



ORPHEUS
URANIUM LTD



QUARTERLY ACTIVITIES REPORT

SEPTEMBER 2025

Managing Director's Message to Shareholders

The September quarter saw further evolution in Orpheus Uranium's journey, as our exploration team shifted from project generation to working closely with various Traditional Owners and key stakeholders to establish access agreements for our expanding portfolio of uranium assets.

I'm pleased to report that we made a lot of progress, and following the end of the quarter, we successfully announced or received support for Native Title Agreements for many of our South Australian Projects. This creates a solid foundation for Orpheus to continue evolving as we plan for more advanced exploration activities, such as drilling, on our very promising prospects.

Orpheus' mission is to unlock the energy resources we need tomorrow, and that means keeping an eye on the future. It was with this in mind that we jumped on the opportunity to acquire the Oobagooma Project. While we recognise that uranium exploration in Western Australia presents greater challenges than our ground in South Australia and the Northern Territory, we also believe that geopolitical factors and the world's energy needs mean that this situation is likely to change and by doing this transaction now, we are putting our foot on a project with significant mineralisation intersects and considerable exploration upside at relatively low cost. Oobagooma is also an advanced project that adds diversity to the Orpheus portfolio and strengthens Orpheus' position as Australia's leading junior uranium explorer.

- Managing Director Clinton Dubieniecki

Quarterly Report

FOR PERIOD ENDING 30 SEPTEMBER 2025

ASX: ORP



QUARTERLY HIGHLIGHTS

Orpheus Uranium Limited (ASX: ORP) (*Orpheus* or *the Company*) is pleased to report on its activities and cash flow for the quarter ending 30 September 2025. Highlights from the quarter include:

Frome Project, S.A.

- Finalised process to enable the establishment of a Native Title Mining Agreement (NTMA) for exploration activities. Adnyamathanha Native Title holders provided consent post quarter end (see *ASX announcement 20th October 2025*).

Radium Hill South, S.A.

- An NTMA was executed with the Wilyakali Native Title Aboriginal Corporation Registered Native Title Body Corporate (RNTBC). This allows Orpheus to commence heritage and regulatory approval process for advanced stage exploration activities (see *ASX announcement 25th July 2025*).

Pirie Basin Project, S.A.

- Orpheus satisfied all condition precedents under the Sale Agreement and completed the transaction for the Pirie Basin Project (see *ASX announcement 20th August 2025*).

Marree Project, S.A.

- Foundations and associated community meeting to establish an NTMA with The Dieri Aboriginal Corporation (TDAC) RNTBC. Agreement executed post end of quarter and provides a foundation for Orpheus to commence exploration activities on the northern areas of the Marree Project (see *ASX announcement 24th October 2025*).
- Finalised process to enable the establishment of an NTMA for exploration activities covering the southern parts of the Marree Project. Adnyamathanha Native Title holders provided consent post quarter end (see *ASX announcement 20th October 2025*).

Mount Douglas Project, N.T.

- Exploration program targeting unconformity-style uranium systems commenced (see *ASX announcement 1st July 2025*).

Oobagooma Project, W.A.

- Undertaking of activities to progress the Sale agreement for the 100% acquisition of the Oobagooma Project from Elevate Uranium Ltd (ASX: EL8). Located within the Canning Basin in Western Australia, the project has significant exploration upside and the agreement was executed post quarter end (see *ASX announcement 14th October 2025*).

Corporate

- Cash and listed investments of \$3.71 million at the end of the September 2025 quarter.

