29 April 2025

# AR3 Overland drilling: Further near surface uranium exploration results

## Highlights:

- **Shallow Uranium extended:** Further follow up drilling extends calcrete hosted uranium mineralization, defining a broader target area, bounded by faulting, with anomalous gamma and pXRF uranium readings.
- **Support for calcrete hosted uranium model:** Hole OVO47 and the follow up drilling now completed supports the potential for near-surface, calcrete-hosted mineralisation - similar to uranium deposits[1] mined in Namibia[2]. This is a significant addition to AR3's initial focus on deeper, ISR-amenable palaeochannel uranium targets, creating a compelling dual-asset opportunity.
- **Key targets identified:** Drilling has identified the likely orientation for the near-surface, calcrete-hosted mineralisation (see Figure 1) and provided along strike targets for follow up. Drilling has also targeted deeper palaeochannel settings for uranium mineralisation and identified variable basement topography providing the setting for ISR amenable uranium deposition.
- **Upcoming assay results:** High-priority targets are being drilled, with assay results expected progressively over the next few months.
- Engage with this announcement at the AR3 ***investor hub.***

**AR3 Managing Director and CEO, Travis Beinke, said:**

*"This AR3 Overland drilling update marks another step forward in unlocking the uranium potential of our project. The extension of the near surface uranium footprint and the strong support for our calcrete-hosted model underscore the prospectivity we initially recognised.*

*Our systematic approach to exploration and targeted drilling, continues to deliver results. Importantly, our targeted drilling is now focused on high-priority zones, guided by a clearer understanding of the mineralisation's orientation and the favourable geological settings we've identified at depth for ISR amenable uranium deposits.*

*With the drill program continuing, we look forward to reporting further results as we test the numerous high-priority targets we have identified."*

**Australian Rare Earths Limited (ASX: AR3)** is pleased to announce an update from its ongoing exploration drilling program at the Overland Uranium Project.

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[1] *See Paladin Energy (ASX: PDN) release 2 April 2024 "Commercial production achieved at the Langer Heinrich Mine"*
[2] *Wilde, A. Towards a Mineral Systems Model for Surficial Uranium Mineralization Based on Deposits in the Erongo District of Namibia. Minerals 2023, 13, 149. https://doi.org/10.3390/min13020149*

The 2025 drilling program, which commenced 30 January 2025, initially focused on testing for paleochannel sediments of the Renmark and Murray Group formations (Eyre and Namba equivalents), targeting their potential for uranium mineralisation. During the early stage of this drilling campaign, the Company discovered near surface uranium mineralisation hosted within a calcrete/limestone lithology, establishing an additional exploration model (see ASX release 19 March 2025) within the project area. To date, 68 drillholes have been completed in 2025, totalling 6,167 meters.

Recent drilling was primarily following up the near surface uranium mineralisation within the upper calcrete/limestone intersected hole OV047. This recent drilling has defined a NE-SW trend defined by natural downhole gamma counts x thickness contours (Figure 1). The orientation of the elevated natural gamma parallels regional fault structures and remains open to the NE and SW along this corridor.

