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MLN 342, 346, 405, 459, 811, and 1039
MCN 504, 505 and 3161

Mount Bonnie Mining Tenements

1996 ANNUAL REPORT
to 31/12/96

Burrundie 1:50,000 (14/6-IV) Map Sheet

Title Holder:- Territory Goldfields N.L.
Managed by:- Northern Gold N.L.

February 1997
Author:- M. Stokes

NTDME
Northern Gold N.L., Adelaide River
Northern Gold N.L., Perth Office
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Figure 1 - Tenement Location Diagram

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1.0 SUMMARY

The mineral claims and leases at Mount Bonnie were granted between 1975 and 1989. The titles are now all held by Territory Goldfields N.L. and managed by Northern Gold N.L. Various exploration has been conducted by the previous holders including drilling, trenching and mining. This work has been previously reported. During the 1996 year, a consultant was commissioned to review the work to date and the current state of the resources.

2.0 LOCATION AND TENURE

The titles included in this report are located around the Mount Bonnie Mine, 200 kilometres south of Darwin, on the Burrundie 1:50,000 (14/6-IV) scale map sheet (Figure 1). Access is via the Stuart Highway, past Hayes Creek and then via the Mount Bonnie Mine Road.

The details are given below.

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Granted</th>
<th>Expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLN 342</td>
<td>07/06/76</td>
<td>Under Renewal Application</td>
</tr>
<tr>
<td>MLN 346</td>
<td>07/06/76</td>
<td>Under Renewal Application</td>
</tr>
<tr>
<td>MLN 405</td>
<td>01/02/77</td>
<td>31/12/97</td>
</tr>
<tr>
<td>MLN 459</td>
<td>27/02/79</td>
<td>31/12/99</td>
</tr>
<tr>
<td>MLN 811</td>
<td>14/10/75</td>
<td>Under Renewal Application</td>
</tr>
<tr>
<td>MLN 1039</td>
<td>26/08/87</td>
<td>3/12/2011</td>
</tr>
<tr>
<td>MCN 504</td>
<td>19/03/84</td>
<td>Under Renewal Application</td>
</tr>
<tr>
<td>MCN 505</td>
<td>19/03/84</td>
<td>Under Renewal Application</td>
</tr>
<tr>
<td>MCN 3161</td>
<td>06/12/89</td>
<td>15/12/2004</td>
</tr>
</tbody>
</table>

The titles were transferred to Territory Goldfields N.L., and are managed by Northern Gold N.L.
3.0 GEOLOGY

3.1 Regional Geology
The titles are situated within the Pine Creek Geosyncline, a tightly to isoclinal fold sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed to low, and in places, medium grade, metamorphic assemblages. For the purpose of this report, the prefix meta- is implied, but omitted from the rock names and descriptions.

The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and a large number of late syn-orogenic to post-orogenic Proterozoic granitoids. Largely undeformed Middle and Late Proterozoic, Palaeozoic and Mesozoic strata, as well as Cainozoic sediments and laterites, overlie the Pine Creek Geosyncline.

3.2 Local Geology
The predominant rock types in the area consist of the Koolpin Formation, Gerowie Tuff and conformable intrusive sills. These rocks have been tightly folded into a series of north-south trending antiforms and synforms typical of the Pine Creek Inlier. The topography of the area consists of a series of low hills with subcrop present on the flanks and ridges.

The Mount Bonnie lode is a lenticular pod of massive sulphide ore containing Pb, Zn, Ag and Au. Pyrrhotite and sphalerite are the principal ore minerals, with pyrite, galena, chalcopyrite, arsenopyrite and tetrahedrite. Geological features in the area indicate that Mount Bonnie is a metamorphosed synsedimentary sulphide deposit.

4.0 PREVIOUS EXPLORATION
Exploration and mining of the Mount Bonnie area has been conducted sporadically since the 19th century. It was first worked in 1903 when Northern Territory Mining and Smelting Co. sunk a 15 metre shaft. Further work was conducted between 1912 and 1917, but no ore production is recorded. The geological survey drilled three diamond holes between 1916 and 1918, but results are not available. Modern exploration commenced in 1970 when various companies conducted extensive exploration and testing of the zone. In 1983 Henry and Walker developed a small pit which recorded production of 110,000 tonnes of ore grading 7 g/t Au and 230 g/t Ag. Previous exploration is given in Orridge, 1996, which has been included for reference with this report.
5.0 1996 EXPLORATION COMPLETED

In 1996, Geonorth Pty. Ltd. were commissioned to review and evaluate the work to date and the current state of the resources at Mount Bonnie. This work is reported in Orridge 1996, which has been included for reference with this report.

