



TANAMI
EXPLORATION N.L.
ABN 45 063 213 598

THIRD
COMBINED
ANNUAL REPORT
EL's 10063, 10064, 10169, 10407, 22771,
23640, 23925 & 23990
MT DOREEN PROJECT

For Year Ending 29 October 2004

Author
C Rohde

November 2004

Distribution:

- o Department of Business, Industry, & Resource Development (1)
- o Native Title Unit - Central Land Council (1)
- o Tanami Gold NL, Perth (1)
- o Tanami Gold NL, Alice Springs (1)

CONTENTS

	<i>Page</i>
1.0 Summary	1
2.0 Introduction.....	1
3.0 Tenure	2
4.0 Previous Work	2
4.1 Pre TENL Exploration.....	2
4.2 TENL First Year Exploration	3
4.3 TENL Second Year Exploration.....	3
5.0 Geology	4
5.1 Regional Geology	4
5.2 Regolith and Geomorphology	4
5.3 Bedrock Stratigraphy	5
5.4 Structure	5
5.5 Metallogeny.....	6
5.6 Mt Hardy Geology.....	7
5.7 Terry's Find Geology.....	7
5.8 Pyramid Hill Geology	7
6.0 Third Year Exploration	8
7.0 Exploration Expenditure and Budget.....	9
8.0 Bibliography.....	9

TABLES

Table 1	Summary of Exploration
Table 2	Summary of Reporting Period per Tenement
Table 3	Tenement Details
Table 4	Metallogeny of the Mt Doreen Project Area
Table 5	2004 Rock Chip and Lag Sampling

FIGURES

Figure 1	Tenement Location Plan	1:2,500,000
Figure 2	Tenement Locality	1:1,000,000

PLATES

Plate 1	Regional Geology and MODAT Locations	1: 250,000
Plate 2	Rock Chip and Lag Sampling Location Plan	1: 250,000

DIGITAL APPENDICES (supplied on CD)

FILE DESC

MT_DOREEN_SG2_LAG2004A	Lag samples
MT_DOREEN_SG2_ROCK2004A	Rockchip samples

1.0 SUMMARY

Tanami Gold NL (TGNL) identified the potential for Tanami-style gold mineralisation and Tennant Creek-style copper-gold mineralisation in the Mount Doreen region of the northern Arunta Block in 1998. This led to the acquisition of a significant tenement package to form the Mount Doreen Project.

The Mount Doreen Project comprises eight granted tenements, of which Exploration Licences 10063, 10064, 10169, 10407 and 22771 were granted on 30 October 2001. This report is the third report for these tenements and the first report for Exploration Licences 23640, 23925 and 23990, which were granted in 2004.

Tanami Exploration NL (TENL) is a wholly owned subsidiary of TGNL. During the current reporting period (30 October 2003 to 29 October 2004), a total of 65 rockchip and 151 lag samples (Table 1) were collected over numerous geological and geophysical targets to investigate for evidence of distal alteration associated with Iron Oxide Copper Gold (IOCG) deposits, extensions of known mineralisation to the west of the Mount Doreen Project (Dodger Prospect on EL 8434) and other mineralising systems. Initial results show some anomalism, but mainly confined to near known prospects. Best results were:

DOK071	1530 ppm Zn	BIF close to the Silver King working
DOK078	2985 ppm As	Terry's Find ironstone – a known As anomaly.
DOK128	435 ppm Zn	chlorite schist adjacent to major iron-stained quartz vein
DOL395	118 ppm Cu	50% granitic gneiss with 40% quartz vein, 10% soil.

TABLE 1: Exploration Summary

Tenement	Tenement No	Rock Chip Sampling	Lag Sampling
Mt Singleton	EL10063	1	61
Buger Creek	EL10064	44	90
Saltbush Bore	EL10169	-	-
Silver King	EL10407	1	-
Mt Hardy	EL22771	19	-
Yalooogarrie Creek	EL23640	-	-
Atlee Creek	EL23925	-	-
Mt Hardy East	EL23990	-	-

2.0 INTRODUCTION

The Mount Doreen Project is located approximately 300 kilometres northwest of Alice Springs (Figure 1). The project area straddles four 1:250,000 sheets: Mount Doreen (SF52-12), Mount Theo (SF52-08), Lake Mackay (SF52-11) and Highland Rocks (SF52-07). Access to the project area is via the Tanami Highway, which passes through the tenements 20 kilometres west of Yuendumu. Station tracks and fence lines provide reasonable access throughout the project area.

