ASX RELEASE
ASX: PTR

15 October 2019

3D Gravity Modelling Defines Olympic Dam Style Copper-Gold Drill Targets Within the Mabel Creek Project

HIGHLIGHTS

- 3D gravity inversion modelling completed on recently acquired detailed gravity data.
- High-priority gravity/magnetic targets identified, that may be indicative of an Olympic Dam Style Copper-Gold (IOCG) system.
- Targets are drill ready and modelling suggests top of dense bodies start at less than 200 metres below the ground surface.

Petratherm Limited ("Petratherm" or "the Company") (ASX: PTR) is pleased to announce that it has completed 3D gravity inversion modelling on data collected during a recent gravity survey (refer to PTR ASX release 14/08/2019) within the Mabel Creek Ridge of the Gawler Craton. The Mabel Creek Ridge is an ENE trending zone of shallow covered basement rock, which displays high magnetic and gravity relief along the eastern margin of the Gawler Craton. These geophysical domains are prospective for hydrothermal iron-oxide systems including, copper-gold, magnetite skarn copper and high value rare earth elements (REEs). Examples of mines and prospects located proximal to the Mabel Creek Project include Cairn Hill Mine, Prominent Hill Mine and the Cadi Prospect (Figure 1).

Several high-amplitude gravity anomalies (~3Mgal) have been defined during the recent gravity survey (Figure 2), with modelled depths ranging from 130m to 600m.

The Area 3 Anomaly is a discrete, NNW trending, high-amplitude gravity anomaly, which is comparable in size and magnitude to the gravity response seen at the Prominent Hill Copper-Gold Deposit. The 3D model suggests the top of the body is at about 160m depth and may be associated with a partly coincident magnetic body extending at depth (Figure 3).

The Area 5 Anomaly is a broad multi-peak, high-amplitude gravity anomaly, which is semi-coincident with a moderately strong (500nT) magnetic anomaly. The 3D model indicates the top of the gravity anomaly occurs at a depth of around 130m (Figure 4).

Significantly, the offset in the gravity and magnetic anomalies observed in the 3D models could be indicative of zonation within a magnetite-haematite system (e.g. IOCG style alteration). Both models show, the non-magnetic gravity anomalies positioned shallower and/or to one side of the magnetic feature, which is typical of an IOCG style system. To date, on the Gawler Craton of South Australia, economic concentrations of copper and gold have only been associated with non-magnetitic, haematite enriched bodies, and hence these gravity targets are a priority for drill testing.

Also, of note, the inversion models demonstrate a high average density contrast (≥ 0.1 g/cm^3) for each body which may also be indicative of an IOCG style system.

The high amplitude Area 2 anomaly previously reported (refer to PTR ASX release 14/08/2019) requires some additional minor infill gravity surveying before a complete 3D model can be presented.

Petratherm have recently completed heritage access to extend the initial gravity survey across the western portion of the Mabel Creek Project (refer to PTR ASX release 3/10/2019). Upon completion of the second phase of gravity surveying, scheduled for later in October, which will also include the Area 2 infill surveying, gravity anomalies will be defined and ranked with existing targets ahead of drill testing.

For further information, please 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.

