Ponds, and the study is being downgraded to a scoping study. It is anticipated that, upon further drilling in 2018, a remodelled resource will enable a relatively short time frame feasibility study.

## Operations

During the quarter, Mr Ian Buchhorn was appointed to the role of Technical Executive Director. As part of the Company's ramp-up towards production at the KNP Cobalt Zone, Mr Buchhorn's unsurpassed knowledge of the KNP from over 20 years' operating experience will be an invaluable asset. To effectively and efficiently develop the project by making use of this expertise, Mr Buchhorn is now working on a daily basis, thus moving from a non-executive to executive role.

As a result of the recent raisings, the Company is accelerating its projects, thereby requiring additional staff to enable this push. A number of key technical positions are being created that will oversee the feasibility studies and exploration, along with new roles in Kalgoorlie.



## Business Development

### Raisings

During the quarter, the Company raised \$9.95 million dollars through a Share Purchase Plan (SPP) followed by a private placement. The funds raised are being used to accelerate KNP Cobalt Zone drill programs (previously scheduled for 2018) which will expedite completion of the KNP PFS and bring forward the KNP DFS.

Should all outstanding options be exercised in due course, the Company expects that it will have sufficient funds through to the completion of the DFS in 2019.

### SPP

The Shareholder Purchase Plan (“SPP”) was closed on 30 August 2017. The Company received valid applications from eligible shareholders for new shares raising \$4,414,000 with shares issued at a price of 72.5 cents per share (being a 15% discount to the 5 day VWAP rounded down to the nearest half cent). As a result, 6,091,188 new fully paid ordinary shares in Ardea were issued to shareholders on 4 September 2017. The new shares began trading on 7 September 2017.

### Private placement

Following the SPP, a private placement managed by Patersons Securities Limited raised a further A\$5.54 million before costs. The placement was heavily oversubscribed. The new shares were issued at a price of 72.5 cents per share being the same issue price as the Share Purchase Plan. Under the placement, the Company issued 7,647,850 new fully paid ordinary shares to sophisticated and professional investors using its existing placement capacity under ASX Listing Rule 7.1

### Australian Jade Mining Limited

In an effort to realise value in its non-core assets, Ardea signed a binding Terms Sheet with Australian Jade Mining Limited (AJML) that will realise over \$5 million value from non-core assets. The arrangement with AJML comprises:

- \$200,000 up-front payment received.
- \$800,000 payment on transfer of tenements.
- \$1 million within one year of execution.
- \$3 million of AJML shares in IPO or cash payout.

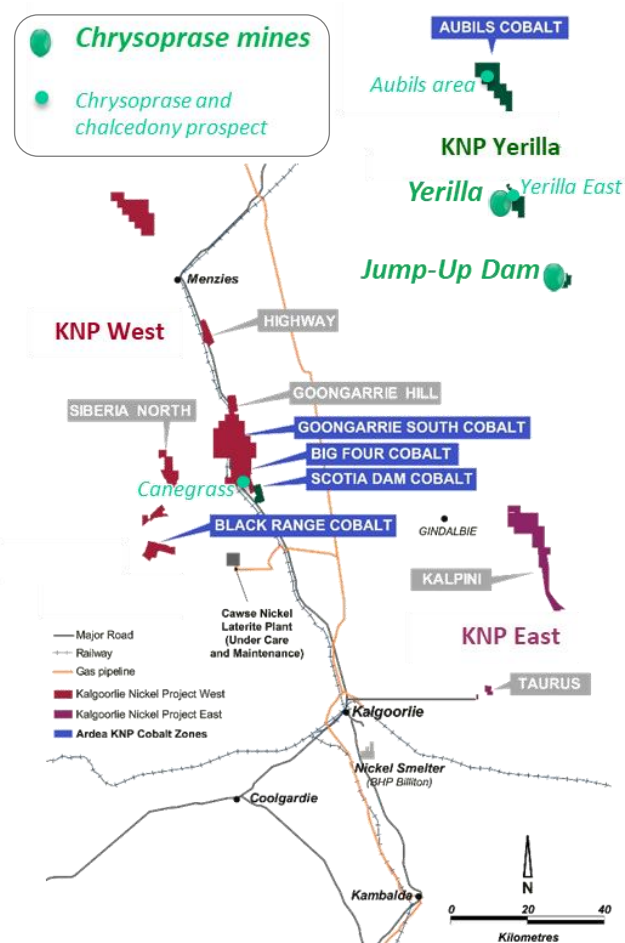


Figure 4 – Locality map of chrysoprase mines and occurrences that are the subject of the proposed transaction with Australian Jade Mining Limited (mainly on green tenements).

