

#### **Coziron Resources Limited**

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The Company Announcements Office ASX Limited Via E Lodgement

31 October 2017

# Quarterly Activities Report to 30<sup>th</sup> September 2017

### Shepherds Well Project – West Pilbara

- Review of the distribution of gold-in-soil has identified prospectivity at the base of the Fortescue Group which has become a regional target for Witwatersrand-style detrital "melon-seed" grains of gold in conglomerate.

#### Buddadoo Project – West Yilgarn

- 815 gridded soil and 52 rock-chip samples were collected from the Buddadoo Gabbro that hosts vanadiferous magnetite in a 6km long high-order magnetic anomaly.
- Sulphide and base-metal mineralisation along the eastern margin of the gabbro is associated with lower-order magnetic anomalies that extend for approximately 5km.

### Yarrie Project – North Pilbara

- Review of the relationship between gold abundance and the base of the the Fortescue Group is underway.

## **Project Summaries**

#### Shepherds Well Project – West Pilbara

Shepherds Well (E08/2361), in the West of the Pilbara, is located about 60km south-west of Karratha (Fig 7). The project covers an area that is 25-50 km from a new proposed public access port at Cape Preston East, serviced by tracks from the Great Northern Highway and is crossed in part by an easement for the proposed West Pilbara railway. The region has a basement of basaltic, felsic and metasedimentary rocks that are unconformably overlain by predominantly mafic volcanics from the Fortescue Group and sediments of the Hamersley Basin (Fig 1). Programmes of soil and rock-chip sampling and mapping have identified nickel (Ni), copper (Cu) and gold (Au) anomalism associated with an outcrop of talc-carbonate rock at Dorper Rise and lead (Pb), zinc (Zn) and silver (Ag) associated with a linear magnetic anomaly at Suffolk Ridge (Fig 2).



Recent announcements by Novo Resources Corp (TSX.V:NVO):, De Grey Minerals Ltd (ASX:DEG), DGO Mining Ltd (DGO), Venturex Resources Ltd (ASX:VXR) and others suggest that the unconformity under the Fortescue Group is a host for conglomeratic rocks that contain coarse-grained, "melon-seed" gold particles, across a wide area of the Pilbara. In response, Coziron has undertaken a review of all the available soil-sample results but excluded samples overlying Dorper Rise and Suffolk Ridge, Fig 4). The resulting anomalous gold distribution, with only a very small portion of the prospective area sampled, correlates well with the contact between the Fortescue Group and underlying crystalline basement. Full details of the review were reported to the ASX on 11<sup>th</sup> of October 2017 after the end of the Quarter.

#### **Buddadoo Project – West Yilgarn**

The 192km² Buddadoo Project (E59/1350) located about 200km east of Geraldton Port and 60km from a rail siding at Morawa that connects to Geraldton, is serviced by a bitumen-road between the towns of Morawa and Yalgoo and a number of station tracks (Fig 7). The tenement covers part of the Gullewa Greenstone Belt, which hosts the recently re-commissioned Deflector Gold Mine and is cut by major faults and intruded by granitic and gabbroic rocks (Fig 3). Historical exploration on E59/1350 reports mineralisation at two sites. Edamurta, in the north, has gold, copper and zinc associated with felsic and mafic volcanics of the Gullewa Greenstone Belt. In the south, the Buddadoo Gabbro has copper and bands of vanadiferous magnetite in intrusive gabbroic rocks (Fig 3).

During the Quarter, CZR collected 812 soil and 53 rock-chip samples to cover a suite of 5-6 km long, linear, magnetic features along the eastern margin of the Buddadoo Gabbro (Fig 4). Samples were dispatched to Bureau Veritas for full-suite analysis by XRF and laser-ablation ICP. Results indicate that in addition to the bands of vanadiferous magnetite that produce a high-order 6km long magnetic anomaly, the eastern part of the gabbro is sulphide and base-metal bearing with pyrrhotite and copper mineralisation. The sulphide and base-metal mineralisation appears to be associated with lower order linear magnetic features that can be traced for approximately 5 km. Full details and results were reported to the ASX on 17th Oct 2017 after the end of the Quarter.

