

2nd May 2024

Woomera Gravity Survey Defines Significant Iron-Oxide Copper-Gold Target

Highlights

- Recently completed detailed gravity surveying at the Woomera Copper Gold Project has identified five high-priority Iron-Oxide Copper-Gold (IOCG) Targets.
- 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/cm³ which is comparable to that measured in known IOCG deposits such as **Prominent Hill, Carrapateena and the Oak Dam Project.**
- Modelling of **four other IOCG targets identified by the gravity survey** is underway to aid target ranking.
- Petratherm is exploring the Woomera Project for Tier-1 sized Iron-Oxide Copper-Gold (IOCG) deposits.

Petratherm Limited (ASX: PTR) (“**PTR**” or “**the Company**”) is pleased to announce that initial processing and interpretation of gravity data on the Woomera Copper Gold Project (Woomera Project) has identified numerous new iron-oxide copper-gold (IOCG) targets. Gravity surveys were undertaken by the Company in 2023 and March this year over large areas of favourable geology where gravity surveys had not previously been undertaken.

The Company is searching for large copper-gold accumulations associated with iron-rich alteration (hematite) that form large dense bodies which can be identified in gravity survey data. Examples of these bodies include BHP’s mining operations at Prominent Hill and Carrapateena as well as the massive Oak Dam Project less than 30 kilometres away (Figure 1)¹.

PTR Chief Executive Officer, Peter Reid, Commented:

“Petratherm has worked hard to secure a significant ground position in the world-class Olympic Copper Gold Province of South Australia. All the known IOCG deposits in the Olympic Province were identified through their gravity signatures, and we are extremely excited to have identified significant gravity anomalies in our recent survey work.

“Computer modelling undertaken to date has identified an exceptional target at Bernard Hill and we will continue to work through the data to add to our target inventory in anticipation of an exciting exploration drill program later in the year.”

¹ Refer to Endnote

Gravity Survey

The new gravity surveys were highly successful with five new gravity targets identified, in addition to the existing targets previously defined at Rocky Well and Winjabbe South in the northern lease area (Figure 2)². Detailed computer modelling of these targets, using both magnetic and gravity data, has now commenced and has recently been completed at the Bernard Hill target.

At Bernard Hill, the resultant model has resolved a large, non-magnetic, dense body at 800-1000 metres depth (Figure 3), 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/cm³ which is consistent with the measured density of known IOCG deposits in the region. A geological interpretation of the computer model is presented in Figure 4.

Next Steps

The Company will complete modelling of the other targets identified from the gravity survey data and undertake a review of other existing targets including Rocky Well and Winjabbe South. Once all targets have been modelled, they will be ranked in terms of geophysical, geological and structural criteria to select high priority targets for drill testing. It is anticipated drilling of multiple IOCG targets will commence from mid-year.

