TANAMI EXPLORATION NL

ABN 45 063 213 598

PARTIAL RELINQUISHMENT REPORT

EL 23630 GOLDEN GOOSE

WINNECKE PROJECT

From 5 March 2003 to 4 March 2005

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May 2005

Distribution:

- Department of Business, Industry, & Resource Development (1)
- Central Land Council (1)
- Tennant Creek Gold Pty Ltd (1)
- Imperial Granite and Minerals Pty Ltd (1)
- Tanami Gold NL, Perth (1)

File: cr76dbirdRR2005_ Golden Goose

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1.0 SUMMARY

EL 23630 'Golden Goose' covers the Winnecke Goldfield, Central Australia, approximately 60 kilometres northeast of Alice Springs (Figure 1). The tenement was granted on 5 March 2003 to joint holders Imperial Granite and Minerals Pty. Ltd. (IGM) and Tennant Creek Gold Pty. Ltd. (TCG) and has been explored since 2003 under an option agreement by Tanami Exploration NL (TENL), a wholly owned subsidiary of Tanami Gold NL (TGNL), a publicly listed company. After two years of tenure the tenement was reduced in size pursuant to the requirements of section 26 of the *NT Mining Act*. Exploration on the relinquished portion of EL 23630 is the subject of this report.

Exploration in the surrendered tenement area included an assessment of previous exploration, regional geological mapping and rockchip sampling. A total of 10 samples were taken near the southern boundary of the northern surrendered block. No elevated gold values were returned.

2.0 INTRODUCTION

EL 23630 is located approximately 60 kilometres northeast of Alice Springs (Figure 1) on the Alice Springs 1:250 000 map sheet (SF53-14) and the Laughlen 1:100 000 map sheet (5751). Access is gained from the Stuart Highway along an unsealed road leading to "The Garden", "Ambalindum" and "Claraville" Stations. This road passes to the north of the tenement area, which can be conveniently accessed via a station track leading southwest from "The Garden" Station.

This report covers exploration conducted over two years of tenure on the relinquished tenement portions of EL 23630.

3.0 TENURE

EL 23630 'Golden Goose' was granted to Imperial Granite and Minerals Pty. Ltd. (IGM) and Tennant Creek Gold Pty. Ltd. (TCG) on 5 March 2003. An option agreement was negotiated with the registered holders whereby TENL carried out exploration since 2003. At the end of the second year of term, it was reduced in area pursuant to the requirements of section 26 of the *NT Mining Act*, see Table 1 and Figure 2.

Table 1: Tenement Details

Tenement	Tenement No	Blocks Granted	Blocks Relinq.	Blocks Retained	Grant Date	Expiry Date
Golden Goose	EL 23630	52	15	37	5 Mar 03	4 Mar 09

4.0 GEOLOGY

4.1 Regional Geology

The Winnecke Goldfield is located in the southeast of the Strangways Range Region, within the eastern section of the Arunta Block. The Strangways Range Region (Shaw and Langworthy, 1984) consists of mainly Proterozoic crystalline and metamorphic rocks of the Arunta Block unconformably overlain by

