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# Quarterly Report for the Period Ending 30 September 2017

26 October 2017

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**Emmerson Resources Limited**

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**ASX Code:** ERM

380.4 million ordinary shares (30-09-17)

**Market Cap**

~A\$34.2 million (30-09-17)

**Available Cash**

A\$3.7 million (30-09-17)

**Board of Directors**

Andrew McIlwain  
*Non-executive Chairman*

Rob Bills  
*Managing Director & CEO*

Allan Trench  
*Non-executive Director*

**Website:**

[www.emmersonresources.com.au](http://www.emmersonresources.com.au)

## Highlights

- Exploration results from Kadungla, the first of five new projects in NSW provides evidence of a large, shallow gold and deeper copper-gold mineralising system
- The next drill program scheduled for December at Kadungla will test some exciting, newly defined geophysical and geological targets
- Broad spaced regional drilling at Edna Beryl in Tennant Creek has successfully delineated new ironstones that host gold and copper mineralisation – providing new targets for detailed follow-up drilling
- Deep diamond drilling beneath the ultra high grade Edna Beryl gold mine has confirmed the ironstones and mineralisation continue at depth and remain open
- First gold production from the Edna Beryl Tribute area expected in the next quarter
- Further drilling and development outside of the current Tribute Area is being planned with the Edna Beryl Mining Company
- The next 2,500m drill campaign to start in November at Tennant Creek (funded by JV partner Evolution Mining) will focus on extending the high grade Gecko-Goanna copper-gold mineralisation.
- Highly successful capital raising of ~\$2m to mainly Institutional Investors (post quarter end) will allow acceleration of exploration in NSW.

## **New South Wales gold-copper projects (figure 1)**

### **1. Kadungle Project**

Emmerson is pleased to announce that our first drill hole at Kadungle in NSW (figure 2) has intersected high level epithermal gold-silver mineralisation and deeper porphyry copper-gold within a very extensive zone of alteration. This drill hole supports the previous historical drilling where high level epithermal veins were intersected with best assays of 12m at 7.7g/t (drill hole KDD002). Similarly, deeper disseminated and veined copper-gold produced intersections of 37m at 0.23% copper including 6m at 1.1% copper (KDD013) and 154m at 0.12% copper and 0.37g/t gold (KRC019).

This recent drill hole not only extends the known mineralisation but points to the potential for both high level (shallow) epithermal gold-silver and deeper porphyry copper-gold mineralisation over a large area. The alteration of upper level quartz-pyrite-hematite grading to chlorite-epidote-quartz and deeper K-feldspar-chlorite-hematite is consistent with a large underlying porphyry copper-gold system (figure 3). Moreover, the discovery of further mineralised, epithermal quartz veins, some 2km east at the Mount Leadley Trig prospect provides some indication that this is a large mineralised system. Recent rock chip sampling at the Trig prospect returned highly anomalous gold geochemistry with up to 1.27 g/t Au (table 6).

A large Induced Polarisation (IP) and Gradient Array Induced Polarisation (GAIP) geophysical survey has just been completed at Kadungle. This survey was aimed at defining the extent of the previously intersected shallow epithermal gold and deeper porphyry copper-gold mineralisation. The survey covers the +1km diameter zone of magnetite destruction plus the newly discovered epithermal veins, some 2km to the north (figure 2). Further drilling on this project is planned for the December quarter. Emmerson can earn up to 80% in this project by spending \$0.5m over a five year period.

### **2 Other NSW Projects**

Good progress continues across the other four projects including Fifield which is adjacent to Kadungle. Ground reconnaissance and sampling has now been completed at Fifield and the Temora/Sebastopol tenements. These large projects were generated in prospective metal endowed corridors from proprietary predictive 2 and 3D targeting models back in 2015 – these models aim to increase the probability of making both epithermal gold and porphyry copper-gold discoveries. This counter cyclic ground acquisition has now placed Emmerson in a strong position given the recent uptake by other companies of the surrounding tenements (figure 4).

Following the recent successful capital raising, Emmerson now plans to fast track, systematic science based exploration across these projects to define targets for drill testing.

### **3 December Quarter Activities for NSW Projects**

The following activities are planned for the December quarter:

- Modelling and assessment of the large IP and GAIP geophysical survey at Kadungle to generate targets for drill testing during December
- Geophysical modelling of the detailed high-resolution magnetic surveys is also well underway over Emmerson's other NSW projects at EL's 8463 (Wellington), 8465 (Temora) and 8464 (Fifield).
- Preparations for ground based geophysical surveys at EL's 8464 (Fifield) and 8465 (Temora).
- Continuing landholder/stakeholder engagement over prioritised projects ahead of field work

## Tennant Creek gold-copper project (figure 5)

### 1. Edna Beryl

Emmerson Resources Limited (“Emmerson” ASX: ERM) is pleased to announce that the near mine and regional exploration programs completed at Edna Beryl within its 2,800km<sup>2</sup> Tennant Creek project has discovered additional ironstones, some highly anomalous in both copper and gold (figure 6, table 3).

The deep diamond drill program at Edna Beryl has confirmed that ironstones and mineralisation persist at depth, with the best intersections in EBWDD073 of 0.65m at 6.53g/t gold from 305m and EBWDD076 of 5m at 0.45g/t gold, including 1m at 1.40g/t gold and elevated bismuth of 0.12% - typically a pathfinder to high grade gold. The depth extent remains open and requires deeper testing, while further drilling is required to define the volume and grade of mineralisation associated with these new intercepts.

Drill hole EBWRC083 some 200m to the west of the Edna Beryl mine intersected a thick shear zone containing chlorite-hematite ironstone and quartz veining, assaying 7m at 1.33g/t gold from 171m including 2m at 4.31g/t gold and 1m at 6.60g/t gold. Encouragingly, this is supported in adjacent gold anomalous drill holes EBWRC080 and 079 – indicating good potential for extensions to the known mineralisation (figure 6).

Drilling in the district has confirmed potential for new mineralisation immediately to the north of the Edna Beryl mine particularly in the vicinity of drill holes EBWRC061 which intersected 12m at 0.59% copper with 0.07g/t gold from 90m and; EBWRC062 which returned 15m at 0.25% copper and 0.03g/t gold from 210m down the hole. This intersection included some higher grades of 1m at 2.80% copper and anomalous gold. Of interest is another anomalous zone some 200m to the west in EBWRC068 of 2m at 0.95% copper and 0.05g/t gold (table 3). Pleasingly this drilling when combined with the detailed gravity survey completed earlier in the field season, indicates a close correlation with the mineralisation and the most intense gravity anomalies (figure 6 – pink colour). Providing a tool to screen and detect “Edna Beryl” style hematite hosted mineralisation under cover.

Planning is underway for the development of an underground exploration drive from the current Edna Beryl mine across to the recently discovered Edna Beryl West mineralisation. This will enable more effective and cheaper drilling of the greater Edna Beryl mineralisation from underground, consistent with resource delineation at many of the historic deposits within the Tennant Creek Mineral Field.

The next drill campaign at Tennant Creek will focus on the Gecko-Goanna-Monitor project, where Emmerson discovered high grade copper and gold in 2011 (figure 7). More recent drilling of GODD032 intersected 7m at 5.98% copper including 3m at 10.4% copper from 123m down the hole (ASX: 19/08/15). Another zone of 3m at 4.75% copper including 1m at 10.6% copper from 162m suggests significant potential exists for high grade copper, similar to what has been discovered at Goanna. Thus drilling will test for extensions to this style of copper to the south of the previous defined mineralisation and will also include testing for down plunge extensions at Goanna.

### 2. Rover Project – Earn-in with Andromeda Metals (and part of the earn-in covered by Evolution Mining)

Emmerson contracted specialist geophysical company GRS to conduct a 3D Induced Polarisation (IP) and Magnetotellurics (MT) (MIMDAS) survey covering three blocks over separate prospects known as Rover 4 (R4), Rover 11 Central (R11C) and Rover 11 East (R11E). This survey was aimed at assessing the potential of these techniques to generate and define sulphides beneath barren cover sequences that included the Wiso Basin sediments and Ooradidgee Formation.

Unfortunately the results were ambiguous and it was decided to withdraw from the earn-in with Andromeda Metals as better opportunities for an economic outcome likely reside within the Tennant Creek project that has little to no cover.

### 3. Edna Beryl Small Mine

Edna Beryl is the first in our small mine portfolio to be developed under a “Tribute style Agreement” with the Edna Beryl Mining Company (EBMC). EBMC are a specialist operator in small mines and have already developed much of the Tribute Area ahead of mining in early 2018. Approximately 1200t of development ore averaging between 30-40g/t gold has been stockpiled awaiting treatment. Processing of the gold ore is the responsibility of the EBMC and according to their plan, will be treated on an interim basis at the local stamp battery. This interim plan will provide cash to fund the purchase of a small modular mill with crushing/grinding/gravity circuits to process the remainder of the gold ore.

Emmerson receive a “risk free” income stream via a royalty agreement that is proportional to the final amount of extracted gold and Emmerson’s equity in the Tennant Creek Mineral Field JV (which is currently 100%).

#### **Black Snake – next Small Mines Opportunity**

Permitting of the Black Snake Mine ahead of development is well advanced, with the Mining Management Plan currently being assessed for approval by the NT Department of Primary Industry and Resources.

### 4. TC8 Mill Site

During the quarter Emmerson commenced planning, permitting and approvals on behalf of the Edna Beryl Mining Company (EBMC) for the construction of a small modular gold treatment mill at Emmerson’s TC8 site. Historically TC8 contained a small processing plant and thus has excellent infrastructure which includes access to power, water, tailings facilities, haul roads, buildings and other infrastructure. It is also within easy trucking distance from the other future small mines projects.

### 5. Other Small Mines

Planning and permitting continues for mine development at Malbec and Chariot. It is envisaged that the development of these small mines will be via a similar Tribute style agreement to Edna Beryl however the commercial arrangements are yet to be finalised. This style of agreement has the following advantages:

- A risk-free, near term income stream from Emmerson’s non-core assets via a royalty agreement (until EVN completes its earn-in, ERM receives 100% of its share flowing from this agreement).
- Future access to refurbished underground workings for near mine exploration.
- The opportunity to monetise a pipeline of non-core assets within Emmerson’s extensive tenement holdings but utilising a dedicated independent small mines company.

### 6. December Quarter Activities for Tennant Creek

The following activities are planned for the December quarter:

- Re-commencement of drilling at the Gecko-Goanna-Monitor project, where Emmerson discovered high grade copper and gold in 2011 (figure 7). Drilling will test for extensions to the high grade copper discovered in the last drill hole drilled at the project, GODD032 and will also include testing for down plunge gold and copper extensions at Goanna.
- Processing of the development ore from the Edna Beryl Tribute area.
- Continuation of the planning, permitting and approval process for the additional small mines and the future TC8 processing site
- Exploration remains fully funded under the \$15M earn-in JV with Evolution

## Announcements

The Company has made the following announcements since the start of the quarter.

29/09/2017 Questions and Answers with Rob Bills  
19/09/2017 Investor Update – Precious Metals Summit  
18/09/2017 Exploration Update  
15/09/2017 Appendix 4G  
15/09/2017 2017 Annual Report and Financial Statements  
30/08/2017 Change in Director's Interest Notice  
30/08/2017 Appendix 3B  
08/08/2017 Exploration and Production Update Presentation  
25/07/2017 Quarterly Cashflow Report  
25/07/2017 Quarterly Activities Report  
18/07/2017 Large Porphyry Copper and Epithermal Gold at Kadungla NSW  
13/07/2017 First Deep Drillhole at Edna Beryl Intersects Sulphides

Emmerson Resources Limited

A handwritten signature in dark ink, appearing to read 'RTBills', is positioned above the printed name of Mr. Rob Bills.

**Mr. Rob Bills**  
**Managing Director and Chief Executive Officer**

### **About Tennant Creek and Emmerson Resources**

The Tennant Creek Mineral Field (TCMF) is one of Australia's highest grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes of copper from a variety of deposits including Gecko, Orlando, Warrego, White Devil, Chariot and Golden Forty, all of which are within Emmerson Resources (ASX: ERM) exploration and joint venture portfolio. These deposits are considered to be highly valuable exploration targets and, utilising modern exploration techniques, Emmerson has been successful in discovering copper and gold mineralisation at Goanna and Monitor in late 2011, the first discoveries in the TCMF for over a decade. To date, Emmerson has only covered 5.5% of the total tenement package (in area) with these innovative exploration techniques and is confident that, with further exploration, more such discoveries will be made.

Emmerson holds 2,800km<sup>2</sup> of ground in the TCMF, owns the only gold mill in the region and holds a substantial geological database plus extensive infrastructure and equipment. Emmerson has consolidated 95% of the highly prospective TCMF where only 8% of the historical drilling has penetrated below 150m.

Emmerson is led by a board and management group of experienced Australian mining executives including former MIM and WMC mining executive Andrew McIlwain as non-executive chairman, and former senior BHP Billiton and WMC executive Rob Bills as Managing Director and CEO.

Pursuant to the Farm-in agreement entered into with Evolution Mining Limited (Evolution) on 11 June 2014, Evolution is continuing to sole fund exploration expenditure of \$15 million by 31 December 2017 to earn a 65% interest (Stage 1 Farm-in) in Emmerson's tenement holdings in the TCMF. An option to spend a further \$10 million minimum, sole funded by Evolution over two years following the Stage 1 Farm-in, would enable Evolution to earn an additional 10% (Stage 2 Farm-in) of the tenement holdings. Emmerson is acting as manager during the Stage 1 Farm-in and is receiving a management fee during this period. Exploration expenditure attributable to the Stage 1 Farm-in to date is approximately \$14.1million.

### **About Evolution Mining (ASX: EVN)**

Evolution is a leading, growth-focussed Australian gold miner. Evolution operates five wholly-owned mines – Cowal in New South Wales; Mt Carlton, Mt Rawdon, and Cracow, in Queensland; and Mungari in Western Australia. In addition, Evolution holds an economic interest in the Ernest Henry copper-gold mine that will deliver 100% of future gold and 30% of future copper and silver produced from an agreed life of mine area. Outside of the life of mine area Evolution will have a 49% interest in future copper, gold and silver production.

### **About Edna Beryl Mineralisation**

Edna Beryl was discovered by prospectors in 1935 and mined underground in the 1940s and 1950s to a maximum depth of approximately 50 metres. Production up until 1952 was reportedly 2,700t of ore at an exceptional grade of 53g/t gold.

