ASX Announcement
21 October 2025

EXPLORATION UPDATE

- **Geophysical interpretation completed by Core Geophysics Pty Ltd across the Yule River Project (E47/3857), identifying eleven targets prospective for VHMS, orogenic gold and magmatic Ni-Cu-PGE mineral systems.**
- **Target YR1 confirmed as the highest-priority VHMS feeder target, coincident with historical WMC drillhole MDRC 4 which intersected talc–antigorite–magnetite–hematite alteration and gold anomalism (46 ppb Au).**
- **Ground gravity survey to commence over YR1, to model subsurface density and define drill targets for 2026.**

Mantle Minerals Limited (**ASX:MTL**) ("Mantle") ("the Company") provides an update on ongoing exploration activities across its Western Australian portfolio.

Recent technical work has focused on finalising the Yule River geophysical interpretation, progressing data compilation at Pardoo, and expanding the Company's footprint into the Carlton Hill region in the north Kimberley.

Yule River Project (E47/3857) – Geophysical Interpretation Completed; Gravity Survey Planned

The Company has completed a geophysical interpretation of the Yule River Project, located approximately 35 kilometres west of Port Hedland, Western Australia. The review, conducted by Core Geophysics Pty Ltd, reprocessed and reinterpreted high-resolution airborne magnetic data originally acquired by the Company in 2020.

The survey covers a structurally complex portion of the Mallina Basin, where the Scholl Shear Zone (SSZ) and the Yule River Shear Zone (YRSZ) converge — a geological setting considered very suitable for potential intrusive-style gold mineralisation analogous to the De Grey Mining Hemi deposit..

