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**EL 4093** 

#### **MOSELEY NOBS**

## FIRST PARTIAL SURRENDER REPORT FOR THE PERIOD 3/3/2008 TO 2/3/2009

Submitted by Lincoln Minerals Ltd 2010

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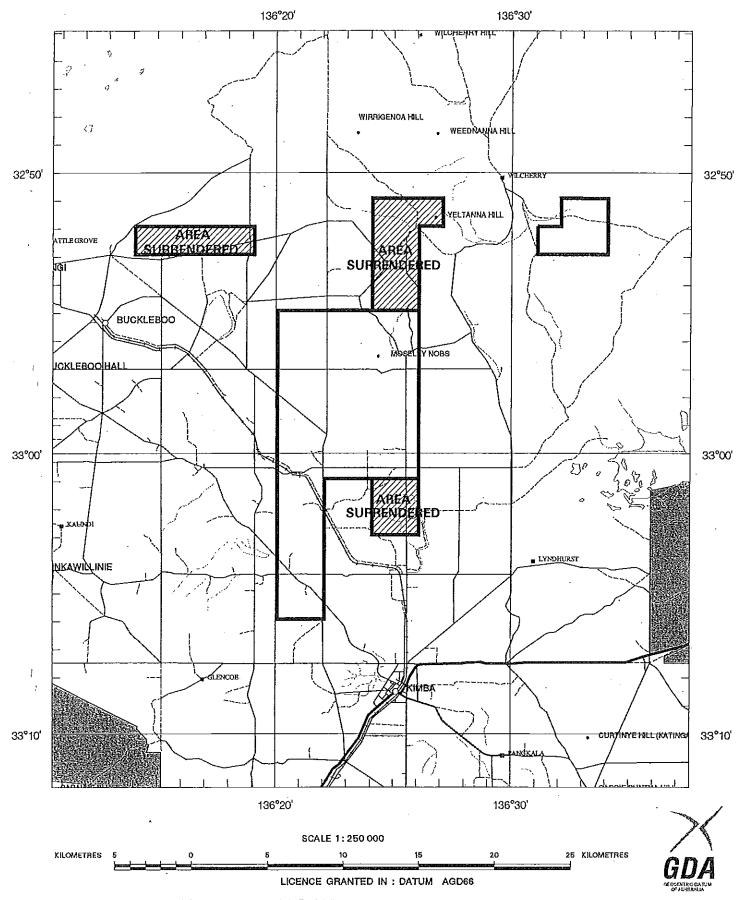
7th Floor

101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000 Facsimile: (08) 8204 1880



### SCHEDULE A



APPLICANT: LINCOLN MINERALS LTD

FILE REF: 527/07 TYP

TYPE: MINERAL ONLY

AREA: 147 km² (approx.)

1:250000 MAPSHEETS: YARDEA PORT AUGUSTA KIMBA

LOCALITY: MOSELEY NOBS AREA - Approximately 20 km north of Kimba

DATE GRANTED: 03-Mar-2008 DATE EXPIRED: 02-Mar-2009 EL NO: 4093

## LINCOLN MINERALS LIMITED

ABN 50 050 117 023

## **EL4093 (Moseley Nobs) Eyre Peninsula**

#### **First Partial Relinquishment Report**

For Twelve 2 March 2010 Licensee: Lincoln Minerals Limited **Months Ending:** Operator: Lincoln Minerals Limited Prepared by: D R Bachmann Mineral(s) Iron ore, uranium, Sought: gold, base metals and all minerals other than Date: 6 July2010 **Phone No:** 08 8274 0243 Map Sheets: YARDEA SI53-03 Fax No: 08 8274 0242

KIMBA 1:250,000 BUCKLEBOO 6132 KIMBA 6131

**Key Words:** 

Gawler Craton, Hutchison Group, Lincoln Complex, Moonabie formation

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Information in this report that relates to exploration targets and results was compiled under the supervision of Dr A J Parker who is a Member of the Australasian Institute of Geoscientists. Dr Parker is Managing Director of Lincoln Minerals Limited and has sufficient experience relevant to the styles of mineralisation and to the activities which are being reported to qualify as a Competent Person as defined by the JORC code, 2004. Dr Parker consents to the release of the information compiled in this report in the form and context in which it appears.

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#### 1 Introduction

This report is following an annual technical report for the period 3 March 2009 to 2 March 2010. The Moseley Nobs project, EL4093, is located about 15 km north of Kimba, on the Eyre Peninsula (Figure 1). It describes the part of the tenement which has been proposed for partial relinquishment.