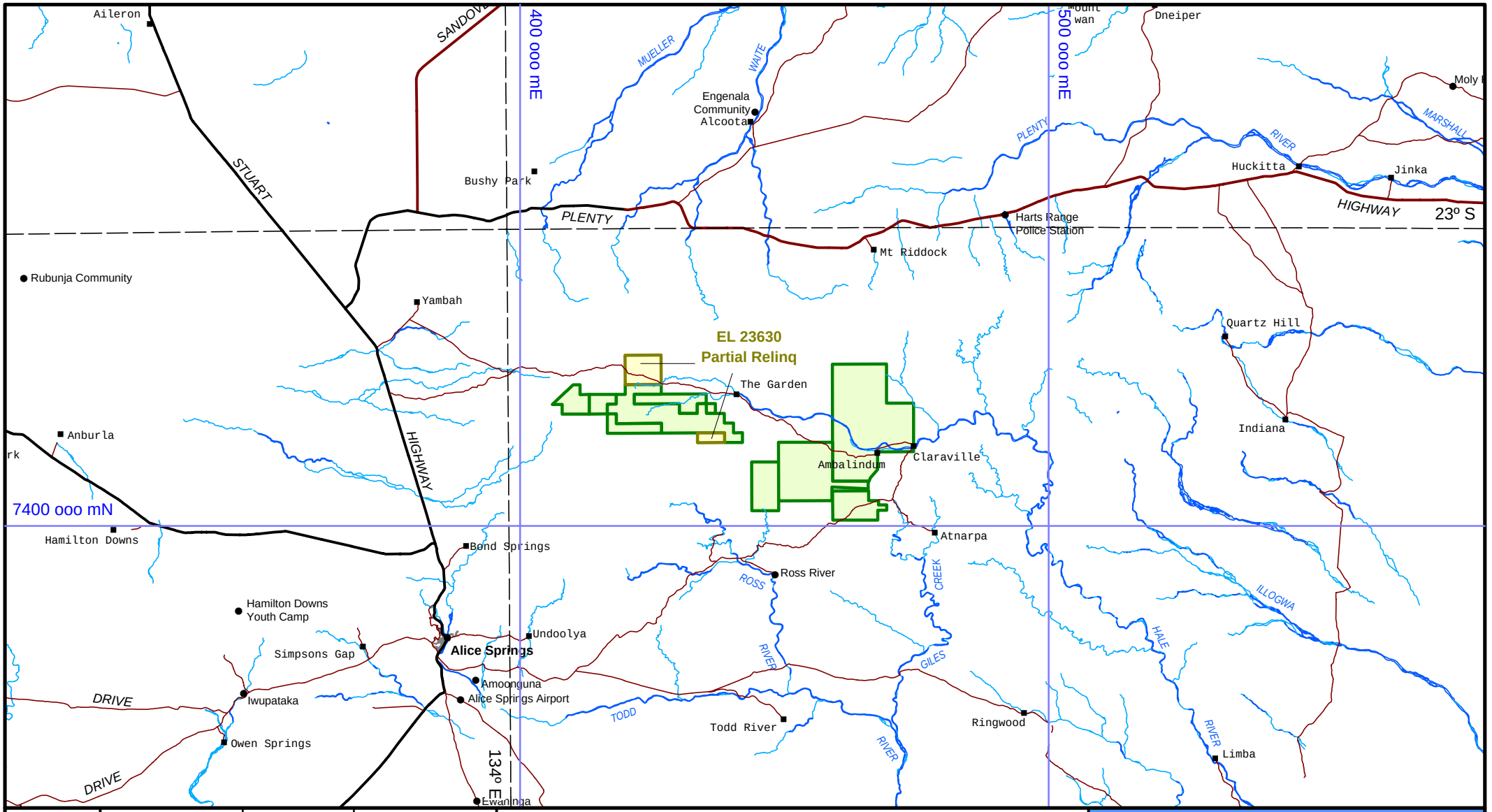


FIGURE 1

ORIGINATOR:	DATE:	DRAWN:
C.Rohde	**May 2005**	**A. Weston**

1 : 1,000,000

0 20 40 60

MGA Zone 53 (GDA94) kilometres

WINNECKE

PROJECT LOCALITY

TANAMI GOLD NL

PLAN No: **49022_Tt_005**

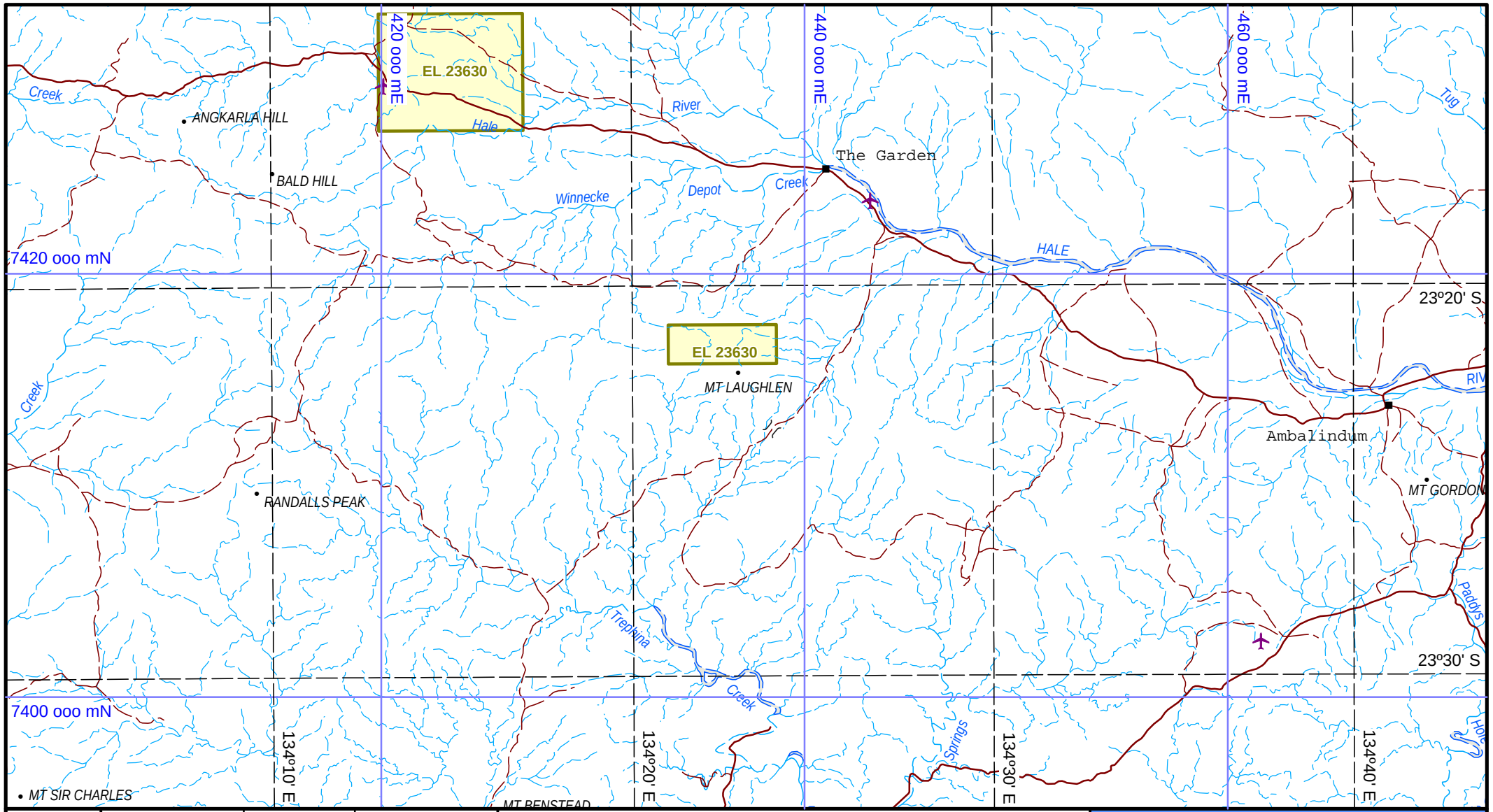


FIGURE 2

ORIGINATOR:	DATE:	DRAWN:
C.Rohde	**May 2005**	**A. Weston**

1 : 250,000

0 5 10 15

MGA Zone 53 (GDA94) kilometres

EL 23630 - GOLDEN GOOSE

TENEMENT LOCALITY

TANAMI GOLD NL

PLAN No: **49022_Tt_006**

nappes and folded outliers of the Neoproterozoic Heavitree Quartzite and Bitter Springs Formation of the Amadeus Basin.

4.2 Local Geology

EL 23630 is dominated by a wide corridor of intense and complex, laterally continuous east-west-trending greenschist shearing within a predominantly gneissic terrane (Plate 1). This corridor is known as the Winnecke Shear Zone, and is bounded by two major northwest-trending lineaments, the Woolanga and Pinnacles Shearzones to the east and west, respectively. The shear formed during the Alice Springs Orogeny when Neoproterozoic Amadeous Basin sediments to the south were thrust over the Palaeoproterozoic Arunta basement to the north.

