# Lincoln confirms high-grade uranium mineralisation at Eridani Project, SA

- Eridani (EL 5851) is located around an abandoned quarry site, shut down by the South Australian Government in 1944 due to the presence of high radioactivity in surface geology.
- Lincoln completed a first-pass reconnaissance sampling program at Eridani; pXRF analysis confirms the historic account of carnotite uranium mineralisation.
- Highlights of pXRF results at Eridani include:

MQ12: 9250ppm U
 UMQ11: 6219ppm U
 UMQ10: 6890ppm U

- Lincoln has submitted all samples for laboratory analysis to confirm pXRF readings, with results due in October.
- Eridani is strategically located on the eastern Eyre Peninsula, proximal to significant uranium deposits including Alligator Energy's Samphire Project.
- Lincoln aims to undertake additional exploration plans including mapping, sampling, and reviewing publicly available geophysical data to assist in potential drilling campaigns.
- Lincoln's Kookaburra Graphite Project Pre-Feasibility Study remains ahead of schedule and is due for completion in October.



Figure 1. Field photo of outcrop sample MQ12 from the Eridani target containing carnotite mineralisation.



**Lincoln Minerals Limited** (ASX: **LML** or **the Company**) is pleased to provide an interim results update from its recent field sampling program at the Company's 100%-owned Eridani uranium project, located on the Eyre Peninsula in South Australia.

This sampling program was undertaken as part of Lincoln's uranium portfolio prospectivity review, which commenced in early 2024 (refer ASX announcement 9<sup>th</sup> April 2024)<sup>1</sup>. The sampling program was part of an initial assessment of the tenement to determine the attractiveness of the geological setting and to assess mineralisation potential in this known uranium region.

A recent review of historic data by Lincoln indicated accounts of carnotite uranium mineralisation at the abandoned Minbrie West talc and marble quarry, located on Exploration Licence 5851 (of which LML has 100% ownership of all mineral rights excluding iron ore).

To confirm the historic carnotite mineralisation, Lincoln took 12 outcrop samples (see Fig. 2 for locations) from the quarry and analysed using pXRF which targeted the yellow mineralisation coating on the rock chips, now confirmed to be carnotite.

A full list of pXRF grades<sup>2</sup> can be found in Appendix 1.

Lincoln has submitted XRF analyses of all samples with results expected to be completed and released in October.

<sup>&</sup>lt;sup>2</sup> pXRF readings are not a replacement for comprehensive laboratory analysis and only reflect uranium concentration at specific points, rather than the entire rock. While they assist in geological interpretation and verifying uranium presence, they offer only an approximate concentration. Each sample underwent testing between 2 and 5 times, with only the significant peak reading being presented.



<sup>&</sup>lt;sup>1</sup> LML ASX release 9 April 2024, Multiple Uranium Targets Identified



Figure 2. Location of outcrop samples taken from the Minbrie West quarry.

#### Eridani Project background

The Eridani uranium project focuses on the Minbrie West quarry, initially mined for marble and talc in 1919. The site was decommissioned following the discovery of carnotite, a secondary mineral usually formed from the weathering of Uraninite. This discovery in 1944 led to the cessation of mining operations due to its radioactive mineral content.

During this visit by South Australian Government inspectors<sup>3</sup>, a previously noted shallow trench containing carnotite-stained schistose marble was expanded into a deeper shaft, revealing more extensive carnotite staining on fracture surfaces. The examination also included a search for additional occurrences of carnotite, with further evidence of the mineral found in the northeastern corner of the quarry. Following the discovery, the extraction of marble and talc was halted, and the site was abandoned in 1944.

The area is structurally complex with multiple NW trending faults crosscutting the Kalinjala Shear Zone providing potential fluid pathways from weathering Hiltaba suite granites. The complex geological framework and historical significance of the site warrant further investigation which are now being undertaken by Lincoln.



