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EL 3575, EL 3599 AND EL 3600

MARLA, ALBERGA RIVER AND MOUNT WEIR

COMBINED FINAL REPORT AT LICENCES' JOINT SURRENDER, FOR THE PERIOD 21/6/2006 TO 2/4/2009

Submitted by
Eromanga Uranium Ltd
2009

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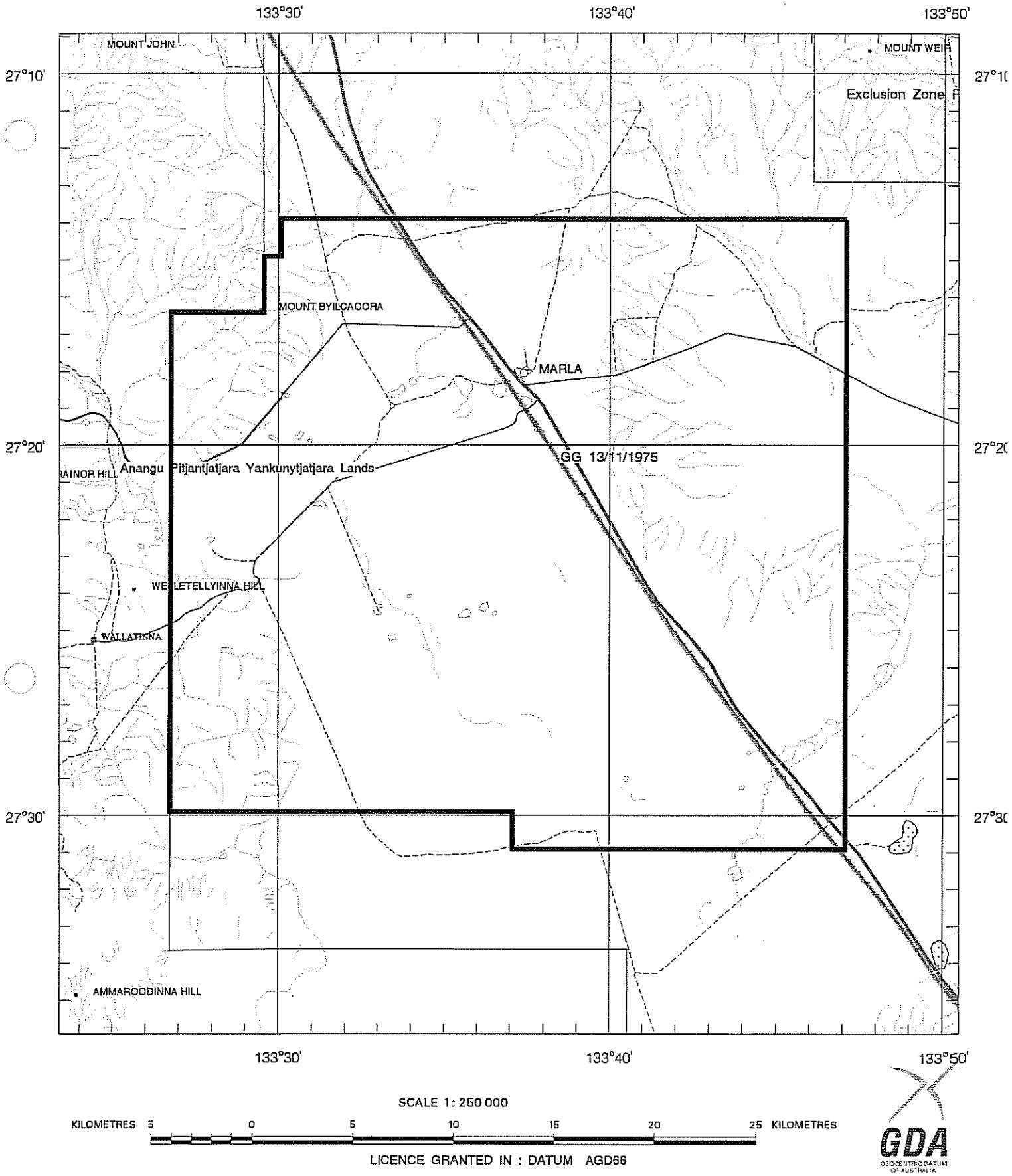
Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1: 250 000

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LICENCE GRANTED IN : DATUM AGD66

