# FINNISS RANGE PROJECT, NT

## EL 26399
## (MILNE INLET)

## ANNUAL REPORT

FOR THE PERIOD

7th September 2007 TO 6th September 2008

| | | | |
|---|---|---|---|
| Tenement | : | EL26399 | |
| Owner | : | Australian Tantalum Pty Ltd | |
| Operator | : | Haddington Resources Ltd | |
| Prepared by | : | N. de Kever | |
| Date | : | October 2008 | |
| Distribution | : | Haddington Resources Ltd | (1) |
| | | Department of Regional Development, Primary Industry, Fishing and Resources DRDPIFR) | (1) |

## TABLE OF CONTENTS



## LIST OF FIGURES



## LIST OF TABLES



## LIST OF APPENDICES



## FILES LODGED WITH DRDIPFR

EL26399_2008_A_01_ReportBody.pdf
EL26399_2008_A_02_Surface_RockChips.txt

## 1. SUMMARY

Work completed on EL26399 consisted of a brief literature review in preparation for rock chip sampling and reconnaissance mapping in August 2008.

## 2. INTRODUCTION

This report covers exploration work carried out by Australian Tantalum Pty Ltd, a wholly owned subsidiary of Haddington Resources Limited (HDN) during the reporting period (7th September 2007 to 6th September 2008).

## 3. LOCATION AND ACCESS

The Finniss Range Project is located approximately 50 km south of Darwin; roughly 20 km southwest of Berry Springs/Tumbling Waters. Access is via the all-weather Litchfield National Park and Fog Bay Roads, and various dirt tracks.

The Licence lies on the Darwin 1:250,000 (SD52-4), and Bynoe (5072) 1:100,000 scale topographical and geology sheets.

## 4. TENEMENT STATUS

EL26399 was granted to Australian Tantalum Pty Ltd on 7th September 2007 for a period of six (6) years.

The tenement is part of a project which also includes EL24773, EL24774, EL24639, EL25603, EL25521, EL25604, EL26467, EL26468, and EL26469 (Figure 1).

| Tenement | Holder | Grant Date | Expiry | Area | Rent$ | Commitment $ |
|---|---|---|---|---|---|---|
| **EL26399** | Australian Tantalum Pty Ltd | 07.09.2007 | 06.09.2013 | 3 blocks | $30 | $5,000 |

