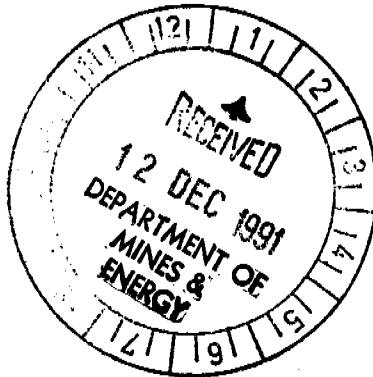


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Exploration Licence 6727 - Pine Creek

Report for the Year Ending 18th December, 1991

CR 92 / 167



Rosequarts Mining NL

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## 1 Introduction

Exploration Licence 6727 covers two graticular blocks, with a total area of three square kilometres, and is situated four kilometres east of Pine Creek township. Excluded from the area is an old dredging claim now included in MCN's 541 & 542. Access can be obtained from the Kakadu Highway in the north, and from the old Wandie/Pine Creek track in the south (Figures 1 & 2).

The Licence area falls within the Pine Creek 1:100,000 and 1:50,000 sheet areas, and the Bonrook and Mary River Pastoral Leases.

The Licence was granted to Rosequartz Mining NL on 18th November, 1989. This report presents the results of work conducted during the second year of tenure.

## 2 Geology

The area is situated in the Cullen Mineral Field in the central part of the Early Proterozoic Pine Creek Geosyncline. The Geology is described in the BMR 1:100,000 Geological Series map and Explanatory Notes "Pine Creek: (1985), a portion of which is reproduced in Figure 3.

The prospect lies on the eastern edge of the so called Pine Creek Embayment, a southeasterly trending roof pendant of metasediments surrounded by the granitoid complex of the Cullen Batholith. The Embayment contains widespread gold, tin and silver/lead/zinc mineralisation, the most important being the Pine Creek and Union Reefs gold mining areas.

Exploration Licence 6727 includes only a very small area of metasediments (about 20 hectares) in its extreme southwest corner; the remainder of the area is underlain by granite (Figure 4). The metasediments comprise phyllites and minor metagreywackes belonging to the Burrell Creek Formation in the upper part of the Early Proterozoic succession. They form a single low ridge with good outcrop along the crest. Outside the southwestern corner of the Exploration Licence area the Burrell Creek Formation contains a series of sizable northwest trending quartz reefs. One low quartz outcrop was observed within the prospect.

The granite which occupies most of the area forms low undulating country with an extensive cover of sandy soils. It is mainly a medium grained pink to grey adamellite with minor bodies of finer grained leucogranite. It is assigned to the Allamby Springs Granite by the BMR. No significant pegmatite or quartz veining were noticed.

Alluvial sands and gravels within MCN's 541/542, along the course of Pine Creek, have been tested for alluvial gold by occasional pitting. Otherwise there are no indications of past mining or prospecting activity in the area.

### 3 Previous Work in the Area

Prior to being taken up by Rosequartz Mining NL, the area formed part of Exploration Licence 4926 held by Eastern Gold. This Company carried out photogeology and limited rock chip sampling; however, not samples were taken in the present area of interest. The area was surrendered on the grounds that it was unprospective since it was underlain largely by granite (J H Thom, 1989; EL4926 Relinquished Area Report, unpublished report by Union Reefs Gold NL).

Before Eastern Golds tenure the area was part of the Mount Wells Policy Reserve, and there is no documentation of significant exploration work.

During the first year of the Licence exploration Rosequartz Mining NL carried out the following work. This work included vehicle and foot traversing of the granite areas, and detailed prospecting and soil sampling of the small area of metasedimentary rocks in the southwest.

Traversing of the granitic areas confirmed the BMR mapping and did not encounter any evidence of mineralisation.

In the southwest, the Burrell Creek Formation outcrops were found to be lacking indications of quartz or sulphide veining, although one small quartz outcrop occurs in soil covered ground on the north slopes of the hill.