<sup>&</sup>lt;sup>3</sup> Mining Review, South Australia Department of Mines 1952, Issue 92: 18-25

#### Lincoln's recent field work

A review of historic drill core logs from EL5851 identified potential targets for uranium mineralisation associated with extensive hydrothermal alteration of Donington Suite granites. The alteration occurs along fault and shear zones 2km southeast of the quarry and is proximal to Hiltaba Suite granite intrusions.

The drill holes, initially part of Centrex Metals Ltd's 2007-2011 iron ore exploration program<sup>4</sup>, were not previously assayed for uranium, however, recent discoveries of uranium mineralisation by Alligator Energy Ltd, northeast of the Eridani Project area, have prompted further investigation.

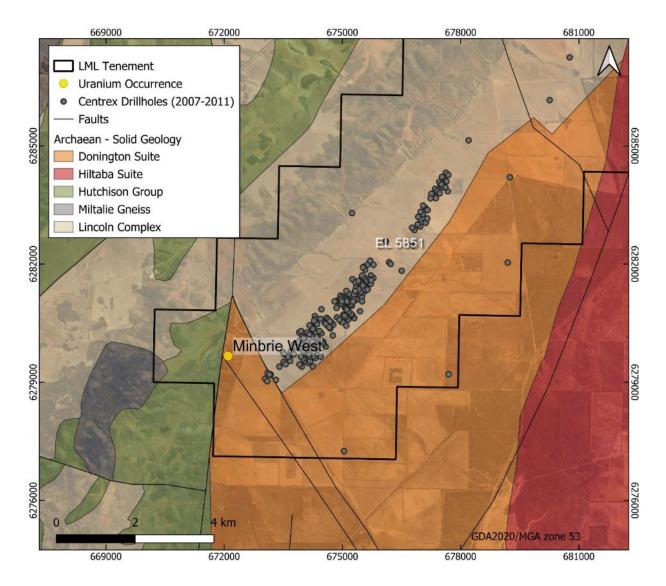


Figure 3. Eridani project area and location of the Minbrie West quarry. Solid geology Archean-Early Mesoproterozoic provided by DEM SA 2022

<sup>&</sup>lt;sup>4</sup> CXM ASX release 26 November 2008, Diamond Drilling Results Bungalow Magnetite Project



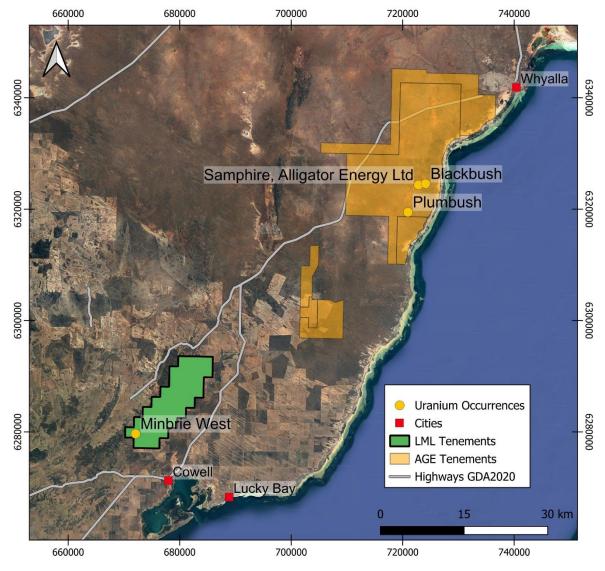


Figure 4: Location of the Eridani Project in relation to other uranium projects in the area.

### **Next Steps**

The initial pXRF results will assist in future exploration, planned for 4Q CY24, which will include additional mapping and sampling along the identified fault zone.

Subsequent phases of the investigation will involve re-assaying historic drill core, specifically Centrex Metals Ltd 2007-2011 drillholes<sup>5</sup> located 2km SE of the project area, to further understand the extent and grade of the uranium mineralisation and to assist in target generation.

