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EL 3842

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**FIRST PARTIAL SURRENDER REPORT AT
LICENCE EXPIRY/RENEWAL,
FOR THE PERIOD 16/7/2007 TO 15/7/2011**

Submitted by
Callabonna Resources Ltd
2012

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Government of South Australia

Department for Manufacturing,
Innovation, Trade, Resources and Energy



Curnamona North Project

Exploration License Number 3842

Partial Surrender Report for the Period ending 15/7/2011

Tenement Holders: Frome Uranium Pty Ltd

Submitted by: Callabonna Resources Ltd (Formerly Callabonna Uranium Ltd)

Prepared by M Raetz
20 December 2012

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BIBLIOGRAPHIC DATA

Report Title:	Curnamona North Project Exploration License Numbers 3842 Partial Surrender Report for the Period ending 15 th July 2011
Report Type:	Partial Surrender
Project:	Curnamona North
Holder:	Frome Uranium Pty Ltd
Submitter:	Callabonna Resources Ltd (formerly Callabonna Uranium Ltd)
Author:	M Raetz
Date	20 th December 2012
Tenement:	Exploration License 3842 (was formerly included in group reporting with 3841, 3842, 3844, 3845, 3846 and 3847)
Tenement Year:	4
Period:	Ending 15 th July 2011
Map sheet 250K:	Frome SH5410 Callabonna SH5406
Map sheet 100K:	7037, 7038
Locality:	Lake Yannerpi
Local Description:	East of Lake Callabonna, Approximately 200km east- northeast of Leigh Creek and 200km northwest of Broken Hill NSW
Minerals Sought:	Uranium
Keywords:	Curnamona Province, Frome Embayment, Tertiary, Palaeo-channel, Namba Formation, Eyre Formation, Bulldog Shale, Benagerie Ridge, Mt Painter Complex

