



**ASX ANNOUNCEMENT**

**28 April 2022**

## **QUARTERLY ACTIVITY REPORT – MARCH 2022**

### **HIGHLIGHTS:**

#### **MANAGEMENT**

- NMR Submitted an EIS grant for E69-3852 Northern Nullarbor Phase 2 – 600-700m Diamond Drilling on the 14<sup>th</sup> of February 2022
- A CEI grant for a regional airborne magnetics survey was awarded on 16th February 2022 for \$200,000.
- On 25th March 2022, two new exploration permit applications were filed: E69/4036 (Mundra West) and E69/4035 (Mundra East).

#### **MUSIC WELL GOLD PROJECT, EASTERN GOLDFIELDS, WA**

- A 6,464 Line-km airborne geophysical survey was completed in late-December 2021 to cover the western Music Well Project tenement (E37/1363) to help NMR refine the target areas on existing high-value Au target structures. Magnetics data inversion, interpretation, and integration with existing data and modeling is currently underway.

#### **ARCOONA PROJECT, EASTERN GOLDFIELDS, WA**

- A 4,632 Line-km airborne geophysical survey has also been completed in mid-December 2021 to cover the majority of the Arcoona Project tenement (E31/1203). The data, presented in ASX announcement 12<sup>th</sup> April 2022, has already highlighted eight (8) new targets. NMR will be undertaking a surface sampling campaign in Q2 2022 to gain further information on these Au and Ni targets.

#### **THE NULLARBOR PROJECT WESTERN AUSTRALIA**

- A 500m long mixed RC and diamond NQ drill hole has been completed at Helios and samples have been dispatched for assay and geochemistry.
- NMR has applied for two new tenements in the area adjacent to and to the east of the Helios target. Mandra East and Mandra West.
- NMR is planning to undertake drilling at its “Central” IOCG target. The target is a high magnetic anomaly that is located adjacent to a major crustal structure and above a well-defined low-resistivity “finger” in Magnetotelluric data. The site is also located above a seismic “quiet zone”, similar to the famous Olympic Dam IOCG deposit (see ASX announcements 7th June 20212 & 6th Oct 2021).

Copper, gold, and nickel exploration company **Native Mineral Resources Holdings Limited** (ASX: NMR), or (“NMR” or “the Company”), is pleased to provide its quarterly activity report for the three months ended 31 March 2022.

## Management Commentary

Commenting on progress made during the March quarter, NMR's Managing Director, Blake Cannavo, said:

*"NMR is extremely proud to have successfully completed a 500m diamond drilling program at its Helios target in the highly desirable Nullarbor region after 449 active site operation hours and approximately 3200 safety man-hours without LTI. We are enthusiastic to have the core geochemistry and assay results available shortly following the completion of the lab testing and analysis.*

*For the next quarter, our primary focus will be on the eastern goldfields tenement, where we will be proving up target areas identified by airborne magnetics results through surface sampling. Additionally, depending on assay results, we will complete a post-drilling MLEM survey for Helios and a 500m-600m diamond drilling program at Nullarbor central for IOCG-style deposits, which we are extremely excited about."*

## PROJECT OVERVIEW

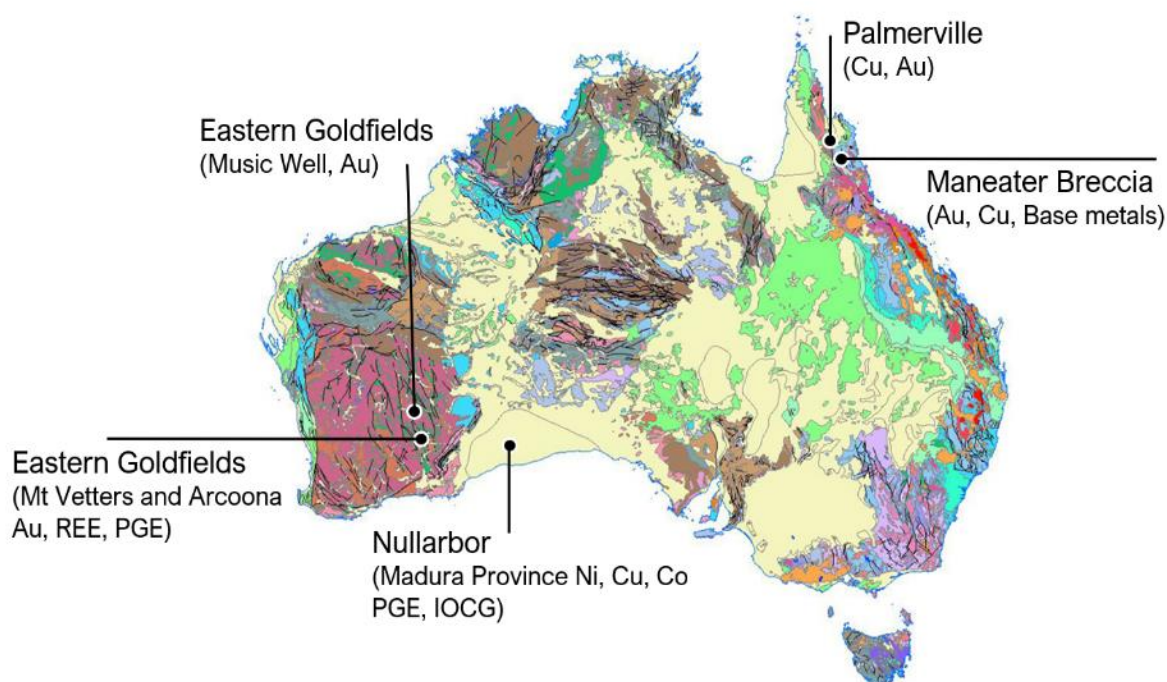
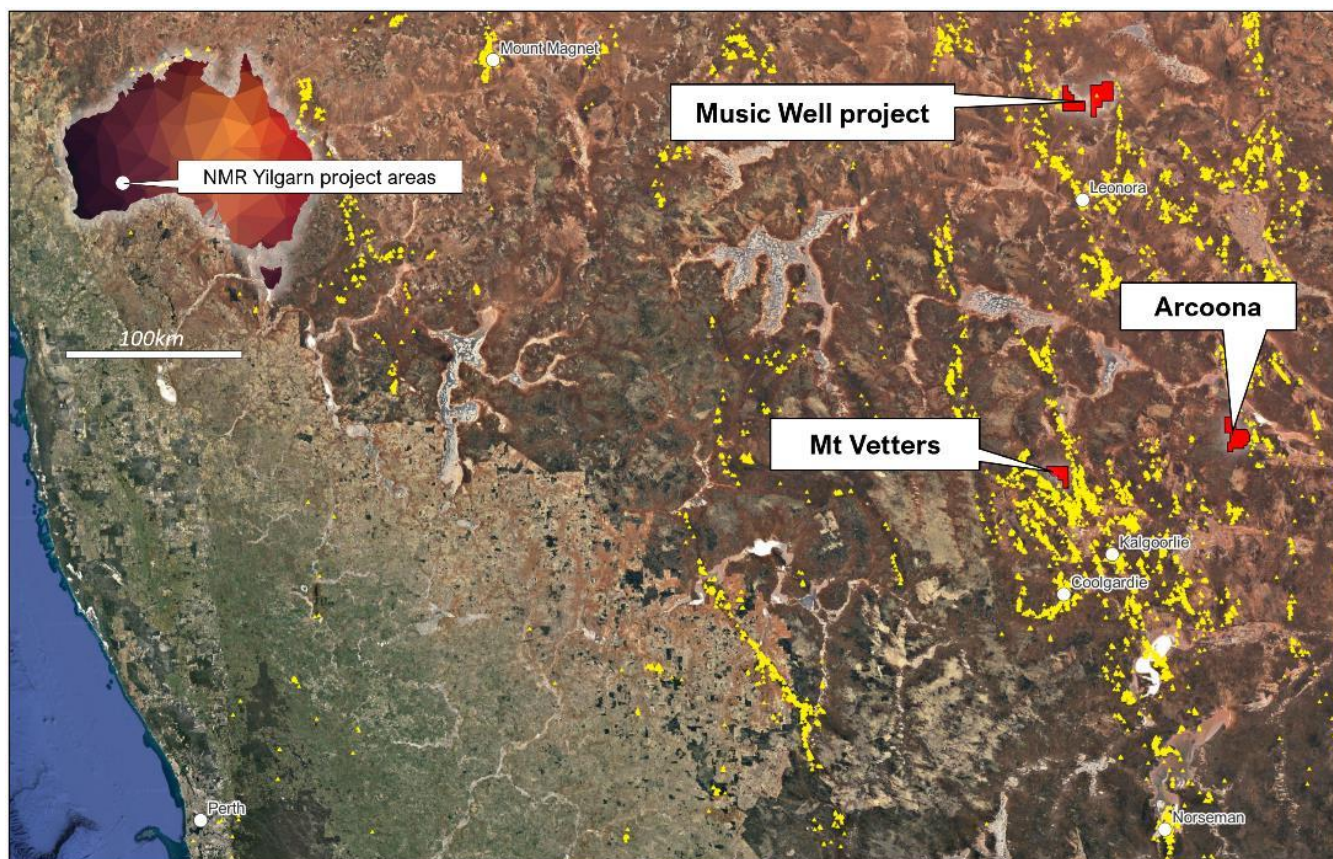


