

DRILLING COMMENCED AT THE BENMARA BATTERY METALS PROJECT, NT

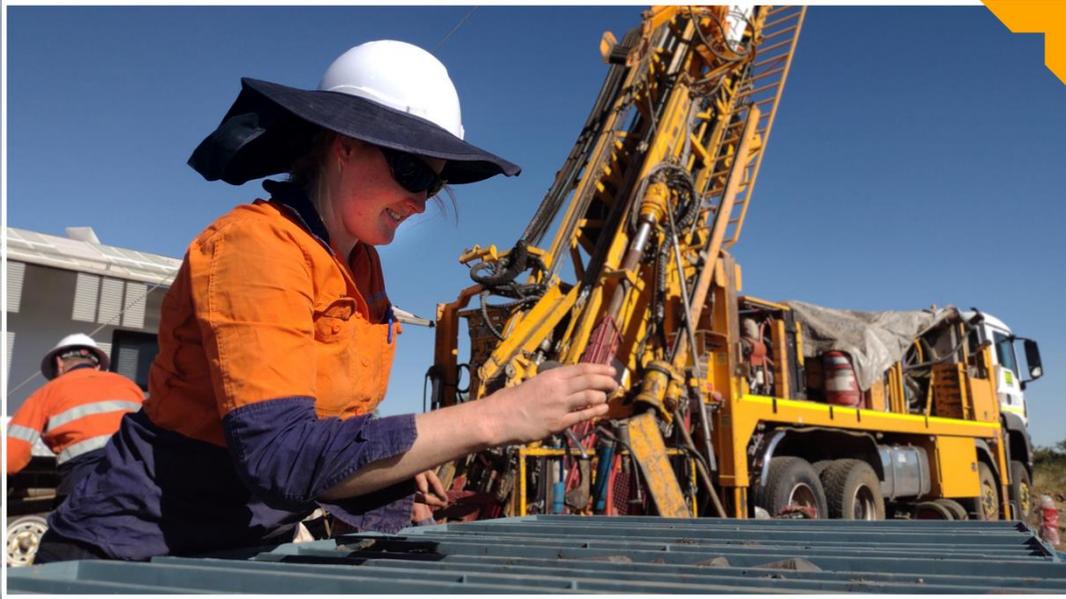


Figure 1. RML geologist reviewing diamond core from hole #23BNM001 at the Benmara Battery Metals Project

HIGHLIGHTS

- Drilling has commenced on two 1,000m deep stratigraphic diamond core drill holes at the Benmara Battery Metals Project in the Northern Territory
- The drill holes have been designed to identify prospective age host rocks and test for battery metals mineralisation and will improve RML's understanding of this underexplored region
- The drill program is fully funded via a Farm-in & JV Agreement with the BHP Group for expenditure of up to \$4m in stages over five years for the BHP Group to earn an initial 51% interest
- \$150,000 was recently awarded to the program costs through the Geophysics and Drilling Collaborations program, funded by the Northern Territory Government
- The program is expected to take approximately two months to complete

"The South Nicholson Basin is one of the last relatively underexplored sedimentary basins left in Australia, so it is exciting to be commencing a drilling program to test high-priority targets and gather new data to understand the base metal potential of the district. I would also like to acknowledge the value of our partnership with BHP, not just in funding this program, but also the expertise and support in working to develop a program that will give us the best chance of making a significant discovery in this region."

- **Chris McFadden**, Managing Director, Resolution Minerals

CAPITAL STRUCTURE

Ordinary Shares
Issued 1,257 M

Options and rights
Listed options 74 M @ 12c
Listed options 625 M @ 1.5c
Unlisted options 79 M @ 3c
Unlisted options 83 M @ 0.8c
Unlisted performance rights 101 M

Last Capital Raise
Apr-23 - Placement
\$0.8M @ 0.5c

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BOARD

Duncan Chessell - Chairman
Chris McFadden - Managing Director
Dr Paul Kitto - Technical Director
Jarek Kopias - Co Sec, CFO

DETAILS

Resolution Minerals Ltd (**RML** or **Company**) (ASX: RML) is pleased to announce that the Company has commenced drilling two 1,000m deep stratigraphic diamond core drill holes at the Benmara Battery Metals Project in the Northern Territory. The project is highly prospective for sediment-hosted copper, cobalt and other base metals and is a key project in RML's search for new energy metals.

The drill targets have been designed to test the Fish River and Bauhinia faults. These fault zones provide an ideal location for mineralised fluids to focus and precipitate metals in reductive trap sites. This is evidenced by the formation of the nearby Walford Creek Deposit (Cu-Pb-Zn-Ag-Co) and the Century Mine (Pb-Zn-Ag) in Queensland, which share equivalent host rocks and similar structural settings (**Figure 2**).



