# **Newmont Tanami Pty Ltd** (100%)

TANAMI REGION NORTHERN TERRITORY

# 1<sup>st</sup> ANNUAL REPORT

For EXPLORATION LICENCE

EL 10304 (Strebor)

21st AUGUST 2003 to 20th AUGUST 2004

Volume 1 of 1

Newmont Report No: 31692

Compiled By: M.Muir

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#### NEWMONT TANAMI PTY LTD

**TITLE:** 1<sup>st</sup> ANNUAL REPORT FOR EXPLORATION LICENCE (EL)

10304

**PERIOD:** 21<sup>st</sup>AUGUST 2003 to 20<sup>th</sup> AUGUST 2004

**REPORT No.:** 31692

**COMPILED BY:** M. MUIR

**LOCATION:** TANAMI 1:250,000 SE 52-15

BUCK 1:100,000 4958

**COMMODITY:** GOLD

**DATE:** OCTOBER 2004

**KEYWORDS:** CAMBRIAN, GRANITIC ROCK, PROTEROZOIC, REGIONAL

GEOLOGY, ROCK CHIPPING.

# **SUMMARY**

Exploration Licence 10304 was granted on the 21<sup>st</sup> August 2003 for a period of six years. EL10304 is located roughly 70km north east of the Tanami Mine and 40km east of the Groundrush Mine. This is the first year of tenure – ending 20<sup>th</sup> August 2004.

During the first year of tenure work completed by Newmont Exploration included a regional review of data for budgetry purposes. This Exploration Licence was included in the regional structural review completed by Brett Davies from RSG Global. Regional reconnaissance by helicopter took place with four rockchip samples being taken over outcrop designated as unnamed ?Cambrian sediments.

Ongoing tenure of this licence by Newmont Tanami Pty Ltd means that this report should remain **CLOSED FILE**.

TECHNIQUE	SAMPLE TYPE	DESCRIPTION
Geochemical Sampling	Rockchip	4 Samples

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#### 1.0 INTRODUCTION

Exploration Licence (EL) 10304 was granted to Newmont Tanami Pty Ltd on the 21<sup>st</sup> August 2003 for a period of six years.

This report documents the work undertaken on EL 10304 during the first year of tenure by Newmont exploration.

#### 2.0 LOCATION AND TENEMENT STATUS

#### 2.1 Location and Access

Exploration Licence 10304 was granted on the 21<sup>st</sup> August 2003 for a period of six years. EL10304 is located roughly 60km north east of the Tanami Mine and 25km east of the Groundrush Mine. See Figure 1.

Access to EL10304 is via the Groundrush Haul Road and then rough exploration tracks driven through the tenement. Access will be limited during November to April because of the wet season.

#### 2.2 Tenement Status

EL10304 comprises 99 blocks to cover an area of 320 square kilometres. Tenement rental for 21/8/2003 to 20/8/2004 was \$1089. The covenant set for the first year of tenure was \$15,000. EL10304 is part of the Newmont 'Supplejack' Reporting Group.

#### 3.0 GEOLOGY

## 3.1 Regional Geology

The Granites-Tanami Goldfields lie in the eastern part of the Early Proterozoic Granites-Tanami Inlier, which is part of the Northern Australian Orogenic Province (Plumb, 1990). The Inlier abuts the Arunta Complex to the south and east and is probably a continuation of the Halls Creek Orogeny in Western Australia (Hendrickx, et al, 2000). The Inlier underlies younger cover sequences including the extensive Paleozoic Wiso Basin on its northeastern margin, and Victoria River Basin to the north. To the west, clastic sediments of the Middle Proterozoic Birrindudu Basin overlie and separate the Inlier from the similar age rocks in the Halls Creek Province.

The oldest rocks of the Tanami region belong to the Billabong Complex, a suite of Archaean age gneiss and schist. This is unconformably overlain by the Proterozoic MacFarlanes Peak Group (mafic volcanic and volcanoclastic rocks), followed by a thick succession of clastic sediments of the Tanami Group. (Hendrickx et al, 2000). A suite of syn-to post-deformation dolerites and gabbros are found intruding both the MacFarlane Peak and Tanami Groups.