GDA GEOCENTRIC DATUM OF AUSTRALIA

APPLICANT : **MAXIMUS RESOURCES LTD**

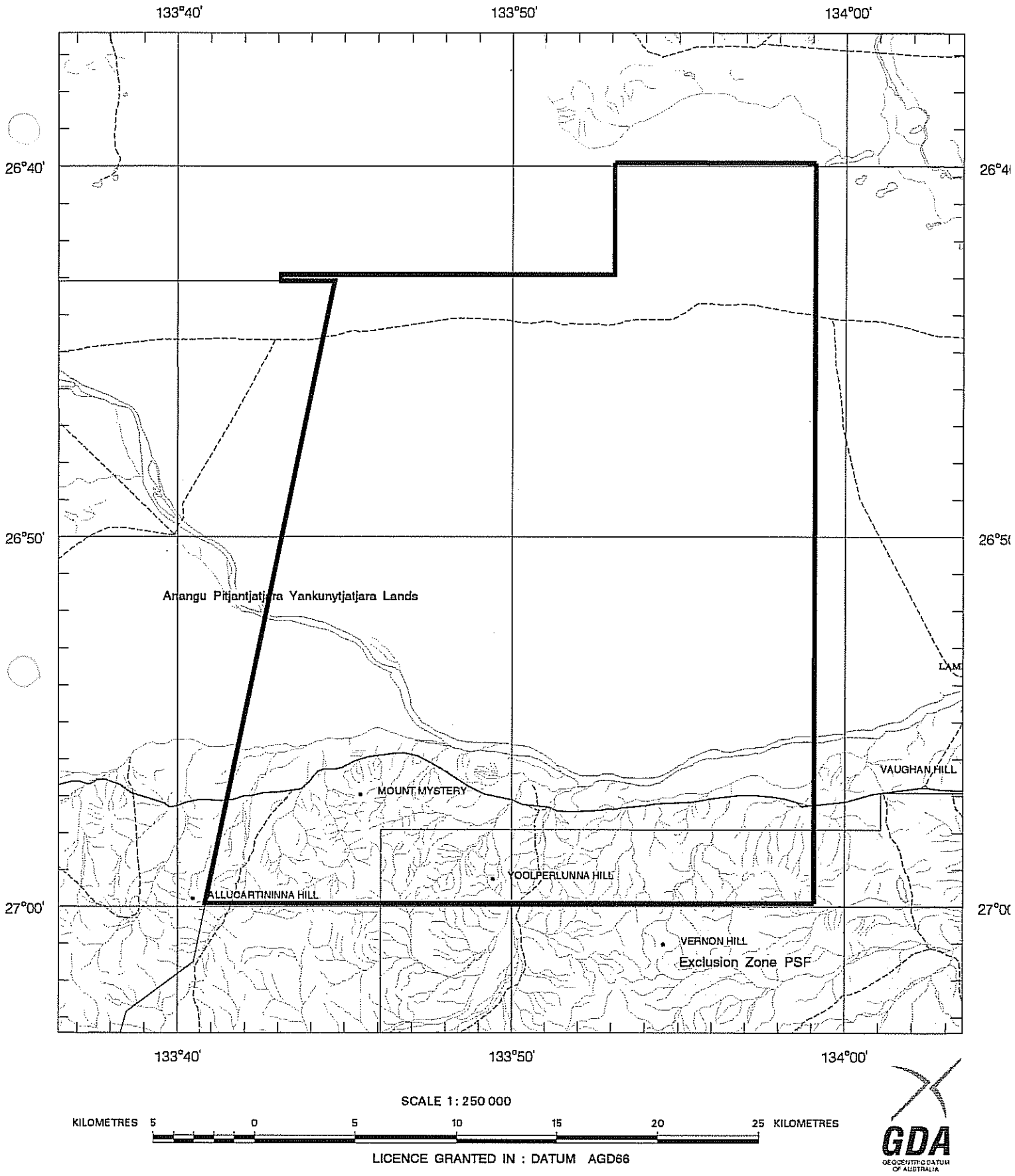
FILE REF : **19/06** TYPE : **MINERAL ONLY** AREA : **988** km² (approx.)

1:250000 MAPSHEETS : **EVERARD WINTINNA**

LOCALITY : **MARLA AREA - Approximately 220 km northwest of Coober Pedy**

DATE GRANTED : **21-Jun-2006** DATE EXPIRED : **20-Jun-2007** EL NO : **3575**

SCHEDULE A



SCALE 1: 250 000

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LICENCE GRANTED IN : DATUM AGD66

