

EL 6787, Lucindale

Partial Surrender Report

12 Months Ending June 8, 2024

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EL6787_2024_PS_01_Reportbody.pdf

EL6787_2024_PS_02_fileverification.xlsx

Summary of Activities

The target commodity at the Lucindale Project, which includes tenements EL 6786 (890 km²) and EL6787 (963 km²), is ionic adsorption clay ("IAC") hosted rare earth elements ("REE"), associated with lagoonal/dunal sediments of the Murray Basin, overlying the Gambier Limestone.

Activities during the initial year (ending June 8, 2023) included:

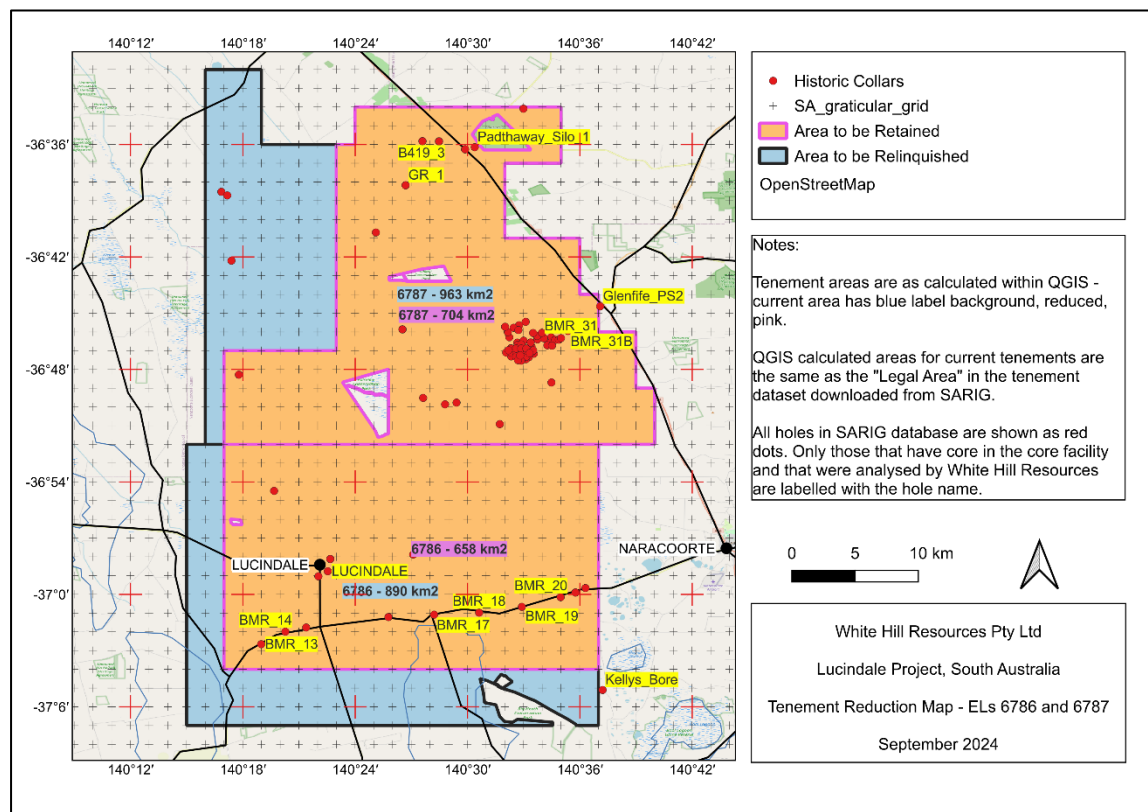
- A literature review of the geology and mineralisation of the area,
- A review of the SARIG data, and selection of drillholes that occur within the project area; and,
- Compilation of the stratigraphy of holes that have samples in the core library.

