

#### **CZR Resources Ltd**

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.czrresources.com

The Company Announcements Office, ASX Limited

31 December 2020

# Robe Mesa Iron Ore Project, WA

# CZR signs MOU for second, closer port option

Use of Onslow port offers significant scope to cut costs (Including Addendum)

CZR Resources Limited (ASX:CZR) is pleased to announce that it has signed a non-binding Memorandum of Understanding (MOU) under which it could ship its Pilbara iron ore through the Onslow port.

The MoU is with the Onslow Marine Support Base Pty Ltd (OMSB). OMSB is the owner of the Onslow Marine Support Base facility (OMSB Facility) located in Beadon Creek, Onslow, 2km west of the town of Onslow in WA's Pilbara.

Beadon Creek provides CZR with a second port option for the export of iron ore from the Company's Robe Mesa project. Robe Mesa is only 180km by road from the Onslow port compared with the 420km distance to the facilities at Port Hedland (**Figure 1**).

The Robe Mesa Pre-feasibility Study, which found the project has the potential to be a robust and profitable operation, was based on using the Utah Bulk Handling facility at Port Hedland (see ASX release dated December 10, 2020).

In addition to reducing the haulage cost associated with the significant reduction on the haulage distance, OMSB Facility has the potential to provide the Robe deposit with options to increase the volume of export, with a lower impact on the community and generate a more sustainable business.





Figure 1 Location of Robe Mesa in relation to port facilities at Pt Hedland and Onslow

# The Onslow Facility

Onslow Marine Support Base (OMSB) is a privately owned multi-user facility, with the Western Australian Department of Transport as the controlling authority. The OMSB Facility has hard-stand areas in excess of 250,000sqm ready for use, an inner and outer harbour, wharf with heavy lift facilities and channel to deeper water (**Figure 2, 3**). It supports on-shore to off-shore activities for the petroleum industries in the Carnarvon Basin but is planning to expand into the handling of bulk commodities.

The channel and the OMSB Facility can currently accommodate a transhipping operation for the loading of iron-ore onto barges or self-propelled barges (up to 100 metres in length), before sailing to a suitable transhipment anchorage.

The channel and the OMSB Facility have the potential to accommodate the berthing of vessels for direct ship loading. The direct loading of Handymax or larger vessels requires further modelling and will require further dredging and channel widening.





**Figure 2** Oblique aerial view of the OMSB Facility at Beadon Creek near Onslow showing the dock-side hard-stand and shipping channel.





Figure 3 More recent vertical aerial photograph of the OMSB Facility with a vessel dock-side.

### Background to CZR and the Robe Mesa Iron-Ore Deposit

The Robe Mesa iron-ore deposit is 85% owned by CZR Resources Ltd and is located 150 km southwest of Karratha and 30km to the east of a bitumen sealed highway that connects to all the ports and towns along the coast of the Pilbara (**Figure 1**).

The combined Robe and Robe East extension deposits report a total JORC2012 Resource of 89.1Mt @ 53.7% Fe (calcining to 60.2% Fe) above a Fe50% cut-off but include a near surface higher grade JORC2012 resource of 24.7Mt @ 56% Fe above a 55%Fe cut-off (CZR release to ASX 8 February 2016; 26 April 2017; See Addendum; Tables 1 to 4 and Figures 2 and 3, Note 1).

CZR recently released prefeasibility study (PFS) on the Robe Mesa that showed the deposit had the potential for a robust and profitable mining operation that underpinned a maiden Probable Ore Reserve for Robe Mesa of 8.2 Mt @ 56% Fe (CZR release to ASX on 10 December 2020; See Addendum; Table 5 and Figures 2 and 3, Note 1). The financial model was defined around a central case that targets the production of 2 million tonnes per annum (dry) of direct shipping iron-ore product at a grade of 56% Fe, from a low strip ratio (Waste tonnes to Ore tonnes of approximately 0.6) mine located approximately 420km by road from the Utah Bulk Handling Facility in Port Hedland (See Addendum; Note 2).