GDA GEOCENTRIC DATUM OF AUSTRALIA

APPLICANT : **MAXIMUS RESOURCES LTD**

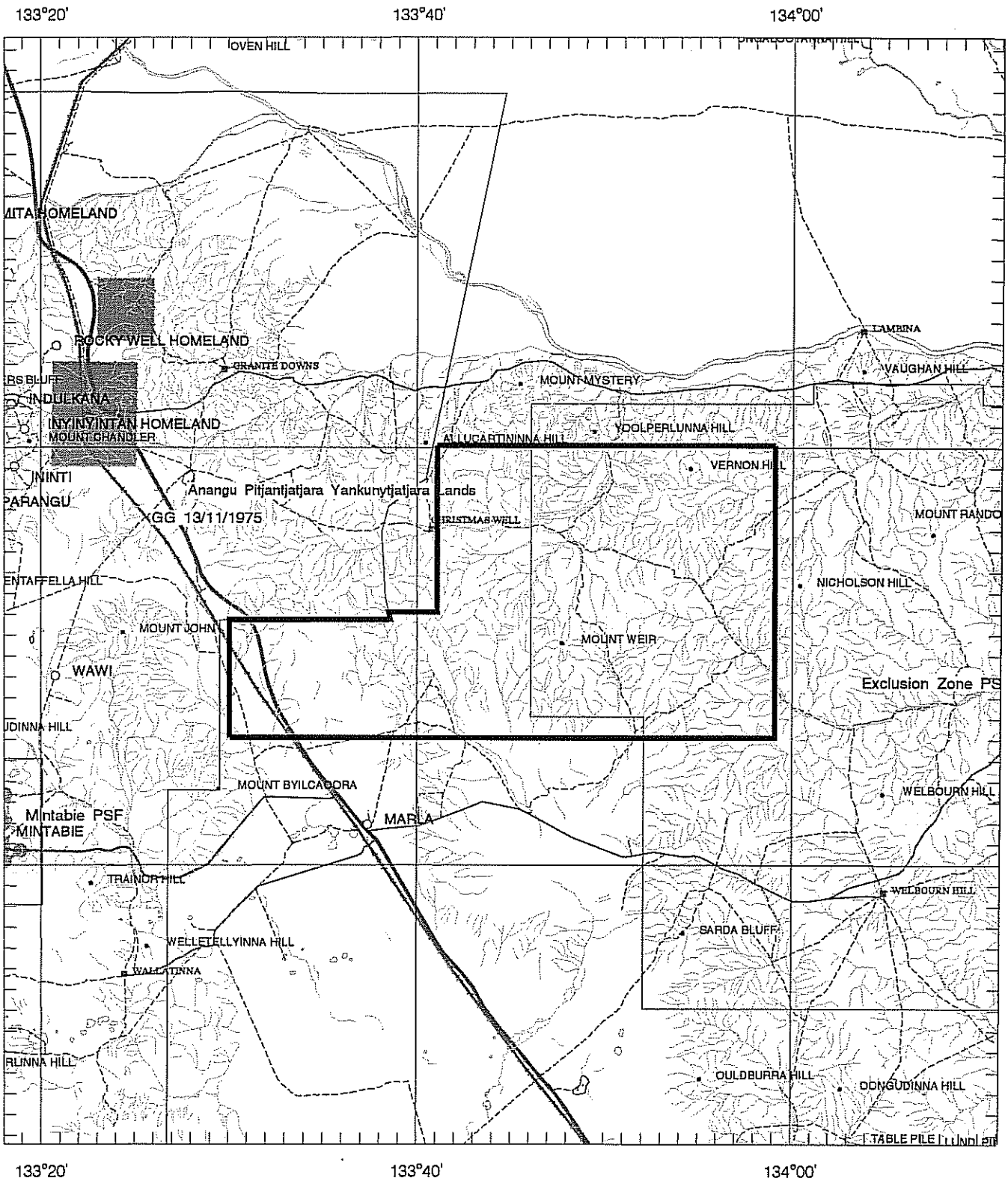
FILE REF : **20/06** TYPE : **MINERAL ONLY** AREA : **903** km² (approx.)

1:250000 MAPSHEETS : **ABMINGA**

LOCALITY : **ALBERGA RIVER AREA - Approximately 50 km northeast of Marla**

DATE GRANTED : **17-Jul-2006** DATE EXPIRED : **16-Jul-2007** EL NO : **3599**

SCHEDULE A



APPLICANT : **MAXIMUS RESOURCES LTD**

FILE REF : **21/06** TYPE : **MINERAL ONLY** AREA : **959** km² (approx.)

