

29 July 2024

## Quarterly Activities Report for the Period Ended 30 June 2024

### Highlights:

#### Woomera Copper-Gold Project

- Gravity surveying at the Woomera Copper Gold Project identified five high-priority Iron-Oxide Copper-Gold (IOCG) Targets.<sup>1</sup>
- The Bernard Hill gravity anomaly is a significant IOCG style target, modelled as a 400m wide, >2,000m long body with a depth extent of 1,000m.
- The modelled density is 3.4 g/cm<sup>3</sup> which is comparable to that measured in known IOCG deposits such as Prominent Hill, Carrapateena and the Oak Dam Project.

#### Mabel Creek Copper-Gold Project

- Subsequent to the Quarter, gravity surveying results identified three high-priority Copper-Gold targets.<sup>2</sup>
- The new targets are dense, non-magnetic features which may represent iron hosted copper-gold rich mineral systems.
- Target BCG1 is a significant IOCG style target, adjacent to historical drilling which intersected copper-bearing hematite alteration.
- Two targets are within 10km of known hematite alteration with modelled densities of 3.4 g/cm<sup>3</sup> which is comparable to known IOCG deposits such as Prominent Hill, Carrapateena and the Oak Dam Project.

#### Muckanippie Project

- Agreement executed allowing PTR to earn-in to EL 6715 ('Sturt EL'), a large 324km<sup>2</sup> ground position adjoining PTR's northern Muckanippie Project area.<sup>3</sup>
- The agreement secures a majority ground position over the Muckanippie Suite, a layered igneous intrusion, which is highly prospective for gold – platinum group metals and titanium - vanadium.

### Corporate:

- The Company held \$907,000 cash at the end of the period.

<sup>1</sup> PTR ASX Release 2/05/24 – Woomera Gravity Survey Defines Significant Iron-Oxide Copper-Gold Target

<sup>2</sup> PTR ASX Release 19/07/24 – Mabel Creek Gravity Survey Defines Significant Copper-Gold Targets (Revised)

<sup>3</sup> PTR ASX Release 18/04/24 – Farm-in Agreement Expands Muckanippie Project

## Company Summary

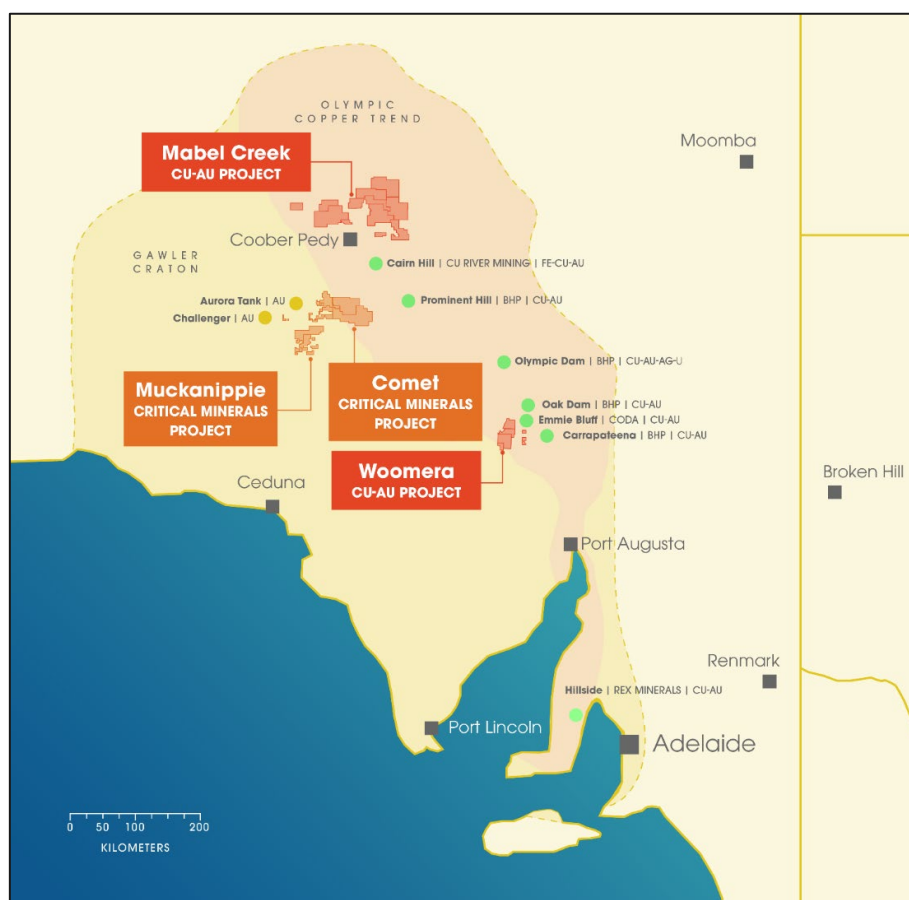
**Petratherm Limited (ASX: PTR) (PTR or the Company)** is pleased to present its Quarterly Activities Report for the period ended 30 June 2024 (**June Quarter**). The Company has built an enviable project portfolio in South Australia focused on copper and critical minerals.