6.0 1996 EXPENDITURE

Expenditure for the 1996 year for the titles is as follows:-

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Geonorth data Review</td>
<td>$3,000</td>
</tr>
<tr>
<td>Tenement boundary inspection</td>
<td>$280</td>
</tr>
<tr>
<td>Report Compilation</td>
<td>$400</td>
</tr>
<tr>
<td>Tenement Management</td>
<td>$600</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$4,280</strong></td>
</tr>
</tbody>
</table>
APPENDIX 1

REVIEW OF MINERAL RESOURCES AT
MOUNT BONNIE AND IRON BLOW MINES
NORTHERN TERRITORY

Prepared for Northern Gold N.L.,
by
G. R. Orridge,
Geonorth pty. Ltd.,
Darwin, NT.

July 1996.
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A. SUMMARY.

1. INTRODUCTION.

2. MOUNT BONNIE MINE.
   2.1 History of Mining and Exploration.
   2.2 Geological Features.
   2.3 Resource Estimation.

3. IRON BLOW MINE.
   3.1 History of Mining and Exploration.
   3.2 Geological Features.
   3.3 Resource Estimation.

4. REFERENCES.

FIGURE 2: Mount Bonnie Mine Longitudonal Projection; 1:1000.

FIGURE 4: Iron Blow Mine Longitudonal Projection of Western Lode; 1:1000.

A. SUMMARY.

The Mount Bonnie and iron Blow precious metal/base metal deposits consist of bedding-conformable low grade disseminated/stringer mineralisation containing more restricted, roughly tabular, lenses of higher grade massive sulphides.

Between 1983 and 1985, 125,000 tonnes of the oxidised sulphide lodes were mined for gold and silver averaging 7 g/t Au and 226 g/t Ag.

Remaining resources in the massive sulphide lodes are estimated to be:

**Mount Bonnie:** Indicated Resource of approximately 650,000 tonnes averaging 1.7 g/t Au, 280 g/t Ag, 9.0% Zn, 2.0% Pb and 0.5% Cu.

**Iron Blow:** Inferred Resource of approximately 1,100,000 tonnes averaging 2.1 g/t Au, 102 g/t Ag, 6.1% Zn, 0.6% Pb and 0.4% Cu.

At both mines there remains a small potential for open pit extraction of higher grade, possibly part oxidised ore, perhaps totalling up to about 100,000 tonnes.

There appears to be little prospect of substantially increasing the massive sulphide resources by further drilling at these sites.
1. INTRODUCTION.

Mount Bonnie and Iron Blow are small complex base metal/precious metal massive sulphide deposits located in the Burrundie area of the Pine Creek Inlier some eighteen kilometres east of the Cosmo Howley mine. Their prominent gossan outcrops were discovered late last century, and some limited open pit and underground mining was undertaken in the early years of this century. During the 1980's the oxidised ores were mined by open pit for their gold and silver content, but the primary sulphide bodies remain untouched. Various figures for resources/reserves are quoted in the literature but neither the sources of the estimates, nor the methods and assumptions utilised in their derivation, are stated.

In order to clarify this situation the present report reviews the history of mining and exploration, lists the primary sources for the data on which resource estimates can be made, and presents revised estimates which can be stated in terms of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (July 1996).
2. MOUNT BONNIE MINE.

2.1 HISTORY OF MINING AND EXPLORATION.

The Mount Bonnie gossan outcrop was discovered late last century but was not worked until about 1903 when the Northern Territory Mining & Smelting Company sunk a 15m shaft, which discovered secondary lead mineralisation but not copper, which was the main objective, and the project was abandoned. Between 1912 and 1917 considerable underground development was undertaken, including an adit level, various underlay shafts, and driving on three levels. Below the adit, workings encountered zinc-rich primary mineralisation which apparently discouraged further development. No ore production is reported for this period.

Between 1916 and 1918 three diamond drill holes were sunk by the Northern Territory Geological Survey but results are not available.

Modern exploration commenced in 1970 when Central Pacific Minerals, Euralba Minerals and Horizon Explorations Limited completed programs of geological mapping, magnetic surveys, electromagnetic surveys, dewatering and sampling of the old workings and diamond drilling. The drilling program comprised six holes for 641 metres, and four holes made significant intercepts. Work was continued in 1978 by Peko and BP Mining who completed a further twelve diamond drill holes for 2246 metres, of which only one intersected significant massive sulphide lode.