This was followed up by the following at the beginning of the second year:

- Historic holes for which material was available at the core library (eight within EL6786 and six within EL6787) were delivered to Challenger Geological Services and were analysed by multi-element pXRF scans (including for the rare earth elements Y, Ce, Nd and Pr); and,
- Collation and interpretation of data.

No holes were assayed within the surrendered area of EL6787.

Figure 1 Activity index map, showing positions and labels of drillholes within the SARIG database and relinquished/retained areas. Those labelled with the hole name are in the core library, and thus were analysed; those unlabelled were not in the core library.



Follow up work, including confirmatory assaying of anomalous samples, and then shallow scout drilling was planned, however White Hill entered into a tenement sales agreement with an ASX-listed entity, Dominion Minerals Limited to acquire both Lucindale Project tenements.

The sales agreement was entered into early in the second year of the term of the Licence. However, due to regulatory delays of an unrelated sale, but which completion of the Lucindale sale is dependent

upon, the sales agreement was stalled, and no work could be completed during this time. Satisfaction of the regulatory requirements for the parallel agreement was announced on August 7, 2024, after the 2nd anniversary of the grant of the tenements.

Finalisation of the agreement will be sometime in Q4, 2024, after which time activities will be able to recommence.

The area (which comprises some 26% of the original area of EL6786) was surrendered due to minimum expenditure commitments not being met.