**Table 1.** EL26399 – Tenement Details.

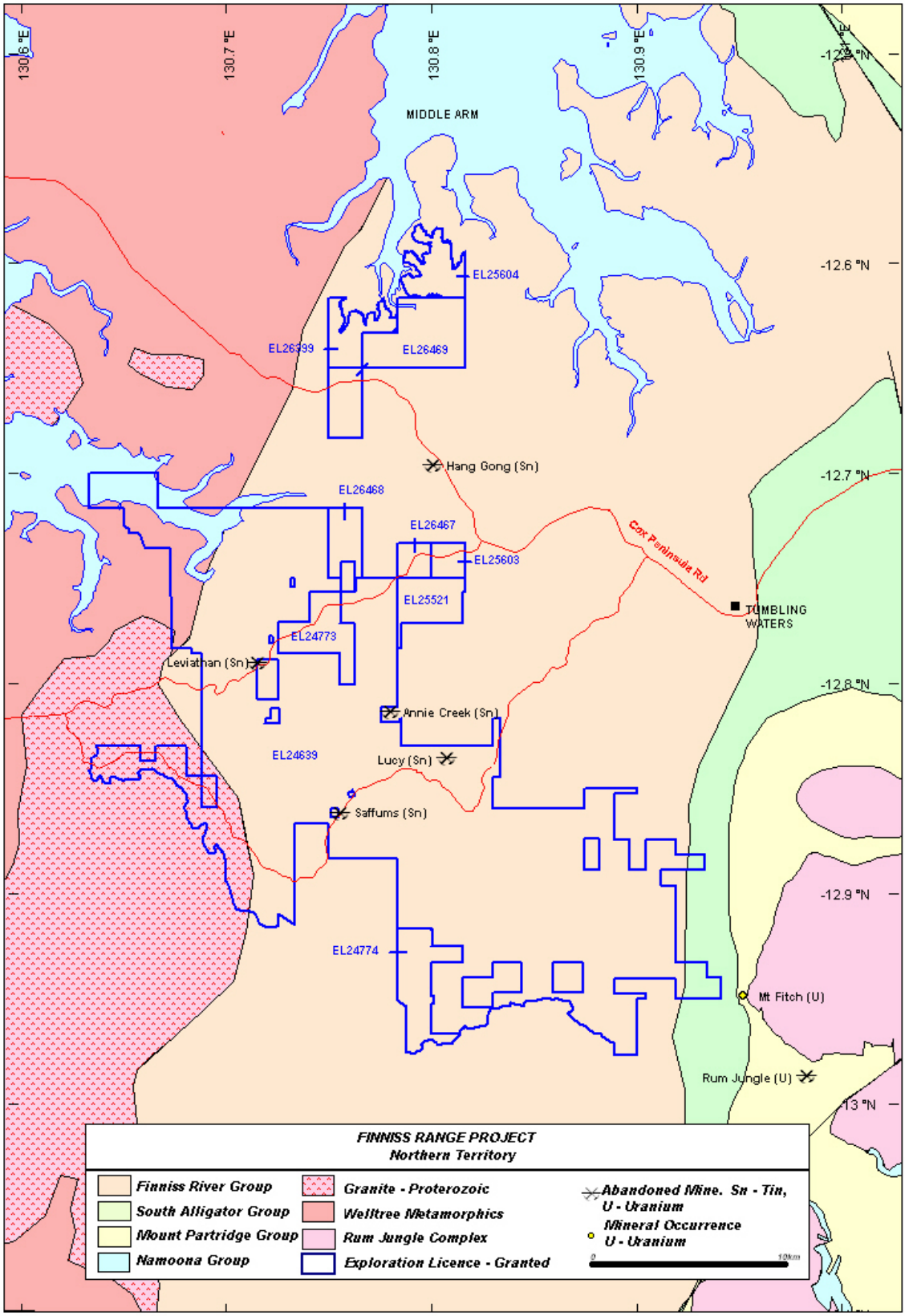


**Figure 1.** Finniss Range Project - Tenement Location Plan and Geology.

## 5. LOCAL GEOLOGY

The project area consists primarily of the Early Proterozoic Burrell Creek Formation (Figure 1), an interbedded sequence of lutite, arenite and rudite. The sediments form undulating hills, low ridges and prominent strike ridges (where more resistant arenite predominates in outcrop). Sandstone units (often metamorphosed to quartzite) typically form blocky beds between 0.2-2.0m thick, are strongly jointed and fractured, and often quartz veined. Much of the area is covered by ferricrete, which varies between massive and pisolitic.

The formation conformably overlies the Mount Bonnie Formation, the contact being defined by the top of the uppermost unit of argillite, tuff, banded iron formation, or shale containing chert bands, lenses or nodules.

To the west, the Burrell Creek Formation is intruded and contact metamorphosed by the Two Sisters Granite (immediately southwest of EL24639). Metamorphic grade increases westward from sub-greenschist facies siltstone and sandstone in the east, to upper greenschist facies gneiss and schist in the west.

The Two Sisters Granite forms a discordant irregular batholith, and consists of moderately to non-foliated granite, adamellite, granodiorite and minor porphyritic granite.

The Archaean Rum Jungle Complex is located immediately east of EL24639, where it is exposed as scattered low pavements and boulder-strewn outcrops protruding through a thin veneer of Cainozoic sand.

Rare element pegmatites that crop out in the area form the Litchfield pegmatite belt. The Litchfield belt is divided into the more prominent Bynoe Pegmatite Field, and the less significant Wingate Mountains pegmatite district.