Detailed ore reserve drilling of the oxidised section was undertaken in 1982 for Henry and Walker. This led to development of a small open pit, and extraction of 110,000 tonnes of ore grading 7 g/t Au and 230 g/t Ag, between 1983 and 1985, by Mount Bonnie Mines. The base of this pit, at about 105mRL, was at the top of the sulphide zone. Drill holes which intersected sulphides at about RL100m (S36 & S36) were not assayed.

There appears to have been no significant work on the property since this time.
2.2 GEOLOGICAL FEATURES.

The Mount Bonnie lode is a lenticular, roughly tabular, body of massive sulphides with dimensions of approximately 110m in strike, and 300m down dip, with a maximum true thickness of about 18m. It dips at 40 degrees to the northwest in conformity with the enclosing metasediments. Pyrrhotite and sphalerite are the principal sulphides, with subordinate pyrite, galena, chalcopyrite, arsenopyrite and tetrahedrite. Textures are granular to weakly banded. Gangue minerals include (in order of abundance) dolomite, chlorite, calcite, quartz, actinolite, talc and phlogopite.

The footwall of the massive sulphide lode is a formation variously designated as "amphibolite" or "silicate lode", which consists of dolomite, chlorite, actinolite and minor garnet, with variable disseminated and stringer sulphide mineralisation of the same mineralogy as that of the massive sulphide body.

The sulphide lode and silicate lode are interlayered with mainly fine-grained metasedimentary rocks, which were originally carbonaceous and calcareous siltstones, together with lenticular breccia conglomerates which are apparently spacially associated with the mineralisation. This sedimentary package is underlain and overlain by regionally extensive greywacke/siltstone marker beds, and varies in thickness up to 60 metres, with the greatest thickness apparently coextensive with the sulphide body.

These sedimentary units are in the lower part of the Mount Bonnie Formation, and occur on the west-dipping limb of a north-plunging syncline. The Iron Blow deposit occurs at the same stratigraphic horizon on the opposite (east-dipping) fold limb some 3000m to the north.

The above geological features have been interpreted as indicating that Mount Bonnie is a metamorphosed synsedimentary sulphide deposit; this appears reasonable on the current evidence.
2.3 RESOURCE ESTIMATION.

Reserves or resources at Mt Bonnie are variously reported in the published and unpublished literature as follows:-

<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>tonnes</th>
<th>Au g/t</th>
<th>Ag g/t</th>
<th>Zn%</th>
<th>Pb%</th>
<th>Cu%</th>
<th>classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>McNeill</td>
<td>480,000</td>
<td>1.6</td>
<td>187</td>
<td>7.67</td>
<td>1.48</td>
<td>0.4</td>
<td>possible ore</td>
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<tr>
<td>1979</td>
<td>Goulevitch</td>
<td>604,000</td>
<td>1.85</td>
<td>250</td>
<td>9.44</td>
<td>1.89</td>
<td>0.83</td>
<td>resource primary</td>
</tr>
<tr>
<td>1988</td>
<td>Kintaro</td>
<td>480,000</td>
<td>1.9</td>
<td>230</td>
<td>9.5</td>
<td>2.0</td>
<td>0.8</td>
<td>resource</td>
</tr>
<tr>
<td>1990</td>
<td>Eupene &amp;</td>
<td>480,000</td>
<td>1.9</td>
<td>230</td>
<td>9.5</td>
<td>2.0</td>
<td>0.8</td>
<td>potential resource</td>
</tr>
<tr>
<td></td>
<td>Nicholson</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>indicated resource</td>
</tr>
<tr>
<td>1992</td>
<td>Pennant(?)</td>
<td>480,000</td>
<td>1.9</td>
<td>230</td>
<td>9.5</td>
<td>2.0</td>
<td>0.8</td>
<td>resource</td>
</tr>
</tbody>
</table>

Any resource estimate must be based on the results of diamond drilling by Horizon Explorations and Geoepko. Horizon's work is reported comprehensively in McNeill 1973 (closed file Company Report at Dpt. of Mines). Geoepko's results were obtained from a set of drill logs held in the files of J Goulevitch in Darwin, and from various plans and sections provided by Northern Gold, apparently selected from the old Dominion files at Cosmo Howley; this data is not available at the Mines Department.

The resource remaining is mainly primary sulphide, extending down from the base of the open pit. It is assumed that all the fully oxidised ore has been extracted. However it is possible that some part-oxidised, supergene enriched material may remain between the base of the open pit and the first tier of Horizon's drilling, which is some 60m down the dip of the lode.