The northern relinquished block is underlain by undifferentiated amphibolite to granulite facies metasediments and minor gneisses, with characteristic marble and calc-silicate rocks of the Cadney Metamorphics. The smaller southern relinquished block is interpreted to be mainly underlain by undifferentiated granitic gneiss of the Arltunga Gneiss Complex with a section of Neoproterozoic Heavitree Quartzite.

5.0 PREVIOUS EXPLORATION

The area of EL 23630 has been heavily previously explored by various companies, including Tanami Gold NL which conducted exploration within former EL 8164 between October 1998 and November 2001. All previous exploration is summarised as follows.

5.1 Exploration Prior to the Grant of EL 8164

Prospecting and small scale mining has been undertaken on the Winnecke Goldfield intermittently since the discovery of gold near Winnecke's Depot in 1902. Exploration in the modern era has not been extensive. Most work was undertaken by companies in joint venture with Range Resources Limited on former EL 4326 between 1984 and 1987. Australian Anglo-American Limited (AAL) conducted exploration in the vicinity of old workings at Golden Goose (Golden Goose, Junction and Coorong Prospects) and Russell's Gully (Ciccone, Big Gun and Patsy's No.3 and No. 5 workings) as described in the Modat database.

AAL undertook geological mapping and soil sampling in the vicinity of the old workings, and mapped and sampled accessible workings. The sampling of old workings returned numerous anomalous gold assays, with a best intersection of 18 metres @ 3.76g/t Au from a cross-cut in the upper part of the Golden Goose Mine.

In 1984, AAL completed four shallow diamond drill holes at Golden Goose and one diamond drill hole at Coorong (Pigott, 1985). Results were disappointing, although only 60% of the core was sampled.

Following the withdrawal of AAL from the joint venture, MacMahon Construction Pty Ltd undertook exploration at Golden Goose, completing 18 RC percussion drill holes and 13 costeans. Results were generally disappointing. The drilling returned a maximum assay of 1 metre @ 5.5g/t Au. The best results from the costean program came from 'Costean 7' with 7metres @ 2.28g/t Au and 3 metres @ 5.80g/t Au.

CRA Exploration undertook exploration in the Sliding Rock Well – Sloans Gully area at the western end of the Winnecke Goldfield, including:

- helicopter reconnaissance sampling;
- grab sampling, rock chip sampling and Gemco auger sampling at Sloans Gully;
- diamond drilling; and
- an airborne magnetic/radiometric survey.

The main target was a shear zone in the Heavitree Quartzite. The various forms of surface sampling returned a best assay of 1.0g/t Au. Core drilling returned best intersections of 5 metres @ 2.58g/t Au and 2.65 metres @ 2.95g/t Au.

5.2 Exploration by Roebuck and NFM on EL 8164 - Years 1 to 4

Exploration undertaken on EL 8164 by Roebuck and NFM has been previously reported by Warne (1994), Lovett and Beckwith (1995), Lovett (1997) and Longmire and Adrichem (1997). This work is summarised below.

Roebuck undertook orientation and geochemical sampling in 1993–1994, and examined known prospects and old workings.

NFM undertook first pass regional surface geochemical sampling programs in 1996 – 1997, including stream sediment sampling (SSS) as the main regional tool and composite rock chip sampling (CRC) in areas of outcrop in the vicinity of old workings and in areas of distinct alteration.

Of the 997 stream sediment samples collected, 105 samples (10.5%) returned assays ≥10ppb Au, 27 samples (2.7%) ≥100ppb Au, and 2 samples >1000ppb Au (2.10ppm and 1.65ppm). Anomalous values were clearly clustered in several groups.

Of the total of 1,121 CRC samples collected, 20 (1.8%) returned values > 10g/t Au, 61 (5%) ≥ 1.0g/t Au, 134 (12%) ≥ 100ppb Au, and 306 (27%) ≥ 10ppb Au. NFM noted that many of the high grade samples were taken from old workings.

The combined stream sediment and composite rock chip samples would appear to be indicative of a major gold bearing system within which it is likely that economic deposits could occur. The five highest CRC assays ranged from 320g/t Au down to 67.9g/t Au. The CRC sample results support the anomalous zones defined by stream sediment sampling.

