

Robe Mesa Project

Proposal Content Document

Table 1: General proposal content description

Proposal title	Robe Mesa Iron Ore Project
Proponent name	Zanthus Resources
Short description	<p>The Robe Mesa Iron Ore Project is a greenfield operation located within the Robe Valley Channel Iron Deposits (Robe Valley CID), adjoining Rio Tinto’s Mesa F deposit, in the West Pilbara of Western Australia (WA), within the Shire of Ashburton, approximately 200 km by road from the City of Karratha and 180 km by road from the town of Onslow. (Figure 1: Regional Context of Proposal Location)</p> <p>The mine is located on granted mining tenement M08-533 with infrastructure over various miscellaneous licences. (Figure 2: Proposal Layout and Tenure)</p> <p>The proposal includes:</p> <ul style="list-style-type: none">• Introduction of construction and operation of<ul style="list-style-type: none">– Above Water Table (AWT), open pit mining on top of Robe Mesa– Dry crush and screen processing plant for up to 5 million tonnes per annum (Mtpa)– Ancillary infrastructure– Fuel Storage facility– Village– Landfill site– Fresh water dam– Transport and infrastructure corridors, drainage infrastructure and road construction activities <p>The total indicative disturbance footprint of the proposal is 269.887 ha within a Development Envelope of 902.689 ha (Figure 3: Indicative Infrastructure Footprint and Development Envelope).</p> <p>Mining of the Robe Mesa is all above the water table. Mine waste will remain on top of the Mesa. No external waste dumps will be left upon closure, with the pit progressively backfilled with waste. These commitments of;</p> <ul style="list-style-type: none">• maintaining a mesa edge buffer zone,• enforcing No-Go-Areas, backfilling of pits with waste material,• only undertaking mining above the water table, and• the on-going collaborative engagement with the Robe River Kuruma (RRK) people, <p>will ensure that the Robe Mesa Iron Ore project proactively manages environmental and cultural priorities.</p>

Table 2: Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
Development Envelope	Figure 3: Indicative Infrastructure Footprint and Development Envelope	902.869 ha, (rounded to 903 ha)
Indicative Disturbance Footprint		269.887 ha, (rounded to 270 ha)
Mine Elements including <ul style="list-style-type: none"> • Open Pits, • Haul and access road • Low Grade stockpile • Topsoil stockpiles • Closure related works 	Figure 2: Proposal Layout and Tenure	Clearing on no more than 270ha native vegetation within the 903 ha Development Envelope <ul style="list-style-type: none"> • 68 ha mine pit on mesa surface • 94 ha plant and support infrastructure on <u>stony plains</u> • 108 ha access road to North West Coastal Highway on <u>stony plains</u> Multiple staged pits on top of Robe Mesa that are progressively backfilled with waste ROM Pad 5Mtpa Dry Processing Plant 38km non-sealed access road The low-grade stockpile is a run of mine product and will be fully reclaimed by the end of the proposed mining operation at Robe Mesa. Low-grade material during mining will be stored at this location until full, prior to processing. If the low-grade stockpile reaches capacity during operations, low-grade material will be stored within pit waste dumps until processing. The stockpile has a capacity of 1.5M lcm (3.4 Mt).
Processing elements, including: <ul style="list-style-type: none"> • Ore stockpiles • Processing plant (dry crush and screen) • Product storage and transport 		
Infrastructure Elements <ul style="list-style-type: none"> • Village accommodation • Ancillary buildings 		
Construction elements		
Clearing of land for infrastructure	Figure 2: Proposal Layout and Tenure	Clearing on no more than 270ha native vegetation within the 903 ha Development Envelope <ul style="list-style-type: none"> • 68 ha mine pit on mesa surface • 94 ha plant and support infrastructure on <u>stony plains</u> • 108 ha access road to North West Coastal Highway on <u>stony plains</u>
Operational elements		