<sup>&</sup>lt;sup>5</sup> Centrex Metals Ltd and Lincoln Minerals Ltd Northern Eyre Peninsula Joint Venture Project 2013, South Australia Department of Primary Industries and Resources, Open file Envelope 11449



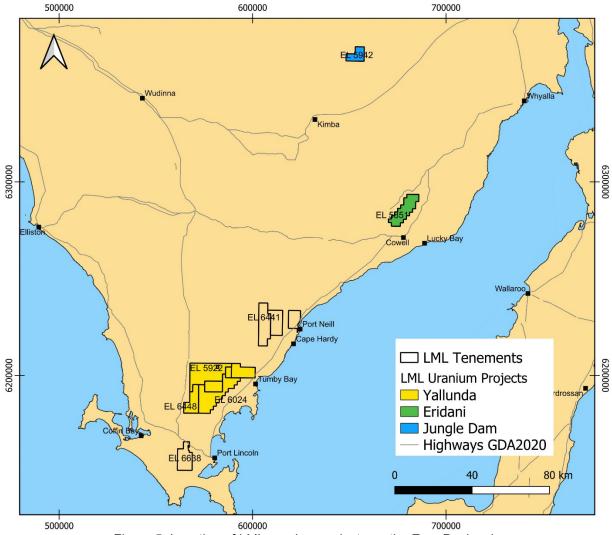


Figure 5: Location of LML uranium projects on the Eyre Peninsula

This announcement references information from the following ASX announcements and Government of South Australia Envelopes:

- 1. LML ASX release 9 April 2024, Multiple Uranium Targets Identified.
- 2. CXM ASX release 26 November 2008, Diamond Drilling Results Bungalow Magnetite Project, CXM ASX release 25 May 2012, Upgraded Resource Estimate at Bungalow.
- 3. Centrex Metals Ltd and Lincoln Minerals Ltd Northern Eyre Peninsula Joint Venture Project 2013, South Australia Department of Primary Industries and Resources, Open file Envelope 11449.
- 4. Mining Review, South Australia Department of Mines 1952, Issue 92: 18-25.
- 5. Uranerz Pty Ltd Final Report, Mount Olinthus, South Australia Department of Primary Industries and Resources, Open file Envelope 3338.



### **Competent Person's Statement**

The information in this document that relates to the Eridani Project Exploration Results is based upon information compiled by Mr Shane O'Connell who is a Member of the Australasian Institute of Mining and Metallurgy. Mr O'Connell is a consultant to Lincoln Resources Limited and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr O'Connell consents to the release of the information compiled in this report in the form and context in which it appears.

**Approved for release by the Board of Lincoln Minerals Limited.** For further information, please visit lincolnminerals.com.au

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## JORC Table 1 Section 1 Sampling Techniques and Data

Criteria	Explanation
Sampling techniques	<ul> <li>Point surface samples consisting of rock chips of outcropping rock, samples retrieved through the use of a geological pick.</li> <li>Each sample was described at the site to ensure accurate records of sampled material. Samples were selected based on mineralisation/alteration zones, and by use to historic maps pinpointing mineralisation zones.</li> <li>The samples are selective but representative of the outcrop they were taken from.</li> <li>Rock chip sampling is an industry wide field technique for establishing metal content to understand potential tenor of underlying mineralisation.</li> </ul>
Drilling techniques	Not applicable as there is no new drilling information.
Drill sample recovery	Not applicable as there is no new drilling information.
Logging	Not applicable as there is no new drilling information.
Sub-sampling techniques and sample preparation	<ul> <li>Samples were collected dry and consist of multiple chips dislodged and fractured by a geological pick.</li> <li>Samples were between 0.3-1.5kg weight and place directly into numbered canvas bags at the collection point.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>Samples was assayed by handheld Olympus Vanta pXRF 3-Beam geochemical scan.</li> <li>All samples and standards were scanned and assayed by a third-party representative.</li> <li>The use standards were implemented before and after scanning the samples. The standards used were SiO2 and 2711a which showed good precision and no bias.</li> </ul>
Verification of sampling and assaying	<ul> <li>No assay data has been adjusted.</li> <li>Up to 5 readings were taken on each sample to verify each result.</li> <li>8 of the 12 samples were assayed by pXRF. The eight samples were chosen for pXRF assay at random.</li> </ul>
Location of data points	<ul> <li>See Appendix 1 for coordinates and Figure 1 for location of samples.</li> <li>Coordinates reported are in GDA2020 zone 53.</li> <li>Sample locations were determined by handheld GPS +/-5m, at time of collection.</li> <li>Elevation was not recorded, as it was not considered relevant for surface outcrop sample.</li> <li>Location data is of sufficient quality for reporting of exploration results at this early stage.</li> </ul>
Data spacing and distribution	<ul> <li>Selective sampling based on field observations and outcrops identified as hosting potential for mineralisation.</li> <li>All samples were taken within 100m of the Minbrie West quarry, sample spacing ranges from 1-25m.</li> </ul>