EXPLORATION INDEX MAP

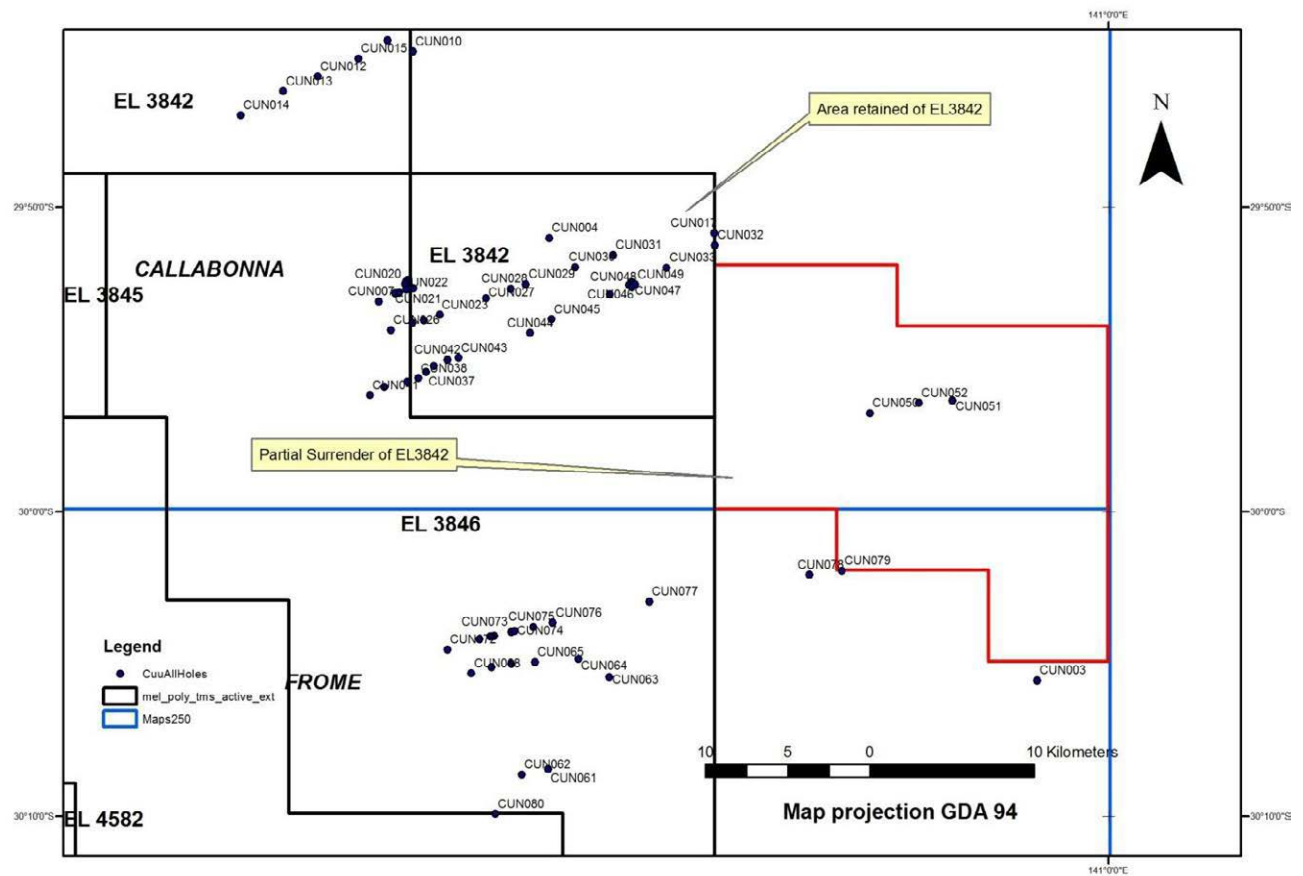


Figure 1. Exploration Index Map showing the area of EL3842 partially surrendered

EXECUTIVE SUMMARY

After the 4th year of exploration as part of the 5th year renewal of the Curnamona North Project Group of six licences a partial relinquishment was made from 901km² to 547km² of EL3842.

Exploration License 3842 (since grant on 16/7/2007) was included in a reporting group of six licenses (3841, 3842, 3844, 3845, 3846 and 3847) located in the Curnamona Region to the northeast of Lake Frome and over an area of 3,370 km². These tenements are held by Frome Uranium Pty Ltd, a wholly owned subsidiary of Callabonna Resources Ltd (formerly Callabonna Uranium Ltd). The exploration focus is on sedimentary style uranium hosted in near surface Tertiary palaeo-channels that are likely controlled by basin structures.

This report summarises the exploration activities completed on the partially surrendered portion of EL 3842 up to the end of the 4th year ending 15/7/2011.

That activity may be summarized as follows:

- year 1 by 15th July 2008 the entire project group was flown with an Airborne Electro-Magnetic (AEM) survey including a total of 3,684 line km;
- year 2 by 15th July 2009 no field work but interpretation of the AEM, planning and permitting occurred over the entire project group;
- year 3 by 15th July 2010 69 holes were drilled, but all outside the area of EL3842 subject of this Partial Surrender Report;
- Year 3 by 15th July 2011 3 holes were drilled inside the area of EL3842 subject of this Partial Surrender Report.

The Company does not object to the release in full of the AEM survey data as detailed in the Subsequent Annual Report (EL3841, 3842, 3844, 3845, 3846 and 3847) for the Period 17 July 2007 to 16 July 2008 dated 9 December 2008 by M Raetz and M Bergman. It is deemed too impractical to sub-section this data to the area being surrendered from EL3842.

(for full dataset see Government of South Australia Mineral Resources Website)

All other material information relating to the surrendered area is reported herein.

INTRODUCTION

Tenure

Exploration Licence 3842 is held by Frome Uranium Pty Ltd, a wholly owned subsidiary of Callabonna Resources Ltd (formerly Callabonna Uranium Ltd). EL3842 was granted on the 16th of July 2007 originally to Touchstone Management Pty Ltd for a period of one year and after various corporate name changes and mergers resided in ASX listed Callabonna Uranium Limited (formerly MKY Resources). The private company that vended the tenements flew the AEM survey in 2008 with seed funding prior to the ASX listing and raising sufficient capital to drill in late 2009.

