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No. 12,102

EL 3909

PHAR LAP OUTSTATION

FIRST PARTIAL SURRENDER REPORT FOR THE PERIOD 27/8/2007 TO 26/8/2010

Submitted by
Marmota Energy Ltd
2010

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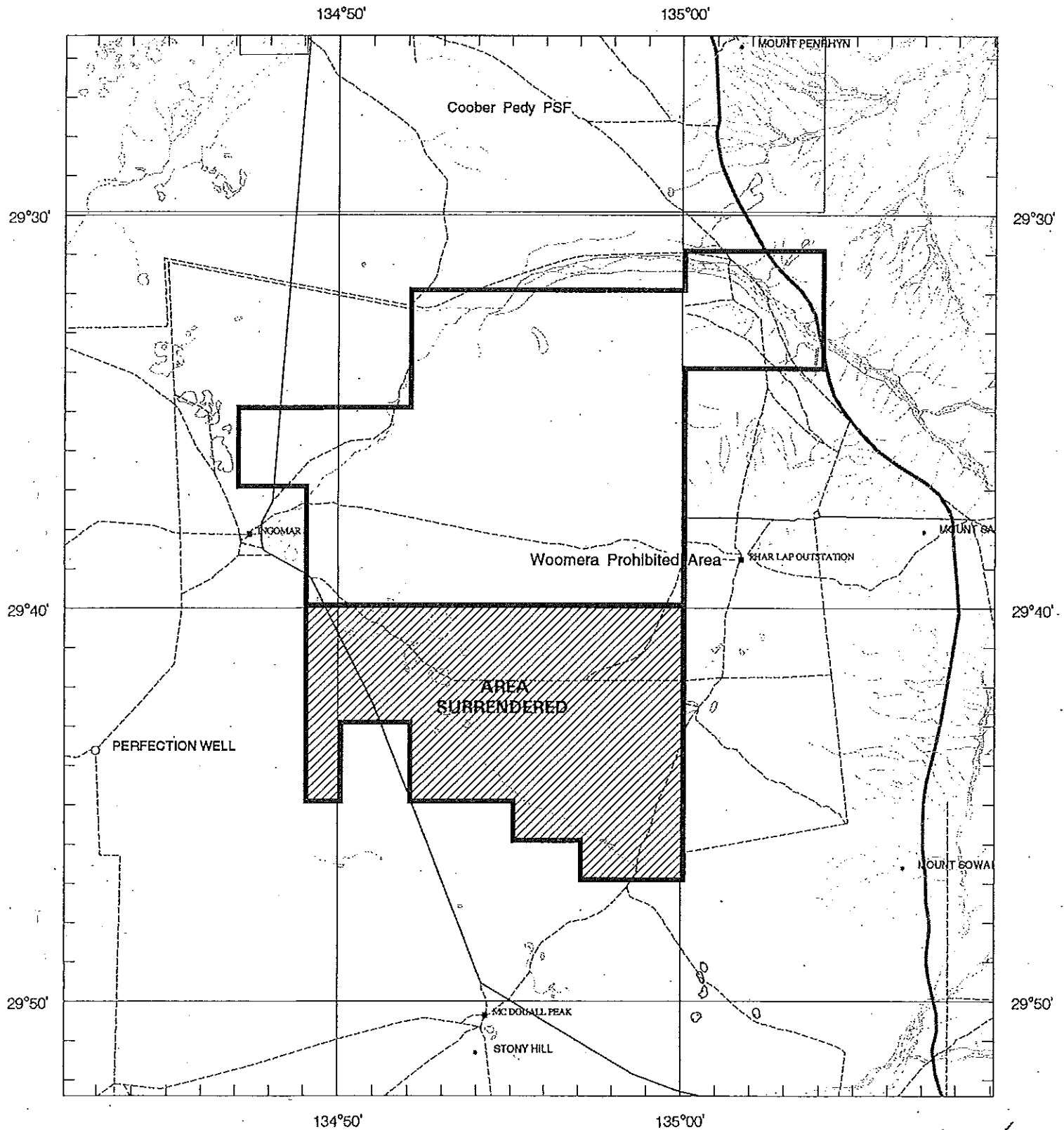
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Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1: 250 000
 KILOMETRES 5 0 5 10 15 20 25 KILOMETRES
 LICENCE GRANTED IN : DATUM AGD86



APPLICANT : MARMOSA PTY LTD

FILE REF : 137/07

TYPE : MINERAL ONLY

AREA : 283 km² (approx.)