Audits or reviews

#### **Section 2 Reporting of Exploration Results**

No audits or reviews have been undertaken.

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation						
Mineral tenement and land tenure status	<ul> <li>Exploration Licence 5851, the Licence Holder is Dragon Resource Investment Pty Ltd, Lincoln Minerals Ltd hold 100% minerals rights excluding iron ore on EL 5851.</li> </ul>						
	The project is located on freehold land.						
	Native title is held by the Barngarla Determination Aboriginal Corporation						
Exploration done by other parties	<ul> <li>Uranerz Pty Ltd, Pancontinental Mining Ltd, and Western Mining Corp Ltd as part of a joint venture from 1978-1988 exploring for uranium in historic copper workings.</li> </ul>						
	Centrex Metals Ltd Joint Venture Bungalow project (2008-2011) exploring for iron ore along a magnetic anomaly. Exploration included multiple geophysical programs followed by multiple drilling programs to define the extent of the magnetite resource.						
Geology	<ul> <li>Saprolitic, sedimentary, unconformity, or vein-style uranium deposits may occur within Proterozoic Lincoln Complex Middle Camp Group, and Hutchison Group metasediments and granitoids on the eastern Eyre Peninsula. High grade metamorphism to Upper Amphibolite and Lower Granulite facies. The targeted location of uranium mineralisation is associated with the weathering of Donington Suite and Hiltaba Suite granites and may be redox controlled.</li> </ul>						
Drill hole Information	No drilling results by LML are being reported.						
Data aggregation methods	Not applicable						
Relationship between mineralisatio n widths and intercept lengths	Not applicable						



Diagrams	<ul> <li>Plan view of outcrop sample locations is presented in GDA2020/MGA zone 53 in Figure 1.</li> <li>Data represented in geological map featured in report body was obtained through the South Australian Resource Information Gateway (SARIG) Solid Geology Archean-Early Mesoproterozoic Dataset updated 2022.</li> </ul>
Balanced reporting	Balanced reporting has been achieved by stating all sample locations regardless of assay value. Furthermore, to minimise bias and improve transparency, multiple readings have been recorded for each sample.
Other substantive exploration data	• None
Further work	Field reconnaissance and sampling is proposed over the next six months.



#### Appendix 1.

Sample pXRF Data. Note that to minimise sampling bias, multiple readings have been recorded for each sample.

