

EUPENE EXPLORATION ENTERPRISES

ANNUAL REPORT

EXPLORATION LICENCES 4416 AND 4561
PINE CREEK AREA, N.T.

for the holders

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1:100 000 Sheet areas:
Pine Creek
Ranford Hill

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FIGURES

1. EL4416 AND EL4561

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1. INTRODUCTION

1.1 Tenure

EL4416 contains 125 blocks and was granted to the holders on 13th July, 1984 for six years. EL4561 contains two blocks and was granted to the holders on 16th July, 1984. (Figure 1).

Expenditure committments were \$20,000 and \$5,000 respectively.

1.2 Exploration Philosophy

The areas selected are designed to cover areas of alluvial tin potential within the Cullen Granite. The reason that it is divided into two areas is solely as a result of ground availability at the times of application. Exploration on the areas has occurred concurrently, and expenditure is difficult to separate. Thus it is more practicable to prepare one report on both areas.

Prospectors have known of alluvial tin concentrations in Big Nellie and Little Nellie Creeks for some time (W.J. Reid, pers. comm.). It appears that this tin is shedding from sources within the Cullen Granite, perhaps associated with particular phases of it. Mapping of the Cullen Granite in recent years by NTGS/BMR staff has indicated that at least 13 separate phases are present within the Cullen Granite. It was felt worthy of an investigation to determine whether in fact tin mineralization within the pluton was associated with a particular phase or phases. This was the reason for the large area of the initial application for EL4416. Unfortunately this broad strategy was undermined to a large degree by the fragmentation of the original area of application for EL4416. Some of the area was lost to conflicting applications, (viz EL4414), while a large portion fell over the Katherine Land Claim (viz EL(A)4562) and has not yet been processed. The result was that, when the logistics of mounting a systematic exploration program over the southern portions of EL4416 were considered, it was decided to defer such work in this area until a more workable area geographically became available. In the meantime, exploration effort has been concentrated in the north-western portion of the area covered by the exploration licences, and in this first year of the licences has been concentrated on the Nellie Creek system and its tributaries, with lesser reconnaissance in the Harriet Creek drainage system.

1.3 Location, Access

The Exploration Licences are situated to the east of Pine Creek. The Pine Creek/Jabiru road cuts the north-western part of EL4416 diagonally, while the road to Esmerelda and the Old Francis Creek iron mine provides access to EL4561 and the western part of the EL4416. The Moline/Wandie track provides access to the eastern part of EL4416. Other parts of EL4416 are poorly served by roads, but the fairly open granite country permits fair off-road access in four wheel drive vehicles in the dry season. Access in the wet is impossible except along the formed roads mentioned above.

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2. EXPLORATION PROGRAM

2.1 Regional Geology

The regional geology of the area has been recently revised by NTGS/BMR mapping at 1:100,000 scale. No advances on this work have resulted from the current program.

Of particular importance to this study has been the delineation on recent 1:100,000 maps of many discrete phases within the Cullen Granite batholith. The exploration licences cover predominantly Cullen Granite and some of the surrounding Lower Proterozoic sediment. The main target for exploration is alluvial developments within the granite terrain. Extensive alluvial deposits are present along the major streams, such as Nellie Creek and Harriet Creek in the north-western portion of the area.

2.2 Exploration in First Term of Licence.

As mentioned in section 1.2 above, because of the rather fragmenting effect on the originally proposed program which resulted from various excisions from the original application, it was realized early in the exploration program that systematic exploration of the southern portion of EL4416 would best be deferred until ELA4562 has been granted, or alternatively until more is learned about exploration techniques in the area.

As a result, the exploration program in the first term of the licence was confined to systematic alluvial sampling of drainages in EL4561 and the north-western part of EL4416, mainly in the Nellie and Harriet Creek drainage systems. The field program was conducted entirely by an experienced alluvial tin prospector and miner, Mr. M. Foxe, who is employed full-time by the holders. The description of work undertaken has been prepared from discussions of the program with Mr. Foxe.

In all, some three weeks was spent in reconnaissance prospecting of the licences. This work consisted of systematic collection of alluvial samples and panning down of these from all drainage channels within the EL's. Samples were collected on approximately 500m intervals, and from every tributary of the major streams. Results of this work were marked on a 1:100,000 topographic map of the area. This map is not available for reproduction at the time of preparation of this report due to Mr. Foxe's absence on another exploration project in the Tanami desert.

2.3 Results

While no strictly quantitative results are available, panning of a standard volume of alluvium is a satisfactory means of reconnaissance prospecting for alluvial deposits when done by experienced personnel. The results have delineated areas along Nellie Creek which contain sufficient alluvial tin concentrations to warrant follow-up in the next term of the licence.

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2.4 Proposed Program for next term of Licences.

