## SPINIFEX GEOPHYSICS

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## Memorandum

To:	Roger Thomson	From:	Steve Massey			
Company	Meteoric Resources	Date:	22/08/2014			
CC:		Prospect:	Parakeet. Tenant Creek.			
Subject:	Drilling Proposal- Parakeet Target PKT1.					

## Introduction and Background.

Previous modelling work by this author on ground magnetic data over the Parakeet anomalies has shown there are strongly magnetic sources present with magnetic susceptibility properties that imply Tennant Creek type strongly magnetic ironstone bodies at depth below the deepest holes in the existing drilling. The existing drilling has intersected anomalous Cu associated with weak-moderate hematite-magnetite alteration in the holes at the PKT1 and PKT2 target locations (Figure 1). Three dimensional forward and inverse modelling of the ground magnetic data have independently achieved comparable depth and location results for PKT1 adding further confidence in the model. Downhole magnetic survey data in WNRC01(PKT2) indicated the presence of a strongly magnetic ironstone body below the hole. The lateral position of the body cannot be determined as there were technical problems with the survey and the only useable data were total magnetic intensity (TMI).

Meteoric have requested the model data and drilling be revisited and a drillhole design completed to test the interpreted magnetic sources at depth.

## **Drilling Proposal**

Two drillholes are proposed to test the PKT1 magnetic model. The design of the holes is based on an assessment of all the available data in the 3D space. The datasets used include the drilling and Cu assays, the forward and inverse magnetic models derived from the ground magnetic survey data and the 3D inversion of ground gravity data.

Two sections oriented 035/215 through the 3D model are shown on Figure 2. The details of the section line endpoints are given in table 1 below, along with the proposed hole collar positions and drilling design.

The holes have been designed to intersect the magnetic inversion model at or near it's maximum model susceptibility value. In the case of PKT1\_DH01 on section 1, this also intersects the forward model (plate body on the section) and also the eastern end of the 3.6 T/m³ wire framed derived from the 3D inversion of the gravity data. In the case of PKT1\_DH02 on section 2 this also intersects the above model positions and also the hole trace is located directly under the anomalous Cu intersection.

The advantage of using two holes to target the interpreted ironstone source/s is that there is a greater chance of hitting an ironstone body and also the 3 component magnetic survey that should be done in the holes will have a significantly wider search range.

Table 1. Parakeet Drilling Proposal- Target PKT1

Section No.	Section ID	MGAE	MGAN	MGAE	MGAN		
Section 1	-14	364512.6	7861864.0	366089.6	7864116.6		
Section 2	23	364500.0	7861912.0	366090.0	7864183.0		
Planned holes	HoleID	Collar					
		MGAE	MGAN	Dip	Azi (grid)	TD	
Section1	PKT1_DH01	365380.0	7863082.0	60	215		450
Section 2	PKT1_DH02	365298.0	7863052.0	60	215		450

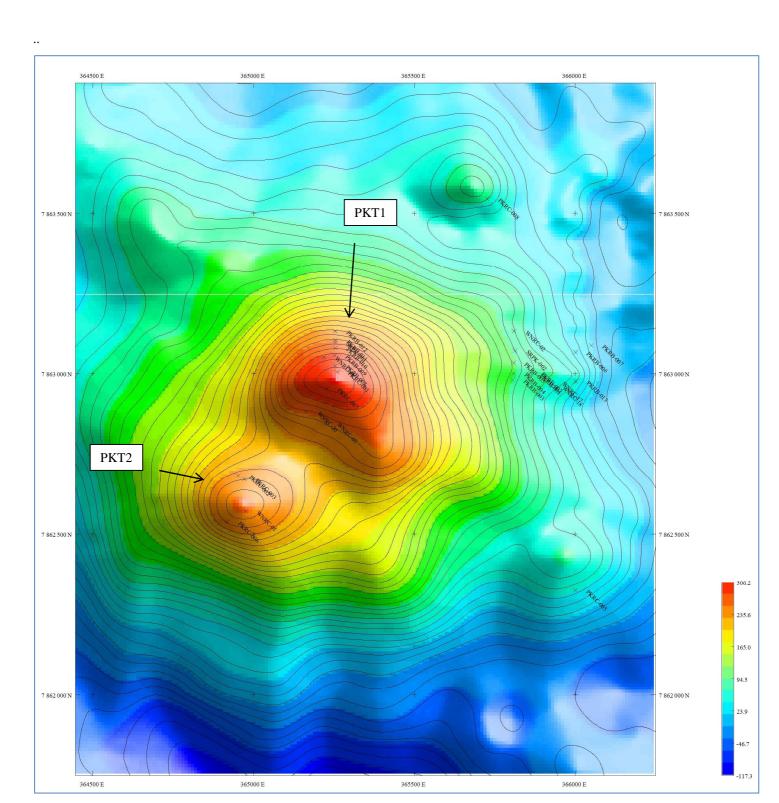


Figure 1. Parakeet prospect ground magnetic residual total magnetic intensity(nT). Target areas previously drilled are PKT1 and PKT2.

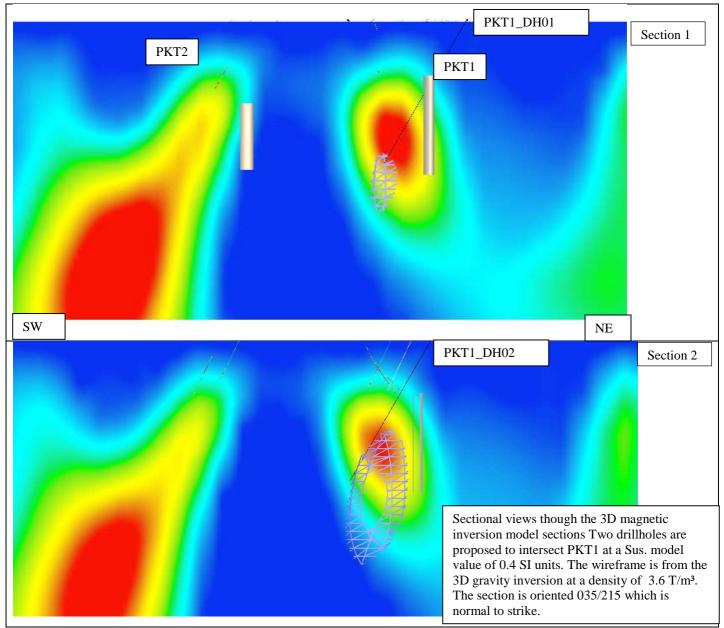


Figure 2. Perspective and sectional views through PKT1 and PKT2. The planned traces of the proposed drillholes are coloured black.