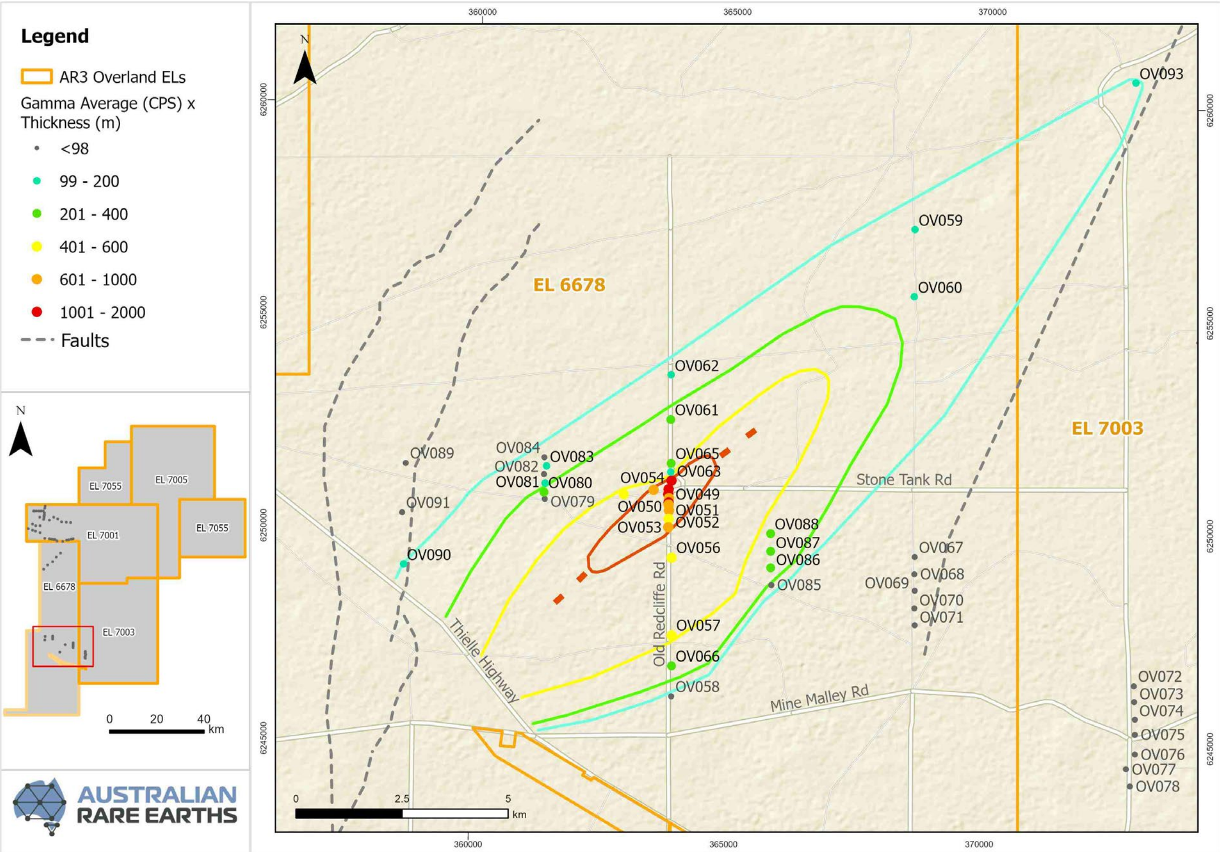


*__Figure 1: Overland Uranium Project -__ Southern EL6678 Drilling Program Average Gamma (CPS) x Thickness (m) values per drillhole, with contouring – See Appendix 3 for drillhole interval details.*

This surficial uranium occurrence is similar to uranium mineralisation found in Namibia's surficial uranium deposits, like Paladin Energy's Langer Heinrich Mine. Similar calcrete-hosted deposits are also found in Western Australia[3] at Cameco Corporation's Yeelirrie deposit and Toro Energy's Wiluna project.

[3] *Bijal Chudasama, Alok Porwal, Ignacio González-Álvarez, Sanchari Thakur, Andy Wilde, Oliver P. Kreuzer, Calcrete-hosted surficial uranium systems in Western Australia: Prospectivity modelling and quantitative estimates of resources. Part 1 – Origin of calcrete uranium deposits in surficial environments: A review, Ore Geology Reviews, Volume 102, 2018, Pages 906-936, ISSN 0169-1368, https://doi.org/10.1016/j.oregeorev.2018.04.024.*

The identification of another potential uranium occurrence model at Overland highlights the region's fertility, where uranium in solution enters the basin and is captured at various geochemical interfaces within the sedimentary sequences. Initial indications of a shallow uranium occurrence in the southern part of EL6678 came in drillhole OV047, which intersected a 6-meter interval containing anomalous gamma and pXRF uranium responses. Gamma responses peaked at 741 counts per second (cps), with maximum pXRF uranium response of 105ppm uranium in that hole. Subsequent drilling has provided further evidence of this style of mineralisation, including gamma responses peaking at 1,010cps in hole OV050 and additional anomalous pXRF uranium values exceeding 50ppm occurring in holes OV050 and OV053. The identified anomalous zones range from 2m to 6m in thickness.

These findings suggest potential for both deeper paleochannel hosted, in-situ recoverable (ISR) deposits and shallow surficial deposits in this setting.

## Next steps

- **Drill Program:** AR3's initial 2025 drilling program will continue to follow up the near surface uranium occurrence intersected in EL6678 to determine its extent, and to test additional targets for similar mineralisation style. In addition, high-priority initial targets on EL6678 will be drill-tested, focusing on deeper paleochannel-hosted, in-situ recoverable (ISR) deposits. Drilling will also target the highly prospective drill targets along the western margin of a palaeovalley setting within EL7001 defined through drilling completed in 2024 and more recently in 2025.
- **Assay Results:** AR3 has sent samples from its recent drilling for assay analysis and expects results to be released progressively over the next few months.
- **Data Analysis:** AR3 continues to compile and interpret all existing geological and geophysical data.
- **Geophysical Surveys:** AR3 is working on developing suitable remote sensing techniques to further refine the geometry of prospective paleochannel targets.

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The announcement has been authorised for release by the Board of Australian Rare Earths Limited.

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**Engage and Contribute at the AR3 investor hub: https://investorhub.ar3.com.au**

**Competent Person's Statement**

*The information in this report that relates to Exploration results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr Rick Pobjoy who is the Chief Technical Officer of the Company and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Pobjoy has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities 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". Mr Pobjoy consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

**About Australian Rare Earths Limited**

*Australian Rare Earths (AR3) is an emerging diversified critical minerals company, strategically positioned to meet the growing global demand for uranium and rare earth elements. The Company's vast 4,800 km² Overland Uranium Project in South Australia shows strong uranium discovery potential, with initial drilling identifying opportunities for substantial near-surface and deeper deposits.*