#### **MOU Objectives and Significance to the Robe Mesa Project**

The non-binding MOU with OMSB will allow CZR to investigate the potential logistical and financial benefits of utilising a second port that is significantly closer to the Robe Mesa deposit. The OMSB Facility is located approximately 180km by road from Robe Mesa, and as such represents a 60% reduction in haul distance to that which was assumed in the PFS for export through Utah Point (**Figure 1**).

The MOU will investigate the receival of product and product handling and storage on the landside facility, along with the loading of vessels via transhipping versus direct ship loading of vessels berthed at the facility.

Transhipment of bulk materials has been successfully deployed at numerous ports, both in Australia and overseas. CZR and OMSB will work together to understand the economics, technical, environmental and community considerations such that an optimal solution can be identified for all stakeholders.

This announcement is authorised for release to the market by the Board of Directors of CZR Resources Limited.

#### For further information, contact:

Dr Rob Ramsay CZR Resources Ltd +61 8 6211 5099

Or

Media Paul Armstrong Read Corporate +61 8 9388 1474

# **Addendum**

Tabulated estimates of the JORC2012 ore-resources for Robe Mesa deposit and Robe East extension deposit which contribute to the combined Robe Mesa deposit and are inclusive of the +55%Fe ore-reserve estimate with relevant CZR releases to the ASX.

**Table 1** Robe Mesa JORC 2012 mineral resource estimate reported above a 50% Fe cut-off grade (CZR announcement to ASX; 8 February 2016) and outlined on Figures 2 and 3.

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	Р	S	Fe <sub>ca</sub>
	Mt	%	%	%	%	%	%	%	%
Indicated	65.7	53.8	8.27	3.43	0.14	10.63	0.041	0.018	60.2
Inferred	18.8	53.8	8.22	3.42	0.14	10.71	0.046	0.017	60.3
Total	84.5	53.8	8.26	3.43	0.14	10.64	0.042	0.018	60.2



**Table 2** Robe Mesa JORC 2012 mineral resource estimate reported above a 55%Fe cut-off grade (CZR release to ASX; **8** February 2016) and within the +50%Fe ore-resource and is inclusive of the +55%Fe ore-reserve estimate in Table 5.

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	Р	S	Fe <sub>ca</sub>
	Mt	%	%	%	%	%	%	%	%
Indicated	19.5	56.0	5.95	2.72	0.10	10.71	0.043	0.017	62.7
Inferred	5.2	56.0	5.79	2.76	0.10	10.71	0.047	0.016	62.7
Total	24.7	56.0	5.92	2.73	0.10	10.71	0.044	0.016	62.7

**Table 3** Robe East JORC 2012 mineral resource estimate reported above a 50% Fe cut-off grade (CZR release to ASX; 26 April 2017) and is outlined on Figures 2 and 3.

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	Р	s	Fe <sub>ca</sub>
	Mt	%	%	%	%	%	%	%	%
Inferred	4.6	51.8	9.7	3.8	0.20	10.9	0.1	0.02	58.2
Total	4.6	51.8	9.9	3.8	0.20	10.9	0.1	0.02	58.3

**Table 4** Combined Robe Mesa and Robe East JORC2012 mineral resource reported above a 50% Fe cut-off grade (CZR release to ASX; 26 April 2017) and are outlined on Figures 2 and 3.

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	Р	S	Fe <sub>ca</sub>
	Mt	%	%	%	%	%	%	%	%
Indicated	65.7	53.8	8.3	3.43	0.14	10.63	0.04	0.02	60.2
Inferred	23.4	53.4	8.5	3.49	0.15	10.75	0.06	0.02	59.9
Total	89.1	53.7	8.3	3.45	0.14	10.66	0.05	0.02	60.1

