6 May 2025

RIU Sydney Resources Round-up Presentation – *The Muckanippie Titanium Project Discovery*

Petratherm Limited (ASX: PTR) ("**PTR**" or "**the Company**") is pleased to release the following Company Presentation for the RIU Sydney Resources Round-up Conference (6-8 May 2025). The Company's CEO, Mr Peter Reid, will today present an update on PTR's recent high-grade heavy mineral sand (HMS) discovery at its Muckanippie Project area southwest of Coober Pedy in South Australia.

Exploration has reported highly encouraging heavy mineral (HM) drill intercepts over a continuous 15km^2 area, which remains open in multiple directions[1,2]. Mineralogy results from the Rosewood East area have indicated HM sands with >95% Valuable Heavy Mineral content, composed primarily of high value titanium minerals – rutile product (high-titanium leucoxene and rutile) and pseudorutile[3]. Most recently, results from sizing analysis indicate the HM is coarse grained and highly amenable to producing excellent mineral recoveries using conventional gravity spiral processing techniques[4].

Follow-up extensional drilling was completed in April and drill results are expected in the coming weeks.
In addition to exploration drilling, an approximate 1-tonne bulk sample has been collected for metallurgical test work. These results will inform separation processing and produce initial mineral sample products[5].

The mineral sands are sourced from the weathering of a major intrusive complex, the Muckanippie Suite, which is highly enriched in titanium minerals and offers potential for additional titanium deposits hosted within the saprolite and basement horizons separate to the Rosewood HMS Discovery. This is an early-stage project with exceptional upside potential.

This announcement has been authorised for release on the ASX by the Company's Board of Directors.

ENDS

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Competent Persons Statement:

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Ltd. Mr Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

[1] PTR ASX release 04 December 2024 – Drill Results Confirm Major HMS Discovery at Rosewood
[2] PTR ASX release 6 February 2025 – Drilling Confirms Potential for World-Class Titanium Project
[3] PTR ASX release 20 January 2025 – Pure High-Value Titanium Mineral Assemblage at Rosewood
[4] PTR ASX release 5 March 2025 – Positive Rosewood Heavy Mineral Size Analysis
[5] PTR ASX release 17 April 2025 – Muckanippie Project Update

The Muckanippie Project -
Unravelling Critical Mineral Potential

PTR

Company Presentation May 2025

RIU Sydney Resources **Round-up**

ASX:**PTR**

Compliance Statements

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JORC INFORMATION AND COMPLIANCE NOTE:

Further details (Including JORC 2012 Code Reporting Tables, where applicable) for the information included in this Presentation can be found in the following Petratherm Limited announcements previously lodged with the ASX:

Footnotes

1. The purpose of the figure is to illustrate the geographical proximity ***only*** of the Project Area to other mineral occurrences and geographical locations.
2. Muckanippie Tenement Granted – 14 November 2022
3. Farm-in Agreement Expands Muckanippie Project – 18 April 2024
4. High-Grade Titanium Rich Heavy Mineral Sands at Muckanippie – 11 September 2024
5. Outstanding Metallurgical Results at Muckanippie HMS Project – 19 November 2024
6. Drill Results Confirm Major HMS Discovery at Rosewood – 04 December 2024
7. Pure High-Value Titanium Mineral Assemblage at Rosewood – 20 January 2025
8. Drilling Confirms Potential for World-Class Titanium Project – 06 February 2025
9. New Style of Titanium Mineralisation at Muckanippie – 19 February 2025
10. Positive Rosewood Heavy Mineral Size Analysis – 5 March 2025
11. Muckanippie Project Update – 17 April 2025

Why Petratherm?

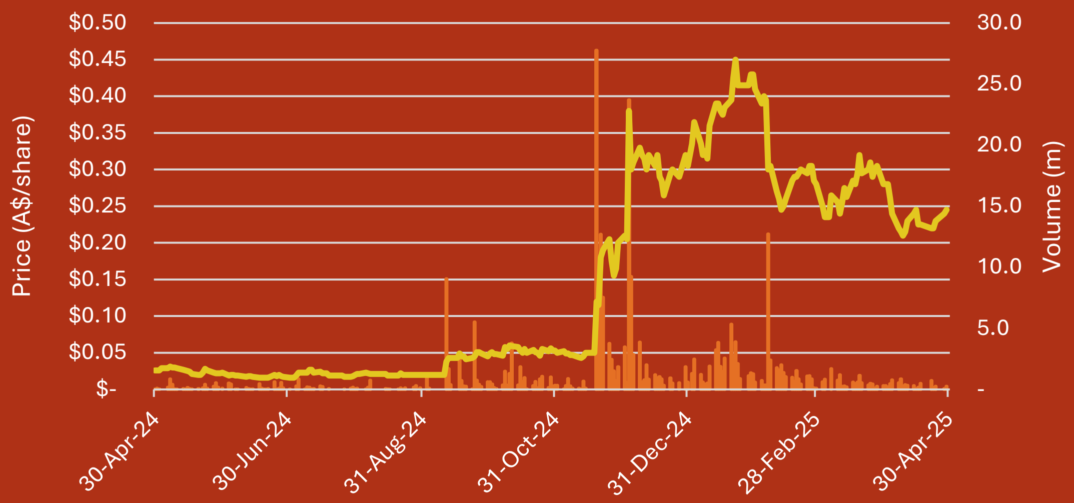
- **High grade, district scale titanium HMS discovery**
- **Initial mineralogy results average >96% VHM content**
- **Assemblage dominantly comprises high value titanium ores (rutile product and pseudo-rutile)**
- **Deposit is close to surface and remains open to the north**
  - Additional saprolite HM zones under investigation
- **Coarse grained therefore likely to generate strong recoveries through conventional spiral technologies**
- **Tier-1 mining jurisdiction of South Australia**
- **Close to existing transport infrastructure provides access to global markets**
- **Robust balance sheet to support ongoing studies and exploration with $9.3m cash at 31 March 2025**
- **Management with a proven track record of discovery**