Tenement	Name	Granted	Expiry	Area Km2
EL 3842	Lake Yannerpi	16-Jul-07	15-Jul-11	901.0
EL 3842	Lake Yannerpi	renewed	15-Jul-12	547.0

Location & Access

The tenement is located within the 1:250,000 FROME (SH_54_10) and CALLABONNA (SH_54_06) map sheets, on the following 1:100,000 map sheets, 7037 Coonee, and 7038 Tilcha. All of EL3842 lies within Quinyambie cattle stations.

Access utilised has been from Broken Hill via the Silver City Highway to Yanco Glen, then the gravelled road through Corona-Smithville, thence local station tracks to areas of interest.

Environment

The Curnamona North Project area predominantly comprises open sand dune country containing relatively small ephemeral lakes. Dunes are longitudinal in nature, aligned in a NE-SW orientation, and generally 2m-7m in height, although in the north dunes may exceed 10 metres and vehicle access is restricted to inter-dunal corridors or limited station tracks. There is no permanent fresh surface water and cattle grazing is supported by bores and tanks tapping local aquifers of the Great Artesian Basin.

Drill access has been along normal graded station tracks or between dune corridors without the need to grade new access tracks. Vehicle tracks have rehabilitated naturally with vegetation after the rains in the sandy country. Rehabilitation of drill holes has been to industry standards.

Native Title

The Curnamona North Project area lies partly within the Registered Native Title Claim SC99/1 of the Adnyamathanha People. All exploration activities to date were completed outside of the Native Title Claim, and relied on an ERD court order 41 of 2009, issued on 10 March 2009 pursuant to Section 63O Part 9B of the Mining Act (SA) 1971. This determination authorised Callabonna to enter the subject land for the purposes of carrying out the proposed mining operations, namely exploratory operations to determine the presence of economic mineralisation (without limiting that general description) may include drilling and geophysical surveying. The determination in effect applies to all of EL's 3842, 3846, 3847 and EL 3845 east of 140° 14' (Figure 2).

Aboriginal Heritage

To meet requirements of the Aboriginal Heritage Act 1988, Callabonna also completed a preliminary search of the Register of Aboriginal Sites and Objects, administered by the Aboriginal Affairs and Reconciliation Division (AARD). Three Aboriginal Sites are recorded in the vicinity of Callabonna Project area and Callabonna will avoid these areas (see Figure 2). As a general courtesy and precaution the Companies employees were mindful of Aboriginal sites of significance (Following Information Sheet M29 'Aboriginal Site Avoidance Guidelines').

