## **ASX Announcement**

Released 8 April 2024



# Yeelirrie North Uranium Project Expanded by 368%

Several Large Radiometric Anomalies Staked Following Geophysical Data Review

#### **Highlights**

Airborne radiometric anomalies comparable to Yeelirrie and Dawson-Hinkler deposit signatures leads to exploration license applications of an additional ~554 km<sup>2</sup>

The Company's highly prospective Yeelirrie North Uranium Project increased 368% to ~761 km<sup>2</sup>

Newly applied for tenements are adjacent to one of the world's largest high-grade undeveloped uranium deposits, Yeelirrie, containing 128.1Mlb  $U_3O_8$  at an average ore grade of 1500 ppm  $U_3O_8^{-1}$ 

The Yeelirrie uranium deposit was purchased by Cameco Corporation (NYSE: CCJ) from BHP (ASX: BHP) in 2012 for \$430 M USD<sup>2</sup>

12 new U target areas have now been identified for follow up calcrete mapping and sampling

Infini positioned to become one of the largest landholders in the region alongside Cameco

**Infini Resources Ltd** (ASX: **I88**, "Infini" or the "Company") is pleased to announce the staking of four large extensions of radiometric anomalism at its 100% owned Yeelirrie North uranium project, located in Western Australia. The identification of this expansion opportunity follows the appraisal of regional radiometric data as part of an ongoing desktop geophysical study being undertaken (refer to ASX announcement (15 January 2024).

Infini CEO Charles Armstrong said: "The Yeelirrie North Project expansion represents an excellent low-cost opportunity for the Company, timed when the uranium sentiment in Western Australia is experiencing positive change. Following rigorous geophysical desktop studies, the Company has acted swiftly to expand its exploration footprint at Yeelirrie to include radiometric anomalism adjacent to the Company's existing license (E 53/2188). The four new areas have now been applied for and await a standard assessment period by the Department of Mines and Petroleum (DMP). The pending exploration licenses cover areas of highly anomalous U/Th that also correlate strongly with interpreted calcrete/leached regolith horizons in aerial imagery. The total target exploration inventory at Yeelirrie North has now grown to an impressive twelve areas (T1-T12) in a very short amount of time.

These licenses now provide the Company with the opportunity to potentially discover new uranium occurrences on the doorstep of the world class Yeelirrie Uranium Deposit. The new ground was staked for a nominal application cost, and we are excited to have enhanced the prospectivity of the asset considerably."



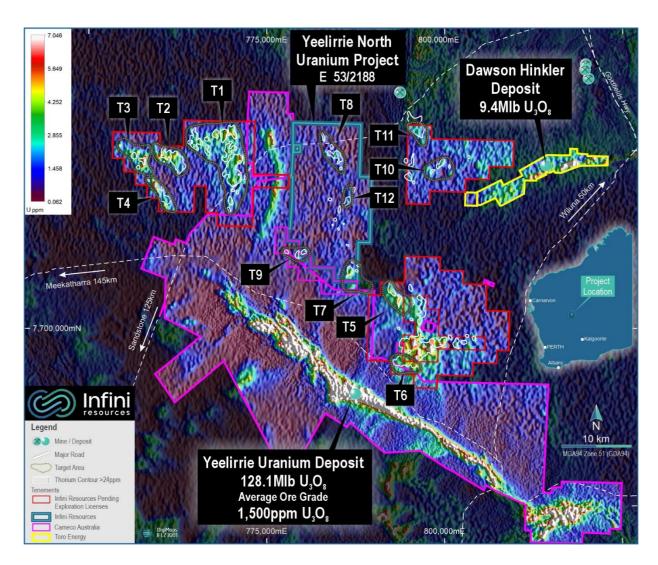


Figure 1 Location of the newly staked exploration licenses (highlighted red) at the world-class Yeelirrie uranium camp showing the geological rationale with extensive and coincidental uranium-thorium anomalism identified in regional radiometrics.

#### **Geophysical Desktop Studies**

Further to the Company's announcement on 15 January 2024, additional regional radiometric data has been received and appraised which includes several historical airborne geophysical surveys commissioned during the period of 1994-2010 by historical explorers and government bodies including: BHP Billiton,  $U_3O_8$  Ltd, Normandy Exploration, Echelon Resources, Abelle Ltd, GSWA and Geoscience Australia. The geophysical data sets were successfully reprocessed and analysed to produce the above radiometric Targeting map (Figure 1). The studies are ongoing and continue to progress well with the expectation of a regional litho-structural interpretation to provide valuable geological knowledge on the size and location of any paleochannels that may host new undiscovered uranium deposits at Yeelirrie.