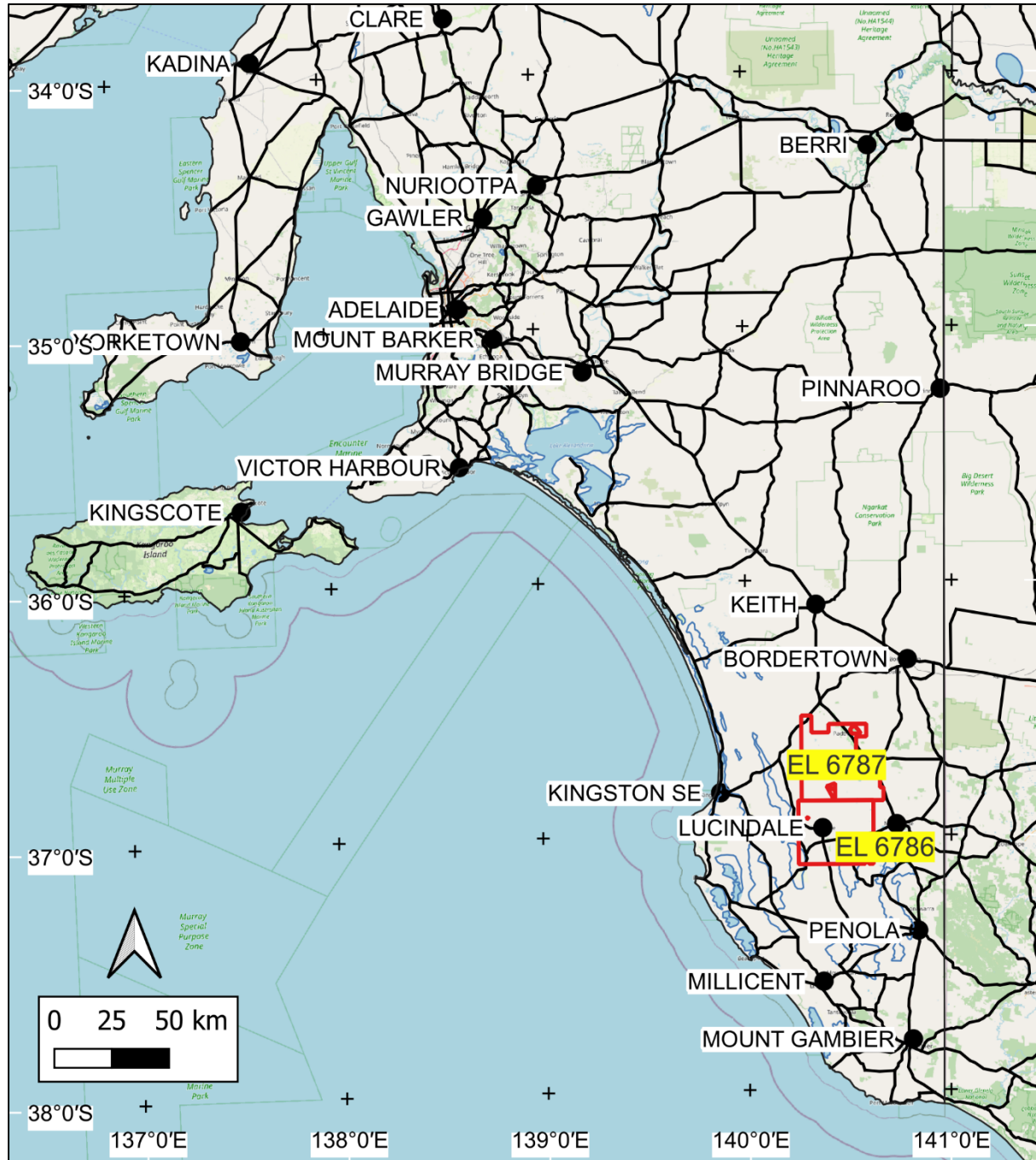
Keywords

Rare earth elements, Murray Basin, Gambier Basin, Pliocene, Pliocene, Neogene, Quaternary, Bridgewater Formation, Padthaway Formation, Gambier Limestone, Parilla Sands, Loxton Sands, Cainozoic, Pliocene, Pleistocene, Delamerian Orogeny, Map SJ5406 Penola, Map SJ5402 Naracoorte

Introduction, History and Exploration Rational

The Lucindale Project, which includes EL6786 and EL 6787, is located around the town of Lucindale, 350 km SE of Adelaide, via the A8 National Highway (Figure 2)

Figure 2 Project Location



The tenements were applied for following the discovery of extensive IAC REEs by Australian Rare Earths Limited (“AR3”), at their Koppamurra Project, located to the east of Lucindale, and on the Padthaway High, with the geology including the Parilla/Loxton sands overlying the Gambier Limestone.

Although the Project is located on the Gambier Coastal Plain, the geology is similar – the Bridgewater Formation, which overlies the Gambier Limestone in the Project area represents, like the Parilla/Loxton

Sands, a dunal/lagoonal near marine environment. The only difference is age, and with the Bridgewater Formation being deposited at a time of lower sea levels.

The basement to the Murray Basin stratigraphy are rocks of the Proterozoic to Cambrian Delamerian Orogen, although some Cretaceous Otway Basin sediments have been interpreted in some drillholes.

The project area has seen only little exploration for economic resources, with the earliest being Western Mining Company's ("WMC") regional coal exploration, which included over 950 holes in the late 1970s to early 1980s.

The only other mineral exploration hole within the tenements is 07CR001, drilled by Uranium Exploration Australia Ltd within EL3013 in 2007. This rationale for the work was that rocks of the Mt Read Volcanics, the host to significant skarn and VMS mineralisation in Tasmania, extended up under the Murray Basin cover. The hole intersected Delamerian basement at 54 m to the end of the hole at 336.1 m, with this being a chlorite/epidote/carbonate altered tholeiitic dolerite intrusive, however with only minor sulphides and not encouraging assay results.

However, the drilling was not conclusive in either proving or disproving the theory and has not been followed up on. This is the latest reported drillhole within the ELs.

In the 1970s the Bureau of Mineral Resources ("BMR", now AGSO) undertook stratigraphic drilling of the Murray Basin sequence, with several holes now in the South Australian core library – this has been a key source of material for analysis.

There are numerous other holes in the SARIG database, with these generally being engineering holes, and which provide a range of quality of data.

Geology

As mentioned above, the Project is located over units of the Murray Basin, with the general stratigraphy shown in Figure 3.