*Simultaneously, AR3's Koppamurra Rare Earths Project in South Australia and Victoria has secured important government support through a $5 million grant to accelerate development. With support from global advanced industrial materials manufacturer, Neo Performance Materials, AR3 is progressing toward a Pre-Feasibility Study and a demonstration facility, solidifying its role in diversifying global rare earth supply chains for the clean energy transition. With strategic projects and strong government support, AR3 is poised for significant growth in the critical minerals market.*

# JORC Table 1

| Section 1 Sampling Techniques and Data | | |
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| **Criteria** | **Explanation** | **Comment** |
| *Sampling techniques* | *Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.* | • *Air Core drilling methods were used to obtain samples from the Overland drilling program between October-December 2024 and January-April 2025*<br>• *The following information details the Air Core drill sampling process:*<br>• *All Air Core drill samples were collected from the rotary splitter mounted at the bottom of the cyclone into a pre-numbered calico bag. The samples were geologically logged at 1 m intervals.*<br>• *Based on hole-diameter, generic material density and a 20% split on the cyclone samples averaged ~1.5-2.5 kg in mass.*<br>• *Chip trays were used to collect a representative sample for each 1m sample interval for each hole.*<br>• *After the samples were collected within the calico bags, they were screened for anomalous gamma radiation using a handheld Ranger EXP survey meter (S/N R318772) calibrated 23/09/2024 prior to being geologically logged and tested with a pXRF at the drill site.*<br>• *The gamma screening was conducted by placing the handheld Ranger survey meter*<br>• *~10cm from the calico sample for 5-10sec and noting the dose rate in µSv. If elevated dose rates were detected the field crew was then notified before any additional sample logging was conducted and the anomalous reading recorded in the geological log.*<br>• *A handheld Olympus Vanta pXRF Analyser (Model Vanta M Series S/N 842924) was used to assess the geochemistry of the Air Core samples in the field. The pXRF analysis provided screening analysis to characterize the sample lithology and full suite of elements.*<br>• *The pXRF sampling was analysed through the calico bag with a beam count time of 20-30 sec beam 1 and 10 sec beam 2. One pXRF analysis per sample was performed.*<br>• *Samples are laid on a workbench and* |

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| | | *flattened to create a stable surface for the pXRF. The pXRF is placed on the sample with the beam down for the analysis.*<br>• *All readings were taken at ambient temperatures between 10 and 45 degrees Celsius. The Olympus Vanta is rated for continuous operation within these temperatures.*<br>• *Samples range from dry to wet, this is dependent on which formation is being intercepted and whether drilling water has been injected.*<br>• *A Uranium standard Oreas 121 (215 ppm U, sourced from Mantra Resources Nyota Prospect, Tanzania, which is a Tabular Sandstone hosted deposit) was used to verify the accuracy of the pXRF before and after each analysis session.*<br>• *The OREAS 121 standard was prepared using an industry standard pXRF sample cup and analysed for 20-30 sec on beam 1 and 10 Sec on beam 2.*<br>• *A silica blank is used to monitor the accumulation of contamination on the lens of the pXRF. Analysis of the blank is undertaken before and after each analysis session.*<br>• *Review of pXRF standard and blank data is checked to ensure the pXRF is operating correctly before and after each session.*<br>• *After the hole was drilled to completion a Reflex EZ Gamma logging tool (serial number GAM-043) rented from Imdex, and operated by the drilling crew was run down the hole, inside the rods/innertube to log the natural gamma response of the sediments. The gamma tool was last calibrated by Imdex on October 9th, 2024, as noted in the provided Certificate of Conformance.*<br>• *The survey was run in and out of the hole at a speed of no more than 10m/min and the downhole speed was reviewed after the survey.*<br>• *The up (out) survey was then used to plot sections, after reviewing both in and out.* |

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| | | • *Before each downhole gamma survey the Reflex EZ Gamma logging tool was checked with an EZ-Gamma confidence checker by AR3 staff (S/N 025). The confidence checker was last calibrated 29/08/24.*<br>• *Using the EZ-Gamma confidence checker at the start of each run allows the gamma tool to be checked ensuring it is within specifications and the tool has not been damaged or faulty providing confidence an accurate gamma reading is collected for each hole.*<br>• *The check is completed by first running the gamma tool for ~3-5min to measure Background Gamma (BKG) in cps. A second survey is then conducted after sliding the EZ-Gamma Confidence checker (Jig serial number 025) over the gamma probe and measuring a Sleeve Response (SR) in cps. The BKG value is subtracted from the SR value which provides a Calculated Sleeve Response (CSR) value in cps. The CSR is then compared to the Expected Value (EV) of the gamma checker which is certified to be 636 cps. A resulting pass value= 636 cps +/- 10 % and required before the survey tool is confirmed as operating within expected limits.*<br>• *The formula used for checking the gamma tool is as follows;*<br>• *CSR= SR-BKG*<br>• *CSR is compared to the EV of the confidence checker which is certified to 636cps (for jig serial number 025) +/- 10% (for pass value of 573-700cps).*<br>• *After the gamma survey is completed, the data is uploaded to the Imdex hub IQ portal (https://iq.imdexhub.com) from the rig via satellite internet and available for review.* |