Figure 1. Map of Australia highlighting NMR's three main project areas (Yilgarn, Nullarbor and Palmerville) including the new exploration permit application over the Maneater Hill Breccia Pipe, North Queensland Australia.

## EASTERN GOLDFIELDS PROJECTS, WA

### Project Background and Exploration Summary

The Eastern Goldfields is located in the eastern part of the world famous Yilgarn Craton. This unique part of Australia is host to significant mineral resources, particularly gold and nickel and is becoming an increasingly important target area for lithium, REE's and other key metals and minerals. Native Mineral Resources is exploring for granite-hosted gold mineralisation and a host of new mineralisation opportunities across four highly prospective tenements in the Eastern Goldfields (**Figure 2**)



**Figure 2:** Location map of NMR projects (four tenements) in the Eastern Goldfields of Western Australia. All three projects are located within regions near operating mines and proven mineralisation. NMR's Music Well Project is located approximately 60km north of Leonora (Grid reference is GDA94 Zone51).

### Music Well Project (E37/1362 and E37/1363)

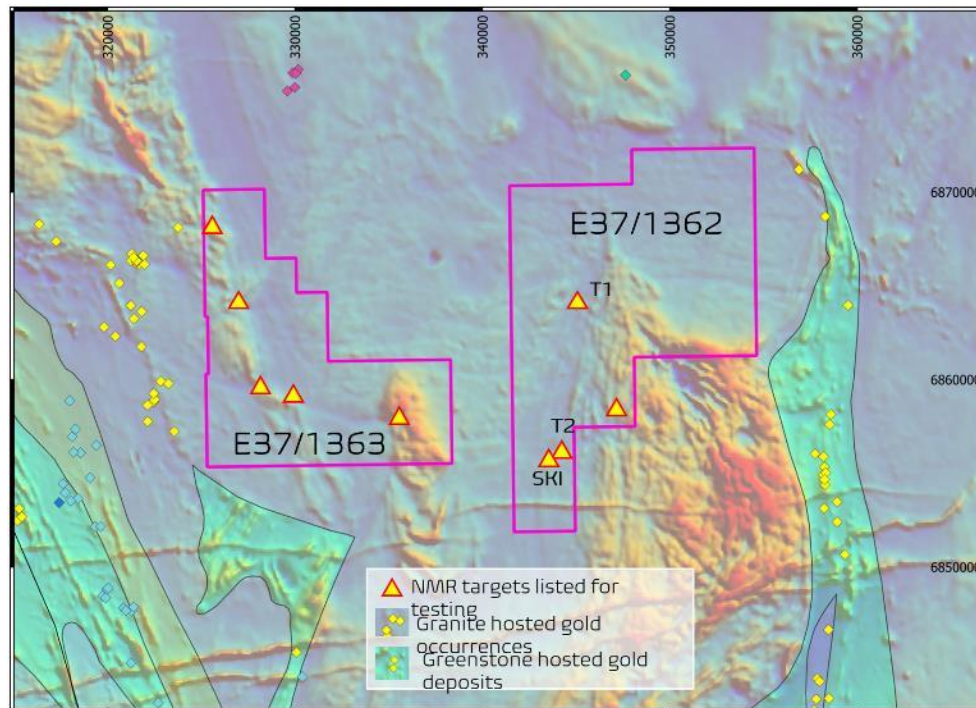
The discovery of structurally-controlled high-grade gold at Music Well, has prompted NMR to focus on this prospect in the upcoming field campaign.

The Music Well Gold Project is located approximately 60 km north of Leonora and is comprised of the two tenements E37/1362 and E37/1363 (**Figure 3**). Exploration on E37/1363 (western tenement Figure 3) to date has revealed several targets. The results have prompted NMR to complete the recent high-resolution (50m line spacing) 6500-line kilometer airborne magnetic survey over the entire tenement E37/1363 (

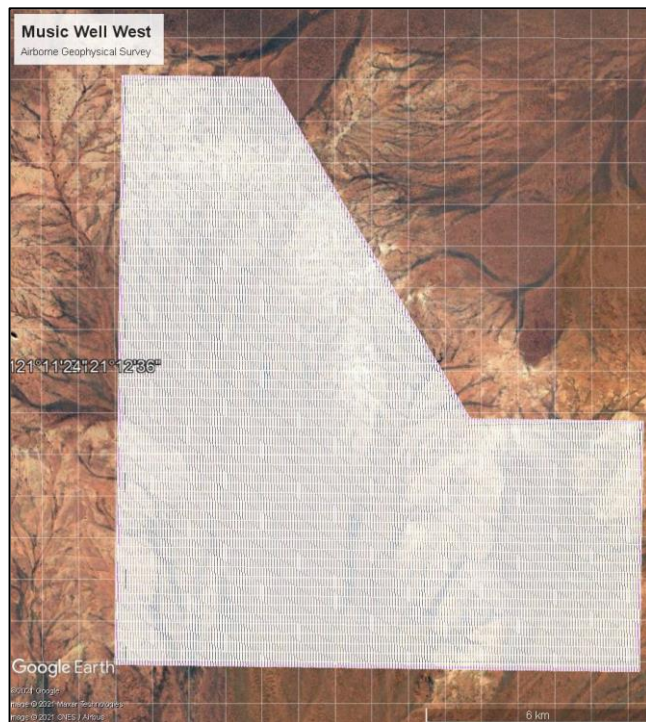


**Figure 4).** The high-resolution magnetic data will provide the NMR team with the ability to help interpret the structures and rock types beneath the cover rocks. The results of the magnetics are being processed and a field sampling campaign is being planned on the back of these results. Ongoing focus on pinpointing high-grade gold targets on both tenements with another cluster of gold indicators found on E37/1363 will be followed up with field work in 2022.

Target 2 Veins, located on the southern part of E37/1362 (identified from previous NMR mapping and sampling), are to be targeted using trenching, sampling, and targeted geochemistry. The Target 2 (T2) vein and the SKI targets (shown in **Figure 3**) will be investigated and sampled for Au mineralisation in our upcoming field campaign in 2022.



**Figure 3:** Target generation over the two music well tenements has been very successful, southern targets T2 and SKI are next to be investigated Targets 2 occurs 8km south of the T1 vein.

