SAVANNA MINERAL RESOURCES PTY LTD

EL 9753

BATCHELOR PROJECT N.T.

FIRST ANNUAL AND FINAL REPORT

FOR PERIOD

4 JUNE 1997 TO 3 JUNE 1998

B J Uren

GEOPEN
RECEIVED
1 7 SEP 1998
Darwin

CONTENTS

FIGURES

SUMMARY

EI 9753 was acquired to cover a small vacant area adjacent to the extensive current licences being explored by Savanna.

The area covers rocks of the lower Mt Partridge Group which is prospective for base metals, gold and magnesite.

Work has been limited to acquisition and compilation of previous explorer's data and a limited amount of mapping.

The licence appears to cover rocks of the Whites Formation. The important contact with the underlying Coomalie Dolomite is located to the north of the licence.

No significant results have been obtained by previous explorers within the licence area.

1. INTRODUCTION

EL 9753 was applied for to allow extended coverage of the prospective Lower Proterozoic Mt Partridge Group rocks in the area south of the Rum Jungle Complex. The area is prospective for base metal and gold mineralisation in the upper part of the Mt Partridge Group (Whites Formation and Wildman Siltstone) as exemplified by the Woodcutters and Rum Jungle mineralisation and for gold and magnesite in the Coomalie Dolomite of the lower Mt Partridge Group as exemplified by the Sundance Gold occurrence.

The EL was granted on 4 June 1997. This is the first and final report for the licence.

The EL is centred 3 km SE of the town of Batchelor. It is an irregular shaped licence which is sandwiched between pre-existing titles and covers three partial graticular blocks. The land covered is freehold. Savanna is the sole holder of the licence. The licence abuts EL 9253 which along with a large number of contiguous titles is being explored by Savanna - see Figure 1.

2. REGIONAL GEOLOGY

The licence covers Early Proterozoic sediments of the Pine Creek Geosyncline which drape off the southern flank of the Archaean Rum Jungle Complex.

The bottom of the Early Proterozoic pile is the Namoona Group which is made up of quartz sandstones, conglomerates, arkoses and quartzites of the Beestons Formation and carbonates of the Celia Dolomite.

The Mount Partridge Group unconformably overlies the Namoona Group. This Group is divided into the basal Crater Formation which is a 600m thickness of fluvial conglomerates, sandstones and siltstone, overlain by the Coomalie Dolomite (300m) which in turn is overlain by the Whites Formation (300 - 500m). The upper unit of the Mount Partridge Group is the Wildman Siltstone (1500m), deposited in a deeper water environment. It contains two distinctive markers - the Acacia Gap Quartzite Member (50 - 300m) and the highly altered basic volcanics of the Mount Deane Volcanic Member (10 - 100m).

Following a period of uplift and erosion, the South Alligator Group was deposited unconformably over the Mount Partridge Group. The Koolpin Formation (200m) is the lowermost unit, consisting of pelitic beds, with a basal cherty Gerowie Tuff (300m) followed by another pelitic, iron-rich unit, the Mount Bonnie Formation (500m).

The Burrell Creek Formation (1800m) which overlies the South Alligator Group is a thick unit of the Finniss River Group, consisting of well cleaved siltstone, shale, greywacke and quartz-pebble conglomerate.

A period of regional metamorphism and tectonism brought to a close the cycle of Early Proterozoic sedimentation at about 1800Ma, metamorphosing the sediments to greenschist facies, and producing tight to open folds about north trending axes. The Zamu Dolerite intruded sediments prior to deformation and syn-postorogenic granites intruded elsewhere in the Pine Creek Geosyncline.

The regional geology is shown on the high quality 1:100 000 Geology of the Rum Jungle Uranium Field published by the BMR.

130°55'
131°
131°05'
131°10'
131°15'
To DARWIN
AN495
Mt Fitch
Woodcutters
Dyson's
White's
Browns
SEL9437
EL9918
-13°
MLN386
Batchelor
Rum Jungle Creek South
MLN542
EL9501
EL9253
EL9826
MLN512
MLN513
MLN514
MLN515
MLN543
ERL134
EL9753
EL8020
EL9456
EL9005
EL8547
-13°05'
-13°10'
-13°15'
STUART HIGHWAY
N
Adelaide River
5 0 5 10 15 km
1 : 250 000
Goodall
NORTHERN TERRITORY
LOCALITY INSET
131°
131°05'
To KATHERINE

FIGURE 1

Mt Grace Resources N L

SAVANNA MINERAL RESOURCES PTY LTD
Batchelor Project N T

TENEMENT PLAN

(as at June 1998)

Author : B J Uren	Scale : 1 : 250 000
Drawn : E P	Report No. :
Date : June 1998	File Name : Ten_June98_A4.wor

3. PREVIOUS EXPLORATION

In the modern exploration era the area of EL 9753 has been held by a number of explorers but little work has been done on the area of the present EL. The location, geographic detail and location of previous exploration is shown on Figure number 2.

CSR Limited held part of the area currently held as EL 9753. Work was confined to broad spaced BLEG stream sampling. Three samples were taken either within or close to EL 9753 and are shown on Figure 2. None of these was anomalous in Au, Cu or Ag.