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| *Drilling techniques* | *Drill type (e.g., core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).* | • *Drilling was completed using a Wallis "Mantis 200" Air Core drill rig with an onboard Sullair compressor (560cfm @ 200psi).*<br>• *Air Core drilling is a form of reverse circulation drilling where the sample is collected at the face and returned inside the inner tube. The drill cuttings are removed by injection of compressed air into the hole via the annular area between the inner tube and the drill rod.*<br>• *Air Core drill rods used were 3 m long.*<br>• *NQ diameter (76 mm) drill bits and rods were used.*<br>• *All Air Core drill holes were vertical with depths varying between ~36m and 200 m* |
| *Drill sample recovery* | *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>*Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>*Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • *Drill sample recovery for Air Core drilling is monitored by recording sample condition descriptions where 'Poor' to 'Very Poor' were used to identify any samples recovered which were potentially not representative of the interval drilled.*<br>• *A comment was included where water injection was required to recover the sample from a particular interval. The use of water injection can potentially bias a sample. Minimal water injection was required during this drilling program and used sparingly.*<br>• *Overall, no consistent/significant loses of sample material was observed.*<br>• *The rotary splitter was set to an approximate 20% split, which produced approximately 1.5-2.5 kg sample for each meter interval.*<br>• *The 1.5-2.5 kg sample was collected in a pre-numbered calico bag and the remaining 80% (5 kg to 8 kg) was disposed directly into the sump as drilling progressed.*<br>• *At the end of each drill rod, the drill string is cleaned by blowing down with air to remove any clay and silt potentially built up in the sample pipes and cyclone.*<br>• *The relationship (if any) between sample recovery and grade is unknown* |

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| | | • *No sample recovery information was reported in historical reports relating to historical drilling within this release.* |
| *Logging* | *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.* | • *All Air Core samples collected in calico bags were logged for lithology, colour, cement type, hardness, percentage rock estimate, and any relevant comments such as moisture, sample condition, evidence of reducing or oxidizing conditions, and vegetation/organic material.*<br>• *Geological logging data for all drill holes was qualitatively logged onto Microsoft Excel spreadsheet using a field laptop with validation rules built into the spreadsheet including specific drop- down menus for each variable. The data was uploaded to the Australian Rare Earths Azure Data Studio database.*<br>• *Every drill hole was logged in full and logging was undertaken with reference to a drilling template with codes prescribed and guidance to ensure consistent and systematic data collection.*<br>• *The density drilling is not sufficient to support consideration of resource estimation, or mining and no geotechnical logging was completed.* |
| *Sub-sampling techniques and sample preparation* | *If core, whether cut or sawn and whether quarter, half or all cores taken.*<br>*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>*For all sample types, the nature, quality, and appropriateness of the sample preparation technique.*<br>*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>*Measures taken to ensure that the sampling is representative of the in- situ* | • *1m Air Core sample interval was homogenised within the cyclone and the rotary splitter was set to an approximate 20% split producing around 1.5-2.5 kg sample for each metre interval.*<br>• *The 1.5-2.5kg sample was collected in a pre-numbered calico bag and the 80% (5 kg to 8 kg) portion was disposed directly into the sump as drilling progressed.*<br>• *Duplicates were generally taken within intervals which indicated potential for anomalous U mineralization based on geology, pXRF, and gamma signature. These duplicate samples were collected by splitting the 1m interval by emptying the sample on to a table, mixing and splitting into 1/8th subsamples and randomly assigning 4 of the splits into the duplicate and 4 remaining as the primary.* |

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| | *material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.* | • *The 1.5-2.5 kg sample collected in the calico bag was logged by the geologist onsite.*<br>• *Approximately 10-20g of sample material from each for each 1m calico sample placed in a chip tray.*<br>• *The logged calico samples were scanned with a pXRF onsite through the calico bag.*<br>*At the end of the drillhole samples were selected for analysis.*<br>• *Samples selected for analysis were placed in polyweave bags labelled with the sample number, From-To interval, and Hole ID, then segregated into bulka bags for transport to the lab for analysis.*<br>• *No correction factors were applied to pXRF results.*<br>• *Field duplicates of all the samples were completed at a frequency of ~1 in 40 samples. Field standards were inserted into the sample sequence at a frequency of ~1:40. Standard reference Material (SRM) samples were inserted into the sample batches at a frequency rate of 1 per 10 samples by the laboratory and a repeat sample was taken at a rate of 1 per 21 samples.*<br>• *An on-site geologist oversaw the sampling and logging process and selected samples for analysis based on the logging descriptions pXRF analysis, and downhole gamma response.* |
| *Quality of assay data and laboratory tests* | *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied* | • *The detailed geological logging of samples provides lithology (sand/clay component)* |

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| | *and their derivation, etc. Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.* | |
| *Verification of sampling and assaying* | *The verification of significant intersections by either independent or alternative company personnel.<br>The use of twinned holes.<br>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>Discuss any adjustment to assay data.* | • *All results are checked by the company's Chief Technical Officer.*<br>• *Field based geological logging for drill holes was entered directly into an Excel spreadsheet format with validation rules built into the spreadsheet including specific drop-down menus for each variable. This digital data was then uploaded to the Australian Rare Earths Azure Data Studio database.*<br>• *Assay data will be received in digital format from the laboratory and uploaded to Australian Rare Earths Azure Data Studio database.*<br>• *Field and laboratory duplicate data pairs of each batch will be plotted to identify potential quality control issues.*<br>• *Standard Reference Material sample results will be checked from each sample batch to ensure they are within tolerance (<3SD) and that there is no bias.*<br>• *U3O8 is the industry accepted form for reporting Uranium. An oxide factor for U3O8 of 1.1793 was used for reporting throughout this report.* |