The Murray Basin in the region is split into two main tectonic regimes – the Padthaway High to the east, and the Gambier Coastal Plain (or Padthaway Flats) in the west. These are separated by the Kanawinka Escarpment, which runs through the towns of Naracoorte and Padthaway (Figure 4), forming the Padthaway Ranges.

Murray Basin sediments date back to ~52 Ma in the region, and overly units of the Delamerian Orogen, although Western Mining Corporation ("WMC") interpreted units of the Otway Supergroup underlying the Dilwyn Formation, which forms the base of the Murray Basin Sequence.

Within the Project area the Murray Basin sediments have been intersected to at least 190 m (Kellys Bore hole 116482, with this still in the Dilwyn Formation at the bottom of hole), however there are outcrops of Delamerian rocks immediately to the north of the Project area.

The effective "basement" to our work is the Gambier Limestone, which was deposited at around 35 Ma to 18 Ma, the deposition of which was followed by a long period of erosion and non-deposition. The limestone itself grades into the Narrawaturk Marl (Figure 3), which has been intercepted in several holes in the Project area.

The next period of deposition was the Loxton Parilla strand plain (Late Miocene to Early Pliocene, now preserved on the Padthaway High. And which covers an area of some 125,000 across Victoria and South Australia, and which extends to the Kanawinka Escarpment, which marks the western extent of,

and termination of the progradational sequence. There are reportedly over 600 individual strandline ridges within the strand plain.

Ongoing movement on the scarp led to the development of the downthrown Gambier Coastal Plain, with the dunal/lagoonal sequences of the Bridgewater and Padthaway Formations being formed with falling sea levels ~1 Ma (Figure 4).

Mineralisation

Rare earth mineralisation was first discussed in a 2016 thesis, with this being the basis for the subsequent tenement pegging and work by AR3.

This has led to the discovery of extensive shallow rare earth mineralisation within the Parilla/Loxton Sands, with a current JORC-2012 compliant Mineral Resource Estimate of 186 Mt @ 718 ppm TREO within the sands overlying the Gambier Limestone. The genesis of the mineralisation has not been disclosed by the Company, however in a recent release it was said that the Gambier Limestone has a role to play in the deposition of what is true ionically bonded clay mineralisation.

WMC undertook coal drilling in the early 1980s, intersecting some lignite within the Dillwyn Formation, and some black coals within underlying interpreted Cretaceous sequences of the Otway Basin

Figure 3 Generalised Cross Section of the Gambier Coastal Plain in the Project Area – Source: Padthaway Water Allocation Plan Adaptive Management – March 2023.