ORPHEUS URANIUM LIMITED

ASX: ORP
orpheusuranium.com

CAPITAL STRUCTURE

Issued shares: 281.7m
Debt: nil
Unlisted options: 24.2m
Cash on hand: \$3.07m
Liquid investments: \$0.64m

DIRECTORS & CO SEC

Simon Mitchell - Non-Exec Chairman
Todd Williams - Non-Exec Director
Clinton Dubieniecki - Managing Director
Richard Willson - Company Secretary

URANIUM PROJECTS (SA)

Frome, 100%
Radium Hill South, 100%
Mundaerno, 100%
Pirie Basin, 100%
Marree, 100%
Woolshed, 100%

URANIUM PROJECTS (NT)

Mount Douglas, 100%
Woolner/Marrakai, 100%
Ranger NE, 100%
Conways, 100%
T-Bone, 100%

A STRATEGIC PORTFOLIO OF URANIUM ASSETS

Orpheus is a uranium-focused junior explorer developing a portfolio of diverse uranium assets in Australia's top jurisdictions that allow uranium exploration and mining, South Australia and Northern Territory. Orpheus is also always looking for new opportunities, which, post-end of the quarter, resulted in the strategic extension of the portfolio into highly prospective parts of Western Australia.

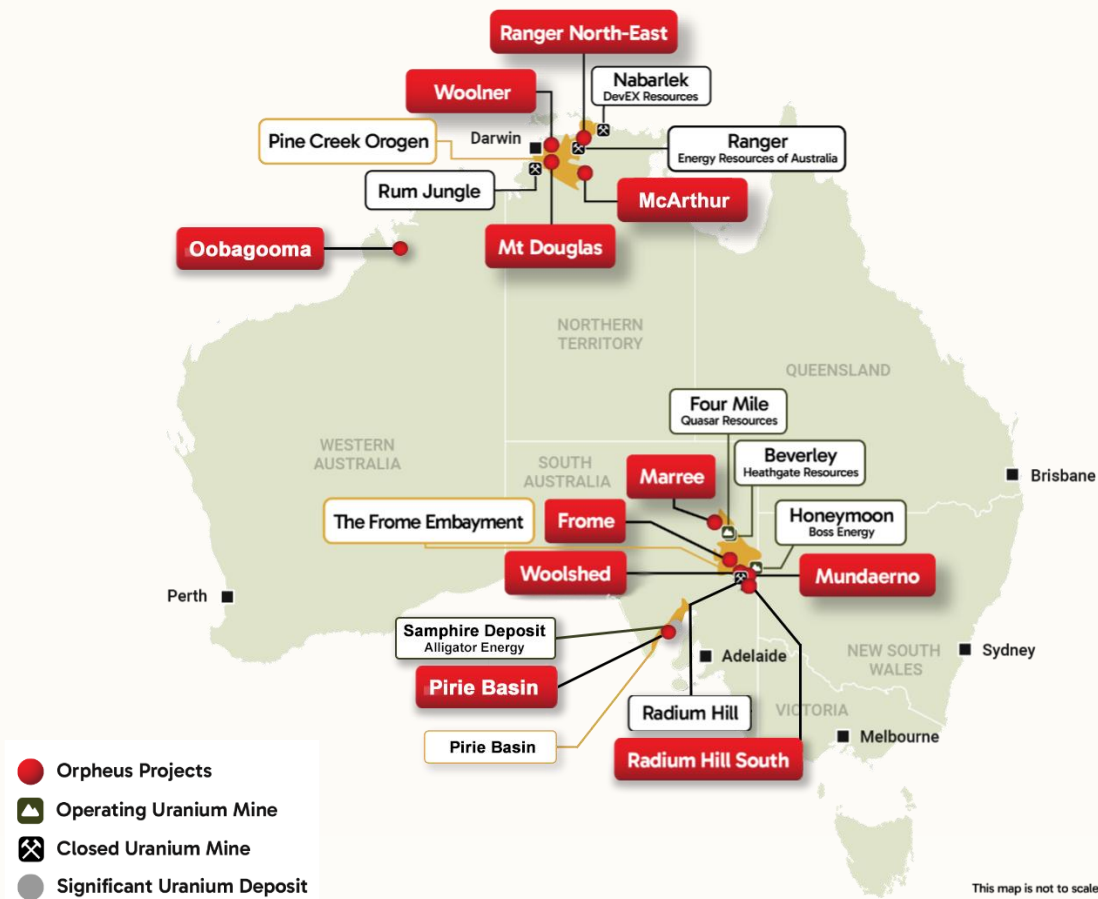


Figure 1: Location map of uranium assets owned by Orpheus located in South Australia, Northern Territory and Western Australia (not to scale)

The company is led by a Board with decades of experience in the Uranium industry, and every Orpheus geologist has contemporary experience in all stages of sedimentary-style uranium exploration and production at Australia's premier producing operation.