The Bynoe pegmatite field is 70km in length and 15km in width. All pegmatites are believed to have been derived from the Two Sisters Granite (Ahmad 1995), which is considered to dip to the east under the Burrell Creek Formation, below the exposed pegmatites.

The pegmatites typically occur in clusters, and six pegmatite groups are recognised within the Bynoe field; The Kings Table, Observation Hill, Walkers Creek, Labelle, Leviathan, River Annie Group. The last two groups lie within the Project Area.

The Leviathan and River Annie Group pegmatites occur within the Burrell Creek Formation. The pegmatites are irregularly distributed, concordant with the main metamorphic foliation, and interfinger in places mostly along bedding planes (Frater, 2005).

## 6. PREVIOUS EXPLORATION

Previous exploration has centred on the Leviathan Group pegmatites (Leviathan Mine), and the area surrounding the Annie Mine.

The Leviathan mineralisation was discovered by C. Clarke in 1886, and a mine and battery were established shortly after. By 1890, three shafts had raised 406t of ore to produce 2.03t of Sn oxide (Frater, 2005). The tin mineralisation proved to be patchy and the leases were abandoned in 1909.

Following this initial discovery, numerous mineralised pegmatites were discovered and worked in the area by Chinese and European prospectors. Mining was short lived and virtually all leases were abandoned by 1910, with no record of location or production.

The Leviathan area was explored by Greenex (a division of Greenbushes Ltd – later Sons of Gwalia) between 1983 and 1990. By 1987, using ground reconnaissance and aerial photographs, Greenex had rediscovered over 20 of the pegmatites that had been worked at the turn of the century.

Leases covering the Leviathan pegmatites passed to Corporate Development and in 2000, Julia Corporation Ltd (Julia) negotiated an option to explore the Leviathan ground. They carried out an RC drilling program, targeting several of the larger Leviathan pegmatites. In total, over thirty pegmatites have been discovered in the Leviathan area.

Greenex mapped the Annie area in 1984, and sampling of the Annie pegmatite showed it to be tin-rich. Outcrop was restricted to prominent quartz ridges and old workings. According to Frater (2005), one 25m section of pegmatite averaged approximately 666g/t $Ta_2O_5$, the highest individual sample assaying 2360g/t.

Further exploration work including auger drilling and trenching, and pegmatite was intersected over a strike length of 325m and a width of up to 35m. Auger drilling indicated a resource in the order of 0.098Mt at 156g/t $SnO_2$. Exploration continued until 1988, when Corporate Developments acquired the Annie lease. Softwood Plantations Pty Ltd, acting for Corporate Development, mined the Annie pegmatite in the period 1995 to 1999. 11t of tantalite and 28t of tin were produced between 1995 and 1997, and a further 69t of combined tantalum-tin concentrate was parcelled in 1997-1999.

## 7. CURRENT EXPLORATION – HADDINGTON RESOURCES LTD

Exploration during the reporting period consisted of a brief literature review prior to reconnaissance mapping and rock chip sampling. A work program for new EL's 25604, 26399 and 26469 was planned.

The initial program involved reconnaissance mapping across the tenements along 400m spaced east-west traverses with rock chip sampling of prospective targets.

In August 2008, a total of 43.2 line km of reconnaissance mapping was completed (Figure 2) over adjoining tenements EL26399 and 26469 and 26504. 10.8 km of mapping was completed over EL26399, and 9 rock chips were taken (Figure 3).

Rock chips were sent to KalAssay Laboratories in Perth for analysis. Laboratory details and detection limits are displayed in Appendix 1.