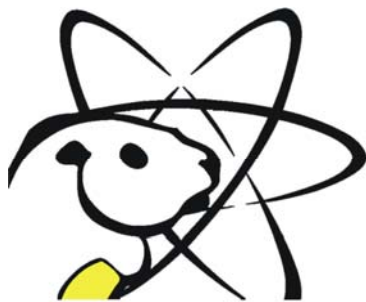
1:250000 MAPSHEETS : COOBER PEDY BILLA KALINA

LOCALITY : PHAR LAP OUTSTATION AREA - Approximately 70 km SSE of Cober Pedy

DATE GRANTED : 27-Aug-2007

DATE EXPIRED : 26-Aug-2010

EL NO : 3909



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Partial Relinquishment Report

EL 3909 Phar Lap

For the period 27 August 2007 – 26 August 2010

Tenure holder | Marmosa Pty Ltd
Compiled by | Neil Chalmers

Tenement operator | Marmota Energy Limited
Report date | 13 December 2010

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Summary

This partial relinquishment report details the work undertaken by Marmota Energy Limited on the relinquished area of Exploration Licence 3909 (Phar Lap) in the Rounsevell Hill area during the period 27 August 2007 – 26 August 2010. The total project area is 459 km² and is located 70km south of Coober Pedy along the Stuart Highway.

The majority of EL 3909 lies in the Ingomar 1:100 000 map sheet, with the eastern corner in Peak, whilst the majority of the tenement is on the Coober Pedy 1:250 000 with the eastern corner on Billa Kalina. Marmota Energy's interest in the Phar Lap tenement is related to the potential for uranium mineralisation associated with the Permian, Jurassic or Tertiary sedimentary sequences that make up Lake Phillipson coal field in and west of the tenement area.

As at the current licence expiry date of 26 August 2010, Marmota has relinquished the southern end of EL 3909, making the tenement's new southern boundary to be along the 29°40' latitude. This is a result in part of the implications of the restricted zone of the Woomera Prohibited Area (WPA), advised in 2009, which incorporates the southern end of EL 3909.

The licence holder of EL3909 is Marmosa Pty Ltd, a wholly owned subsidiary of Marmota Energy Limited. Marmota is in joint venture arrangements with Monax Mining Limited for the exploration of uranium on this tenement.

Keywords

EL 3909, Phar Lap, uranium, Arckaringa Basin, Lake Phillipson

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	File size
EL3909_2010_A_01_ReportBody.pdf	97KB
EL3909_2010_Figure1_Tenement_location	509KB

1. Introduction

On 24 September 2007, Marmosa Pty Ltd, a wholly owned subsidiary of Marmota Energy Limited, entered into a joint venture agreement the *Mineral Rights Transfer and Joint Venture Agreement* with Monax Mining Limited for the exploration of uranium on EL3909. Under the terms of the agreement, Marmota has the right to earn up to 70% of the uranium rights on the EL, with Monax earning 30% and 100% of all other minerals excluding uranium. Uranium is prospective in the tenement region associated with carbonaceous layers previously identified in the Permian, Jurassic and Tertiary sequences from within the Lake Phillipson coal hosting basin. These sediments form part of the Arckaringa Basin.

2. Tenure

Tenement details for EL 3909 are detailed below in **Table 1**

EL	Name	Tenure holder	Tenement operator	Area (km ²)	Grant Date	Expiry Date	Partial relinquish date
3909	Phar Lap	Marmosa Pty Ltd	Marmota Energy Limited	459*	27 August 2007	26 August 2010*	26 August 2010

* licence renewal for 2011 pending; + ~200km² relinquished as at 26/08/10

3. Geology

The Phar Lap tenement is geologically located on the southern edge of the Arckaringa Basin at the south eastern end of the Lake Phillipson Trough which hosts the Lake Phillipson coal prospects. The sedimentary sequences that fill the basin/trough systems form part of the Arckaringa Basin sequence. The Arckaringa Basin sedimentary sequence began in the Permian, comprised of basal glacial, with tillites and interlayered sandstones forming the Boorthanna Formation (Hibburt, 1995). This was followed by a marine transgression that deposited the Stuart Range Formation - a homogeneous marine shale with minor silt and sandstones. This is overlain sometimes unconformably by the marine deposition of the Mount Toondina Formation, a carbonaceous rich sequence of siltstones, mudstones and sandstones. This unit hosts coal deposits in the Lake Phillipson Trough.