SOUTH AUSTRALIA – SEDIMENTARY-STYLE URANIUM

Orpheus' South Australian tenure includes some of the most prospective regions for uranium exploration in Australia. The company's landholdings span what could be considered the three most promising basins for sedimentary-style uranium mineralisation, underscoring Orpheus's strong competitive position in the sector (see Figure 2).

Orpheus' **Frome Project** is located within the highly prospective Callabonna Sub-Basin, whilst the **Marree Project** is located within the equivalent but more regional Lake Eyre Basin. This region has long been recognised for its potential to host significant uranium deposits. The proximity of **Frome Project** to Boss Energy's Gould's Dam deposit bolsters the potential for exploration success.

Orpheus' **Radium Hill South Project** is situated on the northern margins of the Murray Basin. Radium Hill South is particularly notable for being near what could be considered the source rocks of the historic Radium Hill deposit. This proximity to the potential source rocks increases the likelihood of discovering concentrated uranium mineralisation, making the project a promising target for future exploration.

The Pirie Basin Project is in the underexplored western Pirie Basin. This basin is also home to Alligator Energy's Samphire Uranium Project, hosts significant uranium mineralisation and demonstrates Orpheus' unique opportunity to explore an area with substantial discovery potential.



Figure 2: Orpheus Uranium's South Australian project locations relative to South Australia's known resources and the associated tenement holders (HGR = Heathgate Resources Pty Ltd; BOE = Boss Energy Ltd.; AGE = Alligator Energy Ltd.)

Frome Project

Overview

The Frome Project is an advanced exploration project that has 73,650m of historical drilling, mostly completed by the French nuclear company Areva (now Orano) between 2004 and 2014. It is located 12km west of Boss Energy's (ASX: BOE) Gould's Dam project, which contains a JORC-compliant resource of 25 Mlbs. U₃O₈ indicated and inferred¹. The project has widespread uranium mineralisation defined within the Erudina paleochannel over an area of 12km by 7km, with 56 drill holes intersecting uranium mineralisation with values over 100 ppm EqU in wide 1 km spaced drill traverses (see ASX announcement, 18 December 2023).



Photo: Orpheus Uranium's Frome Project

This Quarter

During the quarter, Orpheus worked closely with local stakeholders to gain access to the highly prospective Project area. Following the end of the quarter, the company was pleased to see the rewards of these efforts, when Adnyamathanha native title holders provided their consent to a Native Title Mining Agreement (NTMA) being entered into by Adnyamathanha Traditional Lands Association (Aboriginal Corporation) Registered Native Title Body Corporate (ATLA) in relation to the Company's Frome project. Despite ATLA currently being under special administration, Orpheus, in collaboration with other stakeholders, developed a viable, and community-endorsed NTMA. This is a significant step towards commencing advanced exploration activities, including drilling, on the Frome Project.

Upcoming Quarters

Investors can look forward to:

- The execution of the NTMA documentation.
- Progressing through requirements to obtain regulatory approval for advanced-stage activities on the tenure.
- Continued interpretation of available datasets to refine on-ground activities, including drilling.

1: Goulds Dam Uranium Deposit – Resource - Boss Energy Limited ASX: BOE - Combined Indicated and Inferred Resource – Average Grade 523 ppm U₃O₈ with Contained 25 Mlbs. U₃O₈. Refer to ASX: BOE announcement dated 23 January 2024

Marree Project

Overview

The Marree project comprises three prospective early-stage exploration licences located to the northwest of the Northern Flinders Ranges Mount Painter Block, which hosts some of the most uraniferous surface and potential uranium source rocks within Australia, if not globally.