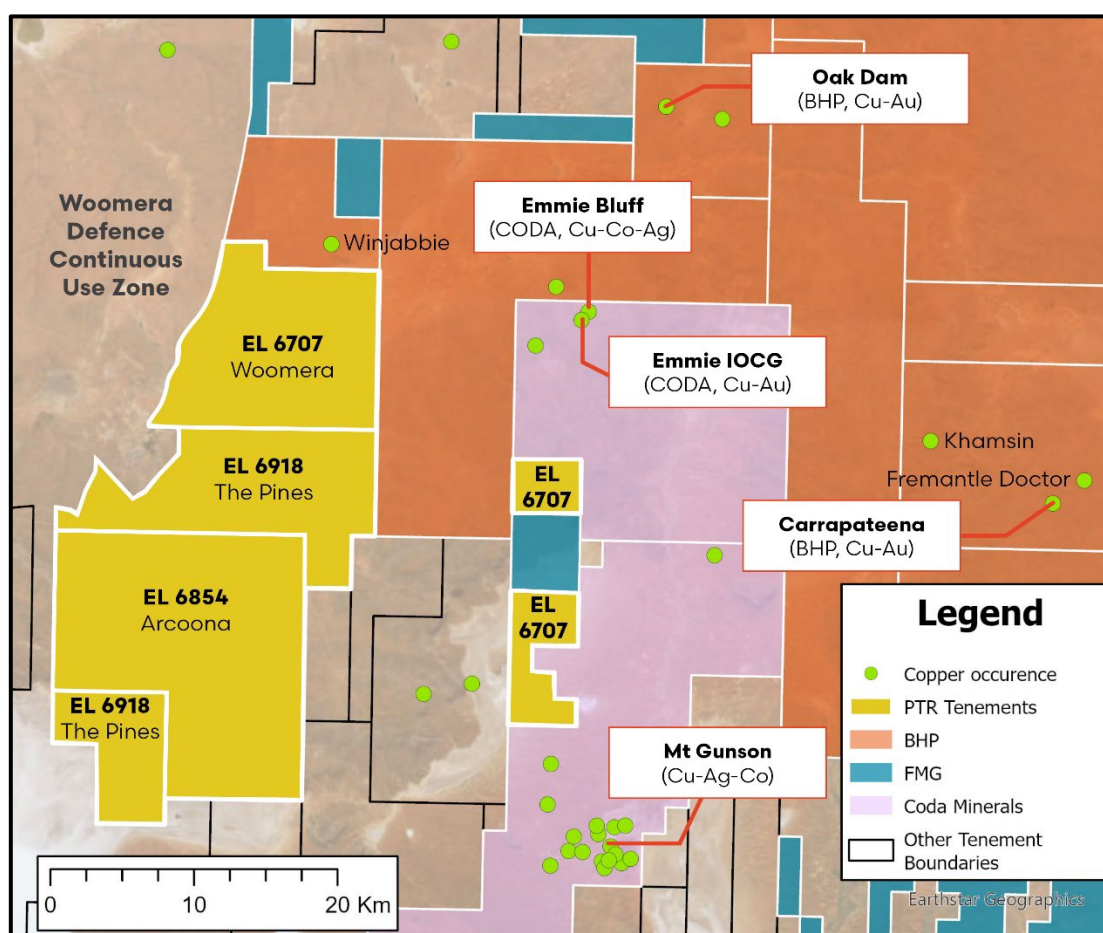


Figure 1 – Location Map of PTR's Woomera Project Tenements and Copper-Gold Mines / Prospects.