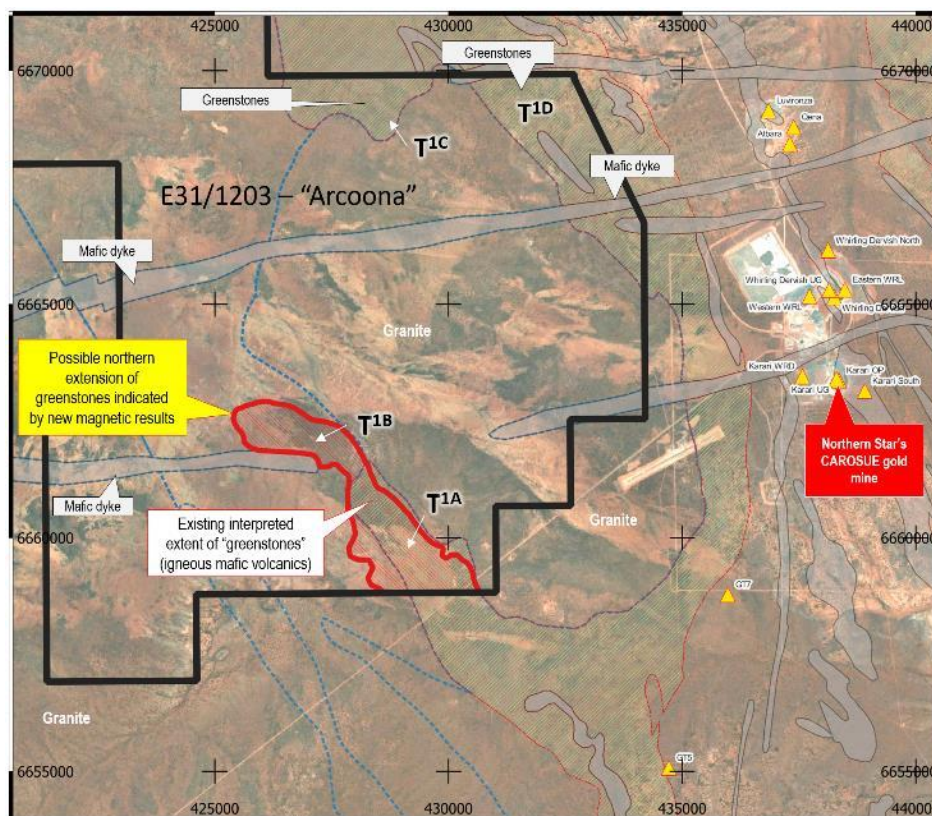


**Figure 4:** Map showing Music Well West (E37/1363) fixed-wing airborne magnetic survey area. The survey was completed in December 2021.

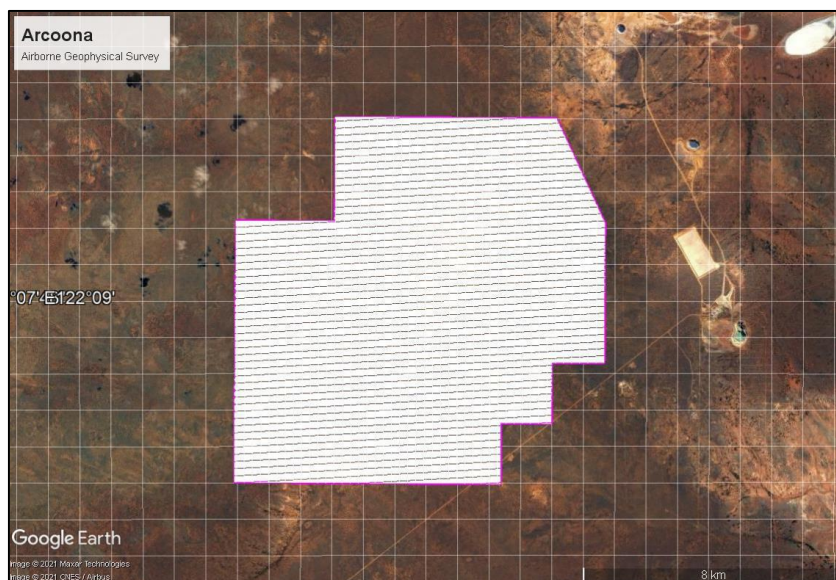
### **Arcoona Project (E31/1203)**

The Arcoona Au-Ni project (E21/1203) is located approximately 100 kilometres northeast of Kalgoorlie and is surrounded by big mining firms' tenements, notably Northern Stars Carosue Dam gold mine (ex-Saracen) located approximately 5 kilometres to the east (**Figure 5**).



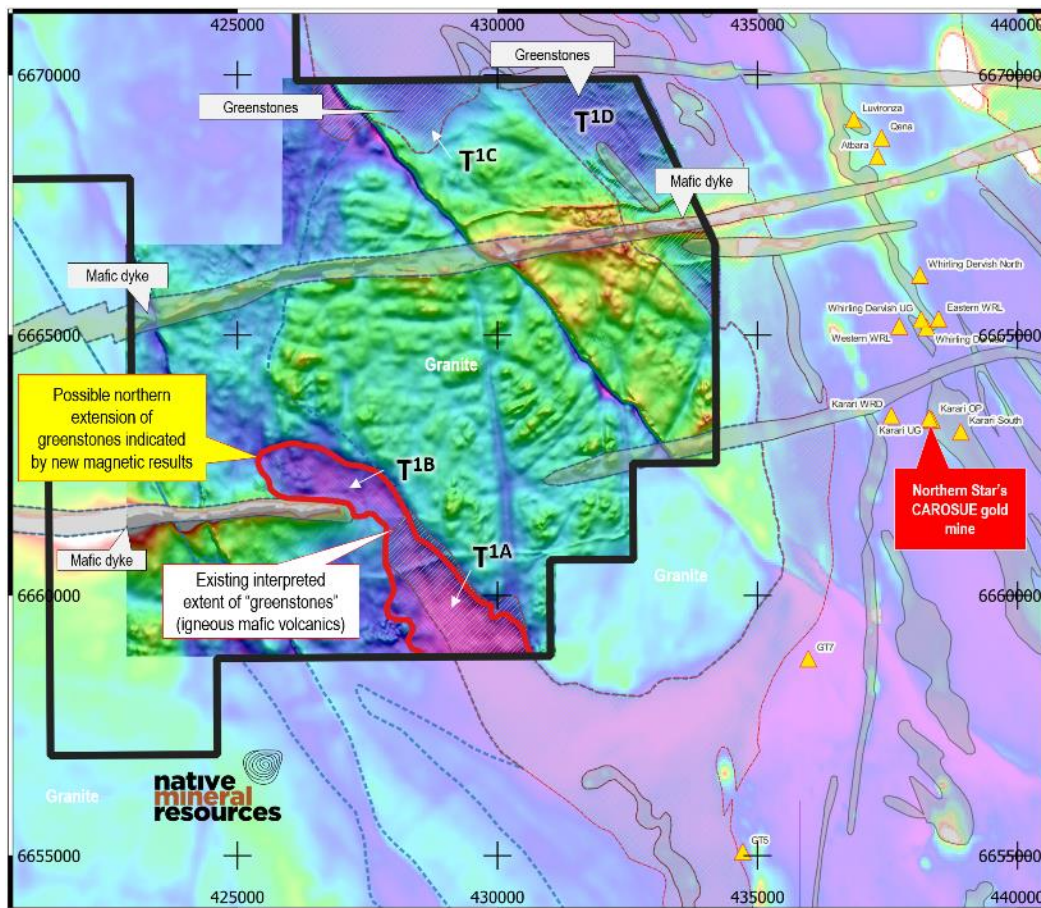


**Figure 5:** Map showing the region identified as hosting potential for gold mineralisation in buried Greenstones on Arcoona (E31/1203) tenement. T1A-T1D are new target areas identified using the recently processed airborne magnetic data. NMR have interpreted a NW-extension to the greenstones where anomalous gold has been identified by previous explorers' soil sampling. Please refer to previous ASX announcement (12 April 2022) for further details.