1:250000 MAPSHEETS : **ABMINGA WINTINNA**

LOCALITY : **MOUNT WEIR AREA - Approximately 20 km NNE of Marla**

DATE GRANTED : **17-Jul-2006** DATE EXPIRED : **16-Jul-2007** EL NO : **3600**

ABMINGA PROJECT

EL 3575 Marla

EL 3599 Alberga River

EL 3600 Mt Weir

COMBINED SURRENDER REPORT

For the period 21 June 2006 to 2 April 2009

OPERATOR: Eromanga Uranium Ltd

TENEMENT HOLDERS: Maximus Resources Ltd

Author: D.T. Miller, F.M. Parker

Date: June 2009

Report No: **ERO_0912**

Distribution: PIRSA (1 CD)
ERO (1 CD)

Keywords
Eromanga Basin, Mesozoic, Algebuckina Sandstone, Bulldog Shale, Musgrave Complex, Abminga Project, Sheet SG 53-10, Abminga, airborne EM survey, airborne magnetic survey, surface geochemistry, uranium

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This report	EROAbminga_2009_S_01_ReportBody.pdf
Surface Samples	EROAbminga_S_02_SurfaceSamples.csv
Geophysics Folder	Abminga_airmag_EL3575~3600.csv Abminga_airmag_EL3575~3600.dat Abminga_airmag_EL3575~3600.dfn Abminga_airmag_EL3575~3600.gdb Abminga_airmag_EL3575~3600.xyz Abminga_airmag_EL3575~3600.hdr Abminga_RepTEM_EL3575~3600.csv Abminga_RepTEM_EL3575~3600.dat Abminga_RepTEM_EL3575~3600.dfn Abminga_RepTEM_EL3575~3600.gdb Abminga_RepTEM_EL3575~3600.xyz Abminga_RepTEM_EL3575~3600.hdr basic header file READ.ME SURVSPEC.DOC

All files are attached to this report.

SUMMARY

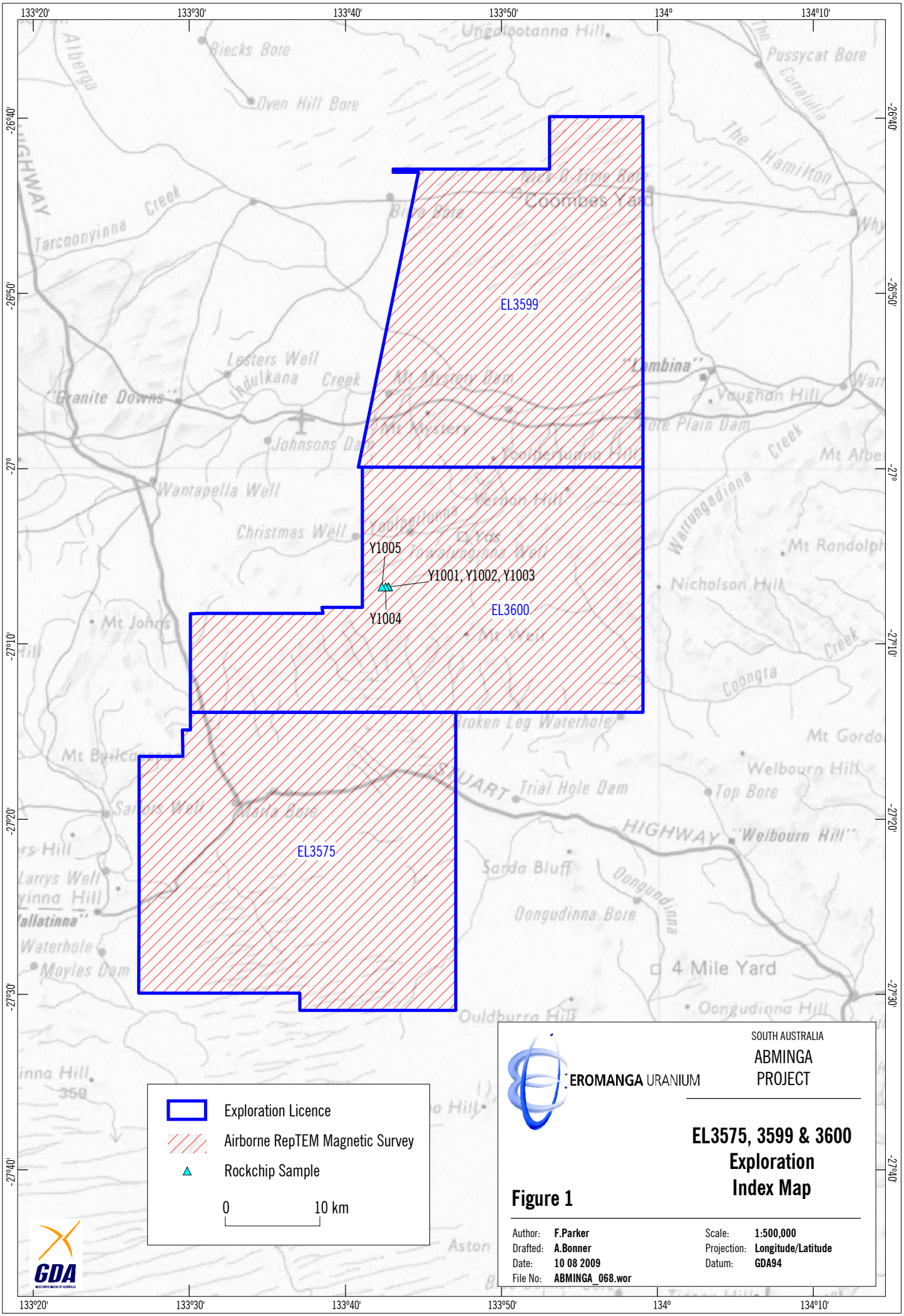
The Abminga Project consists of five exploration licences, ELs 3575, 3599, 3600, 3601, 3602 which cover 4,779 square km. These licences are 100% held by Maximus Resources Limited. Under a joint venture with Maximus (Eromanga Basin JV), Eromanga has the right to explore for all minerals and can secure equity, with the capacity to move to 100% by sole funding the initial $7 million of exploration. The principal target for exploration is sedimentary uranium in palaeochannels within the Mesozoic Eromanga Basin.