More recent exploration in the Edna Beryl area between 1996 and 2000 by Giants Reef Mining (GRM) outlined additional high-grade gold mineralisation below the historic workings and resulted in an estimate being reported in 1998 by independent consultants in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC: 1998). While this estimate does not meet the minimum reporting requirements for a Mineral Resource under the current 2012JORC Code, Emmerson considers the Edna Beryl mineralisation to constitute an Exploration Target of 5,000t to 10,000t at 20 to 30 g/t gold, however cautions that the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

## **Regulatory Information**

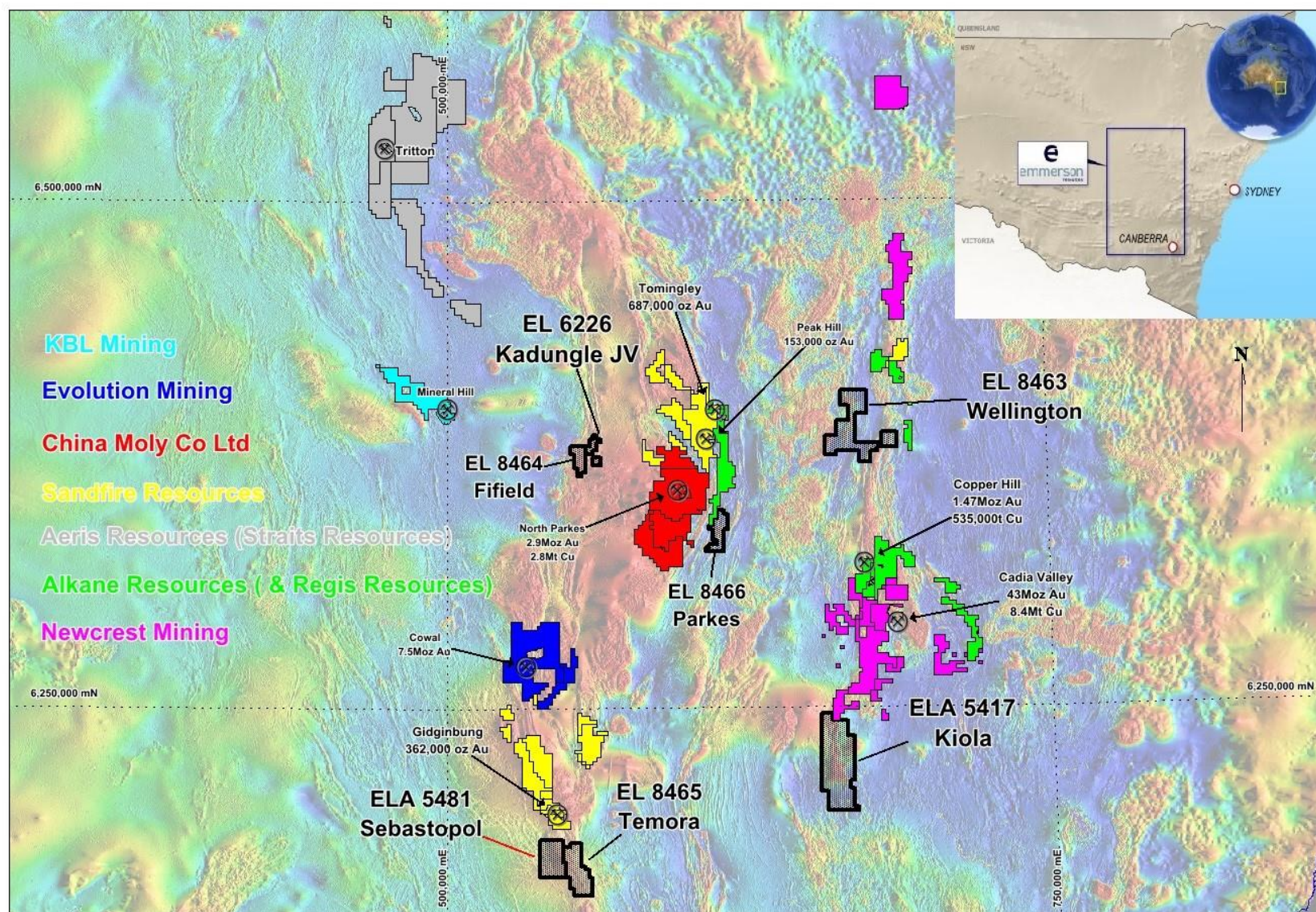
*The Company does not suggest that economic mineralisation is contained in the untested areas, the information contained relating to historical drilling records have been compiled, reviewed and verified as best as the Company was able. As outlined in this announcement the Company is planning further drilling programs to understand the geology, structure and potential of the untested areas. The Company cautions investors against using this announcement solely as a basis for investment decisions without regard for this disclaimer.*

## **Competency Statement**

*The information in this report which relates to Tennant Creek Exploration Results is based on information compiled by Mr Steve Russell BSc, Applied Geology (Hons), MAIG, MSEG. Mr Russell is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Russell is a full time employee of the Company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

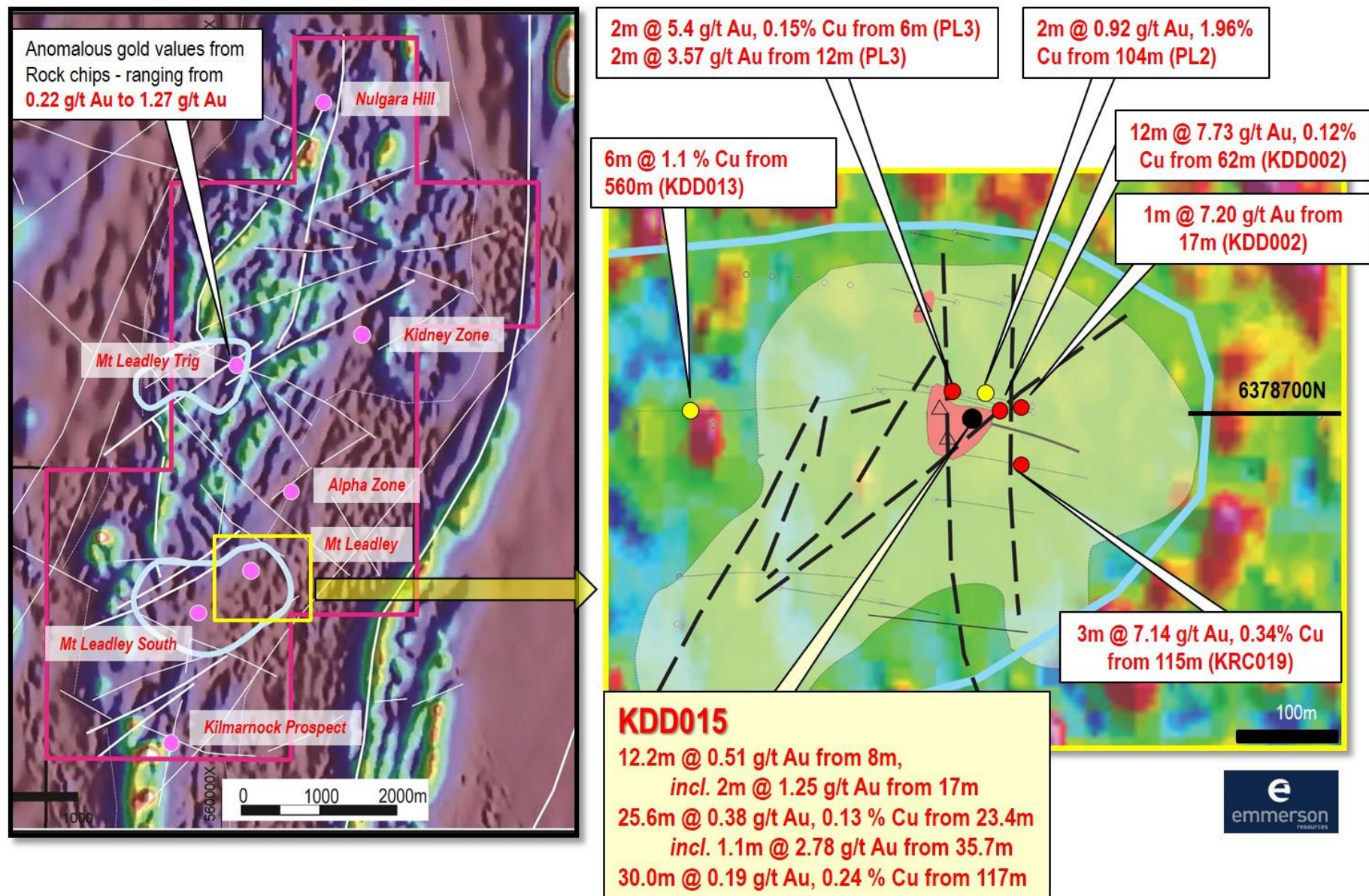
*The information in this report which relates to NSW Projects Exploration Results is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2004 edition and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Cuison is a full time employee of the Company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*



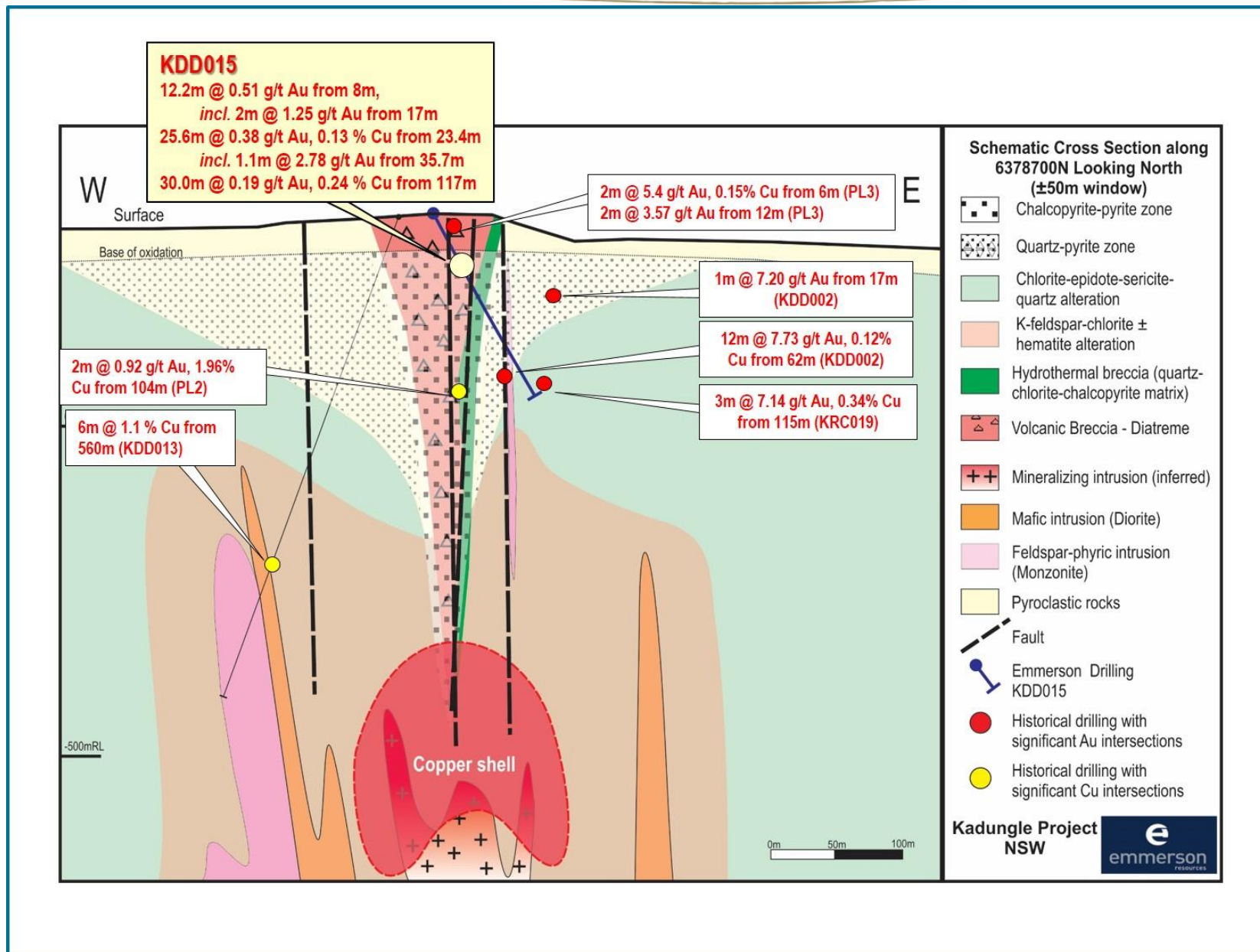


**Figure 1:** Location of Emmerson Resources NSW Projects (bold black outlines) plus major explorers and deposits within the Macquarie Arc (muted red colour=magnetic signature of the Macquarie Arc)



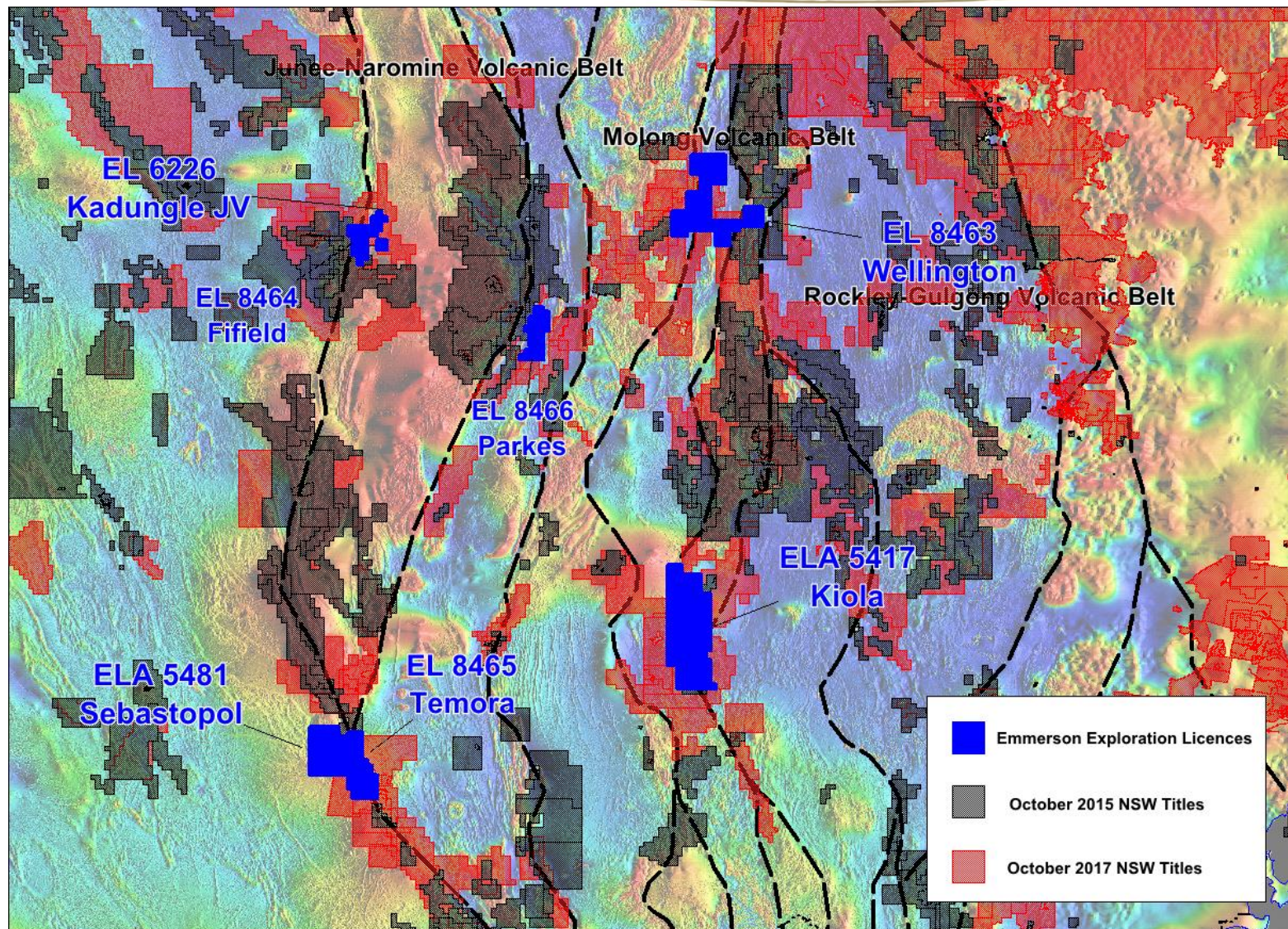


**Figure 2:** Plan of the Mt Leadley Prospect within the Kadungle Tenement. Note ERM drill hole KDD015 plus historic intersections. Background is the 1VD of the recent aeromagnetics with blue correlating to possible zones of magnetite destruction associated with the hydrothermal alteration