The Company has two major exploration projects in the world-class Olympic Copper-Gold Province of South Australia. Work in the region has uncovered Iron-Oxide Copper-Gold style alteration/mineralisation at both its Mabel Creek and Woomera Project Areas. Geophysical targeting work has defined several compelling Tier-1 Copper-Gold targets which the Company is aiming to drill test during the 2024 calendar period.

In addition, PTR has a major project holding in the northern Gawler Craton of South Australia. Exploration has uncovered significant concentrations of REEs over large areas at several prospect sites. The REEs are associated with a major intrusive complex, which has been found to be highly prospective for other critical minerals including Gold, Platinum Group Elements, Titanium and Vanadium. This is an early-stage Greenfields project with exceptional upside potential.

The Company had exploration and evaluation costs of \$228,000 relating principally to gravity surveying at the Woomera and Mabel Creek Projects and general technical project work. Administration and corporate costs totalled \$238,000. The Company held \$907,000 cash at the end of the Period.

In accordance with ASX Listing Rules Guidance Note 23, the aggregate number of payments to related parties of the Company and its associates disclosed under section 6.1 of the Appendix 5B totalled \$36,000 and comprised of Director's fees.



**Figure 1: PTR Project Locations in South Australia**

## Woomera Copper-Gold Project

During the reporting period, the Company completed a gravity survey over the Woomera Project, which proved highly successful, returning five new high-priority gravity targets.

Bernard Hill is a large non-magnetic, dense body at 800-1000 metres depth, which, from historical drilling on adjacent projects, is the likely depth of basement rocks beneath cover in this region. The modelled dense body is 400 metres wide, has a depth extent of 1000 metres, and has a strike extent of greater than 2000 metres. The modelled density is 3.40 g/cm<sup>3</sup> which is consistent with the measured density of known IOCG deposits in the region.

