

Minerals critical for the energy transition

IMARC/Mines & Money Presentation

2 – 4 November 2022



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The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this presentation has been presented in accordance with the JORC Code and references to "Inferred Resources" and "Indicated Resources" are to those terms as defined in the JORC Code.

Information in this presentation relating to Exploration results and Mineral Resources is based on information compiled by Mr Lauritz Barnes (a consultant to Aurora Energy Metals Limited and a shareholder) who is a member of The Australian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists. Mr Barnes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes consents to the inclusion of the data in the form and context in which it appears.

Previous Disclosure:

Information in this announcement is based on the following Aurora Energy Metals Limited Announcements, which are available from the Company's website, www.auroraenergymetals.com.au or the ASX website.

- 16 May 2022 Prospectus
- 16 June 2022 Encouraging lithium assays received
- 27 September 2022 Aurora Energy Metals Project Update
- 19 October 2022 Drilling to Commence at Aurora Energy Metals Project

This announcement has been authorised for release on the ASX by Greg Cochran, Managing Director.





Unique Uranium & Lithium Focus

A project with uranium and lithium mineralisation in separate geological horizons

Minerals critical for the energy transition

Demand expected to increase with shift away from fossil fuels

Significant testwork and exploration programs planned

Uranium metallurgical testwork and studies; lithium exploration program

Experienced board and management

Extensive industry experience with a history of project development and value accretion

Corporate Overview



Well funded advanced explorer with a tight capital structure

Capital Structure (on an undiluted basis, as at 28 October 2022)

1AE

ASX Code

A\$28M

Market Cap (at A\$0.195 per share)

~A\$6.2M

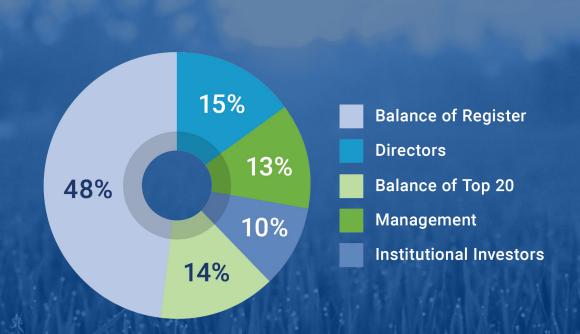
142.6m

Shares on Issue (inc. 26m escrowed)

8.8m

Options (6m @ \$0.20; rest at \$0.30)

~A\$21.8m
Enterprise Value





Board & Management

Extensive industry experience with a history of project development and value accretion



A mining engineer with over 40 years' industry experience. Has held senior executive positions with North Ltd, Newcrest Mining Limited, Oxiana/Oz Minerals Limited and Citadel Resource Group Limited. Peter's experience covers operations, projects and business development and general corporate activities including financial services.

He has served on several ASX listed and private mining boards and is currently Non-Executive Chairman of White Rock Minerals Ltd and Helix Resources Ltd and previously of Kidman Resources Ltd and Doray Minerals Ltd.

Peter is a member of the AICD and the AusIMM and holds a B.E. (Mining hons).



A highly experienced international mining executive with over 30 years' experience in technical and commercial roles, general management and executive positions globally.

Most recently, Greg was CEO of Reward Minerals and prior to that Managing Director of Namibian-focussed uranium developer Deep Yellow Limited (2011-16). He has extensive uranium experience, having also spent four years with Uranium One Inc (2006-09).

He is a graduate member of the AICD and a Fellow of the AusIMM. He holds a MSc. in Mining Engineering and Mineral Economics from the University of the Witwatersrand and an MBA from Cranfield School of Management (UK).



Mr Cooke has over 30 years' experience in resource exploration and mining throughout Australia and internationally, initially as part of BHP Minerals Business Development Group and the last 20 years managing public resource companies as part of the Mitchell River Group (MRG).

MRG successfully incubated numerous resource companies and developed mining operations over the past twenty years, including Sally Malay Mining (now Panoramic Resources), Albidon, Mirabela Nickel and Exco Resources.