**Figure 6:** Arcoona approx. 4600-line kilometer fixed-wing airborne magnetics survey area. The survey was designed to cover most of the tenement where potential for greenstones under cover has been identified. Please refer to previous ASX announcement (12 April 2022) for further details.





**Figure 7:** Map showing the TMI RTP magnetics image derived from the fixed wing survey. Target areas for greenstone-related gold are shown as T1A-T1D. Additional Ni targets have been identified at the Widgiemooltha Dyke near where it intersects the NE-contact between the granite and greenstones on the NE corner of the section of tenement shown above.

NMR has just completed 4600-line kilometer fixed-wing airborne magnetics survey over Arcoona to help define boundaries of greenstones extending into the tenement under cover (



**Figure 6:** Arcoona approx. 4600-line kilometer fixed-wing airborne magnetics survey area. The survey was designed to cover most of the tenement where potential for greenstones under cover has been identified. Please refer to previous ASX announcement (12 April 2022) for further details.

). The results of the magnetics have been completed and a field sampling campaign has been planned on the back of the results. Please refer to previous ASX announcement (12 April 2022) for further details.

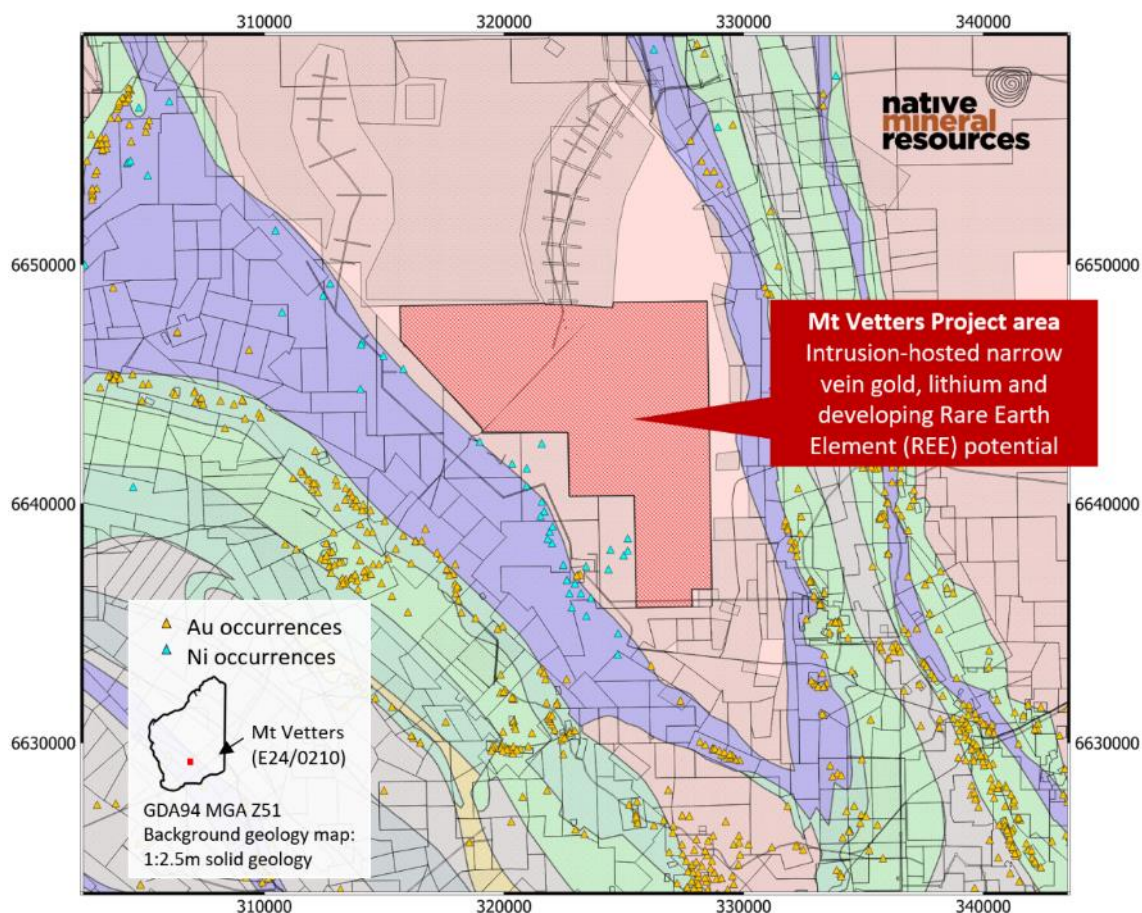
A major field sampling campaign is planned to follow up in Q2 CY2022 on key gold and possible Ni-magnetism targets identified in data collected and compiled in 2021.



## Mt Vettters Project (E24/210)

Mt Vettters project (E24/210) is located 45 km northwest of Kalgoorlie, 4 km to the west of the Goldfields Highway in the Eastern Goldfields region of Western Australia (**Figure 8**). Mt Vettters is a new opportunity in a highly competitive and emerging area close to Kalgoorlie. It lies adjacent to multiple Ni mines and is one of the largest single tenements in this area.

A major surface sampling campaign is planned for Q2 CY2022 utilising special techniques being developed internally to sample large areas quickly and accurately for key elements.



**Figure 8:** Intrusion-hosted narrow vein Au, Li and REE potential on the Mt Vettters area

## PALMERVILLE PROJECT, NORTH QLD

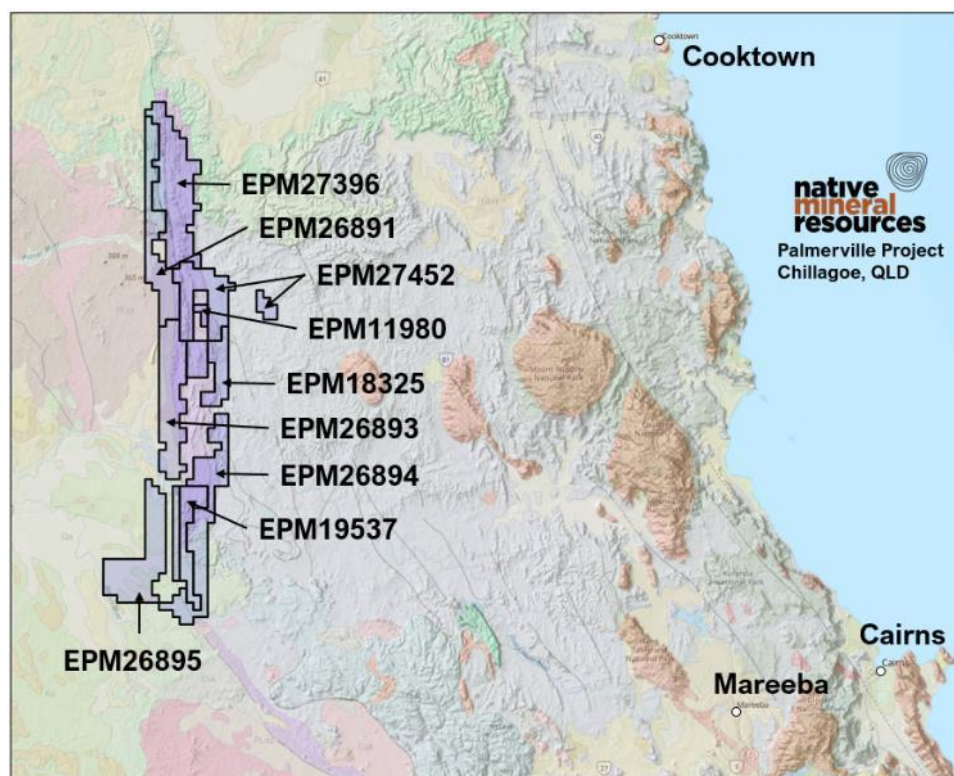
### Background

The Palmerville Project is the Company's principal copper exploration asset and covers a near-continuous strike length of 130km over an area of ~1,820km<sup>2</sup> centred 200km west-northwest of Cairns in North Queensland (**Figure 9**).