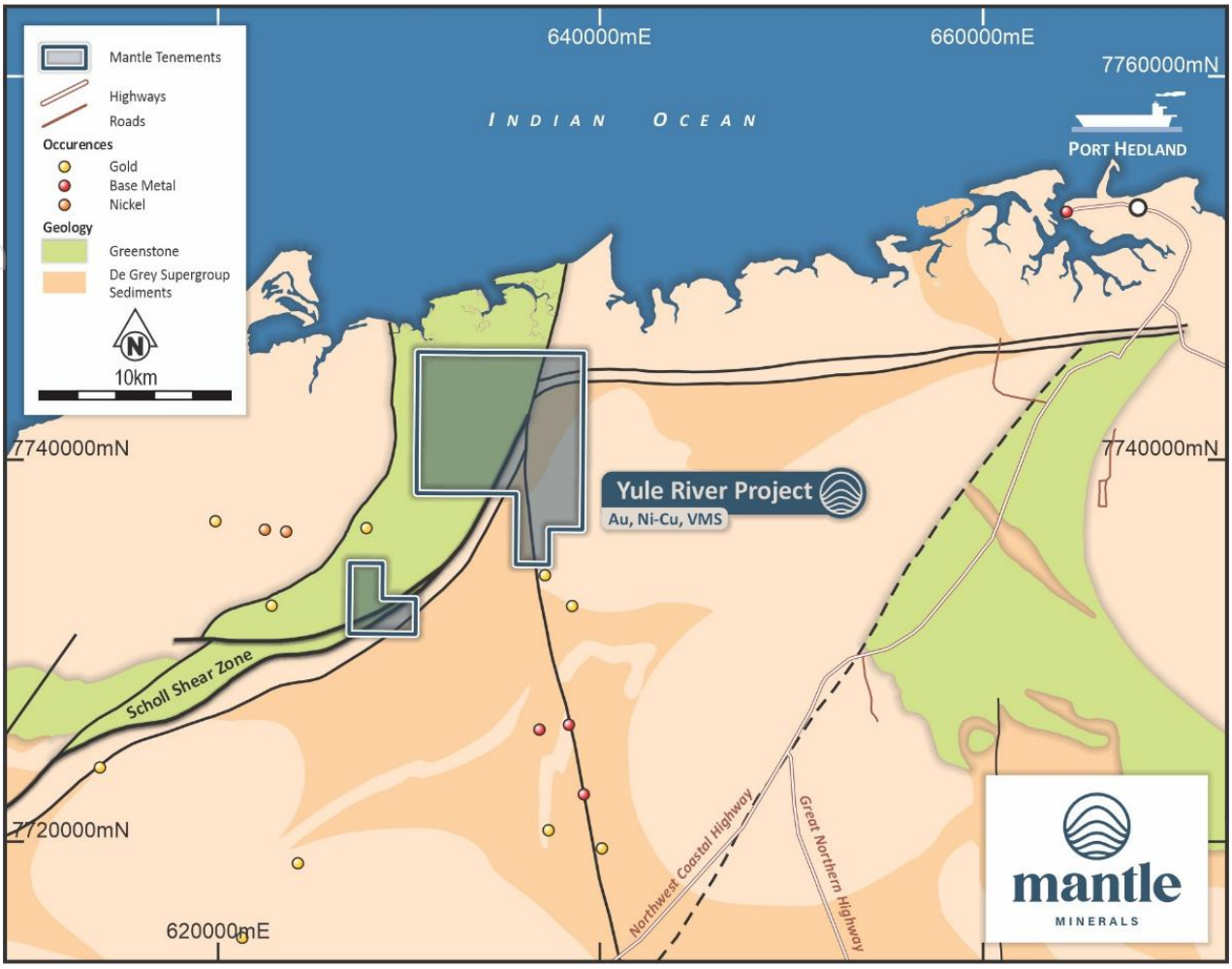

Figure 1: Yule River Project Location Map

Geological Context

The geophysical interpretation has delineated potential extensions to a concealed greenstone belt comprising mafic–ultramafic sequences, felsic volcanics and metasediments, intruded by felsic to intermediate bodies that likely acted as hydrothermal heat sources. The transported cover, ranging between 30 and 80 metres thick, has obscured surface expression, making high-resolution geophysics critical for target identification.

Historical Work

The ground was last systematically explored by Western Mining Corporation (WMC) between 1991 and 1993. WMC completed 14 reverse-circulation drill holes (MDRC 1–14) targeting magnetic anomalies derived from early surveys. Two of these holes (MDRC 3 and MDRC 4) were drilled within the current project tenement (Refer: Carmichael, A.J. (1993), *First Annual and Terminal Technical Report for the Period 9 August 1990 to 4 October 1991*, WAMEX Report A36798; Western Mining Corporation Limited). Drilling confirmed the presence of serpentinised ultramafic, felsic volcanic and cherty units, possibly representing Archaean De Grey- type greenstones.

Significantly, hole MDRC 4 intersected a talc–antigorite–magnetite–hematite alteration zone with weak gold anomalism (46 ppb Au). This alteration assemblage indicates the passage of oxidising, silica-rich fluids typical of Volcanic Hosted Massive Sulphide (VHMS) feeder systems.

Interpretation Findings

The Core Geophysics study identified eleven targets (YR1–YR11) classified by mineral system style:

- YR1–YR3: VHMS feeder and alteration systems associated with felsic intrusions;
- YR4–YR6, YR8–YR11: Orogenic gold targets along the SSZ–YRSZ corridor;
- YR7: Magmatic Ni-Cu-PGE target over an intrusive E–W magnetic feature.

Among these, Target YR1 was rated the highest-priority VHMS target, coincident with the magnetic anomaly tested by MDRC 4. The feature displays magnetic destruction consistent with magnetite alteration, forming a vertical to sub-vertical pipe-like geometry suggestive of a feeder conduit beneath felsic volcanic rocks. The interpretation for Target YR7 is supported by cross-cutting geometry and XRD analysis from hole MDRC3 (69-70m), which identified the rock as a metamorphosed ultramafic

Planned Work – Ground Gravity Survey

Mantle will now proceed with a ground gravity survey focused on YR1 to better define the subsurface density distribution and refine drill targeting. The program will:

- Collect high-resolution gravity data to map density contrasts related to massive sulphide or ultramafic bodies;
- Integrate results into a 3-D magnetic and gravity inversion model to define the geometry and depth extent of the YR1 anomaly prior to drilling.

