



**PNX Metals**

**Chessman, Red Queen Review – Chessman Project**

**24<sup>th</sup> May 2017**

**Northern Territory, GDA94 MGA Zone 53**

Lynelle Beinke, Consultant Geophysicist, Blue MarbleX

+61 427 207 017  
lynelle@bluemarbleX.com.au

# Chessman, Red Queen – Background

Au prospect located 7km NW of the Maud Creek Au deposit of ~1Moz Au.

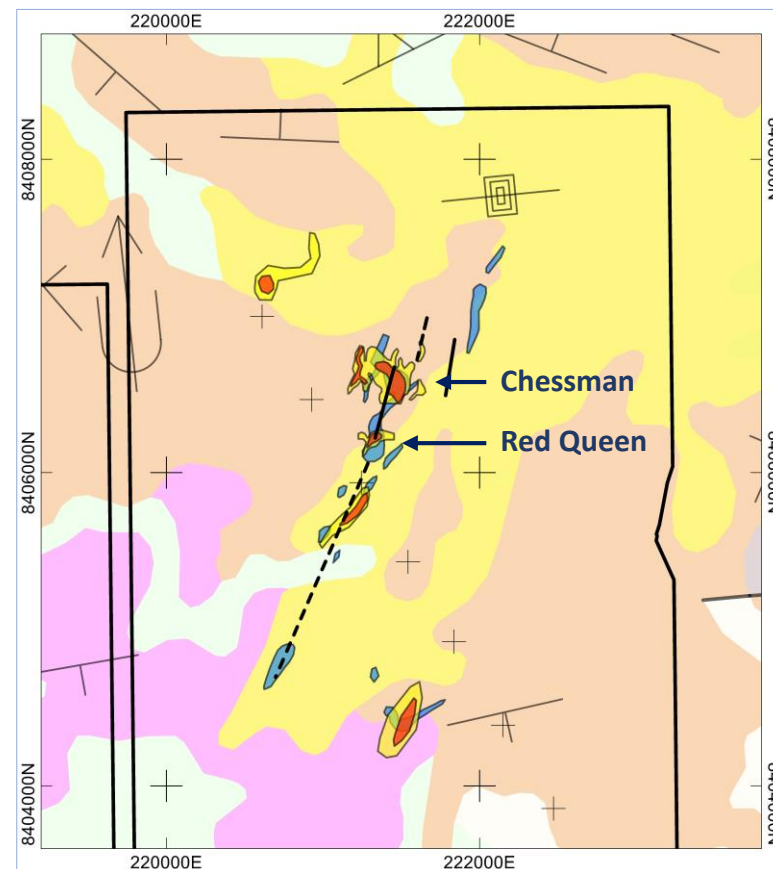
Drilling at Chessman shows 150m strike @ >1g/t. Intersection of 18m @ ~1g/t Au (RQP5).

Soil anomalism seen over 1.5km strike.

Sits on and near unconformable contact between Proterozoic Tollis Formation sediments and Plum Tree Creek Volcaniclastics.

Au occurs in pyritic carbonaceous cherts and sheared carbonate altered mafic fragmental rocks and “extremely altered gossanous material”.

Appears to be associated with a structure that can be seen in magnetics (next page).



**Chessman – Red Queen Au soil anomaly (>20ppb - yellow, >50ppb - red) and ionic leach anomaly (>5ppb - blue) over 250k geology (Tollis Formation - tan, Plum Tree Creek Volcanics - yellow) and interpreted fault.**

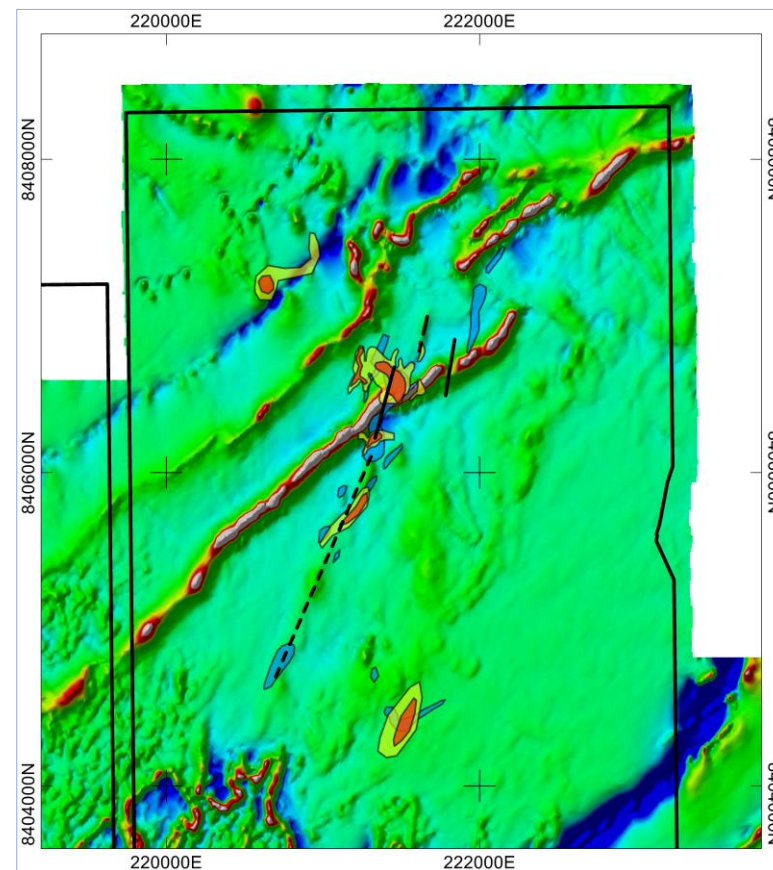
# Chessman, Red Queen – Magnetics

Detailed 1997 airborne survey.