Only five holes made intercepts of the primary massive sulphide lode discounting S35 and S36 which were not assayed; these were as follows:-
<table>
<thead>
<tr>
<th>hole No</th>
<th>interval m</th>
<th>true width m</th>
<th>Au g/t</th>
<th>Ag g/t</th>
<th>Zn%</th>
<th>Pb%</th>
<th>Cu%</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>73.3 - 91.0</td>
<td>17.7</td>
<td>2.1</td>
<td>260</td>
<td>8.31</td>
<td>2.17</td>
<td>0.6</td>
</tr>
<tr>
<td>S2</td>
<td>90.1 - 103.3</td>
<td>11.9</td>
<td>0.9</td>
<td>180</td>
<td>4.96</td>
<td>1.08</td>
<td>0.19</td>
</tr>
<tr>
<td>S3</td>
<td>66.6 - 80.2</td>
<td>13.6</td>
<td>1.7</td>
<td>52</td>
<td>10.28</td>
<td>0.43</td>
<td>0.53</td>
</tr>
<tr>
<td>S4</td>
<td>77.9 - 83.6</td>
<td>5.7</td>
<td>2.8</td>
<td>439</td>
<td>11.98</td>
<td>3.55</td>
<td>0.56</td>
</tr>
<tr>
<td>S7</td>
<td>133 - 143</td>
<td>10.0</td>
<td>1.22</td>
<td>494</td>
<td>9.57</td>
<td>3.10</td>
<td>0.50</td>
</tr>
</tbody>
</table>

The drilling is shown in plan and section in Figure 1, and significant drill intercepts, projected onto a plane parallel to the dip of the lode, are shown in Figure 2.

The only information on specific gravity of the lode material is provided in McNeill (1973) where six measurements are reported, ranging from 3.62 to 4.15. McNeill states that 3.6 is "believed to represent a realistic average" for holes S1 to S4; this factor is used in the present estimates as a moderately conservative figure.

As can be seen from the longitudinal projection, the drilling appears to have closed off the massive sulphide lode at and below RL00m. It is not closed off at shallower depths, but the lode dimensions in the open pit, and the configuration of the magnetic anomaly, indicate that there are no major extensions in strike north and south of holes S3 and S4. However there is insufficient drilling to closely define the lode limits, and in order to avoid drawing subjective boundary lines, the resource estimation uses a simple geometrical polygon method, allowing 15m extensions from lode intercepts where they are not closed off by negative drill holes (ie. north and south of S3 and S4 and south of S2). The resultant polygons are shown in Figure 2, and the resulting resource estimation is tabulated below:-

<table>
<thead>
<tr>
<th>hole No</th>
<th>area</th>
<th>thickness</th>
<th>volume</th>
<th>Au g/t</th>
<th>Ag g/t</th>
<th>Zn%</th>
<th>Pb%</th>
<th>Cu%</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>2695</td>
<td>17.7</td>
<td>47,702</td>
<td>2.1</td>
<td>260</td>
<td>8.31</td>
<td>2.17</td>
<td>0.6</td>
</tr>
<tr>
<td>S2</td>
<td>2226</td>
<td>11.9</td>
<td>26,489</td>
<td>0.9</td>
<td>180</td>
<td>4.96</td>
<td>1.08</td>
<td>0.19</td>
</tr>
<tr>
<td>S3</td>
<td>2949</td>
<td>13.6</td>
<td>40,106</td>
<td>1.7</td>
<td>52</td>
<td>10.28</td>
<td>0.43</td>
<td>0.53</td>
</tr>
<tr>
<td>S4</td>
<td>3611</td>
<td>5.7</td>
<td>20,583</td>
<td>2.8</td>
<td>439</td>
<td>11.98</td>
<td>3.55</td>
<td>0.56</td>
</tr>
<tr>
<td>S7</td>
<td>4500</td>
<td>10.0</td>
<td>45,000</td>
<td>1.22</td>
<td>494</td>
<td>9.57</td>
<td>3.10</td>
<td>0.50</td>
</tr>
</tbody>
</table>

total volume 179,880 cubic metres.
Estimated tonnage @ SG 3.6 is 647,568 tonnes at an average grade of 1.69 g/t Au, 281 g/t Ag, 9.00% Zn, 2.01% Pb and 0.49% Cu.

The main uncertainties in the estimation relate to the specific gravity and the precise boundaries of the massive sulphide lens. The basic data from Horizon and Geopeko can be expected to be reliable, and continuity of mineralisation between intercepts can be regarded as probable, given the stratiform nature of the deposit and the experience of mining in the oxidised section. Accordingly the estimate can be regarded as reasonably robust (perhaps plus or minus 20%) and classifiable as an indicated resource in terms of the Australasian Code.