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| *Location of data points* | *Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>*Specification of the grid system used.*<br>*Quality and adequacy of topographic control.* | • *All maps are in GDA94/MGA zone 54.*<br>• *All overland coordinate information was collected using handheld GPS utilizing GDA 1994, Zone 54. While spatial location is expected to be recovered within 3 – 5 m, it is possible that the elevation can be as much as 10 m out with respect to the currently established geoid.*<br>• *Drillhole RL has been corrected using An Australian wide SRTM. The 1 second SRTM Level 2 Derived Smoothed Digital Elevation Model (DEM-S) is derived from the 2000 SRTM. The DEM-S has a ~30m grid which has been adaptively smoothed to improve the representation of the surface shape and is the preferred method for shape and vertical accuracy from STRM products. The smoothing process estimated typical improvements in the order of 2-3 m. This would make the DEM-S accuracy to be of approximately 5 m.* |
| *Data spacing and distribution* | *Data spacing for reporting of Exploration Results.*<br>*Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*<br>*Whether sample compositing has been applied.* | • *Locations of Overland drill holes are reported within the appendices of this report.*<br>• *No geological or grade continuity estimations are being determined from the Overland drilling data.* |

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| *Orientation of data in relation to geological structure* | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | • *All Overland drill holes were drilled vertically as detailed in the appendices of this report.*<br>• *There is no indication that a sampling bias exists as the geology is relatively flat lying therefore vertical holes are appropriate.* |
| *Sample security* | *The measures taken to ensure sample security.* | • *After logging, the samples in calico bags were tied and placed into polyweave bags, labelled with the drill hole and sample numbers contained within the polyweave and transported to the site laydown area, at the end of each day.*<br>• *Sample selections were determined at the drill site and at the end of the day the polyweave bags were placed into bulk bags for either sending to the lab or storage facility.*<br>• *Samples were shipped at a frequency of once every ~10 days during drilling.*<br>• *Samples were transported to the lab by AR3 personnel or by courier.*<br>• *The laboratory inspected the packages and did not report tampering of the samples and provided a sample reconciliation report for each sample dispatch.* |
| *Audits or reviews* | *The results of any audits or reviews of sampling techniques and data.* | • *Internal reviews were undertaken by AR3's Exploration Manager and Chief Technical Officer during the drilling, sampling, and geological logging process and throughout the sample collection and dispatch process to ensure AR3's protocols were followed.* |

| Section 2 Reporting Exploration Results | | |
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| **Criteria** | **Explanation** | **Comment** |
| *Mineral tenement and land tenure status* | *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>*The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • *Australian Rare Earths Overland project is comprised of EL7001, EL7003, EL7005 and 7055 held by Valrico Resources Ltd Pty and WRDBD PTY LTD, wholly owned subsidiaries of Australian Rare Earths.*<br>• *The three EL's cover an area of approximately 3,779 km2.*<br>• *In addition, Valrico Resources Ltd Pty have entered into an earn in agreement with the license holders of EL6678 (Sheer Gold Pty Ltd) on November 19th, 2024 (see ASX announcement).*<br>• *When the earn in period is completed, the tenure will be transferred to Valrico adding another 990km$^2$ to the Overland project and bringing the total Overland project area to 4769km$^2$.*<br>• *There are no Conservation Parks or Regional Reserves in the EL areas.*<br>• *The White Dam CP has been excised from the SW corner of EL7003 and southern portion of EL6678.*<br>• *The Morgan CP are located outside the SW corner of EL7003.*<br>• *Registered Native Title Determination Application SC2019/001 overlaps with the central portion of EL7003 and southern portion of EL6678.*<br>• *Registered Native Title Determination Application SC20/002 overlaps with the NW corner of EL7005.*<br>• *A registered and Notified Indigenous Land Use Agreement (ILUA)- The River Murray and Crown Lands SI2011/025 overlaps with the southern portion of EL7003*<br>• *A registered and Notified Indigenous Land Use Agreement (ILUA)- Ngadjuri Faraway Hill Pastoral SI2005/005 overlaps with the Northwest corner of EL7005.* |

