



Northern Gold NL

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EL 9486

FINAL REPORT

to 31 October 1996

Burnside (14/2-II) 1:50,000 scale map sheet

Title Holders:- Northern Gold N.L. and Camelot Northern Territory Ltd.

Managed by:- Northern Gold N.L.

OPEN FILE

April 1997

Author:- N. Socic

TDME

Northern Gold N.L., Adelaide River

Northern Gold N.L., Perth Office

CR 97 / 283

SUMMARY

EL 9486 is located approximately 150 kilometres south south-east of Darwin, and 45 kilometres south - east of Adelaide River on the Batchelor (51/71) 1:100,000 scale map sheet and the Burnside (14/2-II) 1:50,000 scale map sheet.

The area contains units of the Wildman Siltstone, Zamu Dolerite sills and Koolpin Formation sediments. The Burnside Granite intrudes the sediments.

Previous exploration in the region was completed by Comalco Limited and Geopeko North Australia over EL 918, EL 4178 and EL 1195.

The tenement, consisting of two graticular blocks, 6 square kilometres in area, was granted to Northern Gold N.L. (50%) and Camelot Northern Territory Ltd. (50%) for a period of six years on the 5th of June 1996.

The licence has been included with other Northern Gold N.L. controlled tenements in the Yam Creek area under SEL 9591.

Substitute Exploration Licence 9591 was granted on the 31st of October 1996, for a period of four years.

No work has been completed over EL 9486 between June 1996 and October 1996.

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1.0 INTRODUCTION

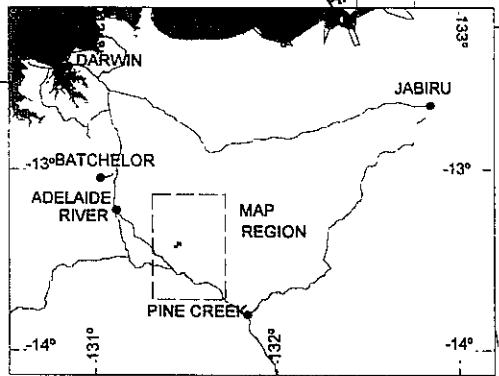
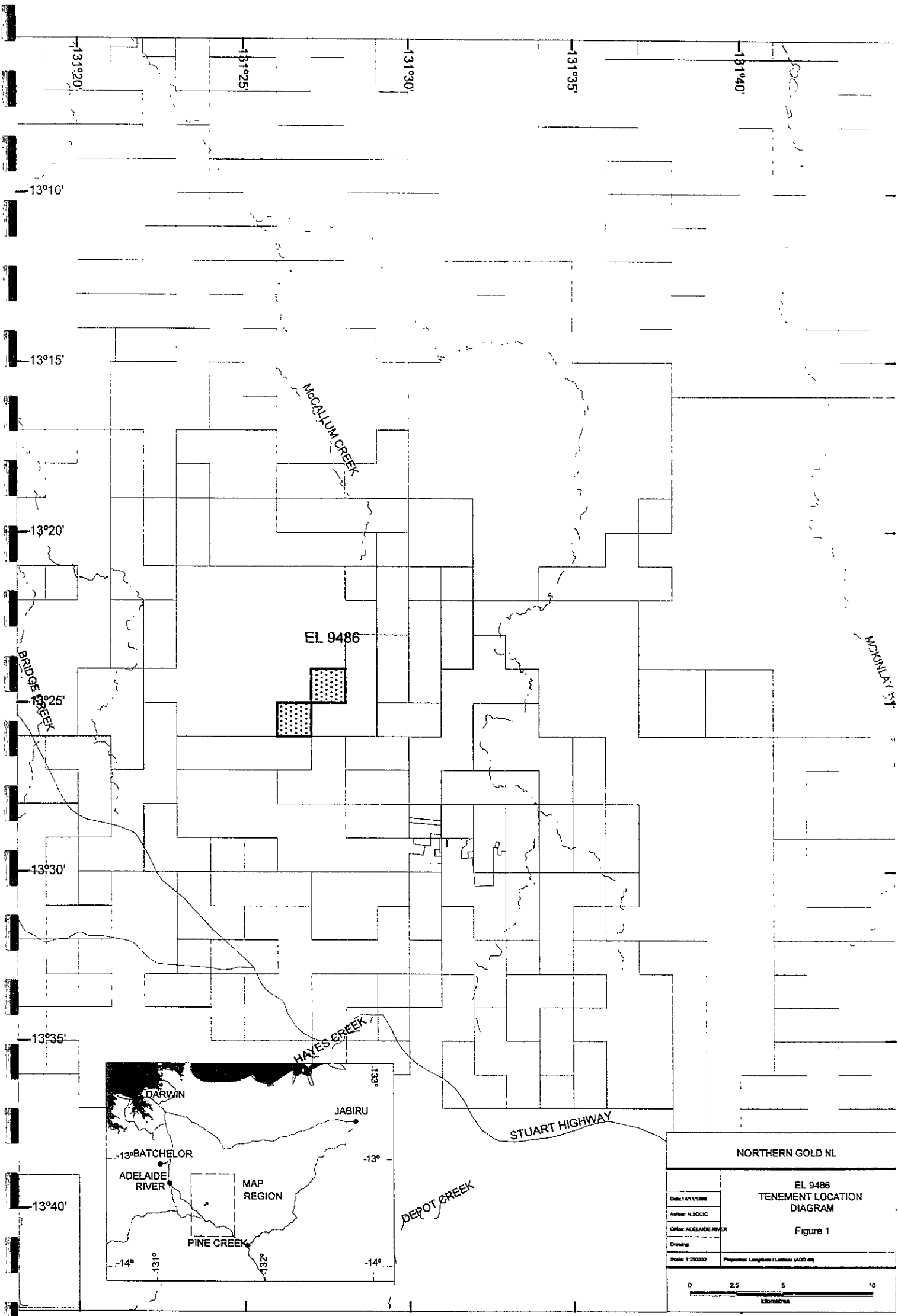
EL 9486 is located approximately 150 kilometres south south-east of Darwin, and 45 kilometres south - east of Adelaide River on the Batchelor (51/71) 1:100,000 scale map sheet and the Burnside (14/2-II) 1:50,000 scale map sheet. The tenement, which consists of two graticular blocks, 6 square kilometres in area, lies between latitudes 13°24' south and 13°26' south and longitudes 131°26' east and 131°28' east (Figure 1). The licence is situated within Perpetual Pastoral Lease No. 1111, Ban Ban Springs, held by Ban Ban Springs Station Pty. Ltd.