The tenements consist of nine Exploration Permit Minerals (EPMs) in the highly prospective Chillagoe Formation, which, to the south, hosts the Red Dome and Mungana porphyry and skarn-associated gold-copper deposits. The Chillagoe Formation also hosts significant zinc-rich and copper-rich limestone-hosted skarn-associated deposits, particularly at King Vol, Mungana, Griffiths Hill, and Red Cap.

The Project is prospective for the following deposit styles:

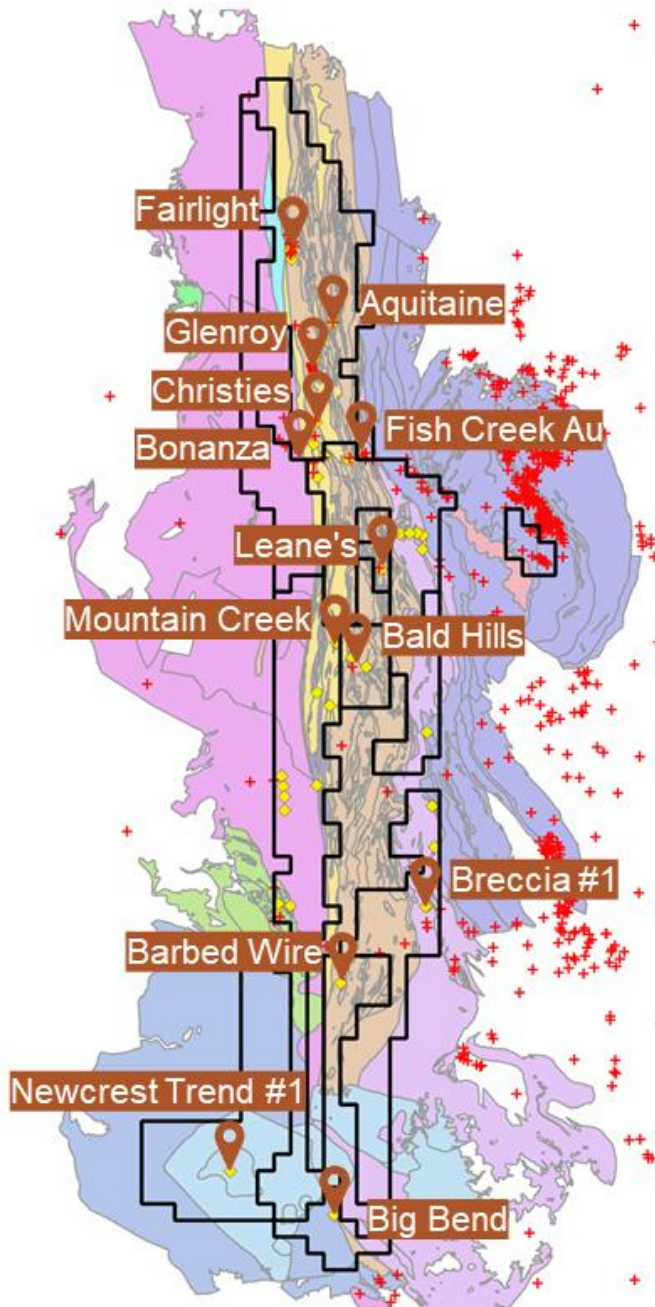
- *Copper-zinc-gold volcanic massive sulphide or vein-style mineralisation.*
- *Porphyry- and skarn-associated copper-zinc-gold mineralisation in Chillagoe Formation limestone-dominant strata.*
- *Porphyry-related copper-gold mineralisation in non-carbonate lithologies.*
- *Orogenic-style gold-antimony mineralisation.*
- *Epithermal gold mineralisation distal to porphyry intrusions*
- *Alluvial gold akin to the historic Palmerville Goldfield.*



**Figure 9:** Map showing the location of NMR's 9 tenements that make up the Palmerville project. The tenements encompass a significant portion of the Chillagoe Formation and N-S trending Palmerville Fault. Please refer to previous ASX announcements and NMR's website.

A regional airborne magnetics survey over entire Palmerville project is planned to start in late June (following the northern Australian wet season) 2022 to define:

- The structural geometry of the Chillagoe Formation across the entire tenement package.
- The rock-types and boundaries in the belt. The rocks are a mix of metasediments, mafic volcanics and limestones and are demonstrably well-suited to differentiation using magnetics.
- Delineation of intrusions that have previously avoided detection due to the difficult terrain and depth of erosion/exposure.
- Highlight major mineral-bearing structures and relate these back to exploration and targeting model.



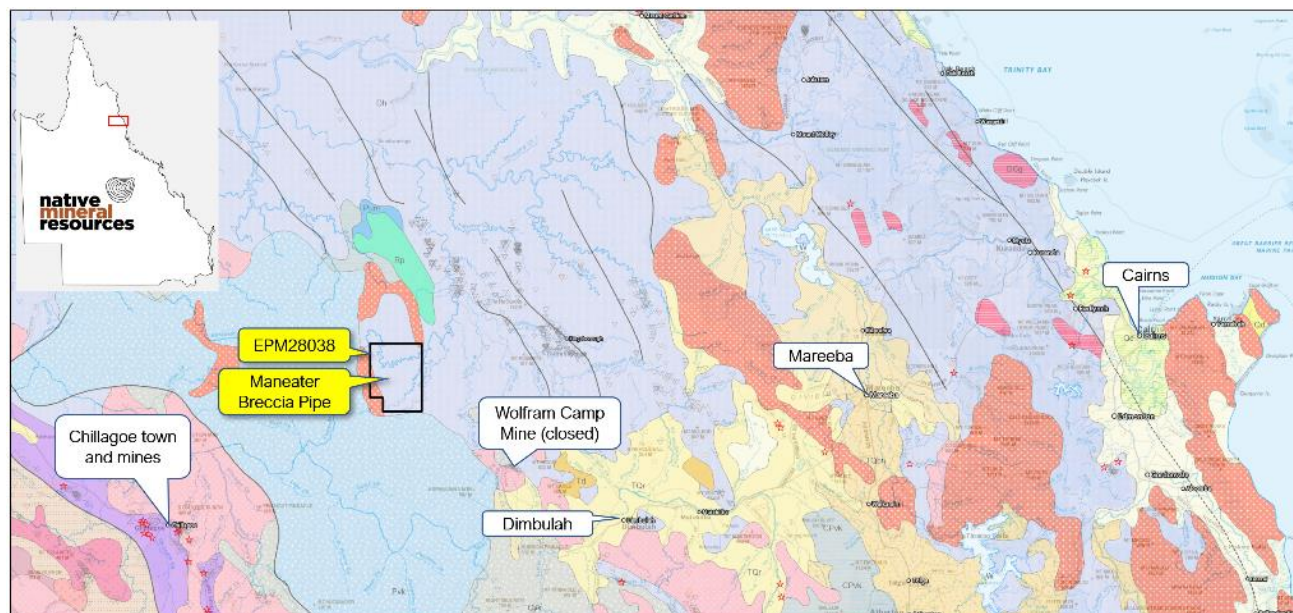
**Figure 10:** Simplified geology map showing the location of NMR tenements and just a small selection of priority prospect areas including Fairlight, Leane's, Glenroy. NMR is completing an 80m line-spaced airborne magnetic survey over the entire tenement package to help reconcile the targets and the litho-structural controls on mineralisation. NMR have a portfolio of copper, gold and antimony targets at Palmerville.



## MANEATER HILL, QLD

### Maneater Hill (EPM 28038) - in application

NMR has applied for a new exploration permit over a mineralised breccia pipe located near Chillagoe in Northern Queensland. The tenement is located 100 km west of Cairns in North Queensland, the target of the application is a sulphide-bearing, intrusion-related breccia pipe centrally located within the tenement. EPM 28038 covers an area of 62km<sup>2</sup> and the target has a very high potential for breccia-hosted gold and copper mineralisation below the predominantly lead, zinc, and silver mineralisation already identified near the surface.