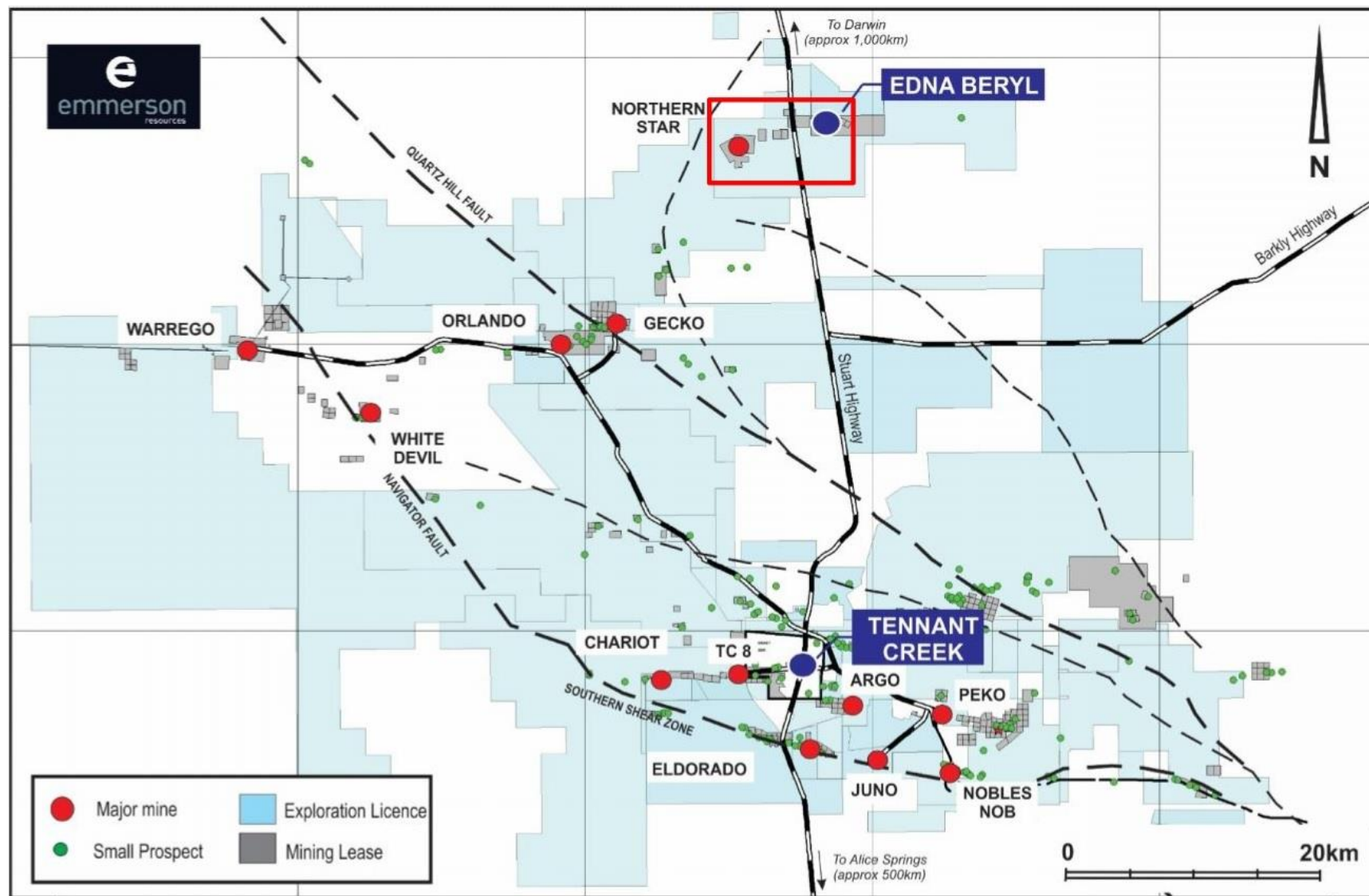
**Figure 3:** Cross section of the interpreted geology from the recent drill hole (KDD015). Note the extensive chalcopyrite-pyrite and quartz-pyrite zones plus hydrothermal breccia at the margin of the volcanic breccia/diatreme. Red dots = projected historic intersections





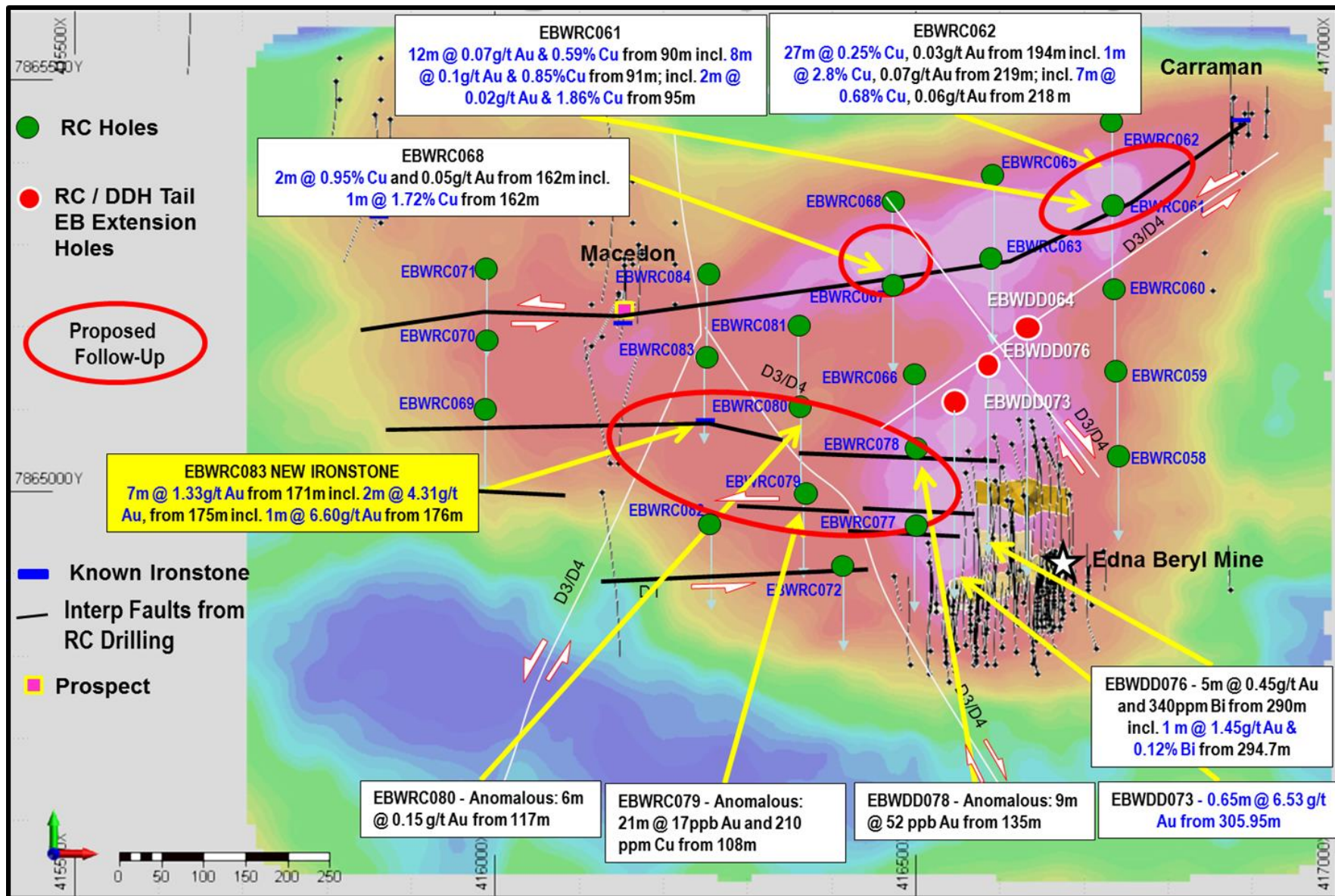
**Figure 4:** Map of Emmerson tenements in NSW (blue) and all other tenements from October 2015 (black) to October 2017 (red)





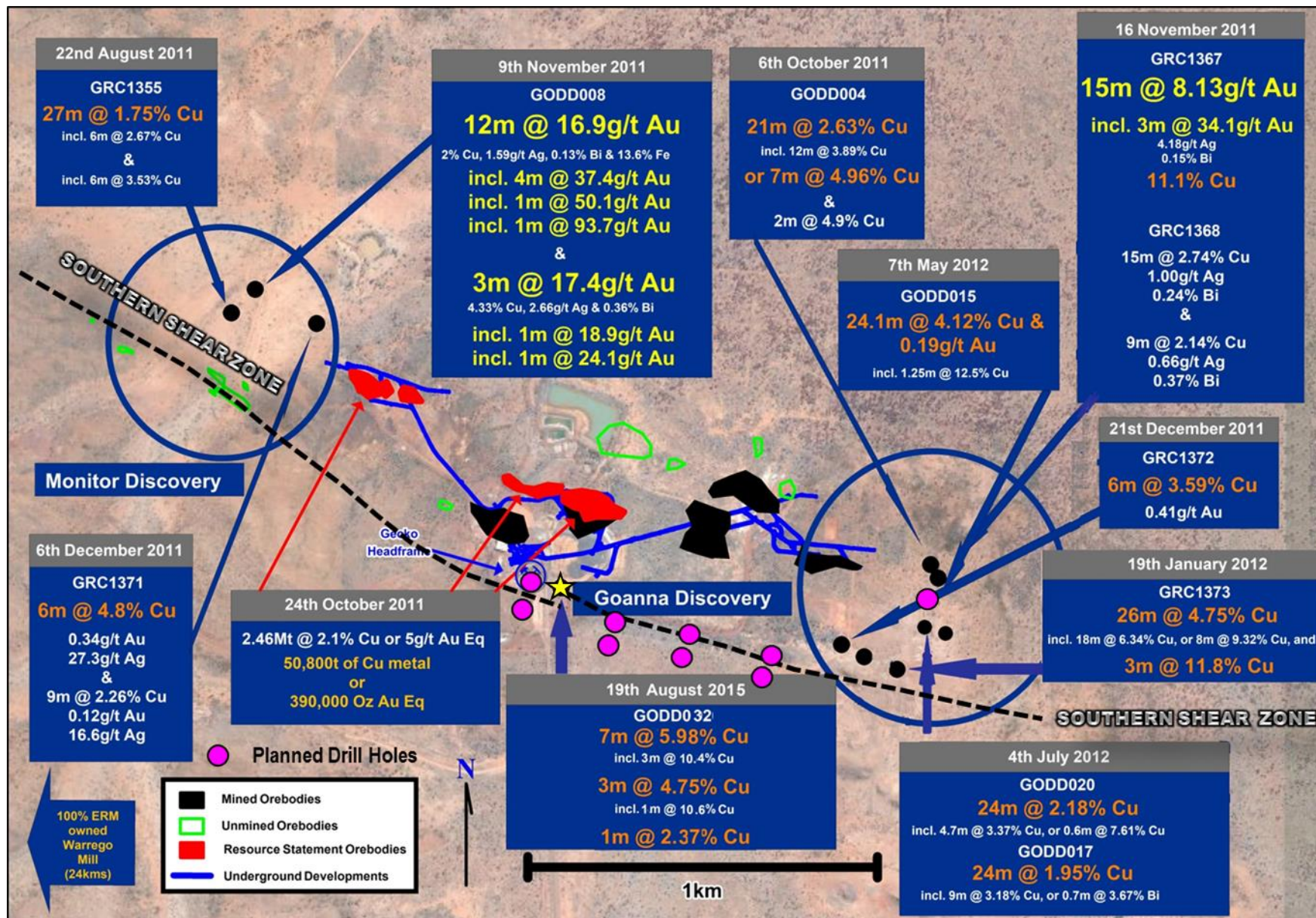
**Figure 5:** Location of Emmerson's tenement package (light blue) and the Edna Beryl Project Area.





**Figure 6:** Plan View on residual gravity image of the Edna Beryl Project area highlighting the locations of the recent RC and deep diamond holes





**Figure 7:** Gecko-Goanna-Monitor discoveries showing high grade copper and gold intersections plus newly discovered southern shear zone  
 Planned drilling shown as pink circles

**Table 1:** Edna Beryl reverse circulation drill hole details

Prospect	Hole No	MGA94_53 Easting	MGA94_53 Northing	RL	Dip	Azi (Nat)	Azi (Mag)	RC Depth (m)	Tenure	Drill Type
Edna Beryl	EBWRC058	416728.36	7865046.90	302.96	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC059	416724.27	7865146.89	300.21	-65.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC060	416728.28	7865247.18	298.63	-65.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC061	416727.80	7865348.18	298.10	-65.0	169.00	164.50	210.0	MLC705	RC
Edna Beryl	EBWRC062	416728.18	7865447.20	297.91	-65.0	169.00	164.50	234.0	MLC705	RC
Edna Beryl	EBWRC063	416588.15	7865282.51	297.66	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC064	416629.98	7865157.02	298.95	-69.0	169.00	164.50	204.0	MLC705	RC
Edna Beryl	EBWRC065	416586.14	7865382.43	297.52	-60.0	169.00	164.50	204.0	MLC705	RC
Edna Beryl	EBWRC066	416496.15	7865146.74	297.68	-60.0	169.00	164.50	192.0	MLC705	RC
Edna Beryl	EBWRC067	416468.28	7865247.18	297.57	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC068	416468.13	7865347.62	297.50	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC069	416000.17	7865062.38	298.38	-60.0	169.00	164.50	168.0	MLC705	RC
Edna Beryl	EBWRC070	416000.15	7865162.89	298.40	-62.0	169.00	164.50	204.0	MLC705	RC
Edna Beryl	EBWRC071	416000.29	7865262.07	298.43	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC072	416410.10	7864910.88	297.81	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC073	416546.47	7865071.45	297.83	-68.0	167.00	162.50	234.0	MLC705	RC
Edna Beryl	EBWRC074	416586.80	7864992.18	298.48	-65.0	165.00	160.50	227.0	MLC705	RC
Edna Beryl	EBWRC075	416567.59	7864988.04	298.23	-67.0	165.00	160.50	221.0	MLC705	RC
Edna Beryl	EBWRC076	416582.28	7865141.68	298.09	-69.0	165.00	160.50	270.0	MLC705	RC
Edna Beryl	EBWRC077	416496.31	7864946.83	297.95	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC078	416496.16	7865047.29	297.79	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC079	416358.17	7865000.85	297.74	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC080	416358.19	7865100.26	297.63	-60.0	169.00	164.50	203.0	MLC705	RC
Edna Beryl	EBWRC081	416358.30	7865199.70	297.62	-60.0	169.00	164.50	197.0	MLC705	<b>RC</b>
Edna Beryl	EBWRC082	416242.29	7864936.67	297.88	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC083	416245.27	7865137.17	297.68	-60.0	169.00	164.50	221.0	MLC705	RC
Edna Beryl	EBWRC084	416243.18	7865236.84	297.66	-60.0	169.00	164.50	203.0	MLC705	RC