#### Yarrie Project – West Pilbara

The Yarrie Project consists of six exploration licences (four granted; E45/3725, E45/3728, E45/4065, E45/4433 and two applications; E45/4604, E45/4605) that cover a total of 419km<sup>2</sup>, about 160km east of Port Hedland (Fig 7). Yarrie is serviced by bitumen and gravel roads and a natural gas pipeline between Pt Hedland and the Telfer copper-gold mine. The BHPB-owned rail connection between the Yarrie mining area and Port Hedland also services this area.

The Yarrie tenements have the potential to host high-grade (+62% Fe) iron-ore deposits within the magnetically active Archaean-age Nimingarra Iron Formation and cover extensions of the prospective rocks that host the Nimingarra to Yarrie iron-ore deposits which, until recently, were actively mined by BHP Billiton PLC (BHPB; Fig ). In addition, there is the potential for gold and base-metals associated with the strongly deformed, mixed mafic to ultramafic volcanic rocks that have interbedded metasediments in the Pilbara basement. E45/3278 also covers a portion of the basal contact of the Fortescue Group. This is now being recognised as a regionally important target for Witwatersrand-style, detrital "melon-seed" gold in conglomerate. In response to the publication of regional results on the occurrences of coarse detrital gold, CZR is undertaking a review of the distribution of gold in soil samples on E45/3728. Results will be reported when they are available.



#### Yarraloola Project - West Pilbara

No field activities were completed during the quarter.

Prospecting License P08/529 Legal Action

Coziron is currently undertaking legal action available to it under the Mining Act to challenge the expiry of the tenure of Prospecting Licence P08/529, held by Coziron's whole owned subsidiary Zanthus Resources Pty Ltd (**Zanthus**), and ZanF Pty Ltd (Fig 6). Zanthus applied for a Retention Licence eight weeks prior to the tenement expiry date of 6<sup>th</sup> July 2017. The DMIRS did not process the Retention Licence application prior to the tenement expiry date, and did not inform Zanthus of the expiry of the tenement until letter dated 31 August 2017 (received by the Zanthus on 3 September 2017), resulting in a third party being able to over-peg the P529 Iron Deposit, a 4.2 million tonne Inferred Mineral Resource of CID-style iron ore held within P08/529.

Zanthus has objected to the grant of the new prospecting license applied for by the third party, is in the process of seeking intervention from the Minister or the Warden to extend timeframes such that P08/529 is re-instated, and has applied for a Mining Lease over the P529 Iron Deposit.

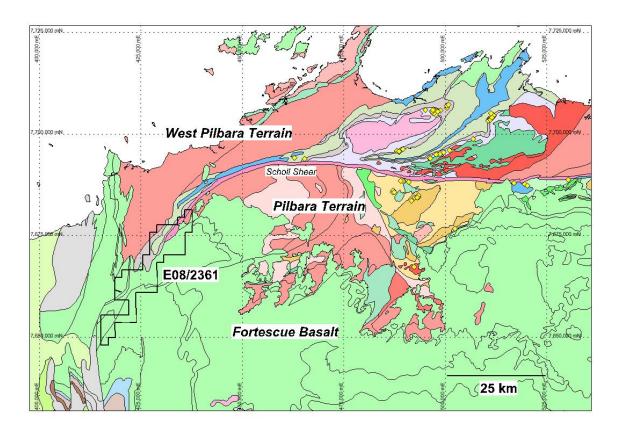


Fig 1 Regional geological setting of the Shepherds Well Project (E08/2361) showing the distribution of the Fortescue Volcanics, the underlying basement rocks from the West Pilbara and Pilbara Basement Terrains that are separated by the Scholl Shear and the distribution of gold occurrences and deposits on the area as shown by the yellow diamonds.



