ANNUAL REPORT

FOR

EXPLORATION LICENCES 4218, 4219 AND 4220

by

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FOR

GRANTS PATCH MINING LIMITED

ON BEHALF OF

BRONTE NORMAN DOUGLASS

(HOLDER OF THE EXPLORATION LICENCE)
CONTENTS

SUMMARY
INTRODUCTION
HISTORY OF EXPLORATION LICENCES
GEOLOGICAL FRAMEWORK AND GOLD PROSPECTIVITY
EXPLORATION TARGETS
EXPLORATION METHODS
EXPLORATION RESULTS
PROPOSED PROGRAMME FOR YEAR 4
CONCLUSIONS

MAPS

1. LOCATION MAP
2. RECONNAISSANCE SAMPLING AND ASSAYING FOR GOLD EXPLORATION LICENCE 4218
3. RECONNAISSANCE SAMPLING, TRENCHING AND ASSAYING FOR GOLD, EXPLORATION LICENCE 4219
4. RECONNAISSANCE SAMPLING AND ASSAYING FOR GOLD EXPLORATION LICENCE 4220
5. RECONNAISSANCE SAMPLING AND ASSAYING FOR GOLD EXPLORATION LICENCE 4220
6. S.P. PROFILE - LOCATION SHOWN ON MAP 3

APPENDIX

ASSAY CERTIFICATES
SUMMARY

These Exploration Licences have been in existence since granting in May 1983. The work reported on in this report represents the first serious field work attempted.

Surface sampling, trenching and S.P. surveys were carried out and the results obtained are conducive to further work being undertaken.
INTRODUCTION

Grants Patch Mining Limited has come to an agreement with Bronte Norman Douglass concerning these Exploration Licences and Geonorth was commissioned in September to carry out field exploration. This was accomplished as far as possible and the results of the work are presented here.
HISTORY OF EXPLORATION LICENCES

Exploration Licences 4218, 4219 and 4220 were granted to Bronte Norman Douglass on 20/5/83.

Limited field work was carried out together with Landsat and photographic studies up to 1985.

Grants Patch Mining Limited entered into an agreement with Bronte Norman Douglass in 1986 and J. Shields of Geonorth was commissioned in late September to carry out specified exploration on the three Exploration Licences prior to the third halving of the areas in May 1987.

Some 603 samples were collected, mostly over widths of 30 and 40 metres and fire assayed for gold. About half of these were assayed for arsenic using the Atomic Absorption method.

In addition three 150 metre long trenches were completed in Exploration Licence 4219 with some 60 samples being taken and assayed.
GEOLOGICAL FRAMEWORK AND GOLD PROSPECTIVITY

The geological framework is similar in each of the areas. This has been established from research and from study of colour aerial photographs purchased.

Each area lies close to the axis of the Pine Creek Geosyncline. This axis lies in a north north-east - south south-west direction, with the geosyncline tending to be symmetrical about it.

The rocks which outcrop in the three areas consist mainly of slates and greywackes of the Burrell Creek Formation, with some Mount Bonnie Formation rocks in Exploration Licence 4219.

Structures which dominate in each area except perhaps Exploration Licence 4218, are anticlines and synclines, generally in an east south-easterly direction in Exploration Licence 4219 and a north north-westerly direction in Exploration Licence 4220.

It is considered that the type of gold orebody which could be expected in the areas would consist of a quartz vein stockwork type, developed in coarse grained rocks such as greywacke in or near anticline axes. These could be associated with saddle reefs.

Gold workings at the North Ringwood locality are most likely of this type, although this must remain conjecture until definite evidence is gathered. This is hard to come by at the surface as the rocks are low lying and deeply weathered resulting in reliable dips and strikes being difficult to find and measure.
EXPLORATION TARGETS

Assuming that any gold orebodies present in the Exploration Licences would be of the gold quartz vein stockwork variety, developed in the crests or near the axes of anticlines, an appropriate exploration programme was drawn up and carried out.

Initially this programme consisted of ascertaining the position of anticlinal axes within the areas. This was done using the published Bureau of Mineral Resources 1:100,000 geological maps and also the 1:25,000 colour photography flown by the Commonwealth in 1974.

Next, areas where it was thought that greywacke crossed the anticline, rather than slate, were outlined. Lines across the anticline and at right angles to the axis were then chosen where greywacke was thought to be.
EXPLORATION METHODS

Field work consisted of taking samples along these chosen lines at reconnaissance type intervals (30 to 40 metre widths). At the same time, all relevant geological information was collected.

Where hard rock or soft weathered rock was encountered along a line, chips were taken. Where eluvial material was present, this material was taken. Alluvial material was not taken and the interval along the line underlain by alluvial was noted.

An accurate hand held compass and a Topofil were used to give direction and distance. Marking tape was used to record the location of each sample and the marking tape labelled with the sample number. The aerial photographs were also used to position the starting point of each line.

Long grass and fairly heavy rainstorms slowed the progress of the sampling, and, at one stage none of the areas were sufficiently dry to carry out work for some three weeks.