Groundwater abstraction	Within L08-303	Abstraction of up to 540,000 kL/year from Production Bore 13-3 (PB13-3)
Processing Plant	Within M08-533	Dry crush and screen plant with 5 Mtpa capacity
Proposal elements with greenhouse gas emissions		
Construction elements:		
Scope 1	Land clearing (maximum 270ha as per NVCP) 14,274 t CO2-e Less than 100,000 t CO2-e	
Operation elements:		
Scope 1	The key inputs for estimating the GHG emissions from the project are diesel combustion from the mining fleet, electricity generation and product haulage by road train. The annual emissions for Robe Mesa operations (19,792) and Road train Haulage (22,184) is estimated at 41,976 t CO2-e Less than 100,000 t CO2-e No Scope 2 emission (<i>as not connecting to Pilbara Grid</i>)	
Rehabilitation		
<p>Progressive rehabilitation will be undertaken over the life of the mine with waste backfilled into the pit as per mining schedule.</p> <p>Areas disturbed through implementation of this proposal will be designed to be safe and non-polluting and will be constructed so that their final shape, size, stability, and ability to support local native vegetation are comparable to natural landforms in the area.</p>		
Commissioning		
The processing plant is a dry crush and screen operation (with no chemicals or tailings dam required). Commissioning of the processing facility to be undertaken subject to operational limits above.		
Decommissioning		
Decommissioning will involve the removal of plant, buildings and associated infrastructure, in line with the mine closure plan.		
Other elements which affect extent of effects on the environment		
2025-2035	Maximum project life	10 years
Q3 2025 – Q4 2026	Construction phase	1 year
Q4 2026 – Q4 2034	Operations phase	Up to 8 years
2035	Decommissioning phase	Less than 1 year

* Proponents should only provide realistic timeframes to avoid unnecessary change to proposal applications at referral (section 38C), assessment (section 43A) or post assessment (section 45C).