Unconformably overlying the Permian sequence is the Jurassic Algebuckina Sandstone, a unit that is associated with the deposition of the Eromanga Basin, a large Mesozoic system which commonly overlies the Arckaringa Basin. This unit comprised of a fine to coarse grained quartz rich sand with coarser clasts and gravels, with occasional cross bedding and kaolin matrix. The Algebuckina Sandstone does contain minor interlayers of carbonaceous material (Alexander & Krieg, 1995).

Within the Lake Phillipson region the Cadna-owie Formation is thought to disconformably overly the Algebuckina Sandstone. This is a generally thin, transitional from terrestrial fresh to marine unit, comprised of predominantly grey siltstones with sandstones layers that can be interleaved including age equivalent the Mount Anna Sandstone (Krieg & Rogers, 1995). Overlying the Cadna-owie Formation is the fossil rich marine Bulldog Shale. This is a thick shaley mudstone rich in carbonaceous matter, and contains sandy interlayers that can be interlaminated with the shale. Pyrite is also occasionally associated with the Bulldog Shale. The substantial shale acts as a good seal for the groundwaters that flow through the

permeable underlying strata. This improves the uranium concentration potential for rollfront uranium style mineralisation specifically in Permian or Mesozoic palaeochannels in the tenement area.

4. Exploration Rationale

Marmota believes that potential palaeochannels containing lignites or pyritic sands of both Permian and Mesozoic age could host uranium mineralisation within the Phar Lap tenement. The extensive Permian and Mesozoic sediments within the Lake Phillipson Trough are well understood to the north west of the tenement area for their coal prospectiveness. Marmota believes that by using this well understood stratigraphy as a framework, the area can be reassessed with uranium mineralisation as the focus. First pass exploration techniques relevant in the Phar Lap tenement are detailed gravity and electromagnetic geophysical surveys, incorporated with the existing understanding of the geology of the trough.

5. Previous Exploration

Expansive exploration has been undertaken in the Phar Lap tenement region, particularly coal focused from the Lake Phillipson deposits. Utah Development Co. (1972-1982) (Hibburt, 1994) and Aulron Energy Ltd (1997-2001) (Aulron, 2001) both conducted detailed coal investigations. Stockdale Prospecting Ltd (1985-1987) also undertook diamond exploration in the region. It was interpretations by these companies and by third parties of the drillcores that deciphered the detailed Permian and Mesozoic stratigraphies described earlier for the Lake Phillipson region.

6. Exploration Conducted

6.1 Current term of the licence

During the reporting period 27 August 2007 – 26 August 2010, Marmota Energy has not undertaken any active exploration on the relinquished area of the tenement.

6.2 Term of the licence

During the term of the licence period Marmota Energy undertook a ground based 500m spaced gravity survey. A detailed airborne electromagnetic survey was conducted, with 1413.33 line kilometres of data collected, flying N/S lines 400m apart with 4km E/W tie lines. Airborne magnetic and radiometric surveys were also collected with a 100m E/W spacing with 1km N/S tie lines. A total of 5328.0 line kilometres was flown. (Geophysical survey data previously provided to department with 2008 Annual Report, please note that Marmota Energy request that only data associated with relinquished area be made open file). Marmota signed an ILUA access agreement with the Antakirinja Land Management Corporation for five tenements, including the Phar Lap tenement. No data to be made open file

As part of Marmota's reassessment of its entire tenement package, the southern section of EL 3909 was relinquished as at 26 August 2010, south of latitude 29°40'. This area was deemed to be the least prospective part of the tenement due to its distance from the Mount Woods Inlier's south western boundary; the lack of distinctive palaeochannels; and, importantly, it coincides with the recently declared exclusion zone within the Woomera Prohibited Area (WPA). Information about the nature and exact location of this restricted zone in relation to EL3909 within the pre-existing WPA has been scarce and slow in coming, but Marmota understands that the 'no go' zone within the WPA will be in place for at least the

next reporting period for the remainder of the tenement and likely to be in place for the foreseeable future. That means that Marmota would have had no chance of undertaking any active on ground exploration in the majority of the southern end of the tenement and as such it is now relinquished. Marmota has previously collected aeromagnetic and radiometric surveys, electromagnetic survey and ground gravity acquisition over the original entire EL 3909.

7. Conclusions

Marmota has relinquished the southern section of EL 3909, everything south of latitude 29°40'. The remainder of the tenement is retained and remains prospective for copper gold basement mineralisation particularly on the Mount Woods southern structural boundary as well as palaeochannel hosted roll front uranium mineralisation.