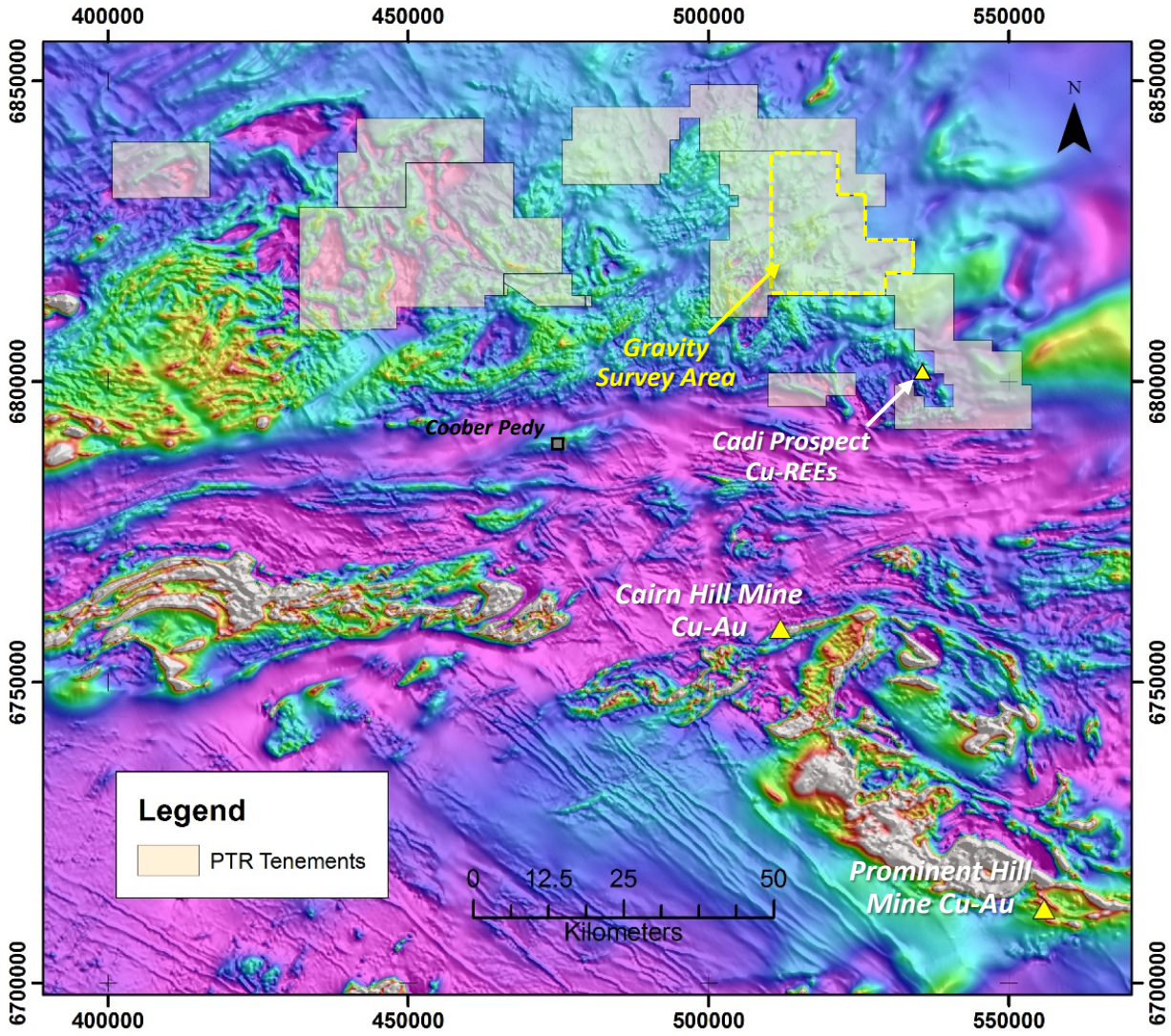


Figure 1: Location map of IOCG related mines and prospects, with gravity survey area and outline of Petratherm tenements overlying a regional reduced to pole aeromagnetic image (compiled from Sth. Aust. Government data).