Corporate Overview

Shares on Issue	Share Price (30/04/2025)	Cash (31/03/2025)
346M	**$0.25**	**$9.3M**

Options	Market Cap (undiluted)	Enterprise Value
1.55M	**$86.5M**	**$77.2M**

PTR Share Price and Volume Chart



Board and Management

Derek Carter Non-Executive Chairman

Derek Carter is a founder of the Minotaur group and a joint recipient of Explorer of the Year (AMEC) for the discovery of the Prominent Hill Copper Gold deposit. He was Chairman of Highfield Resources during the discovery and evaluation of the world-class Muga deposit and has been involved with numerous Government, Industry and ASX listed Company Boards. He is current Chairman of Hillgrove Resources. He is a geologist with over 45 years Corporate and field experience.

Peter Reid Chief Executive Officer

Peter Reid is an exploration geologist with 30 years' experience. Part of the Minotaur team which discovered the Prominent Hill copper-gold deposit and then later heavily involved in the successful IPO spin offs of ASX listed, Mithril Resources Ltd and Petratherm Ltd. Founding CEO of Petratherm and the recipient of the Chairman's Award for his contribution to the Australian geothermal industry.

Rob Sennitt Executive Director

Rob Sennitt has over 35 years experience in the natural resources sector. During this time, he has operated as a senior investment banker, private equity investor and portfolio manager as well as providing corporate leadership in various managing director roles. Rob was previously Managing Director of Mineral Deposits Limited which owned 50% of the TiZir Joint Venture which operated the GCO Mineral Sands mine in Senegal and the TTI titanium slag smelter in Norway.

Simon Taylor Non-Executive Director

Simon Taylor is a resources industry executive with over 30 years' experience in geology, finance and corporate management at CEO and Board levels. Most recently, Simon was Managing Director of Oklo Resources Limited when it was acquired by B2Gold Corp in September 2022. He is the Managing Director of Stellar Resources and a Non-Executive of Director Black Canyon Resources.

Simon O'Loughlin Non-Executive Director

Founder of O'Loughlins Lawyers, an Adelaide based specialist commercial law firm. Extensive Experience of equity capital markets, ASX and ASIC rules. Has held many Non-Exec Directorships on ASX listed companies. Non-Exec Director of Stellar Resources.

Donald Stephens Non-Executive Director

Chartered Accountant and corporate advisor with over 25 years' experience in the accounting, mining and services industries, including 14 years as partner of HLB Mann Judd (SA), a firm of Chartered Accountants.

Exploring for World-Class Critical Mineral & Copper-Gold Deposits in South Australia

Muckanippie Critical Minerals Project

- High-grade titanium rich heavy mineral sands discovered over a 15km^2 area at Rosewood and remains open to the north.
- Exceptional Valuable Heavy Mineral Content, rich in rutile products and High Ti minerals.
- ***Phase 2 step out exploration drilling results imminent***

Woomera Copper-Gold Project

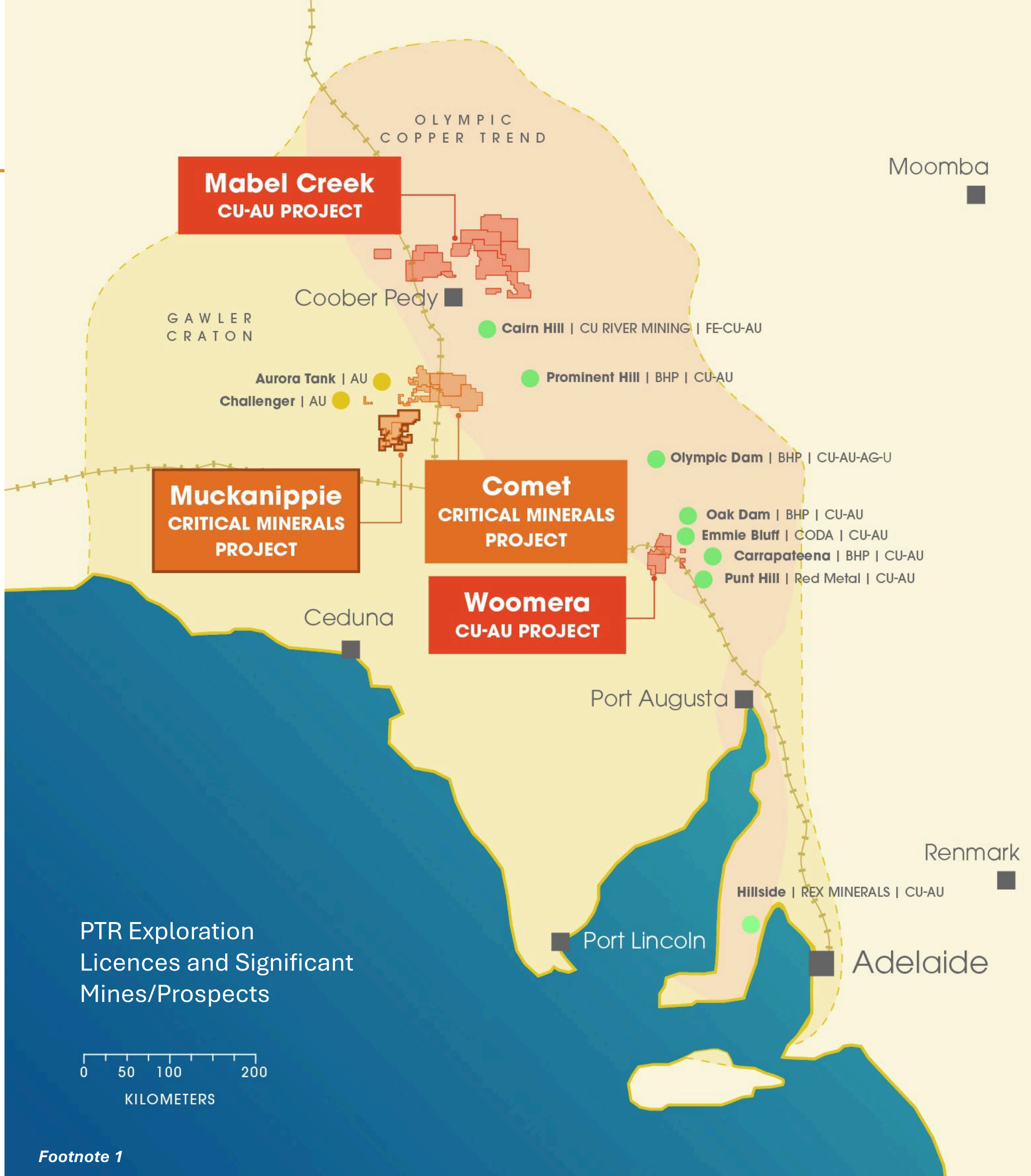
- Located in World-Class Copper-Gold Olympic Province
- High calibre Tier-1 sized drill ready targets