8. References

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Figures

Marmota Energy Limited

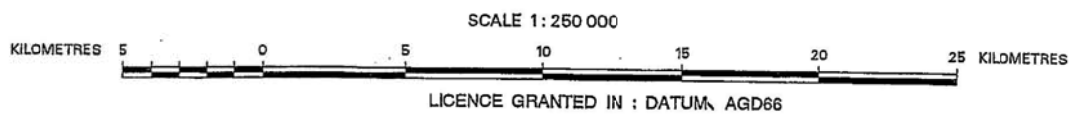
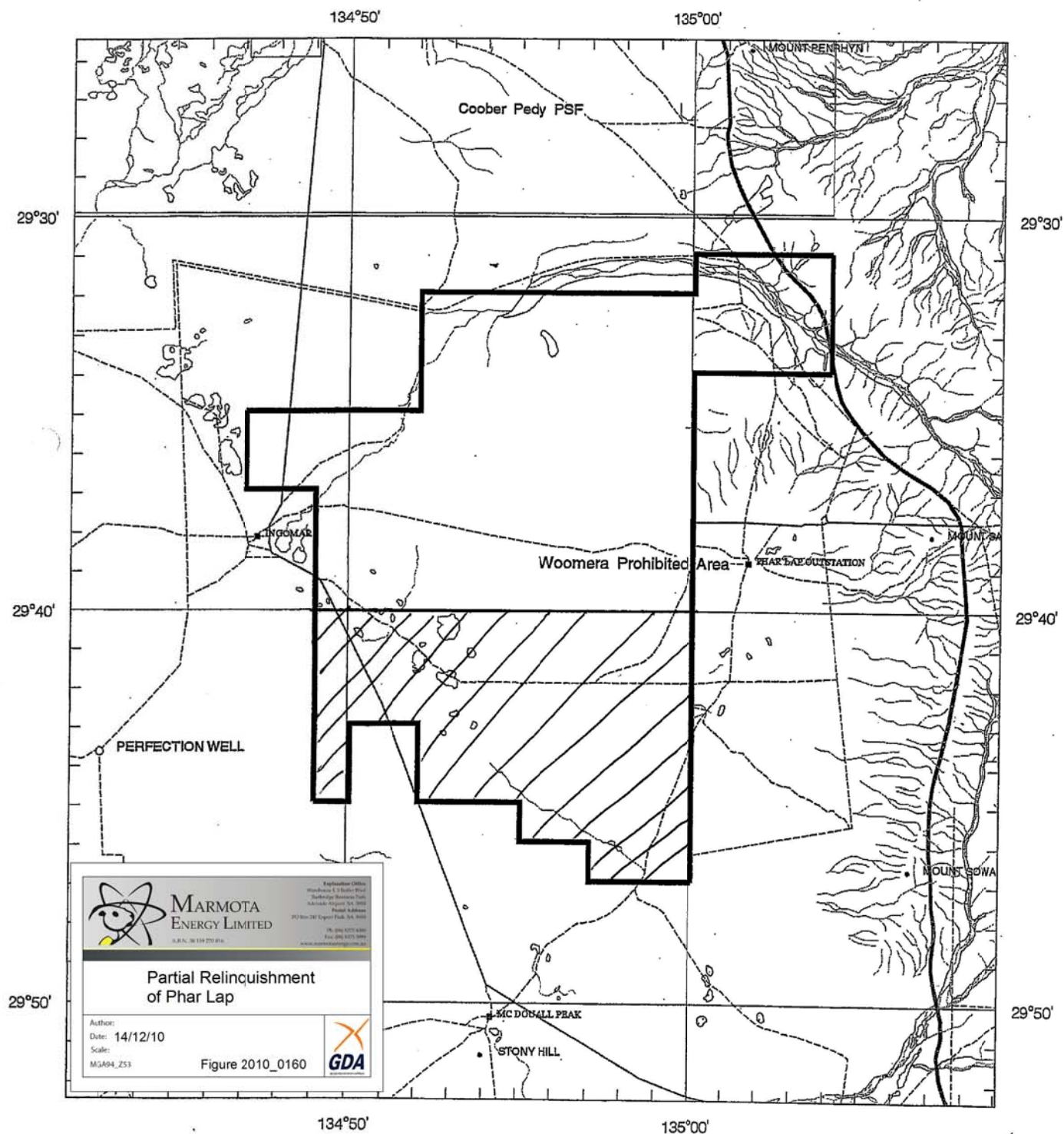
Partial Relinquishment Report for EL 3909

27 August 2007 – 26 August 2010

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SCHEDULE A



NOTE: There is no warranty that the boundary of this Exploration Licence is correct in relation to the other features on the map. The boundary is to be ascertained by reference to the Australian Geodetic Datum.