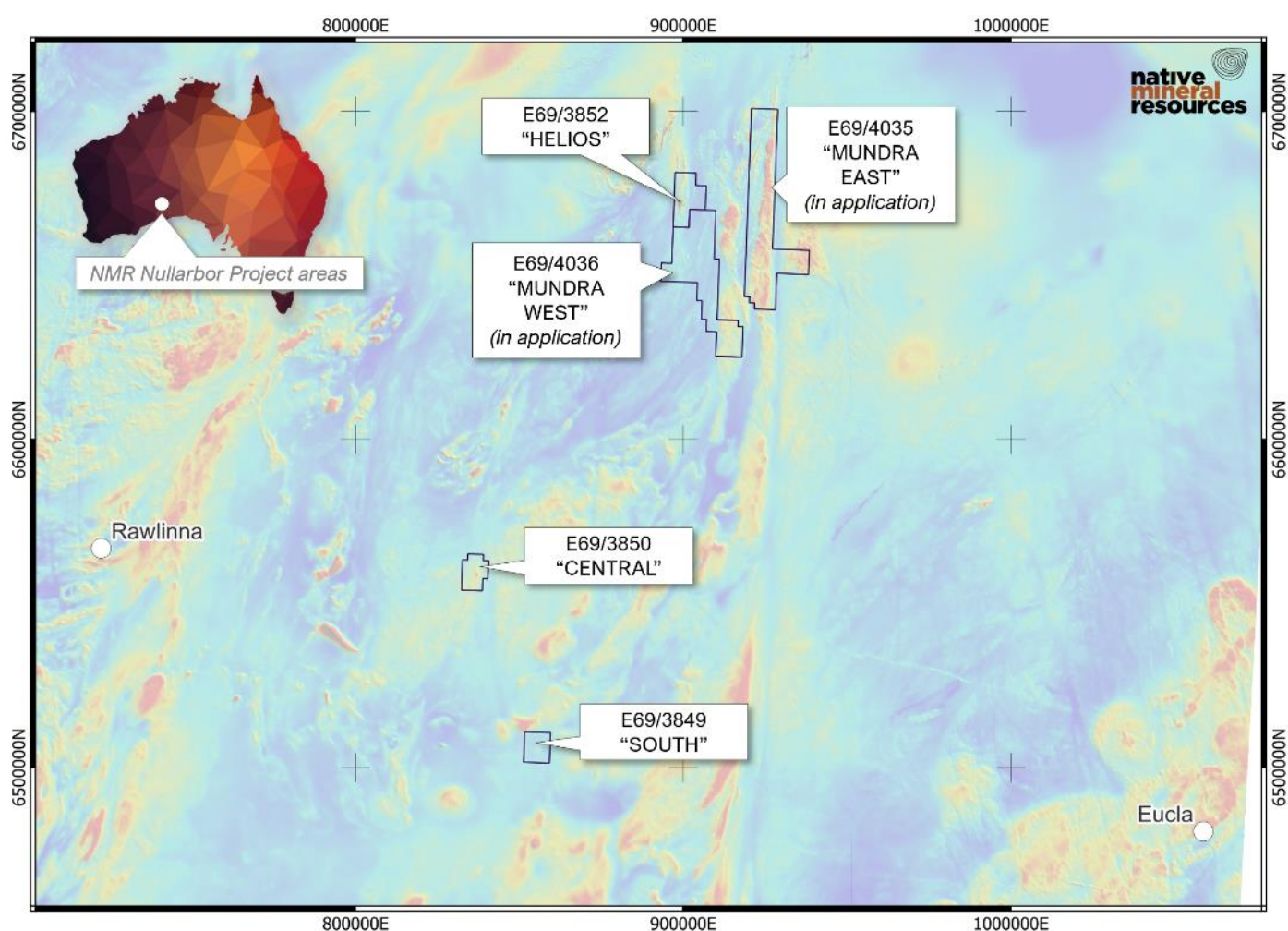
**Figure 11:** Map showing the location of NMR's Maneater Breccia exploration tenement application EPM28038. The tenement is located in northern Queensland, approximately 100km west of Cairns.

## NULLARBOR TENEMENTS, WA

NMR has been granted three (E69/3849, E69/3850 and E69/3852) of the tenements in the Nullarbor region of SE Western Australia (**Figure 12**). The three tenements are located over two potential target types including intrusion hosted Ni (E69/3852) and iron-oxide copper-gold (IOCG)-style mineralisation (E69/3850 and 3849).

Tenement E69/3852 "Helios" is a high-priority magnetic and gravity anomaly discovered using the geophysical characteristics exhibited by the Nova-Bollinger Nickel deposit in the adjacent Frazer Range. This target is observed in regional, publicly available geophysics, however, to resolve the target in more detail, NMR has completed a higher-resolution magnetic survey over the tenement. The detailed geophysical survey results will be used to target and then drill the highest potential area on the tenement.

The southern and central tenement E69/3850 and E69/3849 were acquired to enable NMR to explore two geophysical anomalies identified as potential indicators of IOCG-style mineralisation. The distinctive anomalies identified in the magnetics are within proximity to a distinctive zone of relatively low resistivity identified in a regional Magnetotelluric (MT) geophysical survey. The target on E69/3850 lies in a setting similar to the Olympic Dam Deposit which also lies above relatively low resistivity zones defined in the MT, referred to in the Olympic Dam setting as the "Fingers of God".