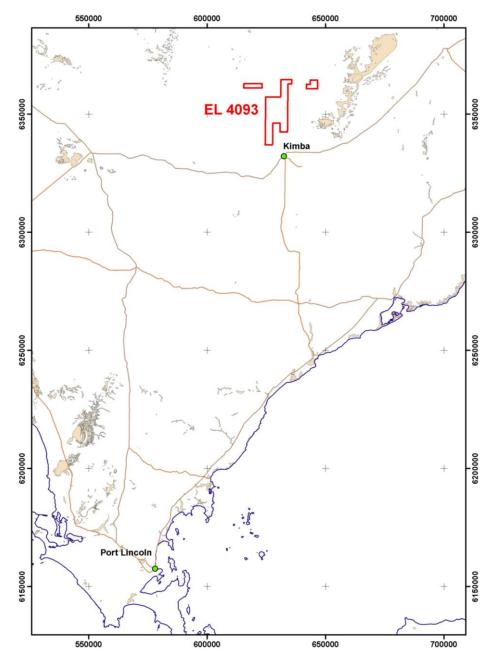


Figure 1: Location of EL4093

#### 2 Regional Geology

The largely unexposed basement to EL 4093 and its surrounding region consists of the Palaeoproterozoic (~2000 Ma – 1850 Ma) Hutchison Group metasedimentary sequences, possible minor Lincoln Complex (~1850 Ma) rocks, local remnants of Sleaford Complex gneisses (~2450 Ma), Hiltaba Suite granites (~1590 Ma) and possible mafic dykes of the Gairdner Dyke Swarm (~830 Ma). The EL is located in the Cleve Subdomain of the Gawler Craton (*Figure 2*).

The Hutchison Group comprises metamorphosed (up to amphibolites facies) mixed platformal carbonate and clastic sequences, with the Warrow Quartzite at its base (Drexel et al., 1993). The Warrow Quartzite is mainly medium to coarse grained, massive to flaggy quartzite containing numerous pelitic interbands and basal calcsilicate and dolomitic marble. It is the main unit cropping out in EL4093.

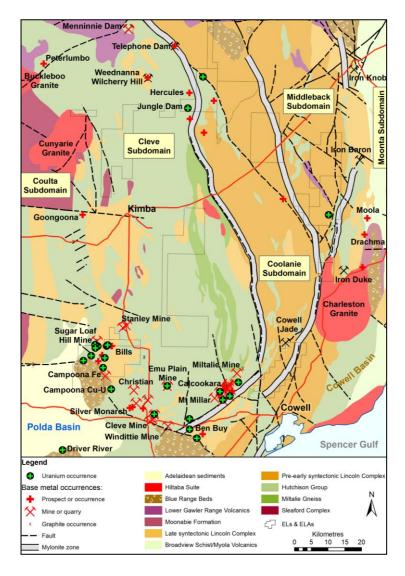


Figure 2: Northern Eyre Peninsula geology summary

The basement sequences are generally deeply weathered to saprolitic clay and overlain by Quaternary sand and clay with calcrete developed near surface.

#### 3 Previous Exploration

EL 4093 is part of a larger area, extending from Buckleboo in the west to Lake Gilles in the east, identified in the 1970s as being prospective for BIF-associated Pb and Zn.

Mines Exploration Pty Ltd and Western Mining Corporation (WMC) explored -the region from 1979 to 1986 (ENV03583). Their programs encompassed ground and airborne magnetic, TEM surveys, sampling of soil, float, and outcrop, and percussion drilling of 628 vertical holes for a total of 15,500 m. Drill holes were sited to test TEM anomalies. Within the boundaries of the present EL 4093, 23 of these holes were drilled, all in the southwest of the main part of the lease (Figure 3). Depths varied between 6 m and 42 m. Most holes finished in saprolite and weathered gneissic and schistose rocks. Samples were assayed for Cu, Pb, Zn, Fe, and As. No anomalous results were returned.

