



for the
2002 FIELD SEASON

EL8803
EL8825

Syrene Lucky's Bore

NORTHERN TERRITORY

Volume **1** of **1**

1:250,000 SHEET:

The Granites

SF52-03

1:100,000 SHEET:

MacFarlane
Pedestal Hills

4757
4758

AUTHOR:

M. Walter

TENEMENT HOLDERS:

Newmont NFM (trading as Normandy NFM Limited)

DISTRIBUTION:

- ☐ Northern Territory Department of Business, Industry and Resource Development
- ☐ Newmont Australia - Exploration

The contents of this report remain the property of Normandy NFM Limited and may not be published in whole or in part nor used in a company prospectus without the written consent of the Company.

SUMMARY

The Western Non-TGEA Project, located in the Tanami desert region approximately 130km west-north-west of the Granites Gold Mine, currently comprises 2 exploration licences. EL's 8803 & 8825 were granted on the 29th April 1999. During 1999, Normandy NFM negotiated an agreement with the NT DME to provide technical reports on the Project Area for an entire field season rather than the anniversary year. A submission date of the 30th April each year was established. Originally this project group was comprised of 4 licences (EL's 8803 & 8999 (Syrene & Medussa), EL 8825 (Lucky's Bore) and EL 8593 (Nora)). During 2002 EL's 8999 and 8593 were relinquished in full and final reports were completed and sent to NTDBIRD.

This is the fourth annual report for the Western Tanami Project covering all work completed on the remaining 2 licences during the year to 31/12/2002.

Exploration during the reporting period was limited to surface sampling in EL 8825 (Lucky's Bore).

- Lag Sampling: 6 samples

TABLE OF CONTENTS

Page Number

1. INTRODUCTION	1
2. LOCATION, INFRASTRUCTURE, ACCESS, SURVEY CONTROL & ENVIRONMENTAL PRACTICE	2
2.1 LOCATION, ACCESS & PHYSIOGRAPHY	2
2.2 INFRASTRUCTURE	2
2.3 ENVIRONMENTAL PRACTICE.....	2
3. PREVIOUS EXPLORATION.....	3
4. EXPLORATION OBJECTIVES	4
5. GEOLOGY	5
6. WORK COMPLETED	6
6.1 EL8825 – LUCKY’S BORE	6
7. REFERENCE LIST / ANNUAL REPORT BIBLIOGRAPHY	7

LIST OF FIGURES

Scale

FIGURE 1	Normandy NFM Tenement Holding Showing Location of The Western Tanami Project Exploration Licences (EL's 8803, 8999, 8593, 8825)	1:1,000 000
FIGURE 2	EL8825 - Prospect Locality Plan	1:300 000
FIGURE 3	EL8825 – Sample Locality Plan	1:300,000

LIST OF TABLES

TABLE 1	Western Tanami Project Tenement Summary
TABLE 2	Lag Sample Details

LIST OF APPENDICES

APPENDIX 1	Digital Sample Data
------------	---------------------

1. INTRODUCTION

This report covers the Western Tanami Project for the period ending 31/12/2002.