Giant's Reef Mining Pty Ltd held the western "leg" of El 9753 as part of EL 5282. They took three rock chip samples on the area of the current EL but none were anomalous.

Newmont held the central part and the NE "leg" of the current licence as part of EL 6073. They took several rock chip samples on the current EL and these are shown on Figure 2. None were anomalous. Newmont also produced the only geological map available from company reports. This is presented in CR91/090 as plate 3. This mapping shows Coomalie Dolomite in the northern "leg" of the current EL. Mapping by Savanna has shown these outcrops to be bedded dolomites and dolomitic siltstones. These are interpreted as being part of the Whites Formation rather than the underlying Coomalie Dolomite.

Giant's Reef Mining later held exactly the same area as the current EL as EL 8441. They took some stream sediment samples for analysis for Au by the BLEG method. None showed significant Au concentrations. The two rock chip samples collected gave poor values. The locations of these samples is shown on Figure 2.

Aztec Mining Company Limited held the present EL area as part of EL 7374. This EL was inherited by Nicron Resources Ltd by way of a corporate takeover. Aztec / Nicron flew an airmag and radiometric survey over the area. Aztec drilled a small number of RAB holes in the southern "leg" of EL 9753 searching for magnesite but none was found. The locations of these holes is marked on figure 2. Nicron RAB drilled an area immediately E of the eastern boundary of the northern leg of the present EL. Some elevated rock chip and RAB values were obtained and are annotated on figure 2.

4. WORK UNDERTAKEN

Other than compilation of previous explorer's data work has been confined to checking of the outcrops in the northern leg of the licence. These had been mapped as Coomalie Dolomite by Newmont implying that the prospective Coomalie / White contact lay within the EL.

Mapping has shown that the outcrops shown by Newmont as Coomalie are bedded dolomites, dolomitic siltstones and fine grained sandstones. This is shown on Figure number 2. These outcrops are interpreted to belong to the Whites Formation where such lithologies are typical. This interpretation implies that the Coomalie / Whites contact is located N of EL 9753 in EL 9253 which is being explored by Savanna. This downgrades the potential of the EL for Pb and Zn mineralisation at the contact and for Au and magnesite within the Coomalie Dolomite.

5. RECOMMENDATIONS

It is recommended that the licence be relinquished as neither the Coomalie / Whites contact nor the Coomalie Dolomite is present within the Licence.

6. EXPENDITURE

Salaries / Consultants - Geological		2 125
Aerial Photographs and Maps		76
Consumables		138
Vehicle		210
Plan Printing and Photocopying		160
Tenement Administration		780
Travel		740
	TOTAL	$4 229

7. BIBLIOGRAPHY

EL Number	Company	CR Number of Report in NT DOME
4537	CSR Ltd	85/162
5282	Giant's Reef Mining Pty Ltd	91/171 91/353
6073	Newmont	89/737 91/089 91/090
7374	Nicron / Aztec	93/409 95/649
8441	Giant's Reef Mining Pty Ltd	95/353 96/262

To Adm Shuttle

720,000mE

721,000mE

722,000mE

723,000mE

13°03'S

BATCHELOR TOWN

TO STUART HWY

E.L. 9501

13°03'S

8556,000mN

BATCHELOR AIRSTRIP

COOMALIE CREEK

OPEN PIT

OPEN PIT

Outline of Disturbed Area

MLN-542

MLN-543

8555,000mN

8554,000mN

13°04'S

E.L. 9253

96096-96100

CSR BLEG Not Anomalous 165954

CSR BLEG Not Anomalous 165955

Newmont Bleg 9.2ppb Au

86397

86398

86399

86400

Bedded DOLOMITIC SILTSTONE

Bedded DOLOMITE

Fine Sandstone/Argilite

Bedded Fine Sandstone/Argilite

DG7

G.R. Rock Chip Sample

G.R. Rock Chip Sample

Psolitic Chalcarite.

CSR 202776 BLEG Not Anomalous

Newmont Bleg 5-8ppb Au

Elevated Pb Rock Chip & RAB

Elevated Sn RAB.

x Elevated Pb Rock Chip.

NICRON RAB Traverses, Rock Chip 611 ppm Pb.

86697

86698

Newmont Bleg 6.2 ppb Au

G.R.M. Rock Chip 129465 129466

128573 G.R.M. Rock Chip

SINK HOLE

E.L. 9753

13°05'S

GOULD AIRSTRIP

Aztec RAB Holes

8553,000mN

8552,000mN

8551,000mN

13°06'S

Fence, Track & Abandoned Railway

720,000mE

721,000mE

722,000mE

13°02'E

13°03'E

0 100 200 300 400 500 metres.

BITUMEN ROAD.
DIRT ROAD
TRACK
FENCE
CREEK

• Newmont Rock Chip Sample - none anomalous

• G.R. Rock Chip Sample - Giants Reef Rock Chip Sample Location. Neither anomalous

x Giants Reef BLEG Sample Site - None Anomalous.

HORIZONTAL DATUM AGD-66

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BATCHELOR PROJECT N.T.
E.L. 9753
SUMMARY PLAN

Drawn By: B.J. UREN		JULY 1998
Scale 1:10,000	Plan Nº	FIGURE Nº 2