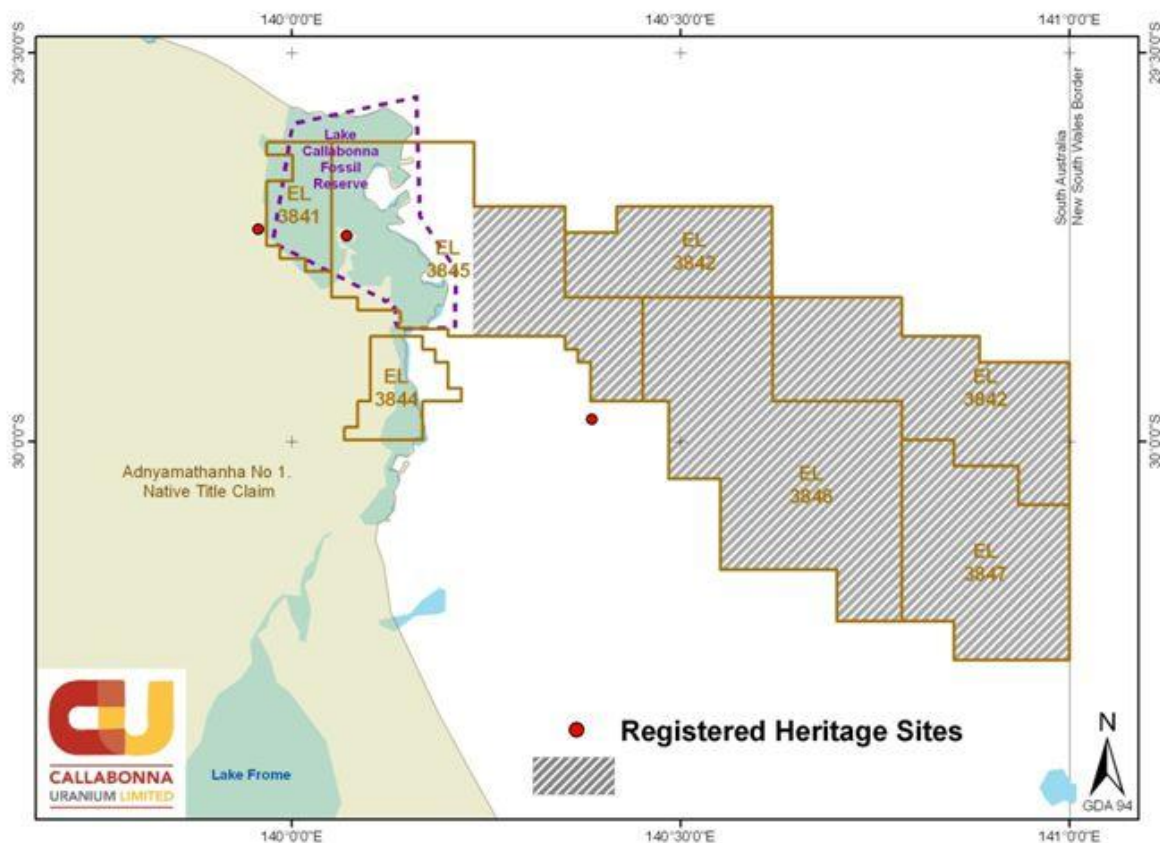


Figure 2. Native Title and Aboriginal Heritage. The hatched area is subject to ERD order 41 of 2009 lying east of 140° 14'.

Exploration Rationale

Callabonna believes there is potential for finding sandstone-hosted uranium mineralisation in Tertiary palaeo-channels within the project area. The basis of selecting drill sites was by interpretation of the AEM to locate sand bodies that may be channels.

GEOLOGY

The Curnamona Project geology may be summarised as being situated where the Callabonna Sub-Basin overlaps the northeast tectonic margin of the Curnamona Craton.

The Curnamona Project is covered by widespread Quarternary surface rocks comprising aeolian sand dunes and ferruginous sands, silts and clays of inter-dune corridors and flats. Below the Quarternary cover are the prospective Tertiary fluviatile sediments of the Namba and Eyre Formations. The Namba Formation comprises green, grey plastic clays and silty sands with carbonaceous and dolomitic lenses near the base. The Eyre Formation contains pyritic quartz sandstones with interbedded clay and lignite units associated with pebbly sandstone and minor conglomerate at the base. Unconformably below the Eyre Formation are the silty clays of the Bulldog Shale member of the Cretaceous Marree Subgroup (Figure 3).

AGE	FORMATION	GRAPHIC	DESCRIPTION
Quaternary	Eurinilla Formation	0m	Aeolian, ferruginous and oxidised sands; fluviolacustrine sediments, gypsum common, some vertebrate fossils; regolith materials.
	Willawortina Formation Miocene to Pleistocene	16m	
Tertiary	Namba Formation Oligocene to Miocene	96m	Fine to medium grained sand with plastic clays and siltstones; interfingering lenses of carbonaceous and dolomitic clay indicative of a lacustrine phase of sedimentation. May contain the Beverley Clay, Beverley Sands and Alpha Mudstone. Characteristic dolomite layer at the base.
	Eyre Formation Paleocene to Eocene	130m	Lignitic and other carbonaceous material common near the top. Moderately sorted, laterally continuous quartz sandstones, and interbedded clay units are also present. Lignite, other organic accumulations and finely disseminated pyrite are characteristically associated with pebbly sandstone and minor conglomerate at the base, fining upwards braided stream deposit.
	Disconformity		
Early Cretaceous	Marree Subgroup	450m	
	? Oodnadatta Formation		Claystone and siltstone, interbedded; with fine-grained sandstone, calcareous and ferruginous concretions; limestone.
	? Coorikiana Sandstone		Sandstone, fine-grained, calcareous, clayey; sandy siltstone.
	Bulldog Shale Albian		Blue grey mudstone; bioturbated, fossiliferous and shaly; minor silt to very fine-grained sandstone intervals, impermeable confining layer.
	Cadna-owie Formation		Fining upwards thickly laminated sand sequence with a pebbly bed, roughly marking the base of the Mesozoic; indicative of marginal and shelf marine conditions.
Cambrian	? Algebuckina Sandstone Late Jurassic		Sandstone, fine to coarse grained, with granule and pebble layers, and shale interbeds.
	? Arrowie Basin Sediments		Reddish limestones, shales, and sandstones deposited within a regressive marginal marine, shelf/deltaic facies. ie. Yalkalpa Syncline.
Proterozoic	? Adelaidean Sequence Neoproterozoic		Weathered basement sediments containing quartzite, conglomerate, limestone, siltstone, sandstone, and shale.
	Willyama Supergroup Palaeo-Mesoproterozoic		Highly deformed metasedimentary and metavolcanic rocks intruded by various gneiss/granitoid bodies and dykes. ie. Mt Painter Complex, Benagerie Ridge, Curnamona Craton basement rocks.