Mabel Creek Copper-Gold Project

- Large holding over the northern Olympic Copper-Gold Province.
- Drilling has defined two Copper-Gold alteration systems
- Several drill ready Tier-1 sized targets

Comet Critical Minerals Project

- Exceptional clay hosted Rare Earth drill intercepts – 3 major Prospects
- Large layered intrusions – Au-PGE anomalies



Muckanippie Market Access Infrastructure

Proximal to Rail Access for International Markets

Less than 40km from rail head provides rail connection to;

- Whyalla
- Port Adelaide
- Darwin (Export to Asia)
- Fremantle

South Australian Rail Access

Provides rail connection to;

- **Whyalla**
    - Value-add processing options
      E.g. mineral separation, synthetic rutile, pigment or titanium sponge processing opportunities
    - Resident expertise in pyro-metallurgy
    - Potential export port
- **Port Adelaide**
    - Potential export port / Flinders Container Terminal

Titanium is a listed Critical Mineral for major economies including Australia, USA, EU, Japan, India and South Korea

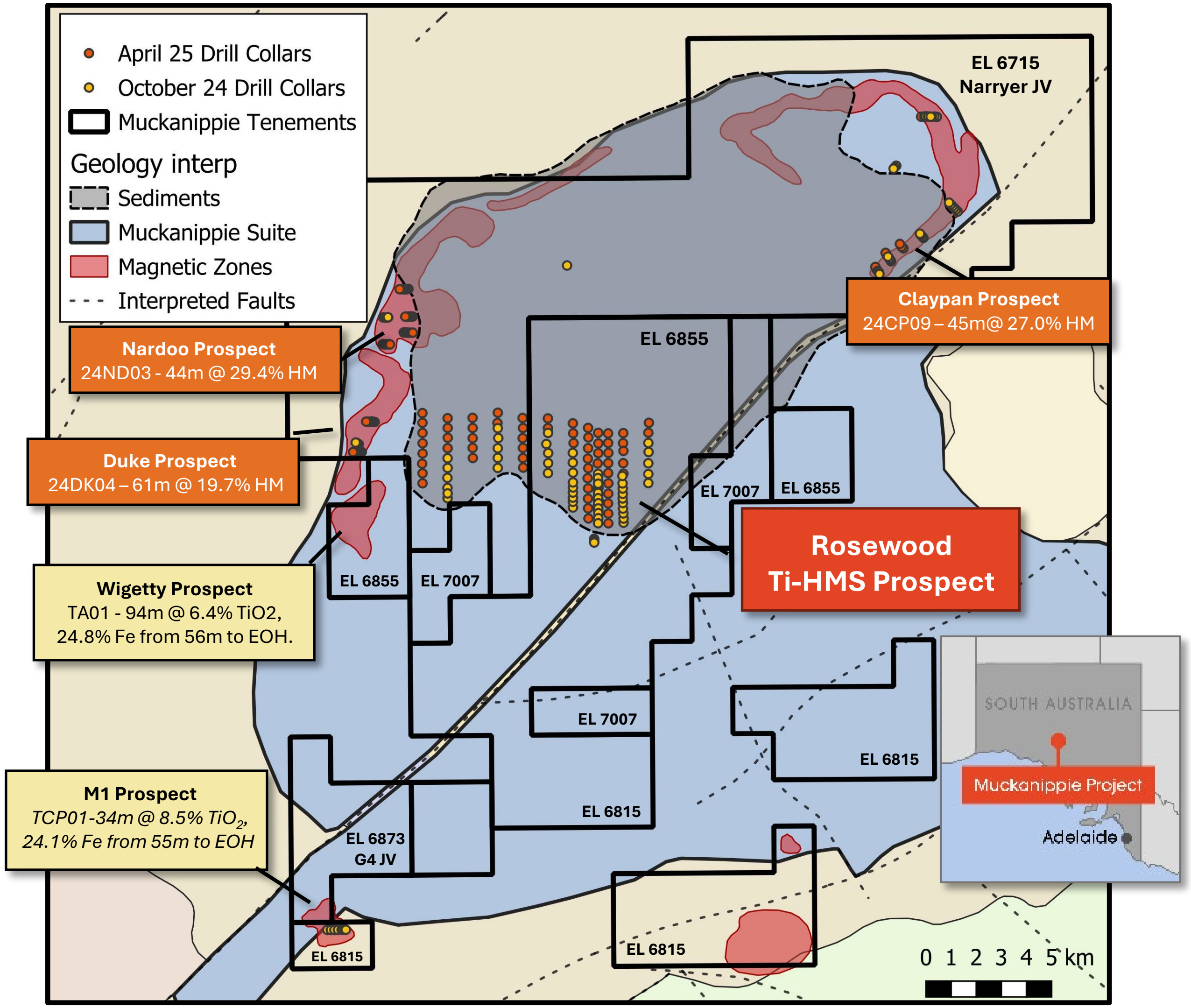
Muckanippie Project: Bushveld Type Layered Intrusion