ELs 3575, 3599 and 3600 were surrendered on 2 April 2009. Work carried out during the period from grant to surrender is summarised in Table 1.

Tenement	Activity	Description	Key Results
3575	Airborne geophysical survey	RepTEM mag survey over entire tenement	Mapping of sinuous conductive anomalies for drill testing
3599	Airborne geophysical survey	RepTEM mag survey over entire tenement	Mapping of sinuous conductive anomalies for drill testing
3600	Airborne geophysical survey	RepTEM mag survey over entire tenement	Mapping of sinuous conductive anomalies for drill testing
	Rock Chip Samples	5 samples taken over radiometric anomalies	0.16 – 0.92 ppm

Table 1 Summary of activities

The Exploration Index Map (Fig 1) shows the extent of the airborne RepTEM magnetic survey and the location of the rock chip samples.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133°30'
133°40'
133°50'
134°
134°10'
-26°40'
-26°50'
-27°
-27°10'
-27°20'
-27°30'
-27°40'
EL3599
EL3600
EL3575
Y1005
Y1001, Y1002, Y1003
Y1004
Exploration Licence
Airborne RepTEM Magnetic Survey
Rockchip Sample
0
10 km
EROMANGA URANIUM
SOUTH AUSTRALIA
ABMINGA
PROJECT
EL3575, 3599 & 3600
Exploration
Index Map
Figure 1
Author: F.Parker
Drafted: A.Bonner
Date: 10 08 2009
File No: ABMINGA_068.wor
Scale: 1:500,000
Projection: Longitude/Latitude
Datum: GDA94
GDA

1. INTRODUCTION

The sandstone formations of the Mesozoic Eromanga Basin within the Abminga tenements are in a good position to have received uranium bearing ground water from the Musgrave Complex over an extensive period of time. Previous exploration indicated the presence of favourable host rocks and downhole radiometric anomalism within the project tenements. The Jurassic Algebuckina Sandstone, a major aquifer that is present throughout the tenement area, is potentially an excellent host rock.

Eromanga Uranium Limited is targeting redox boundaries within the Algebuckina Sandstone. Such positions, at relatively shallow depths, are ideal targets for roll-front style mineralization that is exploitable by *in situ* leaching.

2. LOCATION AND ACCESS

The Abminga Project area (4,779 square kilometres), is situated near the western margin of the Eromanga Basin. The project lies approximately 115 km northeast of Marla. In this area the prospective late Jurassic to Cretaceous rocks rest unconformably on deeply weathered crystalline basement rocks of the Musgrave Block.

Access to the project area is via the Stuart Highway, De Rose Hill homestead and Tieyon Homestead. Alternative Access is via Kulgera, Fink Road and Tieyon Homestead. The project area is serviced by a sparse network of maintained and unmaintained pastoral tracks.

