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EXPLORATION LICENCE 34/2001--- CYGNET--- FINAL REPORT

ABSTRACT

Following the granting to Maiden Meadows Pastoral Pty Ltd of exploration licence EL 34/2001 (Cygnet) of 47 sq km on 8th November 2002 and a review of previous work, the focus of exploration became the Langdon's Hill Prospect from a total of four areas considered of interest.

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A combination of geological mapping, soil and rock geochemistry and grid-based geophysics were used to explore the prospect, although in the absence of any strong geochemical response on the surface and the poor outcrop, the resulting targets were of necessity mainly geophysical.

Three drill targets were defined in priority as- Trend A, a combined gradient array-chargeability/resistivity high, Trend B (a linear magnetic anomaly) and a Bullseye Magnetic Feature.

Diamond drill hole LHD1 was drilled to 219m on Trend A.

Sulphide mineralisation is sparse throughout the core with 1-3% pyrite as thin, fracture veinlets (up to 2mm thick, also containing quartz and carbonate), blebs and disseminations in the sediments increasing to 3-5% pyrite (+/- pyrrhotite) in some of the dyke rocks.

The best gold intersections occur in two dyke rocks with 0.69ppm Au over 1.9m and 0.134ppm Au over 9.8m. The sediment-hosted mineralisation by contrast has only weakly anomalous gold values with the best being 0.035ppm Au over 30m with some possible supergene concentration.

As the best of these intersections are still 10 to 100 times below what would be considered as potentially economic , Maiden Meadows Pastoral Pty Ltd decided to relinquish the licence.

1.0 INTRODUCTION

Exploration licence EL 34/2001 of 47sq km in the Cygnet area of Southern Tasmania was granted to Maiden Meadows Pastoral Pty Ltd on 8th November 2002 for a five year term to 25th October 2007.

The bedrock of the tenement consists of Permo- Carboniferous sediments intruded by Jurassic dolerite sills and dykes, the whole system being later intruded by a Cretaceous alkaline igneous complex to which the gold mineralisation is genetically related (Plan 1).

The target of exploration was a bulk tonnage, low grade gold deposit or a small, high grade structurally-controlled gold deposit.

2.0 SUMMARY OF EXPLORATION

A complete summary of exploration carried out on the licence is as follows-

A literature review of previous company and Geological Survey reports was carried out for Maiden Meadows (Vanzino , June 2002 Internal Company Report) and four areas of investigation were defined- Mount Mary, the Crooked tree Point magnetic anomaly, Langdon's Hill and the Direen Spur/Petcheys Bay area. It was proposed to concentrate on Langdon's Hill area given the company profile and financial resources of Maiden Meadows.

Work commenced from February 2003 as follows (Vanzino, 2004 and 2005)-

gridding, hand-augered soil sampling, geological mapping and rock sampling.

Over winter 2003, geochemical data bases were constructed and interpreted by Reid GIS Services.

Following a review by Hungerford Geophysical Consultants, ground-based geophysics were conducted by Zonge Engineering and Research Organisation in January 2004 with a gradient array IP/ Resistivity survey followed by a dipole-dipole configuration along one line (5800N, local grid).

Drawing on the results of the geophysics, geochemistry and geology, three drill targets were defined in priority as- Trend A (a NW trending linear feature 400m long – a combined gradient array-chargeability high/resistivity high with little geochemical response indicating possible disseminated sulphides and alteration), Trend B (linear magnetic anomaly) and a Bullseye Magnetic Feature.

In August 2005, Southern Geoscience Consultants were engaged to review the geophysics and they provided a reinterpretation downplaying the prospect as a large, copper gold porphyry system and recommending that Trend B was the best priority target to test for structurally controlled vein/lode gold deposit (Craven, 2005).

Eventually, it was decided to test the Trend A anomaly with a 250m deep diamond drill hole collared at 5800N/4525E (local grid), inclined at 60 degrees with an azimuth of 33 degrees true (parallel to east on the local pegged grid).

3.0 WORK IN THE FINAL YEAR OF THE LICENCE

The focus of exploration carried out in the final year of the licence to 25th October 2007 was the diamond drilling of the Trend A anomaly as recommended.