Samples were delivered to the Australian Assay Laboratories in Pine Creek for assay.

Results of the geology recorded and the assay results were then collated.

In Exploration Licence 4219, quite encouraging results were obtained along an anticline which runs through Faded Lily,
Zapopan Mine and then east south-easterly and it was decided to carry out trenching to investigate these and to determine the nature of the underlying rocks and the structure. This work was carried out in conjunction with Zapopan N.L.

Unfortunately, wet weather again prevented the completion of the planned programme, with only three costeans being completed on Exploration Licence 4219. These did not test any of the encouraging results which were obtained from the surface sampling.

A trial S.P. survey was carried out after heavy rain to test the efficiency of the method. Results to date are encouraging but further work will be necessary to substantiate the earlier results.
EXPLORATION RESULTS

Exploration results obtained are presented on maps 2-5. Map 4 shows the most interesting results which were obtained on the eastern block of the two block Exploration Licence 4220.

Four lines were sampled across the main outcrop in this area which contains the Mount Rigwood gold mine area towards the E.L.'s southern boundary. This is an old goldmining area, being discovered in 1889. Only small hard rock and alluvial workings are present.

Some interesting results were obtained in this part of Exploration Licence 4220 with the sample from one 40 metre interval assaying 2.33 grams/tonne gold and "back up" samples either side, once again of 40 metres assaying 0.33 and 0.15 grams/tonne of gold. Another sample line some 207 metres to the south-east also recorded some anomalous gold results, while another line nearer the old gold diggings also came up with two 40 metre intervals which assayed 0.53 and 0.34 grams/tonne.

The larger part of Exploration Licence 4220 was also sampled, (Map 5) with lines across the interpreted position of an anticlinal axes which runs through the ore. The pitch of this structure is changing from north to south continually as is shown on Map 5. this map also gives the results of gold analysis of samples taken over 40 metre intervals. Only results of 0.05 grams/tonne gold or over are shown on this map.
In Exploration Licence 4218, samples were taken over 50 metre intervals in an east-west direction. The results are presented on Map 2. Highest assay recorded was 0.41 grams/tonne of gold.

Exploration Licence 4219 was assessed and it was decided to sample a possible anticlinal axis which could run from Faded Lily, through Zapopan Mine into Exploration Licence 4219. This axis is shown on the Batchelor - Hayes Creek Special 1:100,000 Geological map and originates from some of the R.C. 9 photographs which cover the area. The sampling programme results are shown on Map 3.

In conjunction with Zapopan N.L., a trenching programme was carried out along the supposed line of the axis of the anticline. The results of the sampling of those trenches in Exploration Licence 4219 are also shown on Map 3.

A trial S.P. survey was carried out over the supposed anticlinal axis, on the supposition that sulphides would be associated with the anticline. From the south of the line measured to the north a 200 millivolt drop was read, suggesting at this stage that the anticline might be further north. However, this line will be extended further north and at least two other traverses read in order to get a better idea of the effectiveness of the method as a prospecting tool in the area.

The S.P profile obtained is shown on Map 6 and the location of the traverse is shown on Map 3.
PROPOSED PROGRAMME FOR YEAR 4

The proposed programme for year 4 will consist of more detailed surface sampling in areas where anomalous results have been obtained, together with trenching programmes.

In the North Ringwood part of Exploration Licence 4220, trenching will be initiated as soon as the country dries out enough to permit access.

A helicopter may be used to enable a S.P. survey to be carried out in this area if various factors permit.
CONCLUSIONS

The results of prospecting in Exploration Licence 4218, 4219 and 4220 are encouraging as far as gold is concerned.

the North Ringwood area is especially encouraging on the results obtained to date and more work would have been carried out in the area except for access which became impossible by land during January and this situation will probably continue till May.

An S.P. traverse carried out in January in Exploration Licence 4219 gave sufficiently encouraging results to warrant further testing of the method.

All areas will be subjected to further surface sampling and trenching with appropriate assaying.

Drilling would be used to test any prospect with sufficient prospectivity.
RECONNAISSANCE SAMPLING AND ASSAYING
FOR GOLD

EXPLORATION LICENCE 4218

LEGEND

* 0.41 Assay of gold in grams/tonne of sample taken over ± 50 metres on East West line.

Costean

Alluvium

Slates & greywacke

SCALE 1:25 000

GRANTS PATCH MINING LTD.
RESULTS OF RECONNAISSANCE GOLD SAMPLING & ASSAYING

MT RINGWOOD NORTH AREA

EXPLORATION LICENCE 4220

All gold assay results in grams/tonne.

SCALE
EXPLORATION LICENCE 4220

GOLD ASSAYS OF SAMPLES COLLECTED OVER 40 METRES WIDTH ACROSS ANTICLINE AXIS
ASSAY RESULTS IN GRAMS/TONNE
ONLY RESULTS OF 0.5 GRAMS/TONNE SHOWN

Anticline axis with pitch direction
- Slate
- Greywacke

Scale 1:100 000

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SELF POTENTIAL TRAVERSE

EXPLORATION LICENCE 4219

Location shown on Map 3

MAP 6