Complex, polyphase deformation during the Barramundi Orogeny (1845 – 1840Ma) has affected the entire Granites-Tanami Inlier. It appears to have been largely controlled by two sets of regional scale fundamental crustal fractures that trend NNE and WNW. This is evidenced by the orientation of successive phases of macroscopic folding in the region and the consistent sympathetic trends of late tectonic faults.

Peak metamorphism during the Barramundi Orogeny reached amphibolite facies (The Granites Gold Mine), but is more generally greenschist facies through the Inlier (Callie Gold Mine). Contact metamorphic aureoles, commonly identified in pelitic schist units by randomly orientated and alusite porphyroblasts, are well developed at the margins of the syn- and post-orogenic granite plutons.

Localised extension followed, forming small basins which filled with shallow marine sediments to the west (Pargee Sandstone) and pillow basalts and turbiditic sediments to the east (Mt. Charles Formation).

Following the period of extension, widespread granite intrusion and volcanism followed in the period 1830 - 1810 Ma. At least three suites of granitic intrusives and two volcanic complexes are present. The last intrusion of (undeformed) granite occurred at around 1800 - 1795Ma, with intrusion of The Granites Suite (Hendrickx et al, 2000).

Residual hills of gently folded Carpentarian Gardiner Sandstone unconformably overlie Early Proterozoic lithologies. Younger flat lying Cambrian Antrim Plateau Basalts are also preserved as platform cover in areas protected from erosional stripping.

Tertiary drainage channels, now completely filled with alluvial and lacustrine clays and calcrete are a major feature of the region. Some drainage profiles are 10 km wide and greater than 100m deep.

A desert terrain comprising transported and residual colluvial cover sediments and aeolian sand blanket a large portion of the Inlier, with an estimated outcrop exposure of less than 10% of the early Proterozoic lithological units.

Gold mineralisation within the Newmont Tanami tenement holdings is dominantly hosted by the Tanami Group, a sequence of fine to medium-grained turbiditic metagreywackes with lesser amounts of metapelite, carbonaceous siltstone and schist, banded iron-formation, chert and calcsilicates. (Hendrickx et al, 2000). Owing to their more resistant nature, only the cherts and iron-formations and associated interbedded graphitic schists tend to outcrop above the sand plain. The interlayered pillow basalts and sediments of the Mt.Charles Formation at the Tanami Mine deposits also host significant gold mineralisation.

#### 3.2 Local Geology

EL10304 is located on the western edge of the Wiso Basin and is dominated by Quaternary Colluvium. There are clumps of calcrete reported in the south - central portion of the tenement and unnamed Cambrian sediments (quartz arenite, sublithic arenite, chert, mudstone, limestone, dolomite) exist in the central and north eastern portion of the tenement. To the north several outcrops of Ferricrete over Cambriam

Antrim Plateau Volcanics exist with a significant record of lacustrine/alluvial sediments.

Gardiner Sandstone (sublithic arenite, quartz arenite, medium to coarse; basal conglomerate, minor siltstone; medium to thin-bedded, cross-bedded) has been identified in the north western portion of the Licence.

The Northern Territory Geological Survey have produced a basement geology map which describes EL10304 as predominantly two types of undifferentiated granites. There is a small amount of Cambrian Antrim Plateau Volcanic cover to the north of the tenement. Killi Killi Beds and Gardiner Sandstone are recorded to the north of the tenement.

#### 4.0 EXPLORATION

# 4.1 EXPLORATION for 21st AUGUST 2003 to 20th AUGUST 2004

During the first year of tenure work completed by Newmont Exploration included a regional review of data for budgetry purposes. This Exploration Licence was included in the new regional structural review completed by Brett Davies from RSG Global. Work for the structural study concentrated on interpretation and mapping.

Reconnaissance was carried out by helicopter to check BMR mapping. Four rockchip samples were taken during this reconnaissance. The maximum result was 0.004ppm Au. A series of elements were also assayed for (Au, Ag, As, Ba, Bi, Cd, Co, Cu, Hg, Mo, Ni, Pb, Pd, Pt, Ru, Sn, V, W & Zn).