Following the encouraging results from the first phase of exploration, the following steps will be implemented during the next year of the licence:-

- a. More detailed prospecting, first by closer-spaced stream sediment sampling and later by washing of bulk samples from these areas using the EL holder's washing plant if encouragement continues.
- b. Completion of reconnaissance prospecting of the Harriet Creek system and the area between there and Wandie in the east of EL4416.

It is estimated that expenditure on this program will involve \$5,000 on EL4561 and \$20,000 on EL4416. However, given the present precarious nature of the tin market, it is conceivable that these figures may be reduced depending on the outlook for tin which develops in 1986.

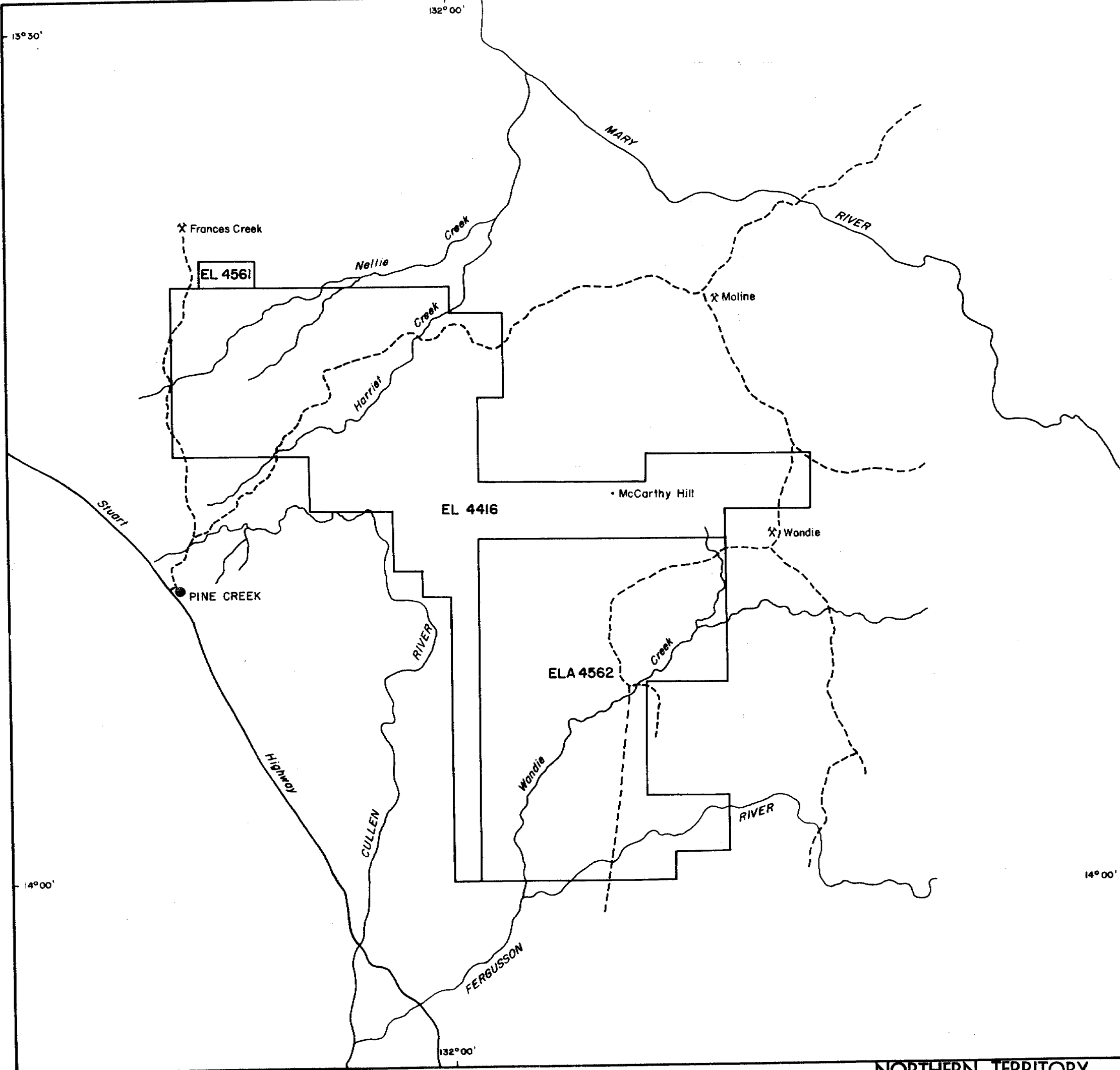
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3. EXPENDITURE

During the past term of the licences expenditure on EL4416 and EL4561 was as follows:-

Salary and Wages	\$3600
Vehicle	\$800
Field Consumables	\$400
Geological Services	\$1200
Administration	<u>\$1800</u>
	<u>\$8800</u>

Of this, it is estimated that approximately \$2000 was incurred on EL4561, and the remainder, \$6800, on EL4416. An application for variation of expenditure committment has been forwarded.



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EL's 4416 & 4561 Tenement Plan		