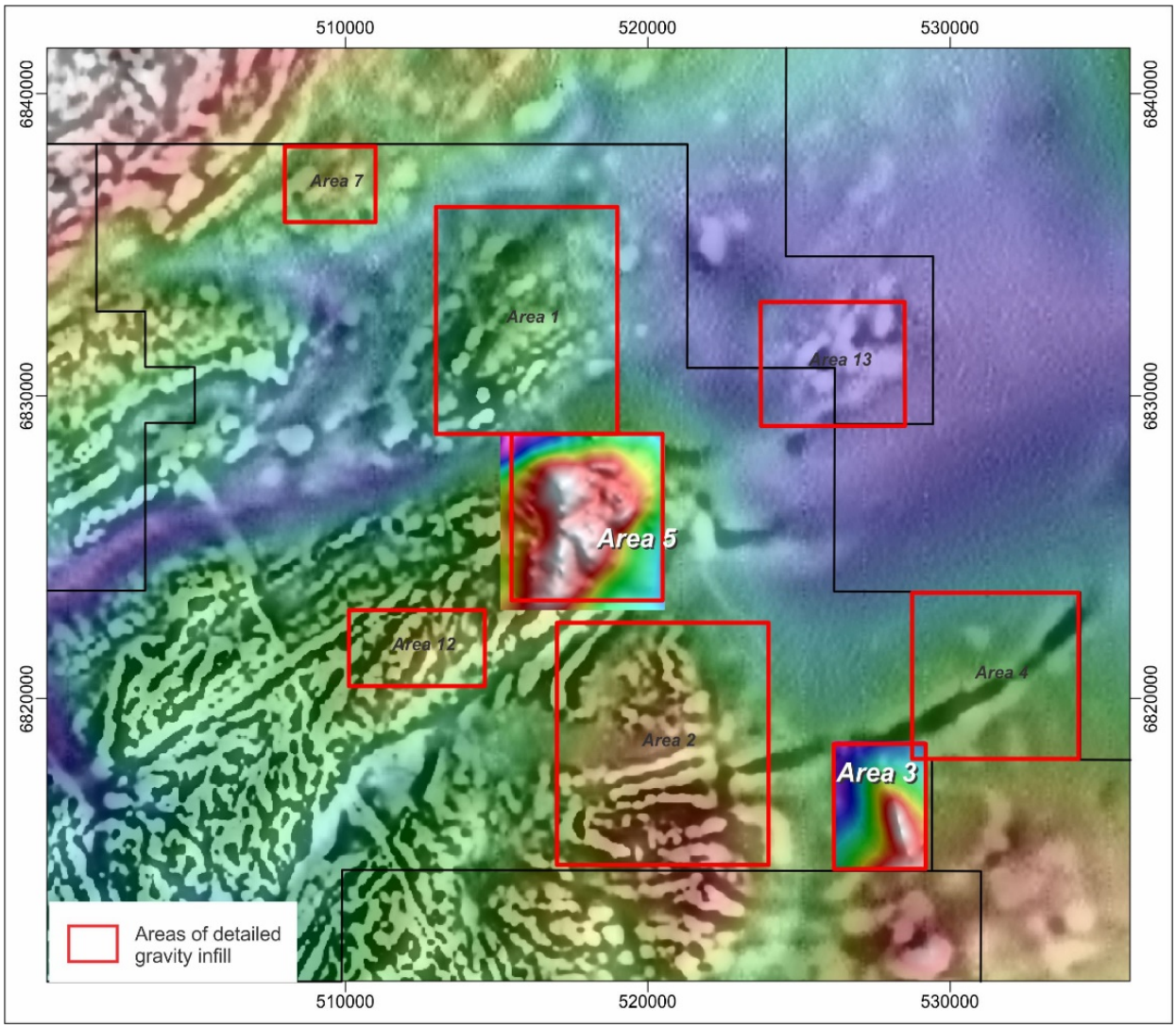
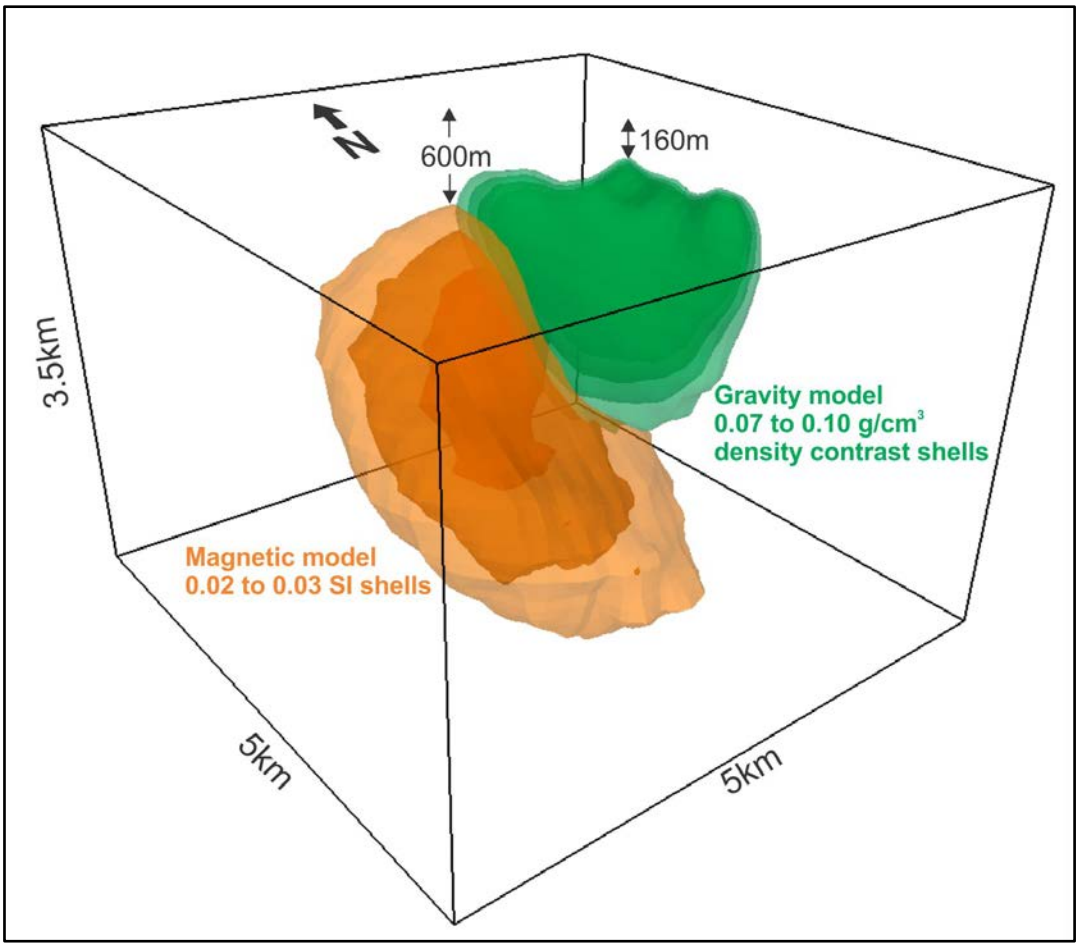


