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EL 5004 AND EL 5005

EMU LOOKOUT AND MOUNT NORWEST

**FINAL REPORT AT LICENCES' JOINT SURRENDER,
FOR THE PERIOD 10/9/2012 TO 18/3/2014**

Submitted by
BHP Billiton Olympic Dam Corp. Pty Ltd
2014

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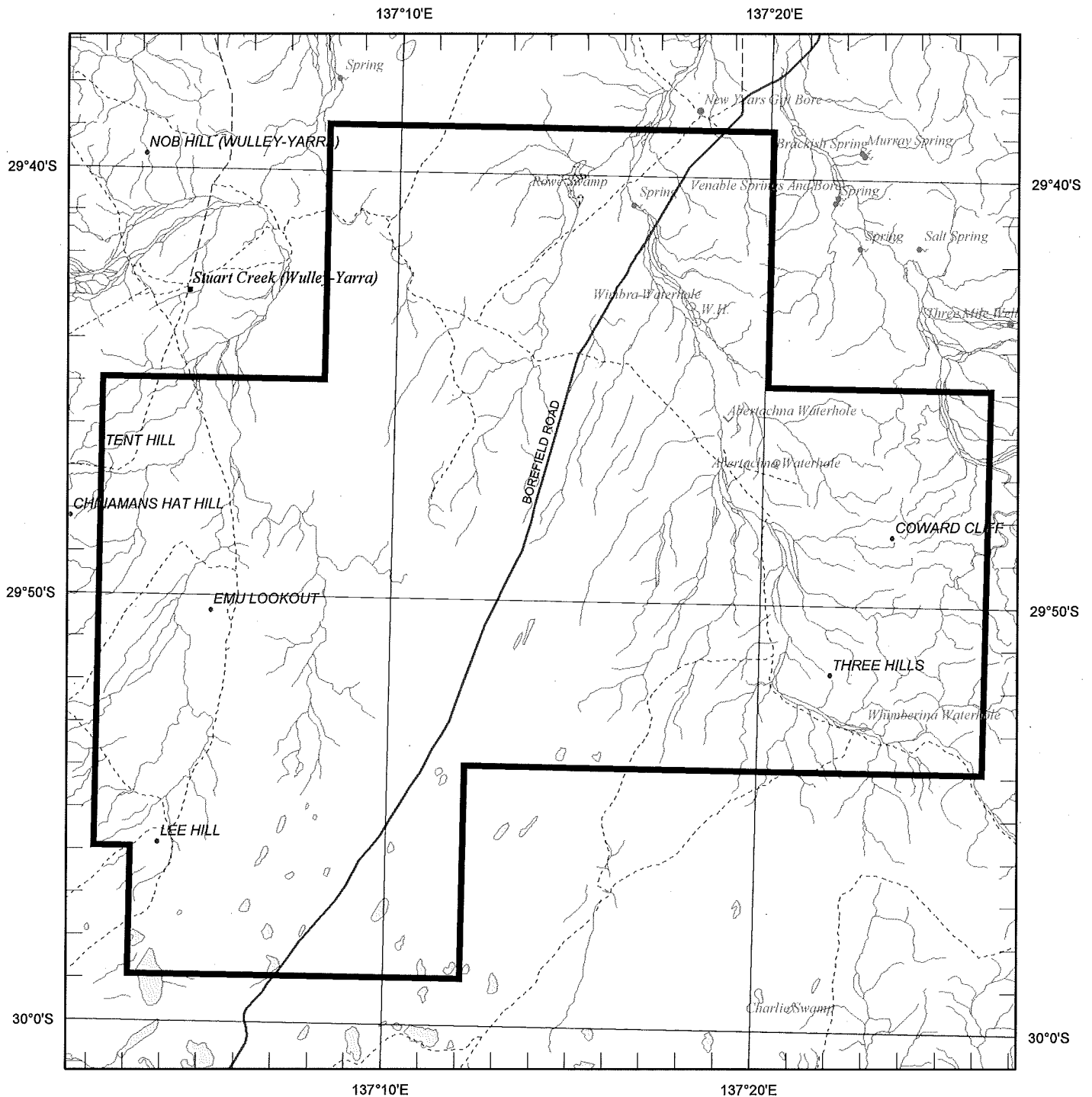
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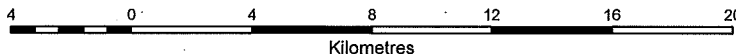
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SCHEDULE A