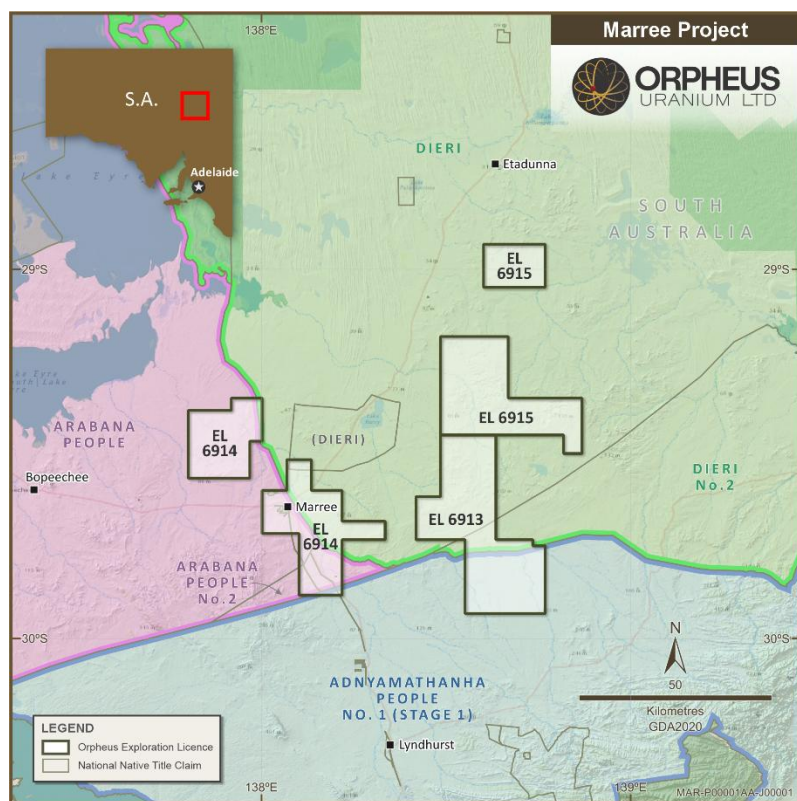
This Quarter

During the Quarter, Orpheus worked closely with the local Native Title holders and other stakeholders to significantly progress access on the Marree project and lay the foundations for extending exploration programs beyond early-stage activities.

As a result of this collaboration and following the end of the quarter, Orpheus was able to:

- Execute an NTMA with The Dieri Aboriginal Corporation (TDAC), the Registered Native Title Body Corporate (RNTBC) for the Dieri Determination Area, which overlaps the northern areas of the Project.
- Receive consent from Adnyamathanha native title holders to enter into a Native Title Mining Agreement (NTMA) by Adnyamathanha Traditional Lands Association (Aboriginal Corporation) Registered Native Title Body Corporate (ATLA) in relation to Orpheus Marree Project, which overlaps the southern areas of the Project.

These agreements allow Orpheus to gain regulatory approvals and advance its mineral exploration programs to more advanced stages, including drilling, whilst respecting Native Title rights and cultural heritage.



Upcoming Quarters

Investors can look forward to:

- Execution of the ATLA NTMA documentation.
- Continued interpretation of available datasets to refine on-ground activities.

Figure 3: Orpheus' Marree Project and Native Title Determination Areas

Radium Hill South Project

Overview

The Radium Hill South Project is an advanced project in the Murray Basin that covers 797km², just 20km to the south of the historic Radium Hill Uranium Mine. The project has five highly promising prospects with proven potential for shallow sediment-hosted uranium mineralisation.

This Quarter

During the quarter, Orpheus executed a Native Title Mining Agreement (NTMA) with the Wilyakali Native Title Aboriginal Corporation (Wilyakali), the Registered Native Title Body Corporate (RNTBC) for the Wilyakali Determination Area. The NTMA marked an important milestone for Orpheus, providing the basis to commence on-ground heritage clearance surveys in collaboration with Wilyakali representatives. These heritage clearances are the first step toward obtaining the regulatory approvals required to undertake drilling programs.