In conclusion the Mount Bonnie massive sulphide lode is estimated to contain an Indicated Resource of approximately 650,000 tonnes averaging 1.7 g/t Au, 280 g/t Ag, 9.0% Zn, 2.0% Pb and 0.5% Cu.

Indications from surface mapping, mining in the oxidised section, drilling and magnetic surveys, all suggest that the body is limited in strike extent and that further drilling is unlikely to substantially increase this resource, except possibly in deep drilling below RL50m.

Some interest remains in the untested possibility of enriched, part-oxidised ore immediately below the existing pit. A potential of the order of 50,000 tonnes, extractable by open pit, could be envisaged here.
3. IRON BLOW MINE.

3.1 HISTORY OF EXPLORATION AND MINING.

The gossan outcrop was discovered in 1873, and limited workings for gold, down to 26m, were made between 1886 and 1897. Between 1897 and 1906 the property was worked by Northern Territory Goldfields of Australia, who opened up the deposit to the 60m level, and produced about 15,000 tons of ore which were smelted at Yam Creek.

One Government diamond drill hole was sunk in 1904, and a second in 1912, but results are only available for the later hole.

The mine was dewatered and resampled down to the 30m level in 1912-14, but it was found that little ore remained above this level.

A report by the AGGSNA in 1937, reviews the past history of the mine, and also describes EM and SP surveys conducted at that time.

The property was drilled by the BMR in 1964, with the completion of six diamond drill holes, for 712m drilled, testing down-dip extensions of the two known lodes, and also attempting to establish the source of magnetic and EM anomalies. Four of the six holes intersected massive sulphide lode.

Geopeko followed up in 1978 with the drilling of eight diamond drill holes for 2262m, of which four holes intersected massive sulphides.

Mount Bonnie Mines reopened the mine in 1984, and extracted 15,000 tonnes, with an average grade of 7 g/t Au and 200 g/t Ag, from a small open pit.

The last significant work on the property was done by Aztec in 1988 who completed surface and underground sampling, and five diamond drill holes for 431m, in testing for residual oxide resources above the 60m level.
3.2 GEOLOGICAL FEATURES.

Iron blow is essentially similar to Mount Bonnie in terms of its mineralogy, stratigraphy and relationships to its host rocks. It differs structurally in being located on the opposite side of the Margaret syncline, and in dipping eastwards at about 65 degrees.

There are two main massive sulphide lenses separated by about 50 metres of metasediments, breccia/conglomerate and carbonate/silicate lode. The eastern lode was the one worked in the old open cuts and underground mine; it extends from outcrop to a depth of about 80 metres, with a strike length of 80 metres and a maximum thickness of some 10 metres. The western lode has not been worked; drilling indicates that it extends from surface to a depth of about 240 metres, with a strike length of some 150 metres, and apparent widths exceeding 30 metres in places. This lens pitches towards the south at about 45 degrees.

Zones of stringer and disseminated sulphides, in carbonate/silicate gangue, which enclose the massive sulphide lenses, are much more extensive, having dimensions of more than 300m in dip and strike, and with thicknesses commonly of 25 to 40 metres.
3.3 RESOURCE ESTIMATION.

Previous estimates for reserves and resources at Iron Blow, recorded in the published and unpublished literature, are given in the following table:-

<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>tonnes</th>
<th>Au g/t</th>
<th>Ag g/t</th>
<th>Zn%</th>
<th>Pb%</th>
<th>Cu%</th>
<th>classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1937</td>
<td>Hossfeld</td>
<td>33,000</td>
<td>7.7</td>
<td>367</td>
<td>6</td>
<td>5</td>
<td>0.5</td>
<td>east lode from 30 - 60m levels; inferred.</td>
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<tr>
<td>1964</td>
<td>Rix</td>
<td>47,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>east lode; west lode;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>140,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>west lode inferred resource.</td>
</tr>
<tr>
<td>1978</td>
<td>Goulevitch</td>
<td>1.5 mt</td>
<td>1.1</td>
<td>117</td>
<td>11.7</td>
<td>2.14</td>
<td>0.4</td>
<td>east lode res'rc e west lode res'rc e</td>
</tr>
<tr>
<td>1979</td>
<td>Goulevitch</td>
<td>92,000</td>
<td>4.3</td>
<td>400</td>
<td>8.08</td>
<td>2.97</td>
<td>0.37</td>
<td>total potential resource.</td>
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<tr>
<td></td>
<td></td>
<td>887,500</td>
<td>1.9</td>
<td>87.3</td>
<td>6.69</td>
<td>0.72</td>
<td>0.42</td>
<td>east lode above 60m indicated resource.</td>
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<tr>
<td>1988</td>
<td>Kintaro</td>
<td>979,500</td>
<td>2.1</td>
<td>117</td>
<td>6.8</td>
<td>0.9</td>
<td>0.4</td>
<td>potential resource.</td>
</tr>
<tr>
<td>1988</td>
<td>Nicholson</td>
<td>60,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>Eupene</td>
<td>980,000</td>
<td>2.1</td>
<td>117</td>
<td>6.8</td>
<td>0.9</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&amp; Nicholson</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