645 km² – covering the majority ground position over the Muckanippie Suite

Similar geology and metal associations to the globally significant **Bushveld Complex**, South Africa. Largely un-explored due to shallow cover. U-Pb Geochron - 1871 Ma ± 4Ma

3 Types of Titanium Mineralisation Present

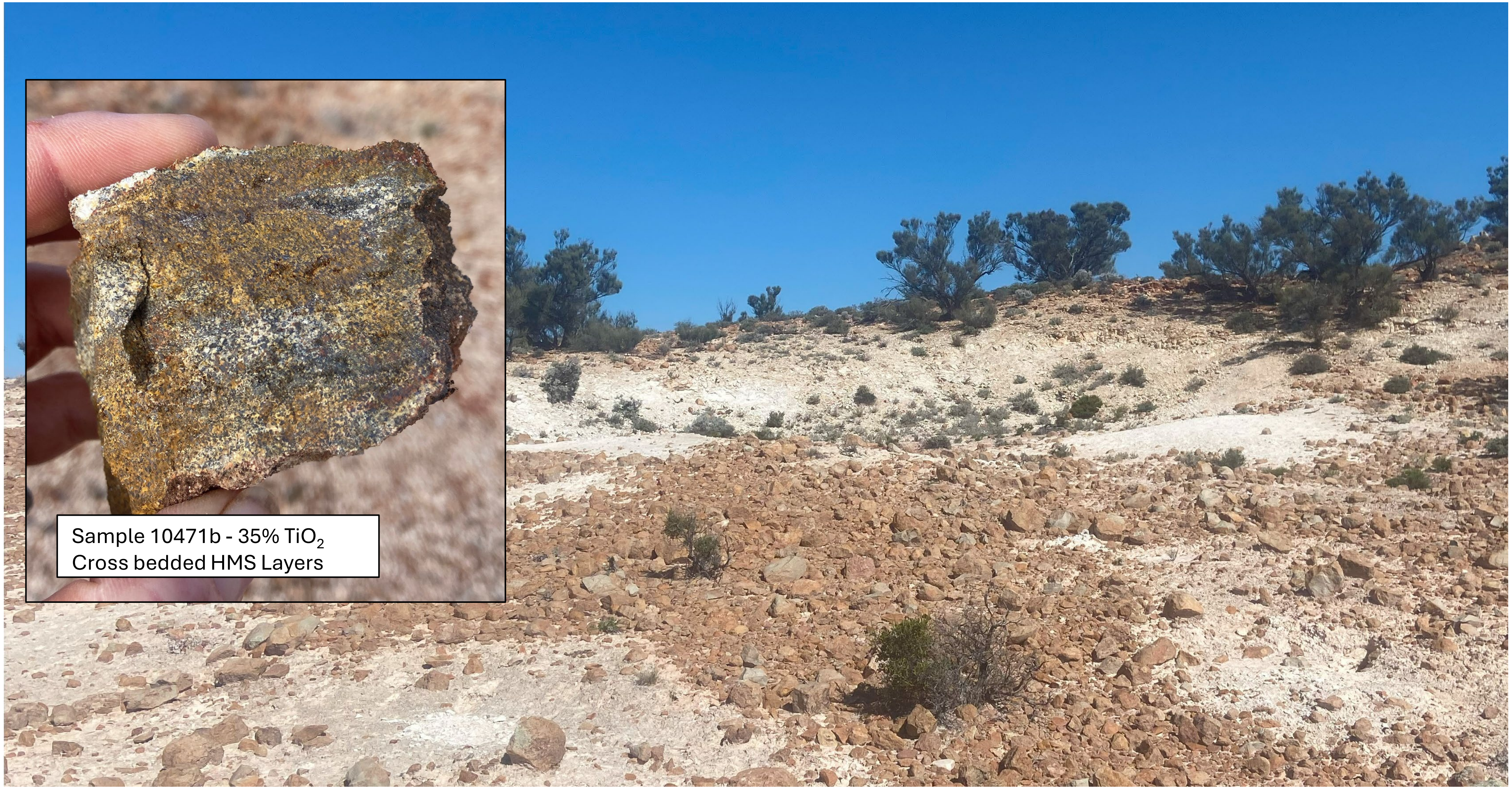
- ***Regionally extensive Ti-V mineralisation in basement***
- ***Heavy Mineral (HM) – ilmenite rich saprolite clays – potential for conventional HMS style development***
- ***Overlying high-grade- High-Ti, Heavy Mineral Sands Mineralisation***



Geology Map of Muckanippie Area, Tenements and Prospects

Footnotes 2,3,4,9 & 11

Rosewood Prospect – Outcropping Mineralisation



Low escarpment at Rosewood Prospect showing tertiary silcrete cap and exposures of underlying HMS horizon. Surface outcrop is partly silicified, however sands become free running from 2-6 metres depth