SCALE 1 : 250 000



LICENCE BOUNDARIES IN : DATUM AGD66

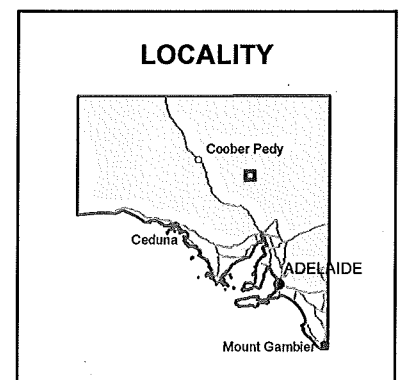
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FILE REF : 2012/00040 TYPE : MINERAL ONLY

AREA : 998 sq km (approx)

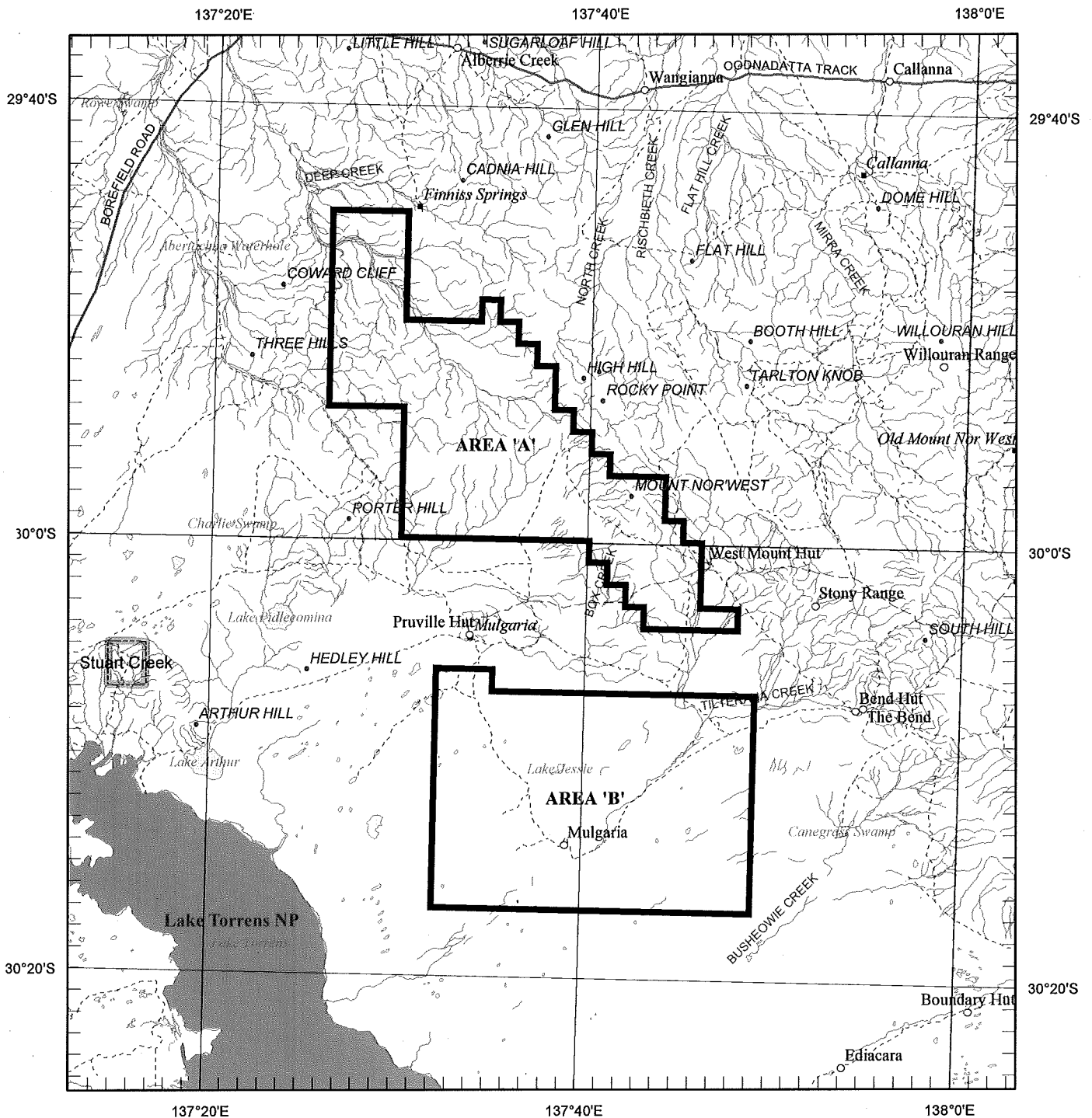
1 : 250 000 MAPSHEETS : CURDIMURKA

LOCALITY : EMU LOOKOUT AREA -
Approximately 80 km west of Marree

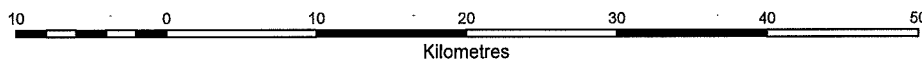


DATE GRANTED: 10-Sep-2012 DATE EXPIRED: 09-Sep-2014 EL NO: **5004**

SCHEDULE A



SCALE 1 : 500 000



LICENCE BOUNDARIES IN : DATUM AGD66

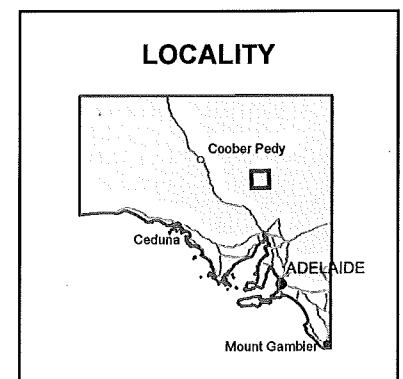
APPLICANT : **BHP BILLITON OLYMPIC DAM CORPORATION PTY LTD**

FILE REF : **2012/00041** TYPE : **MINERAL ONLY**

AREA : **987** sq km (approx)

1 : 250 000 MAPSHEETS : **ANDAMOOKA CURDIMURKA**

LOCALITY : **MOUNT NORWEST AREA -**
Approximately 60 km southwest of Marree



DATE GRANTED: **10-Sep-2012** DATE EXPIRED: **09-Sep-2014** EL NO: **5005**



Government of South Australia

Department for Manufacturing,
Innovation, Trade, Resources and Energy

Brownfields Exploration, South Australia

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Report Compilation: Angela Meola