This report is the third combined report for Exploration Licences 10063, 10064, 10169, 10407 and 22771. In 2004, it was approved that Exploration Licences 23640, 23925 and 23990 could also be included in the combined report at the October anniversary. Table 2 below details the reporting period covered for each tenement.

TABLE 2: Summary of Reporting Period per Tenement

Tenement	Tenement No.	Reporting Period	Previous Reporting
Mt Singleton	EL10063	30 Oct 03 – 29 Oct 04	1 st Year to 29 Oct 02 and 2 nd Year to 29 Oct 03
Buger Creek	EL10064	30 Oct 03 – 29 Oct 04	
Saltbush Bore	EL10169	30 Oct 03 – 29 Oct 04	
Silver King	EL10407	30 Oct 03 – 29 Oct 04	
Mt Hardy	EL22771	30 Oct 03 – 29 Oct 04	
Yalooгарrie Creek	EL23640	12 Mar 03 – 29 Oct 04	Nil
Atlee Creek	EL23925	19 Feb 04 – 29 Oct 04	Nil
Mt Hardy East	EL23990	01 Jun – 29 Oct 04	Nil

3.0 TENURE

During the reporting period, the Mount Doreen Project consisted of eight granted tenements comprising 1,243 blocks for a total area of 3,935 km² (Figure 2; Table 3). The total area has been reduced to 1,167 blocks following partial relinquishments effective 30 October 2004. The tenements are all granted to Tanami Exploration NL.

TABLE 3: Tenement Details

Tenement	Tenement No.	Blocks	Km ²	Grant Date	Expiry	Covenant
Mt Singleton	EL10063	222	707	30/10/01	29/10/07	\$29,000
Buger Creek	EL10064	393	1,250	30/10/01	29/10/07	\$29,000
Saltbush Bore	EL10169	29	92	30/10/01	29/10/07	\$13,000
Silver King	EL10407	75	239	30/10/01	29/10/07	\$13,000
Mt Hardy	EL22771	218	693	30/10/01	29/10/07	\$57,000
Yalooгарrie Creek	EL23640	114	353	12/03/03	11/03/09	\$25,000
Atlee Creek	EL23925	153	477	19/02/04	18/02/10	\$20,000
Mt Hardy East	EL23990	39	124	01/06/04	31/05/10	\$25,000

The Mount Doreen Project tenements lie wholly within the Mount Doreen Perpetual Pastoral Lease. In 2001, TENL negotiated an Indigenous Land Use Agreement (ILUA) to facilitate grant and access to the tenements. The Central Land Council (CLC), on behalf of traditional Aboriginal owners, and TENL signed an Exploration Deed on 18 April 2001 and the ILUA was registered by the National Native Title Tribunal on the Register of Indigenous Land Use Agreements on 4 September 2001. Work Area Clearance has been obtained for most of the Mount Doreen Project area, with clearance for Exploration Licence 10063 completed during 2004.

4.0 PREVIOUS WORK

4.1 Pre-TENL Exploration

The following exploration was undertaken on the Mount Doreen Project area prior to tenement grant to TENL in 2001 (Smith, 2003; Potter et al., 2003):