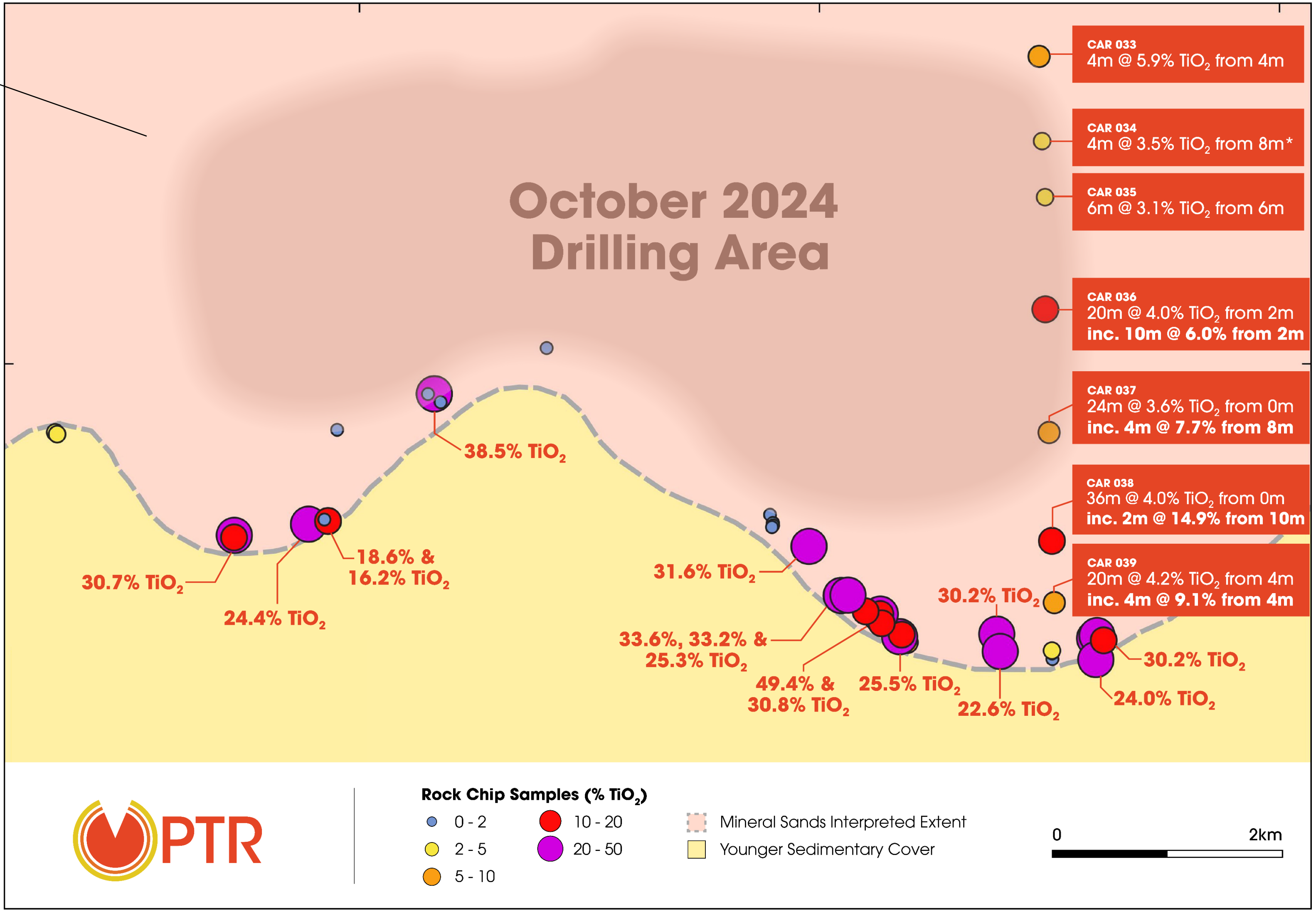
Footnote 4

Rosewood Prospect – Exceptional TiO_2 samples hosted in sands

Sand Unit Age (Palynological dating) – Late Miocene – Early Pliocene

Exceptional surface sample grades ranging from 10% to 50% TiO_2 over a 9km trend.

Assaying of historical SA Mines drilling confirmed heavy mineral sand (HMS) mineralisation extends at least 6 kilometres to the north.



Footnote 4

Rosewood Prospect – October 2024 Drill Campaign

LEFT - High-grade Heavy Mineral Sand Interval - (drill hole 24RW049, 8-9m). Sands become distinctively dark grey due to high heavy mineral content.
RIGHT – Panning of same interval highlights Heavy Minerals. HMC = 31.2%.