One traverse of soil sampling was carried out on an east northeast trending line extending from the ridge top to the edge of an alluvial plain lying to the north (Figure 4). Samples were taken at 50 metre intervals, and consisted of about 1.5 kilograms of minus 5 millimetre soil material. They were analysed for gold by bulk cyanide leach, and the results are given in Appendix I. Gold values ranged from 0.19 to 2.72 ppb Au.

#### 4 Exploration Work done in 1991

It was noted in a report on MCN's 541 and 542 carried out by Costain in 1987 that some areas within the claims area contained alluvial resources of possible economic grade. Subsequently, a programme to test the potential of Harriet Creek, contained within Exploration Licence 6727 was commenced.

Sample sites have been arbitrarily selected although in all cases alluvial gravels are exposed. Grade estimates were achieved by recovering a known volume of samples from the sites. The material was panned to a heavy concentrate and analysed for total gold content.

Cursory assessment of the gravels has also been carried out in an attempt to define the extent and direction of flow for identification of paleochannels. Results are included in Appendix I.

Cassiterite was tentatively identified in the pan concentrates but only in minor quantities.

## 5 Conclusions and Recommendations

In view of the poor results obtained, further work on possible alluvial potential is not considered to be warranted.

It is proposed to carry out a detailed mapping and sampling programme over the southwest corner of the remaining block.

Estimated expenditure for the forthcoming year is expected to be in the vicinity of \$3,000.00.

## 6 Expenditure

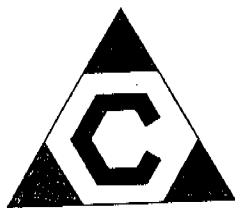
Expenditure incurred by Rosequartz Mining NL from January 1991 to December, 1991.

Wages and Salaries	\$ 3,107
Field Expenses	258
Vehicle and Travel	831
Assaying	216
Sub Total	\$ 4,411
Overheads @ 30%	<u>1,323</u>
Total	<u><u>\$ 5,734</u></u>



APPENDIX I.

Analytical Results Soil Samples.



# CLASSIC LABORATORIES LTD

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GEONORTH  
GPO BOX 3471  
DARWIN

NT 0801

ANALYSIS REPORT :

Your Reference :

Our Reference : 1DN0015

Samples Received : 07/01/91

Results Reported : 15/01/91

Number of Samples : 10

Report Pages : 1 to 1

This report relates specifically to the samples tested in so far as the samples supplied are truly representative of the sample source.

If you have any enquiries please contact the undersigned quoting our reference as above.

Approved Signature:

for

Alan Ciplis  
Manager - Darwin  
CLASSIC LABORATORIES LTD

\*\*\* RELIABLE ANALYSES AT COMPETITIVE COST \*\*\*



Final

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Job: 1DN0015

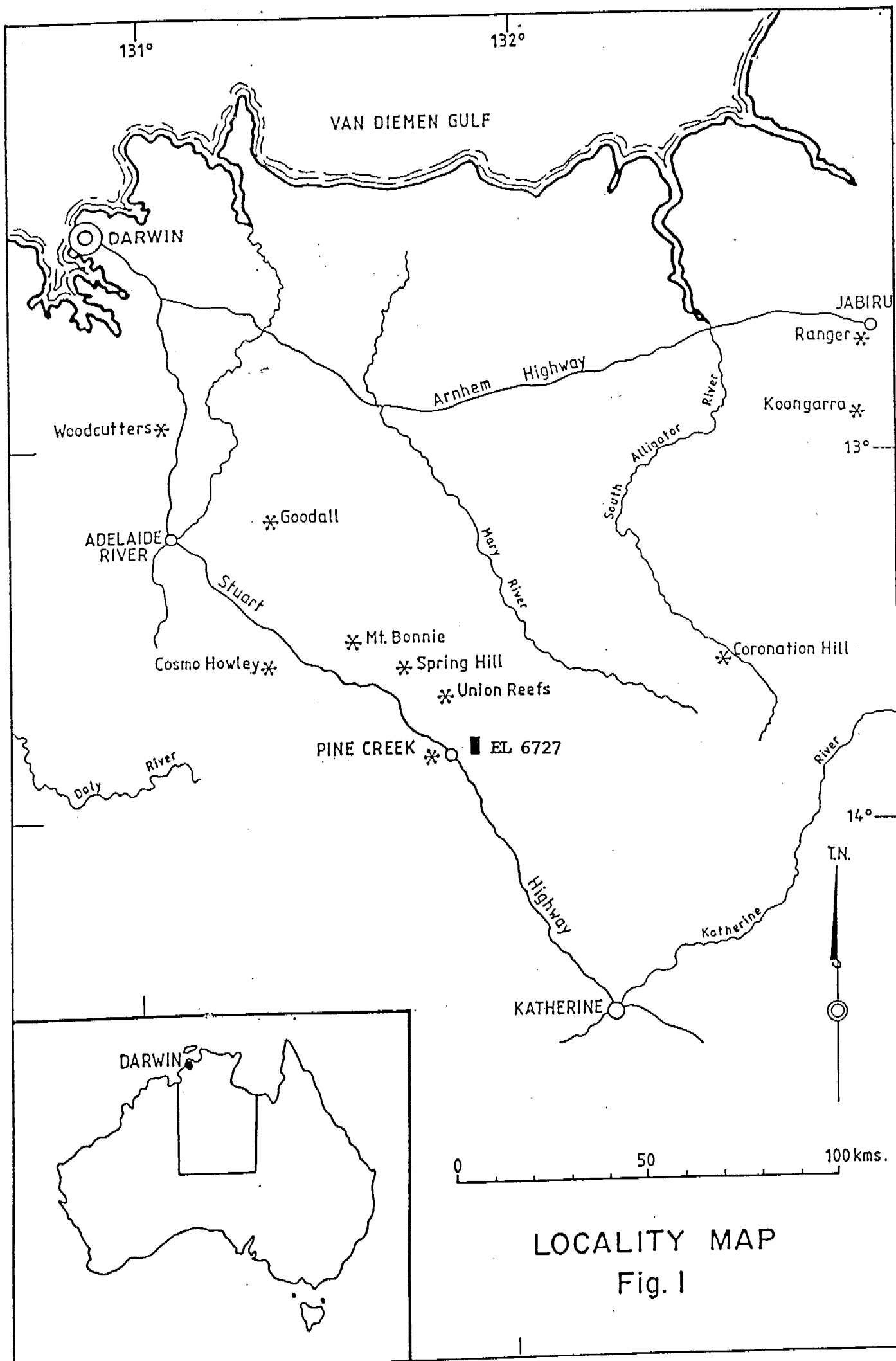
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## ANALYTICAL REPORT