- Michael Terry discovered quartz reefs containing arsenopyrite with minor gold for the Emu Mining Company in the 1932,
- BMR conducted first aeromagnetic, radiometric and gravity surveys in the 1960s,
- Northern Territory Geological Survey (NTGS) assessed the economic feasibility of Mount Hardy and Clarke copper deposits (1968-1972),
- Australian Geological Survey Organisation (AGSO) completed airborne magnetic and radiometric surveys in 1993,
- Bruce and Mules explored the Silver King area for gold and base metals (1988-1991),
- MIM/Roebuck Resources Joint Venture targeted magnetic highs in the early 1990s and explored the Silver King deposit,
- Yuendumu Mining Company/Posgold explored the western Mount Doreen Project area, particularly Terry's Find, Buger and Grasshopper (1992-1996),
- NTGS and AGSO remapped Mount Doreen 1:250,000 geological map (1992-1995), and
- BHP tested the northern Mount Doreen and southern Mount Theo sheets for Cu-Au in the late 1990s, based on AGSO granite geochemical studies (Wyborn, 1998)

4.2 TENL First Year Exploration

Exploration in the first year of tenure was carried out at three target areas:

- Terry's Find on EL10064 'Buger Creek'
- Mt Hardy area on EL22771 'Mount Hardy' and
- Pyramid Hill area on EL10064 'Buger Creek', EL22771 'Mount Hardy', EL10169 'Saltbush Bore' and EL10407 'Silver King'.

The **Terry's Find** area was tested with rockchip and lag sampling and vacuum drilling. Best results were: rockchip at 863 ppb Au, lag at 104 ppb Au and vacuum drilling 1 m @ 19 ppb Au from 6 metres.

In the **Mount Hardy** area, exploration comprised locating, mapping and sampling historic copper workings. Mineralisation at Mount Hardy is hosted by quartz veins in malachite-stained and gossanous shear zones. Rockchip sampling returned a maximum of 4.36 g/t Au from a malachite and azurite-stained gossanous ironstone associated with brecciated/boudinaged ferruginous quartz veins.

A major program of first-pass vacuum drilling (249 holes for 1543 metres) was conducted over areas of deeper alluvial cover north of the immediate Mount Hardy area. Conceptual structural targets identified in Landsat and aeromagnetics were targeted. Numerous anomalous assays were returned from this drilling including maximum values of 28 ppb Au, 547 ppm Cu and 56.2 g/t Ag.

The **Pyramid Hill** target area was tested with rockchip and lag sampling, mainly from the Clarke, Mount Irene and Silver King copper workings. At the Silver King workings, rockchip assays returned highly elevated base metals and silver, including 18.5% Pb, 5.2% Cu and 283.5 g/t Ag.

4.3 TENL Second Year Exploration

During the second year of grant, 502 RAB holes and 199 vacuum holes were drilled by TENL at previously identified anomalies. Some regional surface sampling was also conducted elsewhere in the project area.

At **Terry's Find**, drill traverses of angled RAB were completed across the Terry's Find structural trend. The results highlighted a 300 m wide arsenic anomaly with maximum gold values to 4m @ 77 ppb Au associated with quartz veins. RAB holes several kilometres west along strike from Terry's Find identified narrow zones of deep weathering, with a best assay 4m @ 30 ppb Au.

At **Mount Hardy**, three RAB drilling programs for a total of 404 holes were carried out to extend the known Cu-Au mineralisation and to locate possible additional mineralising systems. Several zones of anomalism in adjacent holes (100 m apart) and more than 1 km strike length were identified. Results include a maximum of 22 ppb Au, three samples >10 ppb Au and a further twenty-five samples >4 ppb Au. Copper returned a maximum of 450 ppm Cu and thirteen >100 ppm samples. In addition, diamond core drilled by the NTGS in 1968-72 was re-logged and partly resampled.

At **Pyramid Hill**, a number of weak geochemical anomalies were recognised by TGNL in the existing MIM/Roebuck Resources dataset. A program of 199 vacuum holes was completed to test these targets. Numerous low-level gold and copper values were returned from the drilling and provided encouragement to undertake more systematic drilling.

An anomaly at **Weaner Bore**, comprising low level gold to 9 ppb over more than 500 m, was tested by vacuum drilling and returned a maximum assay of 17 ppb Au and 342 ppm Cu. Two RAB programs followed up these results and returned a maximum of 4 m @ 8 ppb Au. Copper was strongly elevated across the anomaly with a maximum of 169 ppm.