**Table 2:** Edna Beryl diamond drill hole details.

Prospect	Hole No	MGA94_53 Easting	MGA94_53 Northing	RL	Dip	Azi (Nat)	Azi (Mag)	Pre Collar Depth (m)	Diamond NQ2 (m)	Final Hole Depth (m)	Drill Type
Edna Beryl	EBWDD064	416629.98	7865157.02	298.95	-69.0	169.00	164.50	204.0	39.1	243.1	DDH
Edna Beryl	EBWDD064W1	416629.98	7865157.02	298.95	-69.0	169.00	164.50	204.0	234.0	445.4	DDH
Edna Beryl	EBWDD073	416546.47	7865071.45	297.8	-68.0	167.00	162.50	234.0	125.6	359.6	DDH
Edna Beryl	EBWDD076	416582.28	7865141.68	298.1	-69.0	165.00	160.50	270.0	170.6	440.6	DDH

**Table 3:** Edna Beryl significant drill hole intersections.

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI mag (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Ag (ppm)	Bi (ppm)	Cu (ppm)	Fe (%)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Sb (ppm)	Sample Type
EBWDD073	416546.47	7865071.45	297.8	-68	162.5	305.9	306.6	0.65	6.53	0.89	100	46.0	8.71	22.7	67	13.7	1.32	½ NQ <sup>2</sup>
EBWDD076	416582.28	7865141.68	298.09	-69	160.5	290.0	295.70	5	0.45	0.60	340	40.2	17.6	218	73	1.64	5.03	½ NQ <sup>2</sup>
					Incl.	294.7	295.7	1	1.45	2.81	0.12%	69	12.3	56.1	121	0.90	0.71	
EBWRC083	416245.27	7865137.17	297.68	-60	164.5	165	166	1	0.01	0.79	159	0.79%	5.33	11	41	1.5	0.3	1m
						171	178	7	1.33	3.23	174	214	13.0	17.6	93.9	425	1.09	1m
					Incl.	175	177	2	4.31	8.58	413	64.5	19.5	41.9	149	910	1.36	1m
					Incl.	175	176	1	6.60	4.20	417	82.0	21.3	32.6	167	245	0.82	1m
EBWRC061	416727.80	7865348.18	298.10	-65	164.5	91	99	8	0.01	0.39	133	0.85%	10.1	3.16	155	5.26	0.49	1m
					Incl.	94	96	2	0.02	0.78	230	1.86%	14.5	4.40	137	8.85	0.47	1m
EBWRC062	416728.18	7865447.20	297.91	-65	164.5	199	204	5	0.01	0.70	146	0.36%	11.6	8.3	99.6	111	0.80	1m
					Incl.	201	203	2	0.02	1.55	255	0.56%	13.9	16.1	92.5	243	1.66	1m
						210	225	15	0.01	0.46	160	0.36%	13.0	83.0	150	18.1	0.62	1m
					Incl.	219	220	1	0.01	1.09	504	2.80%	13.9	326	154	47.1	0.30	1m
EBWRC068	416468.13	7865347.62	297.50	-60	164.5	162	163	1	0.01	0.70	146	1.72%	11.8	13.7	243	6.2	1.26	1m

**Note:**

- (1) EBWDD073 & EBDD076 results are ½ NQ<sup>2</sup> diamond core samples.
- (2) Intersections are reported as downhole lengths and not true width.
- (3) Gold analysis method by 25g fire assay with ICP-OES finish.
- (4) Multi element analysis method by 4 acid digest & ICP-OES, ICP-MS finish.
- (5) Intersections are reported as downhole lengths and not true width.
- (6) Minimum cut-off of 0.5 g/t Au. No maximum cut-off.
- (7) Minimum cut-off of 0.5% Cu. No maximum cut-off.
- (8) Maximum of 2m internal dilution.
- (9) RC samples are 1 metre riffle split samples.



**Table 4:** Kadungle drillhole details.

Hole ID	East (MGA94_55)	North (MGA94_55)	RL AHD	Dip(deg)	AZI mag (deg)	From (metres)	To (metres)	Drill Type	Drill Date	Sample Type	Tenement Number
KDD015	560399.75	6378692.64	319.7	-60	102.7	0.0	35.7	HQ3	24/03/2017	Core	EL6226
						35.7	282.6	NQ3	24/03/2017	Core	EL6226
TOTAL						282.6m					

**Table 5:** Kadungle significant drillhole intersections

Hole ID	East (MGA94_55 \\	North (MGA94_55 \\	RL AHD	Dip (deg)	AZI mag (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Ag (ppm)	Bi (ppm)	Cu (ppm)	Fe (%)	Pb (ppm)	Zn (ppm)	Sample Type	Geology	Tenement Number
KDD015	560399.75	6378692.64	319.7	-60	102.7	8.0	20.2	12.2	0.51	5.58	7.9	0.03	4.3	1,555	61	0.5 HQ3	Crystal lithic tuff - brecciated; diatreme breccia - oxidized	EL6226
					Incl.	17.0	19.0	2.0	1.25	3.85	7.0	0.02	5.8	1,260	98	0.5 HQ3		
						23.4	49.0	25.6	0.38	3.50	17.8	0.12	4.1	1,543	910	0.5 HQ3	Diatreme breccia - disseminated pyrite - chalcopyrite	
					Incl.	35.7	36.8	1.1	2.78	2.70	4.0	0.12	3.9	1,551	961	0.5 NQ3	~1 cm pyrite - chalcopyrite - quartz	
					Incl.	117.0	147.0	30.0	0.19	1.29	5.4	0.24	4.6	42	201	0.5 NQ3	Hydrothermal breccia - quartz- chalcopyrite- chlorite - hematite as breccia matrix	
						124.0	125.0	1.0	0.18	2.20	10.0	0.74	6.5	51	201	0.5 NQ3		
						152.0	173.0	21.0	0.19	0.88	3.7	0.13	4.6	45	144	0.5 NQ3	Igimbrite and lithic tuff, disseminated pyrite - chalcopyrite	

**Note:**

- (1) KDD015 samples are half HQ3 or NQ3 diamond core samples.
- (2) Au analysis method by 50g Fire Assay with AAS finish.
- (3) Cu analysis method by four acid digestion.
- (4) Multi element analysis method by four acid digestion with ICP-AES finish.
- (5) Intersections are reported as downhole lengths and not true width.
- (6) Minimum cut-off of 0.2 % g/t Au. No maximum cut-off.
- (7) Minimum cut-off of 0.2 % Cu. No maximum cut-off.
- (8) Maximum internal dilution of 6 metres.

**Table 6:** Selected significant rockchip sample results from Mount Leadley Trig Prospect

Sample ID	Sample Type	East (MGA94_55)	North (MGA94_55)	Au ppm	As ppm	Ba ppm	Bi ppm	Cu ppm	Fe %	Ag ppm	Mn ppm	Mo ppm	Pb ppm	Sr ppm	Zn ppm	Lithology
KAD-008	outcrop	560548	6381649	0.49	32	60	2	59	14.5	<0.5	484	2	3	8	17	Quartz-hematite vein; ~ 10cm, banded
KAD-009	float	560535	6381673	0.41	39	320	4	11	16.3	<0.5	117	3	5	7	6	Quartz-hematite breccia
KAD-010	outcrop	560978	6381666	0.15	99	3070	5	8	11.5	<0.5	73	54	3	34	3	Feldspar porphyry; silicified
KAD-018	outcrop	560680	6381732	0.01	98	1100	5	94	3.8	<0.5	88	6	2	24	65	Silicified tuff cut by quartz stringers
KAD-024	float	560624	6381650	0.08	191	200	6	8	13.1	<0.5	71	10	<2	13	21	Quartz-hematite-jasper breccia
KAD-025	float	560552	6381638	0.70	38	750	4	14	25.9	<0.5	139	2	5	19	11	Quartz-hematite breccia
KAD-027	outcrop	560940	6381599	0.03	34	690	3	14	7.8	<0.5	194	2	5	18	7	Banded quartz - hematite
KAD-029	outcrop	560429	6381564	0.08	228	4100	8	19	14.1	<0.5	104	11	6	54	8	Quartz-hematite breccia
KAD-030	outcrop	560434	6381543	0.08	138	500	6	774	33.7	<0.5	262	14	3	26	78	Semi massive hematite vein; brecciated
KAD-031	outcrop	560456	6381451	1.07	201	1710	6	36	16.0	<0.5	93	11	6	24	44	Quartz-hematite breccia
KAD-032	outcrop	560479	6381408	0.52	72	1620	8	60	9.6	<0.5	102	6	4	19	12	Quartz-hematite breccia
KAD-037	outcrop	560537	6381606	0.22	18	430	3	15	21.4	<0.5	99	3	6	6	9	Quartz-hematite breccia
KAD-038	outcrop	560514	6381632	0.09	10	1530	2	31	12.8	<0.5	216	1	4	16	11	Banded quartz - hematite
KAD-039	outcrop	560523	6381538	0.80	32	140	2	67	15.0	<0.5	101	2	6	5	15	Quartz-hematite breccia

**Table 7:** Kadungle drillhole details and ASX announcements (previously released by Aurelia).

Hole ID	East (MGA94_55)	North (MGA94_55)	RL AHD	Dip(deg)	AZI mag (deg)	Depth (metres)	Drill Type	Drill Date	Tenement Number	Relevant ASX Release Date
KRC019	560407.0	6378652.0	324.0	-60	91.0	204.0	11/12/2011	RC	EL6226	23/02/2008
KDD002	560489.3	6378691.9	313.5	-70	270.0	249.5	24/01/2006	DDH	EL6226	13/04/2007
KDD006	560337.0	6378714.5	311.0	-58	90.0	240.8	6/06/2007	DDH	EL6226	30/07/2007
KDD013	560345.1	6378712.7	311.7	-70	258.5	693.9	28/04/2008	DDH	EL6226	4/06/2008

The exploration results contained within the above company release are in accordance with the guidelines of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