² PTR ASX Release 04/04/2022 - Woomera Tenement Granted

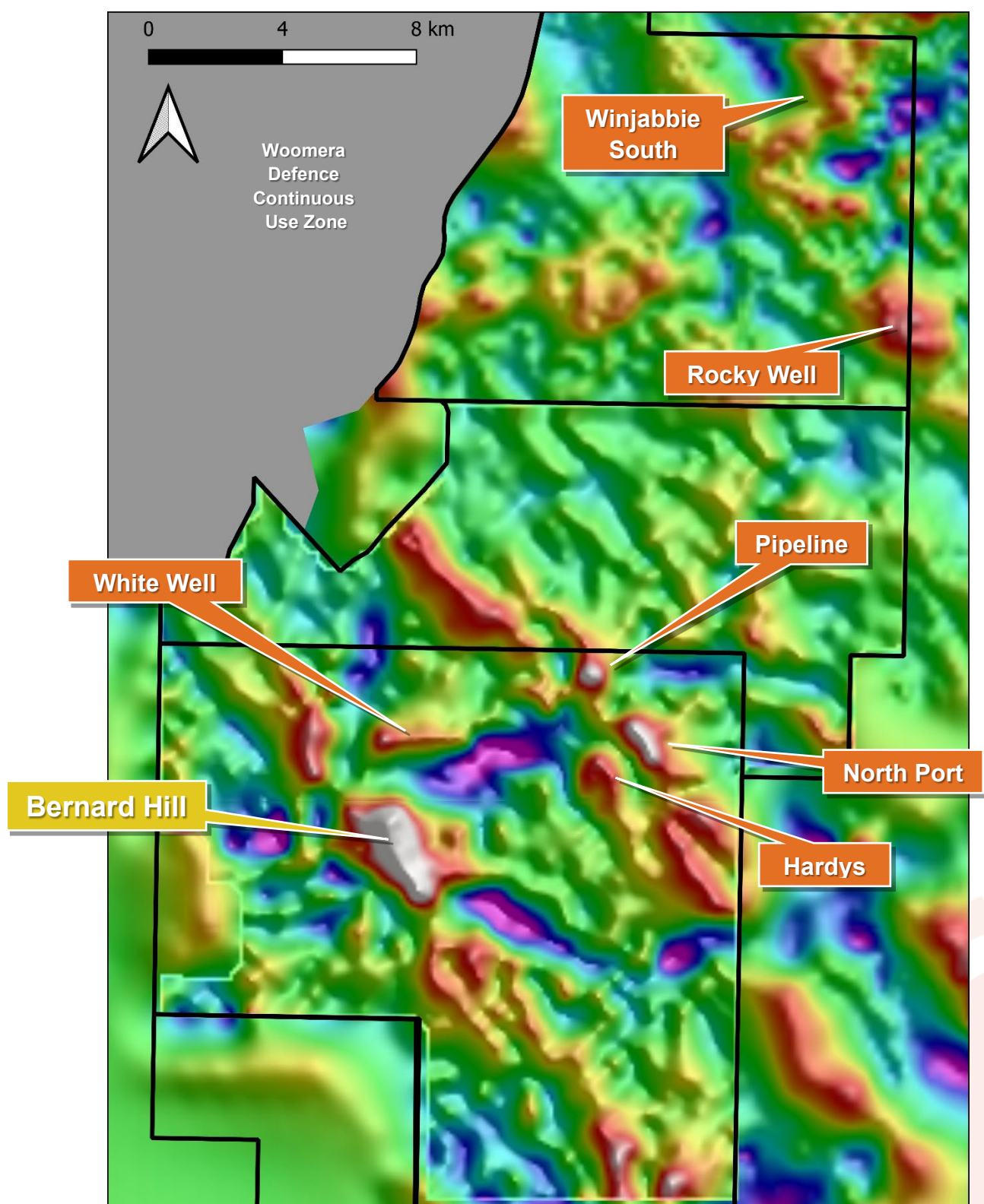


Figure 2 – New gravity survey data over the Woomera Project showing locations of copper-gold targets.

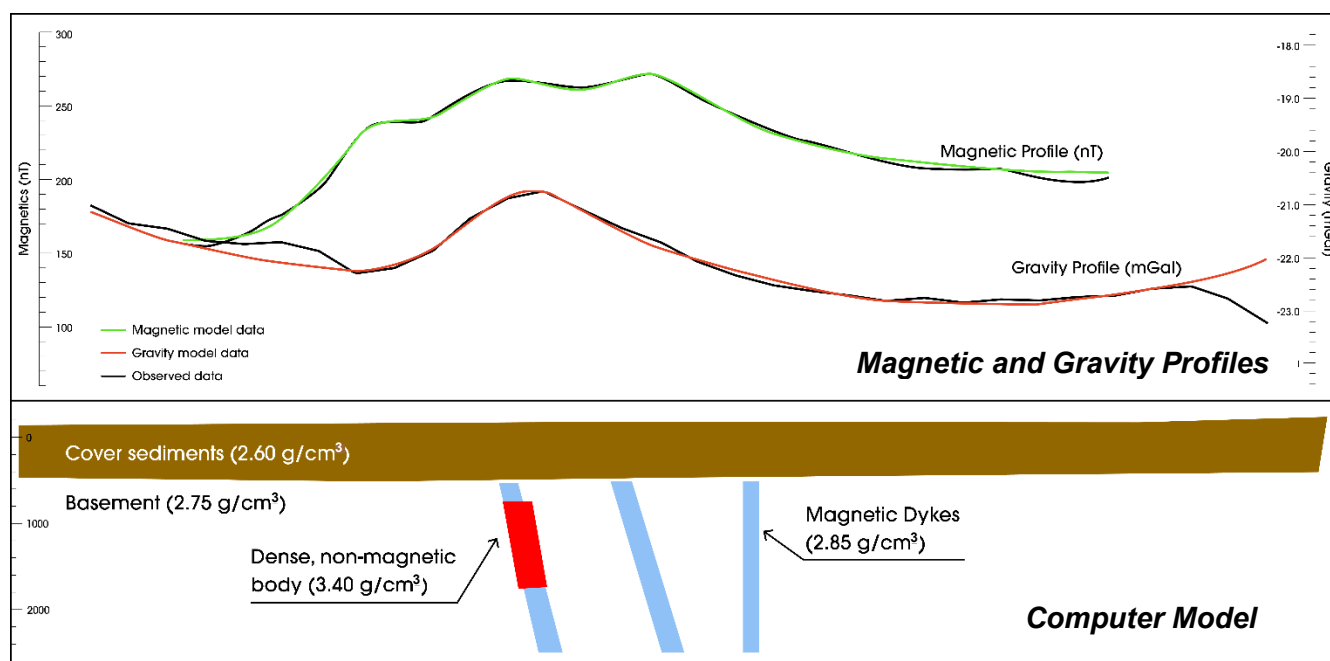


Figure 3 – Magnetic and gravity modelling of the Bernard Hill target.