5.0 GEOLOGY

The geology of the northern Arunta region, including the Mount Doreen Project area, has been revised over the last 4 years with extensive remapping and SHRIMP U-Pb zircon geochronology.

5.1 Regional Geology

The Mount Doreen Project lies within the Aileron Province of the northern Arunta Region. In general, the basement comprises metamorphosed Palaeoproterozoic siliciclastic sediments which have been intruded by Palaeoproterozoic–Mesoproterozoic granite. High strain zones in the project area, such as the Cox's and Treachery Schist Zones, form part of the regional scale Lake Mackay-Alcoota Fault System, and have protracted histories. The Neoproterozoic Ngalia Basin lies to the south of the project area.

5.2 Regolith and Geomorphology

The Mount Doreen area has 10-20 % basement exposure with large rounded hills and tors of granite and ranges and low ridges of metasediment. Strike extensive quartzite and quartz vein ridges are common. Areas of colluvium immediately surrounding exposed bedrock are amenable to surface geochemical methods. Even further from exposed bedrock are extensive aeolian and sheetwash sandplains and minor lacustrine clay-calcrete-silcrete deposits which often form inverted topography. Well-developed alluvial deposits are common. In many areas, a sand veneer covers thick lacustrine deposits, with palaeochannels recorded up to 50 m deep. Consequently, shallow drilling methods (vacuum) have proven inefficient in many areas.

Transported laterite pisolites and breakaways of ferruginous and mottled lateritic residuum occur on the eastern margin of the Lake Mackay sheet near Terry's Find. Drilling in the area has revealed deep pallid clay weathering to 40-60 m. Elsewhere in the region, the residual regolith profile is generally

stripped to weathered bedrock with the exception of minor troughs of clay alteration lying along structural breaks.

5.3 Bedrock Stratigraphy

The oldest rocks in the Mount Doreen area are metamorphosed Palaeoproterozoic siliciclastic sediments of the c.1840 Ma Lander Group. These sediments were multiply deformed and variably metamorphosed during the c.1810 Ma Stafford Event and numerous subsequent events. The previously reported magmatic age of 1880 Ma for the Ngadarunga Granite and consequent older age for the Lander Group and proposed Yuendumu Tectonic Event (Young et al., 1995) has been reevaluated and is now interpreted to be much younger (Jon Claoué-Long, personal comment).

The Lander Group is interpreted to be stratigraphically equivalent to the Tanami Group, which hosts significant gold mineralisation at The Granites, Dead Bullock Soak and Coyote. As such, the Lander Group metasediments are considered prospective for gold mineralisation. Recent interpretation of the Tennant Creek region suggests that the Ooradidgee Group (plus Bullion and Ledan Schist) is stratigraphically equivalent to the Lander Group, in contrast to earlier appraisals where the Warramunga Group, and host of Tennant Creek Au mineralisation, was the preferred correlative.

Rare amphibolite and metagabbro occurs within the Lander Group and are interpreted to be metamorphosed dolerite sills. Volcanic units have not been identified in the Lander Group. There are other Palaeoproterozoic volcanosedimentary successions in the Mount Doreen area, including the ~1770-1790 Ma Reynolds Range Group, Patmungala and Nicker beds, but these are relatively insignificant.

There have been two main periods of granite intrusion in the Mount Doreen area; the c.1780 Ma Carrington Suite and the c.1580 Ma Southwark Suite. The Southwark Suite has geochemical affinities with granite associated with Proterozoic Au-Cu mineralisation elsewhere in Australia (Wyborn, 1998). Correlatives of the 1820-1790 Ma granites in the Tanami region (Frederick and Grimwade Suites) are unknown in the Mount Doreen area and may have implications for mineralisation models.

Neoproterozoic to Palaeozoic sedimentary rocks of the Ngalia Basin overlie the Palaeoproterozoic to Mesoproterozoic Arunta basement in the central part of the Mount Doreen 1:250,000 sheet.