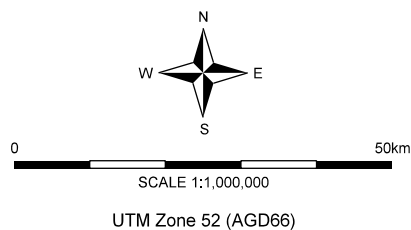
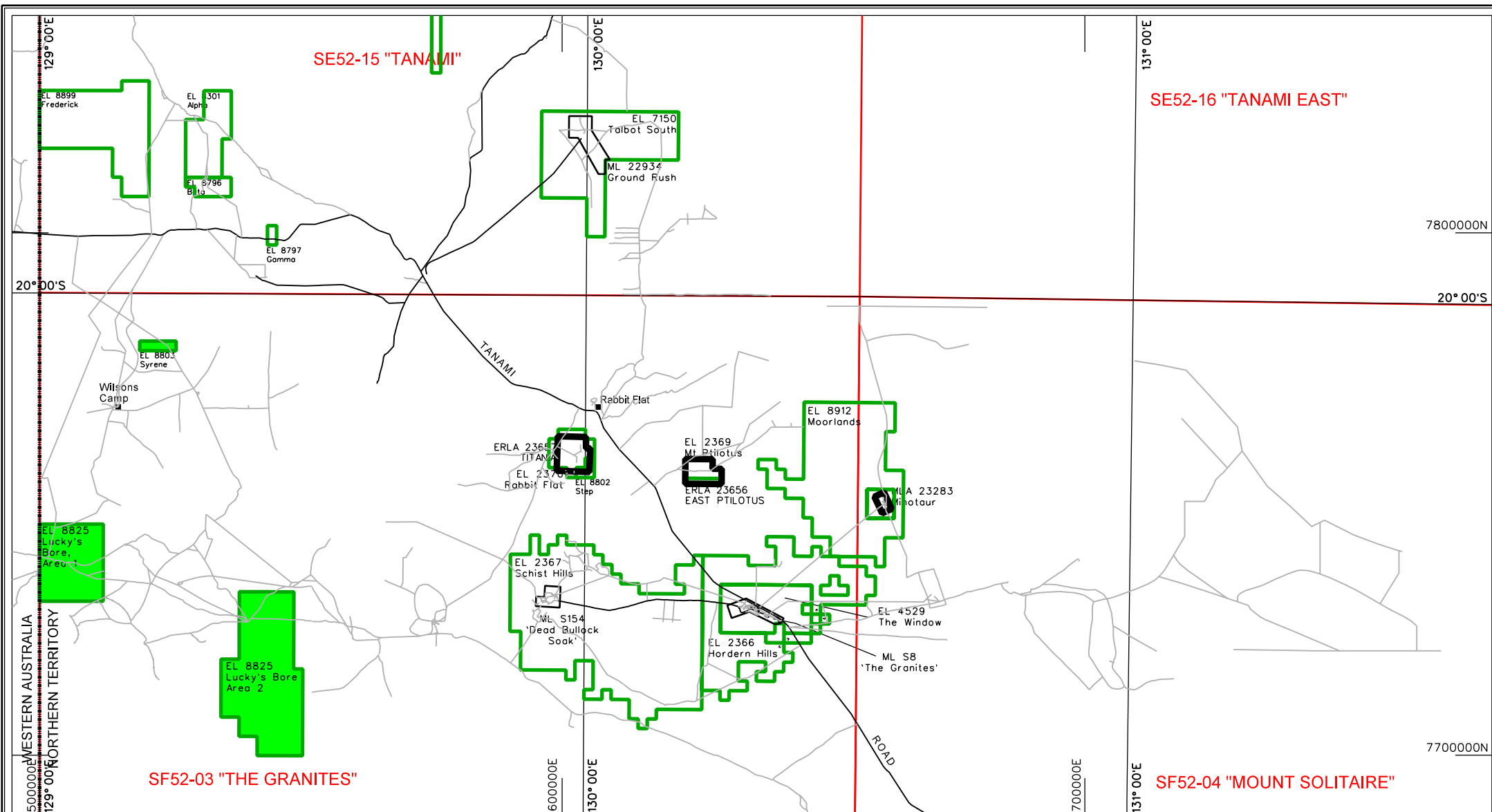
The Western Tanami Project is located south of the Tanami Road, within Aboriginal Freehold land approximately 130km west north west of the Granites Gold Mining Operations (Figure 1). Access to the Project area is via the Wilsons Camp Road, a well-formed road extending south for 40 km from its junction with the Tanami Highway, 20km east of the Western Australian border. Access within the EL's is then via graded tracks.

Exploration Licences 8803, 8999, 8593 & 8825 were granted to Normandy NFM on 29th April 1999 for a period of six years. Access to EL's 8803 & 8999 and approval of proposed Work Programs was granted by the CLC on 7th July, 1999 allowing work to commence in the second half of the field season. Access to EL 8593 and approval of proposed Work Programs was granted by the CLC on 11th September, 1999.

During 2002 a second relinquishment of the project took place. EL's 8593 & 8999 were relinquished in full and the remaining two EL's were reduced by 312 blocks to a holding of 179 blocks.