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| *Exploration done by other parties* | *Acknowledgment and appraisal of exploration by other parties.* | • *Exploration activities by other exploration companies extends back to the 1970's.*<br>• *Historically the area has been explored for Base Metals, Coal, Gold, Copper, Heavy Mineral Sands, and Water.* |
| *Geology* | *Deposit type, geological setting and style of mineralisation.* | • *The Overland project is targeting Paleochannel Uranium within the Murray and Renmark Group sediments of the Murray Basin.*<br>• *Sedimentary hosted uranium deposits occur in medium to coarse-grained sedimentary sequences deposited in a continental fluvial or marginal marine sedimentary environment. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sediments. Uranium is precipitated under reducing conditions caused by a variety of reducing agents within the permeable sediments including carbonaceous material (detrital plant debris, amorphous humate, marine algae), sulphides (pyrite, H2S), and hydrocarbons.*<br>• *Anomalous uranium within the Murray Basin occurs in carbonaceous clay and lignite of the Winnambool Formation and Geera Clay (Murray Group) of the Murray Basin, however the Renmark Group sediments have never been effectively targeted for uranium in the South Australian portion of the Murray Basin and therefore represent a highly promising new*<br>*frontier for uranium exploration.*<br>• *Shallow sedimentary uranium mineralisation in secondary carbonate cementation is another style of U mineralization being targeted, similar to Namibia's surficial uranium deposits. Similar calcrete-hosted deposits are also found in Western Australia* |

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| *Drill hole Information* | *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>*- easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>*- dip and azimuth of the hole*<br>*- down hole length and interception depth*<br>*- hole length.*<br>*If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | • *The material information for the Overland drilling is contained within the Appendices of this report* |
| *Data aggregation methods* | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>*Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such* | • *The natural downhole gamma readings from the Reflex EZ Gamma logging tool were used to create a "Gamma Average (CPS) x Thickness (m)" value.*<br>• *This value was calculated by averaging the gamma responses (CPS) over contiguous drillhole intervals (from the up survey) which averaged 98 CPS or better and then multiplying by the width of the corresponding interval.*<br>• *Appendix 3 attached to this report details the intervals presented in this release.*<br>• *The data was hand contoured and presented within the figures of this release.* |

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| | *aggregations should be shown in detail.*<br>*The assumptions used for any reporting of metal equivalent values should be clearly stated.* | |
| *Relationship between mineralisation widths and intercept lengths* | *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>*If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | • *All down hole lengths of geological intervals are interpreted to be true widths as the geology in the region is relatively flat lying and the holes are vertical.* |
| *Diagrams* | *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • *Diagrams are included in the body of this release.* |
| *Balanced reporting* | *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • *This release contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.* |

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| *Other substantive exploration data* | *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • *All known relevant exploration data has been reported in this release.* |
| *Further work* | *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • *Additional work will consist of (but not limited to) continued desktop review and reprocessing of historical geophysical and geological data to assist with target generation.*<br>• *Air Core drilling, downhole gamma logging, and sampling.*<br>• *Additional EPEPR applications to expand exploration across the broader tenure.* |