Figure 1: Regional Context of Proposal Location

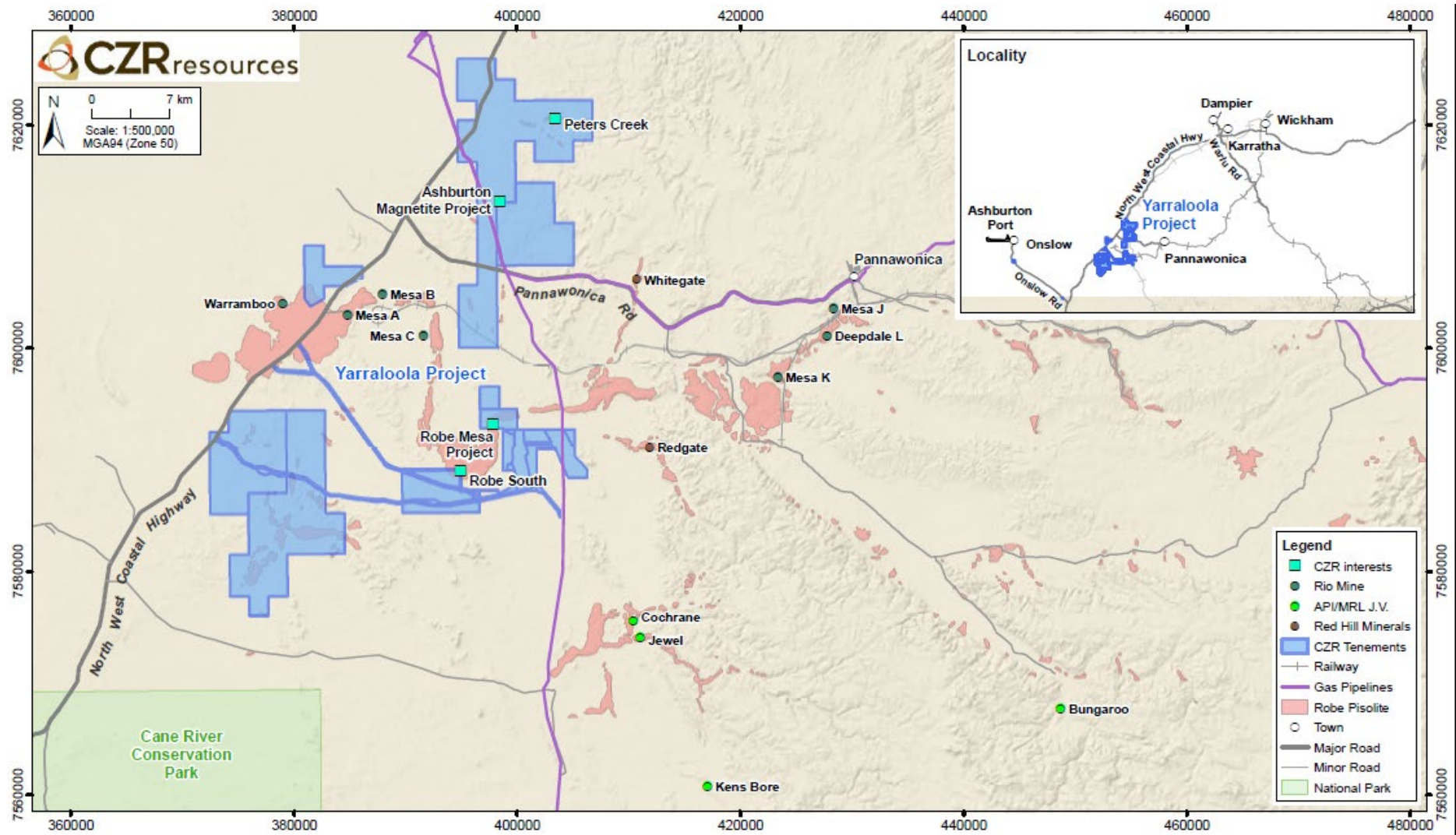


Figure 2: Proposal Layout and Tenure

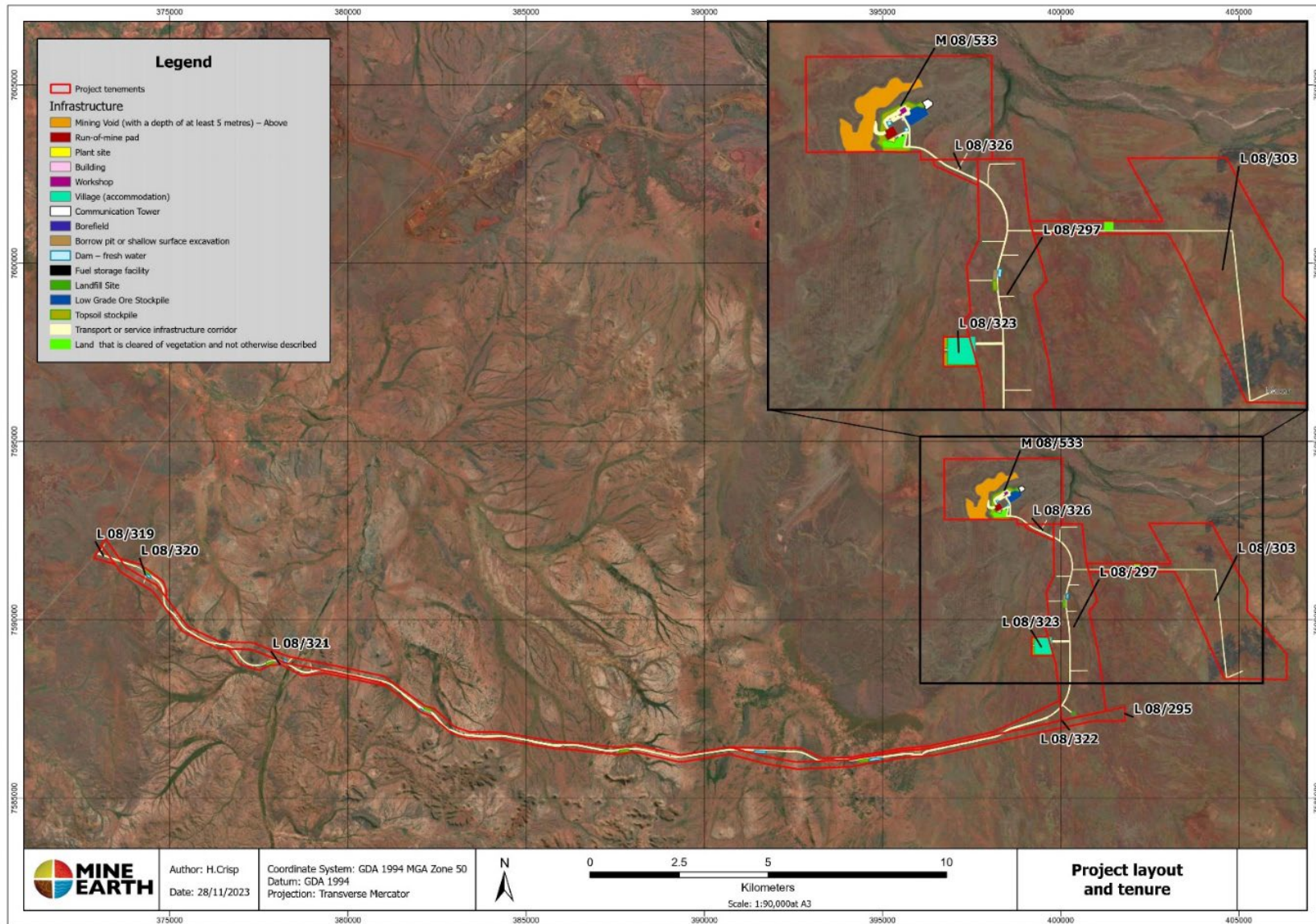


Figure 3: Indicative Infrastructure Footprint and Development Envelope