5.4 Structure

The earliest deformation event affecting the Lander Group was the c.1810 Ma Stafford Event (Yuendumu Tectonic Event has been removed), which involved complex folding and shearing associated with regional metamorphism. The Carrington Suite intruded after the Stafford Event and the Reynolds Range Group was probably deposited after these Carrington granites. The correlation between the Stafford Event and Hardy Tectonic Phase is still unclear. Structures formed during the Wabudali Tectonic Phase and overprinting the Hardy/Stafford Event include east-west-trending high strain retrograde zones known as the Cox's and Treachery Schist Zones. The Wabudali Phase predates the c.1570 Ma Southwark Suite and may correlate with the 1780-1730 Ma Strangways Orogeny.

Numerous east-west trending faults, expressed as ridge-forming quartz veins, occur along the Cox's and Treachery Schist Zones. In the western part of the Mount Doreen sheet, these faults turn SW-NE to form the Weaner and Eva Springs Fault Zones. These faults cut c.1560 Ma Southwark granite, but not Ngalia Basin sediments. Landsat and magnetics suggests the presence of major NW-SE structures similar to the major Trans-Tanami Faults which are widespread throughout the northern Arunta.

5.5 Metallogeny

Numerous mineral occurrences are documented in the Mount Doreen area (Table 4). Most are copper (\pm Ag \pm Pb \pm Zn \pm W) prospects within the Cox's-Treachery Schist Zones, and are generally hosted by retrograde Lander Group metasediments adjacent to Southwark Suite granite. Minor amounts of copper and tungsten were extracted between 1930-1950 at Mount Hardy, Silver King, Clarke-Irene and Mount Doreen. Terry's Find is the only known gold-arsenic association in the area.

TABLE 4: Metallogeny of the Mt Doreen Project Area

Name	Commodity	Size	Host	Reported Exploration	Exploration Results
Terry's Find	Au	Occurrence only	Lander Rock beds	C, GC, GP, M	0.67g/t Au rockchip; 44ppb Au vacuum drilling
Clark 1	Cu	Occurrence only	Lander Rock beds	C, D, M 1970's	1 ft @ 3.6% Cu
Clark 2	Cu	Occurrence only	Lander Rock beds	C, D, M 1970's	
Clark 3	Cu	8500t @ 3.5% Cu	Lander Rock beds	C, D, M 1970's	
Mt Irene	Cu, W	39t @ 18% Cu	Lander Rock beds	C 1970's	
Silver King	Cu, Pb, Ag	Occurrence only	Leached porphyry	C, D, M, GP, GC 1990's	32m @ 1.8% Cu, Pb, Zn & Ag
Buger Creek 1	Cu	Occurrence only	Lander beds/dolerite		
Buger Creek 2	Cu	Occurrence only	Patmungala beds		
Linda Jane	Cu	Occurrence only	Lander Rock beds	P, C	Grab samples to 15.3 % Cu, 65.5 g/t Ag
Mt Hardy 1	Cu	12,200t @ 3.5% Cu	Lander Rock beds	C, D, M 1960's-70's	32m @ 1g/t Au & 2.3% Cu
Mt Hardy 2	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 3	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 4	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 5	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 6	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 8	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 9	Cu	Occurrence only	Lander Rock beds		
Mt Hardy 10	Cu	35t @ 5% Cu	Lander Rock beds	P, C 1960's-70's	
Mt Hardy 11	Cu	35t @ 5% Cu	Lander Rock beds	P, C 1960's-70's	
Mt Hardy 12	Cu	Occurrence only	Lander Rock beds		
Wilson's Find	W, Cu	Occurrence only	Lander beds? & granite		
Ringer	W	Occurrence only	Lander Rock beds		
Mt Doreen	W, Cu	255t @ 70% WO ₃	Lander Rock beds	GC, M	

C = costeaning
D = drilling
GC = geochemistry
GP = geophysics
P = general prospecting
M = mapping

5.6 Mount Hardy Geology

The copper workings at Mount Hardy are hosted by quartz veins within micaceous retrograde shear zones developed within Lander Group metasediments. Surface mineralisation comprises copper carbonate and gossan within sheared micaceous schist and boudinaged-brecciated quartz veins. Two main structural trends (NW to WNW (parallel to trans-Tanami regional scale structures in the region), and ENE-WSW) are evident from the distribution of the workings and lineations observable in Landsat imagery and aeromagnetics. Dolerite and pegmatite dykes are common in the area.