Instrument Serial Num	Sample ID	Date	Time	Method Name	Easting GDA2020	Northing GDA2020	Zone	Units	K	V	U
842050	SiO2 standard	19/08/2024	8:01:50	Geochem (3-Beam)	NA	NA	NA	PPM	0	0	0
842050	2711A standard	19/08/2024	8:03:44	Geochem (3-Beam)	NA	NA	NA	PPM	19536	0	0
842050	MQ12	19/08/2024	8:06:01	Geochem (3-Beam)	671737.6	6279649	53	PPM	28666	7163	8868
842050	MQ12	19/08/2024	8:07:41	Geochem (3-Beam)	671737.6	6279649	53	PPM	7116	1946	2445
842050	MQ12	19/08/2024	8:10:02	Geochem (3-Beam)	671737.6	6279649	53	PPM	5747	1374	1331
842050	MQ12	19/08/2024	8:11:56	Geochem (3-Beam)	671737.6	6279649	53	PPM	29713	7130	9250
842050	MQ12	19/08/2024	8:13:30	Geochem (3-Beam)	671737.6	6279649	53	PPM	28639	7025	8910
842050	MQ10	19/08/2024	8:16:05	Geochem (3-Beam)	671737.1	6279651	53	PPM	2457	239	88
842050	MQ10	19/08/2024	8:17:37	Geochem (3-Beam)	671737.1	6279651	53	PPM	20786	4695	6890
842050	MQ10	19/08/2024	8:19:06	Geochem (3-Beam)	671737.1	6279651	53	PPM	32547	4956	4149
842050	MQ10	19/08/2024	8:20:52	Geochem (3-Beam)	671737.1	6279651	53	PPM	4673	586	572
842050	MQ10	19/08/2024	8:22:26	Geochem (3-Beam)	671737.1	6279651	53	PPM	33334	5203	4454
842050	MQ02	19/08/2024	8:24:25	Geochem (3-Beam)	671750.8	6279694	53	PPM	0	0	7
842050	MQ02	19/08/2024	8:26:08	Geochem (3-Beam)	671750.8	6279694	53	PPM	0	0	8
842050	MQ02	19/08/2024	8:27:38	Geochem (3-Beam)	671750.8	6279694	53	PPM	0	0	4
842050	MQ02	19/08/2024	8:29:09	Geochem (3-Beam)	671750.8	6279694	53	PPM	0	0	7
842050	MQ02	19/08/2024	8:30:56	Geochem (3-Beam)	671750.8	6279694	53	PPM	0	0	8
842050	MQ11	19/08/2024	8:32:43	Geochem (3-Beam)	671739.9	6279650	53	PPM	7481	1147	909
842050	MQ11	19/08/2024	8:34:36	Geochem (3-Beam)	671739.9	6279650	53	PPM	8988	1874	1946
842050	MQ11	19/08/2024	8:36:22	Geochem (3-Beam)	671739.9	6279650	53	PPM	465	0	0
842050	MQ11	19/08/2024	8:38:15	Geochem (3-Beam)	671739.9	6279650	53	PPM	0	0	0
842050	MQ11	19/08/2024	8:39:47	Geochem (3-Beam)	671739.9	6279650	53	PPM	20210	3756	6219



842050	MQ01	19/08/2024	8:41:55	Geochem (3-Beam)	671756.4	6279695	53	PPM	0	0	10
842050	MQ08	19/08/2024	8:44:03	Geochem (3-Beam)	671738.7	6279656	53	PPM	12489	2770	2821
842050	MQ08	19/08/2024	8:45:52	Geochem (3-Beam)	671738.7	6279656	53	PPM	1958	236	271
842050	MQ03	19/08/2024	8:47:28	Geochem (3-Beam)	671748.8	6279689	53	PPM	0	0	0
842050	MQ03	19/08/2024	8:49:20	Geochem (3-Beam)	671748.8	6279689	53	PPM	0	0	0
842050	MQ07	19/08/2024	8:51:27	Geochem (3-Beam)	671722.3	6279632	53	PPM	22720	0	12
842050	MQ07	19/08/2024	8:53:23	Geochem (3-Beam)	671722.3	6279632	53	PPM	21794	0	10
842050	SiO2 standard	19/08/2024	8:55:21	Geochem (3-Beam)	NA	NA	NA	PPM	0	0	0
842050	2711A standard	19/08/2024	8:56:44	Geochem (3-Beam)	NA	NA	NA	PPM	20105	0	0