The hole was drilled using a Hydropower 100 Mark 2 4WD truck mounted diamond drill and was collared at MGA 505897mE; 5217769mN (GDA94 Zone 55).

The drilling was carried out by KMR Drilling of Richmond and supervised by Luke Vanzino (internal memos to Maiden Meadows, 25th April and 6th May, 2007) who stopped the hole at a depth of 219.2m. The hole was cored to 86.4m in HQ and continued to 219.2m in NQ with minimal core loss. There were no downhole locational surveys carried out on the hole during drilling.

The detailed log of the drill core is presented in the Appendix as well as the sample data (including intervals sampled) and the values of the gold and selected other metals. A graphical summary log of the core is shown in Plan 2 along with a histogram of the gold assays.

The sampling approach taken, rather than sample the numerous minor mineralised intervals over centimetres, was to test the core for economic gold intersections of approximately 2m width and above capable of being extracted during mining. If the results were encouraging, a second phase of sampling could take place using the residual parts of the core to further refine the significant intersections. This would keep analytical costs to a minimum while still effectively testing the core. As it turned out, the results were too low to warrant further follow up sampling.

Prospective, mineralised parts of the core were cut with a diamond saw and quarter core was bagged over intervals of 2-4m. The other parts were checked by chip sampling and bagging over 6-8m while several obviously unmineralised or unaltered parts were not cut, chipped or sampled at all. The latter includes the Truro Tillite and one dyke rock.

The samples were sent to Amdel Ltd, South Australia for gold analysis by fire assay (on a 40 gram weight of sample) and AAS finish to a detection limit of 0.01ppm. The selected metals also determined were Cu, Pb, Zn, Ag, As, Mn and Mo.

4.0 RESULTS

The core, which is housed at the Mineral Resources Tasmania Core Store at Mornington, was processed by McPherson Duncan & Associates by logging, cutting or chipping and sampling.

4.1 SEDIMENTS

The logging shows that the 219.2m drill hole traversed Permian sedimentary formations- in order the lower parts of the Bundella Mudstone, the Woody Island Siltstone and the top of the Truro Tillite. The sediments are cut by five dykes or sills of porphyritic to equigranular Cretaceous igneous rocks up to 10m thick, some of them garnet- bearing, which have metamorphosed the sediments of the Woody Island formation to dense metapelites. Core axis to bedding angles are 50 to 65 degrees so the drill hole is successfully cutting across the stratigraphy.

Sulphide mineralisation is sparse throughout the core with less than 1% pyrite as thin, fracture veinlets (up to 2mm thick), blebs and disseminations. The incidence of sulphide veins, also containing quartz, carbonate and ?adularia, marginally increases to 1-3% in the upper reaches of the Woody Island Siltstone and the overlying Bundella Mudstone. Oxidation of the Bundella reaches down to 45m from the surface with alteration of the veins to limonite and clay. The Bundella also has sections containing fossil casts mainly brachiopods which are commonly replaced by pyrite.

The Woody Island Siltstone, as well as having the thin, pyritic fracture veinlets, contains some sulphide veins and partings along the bedding. Occasional, thicker (to 1cm) and meandering pyrite veins may be earlier than the fracture veinlets. Mineralised (pyritic) clasts are sparse throughout this section and some may be after glendonites. Occasional pyrite or pyrrhotite clumps up to 6cm occur across the bedding at 144.5m and 197.3m and at 187.5m there is a 6cm bed of fine grained pyrrhotite possibly after syngenetic pyrite by metamorphism.

The Truro Tillite is a poorly sorted sediment with numerous sections containing angular to rounded, sediment clasts (up to 16cm and matrix supported) and is, by comparison, unmineralised except for a trace of diffuse and irregular, pyrrhotite/chlorite? veins.

4.2 DYKE ROCKS

Five igneous dykes or sills have been encountered in the drill core, all but one in the Woody Island Siltstone. They show a variety of textures and mineralogy but most are probably syenitic in composition. They range from 2 to 10m in apparent thickness. All but one are mineralised with up to 5% pyrite (+/- pyrrhotite) as veins, disseminations and blebs. Most have phenocrysts of feldspar, are altered and some are garnet-bearing. Two have xenoliths and one of those has a complex texture involving brecciation, alteration and possibly multiple intrusion.

