

#### **Coziron Resources Limited**

ABN: 91 112 866 869 Level 24, 44 St George's Terrace Perth Western Australia 6000 PO Box Z5183 Perth WA 6831

Phone: +61 8 6211 5099 Facsimile: +61 8 9218 8875 Website: www.coziron.com

The Company Announcements Office ASX Limited Via E Lodgement

30 October 2015

# Quarterly Activities Report to 30th September 2015

### **HIGHLIGHTS - Technical**

#### Yarraloola Project - West Pilbara

#### Ashburton Magnetite Prospect

- 16 inclined (-60°) RC holes for 3168m completed in the Ashburton schist and sampled for magnetic susceptibility and geochemistry on 1m intervals and Davis Tube on 5m intervals.
- All holes intercepted intervals with elevated magnetic susceptibility but the higher and more consistent values are located towards the centre of the system.
- A programme of three, inclined (-60°), EIS co-funded diamond holes had commenced before the end of the Quarter. YARDDH001 intersected rhyolitic and felsic volcanics between intervals of siliceous and magnetite-bearing schists and metasediments towards the southern end of the system.

#### Robe Mesa Deposit

- 53 vertical infill RC holes were completed into the Robe Mesa pisolitic ironstone (CID) deposit and sampled on 1m intervals for geology and geochemistry.
- Drilling confirmed the geological model of an upper and lower interval of pisolitic iron-stone with Fe>50% (calcined iron Fe $_{ca}$ >55%) and low phosphorous (P<0.05%).
- Outcropping upper-zone mineralisation on the mesa reports a thickest intercept in YAR157 of 28m @ 54.7% Fe ( $Fe_{ca}$ =60.6%) and highest grade intercept from YAR147 of 22m @ 57.3% Fe ( $Fe_{ca}$ =63.7%).
- Subcropping lower-zone mineralisation reports a thickest intercept in YAR121 of 30m @ 55.4%Fe ( $Fe_{ca}$ =61.2%) and the highest grade intercept from YAR122 of 11m @ 57%Fe ( $Fe_{ca}$ =62.8%).



# **Project Summaries**

# Yarraloola Project - West Pilbara

#### **Background**

Following the compulsory year 6 reduction, the Yarraloola tenements now cover an area of 1,071km<sup>2</sup> in the western part of the Hamersley Basin and adjacent parts of the Ashburton Trough in the West Pilbara.

The project has a basement of Archaean and Proterozoic-aged rocks that are in parts overlain by younger sediments of the Carnarvon Basin. All the sequences are prospective for iron mineralisation. In the east, Archaean-age sediments in the Hamersley Basin include iron-rich members of the Marra Mamba, Brockman and Boolgeeda Iron Formations. In the central and western parts, Proterozoicage metasediments of the Ashburton Trough have interbedded iron formation. In the south, the Coziron tenements are transected by the Robe River pisolitic iron-stone. The pisolitic iron-stones are basin margin sediments of the Carnarvon Basin and currently support large-scale mining operations at Warramboo, Mesa A and Mesa J (Fig 1).

In addition to prospectivity for iron-ore, the Yarraloola tenements are well serviced by established infrastructure that includes bitumen roads and gas-pipelines which have the potential to lower the cost of development for a new discovery. There are also proposals for additional facilities to be developed within the region. BC Iron Ltd has approval for a new haul-road and port loading at Cape Preston East, while the API joint-venture is preparing a feasibility study for a railway through the West Pilbara to a port at Anketell Point. Both of these planned infrastructure projects will traverse the Coziron tenements and will improve the economics of any iron-ore deposits discovered within the project area.

Coziron currently has exploration focussed on two prospects.

- 1. A prospect in the Ashburton Trough where Proterozoic-age magnetite-bearing schists have been identified on tenements E08/1686 and E08/1826.
- 2. The Robe Mesa on E08/1060 and E08/1686 which has a capping of pisolitic ironstone representing recently deposited material from the Carnarvon Basin (Fig 1).

The Ashburton prospect is a 12km long by 800m wide area hosting high-order magnetic anomalies associated with poorly outcropping, Proterozoic schists that are only partly exposed beneath a capping of sands and conglomerates from the Carnarvon Basin (Fig 1). RC drilling in 2014 intersected magnetite-rich metasediments between intervals that were interpreted to be intermediate and rhyolitic volcanics. The implication is that rather than an outlier of the Hamersley Basin, the Ashburton magnetic anomalies appear to be the expression of mineralisation associated with a deeper water oceanic basin and volcanism and represent an Algoma-style setting.