Figure 2. The Benmara Battery Metals Project and the drill targets

While the design of the drill holes has been optimised for intersecting mineralisation, the 1,000m deep holes are stratigraphic in nature and have also been positioned to give a better understanding of the rock units present at depth. This new data will contribute to the RML and BHP Exploration Teams' comprehension of the underlying geology and regional prospectivity of the Benmara Project.

The Benmara Project is situated on the northern portion of the underexplored South Nicholson Basin and is, in many respects, a new geological frontier. Until recently, the Benmara Group was thought to be much younger. In 2020, geochronology published by Geoscience Australia demonstrated that this belief was incorrect and, more importantly, that the Benmara Group is Paleoproterozoic rather than Mesoproterozoic. This means the rocks are stratigraphically and temporally equivalent to the prospective Fickling Group (host rock to the Walford Creek Deposit) and the McNamara Group (host rock to the Century Mine). The Exploring for the Future Initiative also found evidence of a regional shallow-marine hydrothermal circulatory system and the potential for associated base metal mineral systems coinciding with the Benmara Project. The hydrothermal system shares its age with the base metal mineralisation in the resource-rich Mount Isa Province and further supports the prospectivity of the Benmara Project.

Resolution was an early mover in this relatively unexplored basin and has secured a ground position of over 3,000km². This drilling program is the first phase of a multi-year program designed by RML in collaboration with the exploration team from the BHP Group, designed to discover a Tier 1 battery metals deposit.

The drilling program is fully funded via a farm-in agreement with the BHP Group and has been supplemented by a \$150,000 grant from the *Resourcing the Territory Initiative*.



Figure 3. Hole#23BNM001, Benmara Battery Metals Project

DRILL TARGETS IN DETAIL

The planned drilling will include two stratigraphic diamond drill holes;

Hole#1 (Commenced HoleID:23BNM001) will test for evidence of battery metal mineralisation processes along the Fish River Fault Zone, where reductive carbonaceous siltstones of the Benmara Group onlap the northern margin of the South Nicholson Basin. The position of the Fish River Fault is evident in both 3D magnetic and gravity inversions, where it coincides with the southern margin of the Murphy Province Basement.

Stratigraphic and structural comparison can be made with the Walford Creek Deposit, positioned to the east on the Fish River Fault Zone, just across the Queensland border. At Walford Creek, the basin fluids migrated up the Fish River Fault and progressively precipitated battery metals as they encountered reductive sedimentary units. For this reason, the best battery metal occurrences are found in the lower (deeper) reductive units against the fault. The primary aim of Hole#1 is to test deeper reductive rock units, adjacent to the Fish River Fault, beneath 21BM009 (**Figure 4**), a 156m RC drill hole, which intersected intense, pervasively altered carbonaceous siltstone and a significant chert horizon in 2021 (*RML ASX announcement 3/12/2021*). This RC hole demonstrated the migration of hydrothermal fluids is occurring along the Fish River Fault at Benmara.

Furthermore, chert horizons are present above mineralisation at Walford Creek, suggesting a deep hole could encounter battery metal mineralisation at Benmara. Unlike Walford Creek, the 3D magnetic and gravity inversions have defined a potential sub-basin along the Fish River Fault, which could provide a larger trap site and focus for mineralisation. Once the presence of mineralised Benmara Group is validated, this opens up a large search space along the Fish River Fault Zone, including **50km of strike length** within RML's ground.