Table 1: Western Tanami Project Tenement Summary

EL Number	Name	Grant Date	Expiry Date/Cessation	Blocks prior to 2002 Relinquishment	Current Blocks	Km ²
EL 8593	Nora	29/04/1999	10/05/2002	19	-	0
EL 8803	Syrene	29/04/1999	28/04/05	8	4	12.85
EL 8825	Lucky's Bore	29/04/1999	28/04/05	483	175	560.57
EL 8999	Medusa	29/04/1999	28/04/2002	2	-	0
					179	~ 573



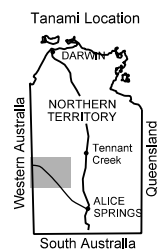
NORMANDY NFM LTD TRADING AS

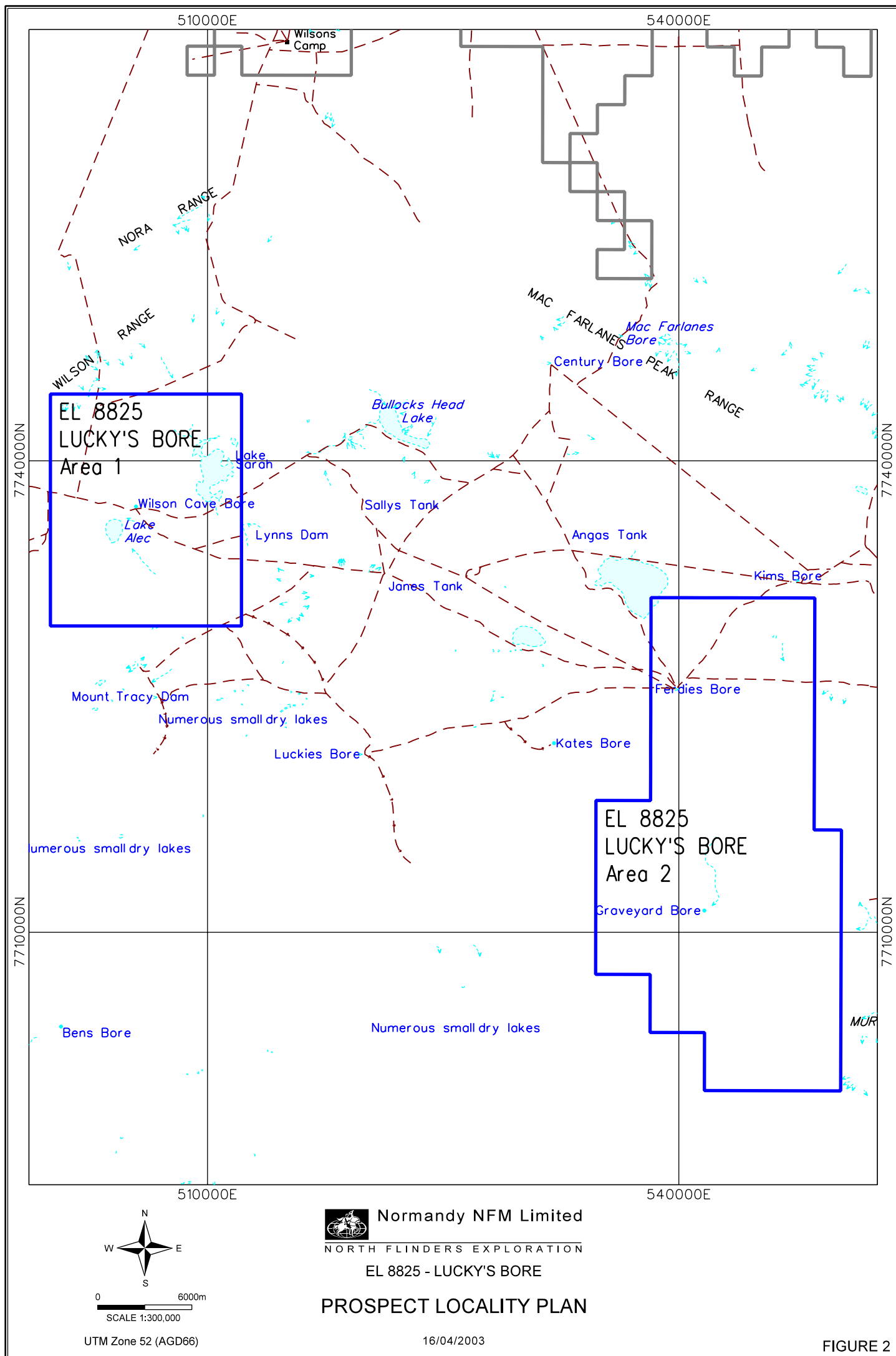
NEWMONT NFM

WESTERN TANAMI PROJECT EL's 8803 & 8825

TENEMENT LOCATION MAP

FIGURE 1





2. LOCATION, INFRASTRUCTURE, ACCESS, SURVEY CONTROL & ENVIRONMENTAL PRACTICE

2.1 Location, Access & Physiography

The Western Tanami Project is located in the Tanami Desert region, approximately 130km WNW of the Granites Gold Mine. The area is covered by the Granites (SF52-3), 1:250 000 series map sheet, as shown on [Figure 1](#).

The Project area is dominated by variable thicknesses of alluvial cover, the depth of which is greatest within palaeodrainage channels. Areas of subcropping to outcropping Palaeo-Proterozoic lithologies generally form low to moderate sized hills.

Sparse spinifex plains with isolated eucalypts are the typical vegetation found in the project area. Dense stands of mulga punctuate the landscape, but are usually no more than a few square kilometres in areal extent. Other vegetation includes shrubs (cassia) and low trees (mallee, tea tree and hakea). There are no permanent or perennial watercourses in the area.

2.2 Infrastructure

Prior to the presence of NFM in this part of the Tanami region, infrastructural support was almost completely lacking. Currently supplies are trucked or flown to the permanent camp at The Granites (within EL4529) from Alice Springs. Telephone and fax using microwave links service this camp. Water is provided by two remote borefields. One borefield lies 35km east of The Granites (Billabong) and the other 10km north-east of Dead Bullock Soak. Power