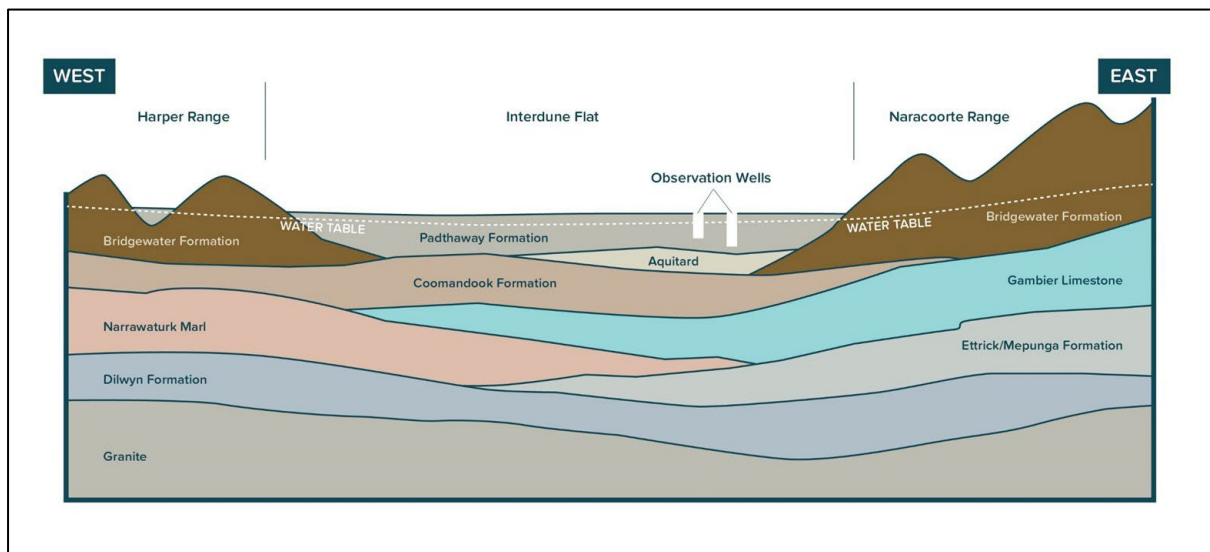


Figure 4 : Generalised Cross Section Over the Kanawinka Escarpment– Source: <https://legendaustralia.com/wrattonbully>