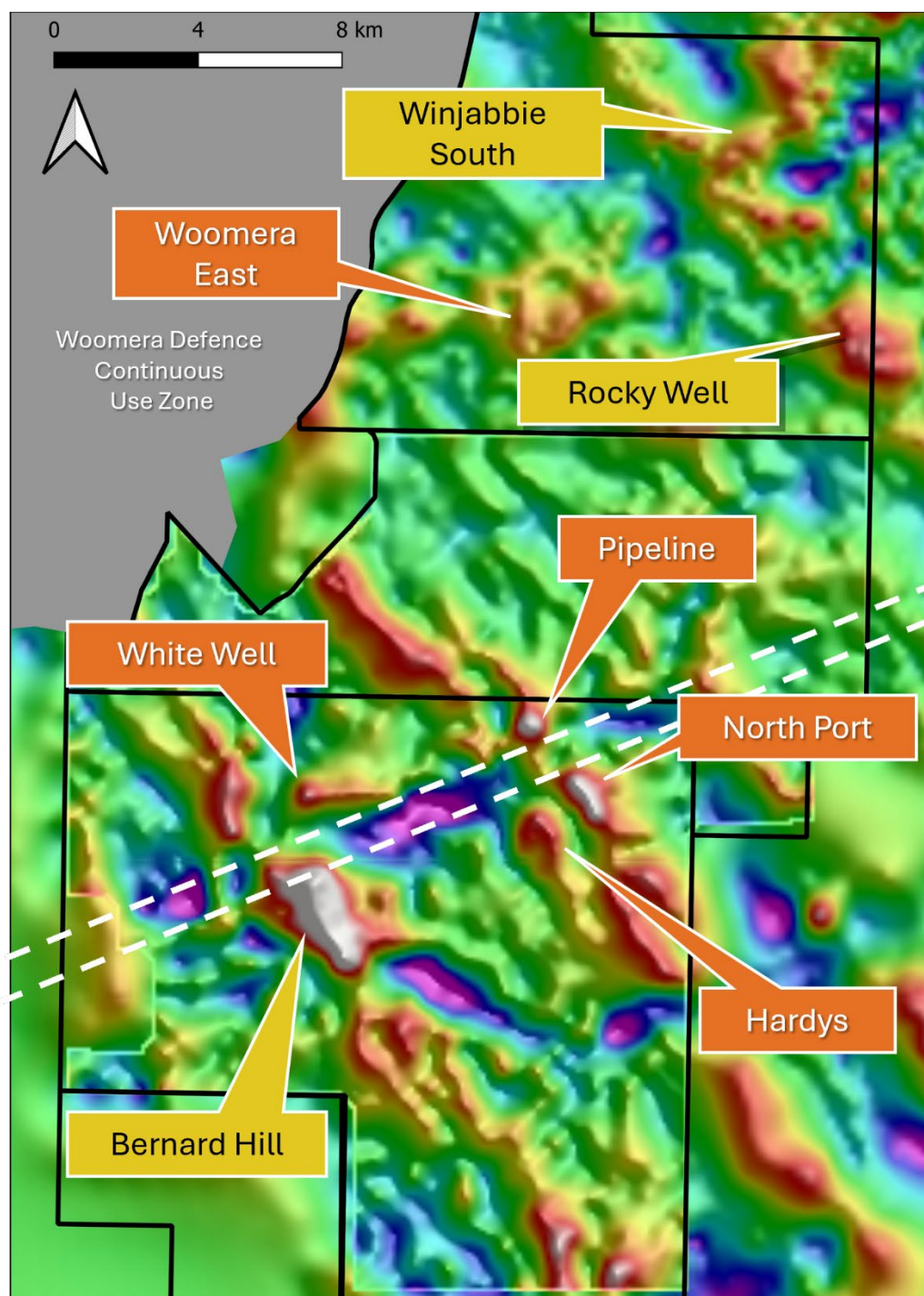


Figure 2: New gravity survey data over the Woomera Project showing locations of copper-gold targets.

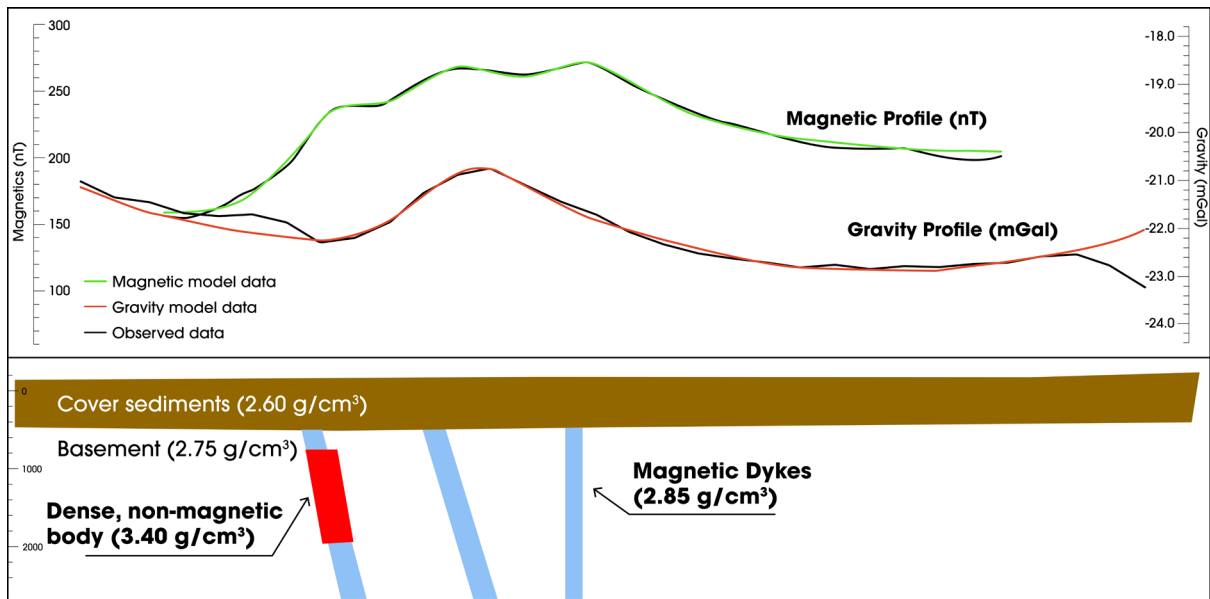


Figure 3: Magnetic and gravity modelling of the Bernard Hill target.

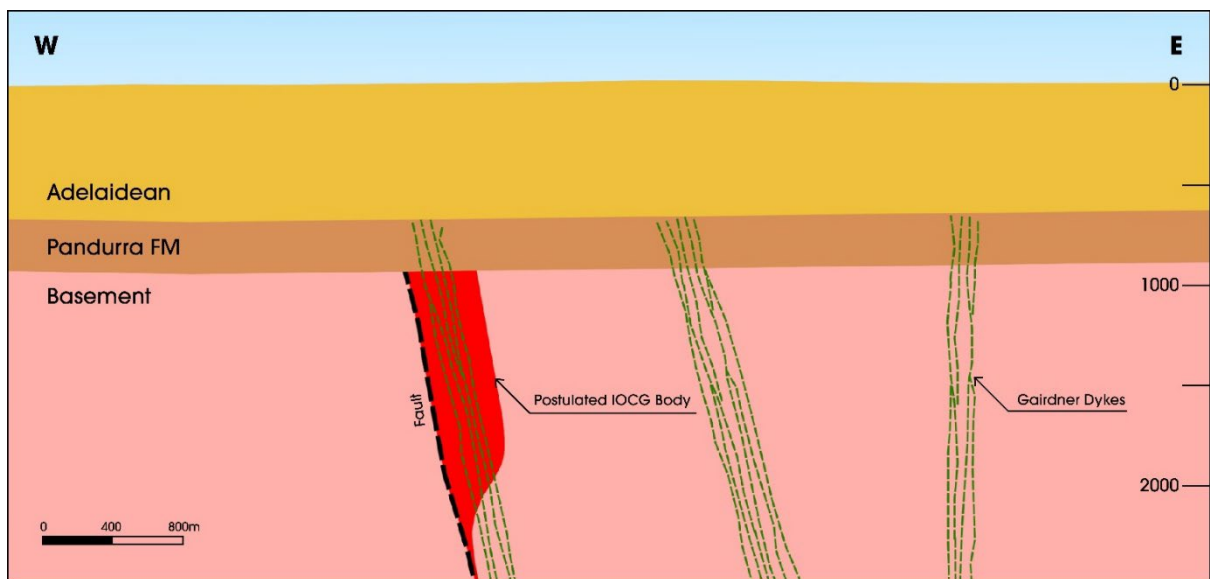


Figure 4: Geological interpretation of Bernard Hill target.