## SECTION 1 SAMPLING TECHNIQUES AND DATA—EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill holes (EBWRC001-004) were reported ASX: 19/05/2016.</li> <li>Drill holes (EBWRC005-030) were reported were drilled during the period from 5/06/2016 – 25/06/2016 and reported to the ASX: 02/08/2016.</li> <li>Drill holes (EBWRC033-035, EBWRC038-046, 048, 052,) and EBWDD031-32, DD036-037, DD047 (abandoned), DD049-057 and GRED42A were drilled during the period from 16/09/2016 – 21/11/2016 and reported to the ASX: 21/02/2017.</li> <li>Drill holes EBWRC058-083 (RC) and EBWDD064, EBWDD064W1, EBWDD073 and EBWDD076 were drilled during the period from 26/06/2017 – 27/07/2017 – reported in this ASX release.</li> <li>Current drilling targeted gravity anomalies interpreted to be ironstone to the east, west and to the north of the known Edna Beryl mineralisation. Three diamond holes and one wedge hole were drilled to test for extensions within the Edna Beryl Deeps area.</li> <li>Holes were angled to optimally test the interpreted shear zones.</li> <li>Drill holes have been drilled at an angle between 60 – 69 degrees with all holes are drilling towards the south.</li> <li>The Edna Beryl Exploration Target has been historically sampled using RAB, Reverse Circulation (RC) and diamond drilling (DD) techniques. 24 RAB holes for 1,140m, 67 RC/Percussion holes for 10,971m and 32 Diamond holes for 5396.9m have been completed. The drill hole spacing is nominal 10m x 10m grid spacing.</li> <li>RC chips (EBWRC058-EBRC083) were riffle split on site to obtain 3m composite samples from which 2.5–3.0kg sample was pulverised (at Intertek in Alice Springs) to produce a 25g charge for analysis by Aqua Regia digestion / ICP-MS/OES (Au, Ag, Bi, Cu, Fe, Pb, Zn, Mo, Se, Sb).</li> <li>To increase assay turnaround times samples reported in this release were collected as 1m samples through zones of interest.</li> <li>These 1m samples were pulverised to produce a 25g charge for analysis by four acid digest with an ICP/OES (Cu, Fe, Pb, Zn) ICP/MS (Ag, Bi, Mo, Sb,) &amp; Fire Assay/AAS (Au) finish.</li> <li>RC samples were collected via a fixed cone splitter that is mounted to the drill rig under a 1200cfm cyclone.</li> <li>The fixed cone splitter has three sample chutes for comparative sampling, 2 chutes are synchronised for comparative samples and 1 Chute is independently set for the geologists field samples.</li> <li>Diamond holes were sawn in half and submitted to Intertek in Alice Springs) to produce a 25g charge for analysis by four acid digest with an ICP/OES (Cu, Fe, Pb, Zn) ICP/MS (Ag, Bi, Mo, Sb,) &amp; Fire Assay/AAS (Au) finish.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>24 RC drill holes for 5,564m were drilled in this current drill program (EBWRC058-083)</li> <li>3 diamond hole pre collars (RC) for 708m were drilled in this current drill program (EBWDD064, EBWDD073, EBWDD076).</li> <li>3 diamond holes have been completed for 569.3m (EBWDD064, EBWDD073, EBWDD076).</li> <li>RC drilling utilizes a 5 <sup>3/4</sup> inch, face sampling bit.</li> <li>Diamond drilling utilizes NQ<sup>2</sup> size drill bit, standard tube.</li> <li>RAB, RC, Diamond drilling &amp; underground air leg drilling accounts for 100% of the current drilling at the Edna Beryl Exploration Target.</li> <li>RC recoveries are logged and recorded in the database and for this program were considered excellent.</li> <li>Diamond drill core were oriented in unbroken ground.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Orientation tool was a ori-mark tool.</li> <li>RC samples are visually checked for recovery, moisture and contamination. No issues were encountered.</li> <li>If any issues or concerns are raised they are discussed at the time with the drilling contractor and also recorded in our database and drilling diary.</li> <li>Recoveries for both diamond and RC drill holes are considered good to excellent.</li> <li>Core recoveries are measured and cross checked against the drillers records.</li> <li>RC samples are collected via a fixed cone splitter that is mounted to the drill rig under a 1200cfm cyclone.</li> <li>The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>There were no "wet samples" during this program.</li> <li>Drill core is oriented and recovery recorded during geological logging.</li> <li>Emmerson consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material. Visible (course) gold is identified in sections of historical diamond core so caution is required.</li> <li>Sample recovery for RC and Diamond core is considered good and representative.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Standard operating procedures are employed by Emmerson for logging of RC and diamond drill samples.</li> <li>All RC and DDH samples are lithologically logged in one metre intervals.</li> <li>Drill hole logging data is directly entered into field tough book computers via Logchief software. Look up codes and real time validations reduce the risk of data entry mistakes.</li> <li>Field computer data (the drill log) are uploaded to Emmerson's relational database whereby the data undergoes a further set of validations checks prior to final upload.</li> <li>Standardised codes are used for lithology, oxidation, alteration, veining and presence of sulphide minerals.</li> <li>Structural logging of the RC drill samples was not possible however is possible within sections of the diamond core.</li> <li>Magnetic susceptibility data for all individual 1m RC samples and selected zones of diamond core are collected as per ERM procedure.</li> <li>All RC chips are stored in trays in 1m intervals.</li> <li>All diamond holes are photographed prior to cutting of the drill core.</li> <li>Representative RC chips and diamond core is available to all geologists (a physical reference set) to ensure consistency of logging.</li> <li>All historical drill core and RAB &amp; RC samples has been lithologically re logged.</li> <li>A detailed validation of all historical drilling data was completed in 2015 by a full time Emmerson Resources senior geologist.</li> <li>Structural logging of diamond drill core was completed recording orientation of veins, fractures and lithological contacts.</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of Emmerson's database.</li> <li>Historical and current diamond core is stored in Tennant Creek however several historical holes (or sections of holes are missing or incomplete. Historical RC chips could not be located.</li> <li>Logging is qualitative in nature and records interpreted lithology, mineralogy, mineralisation, weathering, colour and other features of the samples</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>Standard sampling operating procedures have used by Emmerson during this current drill program Edna Beryl drilling.</li> <li>The sample preparation for both diamond drill and RC samples follows industry best practice in sample preparation involving oven drying, coarse crushing of the sample down to ~10mm followed by</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>pulverisation of the entire sample (total prep) using LM5 grinding mills to a grind size of 85% passing 75 micron.</p> <ul style="list-style-type: none"> <li>Pulverised material not required by the laboratory (pulp) including duplicate samples are returned to ERM, logged into a database and stored undercover at the Tennant Creek office.</li> <li>Coarse rejects are disposed of by the Laboratory.</li> <li>RC and diamond duplicate samples were routinely submitted with duplicate assays returning acceptable comparison results.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Field QC procedures involve the use of certified reference material (CRM's) as assay standards, and ERM include blanks, duplicates.</li> <li>QAQC protocols consist of the insertion of blanks at a rate of one in every 40 samples, insertion of standards (CRM's) at a rate of approximately one in every 20 samples and duplicate field sample analysis of at a rate of approximately one in every 20 samples.</li> <li>A selection of CRM's is available to the geologists and insertion points are predetermined prior to drilling.</li> <li>The geologist has the ability to override this predetermined insertion based on visual and geological characteristics of the current drill hole.</li> <li>Insertion of assay blanks is increased when visual mineralisation is encountered and consists of insertion above and below the mineralised zone.</li> <li>Individual 1m field duplicates RC samples are collected using a riffle splitter.</li> <li>Diamond drill core duplicates were in the form of quarter core. Remaining quarter core resides in the core trays on site in Tennant Creek.</li> <li>Laboratory checks include CRM's and in-house controls, blanks, splits, and replicates that are analysed with each batch of samples submitted. These QC results are reported along with sample values in the final analytical report. Barren quartz washes are also routinely used in zones of mineralisation.</li> <li>QAQC data is uploaded with the sample values into ERM's database through an external database administrator (contractor).</li> <li>A QAQC database is created as a separate table in the database and includes all field and internal laboratory QC samples.</li> <li>QC data is reported through a series of control charts for analysis and interpretation by the Exploration Manager or his/her delegate.</li> <li>The sample sizes are considered to be appropriate to correctly represent the gold mineralisation at the Edna Beryl Exploration Target based on the style of mineralisation (iron oxide copper gold), the thickness and mineral consistency of the intersection(s).</li> <li>Emmerson's sampling methodology (SOP) is available at any time for peer review.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Emmerson's Exploration Manager (Competent Person) has discussed in detail the drill and sample collection procedures with the drillers and is satisfied that best practice has been followed.</li> <li>Emmerson's Exploration Manager (Competent Person) has discussed sample preparation and analyses with Intertek sample Prep and Lab Manager to confirm the integrity of the sample assay process.</li> <li>Do to the high grade nature of the samples several repeats have been carried out and the repeatability is considered to be reasonable.</li> <li>Screen assays have been previously submitted to assist in correct reporting and particle size analysis.</li> <li>Original data sheets and files are retained to validate the contents of the database against the original logging.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>No twin drill holes have been completed at the Edna Beryl Exploration Target.</li> <li>Sample locations are shown in Figure 6 and Table 1-3 within the main text.</li> <li>All reported drill hole collars were surveyed (set out and picked up) using a differential GPS and by a suitably qualified company employee.</li> <li>Collar survey accuracy is +/- 30 mm for easting, northing and elevation coordinates.</li> <li>Co-ordinate system GDA_94, Zone 53.</li> <li>Topographic measurements are collected from the final survey drill hole pick up.</li> <li>Downhole survey measurements were collected routinely every 6m down hole using an REFLEX EZ-Shot® electronic single shot camera for RC.</li> <li>A selection of RC holes have been surveyed using a gyroscope tool and accuracy is comparable to the REFLEX single shot too.</li> <li>Diamond drill holes are surveyed every 15m using a REFLEX single shot tool.</li> <li>This survey camera equipment is quoted by the manufacturer to have an accuracy of <ul style="list-style-type: none"> <li>Azimuth <math>0-360^{\circ} \pm 0.5^{\circ}</math></li> <li>Dip <math>\pm 90^{\circ} \pm 0.2^{\circ}</math></li> </ul> </li> <li>If the measurement is considered to be affected by magnetic material (ironstone) then an average from the last non affected and the next non affected measurement is used.</li> <li>There were no down hole survey issues during this drill program and all collar positions have been validated by the Exploration Manager.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drill holes are spaced 10-15 metres apart in dip and strike. This close spacing is necessary due to the style and morphology of the shear zone being drill tested.</li> <li>The spacing of historic drill hole collars is erratic, possibly to allow for the high degree of drilling deviation encountered in the Tennant Creek Mineral Field.</li> <li>Identified mineralisation within the Edna Beryl Exploration Target has been defined by drill holes on a section spacing of 10m to 20m with an average on-section spacing of 10m.</li> <li>Emmerson considers the Edna Beryl mineralisation to be an Advanced Exploration Target and that it is uncertain that following evaluation and/or further exploration work that the historical estimate will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration drilling is at a high angle to the mineralized bodies and/or shear zones.</li> <li>Exploration drilling is perpendicular to mineralized bodies or shear zones.</li> <li>No orientation based sampling bias has been identified in the data at this point.</li> <li>It is considered that the recent RC and diamond drilling is representative and that no sample bias has been introduced.</li> <li>Results at this stage suggest that the geological targets being tested have been drilled at the correct orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>RC samples from this round of drilling were selected, bagged and labelled by site geologist and field assistants.</li> <li>They are placed in sealed polyweave bags and then larger bulka bags for transport to the assay laboratory.</li> <li>Diamond core is cut down the core orientation line and same side half core is collected for assay.</li> <li>Core length minimum is 0.6m and maximum 1.5m.</li> <li>Sampling intervals are determined by lithological changes.</li> <li>The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Tracking is available through the internet and designed by the Laboratory for ERM to track the progress of batches of samples.</li> <li>Sample receipt is logged into ERM's sample ledger.</li> <li>While samples are being prepared in the Lab they are considered to be secure.</li> <li>While samples are being analysed in the Lab they are considered to be secure.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No formal audit has been completed on the historical samples.</li> <li>An internal review of the historical sampling techniques, QAQC protocols and data collection <u>has not been conducted by Emmerson.</u></li> <li>Digital Rock Services Pty Ltd (1998) and Rocksearch Australia validated historical data on two separate occasions. Minor issues were identified and remedied at the time.</li> </ul>

## SECTION 2 REPORTING OF EXPLORATION RESULTS – EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Edna Beryl Exploration Target lies wholly within Mineral Lease C705 (ML C705).</li> <li>The Edna Beryl Exploration Target is located 37kms north of Tennant Creek Township and 3kms east of the Stuart Highway.</li> <li>Edna Beryl is situated on map sheet SE53-14 Tennant Creek 1:250,000 and sheet 5759 Flynn 1:100,000 at GDA coordinate 416500mE 7864700mN.</li> <li>ML C705 is located within Aboriginal Freehold Land held by the Warumungu Aboriginal Land Trust (NT portion 1754). The tenement is 100% held by Emmerson Resources Limited.</li> <li>The exploration target is on Aboriginal Freehold Land. An agreement under the Aboriginal Land Rights (Northern Territory) Act 1976 has been entered into between Emmerson Resources and the Central Land Council on behalf of the Aboriginal landowners. The agreement provides for the protection of sites, the payment of compensation and allows the landowners unfettered access to the lease area (other than the immediate mine site where there are restrictions).</li> <li>Emmerson Resources are in Joint Venture with Evolution Mining.</li> <li>Exclusion Zones are identified within MLC 705 however does not impact on the Edna Beryl Exploration Target area.</li> <li>Approval to drill the third phase of drilling was received from Traditional Owners prior to drilling commencement.</li> <li>MLC 705 is in good standing and no known impediments exist.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Edna Beryl was discovered in 1935 and mined in the 1940s and 1950s by excavation of vertical shafts and horizontal drives to a maximum depth of about 50 metres. Production up until 1952 was reportedly 2,700 tonnes of ore at an average grade of 53 grams gold per tonne.</li> <li>Giants Reef Mining conducted all known "modern" exploration in and around the Edna Beryl Exploration Target Area.</li> <li>Giants Reef has carried out exploration on the Edna Beryl area from 1990 to 2005 and during this time identified significant gold mineralisation below the original workings.</li> <li>An existing shaft sunk during the earlier mining was refurbished in 1996.</li> <li>In 2004 – 2005 mining was conducted by the Edna Beryl Mining Company (formally known as Craig's Mining Services) in a Tribute arrangement with Giants Reef Mining. Approximately 410 ounces was produced during this period from the upper mineralised pod from an exploration shaft and drive to current depth of 52m.</li> <li>Influx of underground water plus declining gold price ceased the operation in July 2005.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Gold and copper-gold deposits discovered in the Tennant Creek gold field to date, are hosted in the Lower Proterozoic Warramunga Formation; a metamorphosed (greenschist facies)</li> <li>Greywacke-siltstone-shale sedimentary sequence that usually displays a pronounced east-west cleavage. Ore occurs adjacent to steeply dipping, lenticular or pipe-like magnetite/haematite/chlorite/quartz bodies ('ironstone') that are found along east-west trending structures. It is generally thought that the magnetite / haematite was hydrothermally formed in dilation zones along the controlling structures, and that the deposition of gold, sulphides and associated alteration minerals was a later event with mineralisation possibly being derived from a different source but following the same structurally controlled path.</li> <li>In plan view, the ironstone bodies tend to be narrowest in the north-south direction and elongated east west, reflecting the regional cleavage and shearing. Edna Beryl clearly follows this pattern. Their vertical dimensions may run to hundreds of metres, beyond the reach of surface drilling.</li> <li>Ore grades may occur over substantial vertical intervals of an ironstone pipe or lens, but are not expected to occur over the entire length.</li> <li>The mineralisation style is considered to be Iron Oxide Copper Gold.</li> <li>Supergene enrichment is very evident.</li> </ul>
<b>Drillhole information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drillhole collar</i></li> <li><i>elevation or RL of the drillhole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>downhole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A table of significant results is presented in the text, Table 3 and on Figure 6 within this report.</li> <li>A list of the drill holes and collar detail is provided as Tables 1 and 2.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Mineralized RC and Diamond intersections are reported as down hole intervals and not weighted averages.</li> <li>The results discussed are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</li> </ul>
<b>Relationship between mineralization widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>The holes drilled within the Edna Beryl Exploration Target area are perpendicular the east-west striking shear zones. The holes were designed and drilled perpendicular to the steep dipping mineralised zone making the intercepts approximate to true width.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures in body of text.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Due to the age the Resource Estimation for the Edna Beryl resource, Emmerson are cautious and do not believe the historical Resource Estimate can be reported in accordance with the current 2012 JORC Code. Emmerson considers the Edna Beryl mineralisation to be an Advanced Exploration Target.</li> <li>It is uncertain that following evaluation and/or further exploration work that the historical estimate will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Geotechnical logging was carried out on all historical and current diamond drill holes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material was stored in the structure table of the Micromine database.</li> <li>Density measurements were routinely collected by Giants Reef and Emmerson geologists.</li> <li>Metallurgical testing of selected mineralised Edna Beryl samples was conducted by Metcon Laboratories Pty Ltd in 1996.</li> <li>Metallurgical testing concluded that 70% of the ore could be gravity recovered with the remaining gold cyanide soluble so that total gold extraction of &gt;98% could be obtained. Screen Fire Assay of selected samples was conducted by Giants Reef Mining.</li> <li>Geophysical magnetic susceptibility logging is completed at 1m intervals on site (RC drilling) and in the core shed for selected sections of diamond core.</li> <li>Thin section and polished samples were collected by Giants Reef Mining to assist in the refinement of the geological model.</li> <li>Three component magnetic down hole surveying was completed 7 of the RC holes from this current drill program.</li> <li>Optical / Acoustic televiewer survey of selected drill holes has been completed.</li> <li>Higher gold grade intersections selected for screen fire assay.</li> <li></li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>RC and diamond drilling (Phase 4) is now completed. This information will further assist in confirming the geological and grade continuity of gold mineralisation already intersected.</li> <li>Current drill hole spacing is still considered too wide to enable an accurate Mineral Resource Estimate.</li> <li>Twin hole drill program to be designed.</li> <li>Petrological study of selected core and drill chips continues</li> <li>Geological interpretation as discussed in the text.</li> </ul>