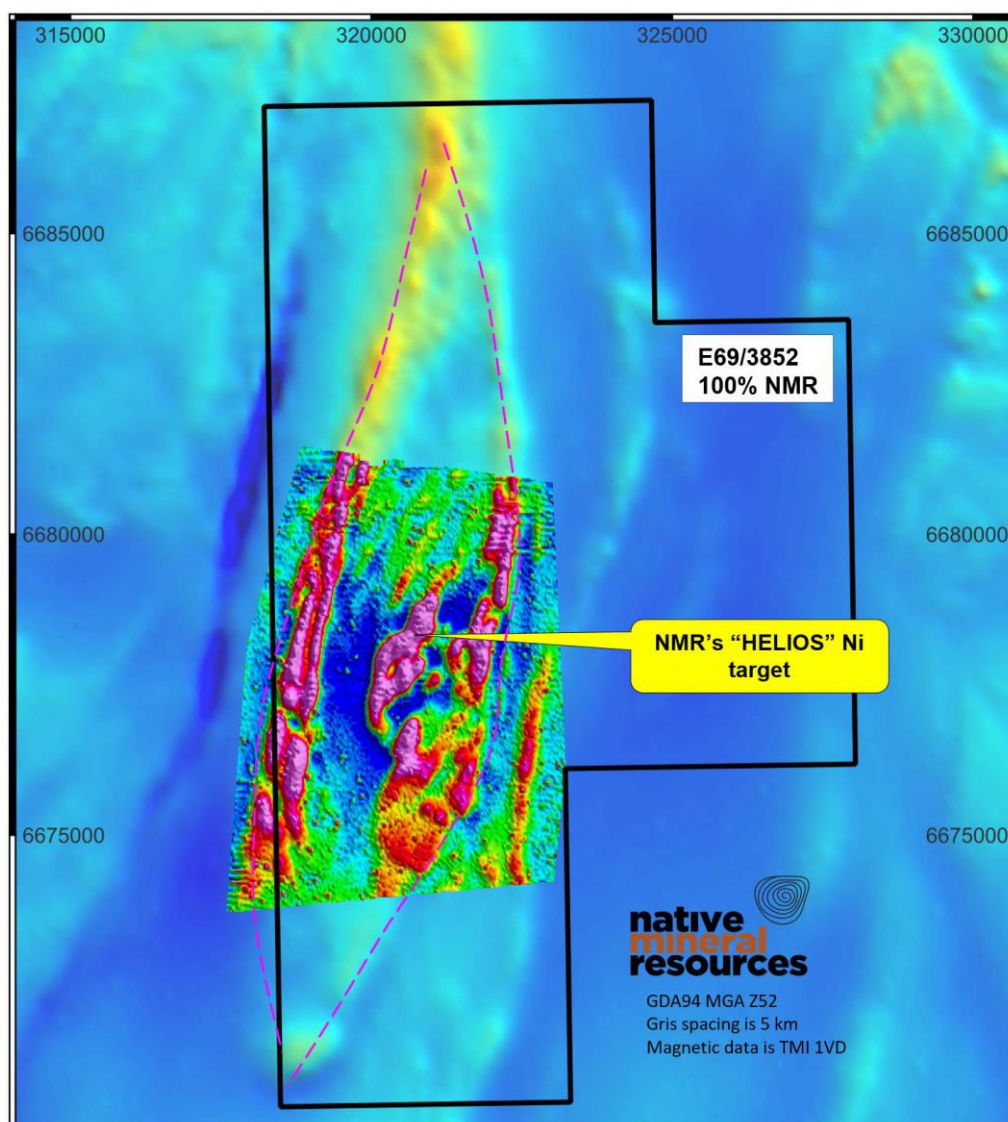


**Figure 12:** Map of the western Nullarbor region showing NMR's recently granted tenements (E69/3852, E69/3850 and E69/3849) and new applications Mundra East (E69/4035) and Mundra West (E69/4036). The tenements are located in a prospective area of South-eastern Western Australia surrounded by other major mineral explorers. Map grid is GDA94. Background image is TMI (40m pixels) from DMIRS.



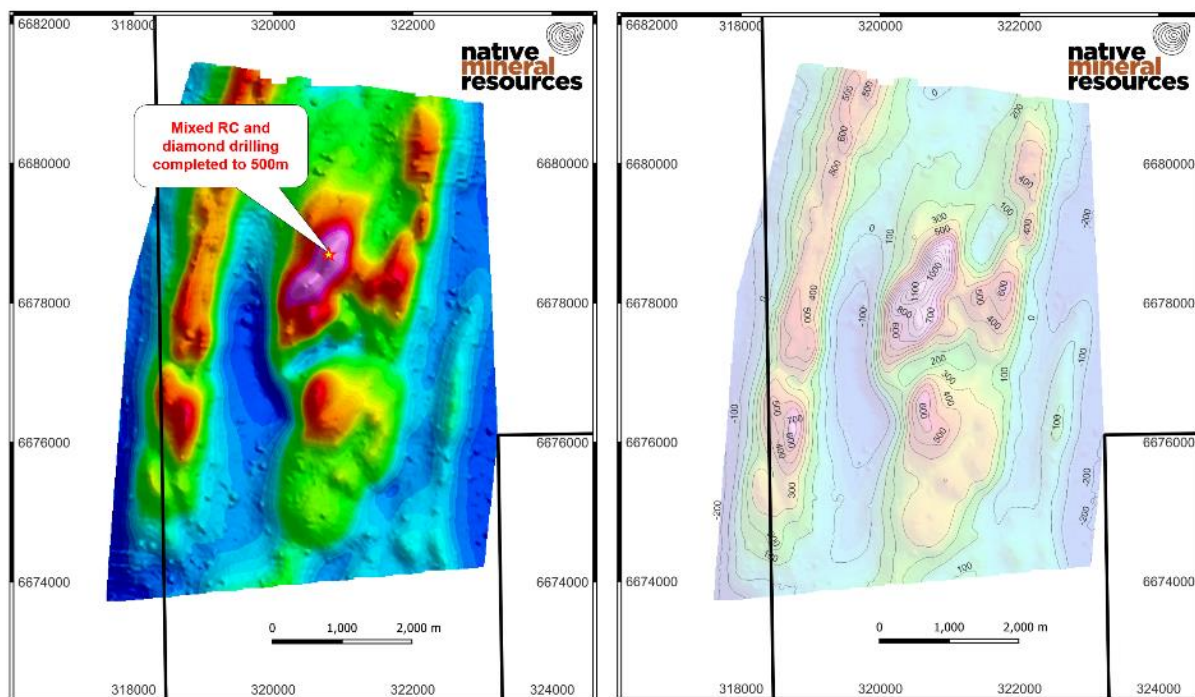
## E69/3852 Helios Nickel target

MNR has just completed a 500m-long mixed RC and diamond drill hole into the centre of the Helios magnetic target (**Figure 13**). The drill hole has been sampled and samples sent for assay and geochemical analysis.



**Figure 13:** Maps showing the Helios Ni target refined using the recently completed drone-based magnetic survey. Presented here is a colour contoured image of the TMI RTP 1VD data over the central part of the eye-shaped structure. Purples and reds are high magnetic response while blues and greens represent lower magnetic response. Grid references are GDA94 MGA Z52.

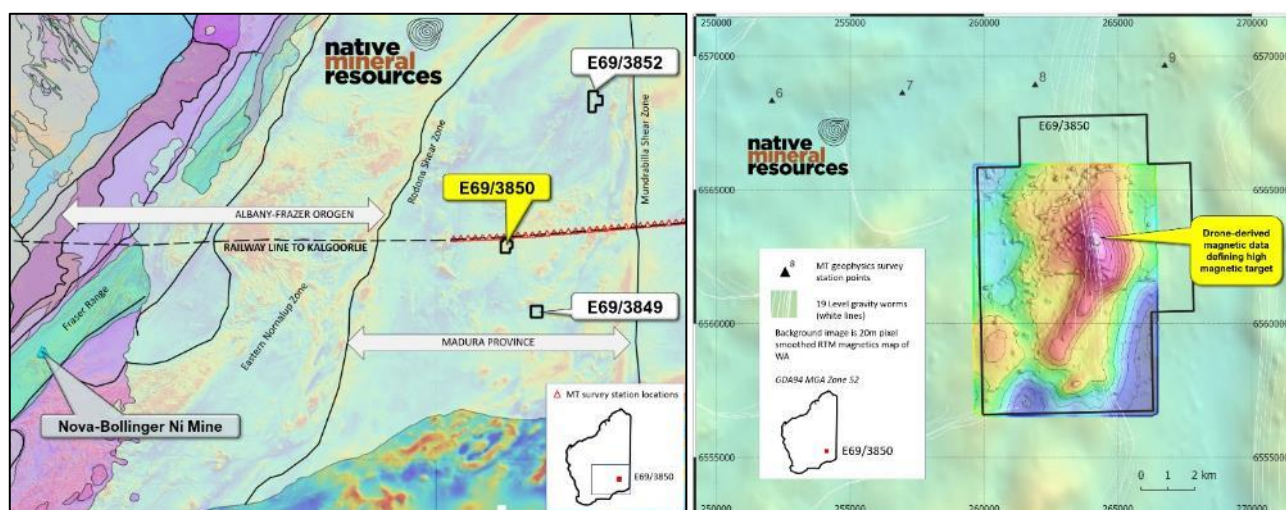




**Figure 14.** Results from drone-based magnetics TMI see announcement 6th Dec 2021 for additional details. The approximate location of the diamond drill is shown as drilled into the center of the magnetic high.

#### E69/3850 – “Central” IOCG target

NMR are taking advantage of drill rig availability and planning on drilling its second target referred to as “Central”. The central target has been derived using the geophysical criteria that has led to the discovery of other IOCG-style deposits, particularly those in South Australia. NMR’s drone-based magnetic survey has confirmed the presence of a significant anomaly – 1200m long and 400m wide - with a relative peak of over 760nT (**Figure 15**). The high magnetic anomaly lies directly above a well-defined zone of low resistivity imaged in the results from the regional Magentotelluric survey transect that passes directly along the northern boundary of the tenement (red diamonds in **Figure 15**). NMR is anticipating the depth to basement to be approximately 250-300m.