Resource estimates for Iron Blow are made on the basis of diamond drilling by Government (1912), by BMR (1964) and by Geopeko (1978). The BMR and Government work are described in BMR Records 1964/60 available open file at the Department of Mines. Geopeko's work is reported in an internal company report "Exploration Progress at Quest 53" by J Goulevitch, March 1978 which is not available at the Department of Mines, but which was made available by Mr Goulevitch. Sundry memo's, notes and sketch maps relating to Aztec's 1988 work were also accessed from Mr Goulevitch's files.
Holes making massive sulphide intercepts in the western lode are listed below:

<table>
<thead>
<tr>
<th>hole No</th>
<th>from - to</th>
<th>true width</th>
<th>Au</th>
<th>Ag</th>
<th>Zn</th>
<th>Pb</th>
<th>Cu</th>
<th>note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m - m</td>
<td>m</td>
<td>g/t</td>
<td>g/t</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>DDH1912</td>
<td>115 - 139</td>
<td>18</td>
<td>2.7</td>
<td>20</td>
<td>5.0</td>
<td>NA</td>
<td>0.46</td>
<td></td>
</tr>
<tr>
<td>DDH2</td>
<td>136 - 145</td>
<td>9.5</td>
<td>1.7</td>
<td>28</td>
<td>4.05</td>
<td>0.35</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>DDH5</td>
<td>40 - 55</td>
<td>7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>low values - leached &amp; cavernous</td>
<td></td>
</tr>
<tr>
<td>S9</td>
<td>176 - 184</td>
<td>4.5</td>
<td>2.2</td>
<td>160</td>
<td>6.03</td>
<td>0.43</td>
<td>0.27</td>
<td>two zones</td>
</tr>
<tr>
<td></td>
<td>195 - 201</td>
<td>3.0</td>
<td>1.4</td>
<td>37.5</td>
<td>6.99</td>
<td>0.16</td>
<td>0.31</td>
<td></td>
</tr>
<tr>
<td>S11</td>
<td>214 - 215.1</td>
<td>1.0</td>
<td>0.1</td>
<td>75</td>
<td>13.1</td>
<td>0.42</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>S12</td>
<td>230 - 248.1</td>
<td>17</td>
<td>3.45</td>
<td>306.1</td>
<td>6.95</td>
<td>2.19</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>S12WR3</td>
<td>219 - 250</td>
<td>30</td>
<td>1.85</td>
<td>98.4</td>
<td>7.3</td>
<td>0.55</td>
<td>0.41</td>
<td>wedged.</td>
</tr>
<tr>
<td>S16</td>
<td>120 - 135</td>
<td>11.5</td>
<td>1.52</td>
<td>27</td>
<td>7.12</td>
<td>0.25</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>S17</td>
<td>144.7 - 148.7</td>
<td>2.0</td>
<td>1.86</td>
<td>36.3</td>
<td>6.21</td>
<td>0.17</td>
<td>0.30</td>
<td>two zones</td>
</tr>
<tr>
<td></td>
<td>156.7 - 159.7</td>
<td>1.5</td>
<td>1.03</td>
<td>43.3</td>
<td>4.17</td>
<td>0.24</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>S20</td>
<td>93.6 - 103.9</td>
<td>9.0</td>
<td>0.74</td>
<td>52</td>
<td>3.62</td>
<td>0.28</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

Holes making massive sulphide (or gossan) intercepts in the eastern lode were as follows:

<table>
<thead>
<tr>
<th>hole No</th>
<th>from - to</th>
<th>true width</th>
<th>Au</th>
<th>Ag</th>
<th>Zn</th>
<th>Pb</th>
<th>Cu</th>
<th>notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m - m</td>
<td>m</td>
<td>g/t</td>
<td>g/t</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>DDH1</td>
<td>104 - 110</td>
<td>4.8</td>
<td>1.1</td>
<td>50</td>
<td>8.76</td>
<td>0.9</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td>DDH2</td>
<td>96.1 - 97.2</td>
<td>1.0</td>
<td>5.4</td>
<td>826</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>S12</td>
<td>190.8 - 191.3</td>
<td>0.5</td>
<td>7.05</td>
<td>1250</td>
<td>27.5</td>
<td>1.78</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>S12WR3</td>
<td>187.9 - 190.3</td>
<td>2.0</td>
<td>6.4</td>
<td>926</td>
<td>11.3</td>
<td>4.8</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>S16</td>
<td>100 - 104</td>
<td>2.0</td>
<td>0.56</td>
<td>5</td>
<td>3.14</td>
<td>0.10</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>S17</td>
<td>122 - 124.1</td>
<td>1.5</td>
<td>2.7</td>
<td>187.6</td>
<td>15.2</td>
<td>2.35</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>S20</td>
<td>50.65 - 64.95</td>
<td>11.0</td>
<td>3.7</td>
<td>353</td>
<td>14.1</td>
<td>2.6</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>S23</td>
<td>56.0 - 64.8</td>
<td>7.0</td>
<td>4.4</td>
<td>195</td>
<td>19.4</td>
<td>1.4</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>S24</td>
<td>49.7 - 54.3</td>
<td>4.0</td>
<td>2.3</td>
<td>448</td>
<td>11.1</td>
<td>3.0</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

The locations of these drill holes and intercepts are shown in plan and longitudinal.
projection in Figures 3, 4 and 5.

No information has been found regarding specific gravity determinations for Iron Blow sulphide materials. In the present estimates a factor of 3.6 is used as for Mount Bonnie.

Eight drill intercepts of conceivable ore widths and grades are used for the present estimate of resources in the western lode; these are DDH1912, DDH2, S9, S12, S12WR3, S16, S17 and S20. Down-plunge, below 00m RL, the massive sulphide lens is apparently closed off by negative results in holes DDH6, S10, S11, S13, S14, S15, S18 and S19. However between RL00m and surface (RL112m) there is little information. Overall the limits of the massive sulphide cannot be defined closely, and thickness and grade vary very rapidly (compare holes S11 and S12), while continuity of mineralisation between intercepts is uncertain. Given these factors, and the relative wide spacing of drill sections (~75m), cross sections and level plans are open to a wide variety of interpretations. Accordingly the estimate is made using the polygon method, allowing 25m extensions along dip and strike from lode intercepts where information is lacking; this assumes that the body is essentially tabular, a reasonable assumption over much of its extent. The configuration of the polygons for each significant intercept are illustrated in Figure 4, and the resulting resource estimation given in the following table:-

<table>
<thead>
<tr>
<th>hole No</th>
<th>area</th>
<th>width</th>
<th>volume</th>
<th>Au g/t</th>
<th>Ag g/t</th>
<th>Zn%</th>
<th>Pb%</th>
<th>Cu%</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDH1912</td>
<td>2262</td>
<td>21</td>
<td>47,502</td>
<td>2.7</td>
<td>20</td>
<td>5.0</td>
<td>NA</td>
<td>0.46</td>
</tr>
<tr>
<td>DDH2</td>
<td>3370</td>
<td>11.6</td>
<td>39,092</td>
<td>1.7</td>
<td>28</td>
<td>4.05</td>
<td>0.35</td>
<td>0.82</td>
</tr>
<tr>
<td>S9</td>
<td>3913</td>
<td>7.5</td>
<td>29,348</td>
<td>1.88</td>
<td>111</td>
<td>6.41</td>
<td>0.32</td>
<td>0.29</td>
</tr>
<tr>
<td>S12</td>
<td>2069</td>
<td>25</td>
<td>51,725</td>
<td>3.45</td>
<td>306</td>
<td>6.95</td>
<td>2.19</td>
<td>0.45</td>
</tr>
<tr>
<td>S12WR3</td>
<td>2134</td>
<td>35</td>
<td>74,690</td>
<td>1.85</td>
<td>98</td>
<td>7.3</td>
<td>0.55</td>
<td>0.41</td>
</tr>
<tr>
<td>S16</td>
<td>2652</td>
<td>12</td>
<td>31,824</td>
<td>1.52</td>
<td>27</td>
<td>7.12</td>
<td>0.25</td>
<td>0.44</td>
</tr>
<tr>
<td>S17</td>
<td>3186</td>
<td>3.5</td>
<td>11,151</td>
<td>1.5</td>
<td>39</td>
<td>5.3</td>
<td>0.20</td>
<td>0.29</td>
</tr>
<tr>
<td>S20</td>
<td>1170</td>
<td>10</td>
<td>11,700</td>
<td>0.74</td>
<td>52</td>
<td>3.62</td>
<td>0.28</td>
<td>NA</td>
</tr>
</tbody>
</table>

total volume 297,032 cubic metres.
Estimated tonnage @ SG 3.6 is 1,069,315 tonnes at an average grade of 2.16 g/t Au, 102.2 g/t Ag, 6.12% Zn, 0.64% Pb and 0.45% Cu.

