OUTER RIM EXPLORATION SERVICES PTY. LTD.

Recent Geophysical Discoveries and Technical Successes

FLYING FOX T1-T5 DISCOVERIES (Sept 2003 - August 2004)

The Flying Fox T1-T2 deposit was discovered in September 2003. Wide intervals of high-grade massive nickel sulphides were intersected in the first two holes drilled to test the upper extents of a high priority DHTEM target. The recognition of strong anomalous distortions in the current ramp channel within somewhat ambiguous historic DHTEM was crucial in strengthening the resolve to pursue an exploration target at a depth of more than 400 m. DHTEM surveying of subsequent deep exploratory holes combined with comprehensive modeling and interpretation, and an optimistic approach to ongoing exploration, led to the discovery of the Flying Fox T3, T4 and T5 deposits.



Fig. 1. Cross-sectional view of the Flying Fox deposits highlighting the critical DHTEM holes (FFD136, FFD136W2W2 and FFD160) that guided the deep exploration drilling and culminated in the eventual discovery of T4 and T5.

Whilst completing the initial discovery geophysics work on the Flying Fox T5 deposit several DHTEM surveys of **FFD136W2W2** were performed using both a conventional dB/dt system (Crone PEM) and a recently developed B-field system (Atlantis Fluxgate). Figure 2 provides an axial or uphole component comparison of the two methods at late offtimes (~50-135 ms) and also includes the calculated residual step response derived from the Crone PEM dataset (S1 residual, % total theoretical). There is clearly a significant difference between the upper and lower peaks of the T4 anomaly defined in the dB/dt (~775 m-1050 m) as opposed to the B-field data (~925-1075 m). This can be explained to some degree by the significant, late offtime, downhole migration of the upper peak of the T4 anomaly. Overall the DHTEM data indicate that the lowermost section of T4 is strongly conductive (~925-1075 m), whereas the

uppermost section (~775-925 m) which is clearly related to T3 is moderately conductive, and most likely not related to well developed nickel sulphide.

The residual late step response (S1 residual - anomalies opposite in polarity) has been included to show that although the late offtime dB/dt anomaly varies considerably from the late B-field anomaly, the late step response of Crone PEM dB/dt data or channel routinely monitored for the presence of near-perfect conductors (Ravenhurst, 2001) is consistent with the late B-field anomaly extents. An alternative approach for monitoring DHTEM data for the presence of near-perfect conductors would be to integrate the full ramp and offtime dB/dt data and obtain the inphase response (Smith and Balch, 2000).



Fig. 2. Comparison of axial component Crone PEM (dB/dt - Outer Rim 8/2004) and Atlantis fluxgate (B-field - Geoforce 8/2004) DHTEM data acquired from FFD136W2W2 in the vicinity of the T4 and T5 deposits. Residual S1 late step response has also been provided for comparison.

Data courtesy of:

Western Areas NL and Russell Mortimer (Southern Geoscience Consultants Pty. Ltd.