# Appendix 2 - List of Collars

| Hole ID | East (m) | North (m) | RL (m ASL) | Drill Method | Down Hole Width (mm) | Total Depth EOH (m) | Azimuth | Dip Direction |
|---|---|---|---|---|---|---|---|---|
| OV001 | 357586 | 6292689 | 144 | Aircore | 76 | 169 | 0 | -90 |
| OV002 | 357690 | 6293487 | 143 | Aircore | 76 | 186 | 0 | -90 |
| OV003 | 357737 | 6294273 | 144 | Aircore | 76 | 144 | 0 | -90 |
| OV004 | 357797 | 6295053 | 145 | Aircore | 76 | 141 | 0 | -90 |
| OV005 | 365825 | 6285470 | 125 | Aircore | 76 | 90 | 0 | -90 |
| OV006 | 366631 | 6285684 | 125 | Aircore | 76 | 99 | 0 | -90 |
| OV007 | 367406 | 6285881 | 120 | Aircore | 76 | 117 | 0 | -90 |
| OV008 | 368128 | 6286065 | 116 | Aircore | 76 | 120 | 0 | -90 |
| OV009 | 357716 | 6294068 | 144 | Aircore | 76 | 129 | 0 | -90 |
| OV010 | 357408 | 6295655 | 146 | Aircore | 76 | 159 | 0 | -90 |
| OV011 | 356597 | 6295626 | 150 | Aircore | 76 | 177 | 0 | -90 |
| OV012 | 355824 | 6295616 | 150 | Aircore | 76 | 150 | 0 | -90 |
| OV013 | 355032 | 6295603 | 152 | Aircore | 76 | 138 | 0 | -90 |
| OV014 | 354210 | 6295591 | 153 | Aircore | 76 | 120 | 0 | -90 |
| OV015 | 357936 | 6296643 | 147 | Aircore | 76 | 153 | 0 | -90 |
| OV016 | 358007 | 6297451 | 144 | Aircore | 76 | 138 | 0 | -90 |
| OV017 | 359624 | 6292527 | 138 | Aircore | 76 | 147 | 0 | -90 |
| OV018 | 361135 | 6293543 | 137 | Aircore | 76 | 135 | 0 | -90 |
| OV019 | 362460 | 6292973 | 133 | Aircore | 76 | 87 | 0 | -90 |
| OV020 | 363978 | 6291982 | 129 | Aircore | 76 | 87 | 0 | -90 |
| OV021 | 365550 | 6291803 | 126 | Aircore | 76 | 90 | 0 | -90 |
| OV022 | 367167 | 6291703 | 124 | Aircore | 76 | 111 | 0 | -90 |
| OV023 | 353904 | 6295615 | 154 | Aircore | 76 | 114 | 0 | -90 |
| OV024 | 357665 | 6293397 | 143 | Aircore | 76 | 141 | 0 | -90 |
| OV025 | 357725 | 6293588 | 143 | Aircore | 76 | 129 | 0 | -90 |
| OV026 | 358026 | 6286039 | 136 | Aircore | 76 | 120 | 0 | -90 |
| OV027 | 359656 | 6285888 | 132 | Aircore | 76 | 152 | 0 | -90 |
| OV028 | 361238 | 6285689 | 129 | Aircore | 76 | 156 | 0 | -90 |
| OV029 | 362375 | 6285207 | 128 | Aircore | 76 | 138 | 0 | -90 |
| OV030 | 364394 | 6285132 | 125 | Aircore | 76 | 117 | 0 | -90 |
| OV031 | 352138 | 6289308 | 154 | Aircore | 76 | 132 | 0 | -90 |
| OV032 | 353707 | 6288826 | 149 | Aircore | 76 | 147 | 0 | -90 |
| OV033 | 354739 | 6288516 | 147 | Aircore | 76 | 168 | 0 | -90 |
| OV034 | 356344 | 6288014 | 142 | Aircore | 76 | 120 | 0 | -90 |
| OV035 | 353598 | 6291050 | 151 | Aircore | 76 | 153 | 0 | -90 |
| OV036 | 360452 | 6285810 | 130 | Aircore | 76 | 171 | 0 | -90 |
| OV037 | 361652 | 6285661 | 128 | Aircore | 76 | 156 | 0 | -90 |
| OV038 | 354793 | 6290389 | 148 | Aircore | 76 | 138 | 0 | -90 |
| OV039 | 356367 | 6290408 | 144 | Aircore | 76 | 147 | 0 | -90 |
| OV040 | 356195 | 6293430 | 148 | Aircore | 76 | 126 | 0 | -90 |
| OV041 | 357802 | 6275096 | 122 | Aircore | 76 | 161 | 0 | -90 |
| OV042 | 359155 | 6276686 | 122 | Aircore | 76 | 54 | 0 | -90 |
| OV043 | 359155 | 6276691 | 122 | Aircore | 76 | 183 | 0 | -90 |
| OV044 | 360935 | 6277793 | 122 | Aircore | 76 | 180 | 0 | -90 |
| OV045 | 362228 | 6279556 | 121 | Aircore | 76 | 141 | 0 | -90 |
| OV046 | 363757 | 6280966 | 124 | Aircore | 76 | 114 | 0 | -90 |
| OV047 | 363806 | 6250960 | 81.5 | Aircore | 76 | 156 | 0 | -90 |
| OV048 | 363804 | 6250848 | 80.5 | Aircore | 76 | 36 | 0 | -90 |
| OV049 | 363817 | 6250751 | 81.7 | Aircore | 76 | 39 | 0 | -90 |
| OV050 | 363812 | 6250654 | 79.8 | Aircore | 76 | 36 | 0 | -90 |
| OV051 | 363821 | 6250470 | 78.4 | Aircore | 76 | 36 | 0 | -90 |
| OV052 | 363820 | 6250268 | 78.2 | Aircore | 76 | 36 | 0 | -90 |
| OV053 | 363816 | 6250070 | 78.1 | Aircore | 76 | 33 | 0 | -90 |
| OV054 | 363512 | 6250943 | 80.7 | Aircore | 76 | 33 | 0 | -90 |
| OV055 | 362927 | 6250837 | 81.2 | Aircore | 76 | 42 | 0 | -90 |
| OV056 | 363889 | 6249351 | 76.7 | Aircore | 76 | 138 | 0 | -90 |
| OV057 | 363916 | 6247528 | 85.5 | Aircore | 76 | 165 | 0 | -90 |
| OV058 | 363930 | 6246099 | 81.9 | Aircore | 76 | 144 | 0 | -90 |
| OV059 | 368550 | 6257132 | 78.8 | Aircore | 76 | 141 | 0 | -90 |
| OV060 | 368559 | 6255553 | 74.1 | Aircore | 76 | 162 | 0 | -90 |
| OV061 | 363827 | 6252600 | 86.4 | Aircore | 76 | 141 | 0 | -90 |
| OV062 | 363821 | 6253652 | 83.4 | Aircore | 76 | 102 | 0 | -90 |
| OV063 | 363863 | 6251168 | 82.9 | Aircore | 76 | 42 | 0 | -90 |
| OV064 | 363847 | 6251369 | 84.8 | Aircore | 76 | 45 | 0 | -90 |
| OV065 | 363851 | 6251568 | 87.7 | Aircore | 76 | 45 | 0 | -90 |
| OV066 | 363924 | 6246811 | 82.7 | Aircore | 76 | 164 | 0 | -90 |
| OV067 | 368652 | 6249434 | 65.4 | Aircore | 76 | 36 | 0 | -90 |
| OV068 | 368650 | 6249035 | 64.3 | Aircore | 76 | 39 | 0 | -90 |
| OV069 | 368657 | 6248644 | 63.2 | Aircore | 76 | 30 | 0 | -90 |
| OV070 | 368659 | 6248228 | 63 | Aircore | 76 | 36 | 0 | -90 |
| OV071 | 368669 | 6247837 | 63.2 | Aircore | 76 | 36 | 0 | -90 |
| OV072 | 372982 | 6246463 | 51.1 | Aircore | 76 | 36 | 0 | -90 |
| OV073 | 372994 | 6246088 | 49.1 | Aircore | 76 | 30 | 0 | -90 |
| OV074 | 373010 | 6245672 | 48.8 | Aircore | 76 | 30 | 0 | -90 |
| OV075 | 373017 | 6245324 | 49.8 | Aircore | 76 | 33 | 0 | -90 |
| OV076 | 373022 | 6244858 | 48.6 | Aircore | 76 | 30 | 0 | -90 |
| OV077 | 372853 | 6244506 | 46.3 | Aircore | 76 | 24 | 0 | -90 |
| OV078 | 372936 | 6244108 | 51.5 | Aircore | 76 | 30 | 0 | -90 |
| OV079 | 361383 | 6250702 | 84.7 | Aircore | 76 | 39 | 0 | -90 |
| OV080 | 361365 | 6250860 | 85.2 | Aircore | 76 | 48 | 0 | -90 |
| OV081 | 361386 | 6251073 | 85.6 | Aircore | 76 | 42 | 0 | -90 |
| OV082 | 361364 | 6251281 | 86.2 | Aircore | 76 | 36 | 0 | -90 |
| OV083 | 361405 | 6251479 | 86 | Aircore | 76 | 36 | 0 | -90 |
| OV084 | 361363 | 6251676 | 87.4 | Aircore | 76 | 33 | 0 | -90 |
| OV085 | 365849 | 6248743 | 71.7 | Aircore | 76 | 42 | 0 | -90 |
| OV086 | 365835 | 6249144 | 71.3 | Aircore | 76 | 36 | 0 | -90 |
| OV087 | 365828 | 6249535 | 72.9 | Aircore | 76 | 42 | 0 | -90 |
| OV088 | 365821 | 6249945 | 73.5 | Aircore | 76 | 54 | 0 | -90 |
| OV089 | 358652 | 6251507 | 93.5 | Aircore | 76 | 159 | 0 | -90 |
| OV090 | 358639 | 6249132 | 90.5 | Aircore | 76 | 108 | 0 | -90 |
| OV091 | 358594 | 6250348 | 91.4 | Aircore | 76 | 156 | 0 | -90 |
| OV092 | 363813 | 6250601 | 79.3 | Aircore | 76 | 60 | 0 | -90 |
| OV093 | 372834 | 6260632 | 77.2 | Aircore | 76 | 176 | 0 | -90 |