Serious uncertainties in this estimation relate to rapid apparent grade and thickness variations, which may be real or related to folding of the lode (eg. area of S12 intersections), doubtful continuity of the mineralisation (due wide spacing of drill sections), and a lack of specific gravity measurements. For these reasons the resource is classified as an Inferred Resource in terms of the Australasian Code.

It is concluded that the western massive sulphide lode at Iron Blow contains an Inferred Resource of approximately 1.1 million tonnes at an average grade of 2.0 g/t Au, 102 g/t Ag, 6.2% Zn, 0.6% Pb and 0.4% Cu.

Figure 5 presents a longitudinal projection showing the various drill intercepts of the eastern lode, or the expected position of the lode. It is evident that, except in the immediate vicinity of the old underground workings, this lode is thin and discontinuous, and though locally of relatively high grade (eg. in S12), does not have significant commercial potential. There may be potential to recover a limited tonnage of high grade (supergene enriched?) ore above the 60m level of the old mine, but there is insufficient information to quantify this. Following previous estimates by Hossfeld, Rix and Nicholson it is reasonable to suggest a potential for between 30,000 and 60,000 tonnes. Stripping ratios would be the final arbiter of how much could be extracted economically.

There may also be some potential for low grade (heap leach?) gold/silver resources in the oxidised section of the disseminated/stringer mineralisation which envelopes the massive sulphide lodes. This does not appear to have been explored in the past.
4. REFERENCES.

Anonymous, 1992; Mount Bonnie Gold and Base Metal Project, Information Memorandum.

Eupene Exploration Enterprises, ca. 1988; sundry memos, notes and sketch maps.


Geopeko Limited, ca. 1980; sundry internal memos.

Geopeko Limited, 1978; logs of diamond drill holes at Quest 54 (Mount Bonnie).


Hossfeld P S, 1937; geological and geophysical reports Iron Blow area, Pine Creek district. AGGSNA reports Northern Territory Nos. 13 and 14.

Kintaro Resources Limited, 1988; Proposed sale of interests in the Tanami and Mount Bonnie NT gold mining and exploration assets. N H Cole and Associates Pty Ltd.


MT. BONNIE DRILL INTERCEPTS
PROJECTED ON TO PLANE
PARALLEL TO LODE DIPPING AT
42° TO 305° TRUE BEARING.
1:10000 scale
GRO JULY 1996.

FIGURE 2.
- diamond drill intercept with true width, average grades Au, Ag, Zn, Pb, Cu.

NMS = no massive sulphide.

IRON BLOW LONGITUDINAL PROJECTION

SHOWING DRILL INTERCEPTS WEST LODE 1:1000 30 JULY 96

FIGURE 4
NB. in area of old workings
RL's are only approximate.

S16
• 20 m @ 0.56, 5, 3.14, 0.10, 0.08.

S17
• Sil
  No east lode
• 1.5 m @ 2.7, 1876, 152, 2.35, 0.32.

S18
• Sil
  No east lode
• 2.0 m @ 6.4, 926, 113, 4.8, 0.57
• Sils
  0.5 m @ 7.05, 12.50, 27.5, 17.8, 0.4.

S19
• Sil
  No east lode
• 5.0 m @ 2.3, 449, 111, 3.0, -
  6.0 m @ 4.195, 19.4, 4.4, -.

S20
• DDH 20
  1.0 m @ 3.7, 353, 14.1, 2.6, -
  1.0 m @ 5.4, 826, - - -
  4.8 m @ 11, 50, 8.76, 0.4, 0.35
• No east lode.

S14
• Silc
  carbonate lode
• 0.5 m @ 7.05, 12.50, 27.5, 17.8, 0.4.

S13
• Sil
  No east lode

• Sils
  No east lode

• Silc
  Carbonate lode

IRON BLOW LONGITUDINAL PROJECTION
SHOWING DRILL INTERCEPTS EAST LODE
1:1000
GRO July '96

FIGURE 5