The mineralisation in the Ashburton also has a suite of characteristics that may be favourable for larger-scale magnetite recovery, including the following.

- 1. A transition from weathered to fresh rock appears to be only 20-30m below the surface.
- 2. No evidence of blue asbestos (crocidolite) in the system.
- 3. Grainsize that is coarser than material from the adjacent Hamersley Basin iron formations.
- 4. Generally low phosphorous and sulphur contents.



- 5. Initial mass yields that have a recovery in excess of 30%
- 6. High rates of RC drilling and short mill times for the Davis Tube magnetite recovery programmes suggesting the rocks are relatively soft.

The Robe Mesa became a priority prospect for pisolitic iron-stone after mapping and sampling highlighted the aerial extent. The first drill 23 RC holes into the Robe Mesa in late 2014 intersected an upper and lower interval of pisolitic iron-stone with Fe>50%. The geology and geochemistry from the initial drilling resulted in an independently calculated Inferred Resource. This was announced on the ASX on 3 February 2015 with full details and is summarised in Tables 1 and 2.

Table 1. Robe Mesa – Mineral Resource Estimate at February 2015 – reported above a **Fe cut-off** grade of 50%.

Category	Mt	Fe%	SiO2%	Al2O3%	TiO2%	LOI%	Р%	<b>S</b> %	Fe <sub>ca</sub> %
Inferred	73	53.9	8.0	3.4	0.13	10.8	0.04	0.02	60.4

Table 2. Robe Mesa – Mineral Resource Estimate at February 2015 – reported above a **Fe cut-off** grade of 55%.

Category	Mt	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	TiO2%	LOI%	P%	<b>S</b> %	Fe <sub>ca</sub> %
Inferred	20	55.7	6.2	2.9	0.11	10.6	0.04	0.02	62.3

The Inferred Resource on the Robe Mesa provides a well-defined opportunity for further work to increase the resource confidence, examine potential extensions to the ore-system and obtain material for metallurgical assessment.

### Activities

During the quarter, the company completed RC and diamond drill-holes on the Ashburton magnetite prospect and RC drill-holes on the Robe Mesa deposit. Details are as follows.

#### Ashburton Prospect

Sixteen (16) inclined (-60°) holes, each to about 200m depth and oriented at 050° for a total of 3168m were completed (Fig 2). As at the end of the Quarter, diamond drilling of three holes each to approximately 500m had also commenced, with the first hole (YARDDH001) completed at 538m. The RC holes were logged for geology and sampled on 1m intervals for magnetic susceptibility and geochemistry. The geochemical samples were transported to Perth and analysed for an extended iron-ore suite of elements by XRF at Bureau Veritas Laboratories.

The RC-hole locations, along with a summary of the highly magnetic intercepts, were reported to the ASX on 6<sup>th</sup> October 2015. Significantly, all the drill-holes contained intervals reporting high magnetic susceptibility in the range of 1,000 to 60,000 SI units. Some drill-holes also commenced or were completed in rocks with high magnetic susceptibility and these results represent minimum downhole intercepts. The thickest intercepts were reported in the central portion of the system between YAR099 and YAR103 (Fig 2). In this zone, YAR100 recorded an interval with elevated magnetic susceptibility for over 150m down-hole. Intercepts in the central portion of the system typically



report higher and more consistent magnetic susceptibility measurements that suggest these holes have the more prospective zones of magnetite mineralisation.

In the southern part of the Ashburton system in YAR094 to YAR097, magnetic susceptibility measurements are generally lower and less consistent through the intercepts, suggesting lower-grade material. In the northern part covered by YAR104 to YAR109, the prospective schists are overlain by between 5m and 50m of sands and conglomerates attributed to relatively recent deposition on the Carnarvon Basin. Follow-up geochemical and Davis Tube studies will provide additional data to determine the significance of the magnetic susceptibility results. These will be reported to the ASX as they become available.

The initial assessment of the EIS co-funded diamond drill-core from YARDDH001 shows that it recovered rhyolitic and intermediate felsic igneous rocks between intervals of cherty and magnetite-bearing metasediments. This result confirms a volcanogenic setting for the magnetite mineralisation. Further results will be reported to the ASX as they become available.