Access is via the Stuart Highway, and then along station tracks.

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The licence has been included with other Northern Gold N.L. controlled tenements in the Yam Creek area under SEL 9591.

Substitute Exploration Licence 9591 was granted on the 31st of October 1996, for a period of four years.



NORTHERN GOLD NL	
EL 9486 TENEMENT LOCATION DIAGRAM	
Figure 1	
Date: 14/11/2008	Projection: Longitude / Latitude (AGD 88)
Author: H.30030	
Office: ADELAIDE RIVER	
Drawing:	
Scale: 1:250000	
0 2.5 5 10 Kilometres	

2.0 GEOLOGY

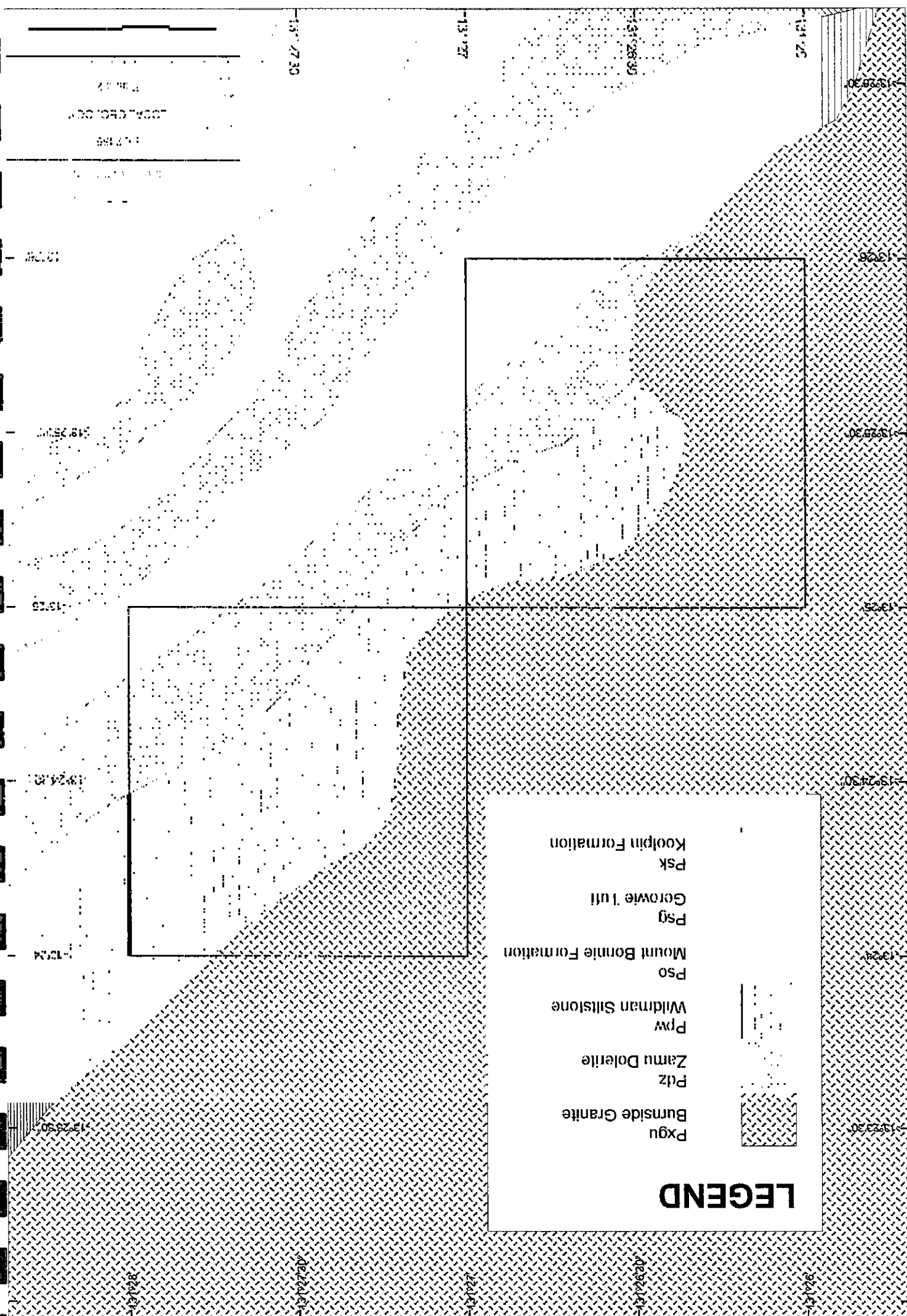
2.1 Regional Geology

EL 9486 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded 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, overly the Pine Creek Geosyncline.

2.2 Local Geology

EL 9486 contains units of the Wildman Siltstone, Zamu Dolerite sills and Koolpin Formation sediments. These lithologies trend north - east to south - west through the tenement. The Burnside Granite intrudes the sediments in the north - west of both blocks of the licence (Figure 2).



3.0 EXPLORATION COMPLETED

Previous exploration in the area was completed over EL 918, EL 4178 and EL 1195.

The area now covered by EL 9486 was held by the Commonwealth Aluminium Corporation Limited (Comalco) as EL 918. The exploration target in this region was fluorite mineralisation, and work was completed, under agreement, by Geopeko Limited. The work carried out included geological mapping, extensive ground prospecting, geochemical sampling and costeaning (Chaku, 1974).

Fluorite was first located in this area in the form of purple dissemination in the granite dykes within the sediments. Subsequently large fluorite casts 4 centimetres long by 3 centimetres wide were located near the granite contact, which also contained white fluorite and galena. A water sampling program delineated a water anomaly in one