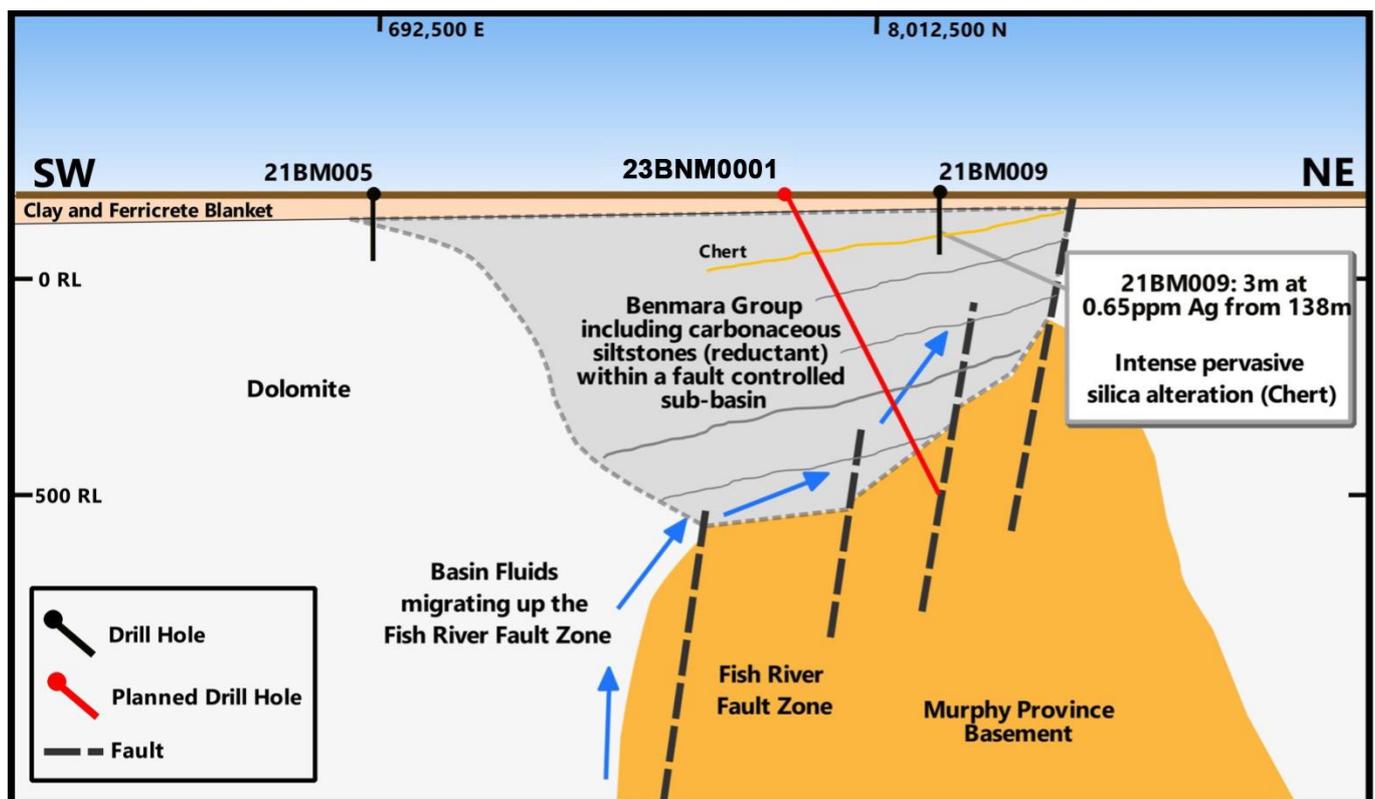


Figure 4. Cross Section of proposed Hole#1 with Murphy Province Basement interpreted from 3D magnetic and gravity inversions and the Fish River Fault, which provides a conduit for metal bearing fluids to intersect onlapping Benmara Group (reductants) within a sub-basin.

Hole#2 will test for evidence of battery metal mineralisation processes associated with a splay fault off the major Bauhinia Fault Zone within the South Nicholson Basin (**Figure 5**). Although there is only limited outcrop at the surface, these structures are evident on seismic line 17GA-SN5, which was acquired by Geoscience Australia in 2017 as part of the Exploring for the Future (EFTF) Initiative.

The primary aim of the drill hole is to provide stratigraphic constraint for the Benmara Group (Fickling, McNamara and McArthur Group equivalent) interpreted from the seismic line. The Benmara Group hosts reductive carbonaceous siltstone units, which are potential trap sites for battery metal mineralisation. The Benmara Group is being targeted proximal to the Bauhinia Fault Zone, which potentially provided a fluid conduit for metal-bearing, oxidised hydrothermal fluids. Once the presence of the Benmara Group is validated, this opens up a large search space along the Bauhinia Fault Zone, including **35km of strike length** within RML's ground. This interpretation is supported by 3D magnetic and gravity inversions completed by RML.