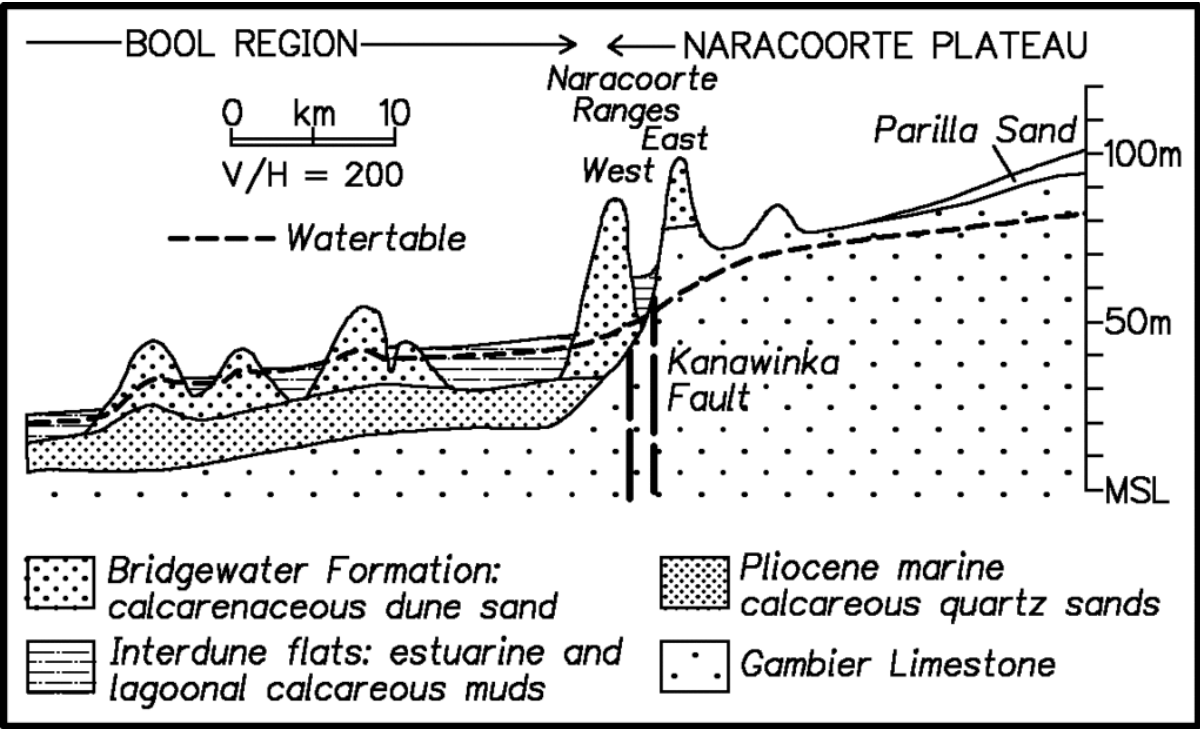
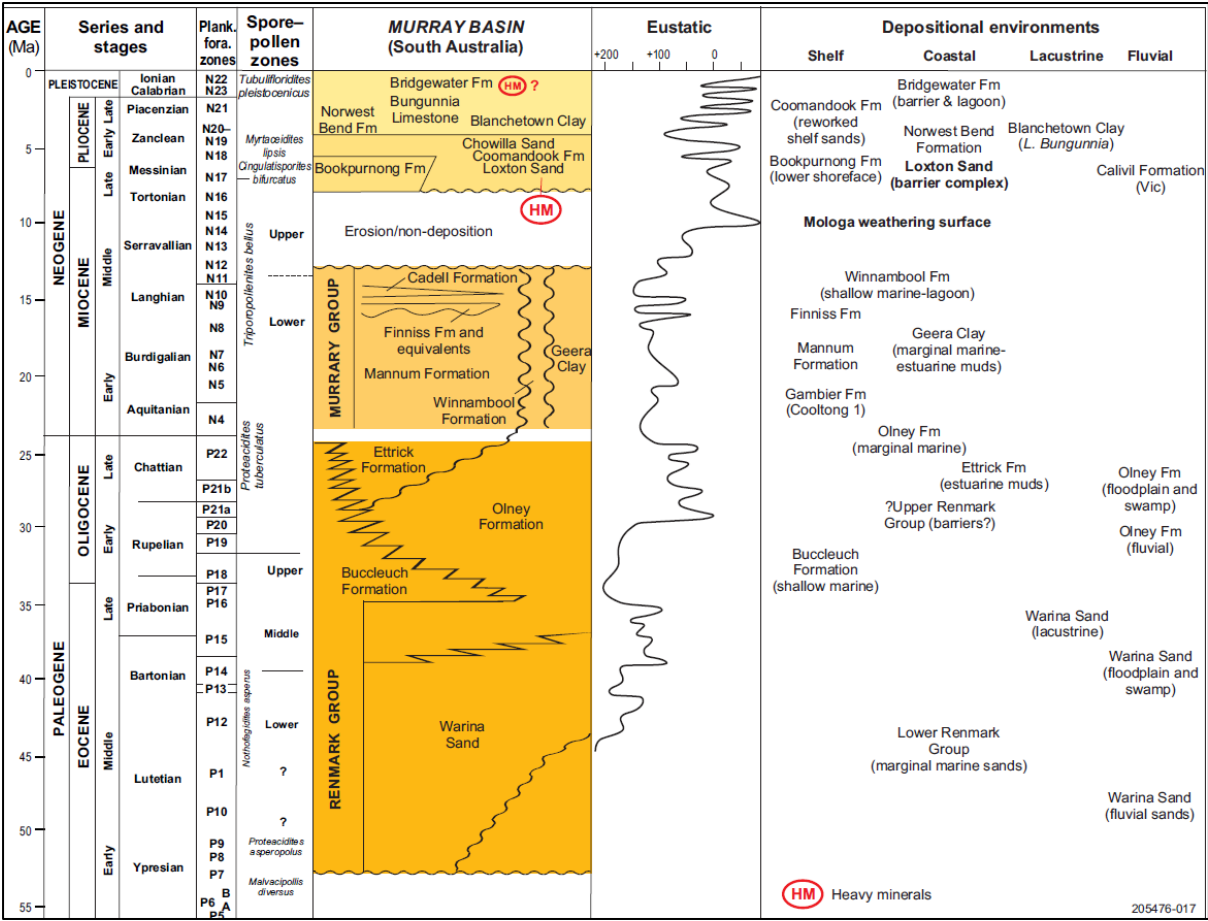


Figure 5 Murray Basin Stratigraphic Column, Eustatic and Depositional Environments – Source: Delamerian National Drilling Initiative, Mesa Journal 94



Data Review

The results of the data review, which was undertaken in the first year of the Licence term, are largely presented in the preceding sections, which included several publications on the Murray Basin stratigraphy, SARIG (including drillholes), technical papers on IAC REE deposits, and public announcements by AR3.