Upcoming Quarters

Investors can look forward to:

- Drilling approvals that are anticipated in Q4 of this year (2025).
- Technical interpretation of the Radium Hill South and the nearby Mundaerno Project is ongoing.



Photo: The Orpheus Uranium exploration team undertaking field activities associated with the Radium Hill South Project.



Photo: Orpheus Uranium's Pirie Basin Project in South Australia

Pirie Basin Project

Overview

The Pirie Basin is one of only two basins in South Australia to host sedimentary-style uranium deposits that have active advanced-stage feasibility or producing in-situ recovery uranium projects. The project is adjacent to Alligator Energy's (ASX: AGE) Samphire Uranium Project with an 18Mlbs U_3O_8 Mineral Resource² defined in accordance with the JORC code. The tenements host sediments of the highly prospective Pirie Basin underlain by fertile source rocks of the highly uraniferous Gawler Craton Hiltaba Suite. Historical drilling intersected up to ~535 ppm U_3O_8 , validating the source potential of the local Hiltaba Suite Granites and potential for new discoveries within the project.

This Quarter

During the Quarter, Orpheus satisfied all the condition precedents under the Sale Agreement and completed the transaction for the Pirie Basin Project from FMG Resources Pty Ltd, a wholly owned subsidiary of Fortescue Ltd (ASX: FMG).

Upcoming Quarter

Orpheus plans to:

- Continue geological interpretation to refine geological modelling and target generation.
- Continue its stakeholder engagement to secure on-ground access to tenure.
- Obtain required regulatory approvals to enable the project to be drill-ready.

²: Samphire Uranium Project – Alligator Energy Limited ASX: AGE - Increased Mineral Resource Estimate and Upgrade of Indicated Resource for the Blackbush Deposit, Samphire U Project. (18.0 Mlbs. at an average grade of 676ppm U_3O_8). Refer to ASX: AGE announcement dated 06 May 2025

NORTHERN TERRITORY - UNCONFORMITY-STYLE URANIUM

Orpheus holds strategic ground in the Northern Territory prospective for unconformity-style uranium similar to the Tier-1 Ranger deposit (Energy Resources of Australia ASX: ERA) and Patronus (ASX: PTN) Resources' high-grade Thunderball Project, which is analogous to the geological setting of Orpheus' Mt Douglas Project. The Company's current focus is advancing the Mount Douglas project from target definition to advanced-stage activities, including drilling.

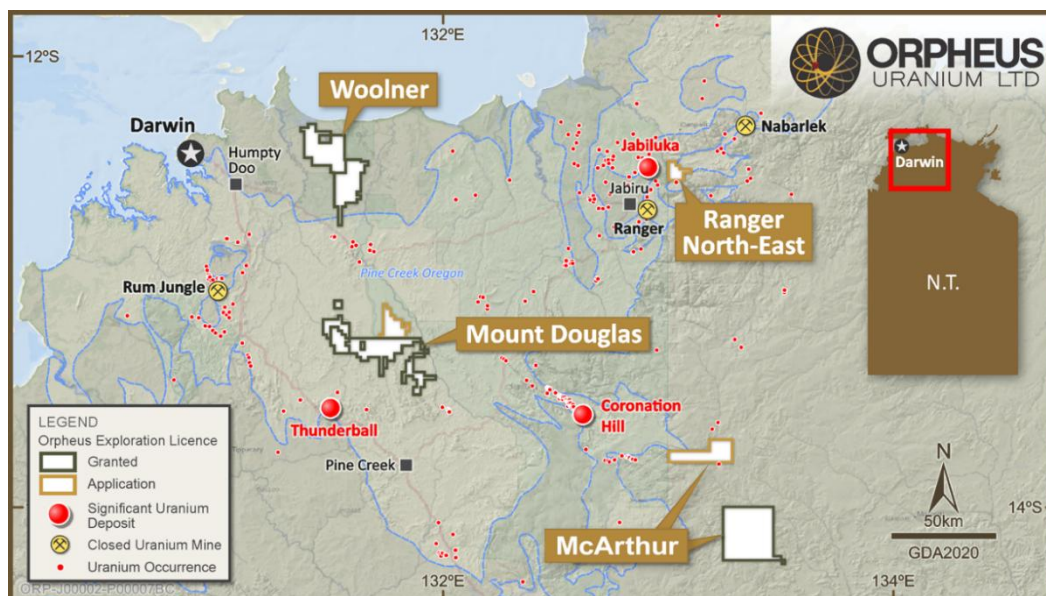


Figure 4: Location map of uranium assets owned by Orpheus located in Northern Territory