5.0 ANALYTICAL RESULTS

Gold values were found in both sedimentary and igneous rocks.

The highest values were in the lower two dykes in the Woody Island Siltstone-

with 0.69 ppm Au over 1.9m in the lowest dyke (centred on 200m) where the mineralisation is accompanied with propylitic, epidote alteration and possible silicification,

also gold values in the range 0.09- 0.3ppm in 4 samples in the immediately upper dyke, averaging 0.134ppm over the 9.8m across the apparent width of this dyke which has a complex composite texture as described above.

Very low level gold was recorded in the top of the hole in the oxidised part to the Bundella Mudstone and its contained xenolith-rich dyke rock. The oxidised dyke rock went 0.02ppm Au over the 2.2m thickness.

The gold values in the oxidised sediments, based mainly on rock chips, were in the range of 0.01- 0.06ppm and averaging 0.035ppm over 30m. Below the oxidation, the mineralisation was effectively barren. Supergene processes may well have caused some concentration in the oxidised profile.

Very weakly anomalous gold values have been detected at the top of the Woody Island Siltstone well below the level of oxidation processes. The chip samples gave values of 0.02ppm over intervals of up to 12m which is barely above the detection limit.

The analytical results of the other metals show that there is no association with the gold values in the mineralisation except for a slight increase in copper and manganese content (but surprisingly not arsenic) in the dyke rocks. Page | 6

6.0 GOLD INTERSECTIONS

The best gold values obtained in LHD 1 are-

1.9m at 0.69ppm in Cretaceous porphyry

9.8m at 0.134ppm also in Cretaceous porphyry

30m at 0.035ppm in Permian Bundella Mudstone, oxidised zone

12m at 0.02ppm in Permian Woody Island Siltstone, below oxidation level

While the mineralisation in the porphyry can be described as gold bearing, that in the sediments is only slightly anomalous being hardly above the detection limit.

The best of these intersections are still 10 to 100 times below what would be considered significant economic intersections.

By way of comparison, the best intersections in previous drilling at the Mt Mary Prospect are-

3m at 4.26ppm in Permian tillite, Cyprus Minerals percussion hole CT-85-5

2m at 3.07ppm in Permian tillite, Cyprus Minerals diamond hole CT-87-20

And from the Pacific Nevada diamond hole CM 1 (Turner, 2000)

4m at 0.12ppm in Permian tillite

5.73m at 0.32ppm in Jurassic dolerite

0.2m at 4.5ppm in porphyry/dolerite contact

0.23m at 11ppm in dolerite

0.14m at 2ppm in dolerite

1.3m at 0.37ppm in porphyry

7.0 CONCLUSIONS

The best of three mainly geophysical anomalies was diamond drilled at Langdon's Hill, being the first area drilled in the Cygnet Dome outside the Mount Mary area. Page | 7

In the core of LHD 1, sulphide mineralisation in the shape of pyrite fracture veinlets (+ or – pyrrhotite, quartz and carbonate) is sparsely developed in the Permian sediments from 1-3% and in the Cretaceous porphyries from 3-5%.

The incidence of sulphide veinlets as seen in the core probably explains the IP chargeability anomaly, but not perhaps the resistivity high, which defined this drill target.

The gold values are highest in the porphyry mineralisation with the best intersections being about 2m at 0.69ppm Au and about 10m at 0.134ppm Au. The sediment-hosted sulphide veinlets produce only weakly anomalous values of less than 0.1ppm Au over a maximum interval of 30m.

The best of these intersections are still 10 to 100 times below what would be considered an economic intersection.

8.0 REHABILITATION

Rehabilitation has been carried out by the company with the drill pad and sumps being backfilled and recontoured to the slope according to the Exploration Code of Practice.

9.0 EXPENDITURE

The total expenditure on the licence since granting stands more than \$129,524.

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LIST OF PLANS

- PLAN 1 -- EL 34/2001 (Cygnet) and Mineral Resources Tasmania Geology, Kingborough Sheet
- PLAN 2 – Graphical log of LHD 1- Langdon's Hill Drill Hole

APPENDICES