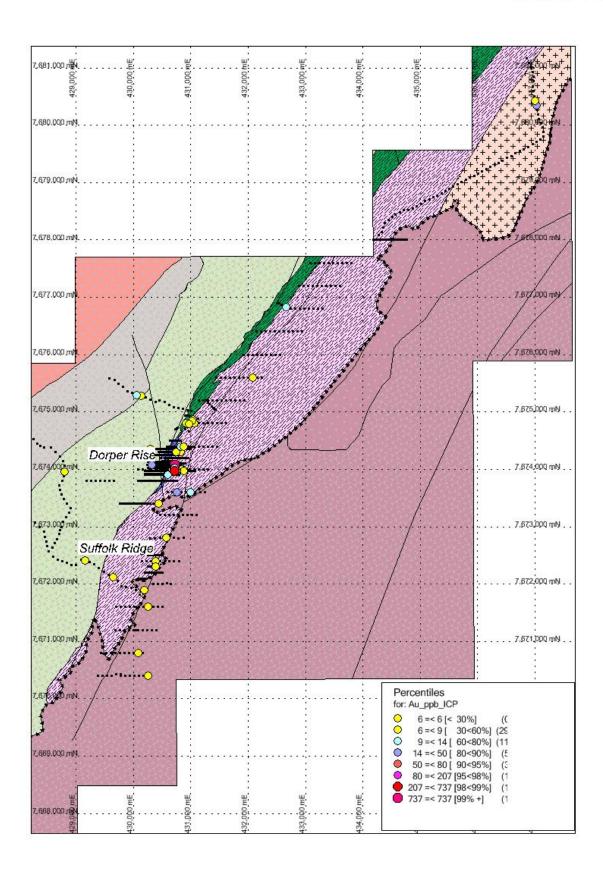


Fig 2 Soil sample locations showing the percentile gold (Au in ppb) distribution adjacent to the Dorper Rise and Suffolk Ridge Prospects that are not associated with high Cr-Ni or Zn and overlain on geological polygons from Geological Survey of Western Australia that have been updated by Coziron using field mapping and publically available Bing satellite imagery.



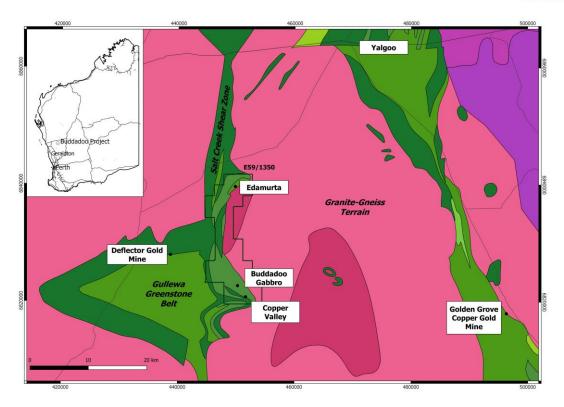


Fig 3 - Location, Geology and exploration prospects on the Buddadoo Project (E59/1350).