He holds a first-class honours degree in Geology and a bachelor's degree in Science from the University of Western Australia and is a member of the Australian Institute of Geoscientists.



A member of CPA Australia who graduated from the University of Western Australia in 2008 with a Bachelor of Economics. Majored in International Business Economics and Money and Banking.

Project Location and Highlights

Aurora Energy Metals Project

WA

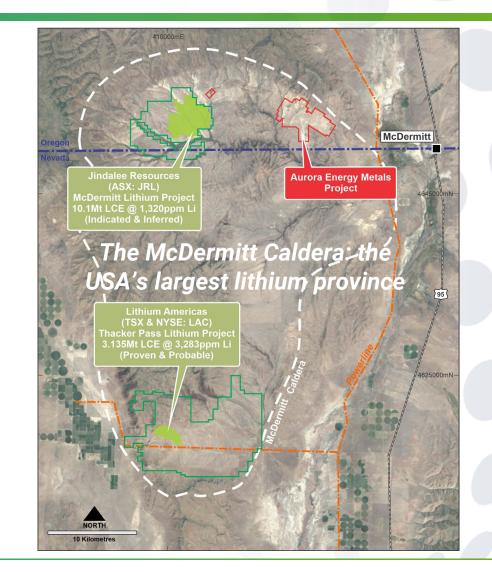
- Located in south-eastern Oregon, USA.
- Well-defined existing Uranium Mineral Resource of 69.3Mt @ 248 ppm eU₃O₈ for 37.9Mlb eU₃O₈.
- Confirmed lithium mineralisation in sediments overlying and surrounding the uranium resource.
- Close to the two largest US lithium projects.
- Proximal to Tesla's Gigafactory 1, near Reno, Nevada.
- Excellent infrastructure.
- Low-risk jurisdiction with bipartisan support for minerals critical to the world's energy transition.
- Well understood regulatory and permitting process with State and Federal agencies.



Aurora Energy Metals Project ("AEMP") Geological Overview



- Located in the McDermitt Caldera, the USA's largest lithium province, on federal land.
- An existing, well-defined, significant Uranium Mineral Resource in shallow volcanics, with a high grade core at unconformity, below overlying lakebed sediments.
- Lithium mineralisation intersected above the uranium resource (e.g. 9.1m @ 2,414 ppm Li from 21.9m, 7.3m @ 2,431 ppm Li from 50.3m) hosted in lakebed sediments.
- Lakebed sediments thicken (~200m) in all directions beyond the uranium resource.
- Lithium mineralisation similar to nearby projects, such as Jindalee Resources'
 McDermitt Li Project¹ (ASX:JRL, Indicated & Inferred MRE 1.43Bt at 1,320ppm Li for 10.1Mt LCE).
- Potential for two geologically separate resources to be simultaneously delineated and developed, providing commodity diversification and economies of scale.

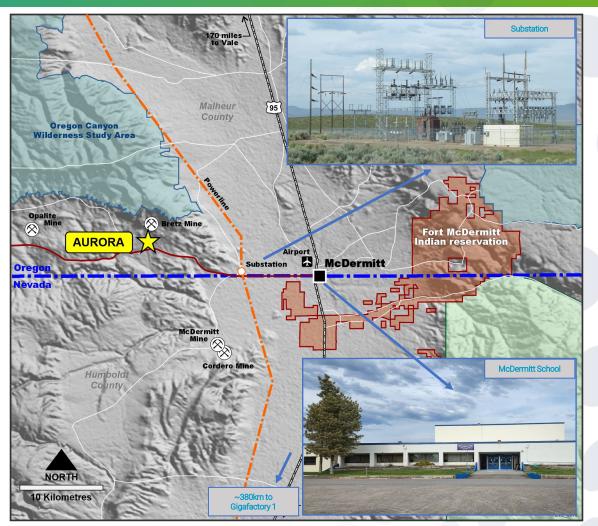


1. Refer Jindalee Resources ASX Announcement 8 April 2021

AEMP – Uranium and Project Infrastructure



- Volcanic-hosted deposit, discovered in 1979.
- Over 600 drillholes completed, plus extensive metallurgical testwork and studies.
- Near surface, flat-lying geometry amenable to very low strip ratio open-pit mining.
- Low-cost mining possible due to free-dig lake sediment overburden.
- Majority of uranium contained within fine fraction, amenable to low-cost scrubbing and screening upgrades.
- Excellent infrastructure with sealed roads and low-cost renewable power (hydro) nearby tangible ESG advantage.
- A historic mining district.