A summary of drill holes investigated to date is as follows:

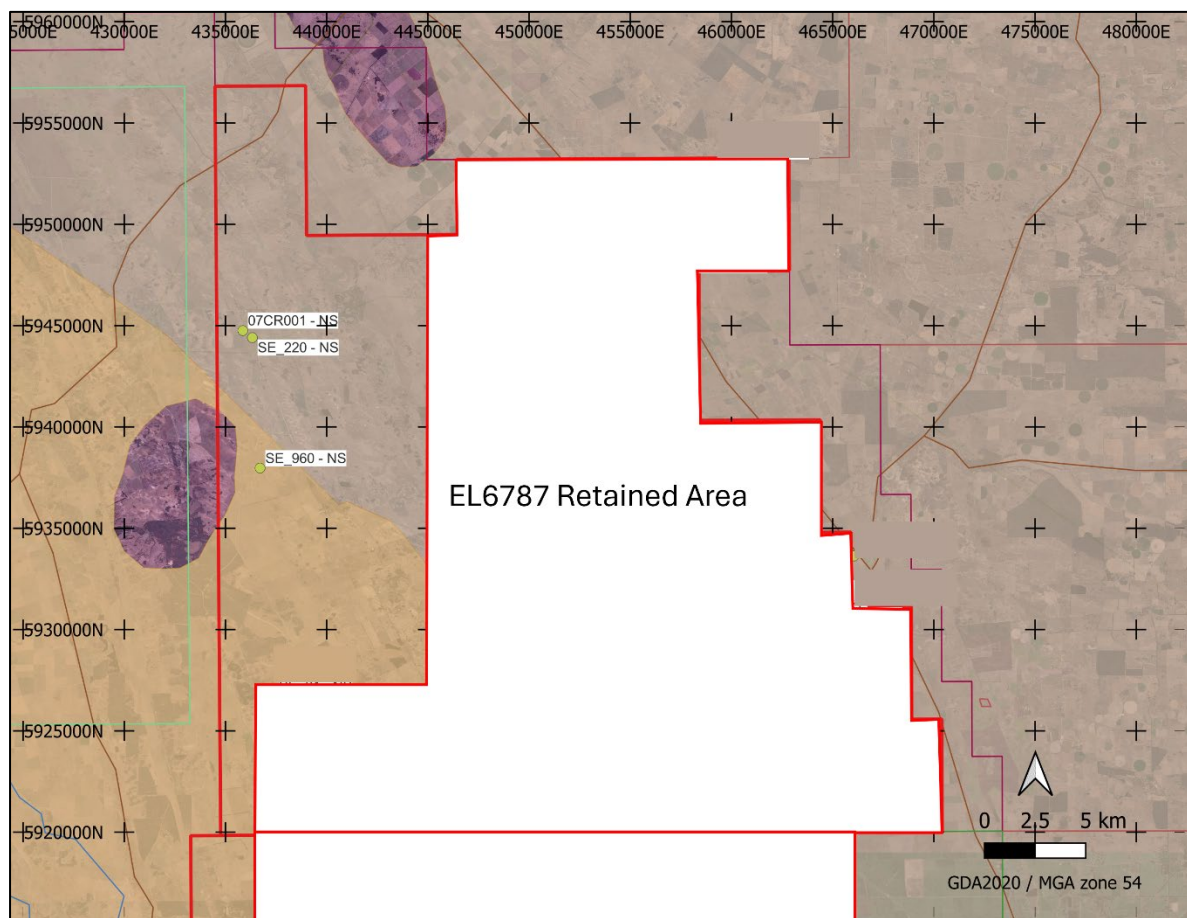
- 99 drillholes are located within the two Lucindale tenements,
- 14 of these are in the PIRSA core shed – this includes eight within EL6786 and six within EL6787; and,
- All 14 were selected for handheld pXRF analysis.