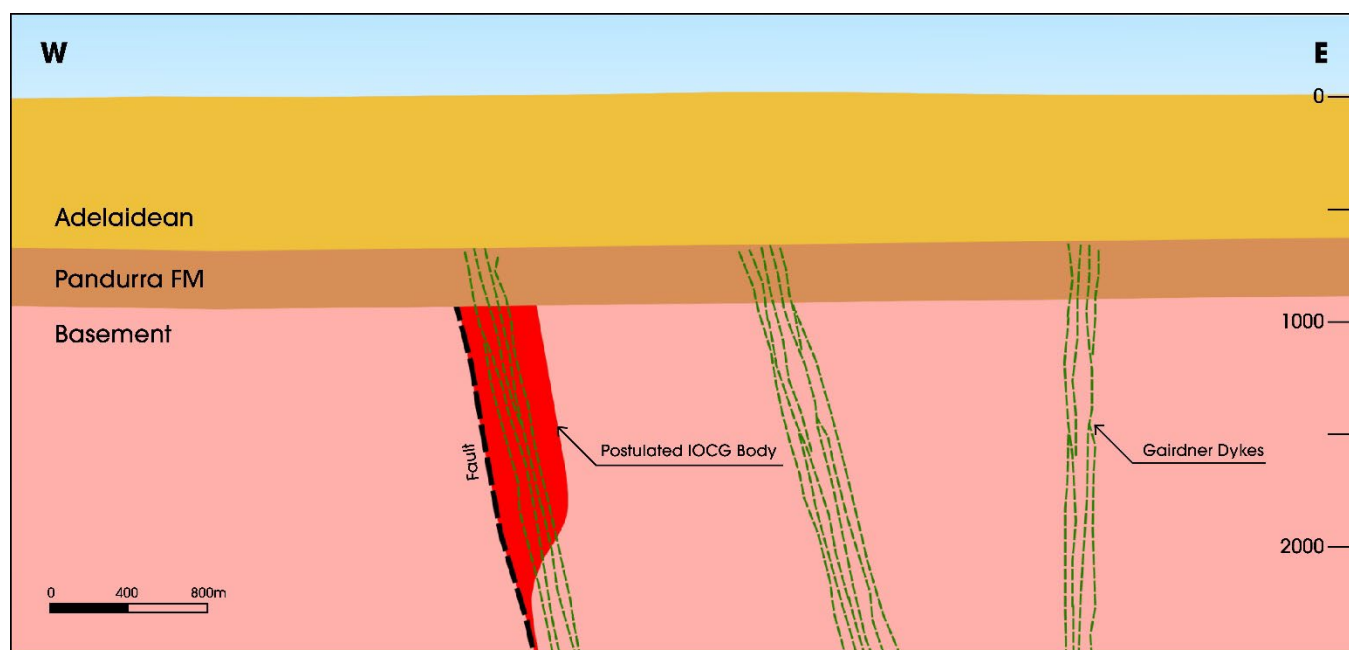


Figure 4 – Geological interpretation of Bernard Hill target.

ENDS

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

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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 Limited. 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

Endnote

BHP Group Limited is a producing entity. The purpose of Figure 1 and the references to BHP's mining operations in the area are to illustrate the geological context of the Olympic Province, and the geographical proximity of the Woomera Project to other Company Tenement Holdings, Copper, and Gold Occurrences.

About Petratherm Limited

Petratherm Limited (ASX: PTR) is a copper and critical minerals explorer focused on the discovery of world-class deposits in both frontier and mature mineral provinces. 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. Recent exploration has uncovered significant concentrations of rare earths over large areas at several prospect sites. The rare earths are associated with a major intrusive complex, which has been found to be highly prospective for other critical minerals including Platinum Group Elements, Vanadium, Chrome and Titanium. This is an early-stage Greenfields project with exceptional upside potential.