#### **Liberal Party and Stakeholder Lobbying Underway**

The Company is aware of and supports current lobbying underway by several stakeholders including the Chamber of Commerce and Industry of Western Australia's (CCIWA) call to overturn the state uranium mining ban<sup>3</sup>. A study highlighted by the Chamber has shown that Western Australia alone could produce more than A\$1bn in revenue a year<sup>3</sup>. In addition, the WA Liberal Leader Libby Mettam has pledged if elected next year to overturn the WA Labor Government's 2017 ban<sup>4</sup>. Directives on the nature of uranium exploration in Western Australia by the DMP emphasise that uranium exploration itself is not banned<sup>5</sup>.

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#### **About Yeelirrie North Uranium Project**

The Yeelirrie North Project currently consists of exploration license E53/2188, covering an area of 70 Blocks ( $\sim$ 207km²), located approximately 70km southwest of Wiluna, Western Australia. If successfully granted, the new exploration license applications will see the Company's Project size increase by an additional  $\sim$ 554km², to a total area of  $\sim$ 761km². The Yeelirrie Project is located near the northern extremity of the Archaean Norseman Wiluna greenstone belt of the Yilgarn Craton, Western Australia. The project is highly prospective for hosting high-grade Uranium mineralised calcrete and lies within the same geological domain as the world class Yeelirrie Uranium Deposit hosting 128.1Mlb U $_3$ O $_8$  at an average ore grade of 1500 ppm U $_3$ O $_8$ . The Yeelirrie deposit is one of only four uranium deposits permitted to be mined by the Western Australian government prior to the state's 2017 ban on new uranium mining<sup>6</sup>.

#### References

- 1 Yeelirrie Reserves and Resources. Sourced from: https://www.cameco.com/businesses/uranium-projects/yeelirrie
- 2 Cameco Acquires Yeelirrie Uranium Project in Western Australia August 26, 2012. Sourced from:
- https://www.camecoaustralia.com/library/news/cameco-acquires-yeelirrie-uranium-project-in-western-australia
- 3 Chamber of Commerce calls for lift of Western Australian mining ban. Sourced from: https://www.mining-technology.com/news/chamber-calls-for-lift-of-western-australia-mining-ban/
- 4 WA Australian Liberal Leader vows to overturn uranium mining ban if elected. Sourced from:
- https://www.watoday.com.au/national/western-australia/wa-liberals-leader-vows-to-overturn-uranium-mining-ban-if-elected-20240314-p5fcg4.html
- 5 Community education guide to Uranium in Western Australia. Sourced from:
- https://www.dmp.wa.gov.au/Documents/Community-Education/Guide\_to\_Uranium\_in\_Western\_Australia.pdf
- 6 Uranium mining in Western Australia. Current Projects. Sourced from: https://www.dmp.wa.gov.au/Uranium-1459.aspx

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Release authorised by the Board of Infini Resources Ltd.

#### **Contacts**

Charles Armstrong Chief Executive Officer P: +61 (08) 9465 1051

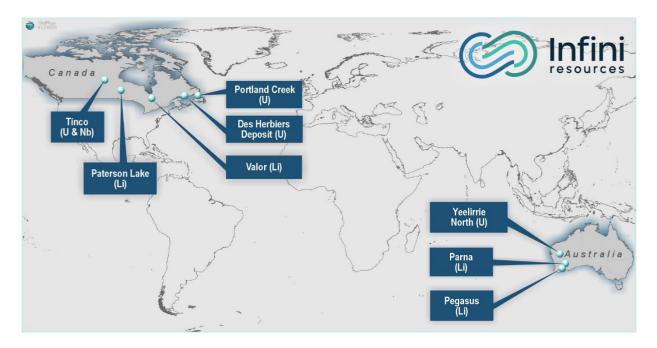
#### **About Infini Resources Ltd (ASX: I88)**

Infini Resources Ltd is an Australian energy metals company focused on mineral exploration in Canada and Western Australia for uranium and lithium. The company has a diversified and highly prospective portfolio of assets that includes greenfields and more advanced brownfields projects. The company's mission is to increase shareholder wealth through exploration growth and mine development.

JOR 2012 Mineral Resource Deposit Name	JORC 2012 Classification	Tonnes and Grade
Des Herbiers (U)	Inferred Combined Resource	162 Mt @ 123ppm U <sub>3</sub> O <sub>8</sub> (43.95mlb)

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

The information contained in this announcement that relates to exploration results is based on, and fairly represents, information and supporting documentation prepared by Dr Andy Wilde, who is a fellow and registered professional geoscientist (#10092) of the Australasian Institute of Geoscientists (AIG). Dr Wilde has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person, as defined in the JORC 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Dr Wilde has 35 years' experience and is a consultant Geologist for Infini Resources Ltd. Dr Wilde consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

This report contains information on the Yeelirrie North Uranium Project extracted from the Company's Prospectus dated 30 November 2023 and released to the ASX market announcements platform on 10 January 2024, and announcements dated 15 January 2024 reported in accordance with the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). The original market announcements are available to view on www.infiniresources.com.au and www.asx.com.au. The Company is not aware of any new information or data that materially affects the information included in the original market announcement.