#### Robe Mesa Pisolitic Ironstone (CID) Deposit

During the Quarter, an additional 53, vertical, RC drill-holes for a total of 1562m were completed on the Robe Mesa deposit (Fig 3). All the holes were sampled for geology and geochemistry on 1m intervals and each intercepted sub-horizontal mineralisation. Logging of the geology in the drill-chips in the new holes confirms there is an upper and lower zone of pisolitic ironstone with Fe>50% (or calcined iron  $Fe_{ca}>55\%$ ). All the geochemical samples were dispatched to Bureau Veritas Laboratories in Perth and all the XRF assay results have been received and the intercept summaries were reported to the ASX on  $23^{rd}$  of September 2014. Samples with Fe>50% are characterised by low phosphorous (P<0.04%) and high loss on ignition (LOI~10%).

Upper zone mineralisation extends entirely across the surface of the mesa (Fig 3, 4, 5, 6). It has a thickest intercept in YAR157 of 28m @ 54.7% Fe (Fe<sub>ca</sub> = 60.58%) and a highest grade intercept in YAR147 of 22m @ 57.3% Fe (Fe<sub>ca</sub>= 63.7%). Lower zone mineralisation is more localised in a broad channel beneath the western and central part of the mesa (Fig 4, 5, 7). It has a thickest intercept in YAR121 of 30m @ 55.4%Fe (Fe<sub>ca</sub>=61.2%) and a highest grade intercept in YAR122 of 11m @ 57.0% (Fe<sub>ca</sub>=62.8%).

Future work on the mesa includes the acquisition of differential GPS locations for all the drill-holes and an update and independent review of the resource model. Results will be released on the ASX as they become available.



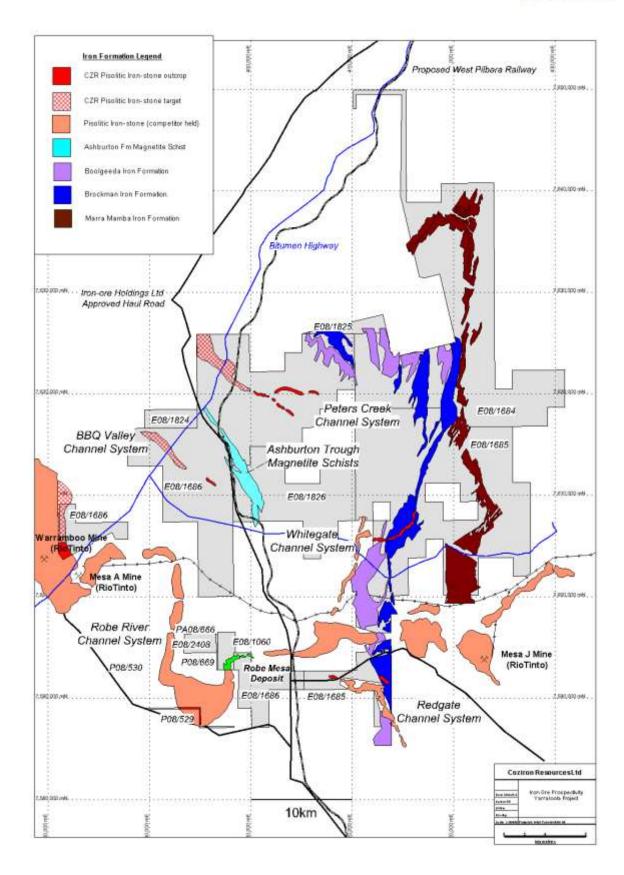


Fig 1. Distribution of banded iron-formations and prospects for CID mineralisation on the Yarraloola Iron-ore project in the West Pilbara highlighting the Robe Mesa deposit on E08/1060.