This next phase aims to confirm whether the magnetic anomaly reflects a denser, sulphide-bearing system, de-risking the planned drill program in 2026.

Non-Executive Director Robert Mosig commented:

"The Yule River interpretation provides the first clear picture of the bedrock architecture beneath deep cover. We now have compelling evidence for potential VHMS, Intrusion related and possibly Orogenic mineralised targets to pursue. Whilst YR1 is already an outstanding VHMS target, the upcoming gravity survey will be pivotal in defining the Company's first drill program in this highly prospective area."

Pardoo Project (E45/4136 & E45/5194) – Data Review and Target Ranking

At Pardoo, located approximately 120 km east of Port Hedland, Mantle continues its desktop review and data compilation of historical exploration records.

The project lies within the Pardoo Shear Zone of the eastern Pilbara Craton, a structural corridor known to host iron-oxide and shear-related base-metal mineralisation.

Previous exploration identified hematite alteration and coincident magnetic highs, with limited geochemical sampling returning anomalous copper and gold. Mantle is integrating geophysical and drilling datasets into a unified database and will undertake re-interpretation of magnetic and gravity imagery to rank targets for field verification in 2026.

The Pardoo project is already host to the Highway Nickel Deposit which contains the JORC 2012 Mineral Resource Estimate (Indicated and Inferred) of 16.5 Mt @ 0.407 % Ni for a total of 67,005t of nickel. (refer: ASX:MTL Announcement 19 January 2024: Upgraded JORC Mineral Resource for the Highway Nickel Deposit; Table 1 below for split of resource categories)