NFM also completed a RAB drill program comprising 114 holes for 5,067 metres at several prospects. Drilling included five traverses in the vicinity of the Golden Goose workings, and holes targeting specific rockchip anomalies from or adjacent to old workings.

The overall results were disappointing with the best intersection 3 metres @ 23.8g/t Au being returned from a hole 200 metres west of the Golden Goose. Other anomalous results included 1 metre @ 14.2g/t at Ringneck; 3 metres @ 1.25g/t about 100 metres east of Coorong; and 2 metres @ 0.91g/t at Golden Eagle.

Costeans were excavated at the Raven, Ringneck and Bee Eater Prospects. At Raven, the costeans were designed to test CRC anomalies. Costean RAC001 returned 2m @ 2.88g/t Au and Costean

RAC002 returned 47m @ 42ppb Au. At Ringneck, the three costeans were designed to test composite rock chip anomalies. The best results were 17 metres @ 119ppb from RIC001 and 27 metres @ 77ppb from RIC002. At Bee Eater, results from the 11 costeans were generally very low. Best results were 11 metres @ 129ppb Au from 44 to 55 metres in BEC002 and 3 metres @ 133ppb Au from 47 to 50 metres in BEC003.

5.3 Exploration by Tanami Gold NL on EL 8164 - Year 5 to 8

TGNL carried out exploration programs on the tenement between October 1998 and November 2001. Exploration completed by TGNL included:

- Review of all previous exploration;
- Acquisition of Landsat TM/Spot imagery;
- Sampling and assaying of previously unsampled drill core;
- Surface sampling (three programs);
- RAB drilling of geochemical/geological target areas;
- Regional mapping compilation of the district;
- RC percussion drilling of the Golden Goose Prospect; and
- Rehabilitation of drill sites and sample disposal.

Previous drilling vertically below the Golden Goose workings had failed to return significant intercepts to ±75 metres vertical depth. In March 2001 Dr Puquan Ding and Dr Qi Deng mapped the surface outcrops and shallow workings at Golden Goose with a view to demonstrating a possible plunge or preferred direction to the mineralised quartz vein system.

The interpretation derived from the mapping program was of a 'structural corridor' trending 050° to 060° and plunging 40°-60° to the northeast. An RC percussion drill program totalling 7 holes for 1,254 metres tested this interpretation. Extensive zones of intensive quartz veining were intersected marking the mapped structural features; however no significant gold values were returned.

