EXTRAORDINARY CONDUCTOR IDENTIFIED AT MALLEE BULL; MBDD003 RETURNS MORE COPPER SULPHIDES

Highlights:

- Downhole electromagnetic (EM) surveying identifies extremely strong offhole EM response (conductor) at Mallee Bull
- Time constant for late time offhole response is ~60 milliseconds; extraordinarily high for the Cobar region and NSW
- EM response implies large and/or highly conducting causative body plunging to the north; exhibiting a strong correlation with 3D TMI (magnetic) inversion modeling
- Drilling continuing with planning of wedge hole underway
- MBDD003 extension returns additional 20m interval of moderate-to-strong stringer/breccia mineralisation further to previously reported cumulative intercept of 36m @ 1.58% Cu, 48 g/t Ag, 0.43 g/t Au, 132 g/t Co

Peel Mining Limited (ASX: PEX) is pleased to advise that ongoing exploration at Mallee Bull continues to return highly encouraging results with downhole EM producing the strongest responses seen to date, and drillhole MBDD003 returning an additional 20m interval of moderate-to-strong stringer/breccia mineralisation (further to previously reported cumulative intercept of 36m @ 1.58% Cu, 48 g/t Ag, 0.43 g/t Au, 132 g/t Co).

Downhole EM

Downhole EM surveying was completed in drillholes MBDD001 and MBDD007. Both holes produced extremely strong EM responses that are consistent with each other and with the known mineralised horizon at Mallee Bull. The DHEM survey was completed by Outer Rim Exploration Pty Ltd and independently reviewed and modelled by specialist geophysical consultants Newexco Services Pty Ltd and Arctan Services Pty Ltd.

MBDD001 (6413290N, 415162E) was drilled at the southern end of the Mallee Bull prospect to ~490m depth at -80 degrees towards the east. A strong inhole response was recorded at ~440m downhole depth that merged into a much stronger offhole response at later times, centred at a similar downhole depth. The time constant for the inhole part of this (these) response(s) is about 10 milliseconds while the time constant for the offhole part is about 60 milliseconds, implying that the conducting horizon becomes considerably more conductive and/or thicker away from the drillhole.

MBDD007 (6413350N, 415162E – 60 metres north of MBDD001) was drilled vertically, deviating to -85 degrees at its maximum depth of ~770m. This hole was drilled at an acute angle to the prospective horizon, which dips at around 70 degrees to the west, and intersected the Shume Formation, host to mineralisation at Mallee Bull, at 570m downhole with strong alteration however only relatively minor mineralisation was returned (minor semi-massive and stringer pyrrhotite with lesser galena, sphalerite, arsenopyrite and chalcopyrite).
MBDD007 recorded a broad, late time offhole response centred at ~580m downhole depth. A narrower, offhole response is centred at 620 metres downhole, which is approximately the downhole location of minor mineralisation intersected in the hole. The time constant for the late time offhole response is 60 milliseconds. This is an extraordinarily high value for the Cobar region, indicating a very conducting and/or thick conducting zone. The similarity of this time constant with the very late time values calculated in MBDD001 implies that these are from the same source.

Modelling of the downhole EM data for MBDD001 and MBDD007 shows an extremely strong offhole conductor response to the east of MBDD007, i.e. updip, and with a plunge to the north. The inhole part of the response in MBDD001 is likely to be sourced by a part of this zone towards its southern edge while the mineralised intersection in MBDD007 is close to but below the conducting zone.

Figure 1 – Mallee Bull DHEM plates (red) with 3D TMI shell (yellow - 3 x 10^3 SI) looking east

Interestingly, the northerly plunging geometry of the modelled conductor plates is consistent with 3D inversion modelling of total magnetic intensity (TMI) data collected during the VTEM survey of the 4-Mile area. 3D TMI inversion modelling shows the magnetic anomaly associated with the Mallee Bull prospect as a northerly plunging, horn-like feature extending out of the core of the very large Butcher’s Dog magnetic anomaly 1km north. In February 2012, Peel completed one deep drillhole targeting Butcher’s Dog. Drillhole BDRCDD001 was drilled as a vertical hole, however deviated to -78 degrees at its maximum depth of 680m. No satisfactory explanation for the magnetic anomaly was observed from geological logging or downhole geophysics. Further investigation is required.
MBDD003 extension

MBDD003 (6413430N, 415172E – 140m north of MBDD001) initially drilled to 438m, previously returned a cumulative intercept of 36m @ 1.58% Cu, 48 g/t Ag, 0.43 g/t Au, 132 g/t Co comprising three zones of strong copper-dominant sulphide mineralisation. A review of MBDD003 indicated that the drillhole was possibly terminated prematurely, and a depth extension to ~508m was subsequently completed. The extension returned a 20m interval from ~444m of moderate-to-strong stringer/breccia mineralisation (see attached photos). Assays for this new intercept are several weeks away. Peel is encouraged by this additional mineralisation which adds further weight to the possibility of a northerly plunging mineralised system.

Background on Mallee Bull copper-polymetallic discovery and CBH farm-in

In March/April 2011, Peel began targeting a newly-recognised coincident EM and magnetic geophysical anomaly located within the historic 4-Mile goldfield. The 4-Mile goldfield comprises up to 60 shafts and workings spread over an area covering about 1,000m by 500m.

Initial drilling resulted in the discovery of significant silver-lead-zinc mineralisation. Follow-up drilling completed in July/August 2011 intersected massive sulphides containing strong Cu-Ag-Au-Pb-Zn-Co mineralisation within a broad zone of deformation and alteration.

The Mallee Bull prospect is located less than 10 kilometres east of the May Day gold-silver-lead-zinc deposit (ML1361), where drilling in 2010 confirmed the down-dip continuation of mineralisation to more than 200m below surface.

In May 2012, CBH Resources farmed-in to Mallee Bull whereby CBH has the right to earn an interest of up to 50% in the project over a three-year period through an $8.33m spend. Peel remains responsible for exploration activities through this period. CBH Resources is an Australian-based mineral resources company producing zinc, lead and silver from the Endeavour Mine north of Cobar, and the Rasp mine in Broken Hill. The company, which is 100%-owned by Tokyo Stock Exchange-listed Toho Zinc, recently opened the Rasp underground zinc, lead and silver mine at Broken Hill.

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The information in this report that relates to Exploration Results is based on information compiled by Mr Robert Tyson, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Tyson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.’ Mr Tyson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Information regarding drilling/assaying data

1. Drilling was completed as HQ or NQ diamond core.
2. Sample recoveries were considered adequate for all samples.
3. Drillcore has been logged in detail based on lithology, mineralisation, and alteration.
4. Samples for analysis were collected by sawing core in half.
5. Samples were submitted as 1m half-core intervals.
6. Samples were analysed at ALS Chemex utilising methods: Au-AA25 for Au (fire assay); ME-ICP41 for multi-element including Ag, Cu, Pb, Zn; Ag-OG46 for >100 g/t Ag; Cu-OG46 for >1% Cu; Pb-OG46 for >1% Pb; and Zn-OG46 for >1% Zn.
7. Drillhole collars were surveyed by DGPS (GDA94) and downhole gyroscopic surveys were run continuously.
Figure 2 – MBDD003 extension drillcore photos