# **5.0 EXPENDITURE FOR PERIOD 21/08/2003 TO 20/08/2004.**

# 5.1 Expenditure for period 21/08/2003 to 20/08/2004 on EL 10304

**TABLE 1** Expenditure Summary for EL10304 (21/08/2003 TO 20/08/2004)

EL 10304	Actual YTD	Admissible Costs
502000 Salaries	0	0
512005 Medical Examination	353.70	353.70
520055 Conferences and Sem	200.23	200.23
800001 Proj/Explorn labour	11,650.00	11,650.00
839001 Sal & Wages Allocat	260.09	260.09
839006 Fld Cost S&W Alloct	0	0
840000 Employee Cost Allo	2,153.36	2,153.36
840008 RM Expl Salary Allo	743.69	743.69
* Expln Employee Costs	15,361.07	15,361.07
520600 Couriers & Bulk Mai	0	0
520685 Telephone & Fax	264.90	264.90
839000 Fixed Asset Usage	3,117.61	3,117.61
839003 Regnl Office Alloct	274.08	274.08
840007 Expln Other Alloc	1,959.39	1,959.39
* Expln Overheads and Alloc	5,615.98	5,615.98
510000 Accom & Messing	92.45	92.45
512000 First Aid/Safety	0	0
520065 Entert Non Deduc	77.11	77.11
520086 Maintenance - Vehcl	413.44	413.44
520615 Office equip (<\$500	385.66	385.66
520681 Radio Communication	1,226.37	1,226.37
520920 Travel & Accom Loca	3,691.90	3,691.90
550020 Consum General	168.40	168.40
550999 Consum-Direct Purch	1,485.12	1,485.12
560001 Air/Heli Chrt NonTr	520.00	520.00
839004 Field Costs Alloctn	0	0
562015 Vehicle Registratio	743.39	743.39
840002 Trav & Accom Allo	142.51	142.51
840003 Draft & IT Alloc	282.83	282.83
840004 Expn Field Act Allo	40.68	40.68
840005 Equip & Veh Alloc	42.93	42.93
* Expln Operating Costs	9,312.79	9,312.79
521001 TLO - Comp Payments	1,666.66	· · · · · · · · · · · · · · · · · · ·
521002 TLO - Agrmt Complia	333.33	
521005 Legal Fees - Deduct	0	
560040 Tenement Fees	0	
560042 Tenement Rentals	990.00	
840006 Ten/Legal Cost Allo	38.35	
* Expln Tenement Costs	3,028.34	
513000 Consultants - Gen.	8,802.15	8,802.15
840001 Cont & Consul Allo	99.21	99.21
* Expln Specialist Services	8,901.36	8,901.36
** Cost element group	42,219.54	39,191.20
Covenant		15000

## 6.0 PROPOSED EXPENDITURE 21/08/2004-20/08/2005 for EL10304.

During the 2004-2005 field season it is hoped that regional reconnaissance soil sampling will be completed over the Licence with the appropriate follow up soils being planned and completed.

License	Proposed Expenditure
EL10304	\$ 12,000

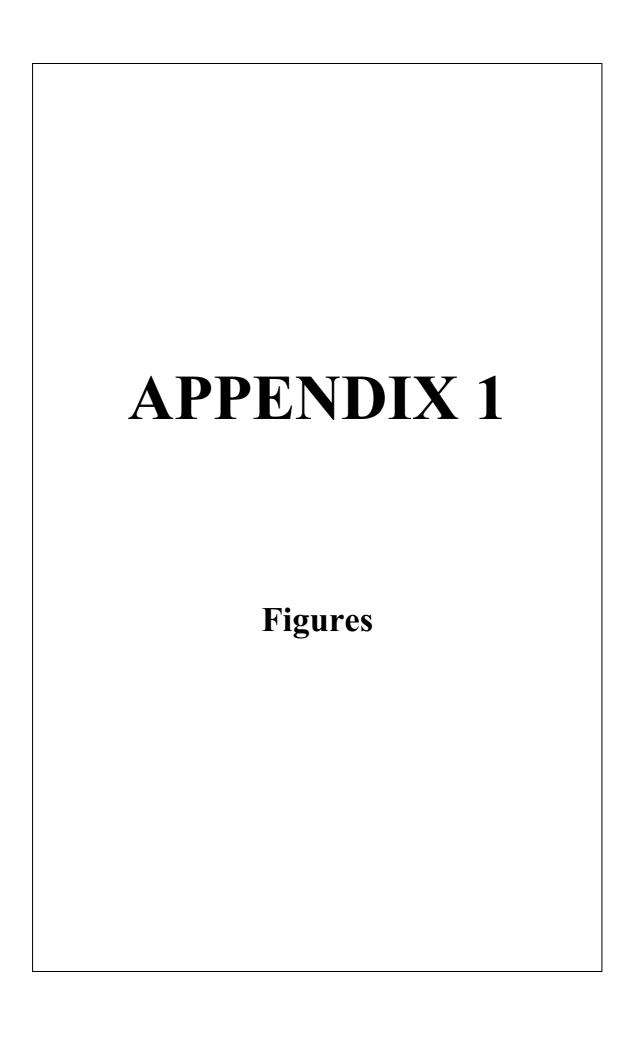
TABLE 2 Proposed Expenditure 21/08/2004-20/08/2005 for EL10304