## Mabel Creek Copper-Gold Project

During the reporting period the Company completed a Gravity Survey program over the Mabel Creek Project, with results received subsequent to the period. The new gravity data identified three priority drill targets, all around the edge of a circular gravity low which is interpreted as potentially being caused by an underlying granite intrusion. On the eastern side of the interpreted deep granite are several drill holes drilled by Alliance Resources between 2003 and 2009 which intersected strong iron-rich (hematite) alteration in Proterozoic metasediments overlying strongly magnetic Banded Iron Formation (BIF) units.<sup>4</sup>

While the strongly magnetic, deep, BIF units are not considered a target, the dense hematite-only zones have the potential to host IOCG-style copper-gold mineralisation, and in the historical drilling this alteration was associated with strongly elevated copper assays (up to 0.32% Cu over 1.1 metres). Combined 3D magnetic and gravity inversion modelling was undertaken over this area and a significant gravity-only target, BCG1, was resolved (Figure 6). This target has the potential to be a significant zone of hematite-alteration.

2D gravity modelling was undertaken on the other gravity features rimming the interpreted deeper granite (Figure 5). To the south the two gravity features modelled as being very dense but deep (>1000 metres below surface), however the two features to the west both produced models of significant density but at depths more amenable to drill testing. For example, the southern of these two features, BCG2, models as a large (450m x 1070m x >4000m) body at 500 metres below surface (Figure 7). The produced model density of 3.4 g/cm<sup>3</sup> is consistent with the measured density of known IOCG deposits in the Olympic Domain.

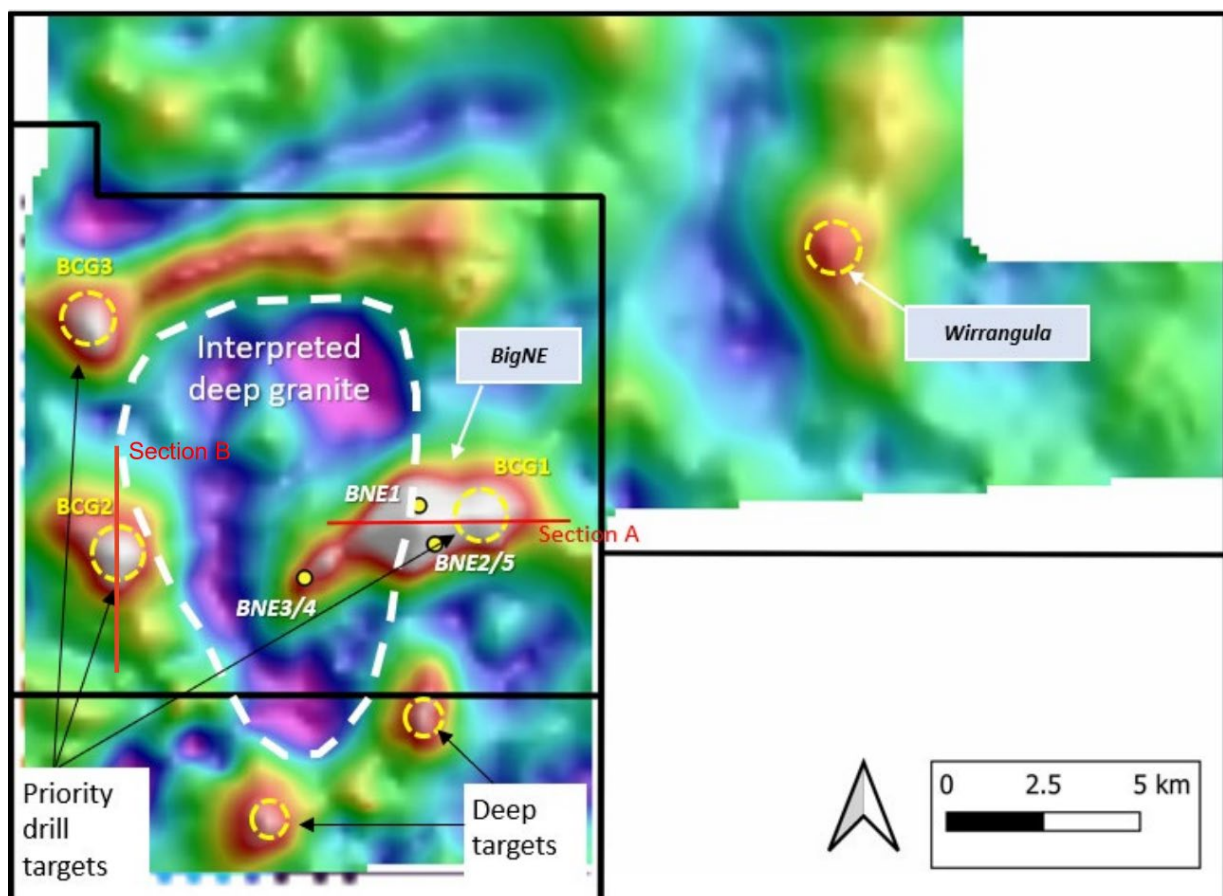


Figure 5: New gravity survey data and copper-gold targets.