No anomalous results were returned (Table 2).

| Sample No | MGAN | MGAE | Prospect | Comment | Lith | Au ppb | Sn ppm | Ta ppm | U ppm |
|---|---|---|---|---|---|---|---|---|---|
| 110329 | 8602770 | 693124 | Jenny's | Costean 3 sample of FP from N wall weathered orange in colour qtz, muscovite tourmaline, transported qtz to 0.5m | FP | 2 | 67 | 35 | 4 |
| 110330 | 8602766 | 693106 | Jenny's | FP sample from wall of costean 3, weathered transported quartz to 0.5m, weathered mica schist, muscovite, qtz | FP | 2 | 32 | 8 | 3 |
| 110331 | 8602766 | 693095 | Jenny's | Large mica flakes, very weathered and soft, orange yellow in colour | FP | 1 | 40 | 11 | 2 |
| 110332 | 8602766 | 693091 | Jenny's | Mica schist, muscovite to 0.5m, orange yellow, very weathered, transported unit from 0 - 0.5m | FP | 1 | 35 | 8 | 5 |
| 110333 | 8602768 | 693075 | Jenny's | Mica schist, muscovite to 0.5m, orange yellow, very weathered, transported unit from 0 - 0.5m | FP | 2 | 60 | 21 | 3 |
| 110340 | 8602286 | 690934 | Jenny's | Qtz vein /core FP bucky white large outcrop in laterite, striking 010 | FP | <1 | 2 | 1 | 1 |
| 110357 | 8601968 | 690772 | Regional | Qtz float/outcrop, minor muscovite, limonite, 1m x 2m striking 010 | VQZ | 1 | 0 | 0 | |
| 110358 | 8601894 | 690771 | Regional | Recrystalised quartz minor muscovite -FP | VQZ | 3 | 1 | 0 | |
| 110364 | 8601208 | 690348 | Regional | Qtz vein minor muscovite | VQZ | <1 | 1 | 0 | |