Excellent infrastructure

AEMP – Uranium



- Previous studies demonstrated a conventional open pit mine:
 - Shallow, low-strip ratio operation.
 - Overburden potentially free-dig.
- Indicated Resource: 36.7 Mlb U₃O₈ at 253 ppm eU₃O₈.
- Partial conversion to Measured close to finalised.

- Higher grade, upper core zone of 18 Mlb at 444 ppm eU₃O₈.
- On-site full or partial processing plants.
- Overburden is mineralised lakebed lithium sediments, which when removed could be stockpiled and processed later.

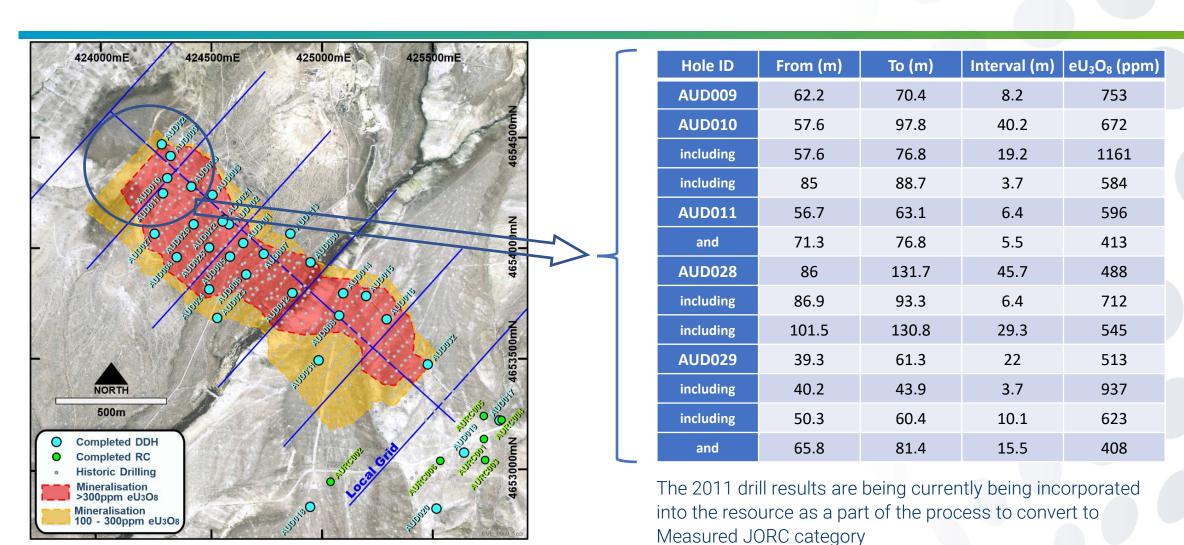


Previous Conceptual Layout (Uranium Only)

