



Normandy NFM Limited

N O R T H F L I N D E R S E X P L O R A T I O N

annual report

ANNUAL REPORT FOR EL8734 (PARGEE) FOR THE YEAR TO 8 SEPTEMBER 2000

1:250,000 SHEET REFERENCE: TANAMI SF52-15

1:100,000 SHEET REFERENCE: PARGEE 4758
MALLEE 4759

- DISTRIBUTION:**
- ☐ NT DEPARTMENT OF MINES AND ENERGY
 - ☐ NORMANDY NFM LIMITED
 - ☐ SIMON TITCHNER

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SUMMARY

The Pargee Exploration Licence 8734 is located in the Granites-Tanami block, approximately 150km northwest of the Granites Gold Mine. The lease was granted on the 9th September 1999. This is the first annual report for the Pargee EL covering the period to 08/09/2000.

Exploration comprised orientation surface sampling as well as regolith assessment drilling.

Exploration activity over the reporting period has incorporated:

- | | |
|-----------------------------|---------------------------------|
| ➤ Gridding | 30.64 line kms |
| ➤ Ground Magnetics | 19.94 line kms |
| ➤ Stream Sediment Sampling: | 6 samples |
| ➤ Aircore Drilling: | 10 holes for 2431m, 808 samples |
| ➤ Petrology | 3 samples |

Future work will involve the evaluation of outcropping areas using surface sampling as well as aircore drilling to empirically evaluate areas of deeper cover. Conceptual targets will also be tested.

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Appendix 1	Digital Data: (TAB delimited txt files on CD) containing the following files: AssayEL8734.dat Code GeolEL8734.dat CollarEL8734.dat SbclEL8734.dat SurveyEL8734.dat
Appendix 2	Geophysical Data GmEL8734.sum (TAB delimited txt file on CD) GmEL8734_data.xls (EXCEL file on CD) Magnetic Profiles for survey lines.
Appendix 3	Sampling and Survey Methodology
Appendix 4	Petrological Sample Descriptions

1. INTRODUCTION

Exploration Licences 8374 was granted to Simon Titchner and subsequently managed by Normandy NFM Ltd. on 9th September 1999 for a period of six years (Table 1). The area of tenement stands at 456 blocks for 1468km².

This report covers the Pargee Tenement for the period ending 08/09/2000.

2. TENEMENT DETAILS

Normandy NFM Limited have signed an Option Agreement with Simon Titchner (a copy of this Agreement has been lodged with the Department). Under the terms of the Agreement NNFM is responsible for all exploration, exploration programs, budgets, statutory reporting and compliance with the Mining Act. NNFM under the terms of the agreement may at any time between the date of the Agreement and the expiration of the 3rd option period (being the 3rd anniversary of the grant of the EL) elect to purchase the EL from Simon Titchner.

TABLE 1: Tenement Summary, EL8734 (Pargee)

Area Name	Blocks	Km ²	Grant Date	Expiry Date	Covenant
Pargee	456	1468	09/09/99	08/09/05	117,000

3. LOCATION, ACCESS AND PHYSIOGRAPHY

The Pargee EL is located in the Tanami Desert region, approximately 150km NW of the Granites Gold Mine. The area is covered by the Tanami (SF52-15), 1:250 000 series map sheet, as shown on Figure 1.

Access to the Tenements can be gained via the old Tanami Highway, or a seismic line that runs north of the Tanami Road toward the Pargee Range.

Approximately 70% of the project area is dominated by various thicknesses of alluvial cover, the depth of which is greatest within palaeodrainage systems. Hills and ridges are locally common in northern and central parts of the project area and range in height from less than 30m to more than 200m above the surrounding plains. They are often steeply incised by narrow channels and creeks, which pass into outwash fans before disappearing into the surrounding sand plains.

Vegetation is generally sparse, because of the arid climate and predominantly sandy soils, and consists mainly of spinifex with scattered low trees (mostly species of eucalyptus and acacia), shrubs and herbaceous plants. Few trees are taller than 8m with relatively large trees present only along creeks.

There are no permanent watercourses in the region, however water apparently persists at the Pargee Rockhole and in some creeks for at least a few months following seasonal rains.

4. HISTORICAL EXPLORATION

Limited exploration has been undertaken within the region presently occupied by the Pargee exploration lease. Power and Nuclear Corporation (PNC Exploration Australia) explored the district for uranium and gold from 1986-1990. No anomalism is reported within the area.

5. GEOLOGY

The Granites-Tanami Goldfield lies 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 overlapped by younger cover sequences including the extensive Paleozoic Wiso Basin on its northeastern margin. To the west, clastic sediments of the Middle Proterozoic Birrindudu Basin overlie and separate the Inlier from similar age rocks in the Halls Creek Province.