Footnote 6 & 8

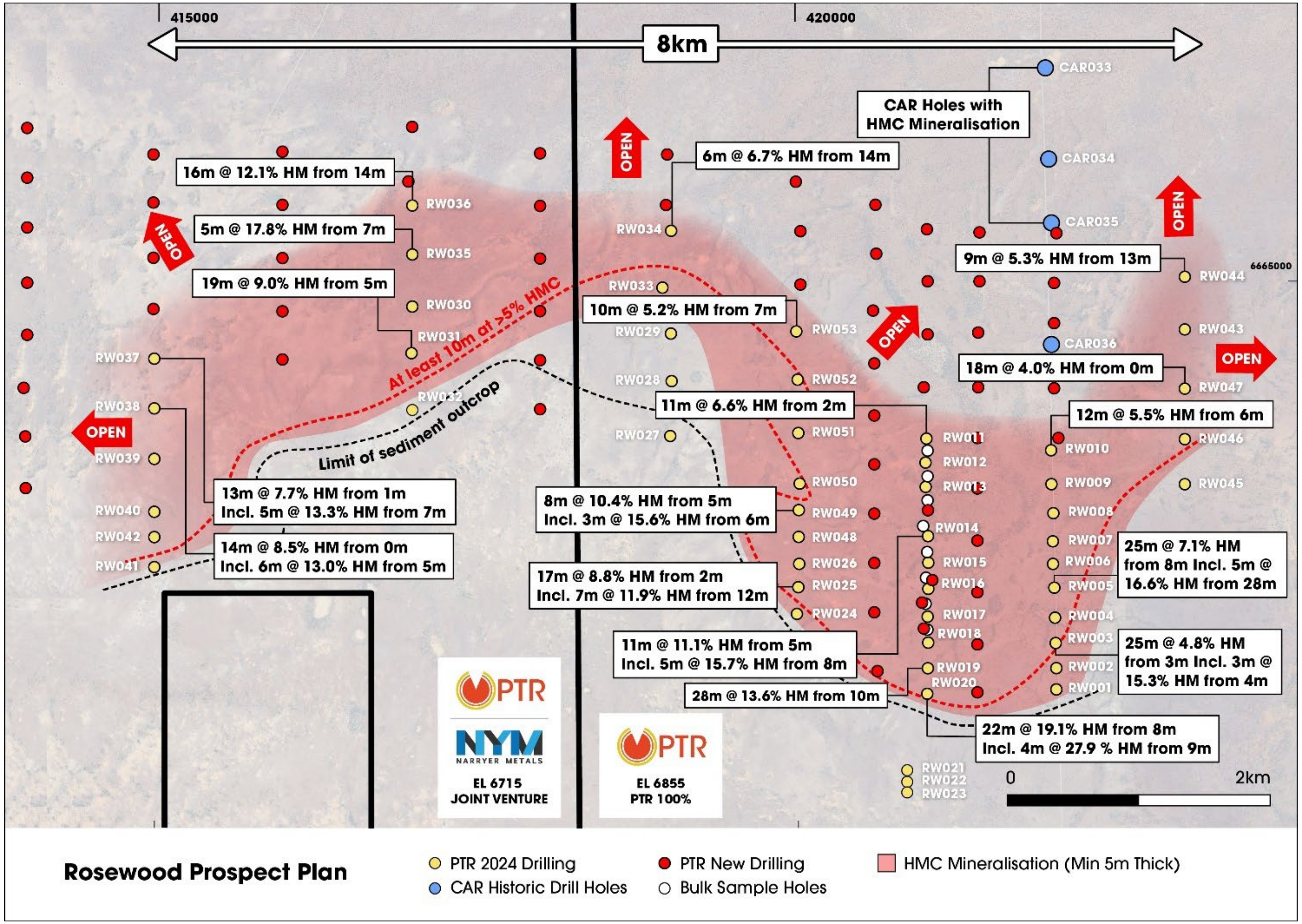
Rosewood Prospect – Summary of Results

Mineralisation extends over a continuous 15km^2 area and remains open to the north, west and east

Mineralisation starts from 0m to 14m depth (avg 5.7m)

Ore thickness 5m – 30m

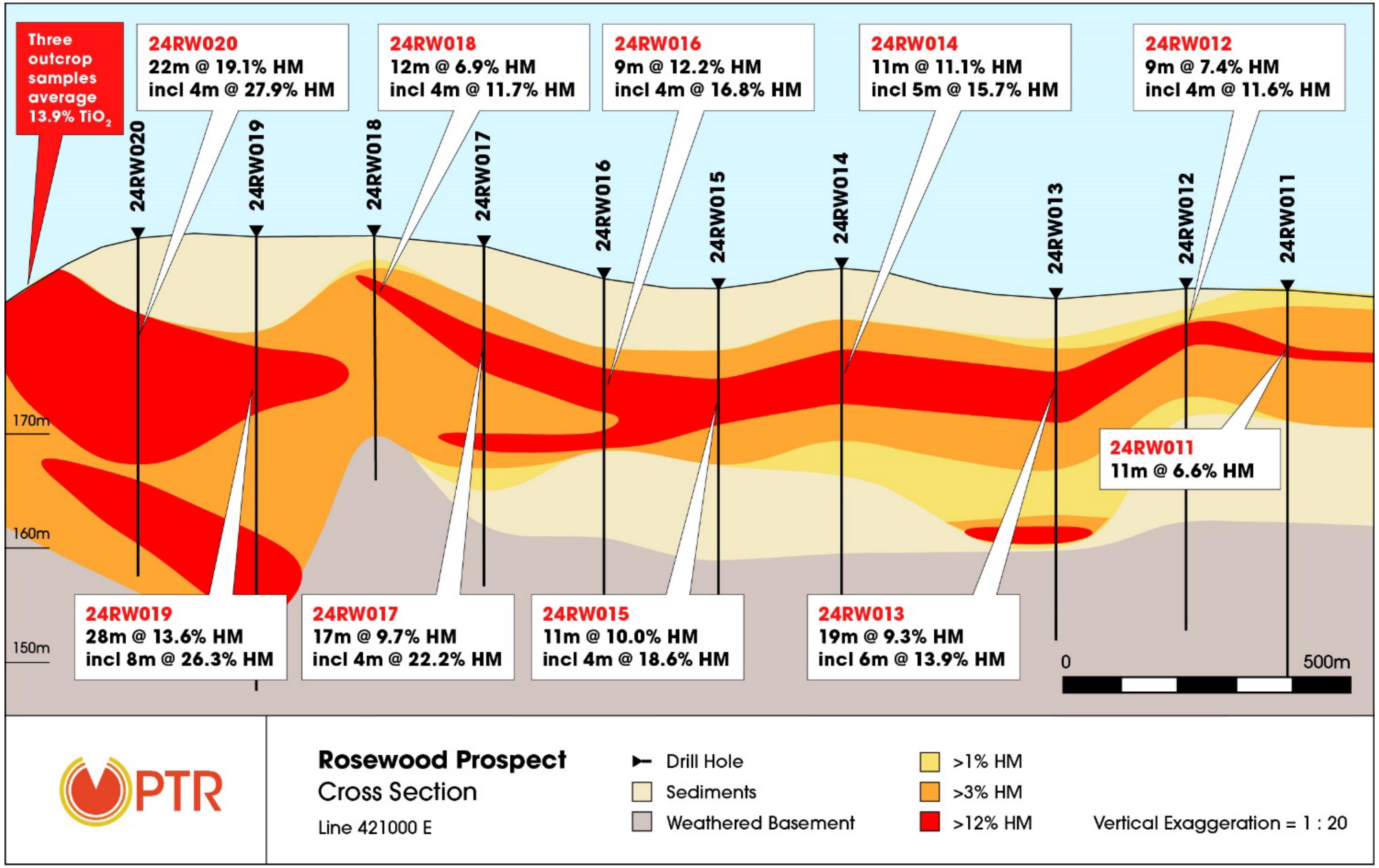
Avg intercept thickness and grade (using a 2% cut) = 12.2m and grading 8% HM