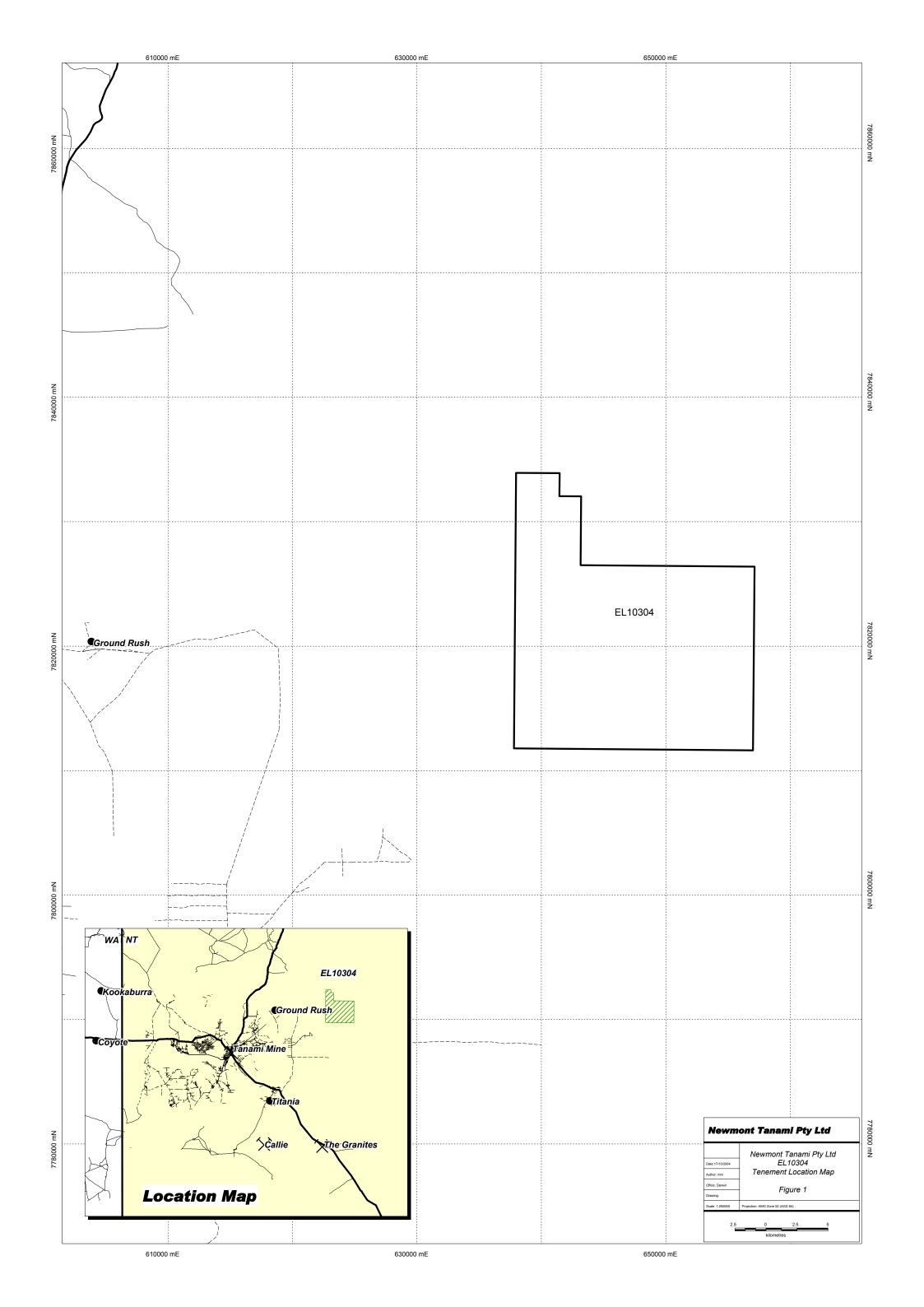
### 7.0 REFERENCES

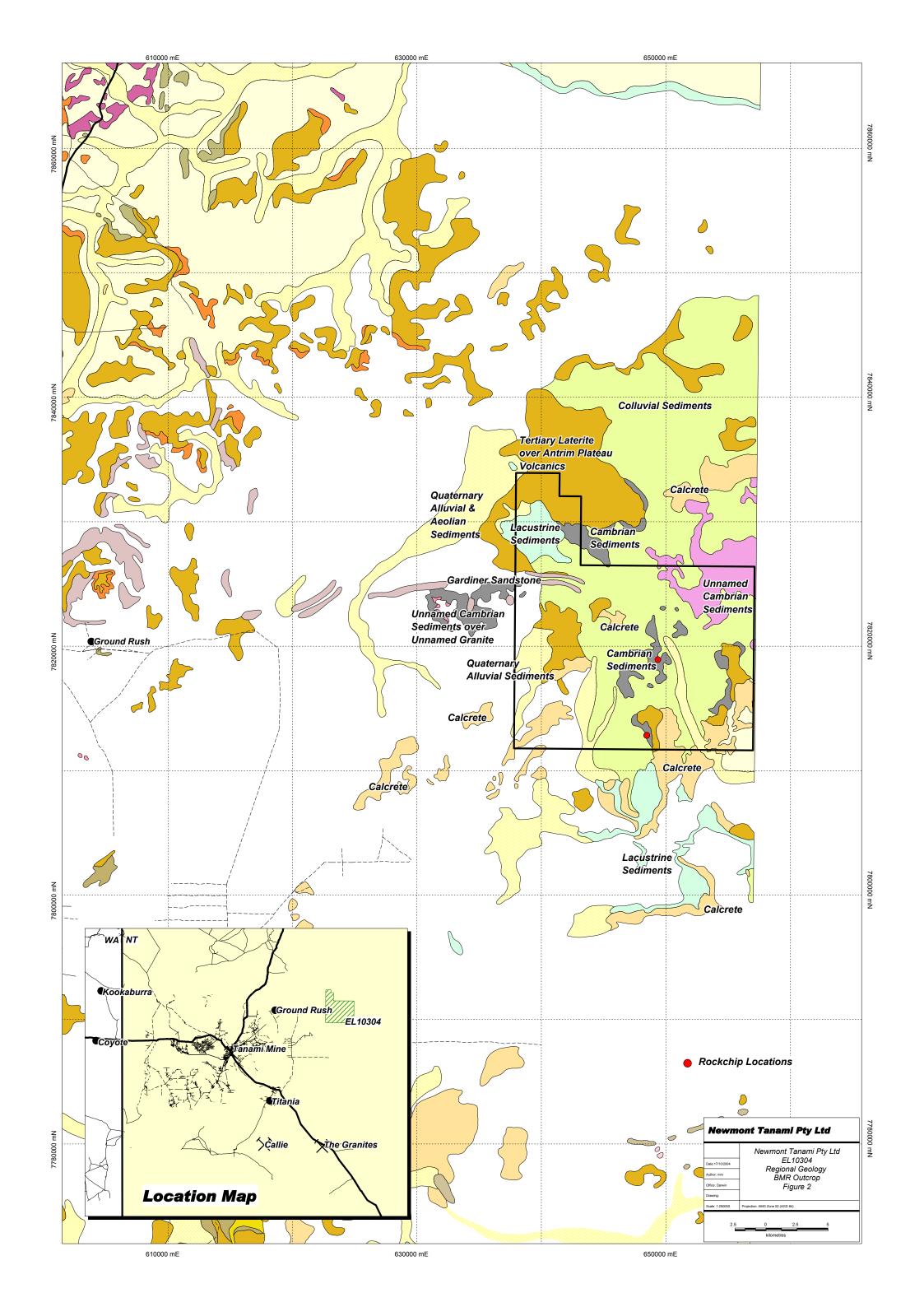
**Blake D.H., Hodgson I.M., and Muhling, P.C.**, 1979. *Geology of the Granites-Tanami Region, Northern Territory and Western Australia*. Bull. 197, Bureau of Mineral Resources, Geology and Geophysics.