<sup>4</sup> PTR ASX Release 14/08/2023 – Significant Copper-Gold Expansion at Mabel Creek

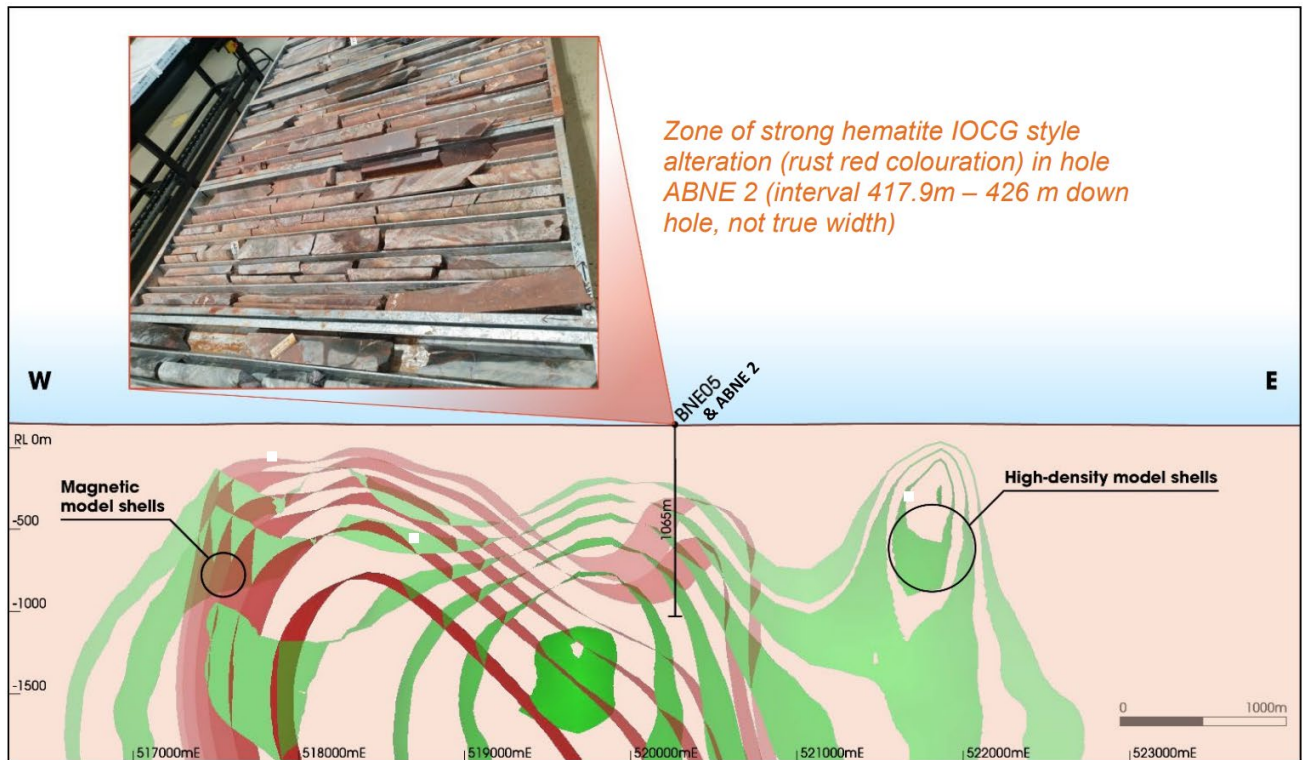


Figure 6: Section A – BCG01 target 3D magnetic and gravity inversions with existing drilling.