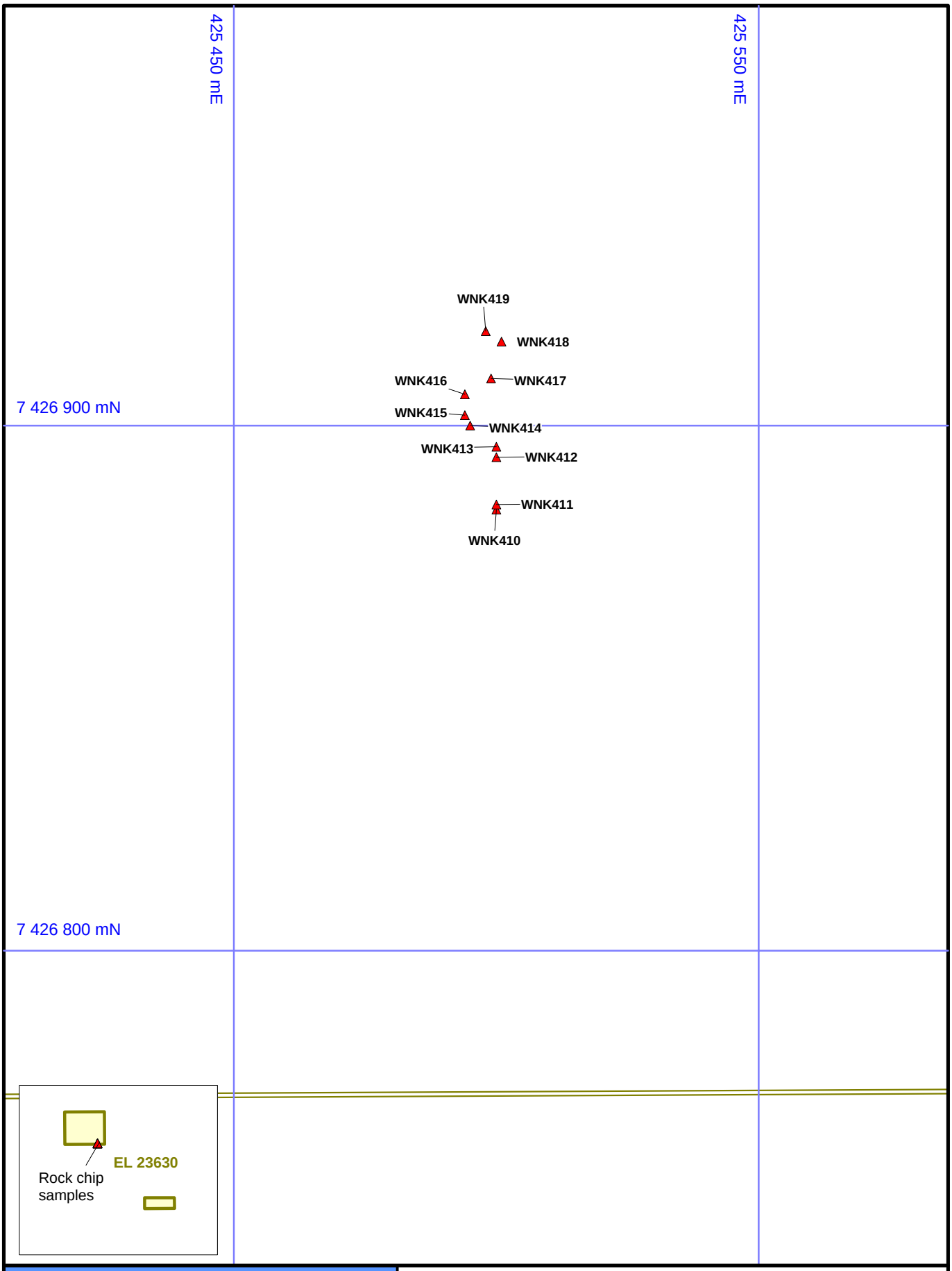
6.0 TENL Exploration (EL23630)

Field work in the first year of tenure concentrated around the Golden Goose workings, a historical deposit at the intersection of east-west and north-westerly trending structures within the Winnecke shear zone within the retained tenement portion of EL 23630.

Exploration in Year Two included an assessment of previous exploration followed by a reconnaissance trip with rock chip sampling. A total of 10 rock chip samples (WNK410-419) were taken in the northern relinquished tenement area (Figure 3) to test an anomaly identified by GeoDiscovery in 2002 (McLean & Walters, 2003). Anomaly GG4501 is located in a package of alternating dolomitic marble and psammopelitic gneiss with previous assay results shown in Table 2. Very little quartz veining and no obvious mineralisation was recognised.

Table 2: GeoDiscovery Rockchip Rresults from 2002.

	Au	Cu	Pb	W	Zn	Comment
GG4501	1.08	51900	39	561	61	Float of Cu in mafic calcsilicate at contact with marble



TANAMI GOLD NL

GOLDEN GOOSE

ROCK CHIP SAMPLING

ORIGINATOR:	DATE:	DRAWN:
C. Rohde	**May 2005**	**A. Weston**

PLAN No: **49022_Cr_002**

1 : 1,000

0 20 40 60

MGA Zone 53 (GDA94) metres

FIGURE 3

Samples were assayed by Genalysis for Au by AAS (ppb level) and As, Ag, Bi, Cd, Co, Cu, Mo, Ni, Pb, Sb, W and Zn by OES after aqua regis digestion. Sample details and assay results are included in the digital Appendix.

Assay results failed to repeat previous values by Geodiscovery. No elevated values for gold were returned and maximum value for copper was 98 ppm.

7.0 REHABILITATION

No ground disturbing work was conducted and therefore no rehabilitation is required.

