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The Company Announcements Office, ASX Limited

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# Environmental studies underway on Robe Mesa iron ore project in Pilbara

**Preparations for DFS ramping up following studies which show the project has potential to generate strong financial returns**

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CZR Resources Limited (ASX: CZR) is pleased to advise that it is preparing for the full Definitive Feasibility Study (DFS) stage of its highly promising Robe Mesa iron ore deposit in WA, with the start of key studies related to the conversion of tenure, native title, environment and heritage.

These studies will pave the way for the project to secure the required environmental and mining approvals, which will in turn form part of the DFS.

CZR announced late last year that the Pre-feasibility Study (PFS) found that Robe Mesa is technically robust with potential to generate strong financial returns.

Work has commenced on selecting the optimum area for conversion of the exploration licence to a mining lease. As part of this process, CZR will engage with the Native Title holders. In addition, desktop studies of surface and ground-water components are scheduled for April 2021.

These will be followed by field studies of the flora and fauna and heritage clearance for the next round of RC drilling. Field work will first focus on the area of proposed development, but studies will then extend along the haul-road corridor as the potential port option is identified.

CZR is in advanced discussions with a range of consultants concerning the key roles for the DFS. The project and approvals managers are providing scopes of work to service providers for costing and scheduling for activities that include Native Title engagement, heritage clearance, site access and drill-pad preparation, RC drilling, the review of drill results for JORC2012 ore-resource and ore-reserve upgrades, metallurgy, mine design, site engineering, haulage and port studies.

In parallel with these discussions and the tenure-related and environmental studies, CZR is preparing to finalise the DFS budget and timetable as well as examining strategic opportunities within the scope of the project for further reductions in capital and operating costs.

These include changes to the transport routes and intersection works and the use of a closer port between Onslow and Dampier rather than hauling ore to Port Hedland (**Figure 1**).

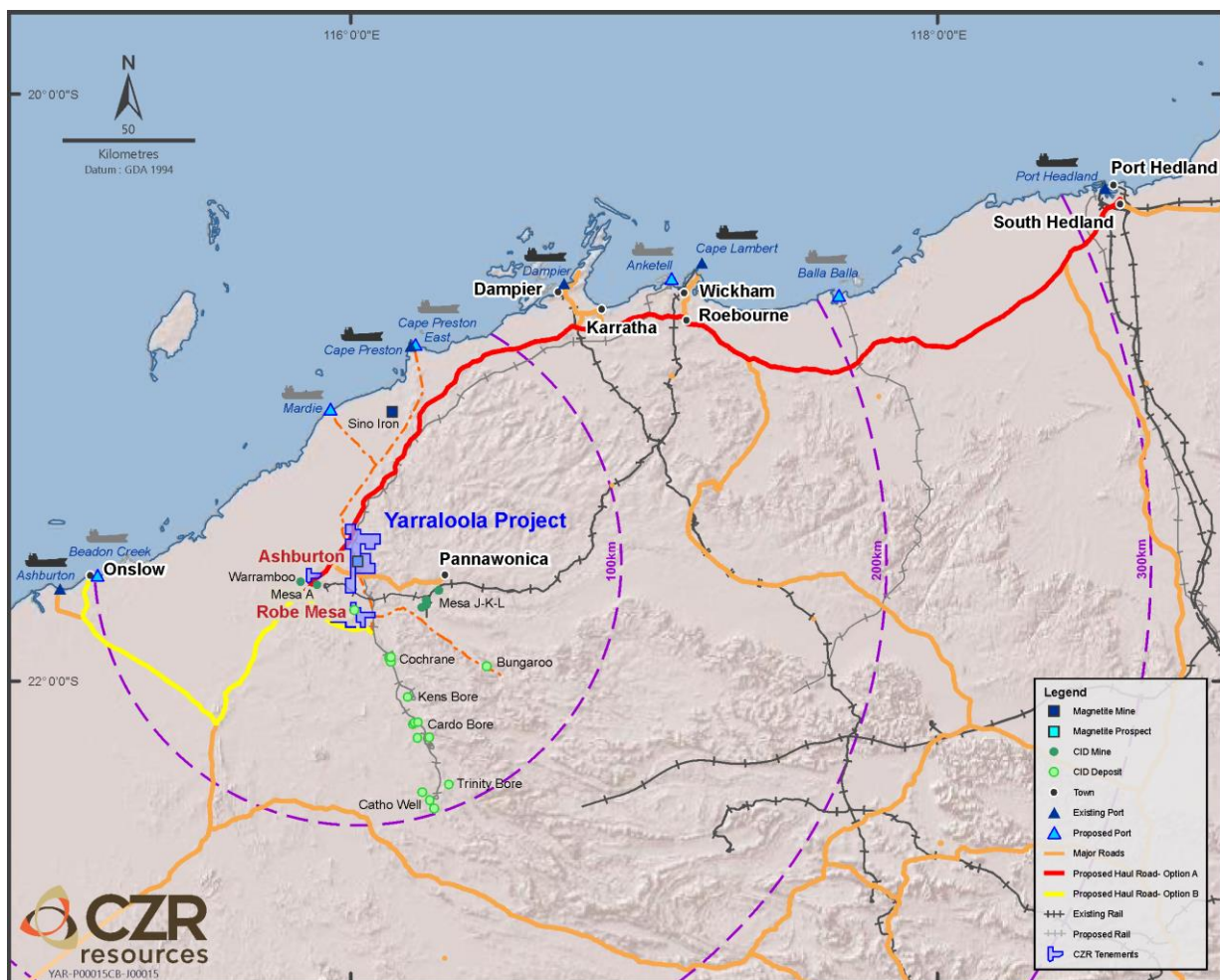
The PFS for Robe Mesa shows that the deposit has the potential to generate strong financial returns based on proposed target for production of 2Mtpa of Direct Shipping Ore (DSO), hauled to Pt Hedland, over +5 years (64 months) from the higher grade, 24.7Mt at 56%Fe, upper interval of mineralisation which is underpinned by a Probable Ore Reserve of 8.2Mt at 56% Fe (**Figures 2 and 3**; CZR release to the ASX; 10 December 2020; see Appendix A, Tables A1 to A5, Notes 1 and 2).