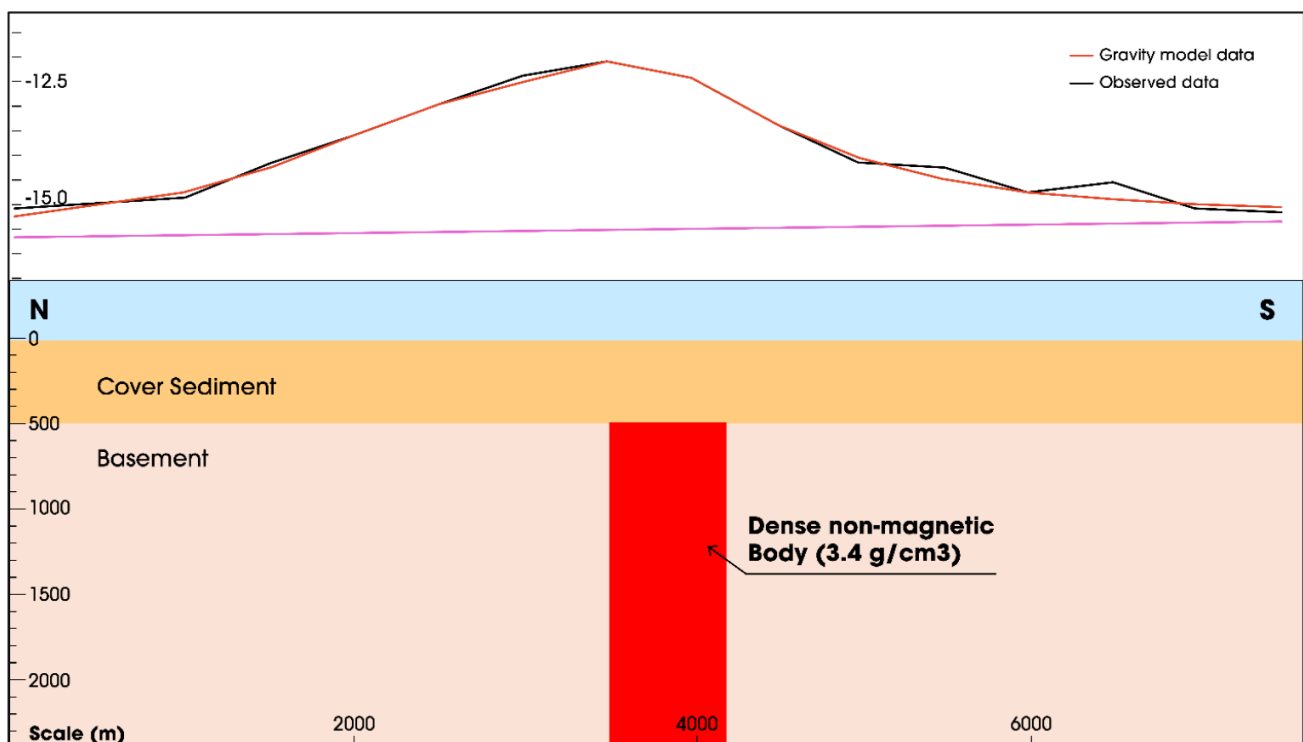


Figure 7: Section B - Gravity model for BCG2 target.

## Muckanippie Project

During the reporting period, the Company executed a Letter of Agreement allowing the right to earn-in to EL 6715 ('Sturt EL'), a large 324 km<sup>2</sup> ground position adjoining PTR's northern Muckanippie Project area<sup>5</sup>. Subsequent to the reporting period, PTR successfully executed the Mining Farm-in and Joint Venture Agreement with Narryer Metals (ASX: NYM), to earn-in to the Sturt EL.

The Muckanippie Suite is series of large layered igneous intrusions, ranging in composition from ultramafic to felsic (anorthosite), located in the northern Gawler Craton of South Australia (Figure 8). This style of layered intrusion forms in specific geological environments and are uncommon. Globally, layered mafic and anorthosite igneous intrusions are a major source of critical minerals. The most notable example being the Bushveld Complex of South Africa which is host to world's foremost Platinum Group Metals mining operations and includes major quantities of base metal, chromium and vanadium.<sup>6</sup>

Other layered mafic to anorthosite intrusions host major titanium, iron, vanadium and phosphate mines, for example Lac Tio in Canada (Ti-Fe), Tellnes in Norway (Ti), and Damiao in China (Fe-Ti-V-P).<sup>7</sup>

The Muckanippie Suite has been largely unexplored as it is partially masked by a thin layer of cover material above the layered geological sequence. Where sparse outcrop occurs or shallow drilling has been undertaken, highly anomalous Gold, Platinum Group Metals, Titanium, Vanadium, Iron and Phosphate are reported. PTR has previously announced high Ti-Fe-P and elevated V drill intersections at its M1 and Wigetty Prospects.<sup>8</sup>

### Key terms for the Farm-in Agreement are as follows:

- Stage 1 - PTR to spend \$200,000 within the period of 2 years, to earn a 51% interest in the Tenement.
  - At least 50% of the total expenditure must be direct drilling costs.
- Stage 2 - PTR may elect to earn a further 19% interest in the Tenement by spending \$300,000 in an additional 2 years, i.e. PTR may earn up to a 70% interest.
- On completion of Stage 2 – the Parties may either contribute to expenditure on a pro-rata basis or dilute their interest following application of standard industry formula.
- NYM may elect to offer PTR an additional 10% interest in the Tenement by PTR sole funding to the delineation of a JORC 2012 Resource at which time:
  - the parties' respective interests in the Tenement will be PTR 80% and NYM 20%; and
  - the parties may elect to either contribute to expenditure on a pro-rata basis or dilute their interest following application of a standard industry formula.

<sup>5</sup> PTR ASX Release 18/04/2024 Farm-in Agreement Expands Muckanippie Project.