## Section 1 Sampling Techniques and Data – Kadungle Mount Leadley Exploration Target – KDD015 Diamond Drill

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p> <p>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</p>	<p>KDD015 was drilled with diamond core to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes.</p> <p>Diamond core were HQ<sup>3</sup> and NQ<sup>3</sup> sizes. Core was sampled on geological intervals (0.5 m to 1.5 m), cut into half core using a standard brick saw. Sample weights of approximately 3.0kg were crushed, dried and pulverised (Lab) to produce a 50g sub sample for analysis by four acid digest with an ICP-AES (method ME-ICP61).</p>
Drilling techniques	<p>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</p>	<p>See Table 4 in the text.</p> <p>KDD015 has been drilled with HQ<sup>3</sup> from collar to 35.7m HQ<sup>3</sup> core diameter is 63.1mm.</p> <p>KDD015 has been drilled with NQ<sup>3</sup> from 35.7m to 282.6m NQ<sup>3</sup> core diameter is 45.0mm.</p> <p>The core was oriented using downhole core orientation equipment provided by the drilling company.</p>
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</p>	<p>Recoveries are considered satisfactory.</p> <p>Overall, the recovery for KDD015 is 96.5%.</p> <p>RQD measurements and core loss has been recorded on the original diamond logging sheets and retained for reference.</p> <p>Emmerson do not consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material.</p>
Logging	<p>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>Standard operating procedures are employed for logging KDD015.</p> <p>Drill hole logging data is directly entered into field laptop computer.</p> <p>Standardised code were used for lithology, oxidation, alteration, presence of sulphide information are recorded.</p> <p>Structural logging records orientation of veins, fractures and lithological contacts.</p> <p>Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.</p> <p>RQD logging records core lengths, recovery, hardness and weathering.</p> <p>Magnetic susceptibility data were collected for diamond core every 1m meter as per procedure.</p> <p>All drill core is photographed.</p> <p>Diamond core is stored in Orange, NSW.</p>
Sub-sampling techniques and sample preparation	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>Diamond core was halved using an automatic core saw. Half core from the same side was dispatched for analysis.</p> <p>The sample preparation of diamond core followed industry best practice in sample preparation involving oven drying, coarse crushing of the half core followed by pulverisation of the entire sample (total prep) using grinding.</p> <p>Pulverised materials not required by the laboratory (pulp) were returned and are held in Orange, NSW.</p> <p>Areas of geological interest were identified by the company geologist contractor and the halved core samples dispatched for assay.</p>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<p>Samples were delivered to ALS Chemex, in Orange NSW. Average sample weight was 3 to 4kgs.</p> <p>Samples were crushed and pulverised to 95% passing 75 micron</p> <p>Standard assay procedures performed by a reputable assay lab, (ALS Group), were undertaken. Gold assays are initially by 50g fire assay with AAS finish, (method Au-AA26). For samples with a gold value greater than 0.5ppm the entire remaining sample is screen fire assayed using wet screening to 75 microns. Ag, As, Cu, Fe, Pb, S, Zn are digested in aqua regia then analysed by ICP-AES (method ME-ICP61). Comparison with 4 acid digestion indicate that the technique is considered total for Ag, As, Cu, Pb, S, Zn. Fe may not be totally digested by aqua regia but near total digestion occurs. A final 50 gram split was then fire assayed with an AAS finish.</p> <p>Internal ALS QC results are reported along with sample values in the final analytical report.</p> <p>QAQC protocols are documented and involve the use of certified reference material (CRM's) as assay standards, and include blanks, duplicates.</p> <p>Certified reference material or blanks are inserted at least every 40 samples. Standards are purchased from Certified Reference Material manufacture companies. Standards were purchased in foil lined packets of between 60g and 100g. Different reference materials are used to cover high grade, medium grade and low grade ranges of elements: Au, Ag, Pb, Zn Cu, Fe S and As. The standard names on the foil packages were erased before going into the pre numbered sample bag and the standards are submitted to the lab blind. The sample sizes are considered to be appropriate to correctly represent the mineralisation at the Kadungle Mount Leadley Target based on the style of mineralisation, the thickness and mineral consistency of the intersection(s).</p>
Verification of sampling and assaying	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Original sample data sheets and files have been retained and were used to validate the contents of the company's database against the original assay, down hole survey results and the geological logging.</p> <p>The raw assay data forming significant intercepts are verified by company's Senior Exploration Geologist.</p> <p>Drill Hole Data including: meta data, orientation methods, any gear left in the drill hole, lithological, mineral, structural, geotechnical, density, survey, sampling, magnetic susceptibility is collected and entered directly into an excel spread sheet using drop down codes.</p> <p>When complete the spreadsheet is emailed to the geological database administrator, the data is validated and secured through a relational database.</p> <p>No twin drillholes have been completed at the Kadungle Mount Leadley target.</p>
Location of data points	<p><i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>KDD015 collar was surveyed (pick up) using a differential GPS and by a suitably qualified company contractor.</p> <p>Collar survey accuracy is +/- 5m for easting, northing and elevation coordinates.</p> <p>Co-ordinate system GDA_94, Zone 55.</p> <p>Topographic measurements are collected from the final survey drill hole pick up.</p> <p>Downhole survey measurements were collected every 6-12m for diamond drill hole using REFLEX EZ-SHOT</p> <p>This survey camera equipment is quoted by the manufacturer to have an accuracy of</p> <ul style="list-style-type: none"> <li>○ Azimuth 0 - 360° ± 0.5°</li> <li>○ Dip ± 90° ± 0.2°</li> </ul> <p>If the measurement is considered to be affected by magnetic material then an average from the last non-affected and the next non affected measurement is used.</p>
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Core sampling is typically defined by geological characteristics and lithological boundaries.</p>

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	KDD015 drilling was angled, drilled east-southeast to intersect the steeply dipping north-south and north-east striking fault/shear zone.
Sample security	The measures taken to ensure sample security.	Samples were delivered to the Laboratory. Digital data was emailed to the Senior Exploration Geologist. Samples were placed in sealed polyweave bags and larger bulk bags for transport to the assay laboratory. The assay laboratory confirms that all samples have been received and that no damage has occurred during transport. Results data was emailed to the Senior Exploration Geologist. While samples are being processed in the Lab they are considered to be secure.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No formal audit has been completed on the samples being reported.

## Section 2 Reporting of Exploration Results – Kadungle Mount Leadley Target – KDD015 Diamond Drill

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	KDD015 Kadungle Mount Leadley target was drilled within EL6226. EL6226 is located between the towns of Tullamore and Trundle and 55kms NW of Parkes in Central Western NSW. Kadungle is situated on map sheet SI55-3 Narromine 1:250,000 and sheet 8432Tullamore 1:100,000. EL6226 is located within regional farm land. The tenement is 100% held by Defiance Resources Pty Ltd. Emmerson Resources are in Joint Venture with Aurelia Metals. EL6226 is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Union Miniere Development and Mining Corp Ltd carried out exploration in the 1970's in and around the Kadungle Exploration Target Area. CRA Exploration Pty Ltd carried out exploration in and around the Kadungle Exploration Target Area between 1970 and 1971 and also 1996 – 1998. Mines Exploration Proprietary Ltd carried out exploration in and around the Kadungle Exploration Target Area between 1979 and 1983. Seltrust Gold Pty Ltd – Peko Wallsend Operations Pty Ltd – Paragon Gold Pty Ltd conducted exploration between 1983 – 1993 in and around the Kadungle Exploration Target Area. BHP Gold Mines Ltd carried out exploration in and around the Kadungle Exploration Target Area between 1991 and 1992. LFB carried out exploration between 1997 – 2004 in and around the Kadungle Exploration Target Area and during this time outlined very encouraging gold and copper mineralisation. Big Sky Holdings Pty Ltd carried out exploration in and around the Kadungle Exploration Target Area between 2004 and 2006. YTC Resources carried out exploration in and around the Kadungle Exploration Target Area between 2006 and 2014. Aurelia Metals Ltd carried out exploration in and around the Kadungle Exploration Target Area between 2015 and 2016.
Geology	Deposit type, geological setting and style of mineralisation.	The Kadungle Volcanics contain minor historic Au ± Pb ± Ag workings at the Mount Leadley Prospect and anomalous enrichment of Au ± base metals is also recorded at various other localities. Mineralization within the target area has identified five styles of mineralisation: <ol style="list-style-type: none"> <li>1. Epithermal (chalcedonic) quartz + Au + Ag + Cu veins;</li> <li>2. Disseminated chalcopryrite ± bornite ± Mo mineralisation;</li> <li>3. Pervasively silica-pyrite flooded volcanics with low grade Au mineralisation and sporadic quartz veining associated with higher Au grades;</li> <li>4. Quartz-chalcopryrite vein mineralisation associated with monzodiorite intrusive; and</li> <li>5. Volcanic hosted base metal mineralisation associated with</li> </ol>



Criteria	JORC Code explanation	Commentary
		<p>the top of the volcanic pile.</p> <p>The mineralisation style is considered to be Porphyry Copper Gold and/or Epithermal Copper Gold.</p> <p>The Kadungle Volcanics are considered to be highly prospective for shallow marine to sub-aerial mesothermal and epithermal Au ± base metal deposits. Potential also exists for deeper level porphyry style mineralisation and possibly volcanic hosted base metal mineralisation.</p>
Drillhole information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</p> <ul style="list-style-type: none"> <li>○ easting and northing of the drillhole collar</li> <li>○ elevation or RL of the drillhole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ downhole length and interception depth</li> <li>○ hole length.</li> </ul>	KDD015 drilling information is tabulated in Tables 4 and 5 within the body of this report.
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Mineralised intersections are reported as downhole drill intervals and not weighted averages.</p> <p>These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</p> <p>Cut-off grades applied to results reported in this report are :</p> <p style="padding-left: 40px;">Minimum cut-off of 0.2 g/t Au. No maximum cut-off.</p> <p style="padding-left: 40px;">Minimum cut-off of 0.2 % Cu. No maximum cut-off.</p> <p>Maximum internal dilution for diamond drilling is 6 metres.</p> <p>No metal equivalent values reported.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</p> <p>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</p>	<p>KDD015 Mount Leadley exploration target is from surface and perpendicular to the mineralised structure.</p> <p>KDD015 is inclined at -60° to the east-southeast to allow intersection angles with the mineralised zones approximate to the true width.</p> <p>Mineralised intersections for KDD015 target are reported as downhole lengths and are not true widths.</p>
Diagrams	<p>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</p>	Refer to Figures in body of text.
Balanced reporting	<p>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</p>	Results are reported as Table 5
Other substantive exploration data	<p>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</p>	<p>Geotechnical logging was carried out recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material was stored in the structure table of the database.</p> <p>Magnetic susceptibility was carried out 100% for KDD015.</p> <p>Thin section samples have been collected to assist in refining the geological model.</p>
Further work	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>Further work on the reported exploration targets will involve:</p> <ul style="list-style-type: none"> <li>- Update of the geological model and geological and structural interpretation of the prospect</li> <li>- Proposal of Deep IP to assist and focused next round of drilling</li> <li>- Analysis of chlorite geochemistry at various intervals downhole</li> <li>- Petrographic and mineragraphic analysis of alteration and mineralization of samples collected from KDD015</li> </ul>

## Section 1 Sampling Techniques and Data – Mount Leadley Trig Prospect – Reconnaissance Rockchip samples

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p> <p>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</p>	<p>Rock chip samples were collected during field inspection on the Mount Leadley Trig prospect.</p> <p>Rock chip samples were collected from surface outcrops and floats. Outcrop samples represent the resistant and exposed portions of the local geology. The float samples are inferred to have originated from the local area where they were found, with no evidence of substantial transport.</p> <p>Submitted samples weigh from 0.2 kg to 2 kg.</p> <p>Samples were crushed, dried and pulverised (Lab) to produce a 50g sub sample for analysis by four acid digest with an ICP-AES (method ME-ICP61).</p>
Drilling techniques	<p>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</p>	Not applicable – surface rock chip samples.
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</p>	Not applicable – surface rock chip samples.
Logging	<p>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>A short geological description of each sample was taken at the time of collection.</p> <p>The description is qualitative: lithology, alteration, mineralisation</p>
Sub-sampling techniques and sample preparation	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>The sample preparation of rock chip samples followed industry best practice in sample preparation involving oven drying, coarse crushing of the rocks followed by pulverisation of the entire sample (total prep) using grinding.</p> <p>Where possible, samples were selected to represent different parts of the mineral system as a whole. No field duplicate samples were collected.</p> <p>Sample sizes were sufficiently large to sample a good representation of the local geology</p>
Quality of assay data and laboratory tests	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</p> <p>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</p>	<p>Samples were delivered to ALS Chemex, in Orange NSW.</p> <p>Average sample weight was ~1 kg.</p> <p>Standard assay procedures performed by a reputable assay lab, (ALS Group), were undertaken. Gold assays are initially by 50g fire assay with AAS finish, (method Au-AA26). For samples with a gold value greater than 0.5ppm the entire remaining sample is screen fire assayed using wet screening to 75 microns. Ag, As, Cu, Fe, Pb, S, Zn are digested in aqua regia then analysed by ICP-AES (method ME-ICP61). Comparison with 4 acid digestion indicate that the technique is considered total for Ag, As, Cu, Pb, S, Zn. Fe may not be totally digested by aqua regia but near total digestion occurs. A final 50 gram split was then fire assayed with an AAS finish.</p> <p>Internal ALS QC results are reported along with sample values in the final analytical report.</p> <p>QAQC protocols are documented and involve the use of certified reference material (CRM's) as assay standard.</p>

Criteria	JORC Code explanation	Commentary
		Certified reference material or blanks are inserted at least every 40 samples. Standards are purchased from Certified Reference Material manufacture companies. Standards were purchased in foil lined packets of between 60g and 100g. Different reference materials are used to cover high grade, medium grade and low grade ranges of elements: Au, Ag, Pb, Zn Cu, Fe S and As. The standard names on the foil packages were erased before going into the pre numbered sample bag and the standards are submitted to the lab blind. The sample sizes are considered to be appropriate to correctly represent the mineralisation at the Mount Leadley Trig prospect.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.</i>	Original sample data sheets and files have been retained and were used to validate the contents of the company's database against the original assay The raw assay data were reviewed and verified by company's Senior Exploration Geologist
Location of data points	<i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.</i>	A handheld GPS was used to locate each sample. GPS accuracy is +/- 5m for easting and northing coordinates. Coordinate system GDA_94, Zone 55. Topographic control is maintained by use of widely available government datasets
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.</i>	Only reconnaissance sampling completed – spacing is variable and based on outcrop location and degree of exposure Samples were taken at non-regular intervals according to observations at the time in the field. No sample compositing has been applied.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Samples were taken according to geological observations at the time in the field.
Sample security	<i>The measures taken to ensure sample security.</i>	Samples were placed in tied calico bags with unique sample numbers. Once delivered from the field the samples were housed in secure premises prior to laboratory submission by Emmerson's contractor. Samples were placed in sealed polyweave bags for transport to the assay laboratory. Digital data was emailed to the Senior Exploration Geologist. The assay laboratory confirms that all samples have been received and that no damage has occurred during transport. Results data was emailed to the Senior Exploration Geologist. While samples are being processed in the Lab they are considered to be secure.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<u>No formal audit has been completed on the samples being reported.</u>

## Section 2 Sampling Techniques and Data – Mount Leadley Trig Prospect – Reconnaissance Rockchip

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	Mount Leadley Trig Prospect is within EL6226. EL6226 is located between the towns of Tullamore and Trundle and 55kms NW of Parkes in Central Western NSW. Kadungle is situated on map sheet SI55-3 Narromine 1:250,000 and sheet 8432Tullamore 1:100,000. EL6226 is located within regional farm land. The tenement is 100% held by Defiance Resources Pty Ltd. Emmerson Resources are in Joint Venture with Aurelia Metals. EL6226 is in good standing and no known impediments exist..
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Mines Exploration Proprietary Ltd carried out exploration around the Mount Leadley Trig Prospect between 1979 and 1983. LFB carried out exploration between 1997 – 2004 in and around the



Criteria	JORC Code explanation	Commentary
		Mpunt Leadly Trig Prospect and during this time outlined very encouraging gold and copper mineralisation.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The mineralization mapped on the surface at Mount Leadley Trig Prospect is currently considered to be a high level epithermal consisting of banded quartz-hematite veins and brecciated quartz-hematite-jasper hosted in the Kadungle Volcanics. Further work, such as drilling, may alter this interpretation.</p> <p>Minor historic Au ± Pb ± Ag workings at various localities in the Kadungle Exploration Targets have anomalous enrichment of Au ± base.</p> <p>The mineralisation style is considered to be Porphyry Copper Gold and/or Epithermal Copper Gold.</p> <p>The Kadungle Volcanics are considered to be highly prospective for shallow marine to sub-aerial mesothermal and epithermal Au ± base metal deposits. Potential also exists for deeper level porphyry style mineralisation and possibly volcanic hosted base metal mineralisation.</p>
Drillhole information	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i></p> <ul style="list-style-type: none"> <li>○ easting and northing of the drillhole collar</li> <li>○ elevation or RL of the drillhole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ downhole length and interception depth</li> <li>○ hole length.</li> </ul>	Not applicable – surface rock chip samples.
Data aggregation methods	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>No length-weighting or cut-off grades have been applied.</p> <p>No metal equivalent values reported.</p>
Relationship between mineralisation widths and intercept lengths	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</i></p>	Not applicable. Only rockchips (point data) is presented.
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i>	Refer to Figures in body of text.
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	All results are reported as Table 6
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All meaningful and material information is reported.
Further work	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Further work on the reported exploration targets will involve:</p> <ul style="list-style-type: none"> <li>- Assess geochemical results; update geological understanding of the prospect</li> <li>- Petrographic and mineragraphic analysis of alteration and mineralization from collected rock chip samples</li> <li>- Review and assess the aeromag, further geophysical method is</li> </ul>

Criteria	JORC Code explanation	Commentary
		proposed (i.e Deep penetrating IP) to fully assess the potential of the prospect.