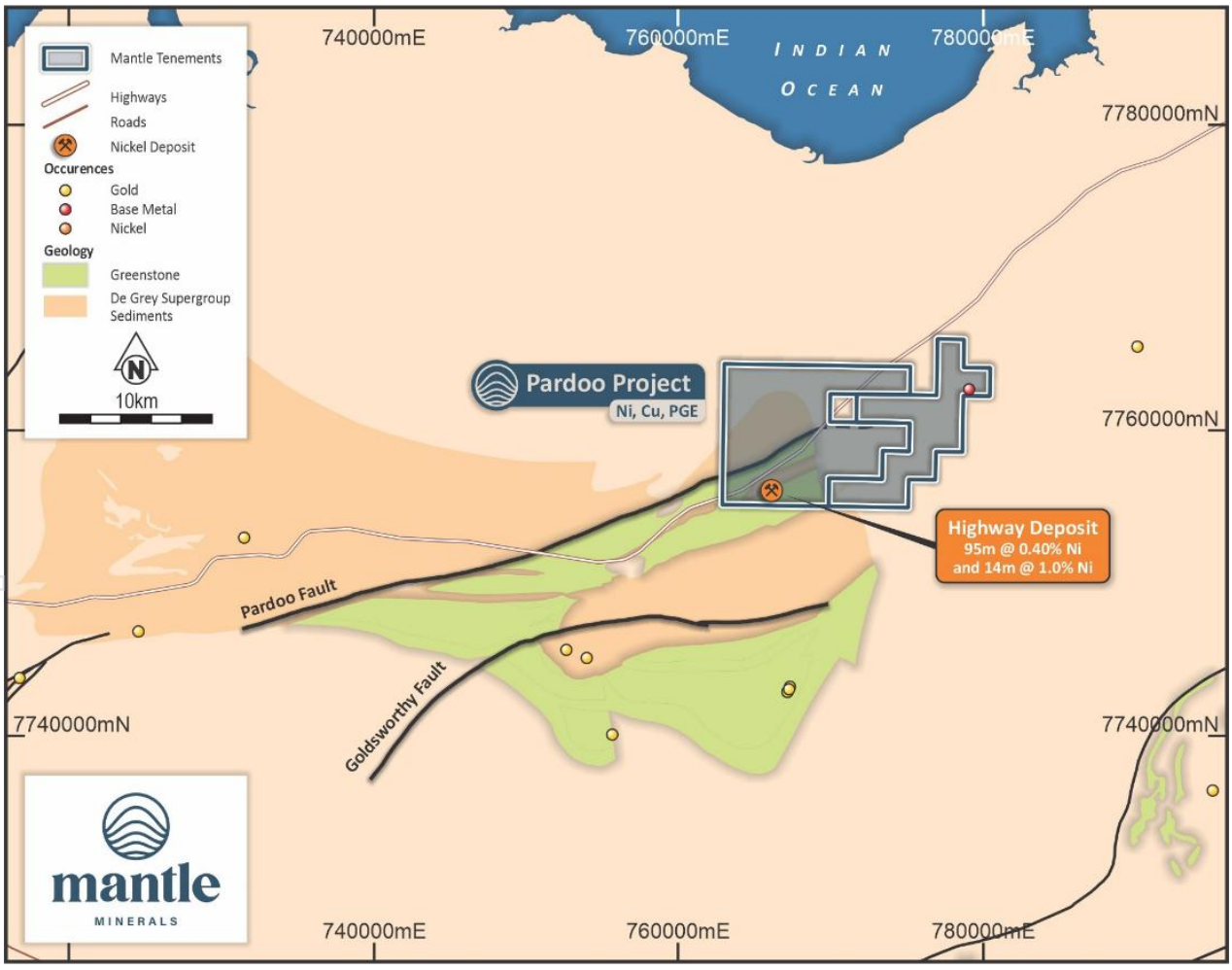

Figure 2: Pardoo Location Map

Resource Category	Tonnes	Ni %	Cu %	Co %	Ni Tonnes	Cu Tonnes
Indicated	11,063,500	0.407	0.117	0.032	45,028	12,944
Inferred	5,399,800	0.408	0.116	0.032	22,031	6,263
Total	16,463,300	0.407	0.117	0.032	67,005	19,208

Table 1 - Highway Deposit Mineral Resource Estimate at 0.300% Ni cutoff grade

All Mineral Resources are rounded to reflect that they are an estimation.
A topcut of 12,500 Ni ppm was applied. Numbers may not sum due to rounding.
MRE are reported above the -200 m RL. Only Fresh MRE are reported.

Carlton Hill Project – Newly Staked Ground, North Kimberley

Mantle has recently staked new exploration tenure at Carlton Hill, approximately 50 km north of Kununurra in the northern Bonaparte Basin.

The Sorby Hills Pb-Zn-Ag Deposit, located 35 km west of the new Mantle tenure where Boab Metals (ASX:BML) have defined a MRE containing 47.3 Mt at 3.1% Pb, 0.4% Zn and 35 g/t Ag (https://boabmetals.com/sorby-hills/)