Figure 3. Stratigraphy

PREVIOUS EXPLORATION

Historic Exploration:

Exploration for uranium deposits over part of the Curnamona Project commenced in 1972 when Union Corporation (Australia) Pty Ltd was granted two Exploration Licences (EL 5 and 6). During 1973 Union Corp carried out a reconnaissance rotary mud drilling and wireline geophysical logging program overlapping the southern portion of the Curnamona Project. Uranium Corp drilled a total of 95 holes using grided 4 mile (6.4 km) spacings and varying in depth from 116-183 metres. Most of the drill holes intersected the Tertiary sequence (Callabonna Sub-basin) and ended in Bulldog Shale of the Marree Subgroup (Eromanga Basin). The drill hole spacing was generally too wide to delineate individual Tertiary palaeo-channels but a number of intervals of sands were recognised in the Eyre Formation and the overlying strata, only one hole, D10, reported anomalous radioactivity. In two areas (Hole D10 and F9) a limited follow up drilling program consisting of 13 holes and found further supporting evidence of a palaeo-channel but Union Corp did not pursue any further exploration. Since 1973, the southern portion of the Curnamona project has remained under explored and the northern part of the tenements has never been explored until Callabonna commenced in 2008.

Year 1 - 2007-2008:

During the first year period Callabonna completed desktop reviews of historic drill hole from Union Corp (Australia) Pty Ltd.

Additionally, Callabonna completed a 3,684 line km airborne Electro-Magnetic (REPTeM) survey over the entire project area. Separate consulting groups completed a data quality analysis and converted the airborne TEM data to Conductivity Depth Image (CDI) format, using EMFlow. AEM data analysis continued into the second year period. A quasi-layered model was used to derive conductivity distributions in order to aid with the geologic interpretation of palaeo-channels within the surveyed area.

Year 2- 2008-2009:

Callabonna spent the second year of tenure preparing for the Phase 1 drilling program over palaeo-channel targets defined from the April 2008 AEM Survey. This involved initial site visits, discussions with contractors and preparing an Exploration Work Approval (EWA). Preparation also involved gaining Native Title and Aboriginal Heritage Site Clearances.

Year 3 -2009-2010:

Callabonna drilled 69 holes for 8,691.5 meters, both mud and aircore to test a channel model based on the Company's 2008 Airborne EM survey. Some REPTeM data was inverted by a specialist contractor Aarhus geophysics to try and gain better definition of channels. All the drilling was outside the area of EL3842 being surrendered.

YEAR 4 EXPLORATION

Drilling & Rehabilitation

Three (3) holes were drilled on EL3842 during August September 2010.

All aquifers that could be identified were sampled and on completion of the hole, isolated with a cement plug as discussed in Earth Resources information Sheet M21.

After the heavy rains in July 2010 and the forced evacuation of crews by a helicopter between 15th and 16th July, an attempt to restart drilling was made on 18th August. That only lasted 4 days, before a final evacuation was made by road on 22 August 2010. The data appended herein includes:

- Collar files (Appendix 1)
- Lithological logs of the 3 holes drilled in August 2010 (CUN0050 –CUN0052) (Appendix 2)
- Gamma logs of the 3 holes drilled in August 2010 (CUN0050 –CUN0052) (Appendix 3)
- Details of all water samples submitted (Tabulated below)

Numerous attempts were made to complete drill site rehabilitation in between periods of rain. By December 2010 this work was completed. The Aircore holes were rehabilitated after drilling with the aid of a bobcat. The requirements in M33 “Environmental Guidelines for Mineral Exploration Activities in South Australia “and M21”Mineral Exploration Drill holes- General Specifications for Construction and Backfilling”, were observed as applicable.