## Section 1 Sampling Techniques and Data – Kadungle Exploration Target

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>The Kadungle Exploration Target has been sampled using Aircore (AC), Reverse Circulation (RC) and diamond drilling (DD) techniques. 78AC holes for 2,246m, 131 RC/Percussion holes for 7,023m and 19 Diamond holes for 5,188.4m have been completed. RC and DDH holes have been angled to optimally test the target zones with AC drilled vertical. Typically, most drill holes have been drilled towards the East or West at angles (dip) between 50 to 80 degrees from surface.</p> <p>RC chips are either riffle split or speared on site to obtain 3m composite samples from which 2.5 – 3.0kg was pulverised (at the laboratory) to produce a 50g charge for analysis by multi acid digest with an ICP-AES (method ME-ICP61).</p> <p>Individual 1m samples were pulverised (at the laboratory) to produce a 50g charge for analysis by multi acid digest with an ICP-AES (method ME-ICP61).</p> <p>RC samples were collected in 1m sample bags, but sampled as 3m composites. Anomalous composites were re-sampled as 1m intervals, being manually by field assistants.</p> <p>Diamond core was used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes.</p> <p>No assessment of the QC of drill hole sampling methods, after cut by the drill rig can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time.</p> <p>Diamond core was typically NQ<sup>3</sup> size, however some larger diameter core was also collected (HQ). Core was sampled on geological intervals (0.5 m to 1.5 m), cut into half core using a standard brick saw. Sample weights of approximately 3.0kg were crushed, dried and pulverised (Lab) to produce a 50g sub sample for analysis by multi acid digest with an ICP (Cu, Fe, Bi) finish &amp; Fire Assay (Au) finish.</p>
<b>Drilling techniques</b>	<p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>AC, RC and Diamond drilling accounts for 100% of the current drilling at the Kadungle Exploration Target.</p> <p>RC drilling utilizes a 4.5 inch, face sampling bit.</p> <p>NQ<sup>3</sup> core diameter is 45.0mm</p> <p>HQ core diameter is 63.5mm.</p> <p>Drill hole depths range from 1m to 693.9m.</p> <p>Sections of diamond drill core has been oriented to obtain structural measurements however orientation tool type and frequency could not be established with any degree of certainty.</p>
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>Sample recovery considered good and representative.</p> <p>RC samples were visually checked for recovery, moisture and contamination.</p> <p>Any issues or concerns were recorded in the database.</p> <p>Overall recoveries for diamond core are &gt;80% however recovery and RQD information is not complete so caution is required.</p> <p>The cyclone and splitter or spear is routinely cleaned with more attention spent during the drilling of damp or wet samples.</p> <p>It is considered that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material. Visible (course) gold is identified in sections of diamond core so caution is required.</p>
<b>Logging</b>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p>	<p>Standard operating procedures are employed for logging AC, RC and Diamond core samples.</p> <p>All drill core and AC &amp; RC samples were lithologically logged.</p> <p>No lithological log could be completed in zones where no core was recovered due to voids encountered.</p> <p>Drill hole logging data was transcribed into a database post</p>

Criteria	JORC Code explanation	Commentary
	<i>The total length and percentage of the relevant intersections logged.</i>	<p>drilling.</p> <p>Standardised codes were used for lithology, oxidation, alteration and presence of sulphide minerals.</p> <p>Structural logging of selected diamond drill core records orientation of veins, fractures and lithological contacts.</p> <p>Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.</p> <p>RQD logging records core lengths, recovery, hardness and weathering however this data was not routinely collected.</p> <p>Magnetic susceptibility data for all individual 1m RC samples was collected.</p> <p>Magnetic susceptibility data for selected diamond core was collected as per procedures.</p> <p>All drill core was digitally photographed.</p> <p>Diamond core is stored in Orange or Londonderry NSW. RC chips are stored in Orange NSW.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Entire sample was delivered to the laboratory.</p> <p>Samples consisted of dust and chips and were all dry.</p> <p>RC samples were either speared or riffle split to obtain a sub-sample</p> <p>No duplicate samples were submitted.</p> <p>Standard operating procedures are used for sampling RC and diamond core samples.</p> <p>Core was cut in half (NQ<sup>3</sup> &amp; HQ) using a hand operated brick saw.</p> <p>All samples were collected from the same side of the core and were half core samples.</p> <p>Half core samples are submitted for analysis, unless a field duplicate was required, in which case quarter core samples were submitted.</p> <p>The sample preparation of diamond core for followed industry best practice (at that time) in sample preparation involving oven drying, coarse crushing of the half core followed by pulverisation of the entire sample (total prep) using grinding. The sample preparation for RC samples is identical, without the coarse crush stage.</p> <p>Pulverised material not required by the laboratory (pulp) including duplicate samples were returned, and are held in Orange, NSW.</p> <p>Coarse rejects are disposed of by the Laboratory.</p> <p>RC samples were collected on the rig using and then either speared or riffle split by the field assistants if dry to obtain a 3 kg sample.</p> <p>If samples are wet, they are left to dry before being riffle split.</p>
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<p>Samples were delivered to ALS Chemex, in Orange NSW</p> <p>Average sample weight was 3 to 4kgs.</p> <p>Samples were crushed and pulverised to 95% passing 75 micron</p> <p>Standard assay procedures performed by a reputable assay lab, (ALS Group), were undertaken. Gold assays are initially by 30g fire assay with AAS finish, (method Au-AA25). For samples with a gold value greater than 0.5ppm the entire remaining sample is screen fire assayed using wet screening to 75 microns. Ag, As, Cu, Fe, Pb, S, Zn are digested in aqua regia then analysed by ICPAES (method ME-ICP41). Comparison with 4 acid digestion indicate that the technique is considered total for Ag, As, Cu, Pb, S, Zn. Fe may not be totally digested by aqua regia but near total digestion occurs. A final 50 gram split was then fire assayed with an AAS finish.</p> <p>Internal ALS QC results are reported along with sample values in the final analytical report.</p> <p>Samples typically weighed less than 3kg to ensure total preparation at the pulverisation stage.</p> <p>Certified reference material or blanks are inserted at least every 40 samples. Standards are purchased from Certified Reference Material manufacture companies: Ore Research and Exploration, Gannet Holdings Pty Ltd and Geostats Pty Ltd. Standards were purchased in foil lined packets of between 60g and 100g. Different reference materials are used to cover high grade,</p>



Criteria	JORC Code explanation	Commentary
		medium grade and low grade ranges of elements: Au, Ag, Pb, Zn Cu, Fe S and As. The standard names on the foil packages were erased before going into the pre numbered sample bag and the standards are submitted to the lab blind. The sample sizes are considered to be appropriate to correctly represent the mineralisation at the Kadungle Exploration Target based on: the style of mineralisation, the thickness and mineral consistency of the intersection(s).
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.</i>	Original data sheets and files (when located) have been retained and were used to validate the contents of the database against the original logging. The raw assay data forming significant intercepts are examined by at least two company personnel. Drill Hole Data including: meta data, orientation methods, any gear left in the drill hole, lithological, mineral, structural, geotechnical, density, survey, sampling, magnetic susceptibility is collected and entered directly into an excel spread sheet using drop down codes. When complete the spreadsheet is emailed to the geological database administrator, the data is validated and uploaded into an SQL database. Assay data is provided by ALS via .csv spreadsheets. The data is validated using the results received from the known certified reference material. Using an SQL based query the assay data is merged into the database. Hard copies of the assay certificates are stored with drill hole data such as driller's plots, invoices and hole planning documents. No twin drill holes have been completed at the Kadungle Exploration Target.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.</i>	Approximate sample location is shown on Figure 2. Drill hole collars were surveyed (pick up) using a differential GPS and by a suitably qualified company employee. Collar survey accuracy is +/- 5m for easting, northing and elevation coordinates. Co-ordinate system GDA_94, Zone 55. Topographic measurements are collected from the final survey drill hole pick up. Downhole survey measurements were collected at a minimum of every 30m using an Eastman Single-Shot® camera for RC and every 6-12m for diamond drill holes This survey camera equipment is quoted by the manufacturer to have an accuracy of <ul style="list-style-type: none"> <li>○ Azimuth 0-360° ± 1</li> <li>○ Dip ± 90° ± 0.5°</li> </ul> If the measurement is considered to be affected by magnetic material then an average from the last non affected and the next non affected measurement is used.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.</i>	The spacing of drill hole collars is erratic, and identified mineralisation within the Kadungle Exploration Target has been defined by these drill collars. RC sampling is on 1 m intervals that may have originally consisted of 3m composites. Core sampling is generally defined by geological characteristics and controlled by alteration and lithological boundaries.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	It is considered that the vertical drilling is representative and that no sample bias has been introduced. Exploration drilling is at a high angle to the mineralized bodies and or shear zone. Exploration drilling is perpendicular to mineralized bodies or shear zone. No orientation based sampling bias has been identified at the Kadungle Exploration Target in the data at this point.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Samples were delivered to the Laboratory. Digital data was emailed to the Senior Exploration Geologist. Samples were placed in sealed polyweave bags and larger bulka bags for transport to the assay laboratory. The assay laboratory confirms that all samples have been received and that no damage has occurred during transport. Results data was emailed to the Exploration Manager.

Criteria	JORC Code explanation	Commentary
		While samples are being processed in the Lab they are considered to be secure.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<u>No formal audit has been completed on the samples being reported.</u>

## Section 2 Reporting of Exploration Results – Kadungle Exploration Target

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	<p>The Kadungle Exploration Target lies wholly within Exploration Licence (EL) 6226.</p> <p>The Kadungle Exploration Target is located between the towns of Tullamore and Trundle and 55kms NW of Parkes in Central Western NSW.</p> <p>Kadungle is situated on map sheet SI55-3 Narromine 1:250,000 and sheet 8432Tullamore 1:100,000.</p> <p>EL 6226 is located within regional farm land. The tenement is 100% held by Defiance Resources Pty Ltd.</p> <p>Emmerson Resources are in Joint Venture with Aurelia Metals.</p> <p>EL 6226 is in good standing and no known impediments exist.</p>
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Union Miniere Development and Mining Corp Ltd carried out exploration in the 1970's in and around the Kadungle Exploration Target Area.</p> <p>CRA Exploration Pty Ltd carried out exploration in and around the Kadungle Exploration Target Area between 1970 and 1971 and also 1996 – 1998.</p> <p>Mines Exploration Proprietary Ltd carried out exploration in and around the Kadungle Exploration Target Area between 1979 and 1983.</p> <p>Seltrust Gold Pty Ltd – Peko Wallsend Operations Pty Ltd – Paragon Gold Pty Ltd conducted exploration between 1983 – 1993 in and around the Kadungle Exploration Target Area.</p> <p>BHP Gold Mines Ltd carried out exploration in and around the Kadungle Exploration Target Area between 1991 and 1992.</p> <p>LFB carried out exploration between 1997 – 2004 in and around the Kadungle Exploration Target Area and during this time outlined very encouraging gold and copper mineralisation.</p> <p>Big Sky Holdings Pty Ltd carried out exploration in and around the Kadungle Exploration Target Area between 2004 and 2006.</p> <p>YTC Resources carried out exploration in and around the Kadungle Exploration Target Area between 2006 and 2014.</p> <p>Aurelia Metals Ltd carried out exploration in and around the Kadungle Exploration Target Area between 2015 and 2016.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Kadungle Volcanics contain minor historic Au ± Pb ± Ag workings at the Mount Leadley Prospect and anomalous enrichment of Au ± base metals is also recorded at various other localities including Plevna, Alpha Zone, Kilmamock, Nulgarra Hill, Mount Leadley South and Mount Leadley Trig prospects. Drilling to date at the Mount Leadley Prospect has identified five styles of mineralisation:</p> <ol style="list-style-type: none"> <li>1. Epithermal (chalcedonic) quartz + Au + Ag + Cu veins;</li> <li>2. Disseminated chalcopryite ± bornite ± Mo mineralisation;</li> <li>3. Pervasively silica-pyrite flooded volcanics with low grade Au mineralisation and sporadic quartz veining associated with higher Au grades;</li> <li>4. Quartz-chalcopryite vein mineralisation associated with</li> </ol>

Criteria	JORC Code explanation	Commentary
		<p>monzodiorite intrusive; and</p> <p>5. Volcanic hosted base metal mineralisation associated with the top of the volcanic pile.</p> <p>The mineralisation style is considered to be Porphyry Copper Gold and/or Epithermal Copper Gold.</p> <p>The Kadungle Volcanics are considered to be highly prospective for shallow marine to sub aerial mesothermal and epithermal Au ± base metal deposits. Potential also exists for deeper level porphyry style mineralisation and possibly volcanic hosted base metal mineralisation.</p>
<b>Drillhole information</b>	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</p> <ul style="list-style-type: none"> <li>○ easting and northing of the drillhole collar</li> <li>○ elevation or RL of the drillhole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ downhole length and interception depth</li> <li>○ hole length.</li> </ul>	A list of the drill holes and collar detail is provided in the body of this text Table 4.
<b>Data aggregation methods</b>	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Mineralized RC and Diamond intersections are reported as down hole intervals and not weighted averages.</p> <p>The results discussed are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</p>
<b>Relationship between mineralization widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</p> <p>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</p>	The holes drilled within the Kadungle Exploration Target area are perpendicular, to the near, north- and northeast- striking mineralised zone. The holes were designed and drilled aimed at being as perpendicular as possible to the steep dipping mineralised zone, the drill holes are at a high angle therefore making the intercepts larger than true width.
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Refer to Figures in body of text.
<b>Balanced reporting</b>	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul style="list-style-type: none"> <li>• Emmerson considers the Kadungle mineralisation to be an Exploration Target.</li> </ul> <p>It is uncertain that following evaluation and/or further exploration work that the current identified mineralisation will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</p>
<b>Other substantive exploration data</b>	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Geotechnical logging was carried out on all diamond drill holes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material was stored in the structure table of the database.
<b>Further work</b>	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>It is likely that should the interpretation and assessment of magnetics data, historical drilling and any drilling in the near future results be positive then further drilling will be conducted to look for extensions and define the potential size of the mineralisation.</p> <p>It is likely that additional surface drilling will occur testing for the similar style of mineralisation as reported.</p>