- Ardea will receive an ongoing 2% royalty on all of AJML's gross sales in return for first right of refusal to purchase other chrysoprase deposits discovered by Ardea at commercial rates.

AJML intends to commence a commercial mining operation at the Yerilla mine as soon as possible. Chrysoprase at Jump Up Dam and gem-quality white and grey chalcedony ("Ice Jade") at Canegrass will also be targeted. AJML have expressed interest in sub-leasing a portion of Ardea's office and yard in Kalgoorlie to manage their Eastern Goldfields operations.

**For further information regarding Ardea, please visit [www.ardearesources.com.au](http://www.ardearesources.com.au) or [www.heronresources.com.au](http://www.heronresources.com.au) or contact:**

**Ardea Resources:**

Dr Matt Painter

Managing Director, Ardea Resources Limited

Tel +61 8 6244 5136

**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 June 2014, October 2016, 2016 Heron Resources Annual Report and 6 January 2017;
2. KNP Cobalt Zone Study on 6 January 2017

*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 will be subject to new work programs following the listing of Ardea, notably drilling, metallurgy and JORC Code 2012 resource estimation as applicable.*

*The information in this report that relates to KNP Exploration Results is based on information originally compiled by previous and current full time employees of Heron Resources Limited and after February 2017 employees of Ardea Resource Limited. The Exploration Results 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 and a director 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.*

**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 ability to complete the Ardea spin-out, the timing and amount of funding required to execute the Company's exploration, 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, the ability to complete the Ardea spin-out on the basis of the proposed terms and timing or at all, 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.**

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Ardea Resources Limited

### ABN

30 614 289 342

### Quarter ended ("current quarter")

30 September 2017

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(859)	(859)
(b) development	-	-
(c) production	-	-
(d) staff costs	(103)	(103)
(e) administration and corporate costs	(108)	(108)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	6	6
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,064)</b>	<b>(1,064)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(41)	(41)
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	200	200
	(c) investments	-	-
	(d) 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)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>159</b>	<b>159</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	9,758	9,758
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	143	143
3.4	Transaction costs related to issues of shares, convertible notes or options	(270)	(270)
3.5	Proceeds from borrowings	218	218
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)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>9,849</b>	<b>9,849</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	3,062	3,062
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,064)	(1,064)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	159	159
4.4	Net cash from / (used in) financing activities (item 3.10 above)	9,849	9,849
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>12,006</b>	<b>12,006</b>

5. <b>Reconciliation of cash and cash equivalents</b> 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	12,006	3,062
5.2 Call deposits	-	-
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>12,006</b>	<b>3,062</b>

6. <b>Payments to directors of the entity and their associates</b>	Current quarter \$A'000
6.1 Aggregate amount of payments to these parties included in item 1.2	123
6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

Salaries, Directors fees and consulting fees paid to Directors - \$104,410  
Payment for Kalgoorlie office to a Director related entity for the quarter - \$18,750

7. <b>Payments to related entities of the entity and their associates</b>	Current quarter \$A'000
7.1 Aggregate amount of payments to these parties included in item 1.2	-
7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	(600)
9.2 Development	(1,650)
9.3 Production	-
9.4 Staff costs	(125)
9.5 Administration and corporate costs	(110)
9.6 Other (provide details if material)	-
<b>9.7 Total estimated cash outflows</b>	<b>(2,485)</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	See Attached Schedule			
10.2 Interests in mining tenements and petroleum tenements acquired or increased	See Attached Schedule			

### **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.



Sam Middlemas  
Company Secretary

31 October 2017

### **Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly 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 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.