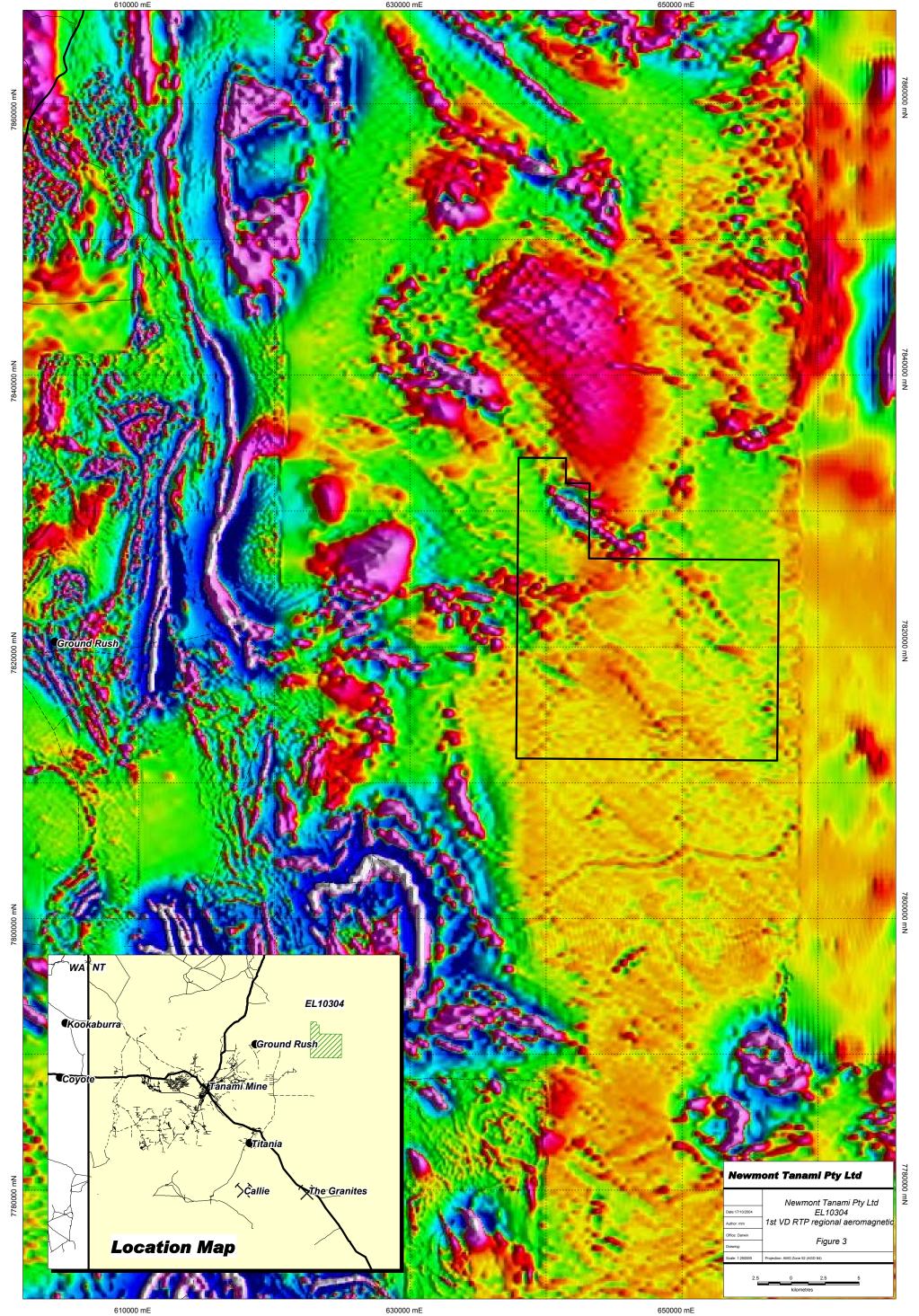
Hendrickx M.A., Slater K.R., Crispe A.J., Dean A.A., Vandenberg L.C., and Smith J.B., 2000. Palaeoproterozoic stratigraphy of the Tanami Region: regional correlations and relation to mineralisation – preliminary results. Northern Territory Geological Survey. Geological Survey Record GS 2000-13.