Figure 2: Location map showing areas surveyed with infill gravity, highlighting the Area 3 and Area 5 anomalies. Background is Bouguer gravity draped over a reduced to pole, second vertical derivative, aeromagnetic image (compiled from Sth. Aust. Government data).



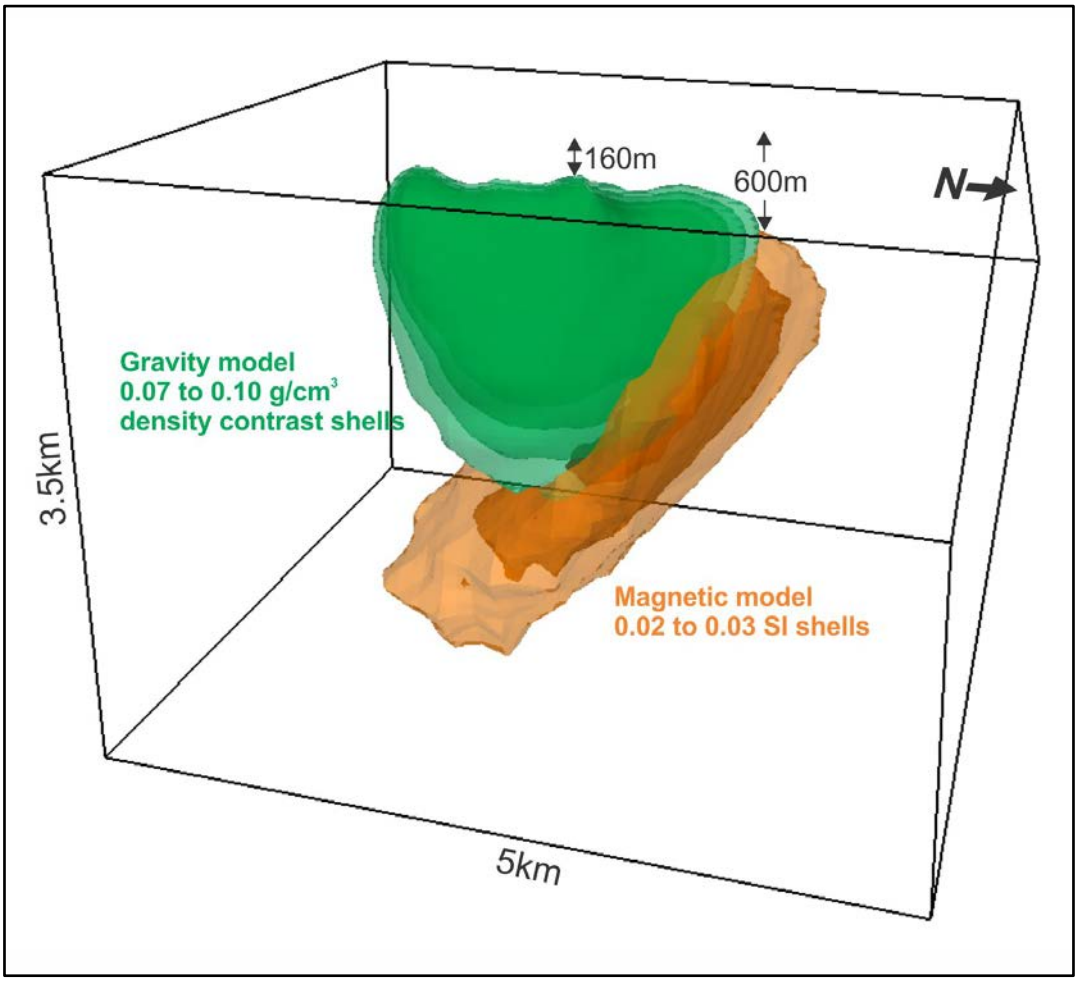
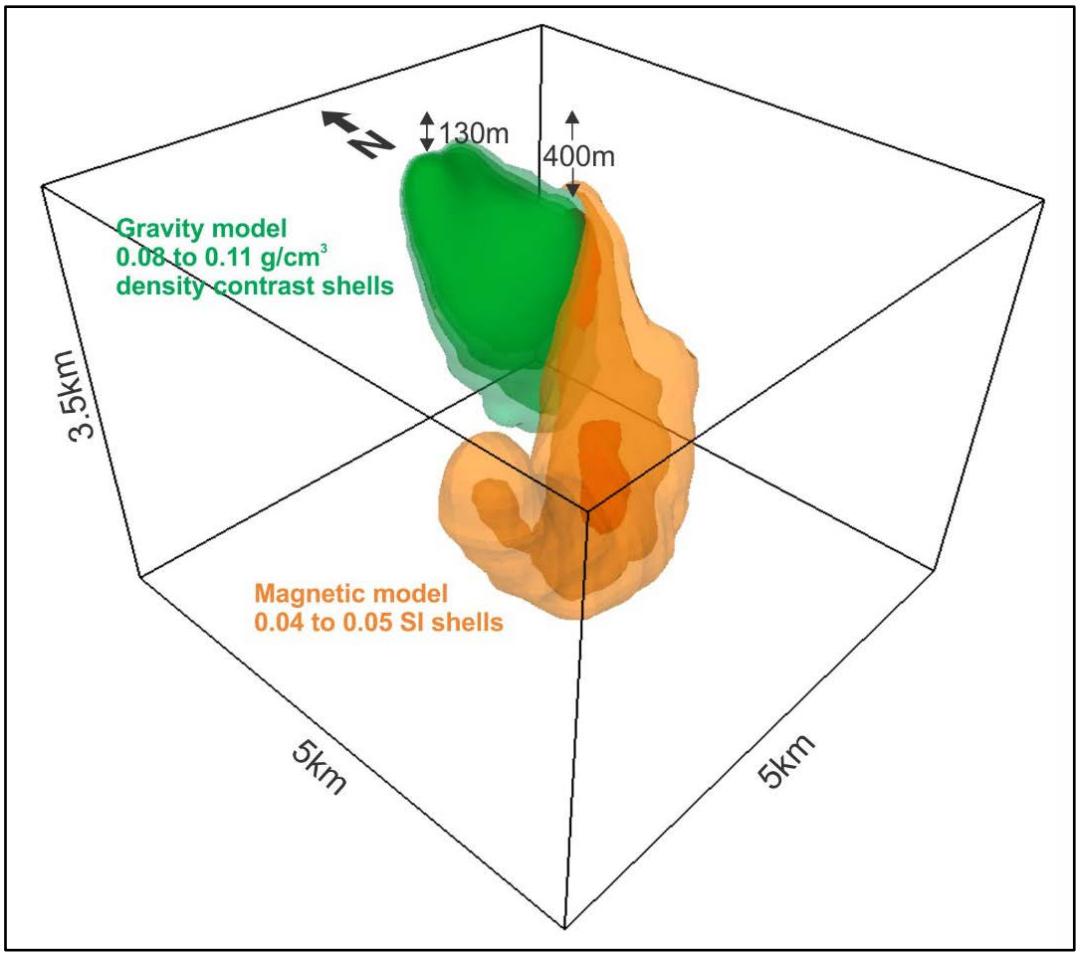


Figure 3: 3D Inversion Models of Area 3 Anomalies showing the relationship between the magnetic and gravity bodies.



