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ANNUAL AND FINAL REPORT ON

EXPLORATION LICENCE NO. 983

Compiled by:

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TENNANT CREEK, N.T.

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ANNUAL AND FINAL REPORT ON EXPLORATION LICENCE

NO. 983

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Locality Plan showing the position of Exploration Licence No. 983.
Scale 1:1,000,000.

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Plan showing approximate positions of Explorer Prospects within Exploration Licence No. 983.
Scale 1:500,000.
1. **INTRODUCTION.**

Exploration Licence No. 983 held by Peko Mines Limited, was initially granted on 8th February 1974 and subsequently renewed on the 8th February 1975 at which time the area held under licence was reduced from 1,287 sq. kms. to 243 sq. kms. It was renewed for a further twelve month period on 8th February 1976 and the area held under licence was again reduced, from 243 sq. kms. to 119 sq. kms.

This report covers the exploration activities conducted by Geopako Limited on behalf of Peko Mines Limited for the twelve month period from 8th February 1976 to 7th February 1977. It is the third Statutory Report to be presented and is to be regarded as both an Annual and Final Report, since further renewal is not sought.

The north eastern corner of Area A (20°08'00", 133°05'00") is situated approximately 126 kms on a true bearing of 245° from Tennant Creek. The north eastern corner of Area B (19°40'00", 133°15'00") is situated approximately 98 kms. on a true bearing of 269° from Tennant Creek, (Figs. 1 & 2).

Access to the Exploration Licence is via a bitumen road from Tennant Creek to Warrego Mine, thence 11.5 kms. along the Wiso Bore Road to a graded dirt track that runs south for approximately 63 kms. to Geopako Limited's Rover Camp. From the camp, a graded dirt track continues south for approximately 2 kms., thence west for 8 kms., thence south for 4 kms., thence 22 kms, west to a north-south trending track. Approximately 3 kms south of the above 'T' intersection, an ill-defined flagged track runs in a westerly direction for 30 kms., to intersect the north eastern corner of Area A.
2. TENURE.

There is no Mining Tenement held or under application within Exploration Licence No. 983.
3. REGIONAL GEOLOGY.

The two separate Exploration Licence areas are generally devoid of outcrop. Area A is covered by superficial sand and bulldust with numerous longitudinal sand dunes. Area B contains minor dolomites, dolomitic siltstones, siltstones and sandstones of the Middle Cambrian Merrina Beds. The sediments are well bedded, have shallow dips (<5°) and form gently undulating hills of moderately low relief.

Regional aeromagnetics suggest that both areas are underlain by Lower Proterozoic Warramunga Group sediments. Depth determinations indicate the unconformity between the Cambrian Merrina Beds and Warramunga Group sediments to be in excess of 300 metres.

A postulated granite mass is situated to the south of Area A and forms part of a larger body which has been interpreted to exist within the adjacent Exploration Licences No. 982 and No. 981.
4. REGIONAL GEOPHYSICS.

A high level aeromagnetic survey and a B.M.R. regional gravity survey were conducted over the area prior to the granting of Exploration Licence No. 983.

A Low Level Aeromagnetic survey was carried out by Geometrics International Incorporated, on behalf of Geopeko Limited in February - March 1974. The results of the survey was a contoured residual magnetic intensity plan at a scale of 1:50,000, which was presented in the Annual Report on E.L. 983 for the year ending February 7th 1975.

An analysis of the low level results in conjunction with the previous geophysical surveys indicated that the magnetic character was derived from features varying in depth from 300 metres to an excess of 2,000 metres.

One anomaly, the Explorer 146 Prospect within Area A, was selected for further investigations.
5. PROSPECT EVALUATION.

5.1 EXPLORER 146

5.1.1 Location & Access:

The Explorer 146 Prospect is situated approximately 39 kms. on a true bearing of 242° from Point Wakefield Trig, at the intersection of latitude 20°07'50" with longitude 133°01'12".

Access is via a graded dirt track that runs 2 kms. south from Geopeko Limited's Rover Camp, then west for 8 kms. thence south for 4 kms., thence 22 kms. west to a north-south trending track. Approximately 3 kms. south of the above 'T' intersection, an ill-defined flagged track runs in a westerly direction for 36 kms., thence south for 5 kms. to the prospect area.

5.1.2 Summary of Previous Activities:

The aeromagnetic anomaly was located on the ground and five (5) reconnaissance vehicle magnetometer-navigator traverses were conducted over it. Results were presented in the Annual Report on E.L. 983 for the year ending February 7th 1975.

5.1.3 Summary of Activities for year ending February 7th 1975: Geophysics:

Detailed geophysical evaluation and analysis of the five (5) vehicle magnetometer-navigator traverses suggested the possibility of either magnetic sediments and/or basic rocks. The results were not encouraging and the presence of an ironstone body was not indicated.
6. EXPENDITURE.

The total expenditure on Exploration Licence No. 983 for the twelve month period from February 8th 1976 to February 7th 1977 was $2,495.00. The following is a breakdown of the expenditure on E.L. 983:

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology</td>
<td>$942.00</td>
</tr>
<tr>
<td>Survey &amp; Drafting</td>
<td>330.00</td>
</tr>
<tr>
<td>General Field Expenses</td>
<td>584.00</td>
</tr>
<tr>
<td>Administration Costs</td>
<td>639.00</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>$2,495.00</strong></td>
</tr>
</tbody>
</table>

The various subdivisions are costed directly, the exception being General Field Expenses and Administration Costs.

(1) Administration Costs are proportioned period by period on the basis of man hours worked on the project to the total man hours worked for the period.

(11) General Field Expenses are spread on the same basis as Administration Costs and consist of the following field overheads:

- Field Messing
- Field Supplies
- Vehicle Operation
- Workshop Supplies
- Depreciation - Field Plant.

The total expenditure on E.L. 983 since the initial granting of the Licence on February 8th 1974 is as follows:
<table>
<thead>
<tr>
<th>YEAR</th>
<th>EXPENDITURE COMMITMENT</th>
<th>ACTUAL EXPENDITURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.2.74 - 7.2.75</td>
<td>15,000.00</td>
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<tr>
<td>2</td>
<td>8.2.75 - 7.2.76</td>
<td>5,000.00</td>
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<tr>
<td>3</td>
<td>8.2.76 - 7.2.77</td>
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<tr>
<td>TOTAL:</td>
<td>$ 23,500.00</td>
<td></td>
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</table>
Fig. 1 LOCALITY PLAN SHOWING E.L. 983

Fig. 2 PLAN SHOWING APPROXIMATE POSITIONS OF EXPLORER PROSPECTS WITHIN EXPLORATION LICENCE NO. 983