Appendix 3 - Average Natural Downhole Gamma (cps) x Width (m)

| Hole ID | Depth From (m) | Depth To (m) | Width (m) | Avg Gamma (cps) | Avg. Gamma (cps) x Width (m) |
|---|---|---|---|---|---|
| OV047 | 25 | 32 | 7 | 247 | 1729 |
| OV048 | 23 | 29 | 6 | 167.45 | 1004.7 |
| OV049 | 23 | 27 | 4 | 194.25 | 777 |
| OV050 | 24 | 30 | 6 | 288.33 | 1729.98 |
| OV051 | 24 | 28 | 4 | 239 | 956 |
| OV052 | 21 | 24 | 3 | 152.1 | 456.3 |
| OV053 | 20 | 23 | 3 | 322.33 | 966.99 |
| OV054 | 23 | 26 | 3 | 284.33 | 852.99 |
| OV056 | 19 | 22 | 3 | 170.43 | 511.29 |
| OV057 | 27 | 31 | 4 | 138.1 | 552.4 |
| OV059 | 42 | 43 | 1 | 160 | 160 |
| OV060 | 43 | 44 | 1 | 132 | 132 |
| OV061 | 39 | 41 | 2 | 110.2 | 220.4 |
| OV062 | 36 | 37 | 1 | 133 | 133 |
| OV063 | 27 | 34 | 7 | 153.79 | 1076.53 |
| OV064 | 30 | 31 | 1 | 132 | 132 |
| OV065 | 36 | 39 | 3 | 98.17 | 294.51 |
| OV066 | 48 | 50 | 2 | 193.1 | 386.2 |
| OV080 | 30 | 32 | 2 | 132.25 | 264.5 |
| OV081 | 31 | 32 | 1 | 102 | 102 |
| OV083 | 23 | 24 | 1 | 115 | 115 |
| OV086 | 32 | 34 | 2 | 154.5 | 309 |
| OV087 | 35 | 37 | 2 | 160.8 | 321.6 |
| OV088 | 46 | 48 | 2 | 152 | 304 |
| OV090 | 18 | 19 | 1 | 120 | 120 |
| OV092 | 23 | 28 | 5 | 174.68 | 873.4 |
| OV093 | 41 | 42 | 1 | 98.2 | 98.2 |