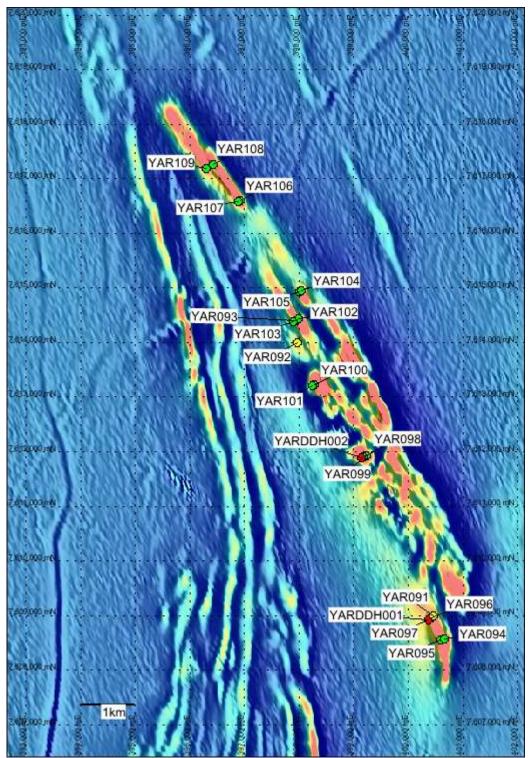


Fig 2. RC and diamond drill-collars for the magnetite-bearing sequence in the Ashburton Trough overlain on the 1VD magnetic imagery. (Green circles = 2015 RC, Yellow = 2014 RC, Red = 2015 diamond hole).



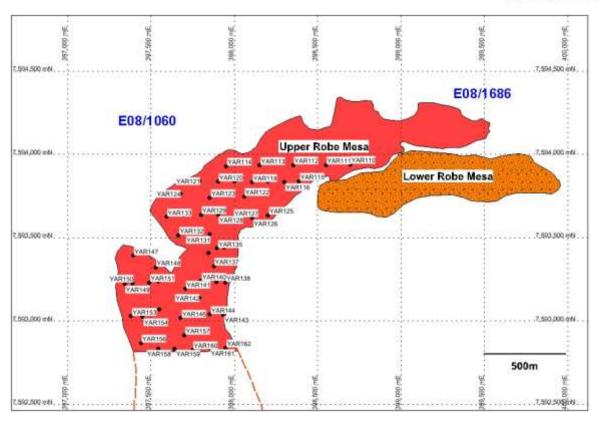


Fig 3. Location of drill-sites on the Robe Mesa within the tenements E08/1060 and E08/1686 from which the cross-sections at 7593300N and 7593950N as Figs 4 and 5 are updated.

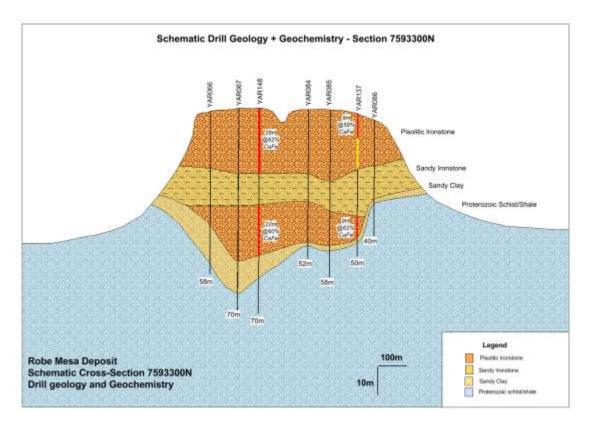


Fig 4. Geological section at 7593300N (from Fig 3) showing red down-hole intervals for 2015 drill holes with pisolitic ironstone reporting Fe>50% (ie calcined iron or  $Fe_{ca}>55\%$ ).



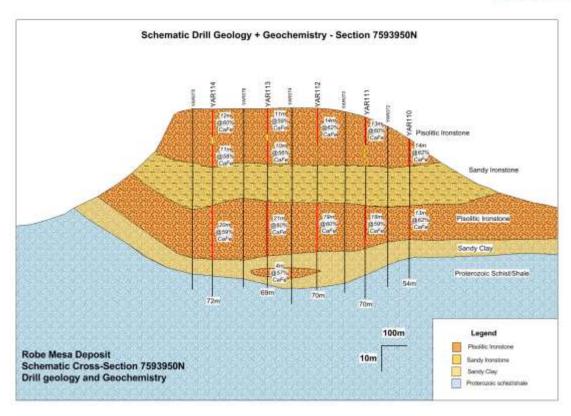


Fig 5. Geological section at 7593950N (from Fig 3) showing red down-hole intervals for 2015 drill holes with pisolitic ironstone reporting Fe>50% (ie calcined iron or  $Fe_{ca}>55\%$ ).

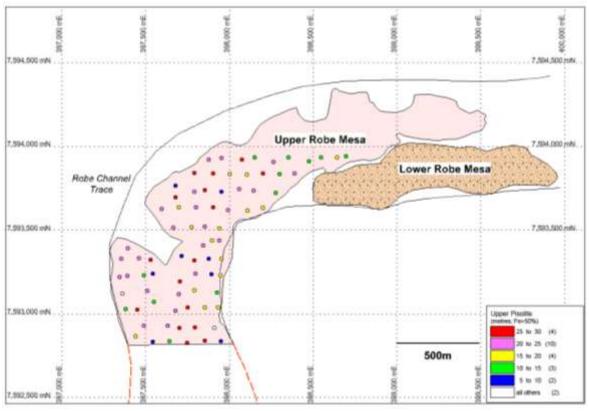


Fig 6. Thickness of the 2014 and 2015 drill intercepts (>5m) with Fe>50% from upper zone pisolitic iron-stone on the Robe Mesa.