**10.1**

Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced

Ardea NSW Tenements				
Tenement	Location	Nature of Interest	Ardea Interest at beginning of quarter	Ardea Interest at end of quarter
0	0	0	0	0

Ardea WA Tenements				
Tenement	Location	Nature of Interest	Ardea Interest at beginning of quarter	Ardea Interest at end of quarter
0	0	0	0	0

**10.2**

Interests in mining tenements and petroleum tenements acquired or increased

Ardea NSW Tenements				
Tenement	Location	Nature of Interest (current)	Ardea Interest at beginning of quarter	Ardea Interest at end of quarter
0	0	0	0	0

Ardea WA Tenements				
Tenement	Location	Nature of Interest (current)	Ardea Interest at beginning of quarter (%)	Ardea Interest at end of quarter (%)
P24/5235	70km NW of Kalgoorlie	Pending	0	100
P24/5236	70km NW of Kalgoorlie	Pending	0	100
P25/2454	32km E of Kalgoorlie	Pending	0	100
P25/2455	33km E of Kalgoorlie	Pending	0	100
P25/2456	34km E of Kalgoorlie	Pending	0	100
P25/2457	35km E of Kalgoorlie	Pending	0	100
P25/2458	32km E of Kalgoorlie	Pending	0	100
P25/2459	33km E of Kalgoorlie	Pending	0	100
P25/2460	34km E of Kalgoorlie	Pending	0	100
P25/2461	35km E of Kalgoorlie	Pending	0	100
P25/2482	33km E of Kalgoorlie	Pending	0	100
P25/2483	33km E of Kalgoorlie	Pending	0	100
P25/2484	34km E of Kalgoorlie	Pending	0	100

 Ardea Resources Ltd Tenement Schedule as at 30<sup>th</sup> September 2017.

Ardea NSW Tenements									
Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
EL5583	15km E of Orange	100	Live	5	EL8555	5km N of Forbes	100	Live	
EL8061	Gundagai	100	Live		EL8556	19km NE of Orange	100	Live	
EL8323	10km NE of Orange	100	Live		EL8557	62km W of West Wyalong	100	Live	
EL8532	30km NE of Parkes	100	Live		EL8580	10km N of Forbes	100	Live	
EL8538	22km SW of Wellington	100	Live		EL8586	5km N of Gundagai	100	Live	
EL8554	27km SE of Bathurst	100	Live		ML0739	10km N of Forbes	100	Live	

Ardea WA Tenements*									
Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
E24/00203	78km NW of Kalgoorlie	100% non gold rights	Pending	6	M25/00151	38km E of Kalgoorlie	100	Live	
E27/00524	67km NE of Kalgoorlie	100	Live		M25/00187	40km E of Kalgoorlie	100	Live	
E28/01224	63km NE of Kalgoorlie	100	Live		M27/00395	68km NE of Kalgoorlie	100	Live	
E29/00889	78km NW of Kalgoorlie	100% non gold rights	Live	6	M28/00199	65km NE of Kalgoorlie	100	Live	
E29/00934	67km NNW of Kalgoorlie	100	Pending		M28/00201	65km NE of Kalgoorlie	100	Live	
E29/00941	140km NNW of Kalgoorlie	100	Live		M28/00205	66km NE of Kalgoorlie	100	Live	
E29/01006	83 km E of Leonora	100	Pending		M29/00167	87km NNW of Kalgoorlie	100	Live	