Mount Douglas Project

Overview:

The Mount Douglas Project is located on the eastern flank of the Rum Jungle Mineral Field and comprises two exploration licences and an adjoining application. The Rum Jungle Mineral Field was the first major uranium mining and processing centre in Australia, and is contained within the Pine Creek Orogen, within which the most recent production of unconformity-style uranium mineralisation has occurred.

This Quarter:

During the quarter, Orpheus commenced on ground activities and continued stake holder engagement with landholders and traditional owners as to facilitate the commencement of a high-resolution NTGS co-funded gravity survey post quarter end. The survey follows up on ground gravity data collected in collaboration with the NTGS in 2024 which defined several areas of significant interest and further refine the drilling target areas.

Upcoming Quarter:

Over the next Quarter, investors can look forward to:

- Completion of high-resolution gravity survey and associated modelling of data.
- Continued engagement with stakeholders to prepare for more extensive on-ground activities.

WESTERN AUSTRALIA – SEDIMENTARY-STYLE URANIUM

Oobagooma Project

During the September quarter, Orpheus made a future-oriented decision to pursue strategic ground the company had identified in Western Australia. Following the end of the quarter, Orpheus announced the binding agreement for the acquisition of the Oobagooma Uranium Project from Jackson Cage Pty Ltd., a wholly owned subsidiary of Elevate Uranium Ltd (ASX: EL8).

The Oobagooma Project covers 271 km² of the northern margins of the Canning Basin, in the Derby Region, Western Australia. Oobagooma adds a new dimension because it is a more advanced project with a large amount of historical data to draw on. Despite extensive historical exploration, Orpheus believes the project maintains significant upside, with geological modelling indicating at least four untested prospective roll fronts extending over a 9km strike length.



Figure 5. Location of the Oobagooma Uranium Project

Key Details of the Acquisition

Orpheus has entered into a binding sale agreement to acquire a 100% interest in one exploration licences from Jackson Cage, a 100% owned subsidiary of Elevate Uranium Ltd, subject to satisfaction of certain conditions (which are considered customary for a transaction of this nature), the following upfront, deferred and conditional considerations:

- \$50,000 exclusivity payment on execution of the sale agreement
- \$175,000 and the issue of 20,000,000 fully paid shares in Orpheus Uranium Ltd. on completion of certain conditions precedent, including obtaining the consent of the Minister, assignment of the titles and closing of the transaction (Upfront Payment)
- 15,000,000 fully paid shares in Orpheus Uranium Ltd., on the completion of gaining access to the tenement within two years from the completion date (First Contingent or Milestone Payment)
- 25,000,000 fully paid shares in Orpheus Uranium Ltd., on the completion of completing 2400m of cumulative drilling within the exploration licence within 5 years of from the completion date (Second Contingent or Milestone Payment)

Business Growth

Orpheus maintains an active watch and engages with companies throughout Australia that hold tenure within desired geological settings conducive to uranium mineralisation and consistent with the business strategy.

CORPORATE ACTIVITY

Project Acquisition

- Completed the Sale Transaction for the Pirie Basin Project.

Zambian Litigation

The Company refers to previous update regarding the proceedings that had been commenced in the High Court of Zambia on behalf of Nsansala Resources Limited (Nsansala) seeking payment from the Company and its wholly owned Zambian subsidiary, Lumwana West Resources Limited (Lumwana), in respect of amounts alleged to be owed in respect of Lumwana's Zambian Exploration Licence 22399-HQ-LEL (License) (Zambian Proceedings).