Surrender Report 2014

Northern Lake Torrens Project

Reporting period: 10/09/2012 – 18/03/2014

BHP Billiton Olympic Dam Corporation (BHPBODC)

EL5004

EL5005

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DATA FILES

Exploration Work Type	File Name	format
Office Studies: this report		
Surrender Report 2014 Northern Lake Torrens Project, Reporting period: 10/09/2012 – 18/03/2014, BHP Billiton Olympic Dam Corporation (BHPBODC) EL5004 & EL5005	EL5004&EL5005 2014_A_01_RelinquishmentReportBody	pdf

1. INTRODUCTION & TENURE

This report covers the two tenements in the Lake Torrens Project as held by BHP Billiton Olympic Dam Corporation (BHPBODC) over areas to the north east of Lake Torrens.

Tenement Name & Number		Area sq. km	Reporting Period	Licence Period
Emu Lookout	EL5004	997.5	10/09/2012 – 18/03/2014	11/09/2012 - 10/09/2014
Mount Norwest	EL5005	986.6	10/09/2012 – 18/03/2014	11/09/2012 - 10/09/2014
Total		1984.1		

EL5004 Emu Lookout and EL5005 Mount Norwest (both at north east end of Lake Torrens) were applied for by BHPBODC via the ERA process during 2012 and were granted in the later part of the year.