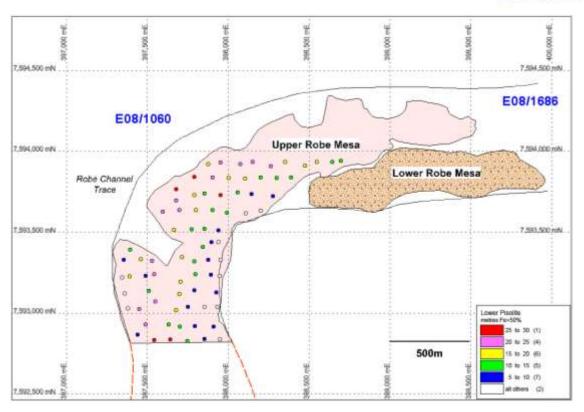


Fig 7. Thickness of the 2014 and 2015 RC drill intercepts (>5m) with Fe>50% from the lower zone pisolitic iron-stone on the Robe Mesa.

## Shepherds Well Project - West Pilbara

Soil sampling and mapping were undertaken during the quarter. Any significant results will be released when they are available.

## **Yarrie Project**

No significant work was undertaken during the quarter.

## **Buddadoo Project**

No significant work was undertaken during the quarter.

#### **Earaheedy Project**

Following a review of the prospectivity and limited potential for the tenements to host commercially significant discoveries of either manganese or iron-ore in the current market, KingX Pty Ltd has withdrawn from the joint venture with KingF Pty Ltd as announced on the 29<sup>th</sup> of September to the ASX.



# ABOUT COZIRON RESOURCES LIMITED

Coziron Resources Limited has exploration focussed on the Yarraloola (1071km² of granted tenements) and Buddadoo (210km² granted) Projects and an option over Shepherd Well (193km²) and Yarrie (1022km²) (Fig 8). The Yarraloola, Buddadoo, Shepherds Well and Yarrie projects have iron-ore as the principal exploration target. The interest in the Earaheedy Project was relinquished during the quarter.

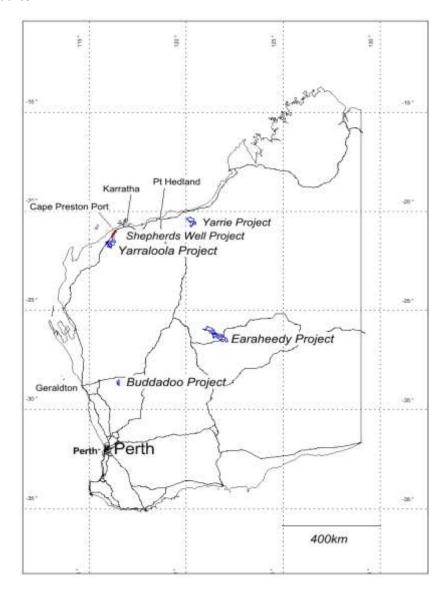


Fig 8. Location of the Coziron Resources Ltd projects in Western Australia.

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	
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Kingsland	Earaheedy Basin WA	E38/2212	0%	Withdrew from JV	
Kingsland	Earaheedy Basin WA	E38/2213	0%	Withdrew from JV	
Kingsland	Earaheedy Basin WA	E53/1437	0%	Withdrew from JV	
Buddadoo	Mid-west, WA	E59/1350	85%	No Change	

In addition to the above tenements the Company is in the process of acquiring the Yarrie project. The acquisition is currently awaiting completion under the acquisition contract.

Project	Location	Tenement Number	Economic Entity's Interest at Quarter End	Change in Economic Entity's Interest During Quarter		
Yarrie	East Pilbara, WA	E45/3725	0%	No Change		
Yarrie	East Pilbara, WA	E45/3727	0%	No Change		
Yarrie	East Pilbara, WA	E45/3728	0%	No Change		
Yarrie	East Pilbara, WA	E45/4065	0%	No Change		
Yarrie	East Pilbara, WA	E45/4433	100%	No change		