

# Memo

To: Andrew McNeill  
From: Jovan Silic  
CC:  
Date: 4/2/02  
Re: **UTEM surveys at White Spur and Pinnacles**

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## (1) White Spur survey : Goldfields 1984 – 1985

The White Spur covered an area of Cambrian volcanics on the southern slopes of Mount Read within the north-west portion of Goldfields E.L. 9/66. The north-eastern section of the grid was covered by a single bop 8.2 kilometre UTEM survey. The purpose of the survey was to locate any concealed massive sulphide targets within a zone of anomalous geochemistry .

The data was interpreted in 1985 and it was concluded that no responses, which may be attributable to massive mineralisation, were detected, although a number of “early time responses” were noted in the data set. No other sophisticated analysis was attempted on the UTEM data set. Subsequently this data was re-examined in February 2002 by the author.

Because no digital data of the UTEM survey was available the February 2002 analysis could only proceed with careful examination of the plotted profile data. In particular all potential responses were examined with the aim of determining if the source of the response could be explained by either a concealed or a broad lithological (near surface) / overburden weakly conductive unit. This approach was very effectively used on the Aberfoyle Resources Mackintosh EL to detect and differentiate the Hellyer orebody response from other uneconomic superficially similar “early” time responses.

**The February 2002 analysis however clearly demonstrated that all responses could be explained by near surface broad resistivity variations either marking lithological or overburden features with very little line to line continuity.**

## (2) North Pinnacles survey: BHP 1988

The UTEM III TDEM survey was designed to cover a substantial section of E.L. 5/63 .

This survey commissioned by BHP Minerals collected 85 line kilometres of data using a line spacing of 200 meters and a station spacing of 50 meters. In 1988 it was interpreted that no major conductors were detected by the survey although BHP did note “two lesser

“conductors in the North Pinnacles area. The author then reviewed this data set in February 2002.

Considering that no digital data from this survey is available, the review of the UTEM data set was then based on purely analysing continuously normalised line profile plots as described in the discussion of the White Spur data. (Point normed profile plots would have made the decision making somewhat easier, but they were not included in the report).

**Analysis of this data set resulted in similar conclusions as for the White Spur UTEM survey. No buried or hidden target responses can be interpreted on the basis of analysing the continuously normalised line profile plots. The responses noted by BHP are interpreted as being caused by broad near surface lithological/overburden/weathering weakly conductive units.**