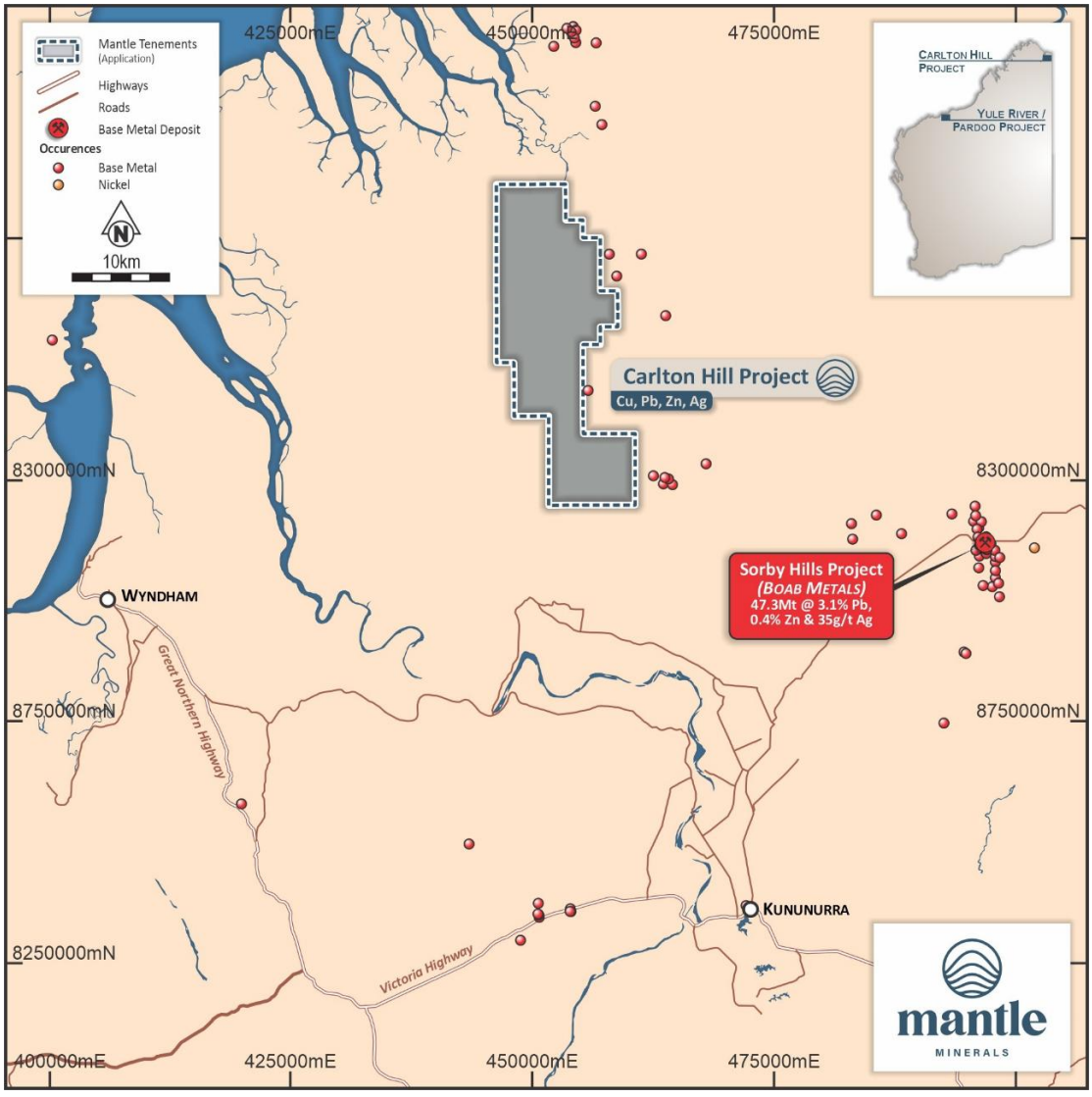

Figure 3: Carlton Hill Pardoo Project Location Map

Carlton Hill Geological Summary

Mantle's Carlton Hill ground extends along the same Carlton Shelf structural trend recognised by North Limited (1994), providing exposure to underexplored carbonate-hosted Pb-Zn-Ag systems. The Company will undertake data compilation, remote sensing, and reconnaissance mapping as an initial phase of exploration.

This announcement has been authorised for release by the Mantle Minerals Limited Board of Directors.

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Competent Person Statement

The information within this announcement that relates to exploration results and geological data at the Yule River, Pardoo and Carlton Hill Projects are based on information compiled by Mr. Robert Mosig and is subject to the individual consents and attributions provided in the original market announcements and reports referred to in the text of this announcement. Mr. Mosig is not aware of any other new information or data that materially affects the information included in the original market announcements or reports referred, and that all material assumptions and technical parameters have not materially changed.

Mr. Mosig is a director of the Company and he has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results Mineral Resources and Ore Reserves and he consents to the inclusion of the above information in the form and context in which it appears in this report.

Forward-Looking Statement Disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions, or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions, and strategies described in this announcement. No obligation is assumed to update forward-looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

About Mantle Minerals Ltd

Mantle Minerals Ltd (ASX: MTL) is a Western Australian-based exploration and development company with a portfolio of battery and base-metal assets strategically located across the Pilbara and Kimberley regions.
The Company's key projects include:

Yule River Project – VHMS, orogenic gold and Ni-Cu-PGE targets near Port Hedland;

Pardoo Project – base-metal and ironstone mineralisation along the Pardoo Shear Zone; and

Carlton Hill Project – newly staked carbonate-hosted Pb-Zn-Ag ground in the north Kimberley.