3. TENURE

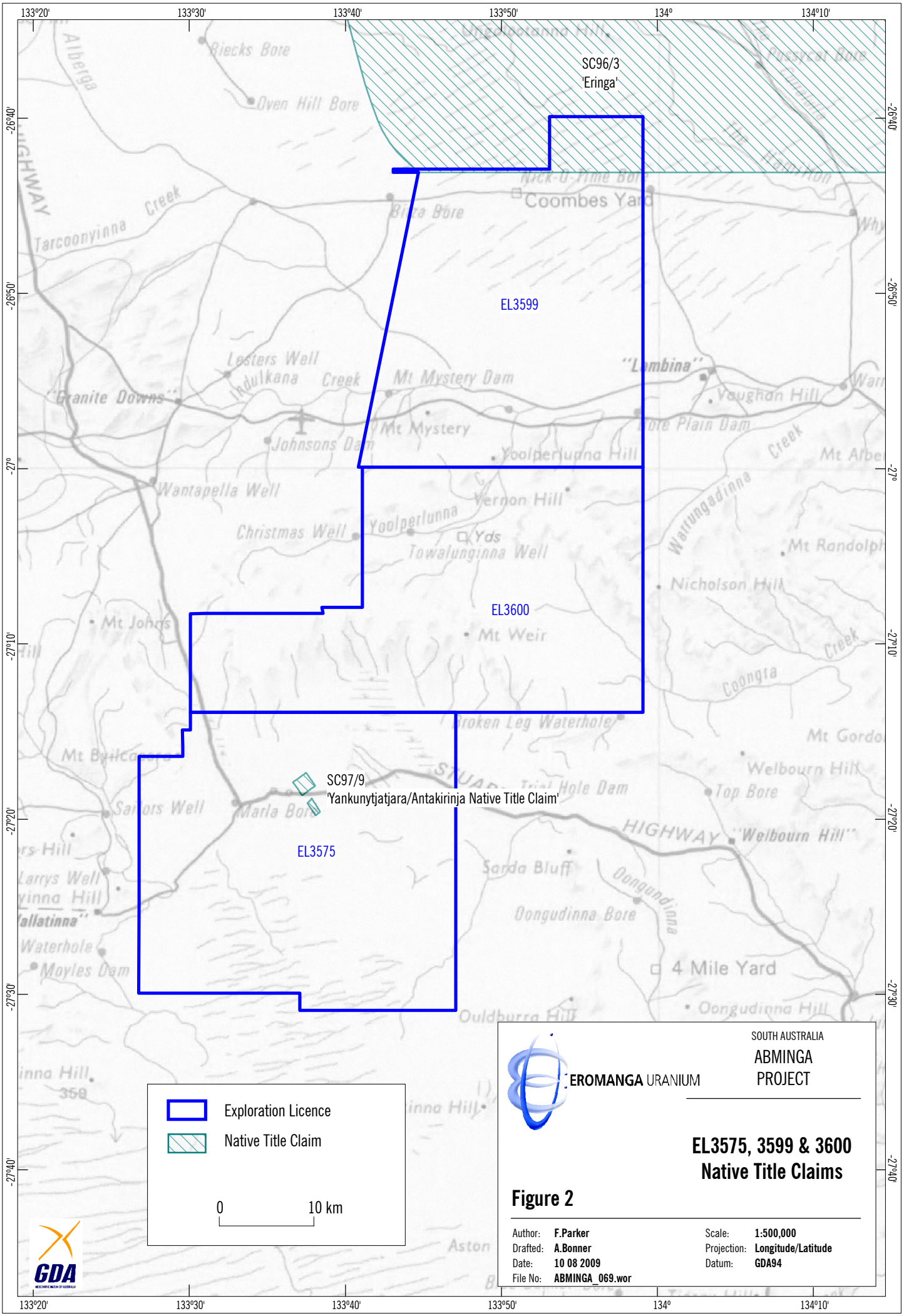
The Abminga Project comprises five exploration Licences covering an area of 4,779 square kilometres. The exploration licences are held 100% by Maximus Resources Limited. Under a joint venture with Maximus (Eromanga Basin JV), Eromanga has the right to explore for all minerals and can secure 70 % equity, with the capacity to move to 100% by sole funding the initial $7 million of exploration. Three of the Abminga Project ELs (Table 2) were surrendered on 2 April 2009.

Tenement Number	Tenement Name	Date Granted	Surrender Date	Area (sq km)	Registered Holder/Applicant
EL 3575	Marla	21/6/06	02/04/09	988	100% Maximus Resources
EL 3599	Alberga River	17/7/06	02/04/09	903	100% Maximus Resources
EL 3600	Mount Weir	17/7/06	02/04/09	959	100% Maximus Resources

Table 2 Tenement details

4. LAND TITLE

The Abminga Project lies almost entirely within the Tieyon, Lambina and Welbourn Hill pastoral leases. A very small area of the project encroaches on to Wintinna Station, in the very south eastern corner of EL 3575. The project area lies within the Yankunytjatjara/Antakirinja Native Title Claim SC97/9 and Eringa Native Title Claim SC96/3 (Figure 2).