**Table 2.** EL26399 Rock Chip Results.

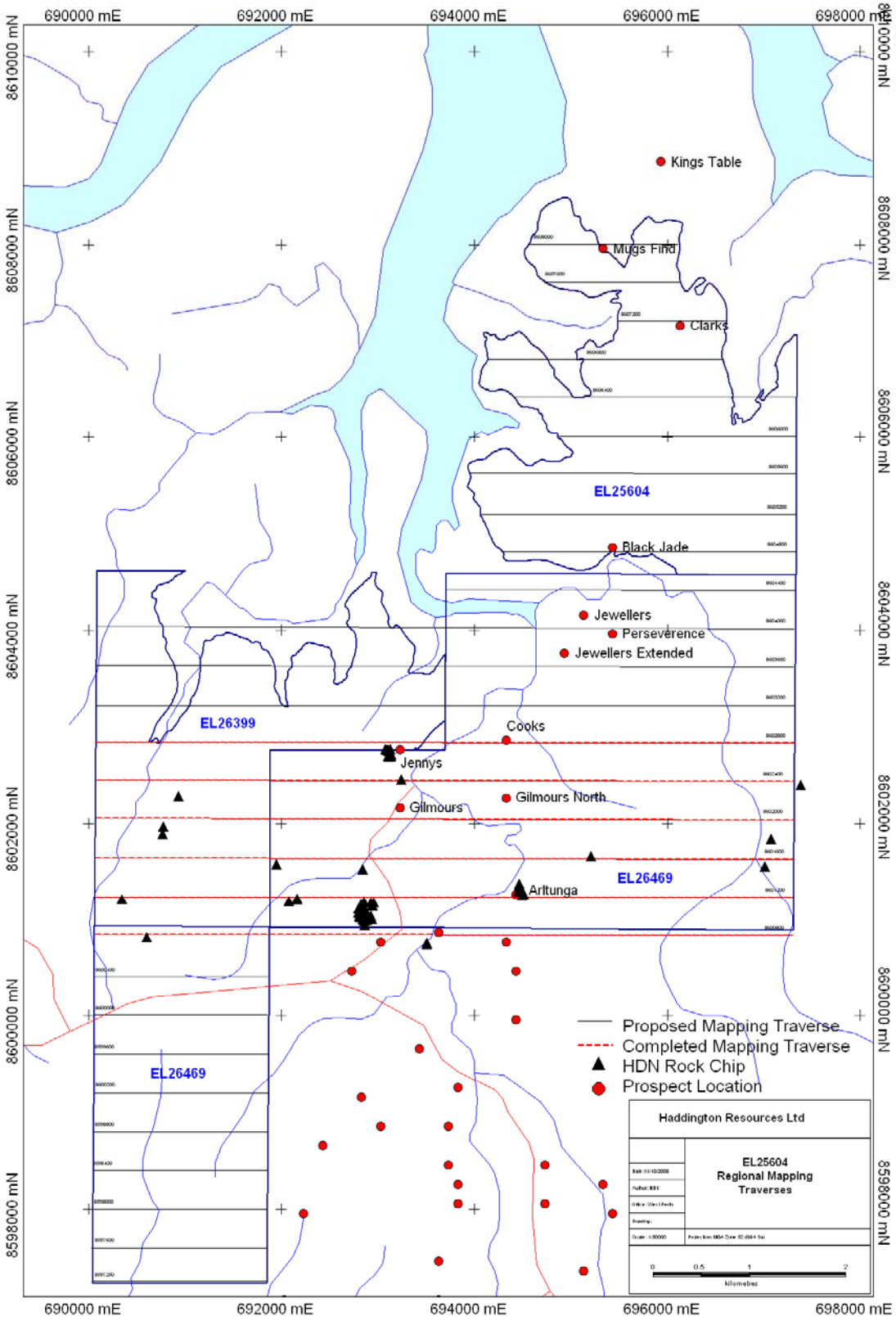


**Figure 2.** EL26399, EL25604 and EL26469 Regional Mapping Traverses.

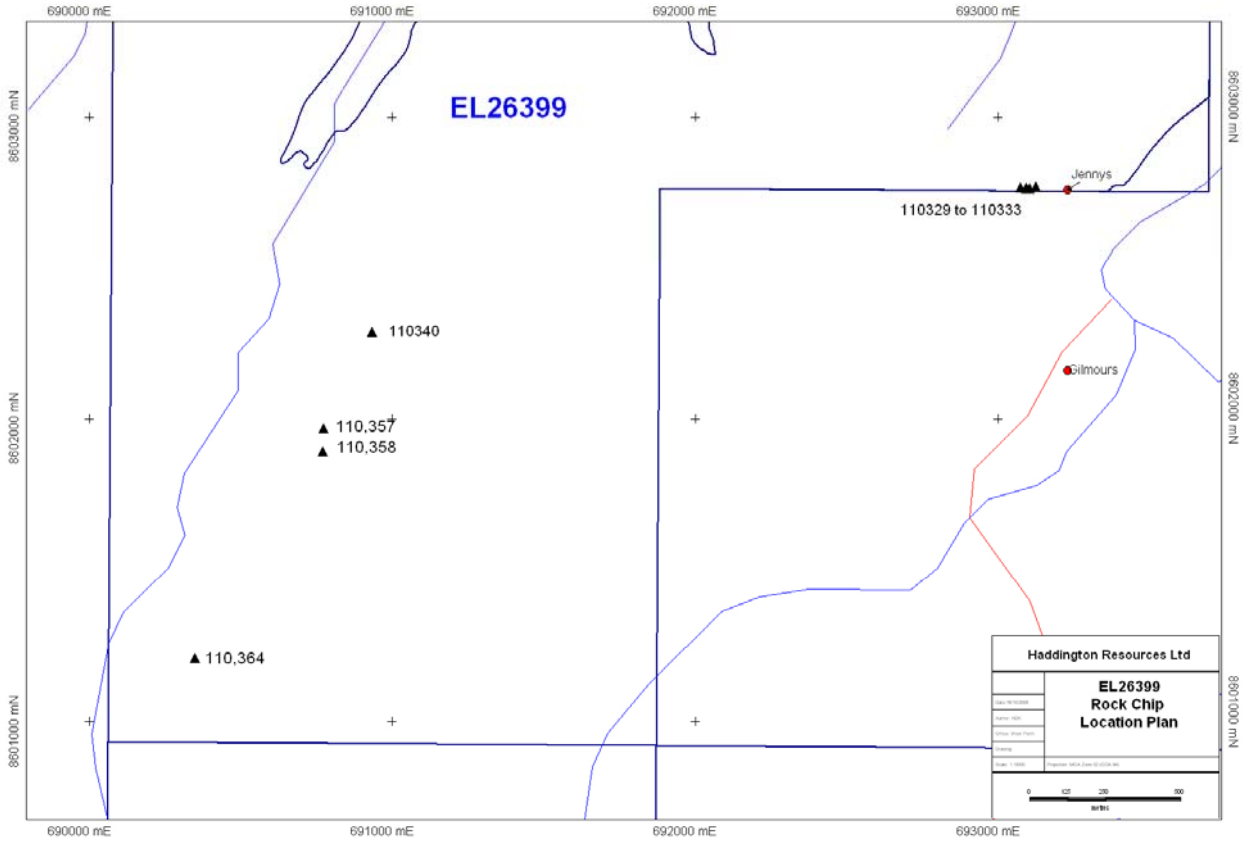


**Figure 3.** EL26399 Rock Chip Location Plan

## 8. CONCLUSIONS / RECOMMENDATIONS

A 400m spaced reconnaissance mapping program was initiated in late 2008, and will be completed during the 2009 field season.

## 9. PROPOSED WORK

The budget for next year is based on an extensive rock chip sampling, soil sampling and mapping program.

**2008- 9 BUDGET**

| | | |
|---|---|---|
| Field Staff | | $1,000 |
| Geological Contractors | | $1,000 |
| Exploration Supplies | | $500 |
| Assays | | $1,000 |
| Tenement Administration | | $100 |
| Fuel | | $300 |
| Maps and Plans | | $100 |
| Travel | | $1,000 |
| Accommodation | | $500 |
| Vehicle, Equipment, etc | | $500 |
| | **TOTAL** | **$6,000** |

## 10. REFERENCES

Ahmad, M., 1995, Genesis of tin and tantalum mineralisation in pegmatites from the Bynoe area, Pine Creek Geosyncline, Northern Territory. Economic Geology 42, 519-534.