The Company advises that, following preparations being made to lodge its defence in the Zambian Proceedings, the Zambian Proceedings were dismissed by the High Court for want of prosecution.

Sale of Shares

During the Quarter, Orpheus completed the sale of 1.13 million Prospect Resource Ltd ("Prospect", ASX: PSC) shares for a total consideration of \$0.227 million (before costs). Following the end of the quarter Orpheus completed the sale of the remaining 3.2 million PSC shares for a total consideration of \$0.639 million (before costs). The company retains 6.25 million call options to acquire Prospect ordinary shares at 15 cents per share,

expiring 11 April 2027. Orpheus as a right to a \$2.5 million milestone payment from Prospect upon their release of a JORC resource of at least 500kt of contained copper with a cut-off of 0.5% at the Lumwana West Project.

Cash and Investments

The total value of cash and investments in ASX listed companies on 30 September 2025 was approximately \$3.71 million, comprising:

- Cash at bank \$3.07 million
- Shares in listed companies (liquid investments) \$0.64 million

Other

ASX Listing Rule 5.3.1 - Exploration and evaluation expenditure incurred during the quarter was \$0.495 million. Details of exploration activities during the quarter are set out in this report.

Expenditure	A '000
Tenement administration, management and logistics	\$83
Geological activities	\$70
Tenement statutory fees	\$87
Land access	\$121
Salaries and wages	\$134
Total	\$495

ASX Listing Rule 5.3.2 - There was no production or development expenditure incurred during the quarter.

ASX Listing Rule 5.3.5 – Payments to related parties of the Company and their associates during the quarter totalled \$0.155m. Related party payments represented salaries, superannuation and fees paid to directors of the Company.

This announcement was approved for release by the Board of Orpheus Uranium Limited.

For further information, please contact:

MANAGING DIRECTOR

Clinton Dubieniecki

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COMPANY SECRETARY

Richard Willson

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About Orpheus Uranium

Orpheus Uranium Limited is an Australian Securities Exchange listed exploration company exploring for uranium in South Australia and the Northern Territory, both jurisdictions which allow uranium mining and processing, and extending to Western Australia with the recent Oobagooma acquisition, a state that contains known uranium deposits.

Competent Person Statement

Sections of information contained in this report that relate to Exploration Results were compiled or reviewed by Mr Clinton Dubieniecki BSc (Hons), who is a Member of the Australian Institute of Geoscientists (AIG), Member of Australasian Institute of Mining and Metallurgy (AusIMM), and is a full-time employee of Orpheus Uranium Limited. Mr Dubieniecki has sufficient experience which is relevant to the style of mineral deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Dubieniecki consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Forward Looking Statements

The written presentation may contain forward-looking statement regarding the outlook for the Company's interpretation, work programs, and financial results. These forward-looking statements generally can be identified by phrases such as "anticipates", "potential", "plans", "intends", "believes", "likely", "appears", "expects", "likely", "appears" or other words or phrases of similar impact. There is inherent risk and uncertainty in any forward-looking statements. Variance will occur and some could be materially different from management's opinion. Developments that could impact the Company's expectations include a variety of known and unknown risks, uncertainties and other factors that could cause actual events or results to differ from those expressed or implied, including, without limitation, business integration risks; uncertainty of development plans and cost estimates, commodity price fluctuations; political or economic instability and regulatory changes; currency fluctuations, the state of the capital markets, Orpheus' ability to attract and retain qualified personnel and management, potential labour unrest, unpredictable risks and hazards related to the development and operation of exploration programs that are beyond the Company's control, the availability of capital to fund all of the Company's projects. These forward-looking statements are made as of the date of this presentation and the Company assumes no obligation to update these forward-looking statements, or to update the reasons why actual results differed from those projected in the forward-looking statements, except in accordance with applicable securities laws.