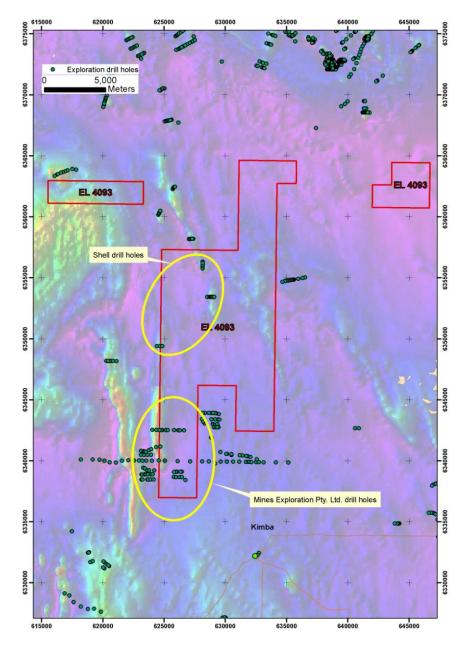


Figure 3: EL4093 showing previous drill holes on TMI background.

Western Mining identified several graphitic schists within the region that gave rise to EM and electrical resistivity anomalies.

The Shell Company of Australia explored in the region from 1983 to late 1984, then in joint venture with Billiton Australia to the end of 1986 (ENV05074). This exploration covered the northern half of the present lease. Activities included sampling of outcrop, airborne radiometric and magnetic surveys, and RAB drilling of 87 holes, for a total of 2,572 m, to test magnetic anomalies. Drill samples were assayed for Cu, Pb, Zn, Ag, Mn, and Fe. No significant assays were returned. Fifteen of these holes were drilled within the area of the present lease (Figure 3).

Additional to exploration for base metals, Shell-Billiton did regional stream sediment sampling, assaying for Au (bulk leach). The best result was 5.2 ppb Au.

#### 4 Areas relinquished

A partial relinquishment of EL 4093 has been accepted. The EL now covers an area of 147km<sup>2</sup> (199km<sup>2</sup> before relinquishment), as per Figure 4.

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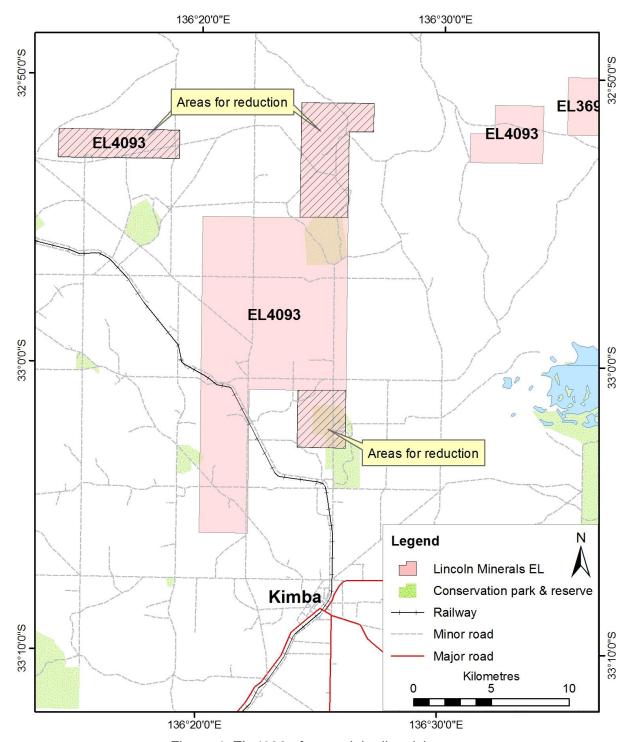


Figure 4: EL 4093 after partial relinquishment.

#### 5 Geophysics

No geophysical anomalies are of significance in the areas proposed for relinquishment.

A prominent linear magnetic anomaly located near the centre of the EL 4093 (328850E, 6352800N) varies in strength from 85 nT to 460 nT. It is about 3.4 km long, strikes north by west, and has a half-width of about 400-450 m. In-house modelling of TMI data downloaded from PIRSA suggests that magnetization is due to a steeply west-dipping tabular body about

100 m wide, at a depth of more than 100 m, and magnetic susceptibility not exceeding  $150 \times 10^{-3}$  SI units.

#### 6 Results

No data have been collected on the zones proposed for relinquishment.

#### 7 References

Drexel, J.F., Preiss, W.V. and Parker, A.J., 1993. The geology of South Australia, Vol. 1, The Precambrian, South Australia. Department of Primary Industry and Resources. Geological Survey, Bulletin, 54.

Open File Envelop ENV03583 - Mines Exploration Pty Ltd, 1986.

Open File Envelop ENV05074 – Shell Co. Of Australia Ltd., Billiton Australia and Western Mining Corp. Ltd, 1988.