of the creeks flowing in the area. With these encouraging results, a geochemical soil survey was systematically completed on a 100 metre and 50 metre grid layout. The samples were analysed for fluorine, lead, zinc and copper. Some anomalies were costeaned, but the results were not very encouraging (Chaku, 1974).

Geological evaluation of EL 4178, which covered parts of the current EL 9486, was based on previous work by Geopeko and photointerpretations and led to the planning of a stream sediment survey over the parts of the tenement underlain by Middle Koolpin Formation lithologies, with adequate development of drainage patterns (Radford *et al.*, 1983).

Results were disappointing, leading to the conclusion that no significant stratiform Au or base metal mineralised systems were contributing to the drainage geochemistry. The lead values reached a maximum of 400 ppm, but only 10% of the samples exceeded 100 ppm (Radford *et al.*, 1983).

Geopeko held the region now covered by EL 9486 as EL 1195. They completed airborne magnetic and radiometric surveys, reconnaissance mapping, ground magnetics, gridding, detailed grid mapping, reconnaissance transient electromagnetic and induced polarisation surveys, diamond drilling and rock chip sampling (Kirkpatrick, 1980).

No work has been completed over EL 9486 between June 1996 and October 1996.

4.0 REFERENCES

- CHAKU, S. K., (1974). Burnside Area, N. T., Final Report on Exploration Licence Nos. 828, 829, 830, 920, 923, 924. Annual Report on Exploration Licence Nos. 918, 919, 921, 922. Unpublished report by Geopeko North Australia for the NTDME.
- KIRKPATRICK, B. L., (1980). Final Report, EL 1195, Ban Ban. Unpublished report by Geopeko North Australia (Report No. D 80/7) for the NTDME.
- RADFORD, N. W. & ROLFE, G. L., (1983). Exploration Licence 4178, First Year of Tenure, 23 March 1983 to 22 March 1984. Unpublished report by Geopeko for the NTDME.