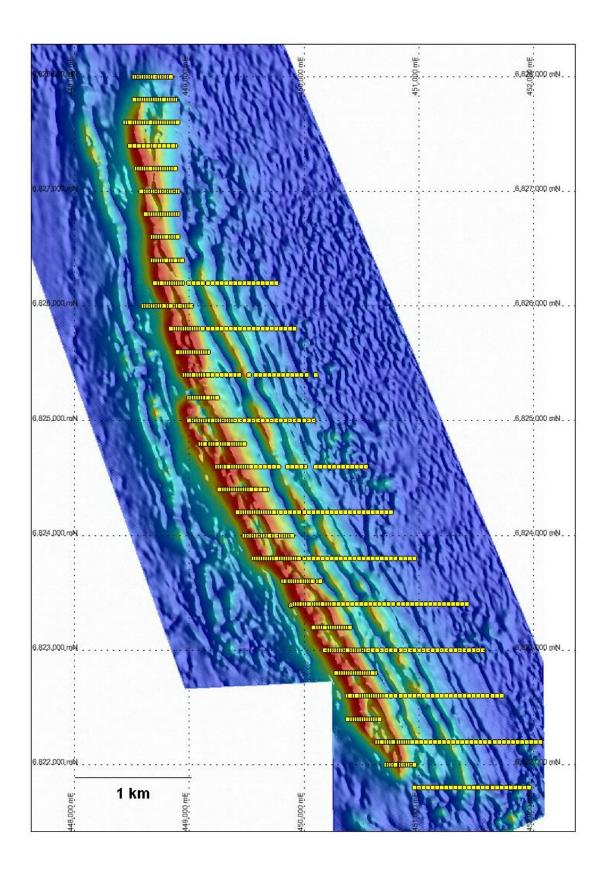


Fig 4 Distribution of the gridded soil samples that cover linear magnetic anomalies along the eastern margin of the Buddadoo Gabbro.



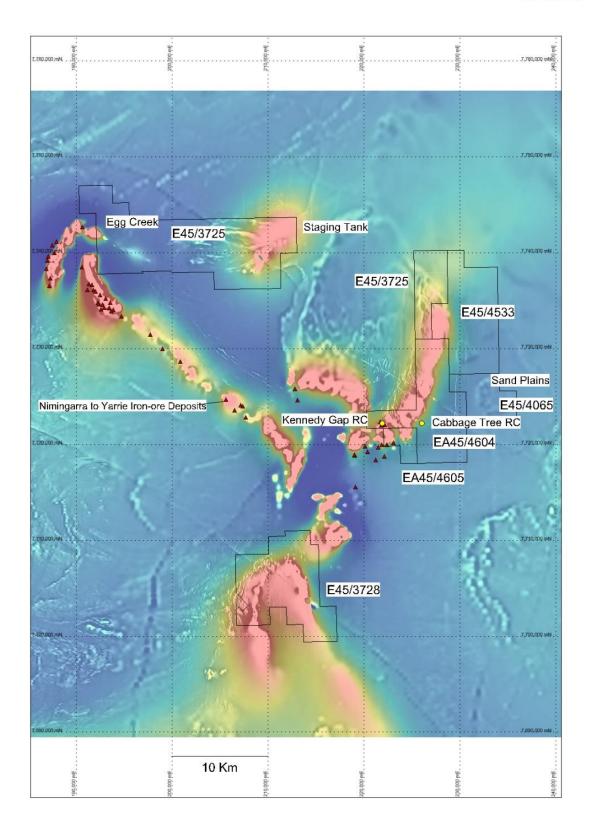


Fig 5 Regional setting of the Yarrie Project and the Yarrie-Goldsworthy iron-ore deposits overlain onto the magnetic intensity with the most intense responses attributed to the Nimingarra Iron Formation.