**Ardea Resources Ltd Tenement Schedule as at 30<sup>th</sup> September 2017.**

Ardea WA Tenements									
Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
E31/01092	140km NNE of Kalgoorlie	100% non gem rights	Pending	7	M29/00202	86km NNW of Kalgoorlie	100	Live	
E37/01271	60km NW of Laverton	100	Pending		M29/00214	100km NNW of Kalgoorlie	100	Live	
E37/01272	100km N of Leonora	100	Live		M29/00272	77km NNW of Kalgoorlie	100	Live	
E37/01273	100km N of Leonora	100	Live		M29/00278	74km NNW of Kalgoorlie	100	Live	
E37/01274	75km NW of Laverton	100	Pending		M29/00423	76km NNW of Kalgoorlie	100	Live	
E39/01706	70km NW of Leonora	100	Live		M31/00475	129km NE of Kalgoorlie	100% non gem rights	Live	4,7
E39/01757	70km NW of Leonora	100	Live		M31/00477	129km NE of Kalgoorlie	100% non gem rights	Live	4,7
E39/01854	70km NW of Leonora	100	Pending		M31/00479	129km NE of Kalgoorlie	100% non gem rights	Live	4,7
E39/01954	170km NE of Kalgoorlie	100% non gem rights	Pending	8	M31/00483	146km NNE of Kalgoorlie	100% non gem rights	Live	4,7
E39/01985	60km NW of Laverton	100	Pending		P24/04395	70km NW of Kalgoorlie	100% non gold rights	Live	6
E63/01827	10km W of Norseman	100	Pending		P24/04396	70km NW of Kalgoorlie	100% non gold rights	Live	6
E63/01828	60km ENE of Norseman	100	Pending		P24/04400	70km NW of Kalgoorlie	100% non gold rights	Live	6
E63/01856	87km NE of Norseman	100	Pending		P24/04401	70km NW of Kalgoorlie	100% non gold rights	Live	6
E63/01857	80km NE of Norseman	100	Pending		P24/04402	70km NW of Kalgoorlie	100% non gold rights	Live	6
E70/04804	18km W of Manjimup	100	Pending		P24/04403	70km NW of Kalgoorlie	100% non gold rights	Live	6
M24/00541	67km NNW of Kalgoorlie	100	Live		P24/05235	70km NW of Kalgoorlie	100		
M24/00634	78km NW of Kalgoorlie	100% non gold rights	Live	1,6	P24/05236	70km NW of Kalgoorlie	100		
M24/00660	75km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02454	32km E of Kalgoorlie	100		
M24/00663	75km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02455	33km E of Kalgoorlie	100		
M24/00664	75km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02456	34km E of Kalgoorlie	100		
M24/00665	75km NW of Kalgoorlie	100% non gold rights	Live	2,6	P25/02457	35km E of Kalgoorlie	100		
M24/00683	78km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02458	32km E of Kalgoorlie	100		
M24/00686	75km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02459	33km E of Kalgoorlie	100		
M24/00731	70km NNW of Kalgoorlie	100	Live	3	P25/02460	34km E of Kalgoorlie	100		
M24/00732	70km NNW of Kalgoorlie	100	Live	3	P25/02461	35km E of Kalgoorlie	100		
M24/00744	75km NNW of Kalgoorlie	100	Live		P25/02482	33km E of Kalgoorlie	100		
M24/00757	63km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02483	33km E of Kalgoorlie	100		
M24/00772	71km NW of Kalgoorlie	100% non gold rights	Live	6	P25/02484	34km E of Kalgoorlie	100		
M24/00778	70km NNW of Kalgoorlie	100	Live	3	P29/02265	90km NNW of Kalgoorlie	100	Pending	
M24/00797	78km NW of Kalgoorlie	100% non gold rights	Live	6	P31/02038	113km NE of Kalgoorlie	100	Live	
M24/00915	78km NW of Kalgoorlie	100% non gold rights	Live	6	P31/02039	113km NE of Kalgoorlie	100	Live	
M24/00916	78km NW of Kalgoorlie	100% non gold rights	Live	6	P31/02040	113km NE of Kalgoorlie	100	Live	
M24/00973	66km NW of Kalgoorlie	100% non gold rights		6					

\*Non-gold rights defined as non gold or silver.

**Notes:**

1. Britannia Gold Ltd retained precious metal rights.
2. Impress Ventures Ltd has a 10% equity free-carried interest to a decision to mine.
3. Placer Dome Australia Limited (Norton Goldfields) retains certain gold rights.
4. Heron previously entered a binding framework agreement with Ningbo Shanshan Co Ltd, Shanshan had the right to earn a 70% interest in the Yerilla Nickel-Cobalt Project. The JV ended in May 2011.
5. Finder's fee to David Timm's on EL5583 sale transaction or production commencement (\$2M cap).
6. Eastern Goldfields retains gold-silver rights with Heron 10% royalty, Ardea retains all Ni-Co and non-precious metal rights including PGEs.
7. Ausjade retains tenement ownership and gem mineral rights, Ardea retains Ni-Co and all non-gem mineral rights.
8. Ausjade retains gem mineral rights, Ardea retains Ni-Co, all non-gem mineral rights and tenement ownership.