133°20'
133°30'
133°40'
133°50'
134°
134°10'
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-27°
-27°10'
-27°20'
-27°30'
-27°40'
SC96/3
'Eringa'
EL3599
EL3600
EL3575
SC97/9
'Yankunytjatjara/Antakirinja Native Title Claim'
Coombes Yard
"Granite Downs"
"Lambina"
"Welbourn Hill"
4 Mile Yard
Exploration Licence
Native Title Claim
0
10 km
EROMANGA URANIUM
SOUTH AUSTRALIA
ABMINGA
PROJECT
EL3575, 3599 & 3600
Native Title Claims
Figure 2
Author: F.Parker
Drafted: A.Bonner
Date: 10 08 2009
File No: ABMINGA_069.wor
Scale: 1:500,000
Projection: Longitude/Latitude
Datum: GDA94
GDA

5. GEOLOGICAL BACKGROUND

The Abminga tenements lie near the contact between the Eromanga Basin and the Musgrave Block. The Musgrave Block in this region is composed of Mesoproterozoic high grade metasedimentary and metavolcanic rocks of the Birksgate Complex and granitic intrusives of the Kulgeran Suite. A major east-west depression, the Moorilyanna Graben, a deep, fault-bounded structure, cuts through the southern part of the project area commencing in the Musgrave Block and extending east where it becomes the Eringa Trough, part of the Permian Pedirka Basin. The Permian is completely concealed in the project area. The Eromanga Basin is extensively exposed, although almost entirely covered by Quaternary and Tertiary sediments in the area roughly coincident with the Moorilyanna Graben.

In the project area, Jurassic-Cretaceous Algebuckina Sandstone is the basal unit of the Eromanga basin. It is extensively exposed and rests unconformably on deeply weathered crystalline basement. Displaying fluvial channel and overbank features, it includes carbonaceous mudstone units and coal layers. The Algebuckina Sandstone is the main ground water aquifer in the region and is sub-artesian. The Bulldog shale, a marine unit, forms the upper impervious layer over the porous sandy target rocks. The Coorikiana Sandstone overlies the Bulldog Shale, and is the youngest Eromanga Basin unit in the tenement area.

The regional stratigraphy is detailed from the Abminga and Wintinna 1:250 000 geological maps and explanatory notes, and is summarised,), in Table 3.

Age	Name	Description
Quaternary	Various	Sand, silt, gravel and clay, in drainage channels and floodplains, of Pleistocene (Q pf, Qpa) and Holocene (Qha) age
Quaternary	Simpson Sand	Dunes of red brown sand separated by interdunal flats of clayey sand
Quaternary	Qps	Red-brown sand and silt with patches of maghemite. Fluvial outwash from surrounding pre-Quaternary outcrop
Eocene to Oligocene	Cordillo Silcrete	Silicified rock
Eocene	Eyre Formation	Sandstone and minor conglomerate
Neogene	Undifferentiated	Subsurface siliclastic sediments of the Hamilton Basin
Cretaceous	Coorikiana Sandstone	Khaki yellow, muddy, fine to very fine sandstone
Cretaceous	Bulldog Shale	Silty to fine sandy mudstone , black in unweathered drill cuttings
Jurassic to Cretaceous	Algebuckina Sandstone	Coarse to very coarse, kaolinitic , quartz sandstone, locally including organic matter; mudstone and carbonaceous mudstone; minor quartz granule conglomerate
Carboniferous to Permian	Undifferentiated	Subsurface Pedirka Basin sediments within the Moorilyanna Graben
Neoproterozoic	Undifferentiated	Subsurface strata of the Bitchera Ridge
Meso-Palaeoproterozoic	Musgrave Block	Birksgate Complex gneiss, Kulgera Suite granitic intrusives, mafic dykes

Table 3 Regional stratigraphy of the Abminga project area summarised from Rogers (1986) and Rogers *et al*. (1984), with reference to Drexel et al. (1993) and Drexel et al. (1995)

6. EXPLORATION HISTORY

The first recorded uranium exploration in the Abminga region was undertaken by Dampier Mining Company Ltd (BHP) commencing in 1973. BHP's tenements covered a large area over the Moorilyanna Graben, which includes EL 3599 Alberga River. A total of 56 rotary holes were drilled. Two northeast trending palaeo-valleys, separated by a basement ridge and filled with Upper Jurassic fluviatile sediments and Lower Cretaceous mudstone, were outlined. The Jurassic sediments intersected consisted of interbedded carbonaceous, pyritic sandstone and clay, with a highly pyritic basal quartz pebble conglomerate resting unconformably on Proterozoic siltstone basement. Gamma ray logging revealed numerous anomalies that ranged from 4 to 18 times background, in the Algebuckina Sandstone. The largest anomaly occurred in hole AL50, corresponding to an estimated value of 195 ppm U_3O_8 over an interval of 0.75 metres. This hole is located between Maynard's Bore and Tieyon Bore, to the west of EL 3599 Alberga River. BHP was disappointed with the results and did not renew their tenements.