AEMP – Uranium – Potential Resource Upside

Location of 2011 drill holes overlain on imagery and resource outline

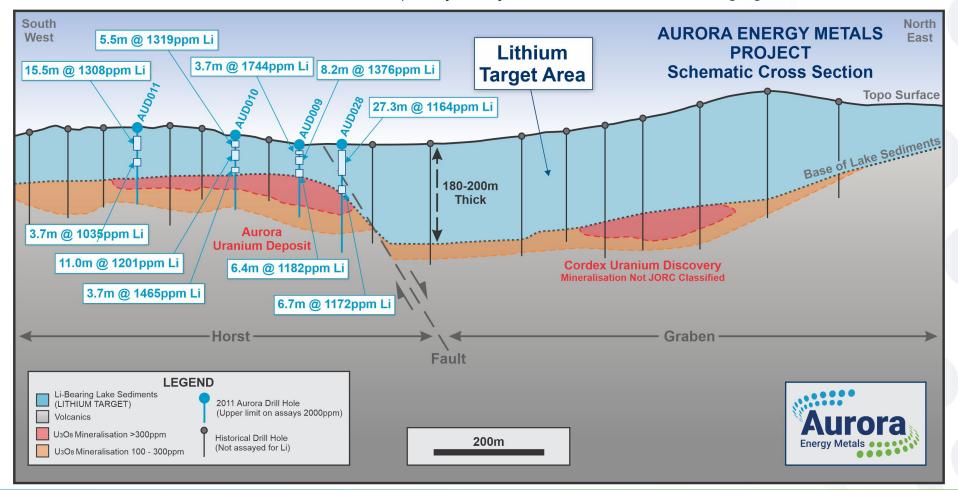




AEMP – Uranium <u>and</u> Lithium



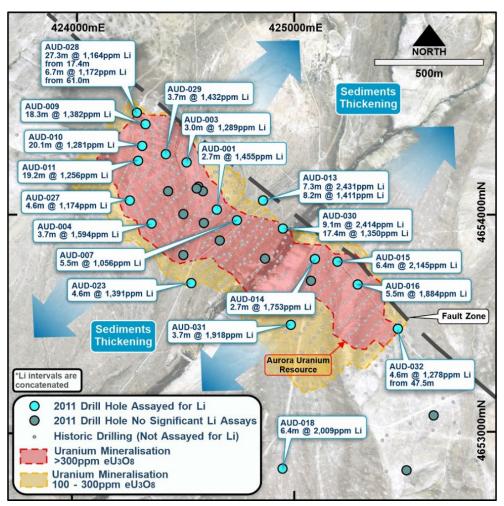
- Historically, uranium was the only target from the 1970's, although lithium was known to occur in the area
- 1AE's 2010 diamond core holes were therefore subsequently assayed for lithium, with encouraging results

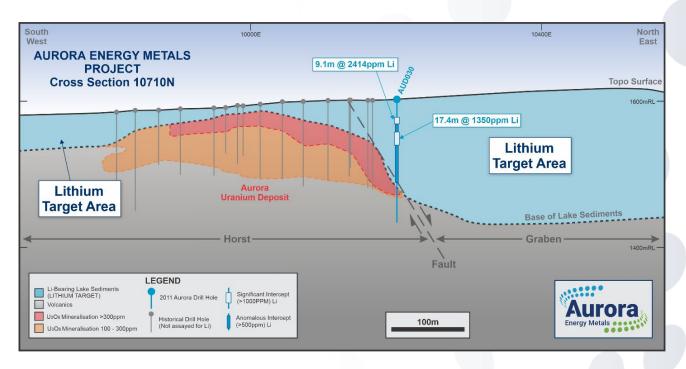


AEMP - Lithium



• The remaining core, securely stored for 10 years, has now been assayed for lithium, returning encouraging results