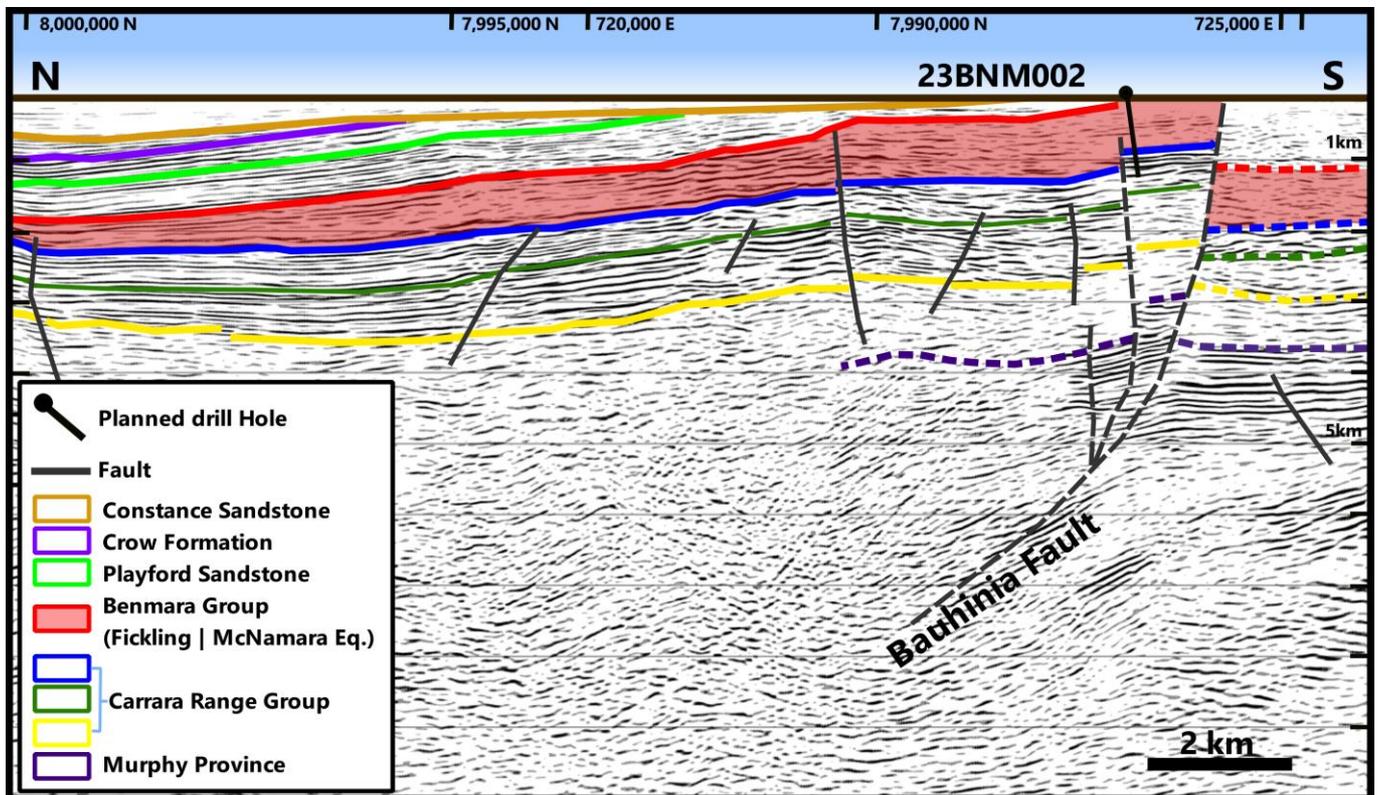


Figure 5. Cross Section of proposed Hole#2 with GA seismic line 17GA-SN5 background and geological interpretation. The Benmara Group is host to reductive units (carbonaceous siltstones) adjacent to the Bauhinia Fault, a potential fluid conduit for mineralising fluids.

Stratigraphic and structural comparisons can be made between RML's planned Hole#2 and the Century Mine positioned along the Termite Range Fault Zone across the Queensland border. At the Century Mine, mineralising fluids migrated up a splay off the Termite Range Fault and progressively precipitated battery metals laterally along reductive units positioned on either side of the splay fault. In the case of Century, the fault block between the splay and the main fault dropped down, whereas the fault block has been upthrown between the Bauhinia Fault and the associated splay, bringing it closer to the surface, within potentially economic depth.

Systematic battery metal exploration, including collection of detailed regional datasets, has not been completed over the South Nicholson Basin within the Northern Territory, thus presenting an exciting opportunity for Resolution to progress exploration with a stratigraphic diamond drilling program to inform the future regional exploration strategy. The RML Team continues to utilise pre-competitive and open-source data, with the latest interpretation incorporating the NW Mineral Province Deposit 3D Atlas, developed by The University Of Queensland, which provides a valuable comparative resource for assessing the structural controls on potential mineralisation within RML's tenements.

Terms of the binding Heads of Agreement – Farm-in and JV

The agreement was announced 13 May 2022 between RML and OZ Minerals Limited (OZL) and is binding on and funded by the BHP Group subsequent to the takeover of OZL by the BHP Group. Key terms are tabled below. *For the agreement's full material terms, see Resolution's ASX announcement dated 13 May 2022.*

Key terms

Timeline – 10 years total		% RML ownership
90 days (Due diligence)	COMPLETED – Initial Period Commenced 5 December 2022	100%
2 Years Initial Period	\$1.0m Minimum spend Cash \$250k to begin Stage 1	100%
3 Years Stage 1	\$3.0m spend, then a JV is formed and RML has right to participate	49%
5 Years Stage 2	Minimum of \$1.0m/year until deliver positive final investment decision to mine, uncapped spend	25%

The Company is not aware of any new information or data that materially affects the information included in this announcement.

Authorised by the Board of the Resolution Minerals Ltd

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