The PFS is underpinned by a pre-production capital estimate is A\$51.1M with a life-of-mine (LOM) average C1 cash operating cost of A\$64.78/t (dry) and a LOM project cashflow of A\$96.4M based on a 62% Fe Index Price of US\$90 per dry metric tonne (dmt) and a US\$:A\$ exchange rate of US70c.

CZR Managing Director Rob Ramsay said the Company was progressing a range of workstreams in parallel at Robe Mesa in a push to advance the project as quickly as possible.

“CZR has an outstanding opportunity to develop an iron ore project in the world’s most desirable iron ore region with low costs and simple production methods,” Dr Ramsay said.

“The strategy is aimed at unlocking the maximum value of the project at the earliest opportunity by pursuing a range of desk-top, field studies and other activities at the same time.”



**Figure 1.** Regional location of the Robe Mesa deposit and Ashburton magnetite prospect in the West Pilbara of Western Australia.

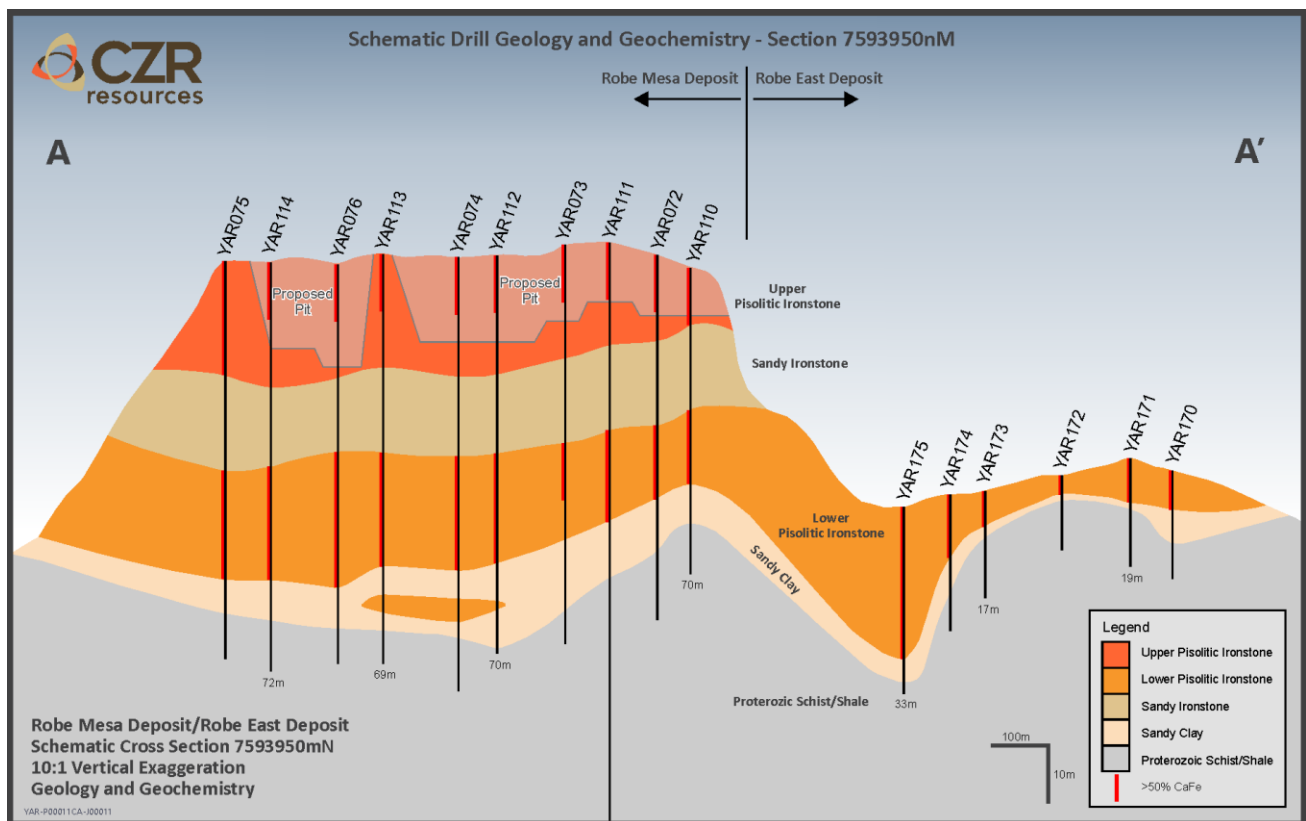
## Robe Mesa Detail

Planning of the scope, budget and timeline for the DFS and approvals for mining on the Robe Mesa has commenced.

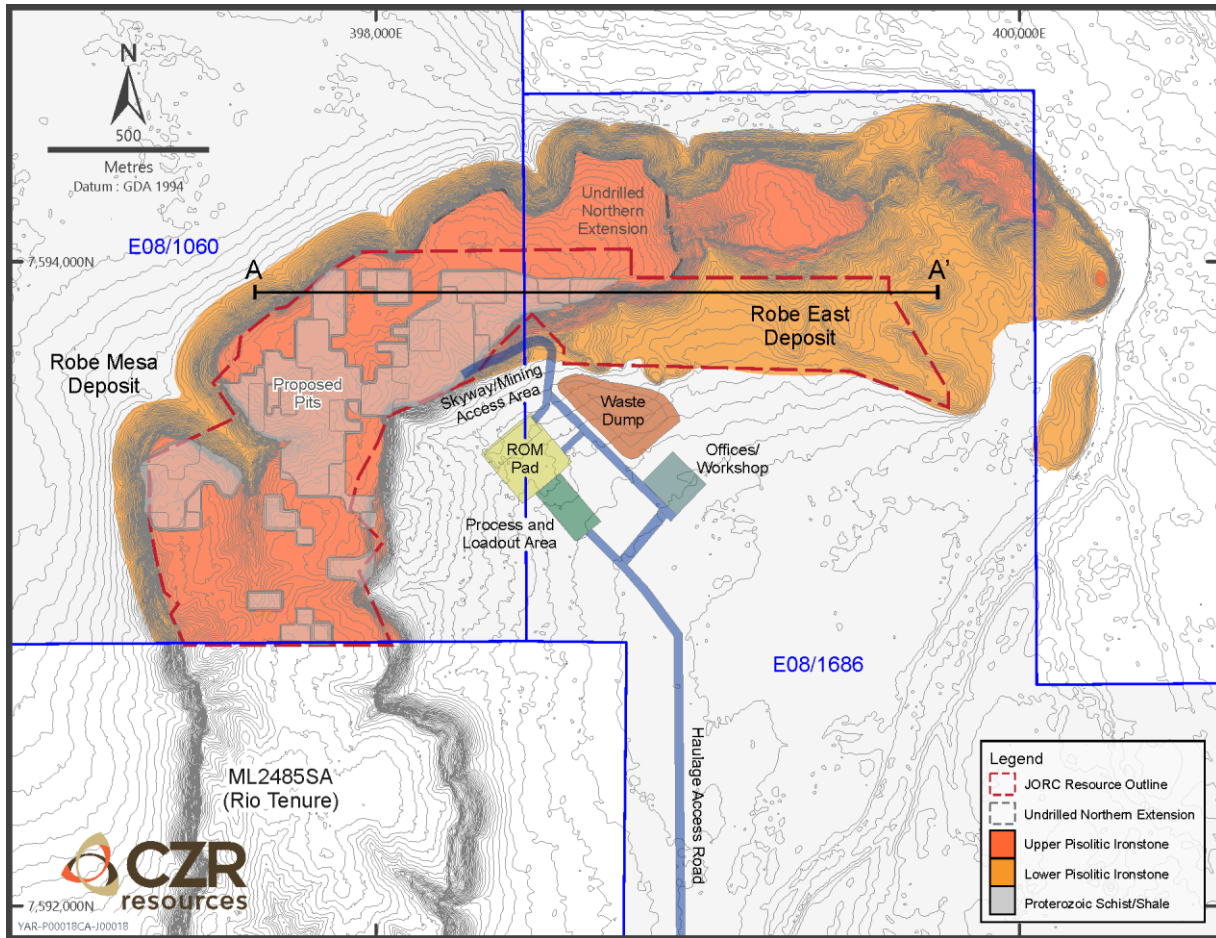
The next phase of field-work to commence in April will include pegging a mining lease, along with flora and fauna surveys that will commence the process of native title negotiations and contribute to the approvals process for mining. CZR is also preparing the documentation for heritage surveys that will allow additional RC drilling within and adjacent to the planned pit outlines and increase the confidence in the Robe Mesa resource model (**Figure 3**).