Publicly available stratigraphic data was entered into a database so as several factors, including the depth to the Gambier Limestone, extent of the Gambier Limestone and Narrawaturk Marl, and extent of the Bridgewater and Padthaway Formations can be mapped, to be used in interpretations of any mineralisation, and planning of field activities.

Drillhole Analysis

Fourteen holes were scanned (205 samples), using handheld pXRF methods by Challenger Geological Services in Adelaide. This was designed as a screening exercise.

Figure 6 Scanned drillhole locations showing maximum combined REE (La, Ce, Pr, Nd) concentration – “NS” denotes not sampled – no material in the Core Library



As shown in Figure 6, none of the scanned/sampled holes are located within the relinquished part of EL6787.

In addition, 16 drillholes had online stratigraphic tables, including 13/14 holes that were analysed.

The two holes that had stratigraphic data, but no core library samples, 07CR001 and SE960 are located within the relinquished part of EL6787 (Figure 6).

The majority of holes tested the Murray Basin stratigraphy and were terminated in the Gambier Limestone (Figures 3 to 5), with the top generally being flat lying at a depth of between 14 m and 40 m over the ~2,000 km² of the Lucindale Project.

Both of the holes within the surrendered area drilled through the Gambier Limestone (or its stratigraphic equivalent, the Narrawaturk Marl), and intersected igneous Delamerian basement as shown in Table 1. It is noted that no original interpretation of the unit names was made for hole 07CR001. Our interpretations are presented in the “Notes” column.

It is also noted that both holes were located near a paleotopographic high, exhibited by an inlier of basement rock (purple areas, Figure 6).

Table 1 Lucindale Project stratigraphy, with significant REE assays

SARIG Hole #	Hole_Name	DFrom	Dto	Major Lithology	Minor Lithology	Interpreted Unit	Notes	Significant REE Assays
229993	07CR001	0	1			Regolith		
229993	07CR001	1	6	Sandstone		Sandstone	Bridgewater?	
229993	07CR001	6	27	Limestone		Limestone	Gambier?	
229993	07CR001	27	50	Marl		Marl	Narrawaturk?	
229993	07CR001	50	51	Sandstone	Limestone	Limestone matrix	Mepunga?	
229993	07CR001	51	54	Sandstone		Basement	Mepunga?	
229993	07CR001	54	336.1	Basalt		Basement	Delamerian	
151482	SE 960	0	2	Clay	Sand	Undifferentiated Quaternary		
151482	SE 960	2	18	Calcarenite	Sand	Bridgewater Formation		
151482	SE 960	18	24	Calcarenite	Sand	Coomandook Formation		
151482	SE 960	24	37	Clay	?Cocquina	Narrawaturk Marl		
151482	SE 960	37	59	Clay	Sand	Mepunga Formation		
151482	SE 960	59	72	Clay	?Igneous Felsic	?Weathered Bedrock		

Conclusions

The work undertaken during the initial two years on the Lucindale Project has supported the REE mineralisation model and set a base for activities during the third year.

It has demonstrated the presence of anomalous REEs in the both the dunal and lagoonal sediments of the Gambier Coastal Plain, which now forms a target over a widespread area. Initially, upcoming work

will include reassaying of anomalous samples for verification. Follow up work would then most likely involve scout drilling along public roads and tracks, to define areas of further interest.

The drilling within the surrendered area of EL6787 has highlighted the presence of relatively shallow basement – does this provide a target for Delamerian aged mineralisation?

References

Australian Rare Earths Limited, Prospectus and subsequent company releases on the Koppamurra Rare Earth Project.

Delamerian National Drilling Initiative: stratigraphy of Murray Basin cover sediments, Baohong Hou and Anna Petts, Mesa Journal 94, 2021 – Issue 1

Padthaway Water Allocation Plan Adaptive Management, Limestone Coast Landscape Board, March 2023.

SARIG Website, drillhole details, various company reports related to the drillholes