is locally generated at exploration bases and mine sites. The nearest settlements are the Rabbit Flat roadhouse 50km to the northwest of The Granites on the Tanami Road and Tanami Downs homestead 60km to the west. The nearest settlement is Yuendumu some 250km southeast of The Granites on the Tanami Road.

2.3 Environmental Practice

Rehabilitation of exploration sites was carried out pursuant to Section 24(e) of the NT Mining Act and in accordance with the Departments "Guidelines for Rehabilitation of Exploration Sites",

- all drillholes were capped on completion,
- all grid lines and tracks were rehabilitated when no longer needed.

3. PREVIOUS EXPLORATION

The Syrene / Medussa portion of the Western Tanami Project was first held by the Power and Nuclear Corporation Pty Ltd (PNC) from 1988 to 1991 as EL 4829. In the subsequent period 1991 to 1994 Western Mining Corporation (WMC) held the ground under agreement with PNC as SEL 7423. No field work was conducted by WMC.

PNC was exploring throughout the region for uranium mineralisation by targeting anomalies generated from airborne magnetic and radiometric surveys. A high intensity magnetic feature (now the Bondi Prospect in EL 8803) was targeted as part of this project. Field reconnaissance and mapping were completed revealing the source of the magnetic anomaly to be multiple intrusives of syenitic to monzonitic composition.

A limited program of rotary air blasting (RAB) drilling and geochemical testing was conducted to test the intrusives for uranium mineralisation. Bulk samples also were collected to test for the potential for diamonds. Two micro-diamonds were identified leading to a program of diamond drilling and a 10 tonne bulk alluvial sample. When no further diamonds were found, the petrological analysis of the diamonds was interpreted to indicate 'offset' contamination. Of the geochemical sampling program, only three samples were analysed for Au. One of these returned 0.1g/t Au.