A summary of the drilling is reported below.

Drilling Summary Table

DHNAME	STATUS	COMPDATE	DEPTH	DRILLCOMPANY	TYPE	TENEMENT	WGS84LAT	WGS84LONG
CUN050	Completed	19/08/2010	126	Broken Hill Expl	Aircore	EL3842	-29.946	140.869
CUN051	Completed	20/08/2010	111	Broken Hill Expl	Aircore	EL3842	-29.939	140.915
CUN052	Completed	21/08/2010	112.5	Broken Hill Expl	Aircore	EL3842	-29.940	140.896

Gamma Logging

Logs were run both in open mud holes and inside the rods of the Aircore holes using an Auslog gamma probe and a geophysicist (David Wilson) to check results and calculate the eU3O8 readings. The raw cps values are converted with reference to the hole size. Also a filter is also applied to calculate the Deconvoluted reading, a more reliable estimate.

When logging Aircore holes a probe was run inside the dual tube rod string to measure the total gamma ray flux at 5cm intervals which can be converted to equivalent U3O8 readings. Callabonna had previously calibrated the probe in the PIRSA test pits in Adelaide, by physical shielding inside a suitable length section of dual tube Aircore rods.

None of the three holes drilled exceeded 50ppm or were considered anomalous.

Water Sampling

Where possible, ground water was sampled for the benefit of the property owner. The samples with details were submitted to PIRSA's Department of Land Water and Biodiversity and Conservation (DWLBC) for analysis and data base storage of results.

A summary of the samples collected appears in the Table below.

Water Summary Table. All holes listed were drilled with Aircore.

EL NUMBER	PROPERTY	DH	WGS84LAT	WGS84LONG	COMPDATE	ELEVDEM	SAMPLE DEPTH	FLOW EST IN L/S	FM	STDG WL_M
EL3842	QUINYAMBI	CUN050	-29.946012	140.869295	19/08/2010	92.00				75
EL3842	QUINYAMBI	CUN051	-29.939366	140.914713	20/08/2010	89.00	111	0.625		72
EL3842	QUINYAMBI	CUN052	-29.940473	140.896158	21/08/2010	97.00	112.5	0.714	EYRE	84

EXPENDITURE STATEMENT

During the 4 year period Callabonna has spent \$1.79 million on the project, following a slow start in year 1. The biggest expenditure for the company has been the AEM survey and follow up drilling. Creating and maintaining access during this time was also a large expense due to the severe weather conditions, both wet and dry in this part of the Strzelecki desert.

Expenditure Statement for EL 3842

16/7/10 - 15/1/11

16/01/11 – 15/07/11

Geological & Geophysical Costs	11,945.00	187.00
Drilling Costs	52,758.00	
Logistics	5,210.00	155.00
Depreciation		
Administration Costs	8,436.00	
Native Title & Aboriginal Heritage		
Tenement Rent	7,495.00	
Total	85,872.00	342.00
Cumulative Total		381,671.00

The amount for the relinquished portion of EL3842 has not been separated.

CONCLUSIONS

A review of all drilling and Airborne EM (including the recent Frome basin wide survey to which Callabonna also contributed) has led to a re-interpretation of the regional stratigraphy. Consequently drilling will focus further to the west of the areas drilled in 2010.

APPENDICES (separate data submission)

Data appendices referred to in this report; conform to the PIRSA reporting standards and are listed below.

- Drill hole collar data (Appendix 1)
- Drill Hole lithology (Appendix 2)
- Drill Hole gamma logs (Appendix 3)

REFERENCES

Union Corporation (Australia) Pty. Ltd. 1973. Lake Pundalpa and Lake Amerarkoo areas. Progress and final reports to licence expiry for the period 7/9/1972 to 6/12/1973. Department of Primary Industries and Resources, South Australia, Open File Envelope No. 2338, EL5 and EL6.