During 1979 and 1980, Amoco Pty Ltd (Amoco) explored for uranium deposits in the Algebuckina Sandstone within and to the east of the Abminga project tenements. Five diamond holes and 15 air core holes were drilled mainly in the vicinity of Enungarenna Bore, east of the present EL 3601 Black Hill Dam. Selected holes were gamma logged and gamma logs were also obtained from 5 water bores. Radiometric anomalies were recorded in 6 drillholes, largest of which, at 190 counts per second, was recorded from the Algebuckina Sandstone in hole CUR13 near Enungarenna Hill. Chemical analysis of drill samples from CUR13 showed several anomalous uranium values, the highest being 190 ppm. A water sample from the same hole returned a uranium analysis of 180 milligrams per litre. Afmeco suggested that hole CUR13 may have intersected a palaeochannel near a regional redox interface. However, no further work was carried out.

7. RECENT EXPLORATION

7.1 GEOPHYSICAL SURVEYS

Geophysical surveys conducted within the tenements comprised a combination airborne EM magnetic survey conducted in 2007.

The survey was flown using a Eurocopter Squirrel helicopter with the TEM towed array at a nominal height of 30 m and the magnetometer mounted at a nominal height of 45 m. The survey was oriented 000-180 degrees with a 1000m line spacing. Specific details of the transmitter and receiver coils, instrumentation and proprietary Geosolutions processing details are contained in the survey documentation. The TEM data was windowed to 21 channels with a total read time of approx 10 ms. The current applied to the transmitter coil averaged 320 A.

Examination of the TEM showed that the data in channels 1 and 2 was extremely noisy and were deleted for in-house processing. Channel 21 was also deleted as the contractor over wrote this for processing purposes. Data included with this report is the modified dataset. The original contractors' data are described and included in the Abminga East First Combined Annual Technical Report, Report No: ERO_0834.

The surveys are shown on the Exploration Index Map (Figure 1).

7.2 ROCK CHIP SAMPLING

Rock chip sample locations (NB 2 of the samples were from the same locality and only one was analysed) are indicated on the Exploration Index Map (Figure 1).

After review of government radiometric data in the Abminga Project area, five rock chip samples were taken from radiometric anomalies which lie in the north-west of the Wintinna 1:250 000 geological map sheet and the north-western portion of EL 3600 Alberga River.

The samples taken were Palaeoproterozoic metamorphics of the Yoolperlunna Inlier. They are described as "Granitic gneiss, partly mylonitised and retrogressed" with granitoid dykes.

Geochemical results for the rock chip are located in :

EROAbminga_2009_S_02_SurfaceSamples.csv

8. ENVIRONMENT

No ground disturbing work was conducted on the surrendered licences.

8.1 TRACKS

Sections of pastoral tracks damaged by exploration activity are watered (in the absence of rainfall) and graded. Track rehabilitation is photographed as required by the Drilling/Use of Declared Equipment Approval. Completion of remaining work is expected in the near future following recent rain.

9. SUMMARY AND CONCLUSIONS

- Drilling results from the adjacent Abminga East project confirmed that airborne EM anomalism was associated with the conductive Bulldog Shale rather than saline palaeochannels. Airborne EM anomalism over the surrendered licences is interpreted to have a similar origin. The surrendered licences are now regarded as having low prospectivity for sedimentary uranium.
- Rock chip sampling of airborne radiometric anomalies over crystalline basement yielded slightly anomalous values of between 0/16 and 0.92 U ppm..
- In general the airborne EM system failed to map conductivity changes in the target horizon due to the conductive Bulldog Shale. The RepTEM system effectively mapped conductivity variations above the Bulldog shale making it possible to identify Tertiary drainage patterns. The TEM also identified conductors in the shallow Neoproterozoic strata in the southern tenements.

10. REFERENCES

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Rogers, P.A. et al. 1984. Abminga, S.A., South Australia Geological Survey, 1:250 000 Geological Series Sheet SG/53-10.

Drexel, J.F., Preiss, W.V. and Parker, A.J. 1993. The Geology of South Australia. Volume 1, The Precambrian. South Australia Geological Survey Bulletin 54.

Drexel, J.F., Preiss, W.V. and Parker, A.J. 1995. The Geology of South Australia. Volume 1, The Phanerozoic. South Australia Geological Survey Bulletin 54.