Meso Proterozoic Birrindudu Group sediments dominate the northern portion of the reporting area. These comprise mature fluvial sandstones and interbedded shales of the Gardiner formation and to a lesser extent calcareous sediments of the Talbot Well formation. The Birrindudu sediments are unmetamorphosed, shallowly dipping and unconformably overlie Palaeo Proterozoic sediments of the Pargee formation, which is characterised by immature fluvial sandstone and intercalated siltstones. The Pargee sequence unconformably overlies turbiditic greywacke and pelitic sedimentary sequences of the Killi Killi group. The Palaeo Proterozoic units have been subject to complex, polyphase deformation and have reached greenschist facies metamorphism during the regional Barramundi Orogeny.

The southeastern portion of the tenement is dominated by the syn-post orogenic Coomarie Batholith.

6. WORK UNDERTAKEN – EL 8734

6.1 Gridding

Three separate grids were surveyed over conceptual target areas to facilitate ground magnetic surveys (below). Prospect areas and respective grids are shown on Figure 3.

Table 2: Pargee Baseline & Gridding Details

	AMG Easting	AMG Northing	Bearing (AMG)	Length (km)
Gungan	525500	7822000	180	14.2
Hoth	534500	7828300	180	9
Endor	545000	7823900	180	9.14
TOTAL				32.34km

6.2 Ground Magnetic Survey

During the reporting period ground magnetic surveys were conducted over defined conceptual target areas.

The surveys were undertaken with the objective of providing ground control for the aeromagnetic anomalies and geological definition of the magnetic sources. In total, 11 lines were surveyed comprising 30.64 line kilometres (Table 2). The surveys were conducted by NFM personnel utilising methods outlined in Appendix 3 of this report.

Table 3: Area Name Ground Magnetic Survey Details

Line ID	Prospect	Date Completed	AMG Easting	AMG Northing	Bearing (AMG)	Length (km)
525500E	Gungan	25/09/99	525500	7815500	000	6.5
7816700N	Gungan	25/09/99	525000	7816700	090	2.2
7817500N	Gungan	25/09/99	524500	7817500	090	2.0
7818300	Gungan	25/09/99	524500	7818300	090	2.0
7819500	Gungan	25/09/99	524500	7819500	090	1.5
545000E	Endor	26/09/99	545000	7823900	180	5.94
7818300N	Endor	26/09/99	543800	7818300	090	1.2
7821500N	Endor	26/09/99	542800	7818300	090	2.0
7827500N	Hoth	06/04/00	532600	7827500	090	4.0
7827900N	Hoth	06/04/00	536500	7827900	270	2.5
7828300N	Hoth	06/04/00	534000	7828300	090	2.5
TOTAL						32.34km

Profiled data is provided in Appendix 2. Survey lines are shown on Figure 3.

6.3 Stream Sediment Sampling - SBCL

A small number orientation samples were collected from representative drainage sites within the Pargee and Gardiner Ranges. The program was intended as a prelude to an empirical survey planned to test for unconformity and vein-style mineralisation and specifically, to make an assessment of sample integrity and vehicle access.

The samples were analysed by Genalysis as detailed below (descriptions of analytical techniques including detection limits, are provided in Appendix 1).

TABLE 4: Pargee SBCL Sample Details

Sample Numbers	Total	Genalysis Method	Elements Analysed
287773 - 278778	6	ICP Mass Spectrometry	Au / Ag /Cu

Results from this program were encouraging, with anomalous BLEG gold assays returned from more than half the samples. A maximum gold result of 40.63ppb was returned from sample number 287773.

Complete assay records and sample descriptions are included in Appendix 1. Sample locations are shown on Figure 3.

6.4 Aircore Drilling

Aircore drilling was used to make an initial regolith and lithological assessment of priority areas. This work utilised the ground magnetic data outlined in section 6.2.

TABLE 5: Pargee Aircore Drillhole Details

Drillhole ID	Total Holes	Declination	Metres	Sample Numbers	Total samples	Sample type	Laboratory	Elements Analysed	
PAAC001	10	-60	51	1021311 -	16	3m composite	Amdel ARM 1	Ag, As, Au, Bi, Cd, Co, Cu, Mo, Ni, Pb, Sb, Se, Te, Zn	
PAAC002		-90	60		20				
PAAC003		-90	66	1021457	21		Aqua Regia leach / ICP-MS		
PAAC004		-90	51		17				
PAAC005		-90	66	1049102 -	22				
PAAC006		-90	54		17				
PAAC007		-90	51	1049132	15				
PAAC008		-60	66		19				
PAAC009		-60	45		15				
PAAC010		-60	48		16				
Totals:	10 holes		558m		178 samples				

All gold assays returned from this program were less than 10ppb. Complete assay records and sample descriptions are included in Appendix 1. Drillhole locations are shown on Figure 3.

Three samples were sent to Pontifex & associates for petrological analysis. The results are tabled in Appendix 4.

Complete assay records and sample descriptions are included in Appendix 1. Drillhole locations are shown on Figure 3.

7. EXPENDITURE INCURRED FOR THE REPORTING PERIOD

TABLE 6: Details of Exploration Expenditure for the Year to 08/09/00

COST CENTRE	EL8734 TOTAL
Employee Costs	\$37756
Operating Costs	\$28235
Laboratory Costs	\$1978
Drilling	\$8646
Specialist Services	\$663
TOTAL	\$77278
COVENANT	\$117000

8. FORWARD PROGRAM

Further work will involve an empirical assessment of prospective areas. It is anticipated that this work will involve geophysical surveys, surficial sampling and aircore drilling.