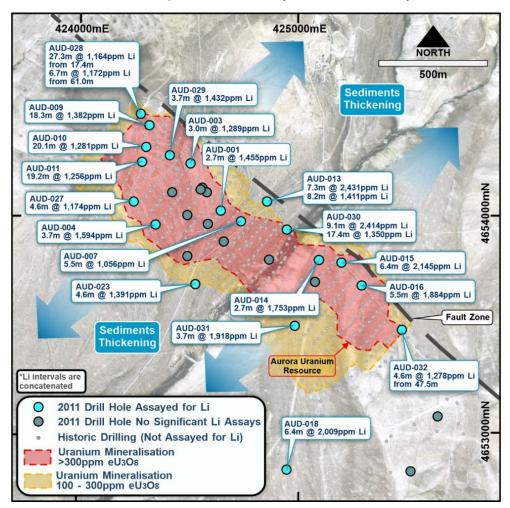


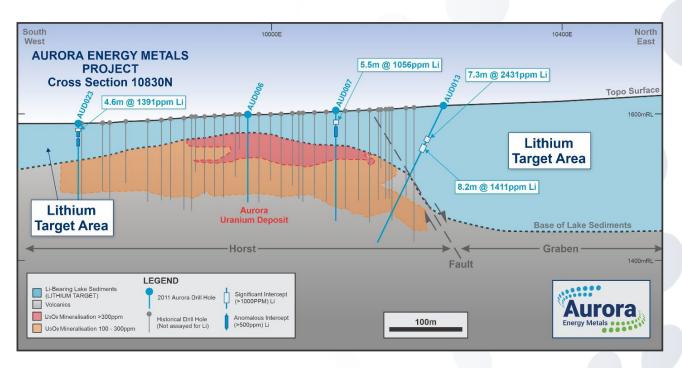
Note: 2414 ppm Li = 0.520% Li₂O

AEMP - Lithium



• The remaining core, securely stored for 10 years, has now been assayed for lithium, returning encouraging results



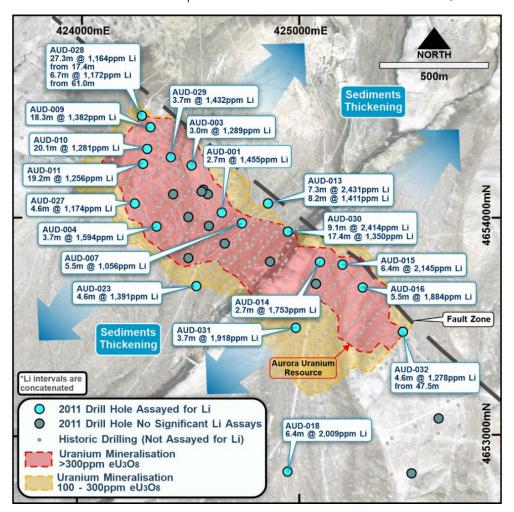


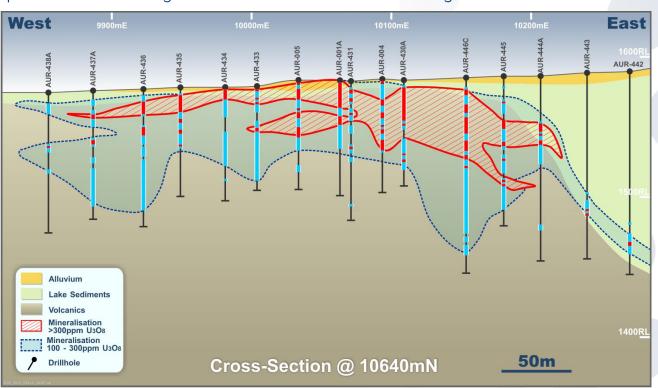
Note: 2431 ppm Li = 0.523% Li₂O

AEMP – Lithium



• The uranium deposit often runs close to surface, which explains the lack of significant lithium intersections along the centre line





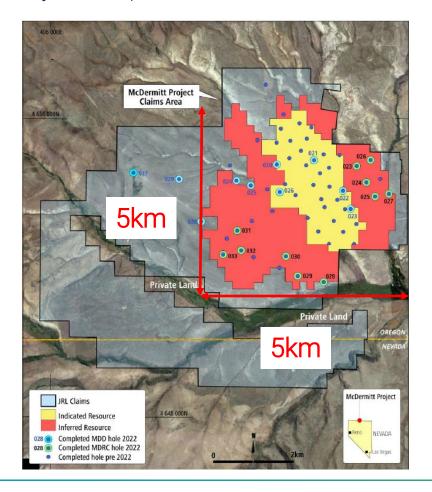
Uranium Cross-Section 10640mN (Local Grid)