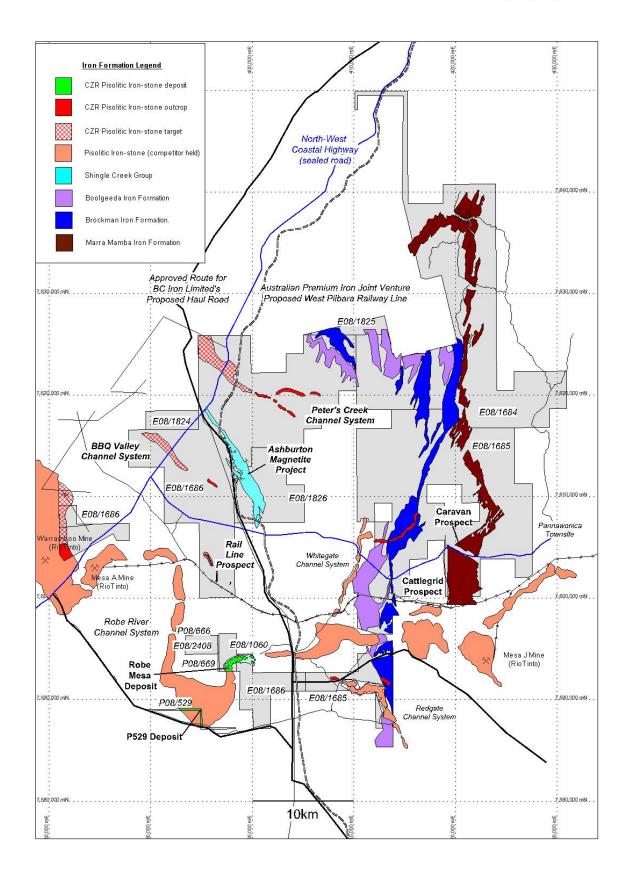


Fig 6. Location of P08/529 tenement within the Yarraloola Project, West Pilbara of Western Australia.



## **ABOUT COZIRON RESOURCES LIMITED**

Coziron Resources Limited has exploration focussed on the Yarraloola (853km² of granted tenements) and Buddadoo (210km² granted) Projects and an option over Shepherd Well (193km²) and Yarrie (357.5km²). The Yarraloola, Buddadoo, Shepherds Well and Yarrie projects have iron-ore as the principal exploration target (Fig 10).

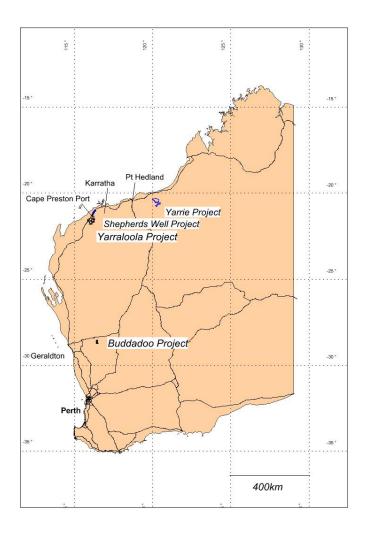


Fig 7. Location of the Coziron Resources Ltd projects in Western Australia.

For further information please contact Adam Sierakowski on 08 6211 5099.

#### **COMPETENT PERSONS STATEMENT**

The information in this report that relates to mineral resources and exploration results is based on information compiled by Rob Ramsay (BSc Hons, MSc, PhD) who is a Member of the Australian Institute of Geoscientists. Rob Ramsay is a full-time Consultant Geologist for Coziron and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Rob Ramsay has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.



# <u>Coziron Resources Ltd – Changes to the Tenement Schedule in the past Quarter</u>

Project	Location	Tenement Number	Economic Entity's Interest at Quarter End	Change in Economic Entity's Interest During Quarter
Yarraloola	West Pilbara, WA	E08/1060	85%	No Change
Yarraloola	West Pilbara, WA	E08/1684	85%	No Change
Yarraloola	West Pilbara, WA	E08/1685	85%	No Change
Yarraloola	West Pilbara, WA	E08/1686	85%	No Change
Yarraloola	West Pilbara, WA	E08/1824	85%	No Change
Yarraloola	West Pilbara, WA	E08/1825	85%	No Change
Yarraloola	West Pilbara, WA	E08/1826	85%	No Change
Yarraloola	West Pilbara, WA	E08/2408	100%	No Change
Yarraloola	West Pilbara, WA	P08/529	85%	No Change
Yarraloola	West Pilbara, WA	P08/666	100%	No Change
Yarraloola	West Pilbara, WA	P08/669	100%	No Change
Shepherds Well	West Pilbara, WA	E08/2361	70%	No Change
Yarrie	East Pilbara, WA	E45/3725	70%	No Change
Yarrie	East Pilbara, WA	E45/3728	70%	No Change
Yarrie	East Pilbara, WA	E45/4065	70%	No Change
Yarrie	East Pilbara, WA	E45/4604	70%	No Change
Yarrie	East Pilbara, WA	E45/4605	70%	No Change
Yarrie	East Pilbara, WA	E45/4433	100%	No change
Buddadoo	Mid-west, WA	E59/1350	85%	No Change