4. EXPLORATION OBJECTIVES

Exploration and mine studies have indicated that gold mineralisation in the region has an association with a range of geological environments. Models of gold occurrence for which the Tanami is believed to be most prospective include:

- Disseminated, stratabound deposits hosted by banded iron formations;
- Discordant stockwork deposits of gold in relatively late stage quartz veins;
- Gold mineralisation in veins hosted by shear zones with strong alteration characteristics;
- Deposits in regolith containing gold concentrated by alluvial, eluvial or alteritic processes.

With these models in mind, the Company's geologists have selected prospective target exploration areas based on regional geological, structural, geophysical and geochemical data.

The detailed assessment of these targets has been undertaken by a range of exploration techniques, designed to reveal the geology of the target area, and the presence of indicator elements, particularly gold itself, in anomalous quantities.

The task has been made difficult by the very extensive cover of windblown sand and other transported material, which conceals the rock and associated soil, typically to a thickness of several metres. This blanket covers as much as 98% of the region. Consequently the exploration process has relied heavily on point samples obtained by drilling to expose bedrock.

5. GEOLOGY

The Project Area lies astride the Granites - Tanami and Arunta provinces. The relationship between the Granites - Tanami and Arunta provinces is not well understood. Basement metasedimentary sequences in both regions are thought to be lateral equivalents (Blake et al., 1979) and the sequences merge with one another (Stewart et al., 1984).

The Granites - Tanami and the Northern Arunta provinces contain similar rock sequences and share similar Palaeoproterozoic magmatic, metamorphic and deformational histories. Both comprise of a deformed Palaeoproterozoic basement turbiditic sequence of greywacke, quartz sandstone, siltstone, shale, and minor mafic rocks and their moderate to high grade metamorphic equivalents (schist, gneiss, quartzite, amphibolite). The Tanami Block also contains chert, pyritic carbonaceous sediments and ironstone, whereas the Arunta Block has minor calc-silicates and meta-felsic volcanics (felsic orthogneiss).

During the Barramundi Orogeny (1890-1850 Ma, Page and Williams, 1988), the sedimentary sequences in the Arunta were intruded by mafic rocks, deformed and metamorphosed up to amphibolite facies. Granite plutons were emplaced in the closing stages of the Barramundi Orogeny, at about 1820 - 1800 Ma.

In the Arunta province, platform quartzite-shale-carbonate sediments (Reynolds Range Group) unconformably overlie the Barramundi metamorphic rocks and probably represent correlatives of the Hatches Creek Group of the Davenport Province to the north (Blake et al. 1987). Deformation of the Hatches Creek Group preceded granite intrusion at about 1660 Ma (Page and Williams 1988) and involved an early phase of upright northwest-trending folds and a second episode of northeast-trending folds. Faulting, thrusting and metamorphism accompanied both episodes of folding.

The Arunta province remained tectonically active after the Barramundi Orogeny with several metamorphic and deformational events, including the ~1800 Ma Strangways granulite event (Shaw et al, 1984), the 1760-1650 Ma Aileron retrogressive event (Windrim and McCulloch, 1986) and the most recent Carboniferous Alice Springs Orogeny. In the northern Arunta region, significant granitic magmatism occurred at 1780-1770, 1713, 1635 and 1570 Ma.

The basement provinces described above are unconformably overlain by younger, Neoproterozoic and Palaeozoic sediments of the Birrindudu, Wiso, Georgina and Ngalia basins (Wells and Moss, 1983).

The geology of the northern half of the project is dominated by Palaeo-Proterozoic sediments intruded by felsic to intermediate igneous bodies, with minor Antrim Plateau Volcanics. The southern half of the project, including the Luckys Bore Tenement, is dominated by Palaeozoic sequences overlying granitoid and possible Tanami Complex lithologies at depth.

6. WORK COMPLETED

6.1 EL8825 – Lucky's Bore

6.1.1 Lag Sampling

Work during the 2002 year comprised of field reconnaissance to assess prospectivity of remaining areas using surface lag sampling.

Area 1. Dominated by tertiary sediments over Palaeozoic sediments. Probable Proterozoic basement intersected (micaceous siltstone recorded) at approx 18m in two historical drill holes.