8.1 Proposed Expenditure

Exploration expenditure on EL8734 is anticipated to exceed covenant for the 12 month period to 08/10/01.

Table 7: PARGEE EL - Proposed Expenditure - Tenure Year 09/09/00 to 08/09/01

COST CENTRE	EL8734 TOTALS
Aircore Drilling	\$20,000
Surface Sampling	\$5,000
Mapping	\$500
Laboratory Costs	\$12,500
Employee Costs	\$20,000
Specialist Services	\$2,000
Operating Costs	\$10,000
TOTAL	\$70,000
PROPOSED COVENANT	\$70,000

9. REFERENCE LIST / ANNUAL REPORT BIBLIOGRAPHY

References

- Blake, D., Hodgson, I.M., and Muhling, P.C., 1979. Geology of The Granites-Tanami Region, Northern Territory and Western Australia, *Bur. Miner. Resour. Geol. Geophys. Aust. Bull.* 197.
- Davidson, A.A. 1905. Journal of Explorations in Central Australia, by the Central Australian Exploration Syndicate, Limited, *South Australia Parliamentary Paper* 27.
- Gee, L.C.E. 1911. General Report on Tanami Goldfield and District (Northwestern Central Australia). *South Australia Parliamentary Paper* 31.
- Hossfeld, P.S. 1940b. The Gold Deposits of The Granites-Tanami District, Central Australia. *Aer. Geol. Geophys. Surv. N.Aust., Northern Territory Report* 43.
- Mayer, T.E. 1990. The Granites Gold Field, in *Geology of the Mineral Deposits of Australia and Papua New Guinea* (Ed F.E. Hughes) pp 719-724 (The Australasian Institute of Mining and Metallurgy: Melbourne).
- O'Driscoll, E.S.T. 1990. Lineament Tectonics of Australian Ore Deposits, in *Geology of the Mineral Deposits of Australia and Papua New Guinea* (Ed F.E. Hughes) pp 33-41 (The Australasian Institute of Mining and Metallurgy: Melbourne).
- Plumb, K.A. 1990. Halls Creek Province and The Granites-Tanami Inlier - regional geology and mineralisation, in *Geology of the Mineral Deposits of Australia and Papua New Guinea* (Ed F.E. Hughes) pp 681-695 (The Australasian Institute of Mining and Metallurgy: Melbourne).

APPENDIX 1 – DIGITAL DATA
APPENDIX 2 – GEOPHYSICAL DATA

APPENDIX 3 - SAMPLING METHODS AND ANALYTICAL TECHNIQUES

3.1 SAMPLING METHODS

SURFACE SAMPLES

BCL/BLEG (Bulk Cyanide Leach/Bulk Leach Extractable Gold)

Many of the low relief areas have variable amounts of drainage sediments (typically arenitic alluvium +/- clay horizons) which are sampled via a bulk cyanide leach. Sufficient soil is sieved to obtain 2kg of -20# sample which was double bagged within a plastic liner to prevent cross contamination.

The samples may be subcategorised in the NFM database to distinguish sample derivation:

Code	Derivation	Description
VBCL	drill derived	usually vacuum, however some are sourced from RAB drillholes (parent drillhole listed next to sample number in datasheets)
SBCL	drainage	stream sediment from a defined drainage channel

RAB & AIRCORE DRILLING

Drilling is undertaken by Century Drilling Ltd. The "Moonwalker" rig can readily covert between RAB and Aircore drilling if and when required.

All drill sites are appropriately rehabilitated with holes being plugged with a concrete bung and covered with available drill spoil.

Drillholes are typically composite sampled at 3m intervals where the geology is considered to be prospective. Depending on the program budget, the drillhole may be comprehensively sampled from surface, sampled only at particular lithologies or have been restricted to a bottom of hole sample. Drill spoil is speared to obtain 2kg composite samples. While this sample is customarily a 3m composite sample, the sample interval is ultimately left to the geologist's discretion. The sample intervals are clearly documented in the drillhole logs accompanying this report.

3.2 GEOPHYSICAL SURVEYS

Ground Magnetics

All ground magnetic surveys are effected by Normandy NFM personnel.

Total Magnetic Intensity (TMI) readings are taken at 0.1 second intervals (0.5m) using a GEM GSM-19W walkmag Overhauser magnetometer. Diurnal measurements are taken using a second magnetometer as a base station, with readings taken every 30 seconds.

Data is collected over surveyed lines which are pegged every 100m and clearly annotated with GPS controlled coordinates (Trimble Global Positioning System combined with a Racal differential GPS attachment).

On completion of the survey, diurnal variations are removed from the data using in-house geophysical software.

Details particular to each survey are discussed in the body of this report. Line origins are estimated to be within +/-50m of the AMG co-ordinates listed.

APPENDIX 4 – PETROLOGICAL SAMPLE DESCRIPTIONS