## Mining Tenements Held at 30 September 2017 (Northern Territory, Australia)

Tenement	Name	Interest	Tenement	Name	Interest	Tenement	Name	Interest
EL10114	McDougall	100%	ELA7809	Mt Samuel	100%	HLDC91	Wiso Basin	100%
EL10124	Speedway	100%	HLDC100	Sally No Name	100%	HLDC92	Wiso Basin	100%
EL10313	Kodiak	100%	HLDC101	Sally No Name	100%	HLDC93	Wiso Basin	100%
EL10406	Montana	100%	HLDC37	Warrego, No 1	100%	HLDC94	Warrego, No.4	100%
EL23285	Corridor 2	100%	HLDC39	Warrego Min,	100%	HLDC95	Warrego, No.3	100%
EL23286	Corridor 3	100%	HLDC40	Warrego, No 2	100%	HLDC96	Wiso Basin	100%
EL23905	Jackie	100%	HLDC41	Warrego, No 3	100%	HLDC97	Wiso Basin	100%
EL26594	Bills	100%	HLDC42	Warrego, S7	100%	HLDC98	Wiso Basin	100%
EL26595	Russell	100%	HLDC43	Warrego , S8	100%	HLDC99	Wiso, No.3 pipe	100%
EL26787	Rising Ridge	100%	HLDC44	Warrego, No.2	100%	MA23236	Udall Road	100%
EL27011	Snappy Gum	100%	HLDC45	Warrego, No.1	100%	MA27163	Eagle	100%
EL27136	Reservoir	100%	HLDC46	Warrego, No.1	100%	MA30798	Little Ben	100%
EL27164	Hawk	100%	HLDC47	Wiso Basin	100%	MCC174	Mt Samuel	100%
EL27408	Grizzly	100%	HLDC48	Wiso Basin	100%	MCC203	Galway	100%
EL27537	Chappell	100%	HLDC49	Wiso Basin	100%	MCC211	Shamrock	100%
EL27538	Mercury	100%	HLDC50	Wiso Basin	100%	MCC212	Mt Samuel	85%
EL28601	Malbec	100%	HLDC51	Wiso Basin	100%	MCC239	West Peko	100%
EL28602	Red Bluff	100%	HLDC52	Wiso Basin	100%	MCC240	West Peko	100%
EL28603	White Devil	100%	HLDC53	Wiso Basin	100%	MCC287	Mt Samuel	100%
EL28618	Comstock	100%	HLDC54	Wiso Basin	100%	MCC288	Mt Samuel	100%
EL28760	Delta	100%	HLDC55	Warrego, No.4	100%	MCC308	Mt Samuel	85%
EL28761	Quartz Hill	100%	HLDC56	Warrego, No.5	100%	MCC316	The Trump	100%
EL28775	Trinity	100%	HLDC58	Wiso Line, No.6	100%	MCC317	The Trump	100%
EL28776	Whippet	100%	HLDC59	Warrego, No.6	100%	MCC334	Estralita Group	100%
EL28777	Bishops Creek	100%	HLDC69	Wiso Basin	100%	MCC340	The Trump	100%
EL28913	Amstel	100%	HLDC70	Wiso Basin	100%	MCC341	The Trump	100%
EL29012	Tetley	100%	HLDC71	Wiso Basin	100%	MCC344	Mt Samuel	100%
EL29488	Rocky	100%	HLDC72	Wiso Basin	100%	MCC364	Estralita	100%
EL30167	Dolomite	100%	HLDC73	Wiso Basin	100%	MCC365	Estralita	100%
EL30168	Caroline	100%	HLDC74	Wiso Basin	100%	MCC366	Estralita	100%
EL30301	Grey Bluff East	100%	HLDC75	Wiso Basin	100%	MCC524	Gibbet	100%
EL30488	Colombard	100%	HLDC76	Wiso Basin	100%	MCC55	Mondeuse	100%
EL30584	Juno North	100%	HLDC77	Wiso Basin	100%	MCC56	Shiraz	100%
EL30614	Franc	100%	HLDC78	Wiso Basin	100%	MCC57	Mondeuse	100%
EL30748	Battery Hill	100%	HLDC79	Wiso Basin	100%	MCC66	Golden Forty	100%
EL31249	Prosperity	100%	HLDC80	Wiso Basin	100%	MCC67	Golden Forty	100%
EL9403	Jess	100%	HLDC81	Wiso Basin	100%	MCC9	Eldorado	100%
EL9958	Running Bear	100%	HLDC82	Wiso Basin	100%	MCC925	Brolga	100%
ELA27539	Telegraph	100%	HLDC83	Wiso Basin	100%	MCC926	Brolga	100%
ELA27902	Lynx	100%	HLDC84	Wiso Basin	100%	ML22284	Billy Boy	100%
ELA30123	Mosquito Creek	100%	HLDC85	Wiso Basin	100%	ML23216	Chariot	100%
ELA30505	Golden East	100%	HLDC86	Wiso Basin	100%	ML23969	GeckoHeadframe	100%
ELA30516	Barkly Highway	100%	HLDC87	Wiso Basin	100%	ML29917	Havelock	100%
ELA30746	Mule	100%	HLDC88	Wiso Basin	100%	ML29919	Orlando	100%
ELA30747	Power of Wealth	100%	HLDC89	Wiso Basin	100%	ML30096	Malbec	100%
ELA30749	Mary Anne	100%	HLDC90	Wiso Basin	100%	ML30176	Queen of Sheba	100%

## Mining Tenements Held at 30 September 2017 (Northern Territory, Australia)

Tenement	Name	Interest	Tenement	Name	Interest	Tenement	Name	Interest
ML30177	North Star	100%	ML31074	Rocky Range	100%	MLC176	Chariot	100%
ML30322	Verdot	100%	ML31075	Franc	100%	MLC177	Chariot	100%
ML30322	Verdot	100%	ML31076	Jubilee	100%	MLC18	West Gibbet	100%
ML30620	Kia Ora	100%	ML31123	Gibbet1	100%	MLC182	Riesling	100%
ML30623	Pinnacles Sth	100%	MLA29526	Blue Moon	100%	MLC183	Riesling	100%
ML30636	Jacqueline the	100%	MLA29527	Wiso	100%	MLC184	Riesling	100%
ML30712	Battery Hill	100%	MLA29528	Wiso	100%	MLC204	Argo West	100%
ML30713	The Pup	100%	MLA29529	Wiso	100%	MLC205	Argo West	100%
ML30714	Pedro	100%	MLA29530	Wiso	100%	MLC206	Argo West	100%
ML30715	Red Bluff North	100%	MLA29531	Wiso	100%	MLC207	Argo West	100%
ML30716	Comstock	100%	MLA29532	Wiso	100%	MLC208	Argo West	100%
ML30742	Black Cat	100%	MLC120	Cabernet/Nav 7	100%	MLC209	Argo West	100%
ML30743	True Blue	100%	MLC121	Cabernet/Nav 7	100%	MLC21	Gecko	100%
ML30744	Scheurber	100%	MLC122	Cabernet/Nav 7	100%	MLC217	Perserverance	30%
ML30745	Bomber	100%	MLC123	Cabernet/Nav 7	100%	MLC218	Perserverance	30%
ML30781	Smelter	100%	MLC127	Peko East Ext 4	100%	MLC219	Perserverance	30%
ML30782	Dark	100%	MLC129	Peko Sth- East	100%	MLC220	Perserverance	30%
ML30783	Semillon	100%	MLC130	Golden Forty	100%	MLC221	Perserverance	30%
ML30784	Noir	100%	MLC131	Golden Forty	100%	MLC222	Perserverance	30%
ML30815	Blue Moon	100%	MLC132	Golden Forty	100%	MLC223	Perserverance	30%
ML30864	Verdelho	100%	MLC133	Golden Forty	100%	MLC224	Perserverance	30%
ML30865	Dong Dui	100%	MLC134	Golden Forty	100%	MLC253	Mulga 1	100%
ML30867	Thurgau	100%	MLC135	Golden Forty	100%	MLC254	Mulga 1	100%
ML30870	Rising Star	100%	MLC136	Golden Forty	100%	MLC255	Mulga 1	100%
ML30871	Colombard	100%	MLC137	Golden Forty	100%	MLC256	Mulga 2	100%
ML30872	The Extension	100%	MLC138	Golden Forty	100%	MLC257	Mulga 2	100%
ML30873	Pinot	100%	MLC139	Golden Forty	100%	MLC258	Mulga 2	100%
ML30874	Merlot	100%	MLC140	Golden Forty	100%	MLC259	Mulga 2	100%
ML30875	Grenache	100%	MLC141	Golden Forty	100%	MLC260	Mulga 2	100%
ML30885	Zinfandel	100%	MLC142	Golden Forty	100%	MLC261	Mulga 2	100%
ML30886	EXP212	100%	MLC143	Golden Forty	100%	MLC32	Golden Forty	100%
ML30888	Warrego	100%	MLC144	Golden Forty	100%	MLC323	Gecko	100%
ML30893	Troy	100%	MLC146	Golden Forty	100%	MLC324	Gecko	100%
ML30909	Archimedes	100%	MLC147	Golden Forty	100%	MLC325	Gecko	100%
ML30910	Marsanne	100%	MLC148	Golden Forty	100%	MLC326	Gecko	100%
ML30911	Wolseley	100%	MLC149	Golden Forty	100%	MLC327	Gecko	100%
ML30912	Ivanhoe	100%	MLC15	Eldorado 4	100%	MLC342	Tinto	100%
ML30937	Gris	100%	MLC158	Warrego gravel	100%	MLC343	Rocky Range	100%
ML30938	EXP195	100%	MLC159	Warrego gravel	100%	MLC344	Rocky Range	100%
ML30945	Metallic Hill	100%	MLC16	Eldorado 5	100%	MLC345	Rocky Range	100%
ML30946	Sauvignon	100%	MLC160	Warrego gravel	100%	MLC346	Rocky Range	100%
ML30947	Warrego East	100%	MLC161	Warrego gravel	100%	MLC347	Golden Forty	100%
ML31021	Gecko 3	100%	MLC162	Warrego gravel	100%	MLC348	Brolga	100%
ML31023	Gecko 1	100%	MLC163	Warrego gravel	100%	MLC349	Brolga	100%
ML31055	EXP 80	100%	MLC164	Warrego gravel	100%	MLC35	Golden Forty	100%
ML31057	Durif	100%	MLC165	Warrego gravel	100%	MLC350	Brolga	100%

## Mining Tenements Held at 30 September 2017 (Northern Territory, Australia)

Tenement	Name	Interest	Tenement	Name	Interest	Tenement	Name	Interest
MLC351	Brolga	100%	MLC501	Eldorado	100%	MLC602	TC8 Lease	100%
MLC352	Golden Forty	100%	MLC502	Eldorado	100%	MLC603	TC8 Lease	100%
MLC353	Golden Forty	100%	MLC503	Eldorado	100%	MLC604	TC8 Lease	100%
MLC354	Golden Forty	100%	MLC504	Eldorado	100%	MLC605	TC8 Lease	100%
MLC355	Golden Forty	100%	MLC505	Eldorado	100%	MLC606	Lone Star	100%
MLC36	Golden Forty	100%	MLC506	Marion Ross	100%	MLC607	Lone Star	100%
MLC362	Lone Star	100%	MLC51	Eldorado Anom	100%	MLC608	Lone Star	100%
MLC363	Lone Star	100%	MLC518	Ellen, Eldorado	100%	MLC609	Lone Star	100%
MLC364	Lone Star	100%	MLC52	Muscadel	100%	MLC610	Lone Star	100%
MLC365	Lone Star	100%	MLC520	Great Northern	100%	MLC611	Lone Star	100%
MLC366	Lone Star	100%	MLC522	Aga Khan	100%	MLC612	Lone Star	100%
MLC367	Lone Star	100%	MLC523	Eldorado	100%	MLC613	Lone Star	100%
MLC368	Lone Star	100%	MLC524	Susan	100%	MLC614	Lone Star	100%
MLC369	Lone Star	100%	MLC527	Mt Samual	100%	MLC615	Lone Star	100%
MLC37	Golden Forty	100%	MLC528	Dingo Eldorado	100%	MLC616	Lone Star	100%
MLC370	Lone Star	100%	MLC529	Cats Whiskers	100%	MLC617	Mt Samuel	50%
MLC371	Lone Star	100%	MLC53	Golden Forty	100%	MLC619	True Blue	85%
MLC372	Lone Star	100%	MLC530	Lone Star	100%	MLC626	Caroline	100%
MLC373	Lone Star	100%	MLC535	Eldorado No 5	100%	MLC644	Enterprise	100%
MLC374	Lone Star	100%	MLC54	Golden Forty	100%	MLC645	Estralita	100%
MLC375	Lone Star	100%	MLC546	The Mount	100%	MLC654	TC8 Lease	100%
MLC376	Mulga 1	100%	MLC55	Golden Forty	100%	MLC66	Traminer	100%
MLC377	Mulga 1	100%	MLC554	White Devil	100%	MLC675	Black Angel	100%
MLC378	Mulga 1	100%	MLC557	White Devil	100%	MLC676	Black Angel	100%
MLC379	Mulga 1	100%	MLC558	New Hope	100%	MLC683	Eldorado	100%
MLC38	Memsahib East	100%	MLC559	White Devil	100%	MLC69	Gecko	100%
MLC380	Mulga 1	100%	MLC56	Golden Forty	100%	MLC692	Warrego Mine	100%
MLC381	Mulga 1	100%	MLC560	White Devil	100%	MLC70	Gecko	100%
MLC382	Mulga 1	100%	MLC57	Perserverence	30%	MLC700	White Devil	100%
MLC383	Mulga 1	100%	MLC576	Golden Forty	100%	MLC702		100%
MLC384	Mulga 2	100%	MLC577	Golden Forty	100%	MLC705	Apollo 1	100%
MLC385	Mulga 2	100%	MLC581	Eldorado ABC	100%	MLC78	Gecko	100%
MLC386	Mulga 2	100%	MLC582	Eldorado ABC	100%	MLC85	Gecko	100%
MLC387	Mulga 2	100%	MLC583	Eldorado ABC	100%	MLC86	Gecko	100%
MLC4	Peko Extended	100%	MLC584	Golden Forty	100%	MLC87	Gecko	100%
MLC406	Comet	100%	MLC585	Golden Forty	100%	MLC88	Gecko	100%
MLC407	Comet	100%	MLC586	Golden Forty	100%	MLC89	Gecko	100%
MLC408	Comet	100%	MLC591	TC8 Lease	100%	MLC90	Gecko	100%
MLC409	Comet	100%	MLC592	TC8 Lease	100%	MLC91	Carraman/Klond	100%
MLC432	Mulga 1	100%	MLC593	TC8 Lease	100%	MLC92	Carraman/Klond	100%
MLC48	Tinto	100%	MLC594	TC8 Lease	100%	MLC93	Carraman/Klond	100%
MLC49	Mt Samual	100%	MLC595	TC8 Lease	100%	MLC94	Carraman/Klond	100%
MLC498	Eldorado	100%	MLC596	TC8 Lease	100%	MLC95	Carraman/Klond	100%
MLC499	Eldorado	100%	MLC597	TC8 Lease	100%	MLC96	Osprey	100%
MLC5	Peko Extended	100%	MLC598	Golden Forty	100%	MLC97	Osprey	100%
MLC50	Eldorado Anom	100%	MLC599	Mt Samuel	85%	MLCA708		100%
MLC500	Eldorado	100%	MLC601	TC8 Lease	100%			



## Mining Tenements Held at 30 September 2017 (New South Wales, Australia)

Tenement	Name	Interest
EL8463	Wellington	90%
EL8464	Fifield	90%
EL8465	Temora	90%
EL8466	Parkes	90%
EL8519	Kiola	90%
EL8652	Sebastopol	90%