Chessman sits on and between two NE trending dykes seen as linear mag highs. There is an area of possible remanence between Chessman and Red Queen.

A NNE trending fault offsets the southern dyke at Chessman; it appears to continue to the SSW as a series of mag highs and has associated Au anomalism.

There are other dykes in the area that are associated with magnetic lows, indicative of remanence.



**Chessman – Red Queen Au anomaly shown over RTP magnetics (0.5VD) and interpreted fault.**

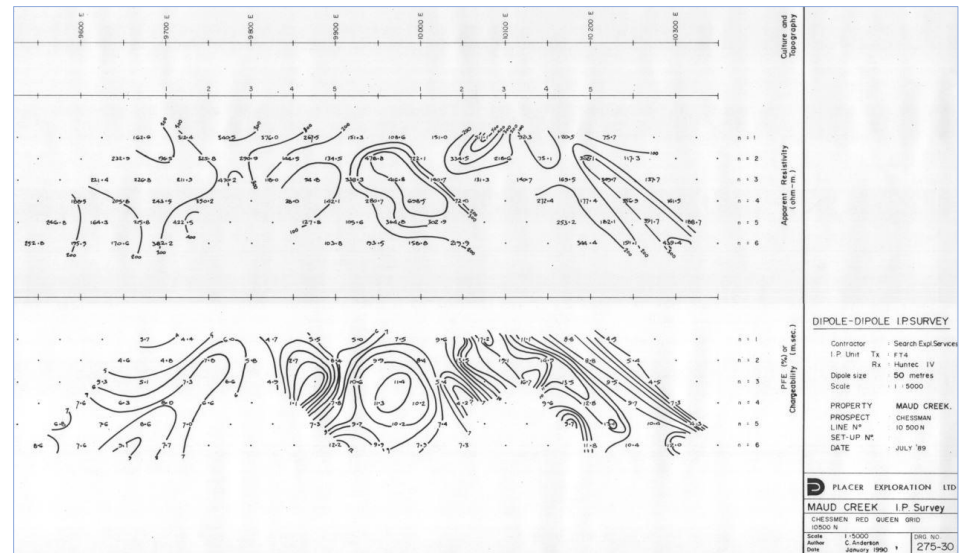
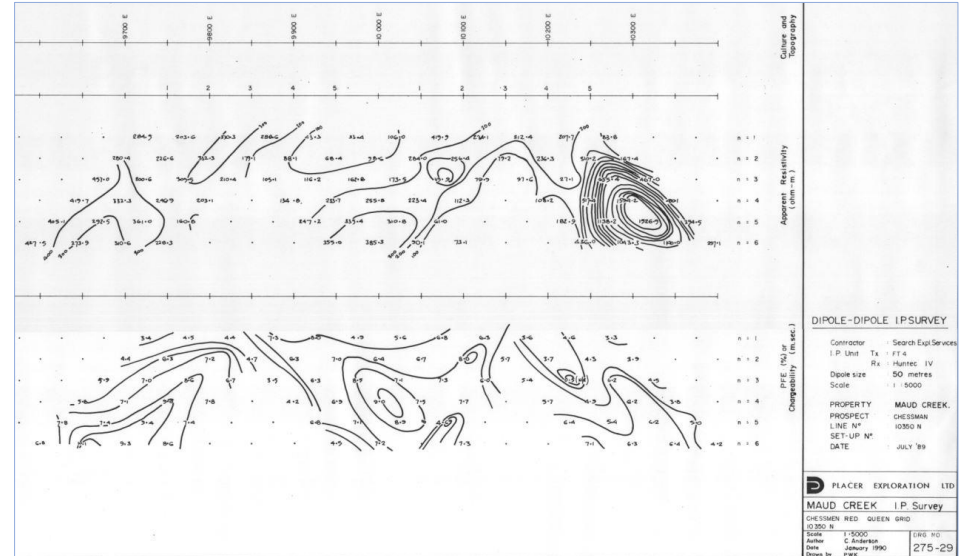
# Chessman, Red Queen – IP

Two lines of dipole-dipole IP were acquired over the Chessman - Red Queen prospect in 1989.

They were acquired on a local grid and cannot be located, however, they show that there is variation in resistivity and chargeability.

Both lines show apparent chargeability highs of 9-11msec in their centre. Lines over Maud Creek (from the same survey) have apparent chargeabilities up to 20msec.

No follow up drilling was reported.



Chessman Red Queen 1989 IP pseudo sections with apparent resistivity (top) and chargeability (bottom).

# Chessman, Red Queen – VTEM



Survey flown in 2011.

There is no anomalous conductivity associated with the Chessman - Red Queen Au anomalism.

Survey may useful for geological mapping.

# Chessman, Red Queen – Conclusions



The Au appears to be structurally related, as seen in the magnetics.

IP has been used in the past and is likely to be effective for drill targeting.

No conductivity associated with Au anomaly.

# Chessman, Red Queen – Recommendations



Acquisition of IP/Resistivity is recommended for drill targeting.

The survey should begin with a line at Chessman to help determine if the technique will be successful, followed by lines over Red Queen and other soil anomalies.

A structural/geological interpretation would help to identify other prospective areas in the vicinity of Chessman – Red Queen and assist with IP planning and prioritisation.