<sup>6</sup> Implats Mineral Resource and Mineral Reserve Statement 2023

<sup>7</sup> Characteristics of Deposits sources: **Lac Tio & Tellnes** - Charlier, B, Namur, O, Bolle, O, Latypov, R & Duchesne, J-C 2015, 'Fe-Ti-V-P ore deposits associated with Proterozoic massif-type anorthosites and related rocks', *Earth-Science Reviews*, vol. 141, pp. 56–81.

**Damiao** - Chen, WT, Zhou, M-F & Zhao, T-P 2013, 'Differentiation of nelsonitic magmas in the formation of the ~1.74 Ga Damiao Fe-Ti-P ore deposit, North China', *Contributions to Mineralogy and Petrology*, vol. 165, no. 6, pp. 1341–1362

<sup>8</sup> PTR ASX Release 29/02/2024 Farm-in Agreement Executed – Muckanippie Project Expansion.



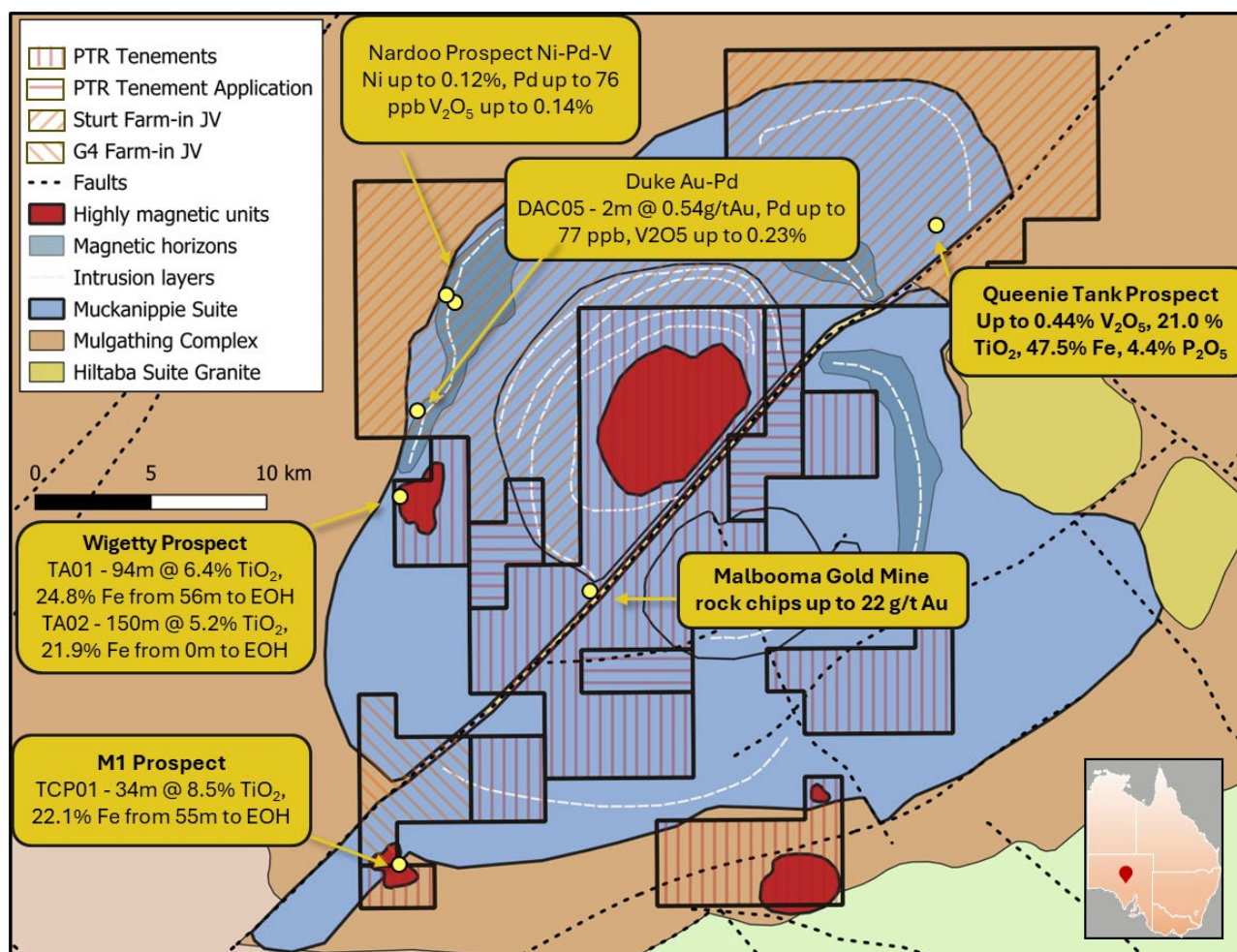


Figure 8: Interpreted Geology Map of PTR Muckanippie Tenements, New Sturt Project Area and Prospects.