The Company will also engage with the Onslow Marine Support Base early in the next phase of work to determine the operational and financial opportunities and risks of using the port at Onslow as an export location (CZR release to the ASX, 31 December 2020).

The early indication is that Onslow Marine Support Base will reduce the haul distance by about 260 kilometres compared to the PFS base-case of using the Utah Bulk Handling Facility in Pt Hedland.



**Figure 2.** 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).



**Figure 3.** Robe Mesa and Robe East deposits showing the proposed pit outlines and infrastructure locations from the PFS which will become the focus of the 2021 field-work.

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

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### **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 CZR Resources Ltd 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.

## Appendix A

### Background to 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.

The deposit which has been drilled in two sections and are referred to as Robe Mesa and Robe East, covers a portion of a geological unit that hosts the Warrambo, Mesa A and Mesa J-K mines operated by RioTinto Ltd which export approximately 34 million tonnes per annum of product. In addition, there is the yet to be developed 134Mt @ 56.7% Fe Bungaroo Valley deposit that is now owned by Mineral Resources Ltd (BCI release to ASX; 31 March 2020).

The combined Robe Mesa 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 (Tables A1 to A4; CZR release to ASX; 8 February 2016, 26 April 2017).

Table A1. Robe Mesa JORC 2012 mineral resource reported above a 50% Fe cut-off grade (8 February 2016 ASX Announcement).

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	P	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
<b>Total</b>	<b>84.5</b>	<b>53.8</b>	<b>8.26</b>	<b>3.43</b>	<b>0.14</b>	<b>10.64</b>	<b>0.042</b>	<b>0.018</b>	<b>60.2</b>

Table A2. Robe Mesa JORC 2012 mineral resource reported above a 55% Fe cut-off grade (8 February 2016 ASX Announcement).

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	P	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
<b>Total</b>	<b>24.7</b>	<b>56.0</b>	<b>5.92</b>	<b>2.73</b>	<b>0.10</b>	<b>10.71</b>	<b>0.044</b>	<b>0.016</b>	<b>62.7</b>

Table A3. Robe East JORC 2012 mineral resource reported above a 50% Fe cut-off grade (26 April 2017 ASX Announcement).

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	P	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
<b>Total</b>	<b>4.6</b>	<b>51.8</b>	<b>9.9</b>	<b>3.8</b>	<b>0.20</b>	<b>10.9</b>	<b>0.1</b>	<b>0.02</b>	<b>58.3</b>

Table A4. Combined Robe Mesa and Robe East JORC 2012 mineral resource reported above a 50% Fe cut-off grade (26 April 2017 ASX Announcement).

Category	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	P	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
<b>Total</b>	<b>89.1</b>	<b>53.7</b>	<b>8.3</b>	<b>3.45</b>	<b>0.14</b>	<b>10.66</b>	<b>0.05</b>	<b>0.02</b>	<b>60.1</b>

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 A5 – 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 A1 and A2**.

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

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 A1 to A4 and the ore reserves in Table A5, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Note 2; CZR believes it has a reasonable basis for making the forward looking statements in this Announcement, including with respect to any production targets and economic evaluation, based on the information contained in CZR's ASX announcement entitled "Pre-Feasibility Study finds Robe Mesa iron ore project is technically robust with potential to generate strong financial returns" dated 10 December 2020. CZR confirms that it is not aware of any new information or data that materially affects the production targets contained in the previous announcement of the PFS and all material assumptions underpinning the production targets in the previous market announcement continue to apply and have not materially changed.