8.0 REFERENCES

Kavanagh, M.E., 2002. Eighth Annual Mineral Report For Year Ending 14 December 2001 and Final Report For Period 15 December 1993 to 14 December 2001 for EL 8164, Tanami Mining NL unpublished Report.

Freytag, I.B., 1994. EL 8164 – Rankins N.T. Review of past work and Exploration Opportunities, Roebuck Resources NL unpublished report.

Longmire, R.A. and Adrichem, S.M., 1997. Fou*rth Annual Report* for EL 8164 (Rankins) *for the Year* to 14 December 1997, Normandy NFM Limited unpublished report.

Longmire, R.A. and Adrichem, S.M., 1998. Second Relinquishment Report for EL 8164 (Rankins) (15/12/1993 – 14/12/1997), Normandy NFM Limited unpublished report.

Lovett, D.R. and Beckwith, A.F., 1995. Supplementary Annual Report for EL 8164 (Rankin) for the Period to December 1995, North Flinders Mines Limited unpublished report.

Mayer, T.E., 1999. EL 8164 Annual Report for period ending 14 December 1998.

Mayer, T.E., 2000. EL 8164 Annual Report for period ending 14 December 1999.

Mayer, T.E., 2001. EL 8164 Annual Report for period ending 14 December 2000.

Lovett, D.R., 1997. Annual Report for EL 8164 (Rankin) for the Year to 14 December 1996, North Flinders Mines Limited unpublished report.

McLean, N. and Walters, S. 2003 Report on the exploration activities on EL's 9528, 9529, 9774, 10158, 10302, 10401, 22446, 22923 and EL Applications 23630 and 23650, Tanami Gold JV, Central Arunta Project, Northern Territory.

Pigott, G.F., 1985. EL 4326 Winnecke Annual Report to the NTDME for the Period Ending 4 September 1985, Australian Anglo American Limited unpublished report.

Rohde, C., 2004. First Annual Report on EL 23630 Golden Goose for the Year Ending 4 March 2004, Tanami Mining NL unpublished Report.

Rohde, C., 2005. Second Annual Report on EL 23630 Golden Goose for the Year Ending 4 March 2005, Tanami Mining NL unpublished Report.

Shaw, R.D. and Langworthy, A.P., 1984. 1:100 000 Geological Map Commentary, Strangways Range region, Northern Territory, Bur. Miner. Resour. Geol. Geophys. Aust.

Warne, S.B., 1994. Rankins, N.T. EL 8164 Reconnaissance Exploration Report, June 1994, Roebuck Resources NL unpublished report.

Warne, S.B., 1996. Rankins, N.T. EL 8164 First Relinquishment Report, December 1995, Roebuck Resources NL unpublished report.

EL 23630 Golden Goose (Mackie Option) ROCK 2004

Sample No	Grid	Easting	Northing	Au_ppb	As_ppm	Ag_ppm	Pt_ppb	Pd_ppb	Cu_ppm	Pb_ppm	Zn_ppm	Regolith	Lithology	Date	Geo
WNK410	MGA53	425500	7426884	0	0	0	-1	-1	32	45	21		PB	3/08/2004	MGG
WNK411	MGA53	425500	7426885	0	0	0	-1	-1	22	14	27		PX	3/08/2004	MGG
WNK412	MGA53	425500	7426894	0	0	0	-1	-1	25	13	38		PE	3/08/2004	MGG
WNK413	MGA53	425500	7426896	0	0	0	-1	-1	17	5	8		VN	3/08/2004	MGG
WNK414	MGA53	425495	7426900	0	3	0	-1	-1	76	16	12		PP	3/08/2004	MGG
WNK415	MGA53	425494	7426902	0	0	0	-1	-1	90	10	6		VN	3/08/2004	MGG
WNK416	MGA53	425494	7426906	0	0	0	-1	-1	4	18	19		PB	3/08/2004	MGG
WNK417	MGA53	425499	7426909	0	0	0	-1	-1	4	17	14		PX	3/08/2004	MGG
WNK418	MGA53	425501	7426916	0	0	0	-1	-1	6	10	98		PX	3/08/2004	MGG
WNK419	MGA53	425498	7426918	0	5	0	-1	-1	8	9	65		PX	3/08/2004	MGG
10			**Maximums**	**0**	**5**	**0**	**-1**	**-1**	**90**	**45**	**98**				