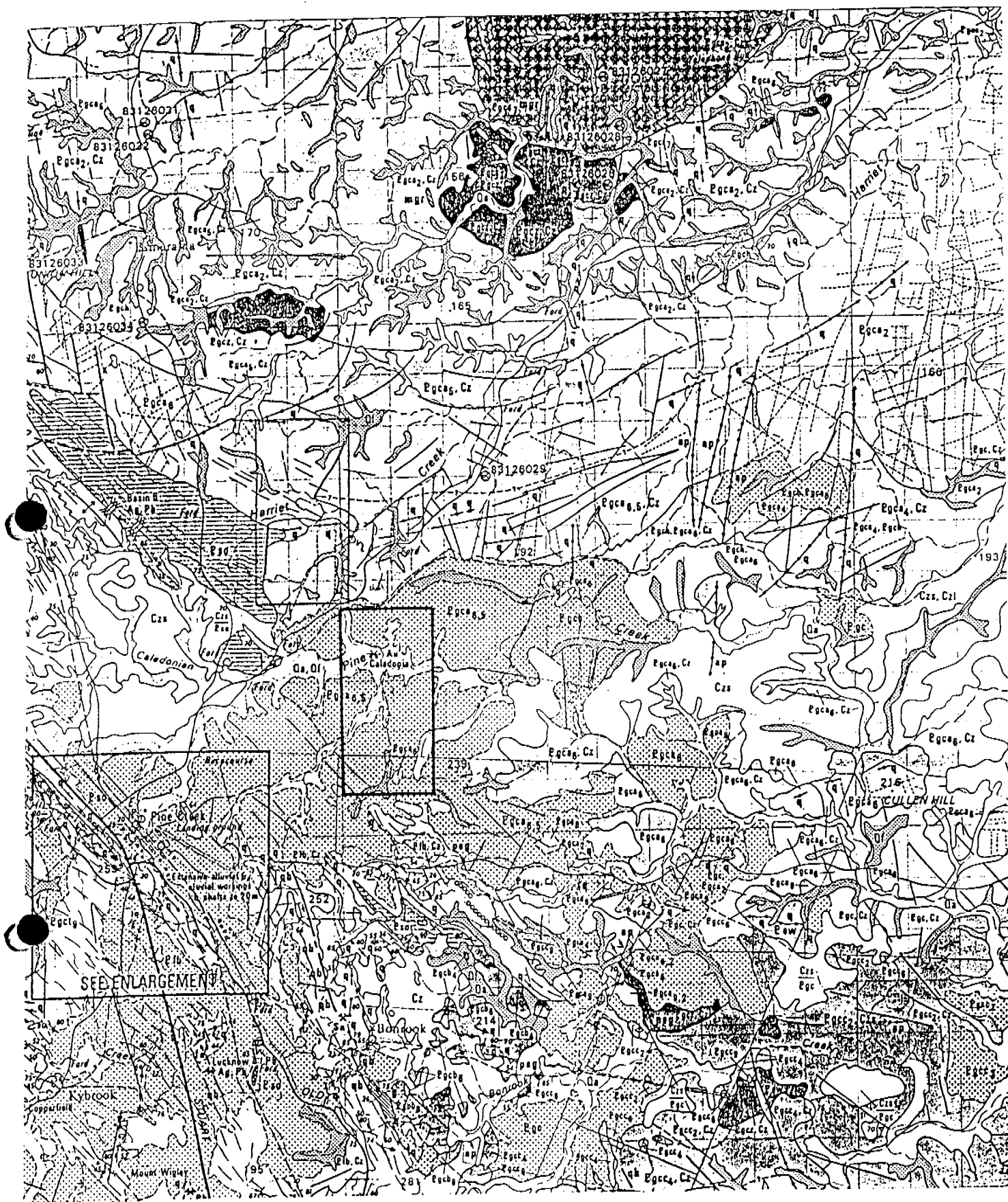
SAMPLE	Au
324412	1.40
324413	0.56
324414	0.22
324415	0.19
324416	2.72
324417	0.39
324418	0.32
324419	0.60
324420	0.52
324421	0.48

UNITS           ppb  
DET.LIM        0.05  
SCHEME        BLEG1B

Sample Number	Results	Au (ppb)
4441	Creek, Gravel, Sand	0.02
4442	Creek, Gravel, Sand	0.008
4443	Creek, Gravel, Sand	0.01
4444	Creek, Gravel	0.04
4445	Creek, Gravel, Sand	N/A
4444	Creek, Gravel, Sand	0.01
4447	Creek, Gravel, Sand	0.16
4448	Creek, Gravel, Sand	0.14







EARLY

PROTEROZOIC

Pgc Cullen Granite.