**Figure 15:** NMR’s first high-resolution (30m flight height) drone-acquired magnetic survey over E69/3850 central Nullarbor tenement

## PLANNING FOR Q2 CY2022

### Music Well Gold Project

Following the success of the magnetics survey and interpreted results for the Arcoona tenement near Kalgoorlie, as a priority, NMR is planning on fast-tracking the modelling of the fixed-wing airborne geophysics survey over the Music Well tenement (E37/1363). The aim is to up-grade its existing targets on the tenement and to gain further knowledge about the geology and structure under cover. The company has a comprehensive and growing dataset pointing to opportunities for gold mineralisation beneath shallow cover. In addition, work is continuing on tenement E37/1362 where follow-up geochemistry and sampling will be completed on veins already identified as continuing gold mineralisation. Two additional veins, Target 2 and 'SKI', will be investigated and sampled to follow up on promising high-grade grab samples and epithermal vein textures.

### Palmerville Project

An airborne magnetic and radiometric survey has been planned to cover the entire Palmerville Project in Q2 CY2022. The survey will now begin in June 2022 following unforeseen delays. The new geophysics data will help NMR characterise the geologically complex Chillagoe Formation and help define NMR's exciting copper, gold and antimony prospects at Palmerville. The higher resolution airborne magnetic data will help resolve the presence and location of potential intrusives at depth beneath anomalous copper grades discovered at surface. Furthermore, the data will help constrain a plethora of other key features such as major rock type boundaries and major structures in the region.

- Sampling utilising refined target generation after completion of magnetics survey.
- Drilling opportunities to be explored after completion of target ranking.
- Developing new sampling strategy for Palmerville to help rapid, in-field delineation of anomalous mineralisation.
- Deeper drilling at Leane's will be considered for 2022 pending the results of the upcoming geophysics survey.

### Maneater Hill

Once expected grant in Q2 CY2022, geological mapping and drilling will be used to help define the extent and grade of this locally clast-supported, sulphide-rich, breccia-hosted mineral system. NMR is planning to complete a deep drill hole to test the hypothesis that previous shallow drilling containing significant sulphide mineralisation did not sufficiently test the potential gold-rich zone at depth.

### Nullarbor Project

Drilling has been completed at Helios and NMR is planning to drill its Central IOCG target. As with the Helios target, NMR is planning on drilling into a magnetic "body" that appears in both regional and detailed magnetic data. Up to 600m of drilling has been planned but the final meters drilled will be dependent upon results in this previously untested ground. The knowledge obtained from the drilling of the basement rock types will be used to plan additional target-specific geophysics later in the year.

## TENEMENT SCHEDULE AS AT 31 MARCH 2022

Region	Tenement ID	Tenement Name	Date Granted	Date Expire	Sub-Block	SQKM (approx.)
Queensland	EPM 11980	Limestone Creek	3-Jun-05	2-Jun-22	4	13.16
Queensland	EPM 18325	Bald Hills	30-Jul-12	29-Jul-24	15	49.35
Queensland	EPM 19537	Mitchell River South	21-Jan-08	20-Jan-24	33	108.57
Queensland	EPM 26891	Palmerville North	29-Jan-19	28-Jan-24	63	207.27
Queensland	EPM 26893	Palmerville West	29-Jan-19	28-Jan-24	100	329
Queensland	EPM 26894	Palmerville East	1-Apr-19	31-May-24	84	276.36
Queensland	EPM 26895	Palmerville South	31-Jan-19	30-Jan-24	89	292.81
Queensland	EPM 27396	East Palmerville North	4-Jun-20	3-Jun-25	100	329
Queensland	EPM 27452	East Palmerville South	2-Feb-21	1-Feb-26	65	213.85
Queensland	EPM 28038	Maneater Hill	In Application since 23 <sup>rd</sup> Sep 2021		19	62.51
WA	E37/1362	Music Well	17-Sep-19	16-Sep-24	58	190.82
WA	E37/1363	Music Well	17-Sep-19	16-Sep-24	39	128.31
WA	E31/1203	Arcoona	19-Nov-20	18-Nov-25	61	200.69
WA	E24/210	Mt Vettors	26-Jul-21	25-Jul-25	35	115.15
WA	E69/3852	Nullarbor North	13-Oct-21	12-Oct-26	41	121.5
WA	E69/3850	Nullarbor Central	26-Oct-21	25-Oct-26	26	76.65
WA	E69/3849	Nullarbor South	13-Oct-21	12-Oct-26	25	73.7
WA	E69/4035	Mundra East	In Application since 25 <sup>th</sup> Mar 2022		196	548.8
WA	E69/4036	Mundra West	In Application since 25 <sup>th</sup> Mar 2022		151	422.8

The Board of Native Mineral Resources Holdings Ltd authorised this announcement to be lodged with the ASX.

For more information, please visit [www.nmresources.com.au](http://www.nmresources.com.au) or contact:

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### Competent Person Statement:

The information in this report relating to Exploration Results is based on information compiled by and/or provided to Dr Simon Richards, a Competent Person who is a Member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy. Dr Simon Richards is a full-time employee of Native Mineral Resources. Dr Richards has sufficient experience that is relevant to the styles of mineralisation and type of deposit under consideration and to the activity being 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'. Dr Richards has no potential conflict of interest in accepting Competent Person responsibility for the information presented in this report and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## Notes – Specific ASX announcements:

No new results have been presented in this announcement. Material contained in this release refers to information including, but not limited to sample results and the methodologies used for sample acquisition and processing (JORC table) presented in the previous ASX Announcements listed below.

- ASX Announcement, 12<sup>th</sup> April 2022 – Multiple new target areas revealed in high-resolution magnetic data at “Arcoona”
- ASX Announcement, 9th / 10th Mar 2022 - Exploration Update – Helios and Central
- ASX Announcement, 18th Feb 2022 – NMR awarded \$200,000 CEI grant
- ASX Announcement, 24th Jan 2022 – Drilling to commence at Helios Nickel target
- ASX Announcement, 6th Dec 2021 – Magnetism survey confirms significant anomaly at its “Helios” Nickel target in the Western Nullarbor
- ASX Announcement, 26th Oct 2021 – Magnetic Survey Highlights Significant Anomaly at Nullarbor Iron-Oxide Copper-Gold (IOCG) Target
- ASX Announcement, 21st Oct 2021 – NMR explore a Mineralised Breccia Pipe in North Queensland
- ASX Announcement, 14th Oct 2021 – New Tenements Granted in WA – Exploration on Ni and Cu Targets Underway
- ASX Announcement, 23rd Sep 2021 – Positive Outcomes from Diamond Drilling at Music Well
- ASX Announcement, 30th Aug 2021 – Key Work Programmes Advanced at Music Well
- ASX Announcement, 06th July 2021 – Music Well Gold Project Access Agreement
- ASX Announcement, 01st July 2021 – Divestment of Mount Morgan Project
- ASX Announcement, 28th June 2021 - NMR Confirms Further High-Grade Gold Mineralisation at Music Well Project in WA
- ASX Announcement, 07th June 2021 - NMR expands exploration portfolio with three new tenement applications targeting copper, gold and nickel in WA.
- ASX Announcement, 5th May 2021 - NMR awarded EIS grant to fund diamond drilling at Music Well
- ASX Announcement, 4th May 2021 - High-Grade Copper Confirmed At Two Targets In The Northern Chillagoe Formation
- ASX Announcement, 29th March 2021 - High-grade and free-milling gold at Music Well
- ASX Announcement, 4th February 2021 - East Palmerville South Permit Granted
- ASX announcement 21st January 2021 - Porphyry Intrusions Confirmed at Leane’s Copper Prospect
- ASX announcement 21st December 2020 - Leane’s Returns Shallow Intercepts Grading – Copper
- ASX announcement 15th December 2020 - Drilling Confirms Mineralisation System at Leane’s Copper Prospect
- ASX announcement 27th November 2020 - Significant Results from Drilling at Leane’s Copper Prospect.