PTR's Project Locations in South Australia

EL 6854 & EL6918 JORC Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria | JORC Code explanation | Commentary |
|---|---|--|
| Sampling techniques | <ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse Au that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. | <ul style="list-style-type: none"> Not applicable. |
| Drilling techniques | <ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). | <ul style="list-style-type: none"> Not applicable. No drilling has been undertaken by Petratherm for this survey |
| Drill sample recovery | <ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. | <ul style="list-style-type: none"> Not applicable. No drilling has been undertaken by Petratherm for this survey. |
| Logging | <ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. | <ul style="list-style-type: none"> Not applicable. No drilling has been undertaken by Petratherm for this survey |
| Sub-sampling techniques and sample preparation | <ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub- | <ul style="list-style-type: none"> Not applicable. No drilling has been undertaken by Petratherm for this survey |

| Criteria | JORC Code explanation | Commentary |
|---|---|--|
| | <p><i>sampling stages to maximise representivity of samples.</i></p> <ul style="list-style-type: none"> Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. | |
| Quality of assay data and laboratory tests | <ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. | <ul style="list-style-type: none"> Not applicable |
| Verification of sampling and assaying | <ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. | <ul style="list-style-type: none"> Not applicable |
| Location of data points | <ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. | <ul style="list-style-type: none"> All maps and locations are in UTM grid (GDA94 Z53). Height observation accuracy 0.023 metres. Station coordinates better than 0.005 metres accuracy. Scintrex CG-5 Autograv gravity meters were used for gravity data acquisition and base station control. Leica GX1230 GNSS receivers were used for gravity station positional acquisition. All gravity and GNSS data were acquired using Daishat UTV methods, with 2-3 crews operating concurrently onsite GNSS base station, numbered 1113, was utilised as primary GNSS control for the survey. Data was corrected for terrain effects. |

| Criteria | JORC Code explanation | Commentary |
|--|--|---|
| Data spacing and distribution | <ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> | <ul style="list-style-type: none"> 1561 ground gravity survey stations were collected on 500 x 500 metre grid. No drilling or sampling was undertaken Data spacing is insufficient to establish the degree of geological and grade continuity required for a Mineral Resource estimation. Regional ground gravity survey data comprises multiple surveys of varying station spacing ranging from 100 metres to several kilometres. Gravity survey spacing over the EL6854 and EL6918 area comprises 500 x 500 metre spacing. |
| Orientation of data in relation to geological structure | <ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> | <ul style="list-style-type: none"> Not Applicable. |
| Sample security | <ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> | <ul style="list-style-type: none"> Not Applicable. |
| Audits or reviews | <ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> | <ul style="list-style-type: none"> No audits or reviews of the gravity data has been undertaken by Petratherm. |

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|--|--|---|
| Mineral tenement and land tenure status | <ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i> | <ul style="list-style-type: none"> EL 6854 was granted to Petratherm Ltd (100%) on the 18/10/2022 for a period of 6 years. EL 6918 was granted to Petratherm Ltd (100%) on 23/07/2023 for a period of 6 years EL 6854 & EL6918 are located over the Woomera area approximately 500 km north-northwest of Adelaide, South Australia. <p>Native Title Claims:</p> <ul style="list-style-type: none"> Kokatha People (Part A) |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | <p>SCD 2014/004</p> <ul style="list-style-type: none"> No known impediments exist. |
| Exploration done by other parties | <ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. | <ul style="list-style-type: none"> Previous exploration work includes regional State Government airborne magnetic and radiometric surveying. |
| Geology | <ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. | <ul style="list-style-type: none"> Petratherm is exploring for Iron-Oxide Copper-Gold and sediment hosted copper mineralisation. The tenement area occurs on the Stuart Shelf within the Olympic Copper Province, South Australia. |
| Drill hole Information | <ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. | <ul style="list-style-type: none"> No drilling has been undertaken by Petratherm for this survey. No recorded historical drilling for minerals has occurred on EL6854 or EL6918. |
| Data aggregation methods | <ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. | <ul style="list-style-type: none"> Not Applicable. No drilling has been undertaken by Petratherm |
| Relationship between mineralisation widths and intercept lengths | <ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). | <ul style="list-style-type: none"> Not Applicable. No drilling has been undertaken by Petratherm. |
| Diagrams | <ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. | <ul style="list-style-type: none"> No drilling has been undertaken by Petratherm. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Balanced reporting | <ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. | <ul style="list-style-type: none"> No drilling has been undertaken by Petratherm. |
| Other substantive exploration data | <ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | <ul style="list-style-type: none"> Open file ground gravity survey data for surrounding regional image sourced from SA Government Department for Energy and Mines. Survey specifications and quality of the historic gravity data is unknown. The gravity survey data underwent reprocessing and gridding by an independent geophysical consultant. |
| Further work | <ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | <ul style="list-style-type: none"> A range of exploration techniques are being considered to progress exploration including geophysical surveying to aid drill targeting and future drilling. |