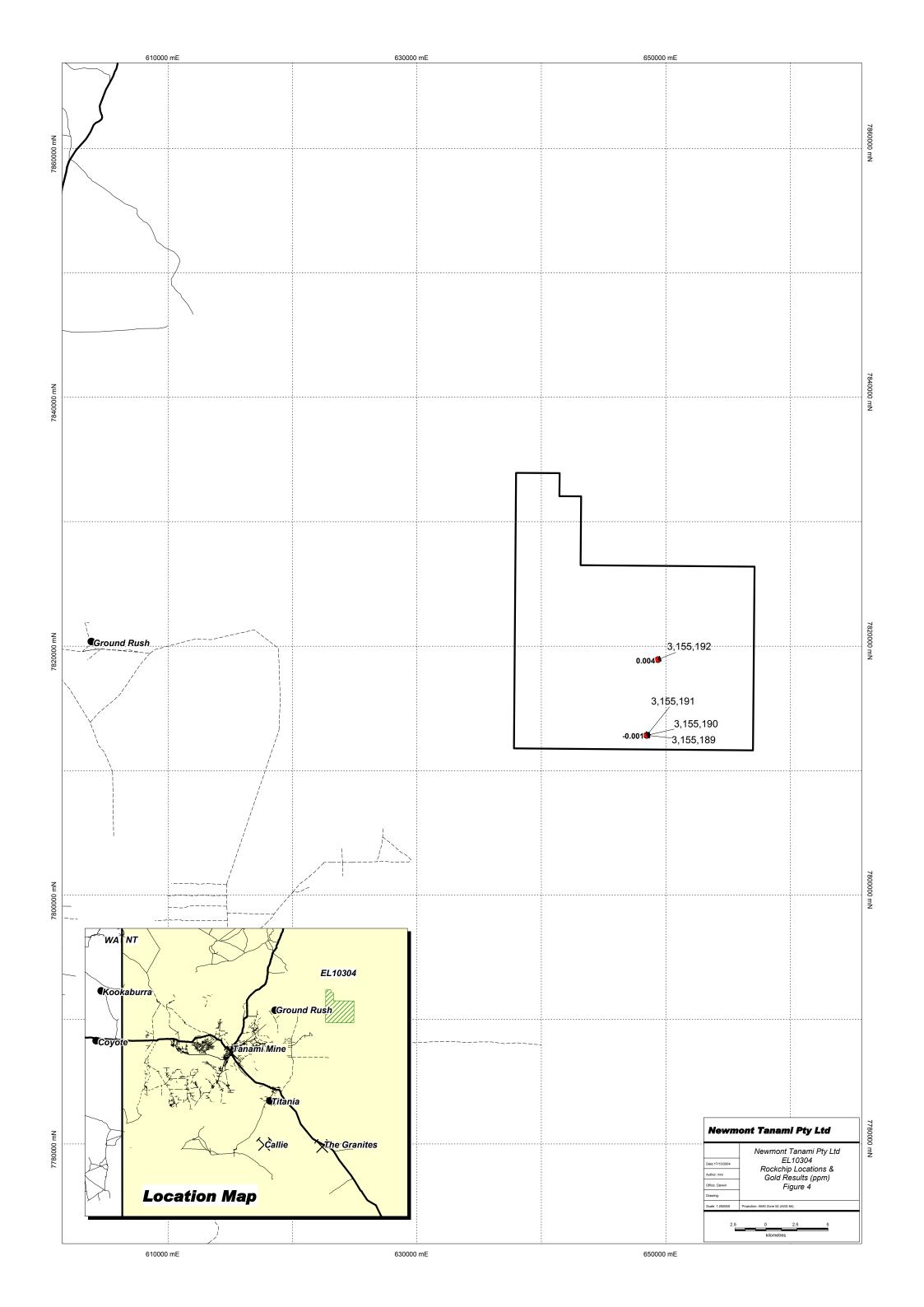
Vandenberg, L.C., Hendrickx, M.A., Crispe, A.J., Slater, K.R., and Dean, A.A., 2001. *Structural Geology of the Tanami Region*. Northern Territory Geological Survey Record 2001-004.











# **APPENDIX 2 Sampling Data** See attached Files