## June 2024 Quarter – ASX Announcements

This Quarterly Activities Report contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (2012 JORC Code). Further details (including 2012 JORC Code reporting tables where applicable) of exploration results referred to in this Quarterly Activities Report can be found in the following announcements lodged on the Company’s ASX platform:

Date of Release	Title of Release
19-Jul-24	Mabel Creek Gravity Survey Defines Significant IOCG Targets (Revised)
2-May-24	Woomera Gravity Survey Defines Significant IOCG Target
18-Apr-24	Farm-In Agreement Expands Muckanippie Project

These announcements are available for viewing on the Company’s website [petratherm.com.au/](https://petratherm.com.au/) under the investor tab. PTR confirms that is not aware of any new information or data that materially affects the information included in any original ASX Announcement.

**-ENDS-**



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

*For further information:*

**Peter Reid**

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*Media and Broker Contact*

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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.

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

PETRATHERM LIMITED

ABN

17 106 806 884

Quarter ended ("current quarter")

30 June 2024

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 Months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(23)	(33)
	(b) development		
	(c) production		
	(d) staff costs		
	(e) administration and corporate costs	(238)	(818)
1.3	Dividends received (see note 3)		
1.4	Interest received	4	87
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(257)</b>	<b>(764)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) exploration & evaluation	(228)	(1,336)
	(e) investments		
	(f) other non-current assets		(30)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 Months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	Government grants & incentives		73
	Research and Development tax offset		425
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(228)</b>	<b>(868)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>		

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,392	2,539
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(257)	(764)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(228)	(868)



## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 Months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)		
4.5	Effect of movement in exchange rates on cash held		
4.6	<b>Cash and cash equivalents at end of period</b>	<b>907</b>	<b>907</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	407	792
5.2	Call deposits	500	600
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>907</b>	<b>1,392</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	36
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 <b>Total financing facilities</b>		
7.5 <b>Unused financing facilities available at quarter end</b>		
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(257)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(228)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(485)
8.4 Cash and cash equivalents at quarter end (item 4.6)	907
8.5 Unused finance facilities available at quarter end (item 7.5)	
8.6 Total available funding (item 8.4 + item 8.5)	907
8.7 <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	1.9
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
<p>Answer:</p> <p>The entity does not expect the current net operating cash outflow level to continue. The June quarter included administrative expenses that will not be ongoing. Furthermore, the entity continues to identify and implement reductions in corporate overhead expenditure, reducing cash outflows.</p>	

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer:

The entity continues to consider opportunities to fund its ongoing operations through capital raising. The company expects that it will continue to receive support from its shareholders. In addition, the entity is in the process of lodging its application for the Research and Development Tax Incentive. This cash in-flow should be received within the next two quarters.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

The entity expects that it will be able to continue its operations and it is currently working on reducing the corporate overhead expenditure to reduce cash outflows.

*Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.*

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 July 2024



Authorised by:

Katelyn Adams, Company Secretary

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and*



**Mining exploration entity or oil and gas exploration entity quarterly cash flow report**

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*Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

Changes in Interests in Mining Tenements  
For Quarter Ended 30 June 2024

		Tenement Reference	Nature of Interest	Interest at beginning of Quarter	Interest at end of Quarter
10.1	Interests in mining tenements relinquished, reduced or lapsed		No changes	N/A	N/A
10.2	Interests in mining tenements acquired or increased	EL6715	Narryer Metals Ltd (NYM) and the Petratherm Ltd (PTR) executed a Letter of Agreement allowing PTR the right to earn-in to EL6715. The Company can earn up to a 70% interest via a 2 Stage Farm-in with further provisions dependent on NYM's elections, to earn up to a 80% equity in the project. Refer to ASX announcement dated 18 April 2024 "Farm in Agreement Expands Muckanippie Project".	0%	0%

## ASX Additional Information

### List of mining tenements as at 30 June 2024

#### Granted Tenement Licences:

Tenement No.	Project Area	Area (km2)	Registered holder	Company Interest
EL6333	Mt Barry	641	Petratherm Limited	100%
EL6404	Kanku	456	Petratherm Limited	100%
EL6405	Mt Euee	917	Petratherm Limited	100%
EL6443	Comet	256	Petratherm Limited	100%
EL6633	Gina	934	Petratherm Limited	100%
EL6707	Woomera	209	Petratherm Limited	100%
EL6715	Sturt	324	Narryer Metals Ltd (NYM)	0%
EL6722	West Comet	110	Petratherm Limited	100%
EL6815	Muckanippie	80	Petratherm Limited	100%
EL6816	Commonwealth Hill	30	Petratherm Limited	100%
EL6818	Perfection Well	585	Petratherm Limited	100%
EL6854	Arcoona	264	Petratherm Limited	100%
EL6855	Mulgathing	178	Petratherm Limited	100%
EL6873	Dingo Well	24	G4 Metal Pty Ltd (G4M)	0%
EL6918	The Pines	195	Petratherm Limited	100%
EL6919	Dean Bore	470	Petratherm Limited	100%
EL6949	Baby Creek	670	Petratherm Limited	100%
EL6950	Cadaree Hill	644	Petratherm Limited	100%

#### Tenement Licence Applications: N/A

Licence No.	Project Area	Area (km2)	Applicant	Company Interest
ELA2024/00025	Honeysuckle Bore	39	Petratherm Limited	100%