Area 2. Dominated by tertiary cover over Palaeozoic sediments and probable Cambrian (Antrim) rocks. Lag samples comprised of qtz vein, laterite and ferruginous rocky material possible representing veining in Muriel Range sandstone (cover) collected.

A total of 6 samples were collected and submitted to Genalysis Laboratories for analysis. All results from lag sampling conducted last month returned assays <1ppb Au. This work has downgraded the prospectivity of EL8825 (Area 2).

Sample locations are presented on [Figure 3](#), sample data presented in Table 2, and results in Appendix 1.

Table 2: Lag Sample Details

Sample Number	Total	Genalysis Analytical Techniques	Elements Analysed
3634201-206	6	B/EETA A/MS A/AAS	Au Ag, Bi, Co, Mo, Pb, Sb, Sn, U, W Cu, Fe, Ni, Zn
6 samples			

7. REFERENCE LIST / ANNUAL REPORT BIBLIOGRAPHY

REFERENCES

- Barratt, R. M, 1994. Partial Relinquishment Report for SEL 7423 – Coomarie; Year Ending 23rd April, 1994. Western Mining Corporation Limited Exploration Division. NTDME CR# 94/644.
- Blake, D.H, 1978. The Proterozoic and Palaeozoic rocks of The Granites Tanami Region, Western Australia and Northern Territory, and interregional correlations. BMR Journal of Australian Geology and Geophysics, 3, 35-42.
- Blake, D.H, Hodgson, I.M, and Muhling, P.C, 1979. Geology of The Granites – Tanami Region, Northern Territory and Western Australia. Australian Government Publishing Service, Bulletin 197.
- Blake, D H. 1987. Geology of the Mount Isa Inlier and environs, Queensland and Northern Territory. BMR Bulletin 225.
- Blake, DH & Page, RW. 1988. The Proterozoic Davenport Province, central Australia: regional Geology and Geochronology Precambrian Research, 40/41, pp.329-340
- Stewart, AJ, Shaw, RD & Black, LP. 1984. The Arunta Inlier:a complex ensialic mobile belt in central Australia. Part 1 : Stratigraphy, correlations and origin. Australian Journal of Earth Science, 31(4), pp.445-456
- Stewart, AJ, Shaw, RD & Black, LP. 1984. The Arunta Inlier:a complex ensialic mobile belt in central Australia. Part 2: tectonic history. Australian Journal of Earth Science, 31(4), pp.457-484
- Wells, AT & Moss, FJ. 1983. The Ngalia Basin, Northern Territory: Stratigraphy and structure. BMR Bulletin 212.
- Windrim, DP & McCulloch, MT. 1986. Nd and Sr isotopic systematics of central Australian granulites: chronology of crustal development and constraints on the evolution of lower continental crust. Contributions to Mineralogy and Petrology, 94(3), pp.289-303

REPORTS TO THE NT DME

- Dale, P. J, 2000. Annual Report for the Western Tanami Project for the Calendar Year 1999. Normandy NFM Ltd. Normandy RN: 26117.
- Twinning, M., 2001. Second Annual Report for the Western Tanami Project for the 2000 Field Season Normandy RN: 28004.
- Power, D., 2002. Third Annual Report for the Western Tanami Project for the 2001 Field Season. Newmont CR: 29571.
- Power, D., 2002. Final Report for EL8999 (Medusa) for the period 29/04/1999 to 26/04/2002. Normandy CR:29910.
- Power, D., 2002. Final Report for EL8693 (Nora) for the period 29/04/1999 to 10/05/2002. Normandy CR: 29909.

APPENDIX 1: DIGITAL SAMPLE DATA

WEL_WASG1_SUR2002A.TXT

Northern Territory Department of Mines and Energy

REPORT METADATA FORM

(MINERAL EXPLORATION)

PART A (DME USE ONLY)					
Report Number	Date Received				
Collation	___ pp.	___ figs	___ logs	___ maps	___ apps.
Media	___ CDs	___ 1.5"	___ Exab.	___ DLT	___ vols.