Footnote 8

Muckanippie Project – *Bonanza Initial Drill Results !*

High grade HM mineralisation – wide intervals and extent

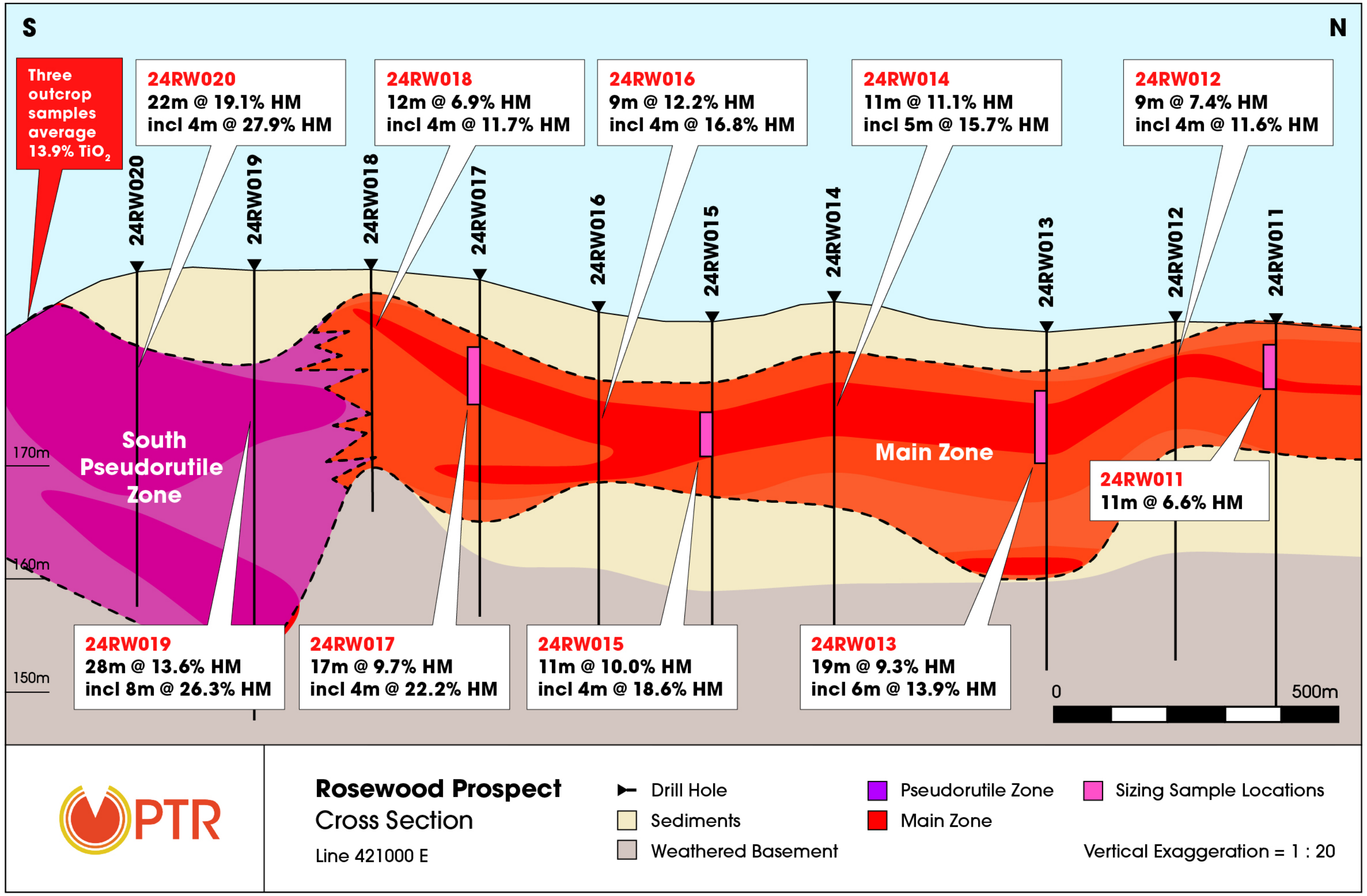


Geological Cross Section 421000E showing HMS results

Footnote 8

Muckanippie Project – *High-Value Mineral Assemblage Identified*

- Pure high value titanium ores and no deleterious minerals
- >96 % Valuable Heavy Mineral Content
- 2 Ores – Rutile Products (HiTi Leucoxene and rutile) & Pseudorutile
- Main Zone – records 25.3% Rutile Product (93% TiO_2) and 74.7%, Psuedorutile (75.4% TiO_2)
- South Psuedorutile Zone (SPZ) – Psuedorutile dominated