TENEMENT SCHEDULE

Table 1: Summary of mining tenements

SOUTH AUSTRALIAN MINERAL EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
EL 6569	18/10/2020	17/10/2025	104	Sandstone	Coombedown Resources Pty Ltd	10% ¹
EL 5998	21/05/2017	20/05/2028	33	Campfire Bore	Coombedown Resources Pty Ltd	10% ¹
EL 6199	04/06/2018	3/06/2029	27	Myrtle Springs	Kelaray Pty Ltd	100%
EL 6407	18/08/2024	17/08/2030	295	Lake Torrens	Kelaray Pty Ltd	100%
EL 5937	30/03/2017	29/03/2028	794	West Lake Torrens	Kelaray Pty Ltd	100%
EL 5945	20/04/2017	19/04/2028	221	Murdie	Kelaray Pty Ltd	100%
EL 6320	28/02/2019	27/02/2030	198	Andamooka Station	Kelaray Pty Ltd	100%
EL 6554	07/12/2020	6/12/2025	960	Frome Downs	Trachre Pty Ltd	100%
EL 6555	07/12/2020	6/12/2025	947	Curnamona	Trachre Pty Ltd	100%
EL 6703	3/02/2022	2/02/2028	987	Erudina	Trachre Pty Ltd	100%
EL 6900	19/01/2023	18/01/2029	143	Billeroo	Trachre Pty Ltd	100%
EL 6913	9/06/2023	8/06/2029	998	Mundowdna	Trachre Pty Ltd	100%
EL 6914	9/06/2023	8/06/2029	990	Muloorina	Trachre Pty Ltd	100%
EL 6915	9/06/2023	8/06/2029	978	Clayton	Trachre Pty Ltd	100%
EL 6958 ²	18/12/2023	17/12/2029	294	Mundaerno	Trachre Pty Ltd	100%
EL 6960	18/12/2023	17/12/2029	797	Radium Hill South	Trachre Pty Ltd	100%
EL 6989 ²	10/04/2024	9/04/2030	87	Woolshed	Trachre Pty Ltd	100%
EL 6418 ³	23/10/2019	22/10/2030	601	Midgee (Pirie Basin)	Trachre Pty Ltd	100%
EL 6419 ³	23/10/2019	22/10/2030	506	Mitchellville (Pirie Basin)	Trachre Pty Ltd	100%

QUEENSLAND MINING LEASE						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
ML 5631	16/05/1974	31/05/2026	0.32	Kroombit	Kelaray Pty Ltd	100%

QUEENSLAND MINERAL DEVELOPMENT LICENCE						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
MDL 2002	03/08/2016	31/08/2026	0.64	Kroombit	Kelaray Pty Ltd	100%

NORTHERN TERRITORY MINERAL EXPLORATION LICENCES						
Tenement	Granted	Expiry	Area (km ²)	Locality	Licensee	Interest
EL 31451 ⁴	8/09/2017	7/09/2027	484.52	Mount Douglas	Trachre Pty Ltd	100%
EL 33075	3/01/2023	2/01/2029	103.63	Mount Douglas (Ban Ban)	Trachre Pty Ltd	100%
EL 33088	3/01/2023	2/01/2029	473.23	Woolner	Trachre Pty Ltd	100%
EL 33089	3/01/2023	2/01/2029	458.81	Marrakai	Trachre Pty Ltd	100%

NORTHERN TERRITORY MINERAL EXPLORATION LICENCE APPLICATIONS

Tenement	Applied	Expiry	Area (km ²)	Locality	Licensee	Interest
ELA 32445	25/06/2020	-	230.24	T-Bone	Trachre Pty Ltd	100%
ELA 32446	25/06/2020	-	63.71	Ranger NE	Trachre Pty Ltd	100%
ELA 32038	22/11/2018	-	127.49	Mount Douglas (Mary River)	Trachre Pty Ltd	100%
ELA 34013	07/10/2024		643.46	Conways	Trachre Pty Ltd	100%

There was one tenement with a change of interest in the January 2025 Quarter.

¹ Kelaray holds a 33% interest in Coombedown Resources Pty. Ltd.

² Partial surrender of tenement submitted, awaiting confirmation from DEM

³ Completion of sale agreement occurred during quarter – awaiting confirmation of tenement transfer

⁴ Memorandum of renewal received during the quarter