The Mount Hardy No. 1 copper deposit is the largest of the historic workings and comprises an ENE-WSW-trending exposed quartz vein. The quartz ridge extends for about 150 metres and disappears under cover to the northeast. To the southwest, the quartz vein pinches out into a series of narrow contiguous mineralised veins traceable over an additional 500 metres strike.

5.7 Terry's Find Geology

The Terry's Find Prospect is centred on Michael Terry's original 1932 discovery and is hosted by micaceous Lander Group metasediments. The metasediments are predominantly pelite with minor psammite, though there are some chert and carbonaceous shale horizons. Irregular stocks of dolerite are common in the area. A strong east-west schistosity is developed at Terry's Find and is broadly subparallel to the stratigraphy. Metamorphic grade is upper greenschist to lower amphibolite facies. Chevron folding of the bedding and schistosity is common.

Although Michael Terry sited his diggings on the main quartz reef, much of the vein material is piled around the pit suggesting that the quartz itself contains little gold. Composite assays across the vein confirm weak gold anomalism associated with elevated As (up to 993 ppm). A grab sample of massive ferruginous material from the mullock heap returned 865 ppb Au and 7.7% As. Part of the quartz vein is haematite-stained and brecciated. No primary sulphides were observed by TENL workers within the vein although previous workers reported massive arsenopyrite. The vein is hosted by pyrite-bearing graphitic shale. Approximately 250 metres west and along strike of the diggings, pit cubic boxworks after pyrite occur in limonitic metasediments with their abundance increasing towards quartz veins. Rockchip samples of quartz veins in the area returned a maximum value of 347 ppb Au.

5.8 Pyramid Hill Geology

The Pyramid Hill area is dominated by extensive vegetated plains surrounding low hills of granite and schist. The plains comprise thin sheetwash sand, clay and basal gravels overlying weathered bedrock. Deeper alluvium is associated with existing fluvial systems. Deep clay weathering to approximately 50 metres was encountered at Weaner Bore. The bedrock comprises greenschist to amphibolite-facies Lander Group metasediments intruded by Carrington and Southwark Suite granite. Major E-W and WNW (transTanami) faults cross the area.

The **Clarke Copper Mine** lies in micaceous schist of the Lander Group. The best result was returned from a grab sample of gossan at Clarke 3 (1.23 g/t Au). The digging lies along strike of a quartz-veined shear zone which returned a 2 m composite of 0.65g/t Au. Clarke 1 returned gold values to 93ppb Au. Clarke 2 was not relocated.

Mount Irene lies 5 kilometres east of Clarke 3 and may be along strike of the same shearzone. The workings comprise two parallel quartz-veined shearzones. Rockchip sampling returned a best result of 0.35g/t over 0.7m.

Silver King is located on a low hill in Lander Group psammite. The deposit contains copper and lead with minor silver and zinc. A modest mine operated during the middle of last century, but production and grade is unknown. The workings comprise numerous shallow exploratory pits and two deeper shafts over 40 metres strike length. Malachite, azurite, and massive spongy gossanous ironstone are common. Most of the outcropping mineralisation appears to be stratiform despite the minor presence of brecciated and boudinaged ferruginous quartz veins. Best result from previous drilling was 32 m @ 1.8% combined Cu, Pb, Zn and Ag. Surrounding gold anomalism has also been identified in soils and stream sediments.

6.0 Third Year Exploration

Exploration in 2004 focused mainly on the Pyramid Hill region to test the likelihood of large Iron Oxide Copper Gold mineralising systems. Possible extension of the recently discovered Dodger Au trend to the west of the Mount Doreen Project area were also investigated on ELs 10063 and 10064.

A total of 65 rockchip and 151 lag samples were collected over numerous geological and geophysical targets.

