

"YANTANABIE" EXPLORATION LICENCE 2732 CENTRAL GAWLER CRATON SOUTH AUSTRALIA

Final Technical Report Period Ending 13 December 2002

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INTRODUCTION

EL 2732, "Yantanabie", covered an area of approximately 226 square kilometres on western Eyre Peninsula in South Australia about 100 km east of Ceduna and 75 km east of Streaky Bay. It was granted to Geosurveys Australia Pty Ltd on 13 June 2000 then relinquished on 13 December 2002. The tenement is on the eastern half of the STREAKY BAY 1:250 000 map sheet.

Major minerals sought include polymetallic deposits containing gold, copper, silver, lead, zinc, iron, nickel and geochemically related commodities.

The area was selected following analysis of aeromagnetic and calcrete data compiled by Equinox Resources Ltd from 1996-1997 (Freeman and Parker, 1997 and 1998). Aeromagnetic data had been interpreted by Equinox to indicate the dominance of Hiltaba Suite granitoids and Gawler Range Volcanics and the existence of structures which were active at the time of intrusion and extrusion of these units, in particular, the aeromagnetic trace of the Yarlbrinda Shear Zone extending from Equinox Resources Ltd "Nuckulla Hill" tenement, south to Yantanabie. Numerous high-intensity magnetic anomalies were identified to be associated with these structures, indicating potential for the region to host Ernest Henry - style Cu-Au mineralisation.

Detailed calcrete sampling by Equinox over priority targets near Yantanabie identified a significant zone of anomalous gold extending for approximately 8 km along the Yarlbrinda Shear Zone (Fig. 2).

A RAB/aircore drilling program (52 drillholes for a total of 2,320 m) was undertaken by Equinox along two traverses in December 1996 (Fig. 2). Basement lithologies included coarsely crystalline, feldspathic pegmatite, quartz diorite, hydrothermally altered sericite - quartz - biotite rock, felsic and amphibolite-biotite gneisses (upper-amphibolite metamorphic grade), brecciated granite and coarse-grained, quartz and/or feldspar pegmatite phases/veins. Two narrow zones of schistose mylonite were encountered.

Assay results from the drilling program were low, the best gold values being from PAC 2: (70 ppb Au from 56-60m) in saprolite containing fragments of feldspathic, weakly foliated ?granodiorite. Anomalous silver was recorded in PAC 30 (11.5 ppm Ag @60-61m) and PAC 32 (3.5 ppm Ag @56-59m).

Work undertaken by Geosurveys Australia included compilation and review of previous investigations including detailed appraisal of aeromagnetic and calcrete data. No new data were acquired.

CALCRETE GEOCHEMISTRY

Calcrete and soil sampling constituted the major phases of exploration undertaken by Equinox Resources during 1996-1997 and included auger drilling using a power auger mounted on the back of a Toyota 4WD traytop. Auger samples were collected every 100m along east-west traverses and were assayed by AAS for Au, Ag, Cu, Pb, Zn and Ca. Some samples were also assayed for Ni, and Cr.

Results of the calcrete sampling outlined several well defined, coherent calcrete Au targets albeit of low amplitude (Figs 2 and 3).

AEROMAGNETIC INTERPRETATION

Previous aeromagnetic interpretations (including Rankin, 1997) identified a range of different rock groups from possible Archaean layered paragneisses to massive semi-circular Mesoproterozoic Hiltaba Suite

granites (Fig. 4). Faults intersecting these intrusives appear to have associated zones of intense demagnetisation interpreted to be hematite alteration.

Based on the coincidence of calcrete gold anomalism at Yantanabie (Fig. 3), potential Au mineralisation is interpreted to be associated with demagnetized remnants of the Yarlbrinda Shear Zone and parallel structures altered and intruded by late-stage Hiltaba Suite granitoids.

CONCLUSIONS AND RECOMMENDATIONS

At <u>Yantanabie</u>, there are several well defined, coherent calcrete Au targets albeit of low amplitude. Drilling by Equinox Resources partially tested the northern calcrete anomaly but the southern anomalies have not been adequately tested. It is recommended that all these targets be drilled by reconnaissance aircore drilling to bedrock being sure to extend the lines east and west by at least 200 metres beyond the targets (cf previous drilling which intersected basement anomalism near the edge of the calcrete Au, Cu anomaly).

REFERENCES

- Freeman, P.J. and Parker, A.J., 1997. Annual Technical Report for EL 2146 Poochera, 8 January 1996 7 January 1997. (unpublished).
- Freeman, P.J. and Parker, A.J., 1998. Annual Technical Report for EL 2146 Poochera, 8 January 1997 7 January 1998. (unpublished).
- Rankin, L.R., 1997. Geological Interpretation of Airborne Magnetic Data Streaky Bay Region S.A. for Equinox Resources NL. (unpublished).









GEOSURVEYS AUSTRALIA PTY LTE Yantanabie EL 2732 Aeromagnetic Interpretation

1 0 1 2 3 4 5 Kilometers