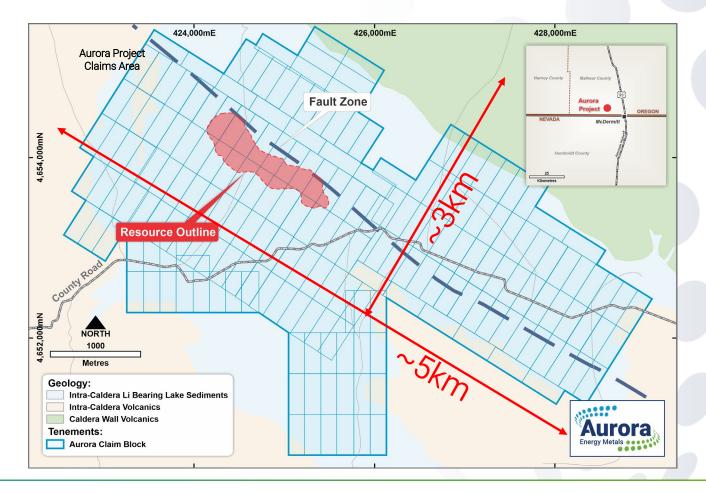
Looking Northwest – Placer Drilling

AEMP – Lithium Exploration Potential



• AEMP's current claim area is similar in size to Jindalee's McDermitt Lithium Project and the Aurora Uranium Deposit is only a small part of the claim area

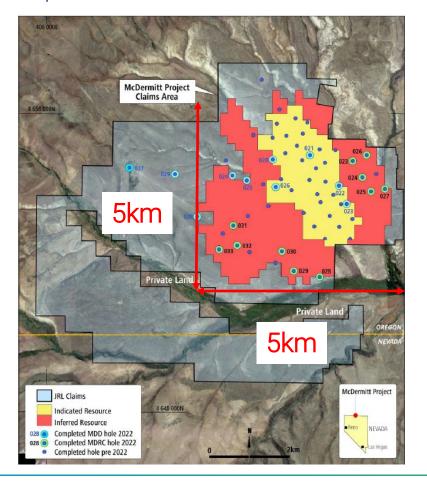


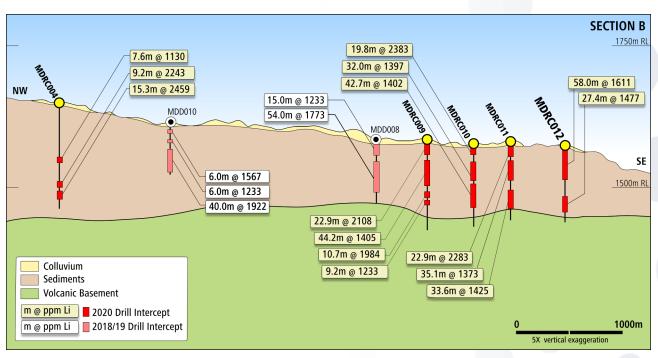


McDermitt Lithium Project - Jindalee



• Jindalee's exploration program has demonstrated that lithium is present in wide intersections from close to/at surface to depths of well over 100 metres