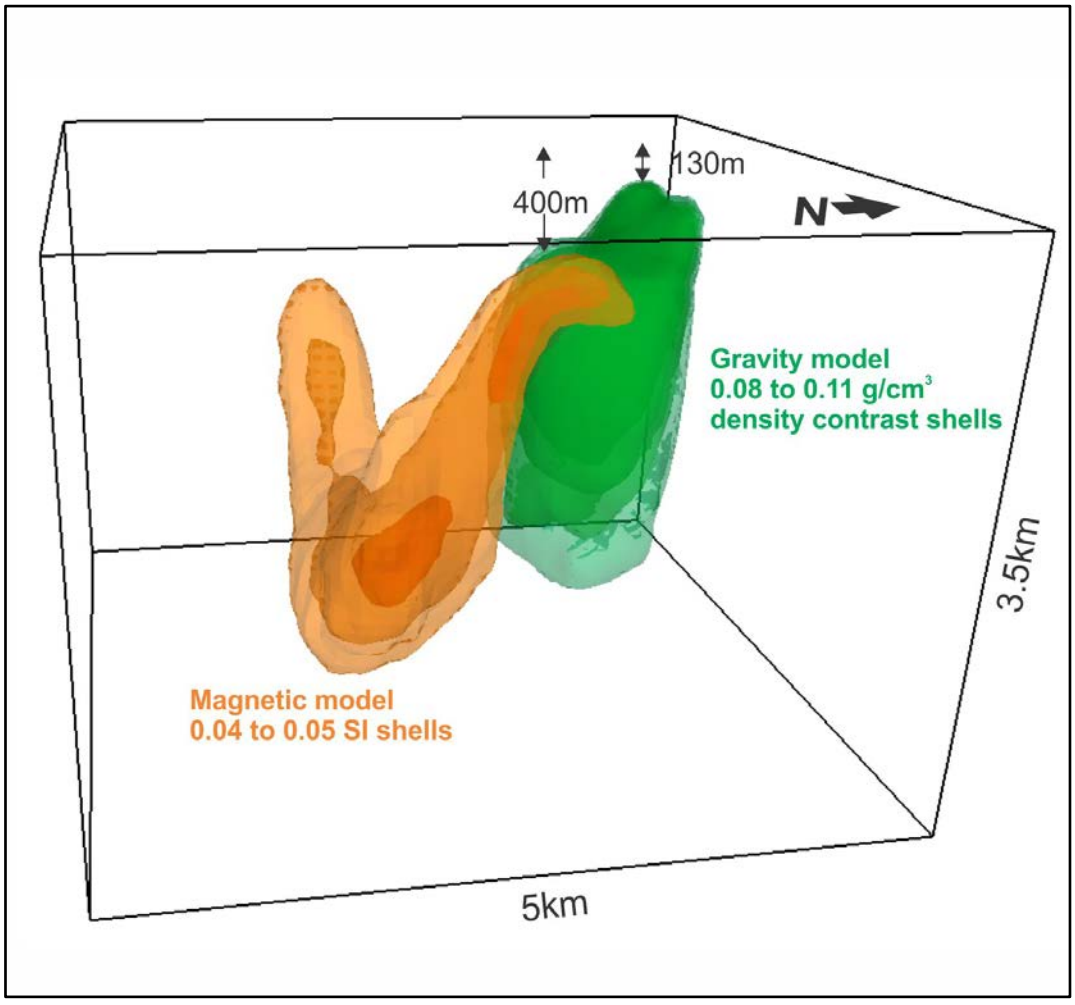


Figure 4: 3D Inversion Models of Area 5 Anomalies showing the relationship between the deep magnetic body and shallower gravity target.