410 000 mE | 415 000 mE | 420 000 mE | 425 000 mE | 430 000 mE | 435 000 mE | 440 000 mE | 445 000 mE

134° 10' E | 134° 20' E | 134° 30' E

7 430 000 mN | 7 425 000 mN | 7 420 000 mN | 7 415 000 mN | 7 410 000 mN | 7 405 000 mN

23° 20' S

EL 23630 Partial Relinq

EL 23630 Partial Relinq

Golden Goose, An

MORDOR IGNEOUS COMPLEX

Syenite Sub-complex

Ultramafic Sub-complex

Ebu

Euh

Euh?

Eub

Em

Emu

Ezr

Ea

Ec

Ebu-Fz | Undifferentiated Areyonga Formation to Paleozoic

Eu | Undifferentiated Heavitree Quartzite and Bitter Springs Formation

Eub | Bitter Springs Formation

Euh | Heavitree Quartzite

Ezr | Retrogressed or alteration zone

Mordor Igneous Complex

Em | Ultramafic, diorite, norite, pyroxenite, phlogopite, shonkinite, syenite intrusions

Emu | Zoned ultramafic plugs (Braveheart Ironstone)

HARTS RANGE OROGENIC BELT

Ehr | Irindina Supracrustal Assemblage undifferentiated

Eha | Amphibolite

Ehp | Pelitic and semipelitic gneiss

Ehq | Pure and impure quartzite, marble and calc-silicate rocks

Metamorphosed Intrusive Rocks

Ehg | Granite

Ehm | Mafic rocks

Ehu | Ultramafic rocks

FLORENCE DETACHMENT ZONE

Efb | Bruna Gneiss (mylonitised and metamorphosed granite)

Efm | Metamorphosed mafic rocks

Ef | Florence Metamorphics (mylonitised granulite facies rocks of Strangways Metamorphic Complex)

STRANGWAYS METAMORPHIC COMPLEX

Enita Gneiss Complex

Eneg | Tonalitic and granitic gness with minor metasediments

Enea | Amphibolite

Enem | Metamorphosed mafic rocks

Eneu | Metamorphosed ultramafic rocks

Oonaglabi Gneiss Complex

Eog | Granitic gneiss with minor metasediments

Eoa | Amphibolite

Eom | Mafic granulite

Arltunga Gneiss Complex

Ea | Undifferentiated granitic gneiss, tonalitic gneiss, amphibolite and minor medasediments

um | Ultramafic

Cadney Metamorphics

Ec | Undifferentiated amphibolite to granulite facies metasediments and minor gneisses, with characteristic marble, calc-silicate rocks

The Garden Metamorphics

Eti | Undifferentiated mafic and felsic granulite with minor medasediments and gneisses

um | Ultramafic

E?C | **Undivided metamorphic rocks**

EK | **Kanandra Metamorphics**

PALEOPROTEROZOIC

MESOPROTEROZOIC

Lithological boundary

Unconformity boundary

Trend of layering

Fault related to Alice Springs Orogeny

Thrust and nappe structure related to Neoproterozoic Arltunga Orogeny

Ductile shear zone

Undifferentiated fault or thrust

Johnnycake, Pdiopyxite

Mordor

Rankin 1, Pb

Rankin 3, Gn

Rankin, Gn

Ebony Rock, An

Ebony Rock, Pb

Ebony Rock, An

Old Camp, An

An

An

An

An

An

Tanami 1, Gn

Kennys, Pb

An

Gleneagle, Pb

Jonathon Globe, An

Gemstone Globe, An

Allen, An

Golden Eagle Globe, An

Albrecht, An

Rockwell's Globe, An

Pyrite Globe, An

Ebenezer, An

Mallee Globe, An

Black Eagle Globe, An

Geoscorp Globe, An

Percy's Globe, An

Mordor

Gn

Gn

Gn

Ni

Gn

Gn

Gn

Gn

Ni

Gn

Gn

Gn

Gn