Mantle remains focused on systematic, technically driven exploration to unlock value across these underexplored regions.

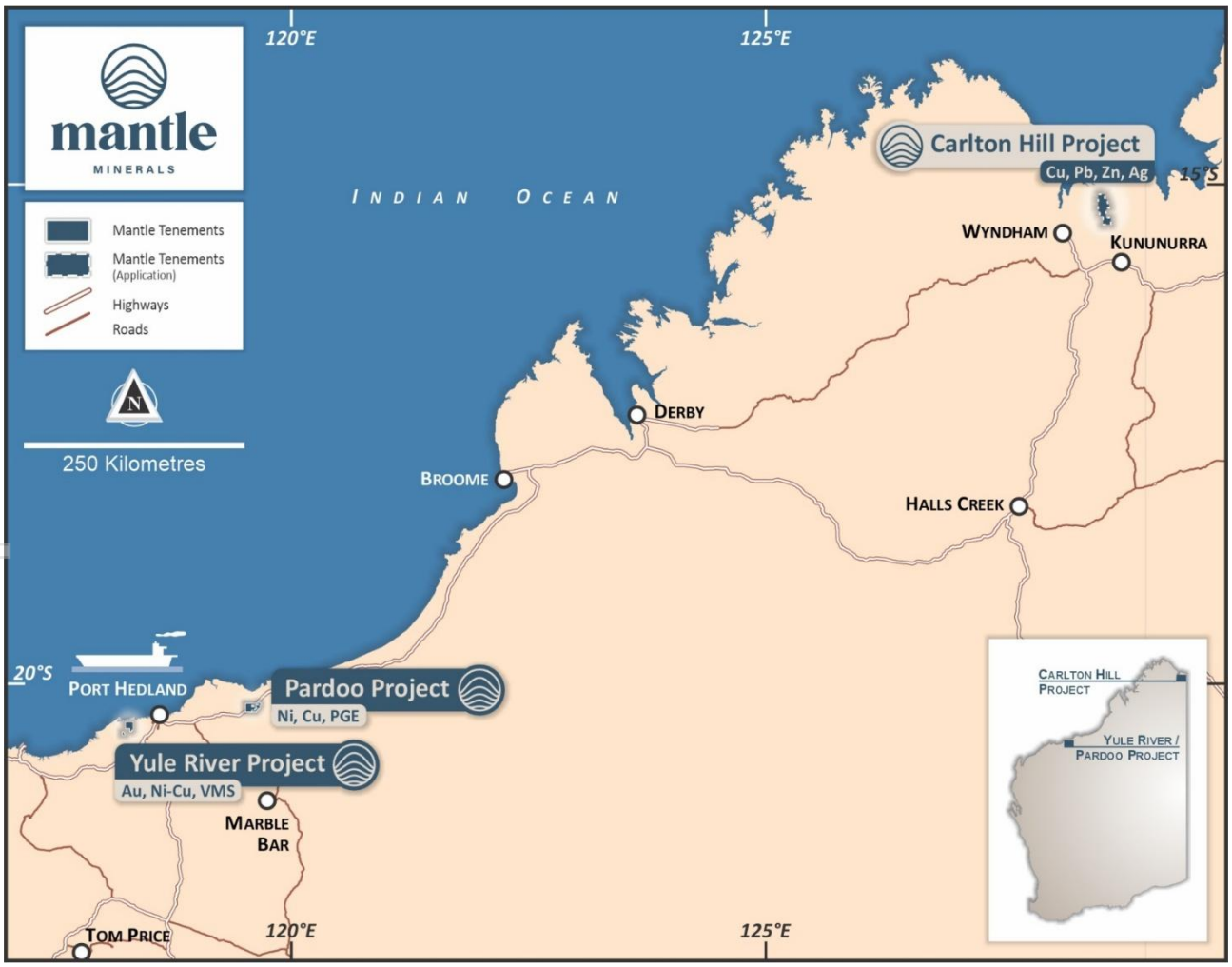

Figure 4 – WA Regional Location Map