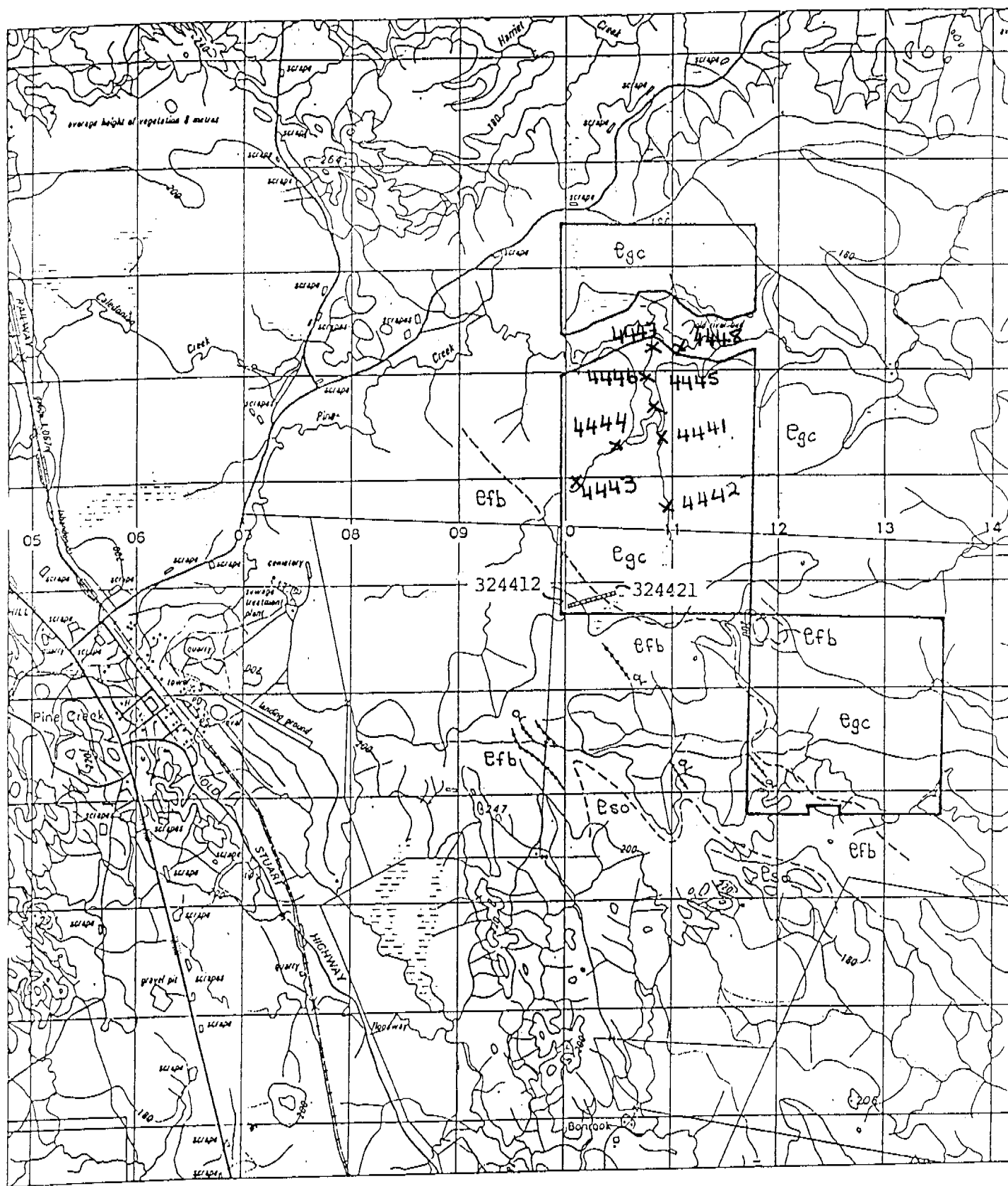
Pfb Burrell Creek Formation.

Pso Mount Bonnie Formation.

REGIONAL GEOLOGY

Scale 1 : 100,000

Figure 3.



EARLY Pgc Cullen Granite.  
 PROTEROZOIC Pfb Burrell Creek Formation.  
 Pso Mount Bonnie Formation.

----- Soil Sample Traverse

----- q Quartz vein.

# GEOLOGY & SAMPLE LOCATIONS

Scale 1 : 50,000

Figure 4.