FIRST AND FINAL

REPORT

FOR

E.L. 5764

21.01.1988 TO 20.01.1989

AUTHOR: S. FRANGOU

DATE: APRIL, 1989

Received 28.4.89 Alice Smings

[Signatures]
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1. **INTRODUCTION**

E.L. 5764 was applied for on 31.08.1987 AND GRANTED ON THE 21st January, 1988 for a period of three years. The objective of this licence was to explore for economic copper and gold deposits.

A program consisting of prospecting and study of aerial photographs was conducted.

No significant ore zones were detected, either in the field or in photo studies. Accordingly the licence has been surrendered towards the end of the first year.

2. **LOCATION AND ACCESS**

The licence area is located approximately 90 kms east along Plenty Highway from Stuart Highway and approximately 5 kms south of Plenty Highway. Stuart and Plenty Highway are bitumen sealed whilst the short track into the licence is unformed. Access can be gained all year round. At most times of the year although 4 WD may be required during wet periods.

3. **TOPOGRAPHY**

The strangeways Region south of the Plenty Highway and East of the Stuart Highway is a broad elevated area approx. 300m above the Burt Plain, and is fairly rugged terrain which extends to the south of the region.

4. **CLIMATE**

The climate of Central Australia is arid, characterised by low, highly annual rainfall and by seasonal variations in temperature. Relative humidity is low and evaporation high throughout the year.

Rainfall is seasonal, with most occurring in summer during localised and sporadic thunderstorms. Summer temperatures are often
4. **CLIMATE CONT.**

in the high thirties whilst winter day temperatures are in the low twenties with nights often cold (0 - 6°).

5. **GEOLOGY**

Approximately 2000 m.y. ago the area was covered in volcanogene rocks which were later metamorphosed of approx. 1800 m.y. ago. The region comprises mainly Proterozoic crystalline rocks of the Arunta Block unconformably overlain in infolded outliers by the Heavitree Quartzite and Bitter Springs formation of the upper Proterozoic Amadeus Busin sequence. Cainozoic sediments cover the peripheral portions of the Region.

6. **WORK UNDERTAKEN**

After viewing aerial photographs for location of existing diggings, a number of field trips were carried out to investigate size of potential ore bodies and what minerals they may contain. The first 2 field trips concentrated on locating and assessing the "Camp Hill" prospect. Whilst the sizes of old diggings and malachite and orzunite staining gave hope of something of interest, a closer study of the ore bodies showed the potential for a sizeable ore body was remote.

Various rock chip samples were taken and the results, whilst fairly high in copper were disappointing in gold content. Various attempts were made to locate another 2 old diggings but were unsuccessful.

Based on the small potential ore body size and low grades in gold values, it was decided to surrender the licence.

7. **EXPENDITURE**

Under the terms of being granted E.L. 5764 a minimum amount of $6500 was to be expended in carrying out exploration for Year 1.
7. **EXPENDITURE CONT.**

The expenditure for year 1 totalled $5300 being made up of the following:-

- Licence Research $400
- Licence Inspection $4500
- Aerial Photography $200
- Drafting $100
- Assaying $100

**TOTAL** $5300

8. **REFERENCES**

Bureau of Mineral Resources.
Geology and Geophysics. 1:100 000 Geological map and commentary.
Strangeways Region.

9. **LIST OF APPENDIXES**

**APPENDIX I**

ANALYTICAL REPORT
ANALYTICAL REPORT No. 1000.23.06.00992

ORDER No. PROJECT

Mr Frangau  
P.O.Box 329

Alice Springs N.T. 5750

DATE RECEIVED RESULTS REQUIRED
11/09/87 ASAP

No. OF SAMPLES
5

DATE OF SAMPLES
24/09/87 1

PRE-TREATMENT

SAMPLE NUMBERS DRY CRUSH SPLIT PUL- VERISE SEIVE OTHER REMARKS NONE

1/5  RO Prep: 805, 809, 618 As, Ag, Pb, Zn, Cu, Mn/101

ANALYSIS

REMARKS

RESULTS

TO

ORDER No. PROJECT

Mr Frangau  
P.O.Box 329

Alice Springs N.T. 5750

RESULTS

TO

ANALYSIS — PREPARATION

STATE OF SAMPLES ANALYSIS — METHOD

| Whole core | WC | perchloric acid | A1 | cold acid | CA | atomic absorption | AAS |
| Split core | SC | hydrochloric acid | A2 | specific sulphide | SS | x-ray fluorescence | XRF |
| Cutting | CU | nitric acid | A3 | other mixed acids | Ma | spectrophotometry | SPEC |
| Rock | Ro | aqua regia | A4 | alkaline attack | AA | colorimetry | COL |
| Soil | SO | nitric-perchloric | A5 | volatilization | VO | chromatography | CHR |
| Silty | PU | HF mixture | A6 | ignition | IG | filtration | TTN |
| Water | WA | HF under pressure | A7 | pressed powder (XRF) | PP | other chemicals means | CHEM |
| Trace elements | TI | fusion | A8 | glass fusion (XRF) | GF | miscellaneous | MISC |

AUTHORISED OFFICER [Signature]
### Analytical Data

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#### Detection Limits

- **Detection**: 0.02, 0.5, 50, 0.0005, 5, 5, 5
- **Units**: PPM, PPM, PPM, %, PPM, PPM
- **Method**: 329, 101, 101, 101, 101, 101

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Results in ppm unless otherwise specified.

- **T**: element present, but concentration too low to measure.
- **X**: element concentration is below detection limit.
- **-**: element not determined.

**Authorised Officer**: [Signature]