These two ELs were granted project status via an Amalgamated Expenditure Arrangement (AEA) by DMITRE with joint technical annual financial reporting.

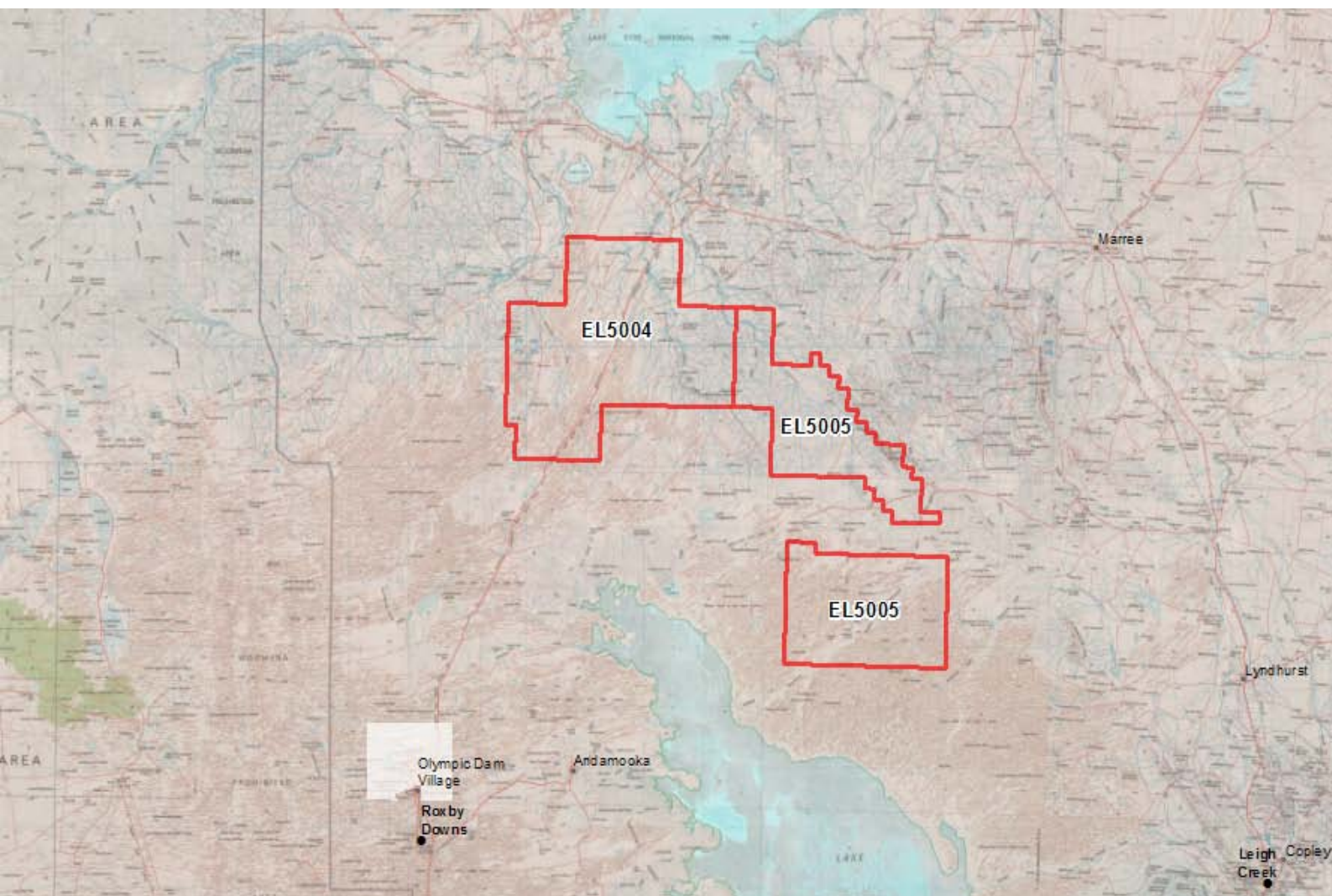


Figure 1: Location of tenements in the Northern Lake Torrens Project

2. REGIONAL GEOLOGY

The Lake Torrens Project tenements mostly lie north east of Lake Torrens. The Torrens Hinge Zone is inferred to run ~N-S to NNW-SSE approximately under the centre of the Lake, such that the area to the east of the Lake is inferred to be underlain by thick Neoproterozoic Adelaidean sediments of the Adelaide Geosyncline and overlying Cambrian. Depth to crystalline basement may be several kilometres or more in this area.