PART B					
Tenure Number(s)	8803 & 8825		Company Report Number	CR31092	
Report Date	April 2003		Anniversary Date	29/04/2003	
Group Project Name	Western Tanami				
Report Title	Fourth Annual Report for the Western Tanami Project for the 2002 Field Season.				
Author(s)	M.Walter				
Corporate Author(s)	Newmont Australia				
Maps 1 : 250 000	SF52-03				
Maps 1 : 100 000	4757	4758			

Tectonic Units			
☐ Amadeus Basin	☐ Carpentaria Basin	☐ McArthur Basin	☐ Pine Creek Inlier
☐ Arafura Basin	☐ Daly Basin	☐ Money Shoal Basin	☐ Simpson Basin
☐ Arnhem Inlier	☐ Dunmarra Basin	☐ Murphy Inlier	☐ South Nicholson Basin
☐ Arunta Inlier	☐ Eromanga Basin	☐ Musgrave Block	☐ Tennant Creek Inlier
☐ Birrindudu Basin	☐ Fitzmaurice Mobile Zone	☐ Ngalia Basin	☐ Victoria Basin
☐ Bonaparte Basin	☐ Georgina Basin	☐ Ord Basin	☐ Warburton Basin
☐ Browse Basin	☒ Granites-Tanami Inlier	☐ Pedirka Basin	☐ Wiso Basin
Other structural units			

Stratigraphic Names			
Killi Killi Beds			

AMF Thesaurus Terms - General			
☐ Geological mapping	☐ Regional Geology	☐ Stratigraphy	☐ Structural Geology
☐ Metallogenesis	☐ Remote sensing	☐ Imagery	☐ Landsat
☐ Petrology	☐ Lithology	☐ Literature reviews	☐ Metamorphism
☐ Lineaments	☐ Photogeology	☐ Reconnaissance	☐ Indicator minerals
Other terms ...			

AMF Thesaurus Terms - Target Minerals			
☒ Gold	☐ Silver	☐ Tin	☐ Diamonds
☐ Lead	☐ Copper	☐ Platinum Group Minerals	☐ Industrial Minerals
☐ Zinc	☐ Uranium	☐ Bauxite	
Others...			

AMF Thesaurus Terms - Mining			
☐ Environmental impact surveys	☐ Feasibility studies	☐ Geostatistics	☐ Metallurgy
☐ Ore reserves	☐ Resource assessment	☐ Mineral resources	☐ Mining geology
☐ Mine design	☐ Mine drainage	☐ Mine evaluation	☐ Pits
Other terms ...			

AMF Thesaurus Terms - Geophysical Surveys			
☐ Aerial magnetic surveys	☐ Aerial radioactivity surveys	☐ Aerial EM surveys	☐ Ground EM surveys
☐ Gravity surveys	☐ Geophysical anomalies	☐ Gravity anomalies	☐ Bouger anomaly maps
☐ Sirotek surveys	☐ Ground magnetic surveys	☐ IP surveys	☐ Resistivity surveys
☐ Seismic surveys	☐ Magnetic anomalies	☐ Geophysical interpretation	☐ Geophysical logs
Other terms ...			

AMF Thesaurus Terms - Geochemical Exploration – Surface sampling			
☐ Geochemical sampling	☐ Stream sediment sampling	☐ Rock chip sampling	☐ Bulk sampling
☐ Soil sampling	☐ Heavy mineral sampling	☐ Geochemical anomalies	✓ Assaying
☐ Isotope geochemistry	☐ Whole rock analysis	☐ X ray diffraction	✓ Sample location maps
Other terms ...	Lag Sampling		

AMF Thesaurus Terms - Geochemical Exploration - Drill sampling			
☐ Diamond drilling	☐ RAB drilling	☐ Percussion drilling	☐ Air drilling
☐ RC drilling	☐ Rotary drilling	☐ Vacuum drilling	☐ Auger drilling
☐ Drill core	☐ Drill cuttings	☐ Drill hole logs	☐ Drill core analysis
Other terms ...			

Drilling Type	No. of holes	Hole name(s)
Diamond		
Percussion		
Vacuum		
RAB		
Auger		
Air		
RC		
Rotary		
Other ...		

Mine / Deposit / Prospects	Location - AMG	Location - Datum
Mines		
Deposits		
Prospects		
Other ...		