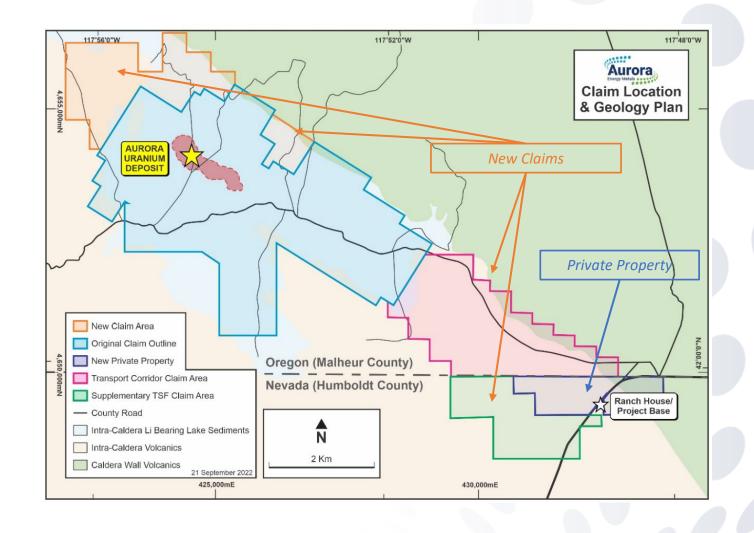


A typical McDermitt Project Cross Section

Private Property Purchased and New Claims Staked



- 410-acre private property purchased in Nevada for plant and related infrastructure.
- Property serviced by excellent infrastructure with easy access to the AEMP.
- Offers tangible environmental, permitting and operational advantages.
- Nevada is a top tier mining jurisdiction.
- Ranch house purchase for Project Operations base.
- Additional claims staked to extend area of lakebed sediments.
- Claims also staked leading back to Nevada & in Nevada for transport corridor.



Drilling underway



- Drilling team mobilised 24 October.
- Phase 1, 17 hole RC Program for ~3,400m
- Program targeting uranium extension & testing aerial extent of lithium lakebed sedimants.
- To be completed by December.
- BLM approval obtained for remainder of FY2022/23 drill program.
- Total holes planned:
 - RC holes 47
 - Diamond 21
- DOGAMI (Oregon regulator) applications being prepared.



First hole to be drilled since 2011 program

Work Plan – Uranium News flow





- Phase 2 DOGAMI diamond drill permitting for existing uranium resource area (Q4 CY2022).
- Partial convert of existing mineral resource to Measured status (imminent).
- RC drill program to test potential resource extension (Q4 CY2022).
- Metallurgical testwork review (Q4 CY2022).
- DD program to generate core for metallurgical testwork (H1 CY2023).
- Metallurgical testwork (H1 CY2023)
- Pre-Feasibility Study (H1/H2 2023).



Current drilling program

Work Plan – Lithium News flow





- Phase 2 DOGAMI RC drill permitting for to extend area of known mineralisation (Q4 CY2022).
- RC drill program to extend area of known mineralisation (Q4 CY2022).
- Drill program (H1 CY2023).
- Define lithium exploration target (assuming success from drill program) (H1 CY2023).
- Preliminary metallurgical testwork (H1 CY2023).
- Targeting maiden lithium mineral resource (H1 CY2023).



Current drilling program



Investment Proposition









Four key reasons to invest in Aurora Energy Metals

Minerals critical for the energy transition

Large advanced project with dual commodity focus

Accelerated exploration program planned

Quality management team



Appendices

Uranium Resource Summary



- Total Resource of 38 Mlb @ 248 ppm eU₃O₈*.
- Indicated Resource of 36.7 Mlb @ 253 ppm eU₃O₈*.
- Shallow high-grade zone, Indicated Resource of 18 Mlb @ 444 ppm eU₃O₈*.
- High grade zone surrounded by low grade mineralisation; extends mineralised zone at depth.

	Indicated Resource			Inferred Resource			Total Resource		
Resource Zone	Mt	eU ₃ O ₈ ppm	Mlb eU ₃ O ₈	Mt	eU ₃ O ₈ ppm	Mlb eU ₃ O ₈	Mt	eU ₃ O ₈ ppm	Mlb eU ₃ O ₈
High Grade Zone ¹	18.4	444	18.0	-	-	-	18.4	444	18.0
Low Grade Zone ²	47.3	179	18.7	3.6	151	1.2	50.9	177	19.9
Total	65.7	253	36.7	3.6	151	1.2	69.3	248	37.9

- 1. High grade zone estimated using a 300 ppm eU₃O₈ cut-off
- 2. Low grade zone estimated using a 100 ppm eU_3O_8 cut-off

Notes:

- 1. Appropriate rounding applied
- 2. The term eU_3O_8 refers to an equivalent uranium oxide grade that is based on the conversion of a radiometric gamma log determination of radioactive mineral abundance to a calculated uranium content. True U_3O_8 values are obtained from direct chemical assay results.

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Information in this announcement relating to Mineral Resources is extracted from the Prospectus released by the ASX on 16 May 2022. Aurora Energy Metals Limited confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed. Aurora Energy Metals Limited confirms that the form and context in which the Competent Persons' findings are presented in this announcement have not been materially modified from the original market announcement.



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