A summary of samples is presented in **Table 5** and sample locations are shown in **Plate 2**. Fieldwork included rockchip sampling at the Clarkes, Mount Irene, Ringer, Silver King, Buger Creek and Terry's Pit prospects.

TABLE 5: 2004 Rockchip and Lag Sampling

Tenement	Tenement Name	Regional Samples	Prospect Samples
EL10407	Silver King	DOK071	DOK071 from Silver King Cu occurrence
EL22771	Mt Hardy	DOK079 - 097	DOK093 – 095 from Mt Irene Cu occurrence DOK092 from Ringer W occurrence
EL10064	Buger Creek	DOK072–078, 098–131, 135 DOL251-322, 372-377, 385-396	DOK078 from Terry's Pit Au occurrence DOK073-077 from Buger Creek Cu occurrence
EL10063	Mt Singleton	DOK132-134 DOL323-371, 378-384, 397-401	Extensions of Dodger Au mineralisation

Rockchips were submitted to Genalysis to be assayed for Au by graphite furnace AAS (ppb level) and As, Ag, Bi, Cd, Co, Cu, Mo, Ni, Pb, Sb, W and Zn by OES after aqua regis digestion. Lag samples were similarly assayed, but were not tested for Bi, Cd, Ni or W. Results are included in the digital Appendix.

The **Clarke-Irene** trend was tested for possible stratigraphic repeats of mineralised seams in Lander Group schist, including sampling east of Mount Irene. A total of 18 rockchip samples were collected. No anomalous results were recorded.

Differing from the shearzone-hosted Clarke–Irene prospects, the **Silver King** prospect is hosted by a porphyry similar to that drilled at Weaner Bore. Only one rockchip was taken in this area; a BIF containing slightly anomalous Cu (436 ppm) and Zn (1530 ppm). This sample was taken 100 m away from the diggings and away from visual signs of proximal alteration.

Buger Creek is a copper prospect adjacent to a linear magnetic high trending NW-SE. No diggings could be located. This region comprises low ridges of amphibolite and chlorite schist. Six rockchip samples were collected. No anomalous values were recorded.

On ELs 10063 and 10064, previously untested areas were chosen for **regional surface sampling** based on the probable presence of suitable sampling mediums from Landsat imagery. This approach had moderate success. One rockchip and sixty-one lag samples were collected from EL 10063 including a close-spaced north-south traverse across the central region. Ninety lag and 37 rockchip samples were collected from EL 10064 including coverage of the central region south of the Wabudali Range. The quartzite ridges that were sampled are interpreted to be Mount Thomas Quartzite, the basal units of the Reynolds Range Group. The best result was:

DOK128 435 ppm Zn chlorite schist adjacent to major iron-stained quartz vein

Also covered in this survey was the possible extension of the Dodger Au trend. However, the samples along the western boundary of EL 10063 and 10064 were mainly granitic gneiss. The best result was:

DOL395 118 ppm Cu 50% granitic gneiss with, 40% quartz, 10% soil.

7.0 EXPLORATION EXPENDITURE AND BUDGET

The annual expenditure and exploration programs and budgets will be reported separately for each tenement at its individual anniversary date.

8.0 REFERENCES

Potter, J.R., Anderson, J.E., 2003 Second Annual Report EL's 10063, 10064, 10169, 10407, 22771 Mt Doreen Project for the year ending 29 October 2003.

Smith, T.R., 2003. First Annual Report EL's 10063, 10064, 10169, 10407, 22771, Mt Doreen Project, For Year Ending 29 October 2002.

Stewart, A.J., 1976 Mount Theo, First Edition 1:250,000 scale geological map. *Bureau of Mineral*
Wyborn, L.A.I., et al 1998 Australian Proterozoic Granites – characteristics, sources and possible mechanisms for derivation and emplacement. In: Abstracts for the Bruce Chappell Symposium: Granites, island Arcs, The Mantle and Ore Deposits. *Australian Geological Survey Organisation, Canberra.*

Young D.N. et al 1995. U-Pb zircon dating of tectonomagmatic events in the northern Arunta Inlier. Central Australia. *Precambrian Research* 71, 45-68.