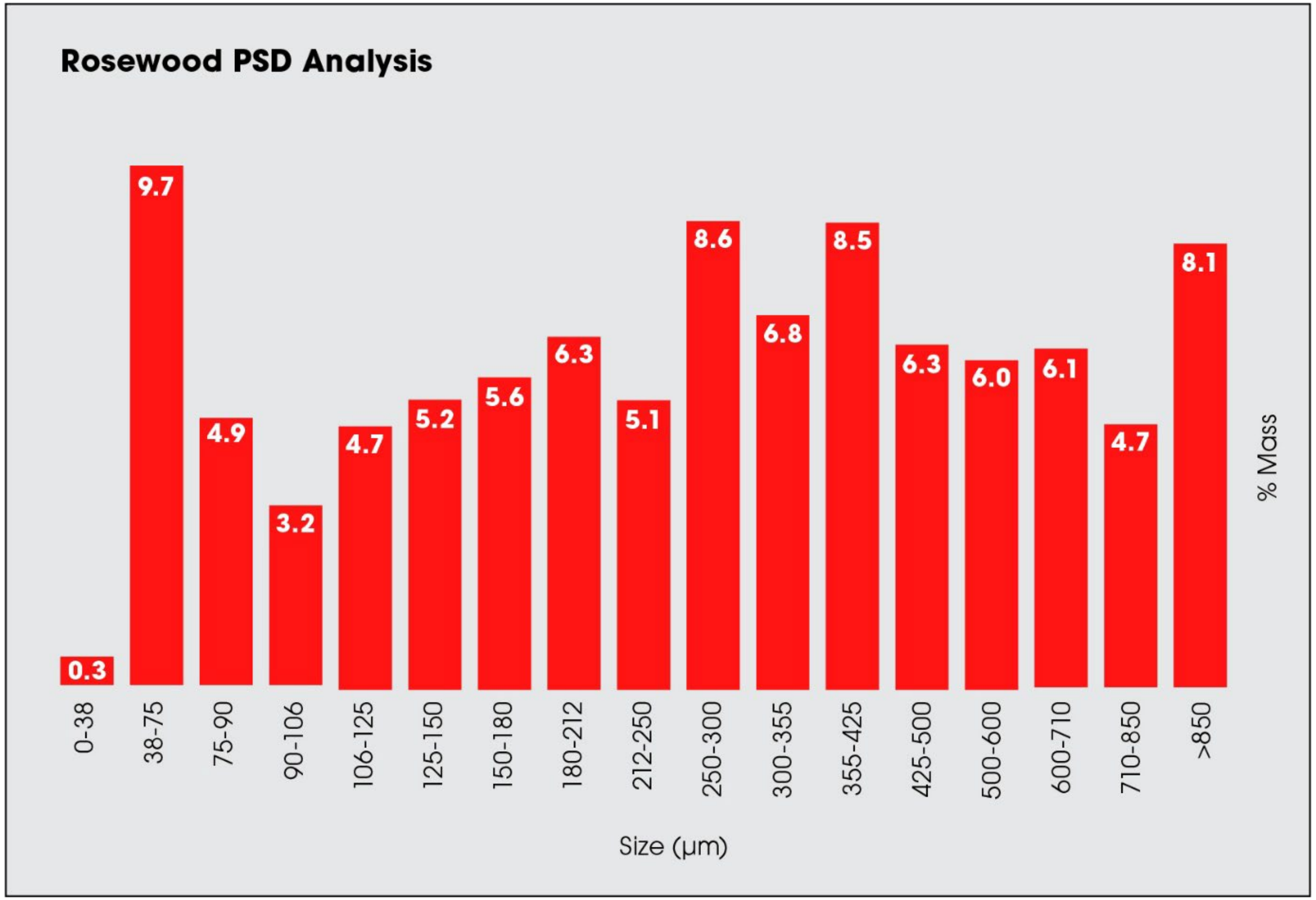


Rosewood Heavy Mineral (HM) %, Significant Intercepts

Rosewood Project – *Particle Size Distribution*

- 90% of the HM concentrate is > 75 microns in size and that the median (P_{50}) grain size is very coarse at 279 microns

- Rosewood HM is coarse grained and highly amenable to produce excellent mineral recoveries using conventional gravity spiral processing techniques



Histogram of Rosewood Particle Size Distribution results.

Footnote 10

Muckanippie Project – *Steady Stream of Results Coming*

- **Phase 2 Drilling Completed April 2025**
  - 73 drill holes at Rosewood testing extensions up to 1.6 km northwards
  - 55 drill holes testing Saprolite HMS Prospects – Duke, Nardoo and Claypan
- **HM Results expected May 2025**
- **Bulk 1-tonne samples collected from Rosewood for wet processing and magnetic + static separation work.**
  - study will inform mineral recovery processing and mineral products
- **Drilling again from June 2025**
  - testing for further extensions of the Rosewood mineralisation and to collect more bulk sample for metallurgical testing

March 2025 Drilling Operations at Rosewood Prospect

Footnote 11

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Rosewood Prospect: +106 to 125 µm - HM Composite Fraction Sample