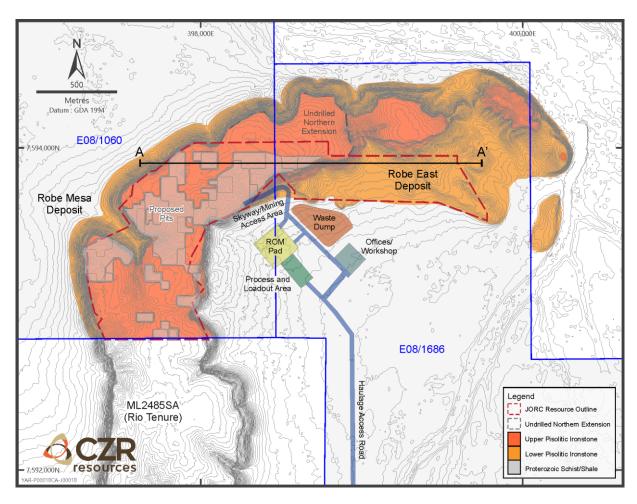
Fe<sub>ca</sub> is the calcined iron-content calculated as (Fe%/(100-LOI%))\*100 and represents the amount iron after the volatiles (mainly held as weakly bound water in the structure of the hydrous iron-rich minerals) is excluded from the analysis.

**Table 1** – Robe Mesa JORC2012 ore-reserve reported above a cut-off grade of 55% Fe (CZR release to ASX; 10 December 2020) with the proposed pit outlines to recover the ore-reserve shown on Figures 2 and 3.

Category	Mt	Fe %	Al <sub>2</sub> O <sub>3</sub> %	Р%	SiO₂%	S%	LOI%
Probable	8.2	56.0	2.7	0.039	5.9	0.020	10.9
Total	8.2	56.0	2.7	0.039	5.9	0.020	10.9

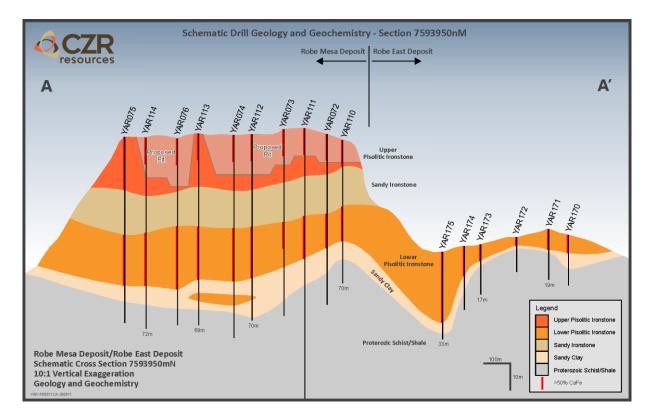
**Note 1:** CZR confirms that it is not aware of any new information or data that materially affects the information included in the CZR announcements to the ASX on 8 February 2016, 26 April 2017 and 10 December 2020 and, in the case of estimates of the mineral resources in Tables 1 to 4 and the ore reserves in Table 5, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.





**Figure 3** Outline of the Robe Mesa and Robe East +50%Fe JORC2012 resource model (CZR releases to the ASX; 8 February 2016, 26 April 2017) showing the proposed pit outlines on the +55%Fe probable ore-reserve and the proposed site layout (CZR release to the ASX; 10 December 2020).





**Figure 3** Representative cross-section across the Robe Mesa and Robe East deposits on 7593950N showing the RC drill-locations, intercepts with calcined Fe>50% and the interpreted geology (CZR releases to the ASX; 8 February 2016, 26 April 2017) showing the proposed pit outlines on the +55%Fe probable ore-reserve (CZR release to the ASX; 10 December 2020).

**Note 2:** CZR confirms that all the material assumptions underpinning the forecast financial information at a 62%Fe index price of US\$90/dmt (dry metric tonne) and the central production target of 2 million tonnes per annum (dry), in the CZR release to the ASX on 10 December 2020 continue to apply and have not materially changed.

#### **Competent Persons Statement**

The information in this report that relates to ore reserves, mineral resources, exploration activities and 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 the Managing Director of Coziron and a Geologist with over 35 years of experience 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.

The Company confirms all material assumptions and technical parameters underpinning the mineral resource and ore-reserve estimates in the relevant market announcements continue to apply and have not materially changed.