This report contains information regarding the Des Herbiers Mineral Resources Estimate extracted from the Company's Prospectus dated 30 November 2023 and released to the ASX market announcements platform on 10 January 2024, reported in accordance with the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). The Company confirms that it is not aware of any new information or data that materially affects the information included in any original announcement and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The original market announcements are available to view on www.infiniresources.com.au and www.asx.com.au.

#### **Forward Looking Statements**

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Infini Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Infini Resources Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.



# JORC Code, 2012 Edition - Table 1

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul> <li>Seven historical airborne electromagnetic/radiometric/magnetic surveys were commissioned during the period of 1994-2010 by historical explorers and government bodies including: BHP Billiton, U₃O₀ Ltd, Normandy Exploration, Echelon Resources, Abelle Ltd, GSWA and Geoscience Australia. Flight line spacings varied from 50m-400m and probe platform heights from 25-50m. Flight line directions varied with geological strike and included the range of 033-180 °.</li> </ul>
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	
	<ul> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	Not relevant as no drilling undertaken.



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	Not relevant as no drilling undertaken.
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	
	<ul> <li>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.</li> </ul>	
Logging	<ul> <li>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.</li> </ul>	Not relevant as no logging undertaken.
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	
	<ul> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	Not relevant as no sampling undertaken.
and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	<ul> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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 and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Not relevant as no sampling undertaken.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	• Where appropriate the company has converted original ppm U assay data to ppm $U_3O_8$ using the conversion factor of 1.1792.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All maps and location data are in MGA Zone 50 GDA 94</li> <li>Navigation for the airborne surveys was carried out using a GPS receiver, an AGNAV2 system or similar for navigation control, and an RMS DGR-33 data acquisition system or similar which recorded the GPS coordinates.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The airborne survey flight line spacings varied from 50m – 400m.</li> <li>All surveys were used together in a merged raster which is appropriate to the definition and assessment of regional radiometric anomalies for ground follow-up.</li> </ul>



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul> <li>The flight line directions are considered appropriate for the direction of regional striking geology and are considered unbiased for the purposes of delineating geophysical target</li> </ul>
structure	<ul> <li>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.</li> </ul>	areas for ground truthing
Sample security	The measures taken to ensure sample security.	Not relevant as no sampling undertaken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not relevant as no reviews or audits carried out.

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

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Yeelirrie North uranium project newly staked areas include four pending exploration licenses (E 53/2335, E 53/2336, E 53/2337 and E 53/2338). These licenses are now in a standard notice/ assessment period by the DMP. The company is not aware of any reason why these claims would not be granted following the assessment period, access, and heritage agreement processes.</li> </ul>



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Very minimal exploration work has been conducted on the Yeelirrie North Project. Encounter Resources Ltd conducted a small amount of shallow AC and RC drilling towards the north- western side of the tenement (exercised area, outside the current tenement area). The assessment of historical exploration data is an ongoing process for the Company.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The target uranium deposit type is surficial calcrete hosted e.g. Yeelirrie. The geological setting for these deposits is typically within shallow sheet like bodies corresponding to ancient paleochannel systems that sit on or beneath the water table. The controls on these deposits are likely related to structures such as faults and shears that intersect the bedrock and influence ground water flow and weathering.</li> <li>Infini's exploration licenses intersect the Yilgarn Craton, Tuckanarra and Jungar Suite meta-granites which are the same protoliths to the Yeelirrie Uranium Deposit. The licenses are therefore considered highly prospective for hosting high grade calcrete hosted uranium deposits.</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	Not relevant as no drilling has been undertaken by the company and assessment of historical exploration activities is ongoing.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> </ul>	Not relevant as no exploration results are being reported.
	<ul> <li>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 aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	Not relevant as no exploration results are being reported.
mineralisation widths and	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	
intercept lengths	<ul> <li>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').</li> </ul>	
Diagrams	<ul> <li>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.</li> </ul>	Appropriate diagrams are included in the main body of this announcement. No significant discovery is being reported.
Balanced reporting	<ul> <li>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.</li> </ul>	Reporting of all historical assay and geophysical results is considered balanced with results of both low and high values reported.

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Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>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.</li> </ul>	No additional meaningful and material exploration data has been excluded from this announcement.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	<ul> <li>Infini plans to conduct a site visit to collect new rock samples over the newly identified target areas T1-T12.</li> </ul>
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Review of uranium targets at the Yeelirrie North Project is ongoing, with key target areas considered for geological mapping and surface sampling.</li> </ul>
		<ul> <li>Appropriate diagrams are included in the main body of this announcement.</li> </ul>