The Torrens Hinge Zone approximates to the eastern margin of the MesoProterozoic basement lithologies of the Olympic Domain of the Eastern Gawler Craton. The Olympic Domain is host to BHP Billiton's Olympic Dam Mine (just north of Roxby Township and to the Carapateena and Punt Hill projects).

The Olympic Dam Mine, the largest known ore body in the Olympic Domain, is hosted by hematized granite breccia of the Roxby Downs Granite, part of the MesoProterozoic Hiltaba Suite Granites. Gawler Range Volcanics (extrusive equivalents of Hiltaba Suite) are recorded at the top of the basement in some localities.

The Eastern Gawler Craton is overlain by flat lying and essentially unmineralised sediments of the MesoProterozoic (Pandurra Formation) to NeoProterozoic (various sandstones, shales) to Cambrian (Andamooka Limestone) Stuart Shelf, which are in part the shelf equivalents of the much thicker and deformed sequence of sediments of the Adelaide Geosyncline to the east of the Gawler Craton. Cover thickness in the Lake Torrens Project area is poorly defined (limited previous drilling), but is presumed to range from ~400m to in excess of 1000m, thus imposing significant constraints on exploration.

Exploration strategies by BHPB and others have involved geophysics (predominantly Falcon airborne gravity/magnetics, some ground gravity, and some trial magnetotellurics etc, and interpretation or regional seismic profiles) with follow-up deep drilling. Geophysical can generate regional to local-scale structural interpretations; gravity highs with or without associated magnetic anomalies may point to hematite and/or magnetite alteration at depth, which may in turn be associated with Fe alteration as at Olympic Dam

3. LAND ACCESS

None of these tenements overlap onto or are close to the Woomera Prohibited Area

3.1 *Native Title and Heritage*

4. Tenement Name& Number	NT Group	Claim/Determination	Known heritage sites
Emu Lookout EL5004	Arabana	Determination	Ethnographic/Archaeological
Mount Norwest EL5005	Arabana	Determination	Archaeological

The Lake Torrens Project covers an area overlapping two Native Title Determinations (for the Adnyamathanha (#1) and Arabana people) and six Native Title Claims (for the Kokatha Uwankara, Barnjala, Adnyamathanha (#1, 3, & 4) and Nukunu peoples)

No ground work was planned or undertaken in FY13 to FY14 on the Northern Lake Torrens Project, and no contact was made with any of the groups.

From previous BHPBOD surveys in the area, there are some known archaeological and ethnographic sites that have been identified on the tenements however much of the areas have never been assessed or surveyed by BHPBODC. Lake Torrens and its shores have also been previously identified as a significant Heritage site.

3.2 *Pastoral Leases*

Tenement Name & Number		Lease Name	Lease Holder
Emu Lookout	EL5004	Stuarts Creek	BHPBODC
Mount Norwest	EL5005	Stuarts Creek	BHPBODC
		Witchelina	BHPBODC
		Mulgaria	BHPBODC
		Ediacara	Other

The tenements being relinquished cover four BHPBODC Pastoral Stations and one third party Pastoral Lease.

Access to areas on BHPBODC leases would be easier than third party leases, however access to other leases is not seen as difficult providing that reasonable notice and communication is given. Access in rural areas, small towns or tourist areas may be more difficult. Due to no ground work being planned or undertaken in this financial year, none of the third party lease or land holders has been contacted.

3.2 *Environmental*

There are no known parks or reserves in the project area

4 WORK COMPLETED

In the 2013 & 2014 financial year, a desktop study has been undertaken on the tenements in this project group including data compilation and analysis of data transferred during the tenement acquisitions as well as from government sources. From these new datasets as well as existing BHPBODC data, a preliminary targeting exercise was undertaken. No Targets were identified for the Northern Lake Torrens Tenements.