Chrisp, G.M., and Earthrowl, J.A., 1992. Finniss range project, Northern Territory. Annual and supplementary annual reports, SEL7439. Corporate Developments Pty Ltd. *Northern Territory Geological Survey, Open File Company Report* CR1993-0533.

*Frater, K.M.,* 2005, Tin-tantalum pegmatite mineralisation in the Northern Territory. *Northern Territory Geological Survey*, Report 16.

# APPENDIX 1

## LABORATORY AND ANALYSIS DETAILS 2008 Rock Chips

| Tenement | No. of Samples | Sample Type | Element (Analysis Technique) | Det Lmt | Unit | Lab | Location |
|---|---|---|---|---|---|---|---|
| EL26399 | 110329-333<br>110340<br>110357-358<br>110364 | Rock Chip | Au (AR40_ICPMS) | 1 | ppb | KalAssay | Perth |
| | | | Be (AD02_ICPMS) | 0.005 | ppm | | |
| | | | Cs (AD02_ICPMS) | 0.05 | ppm | | |
| | | | Li (AD02_ICPMS) | 0.01 | ppm | | |
| | | | K (AD02_ICPMS) | 200 | ppm | | |
| | | | Na (AD02_ICPMS) | 50 | ppm | | |
| | | | Nb (AD02_ICPMS) | 0.005 | ppm | | |
| | | | P (AD02_ICPMS) | 10 | ppm | | |
| | | | Rb (AD02_ICPMS) | 0.01 | ppm | | |
| | | | Sn (AD02_ICPMS) | 0.05 | ppm | | |
| | | | Ta (AD02_ICPMS) | 0.02 | ppm | | |
| | | | U (AD02_ICPMS) | 0.002 | ppm | | |

# APPENDIX 1

# 2008 EXPENDITURE STATEMENT