

ASX ANNOUNCEMENT

28 APRIL 2021

Quarterly Report – March 2021

Meteoric Resources NL (ASX: MEI) (“Meteoric” or “the Company”) provides shareholders with its Quarterly Report for the three-month period ending 31 March 2021.

The Company had another active quarter, with highlights below, setting up what will be a really exciting period for the Company with the recommencement of drilling at Palm Springs, the Resource estimate update for Juruena as well as further updates on the deep drilling as we move into the heart of the porphyry potential.

Western Australia - Palm Springs Gold Project

- 2021 field season commenced at Palm Springs Gold Project in the Halls Creek Region, WA with a reconnaissance visit to the Butchers Creek and Golden Crown areas.
- Following success of initial exploration program in 2020, a further 7,000m of drilling is planned at Butchers Creek, commencing in May, with the aim of:
 - Extending recently discovered mineralisation further south-west
 - Targeting high grade fold hinge gold mineralisation
 - Confirming and extending historic high-grade drilling beneath the Butchers Creek open pit
- Dewatering of the Butchers Creek open pit to commence in May
- Brownfields regional exploration to commence with planning for IP and detailed magnetic geophysical surveys to search for blind gold mineralisation associated with strong sulphide-rich alteration within the magnetic trachyte host unit – searching for Butchers Creek lookalikes.
- The best results from the 2020 program include thick continuous zones of gold mineralisation that surround a high-grade core of gold mineralisation. Highlight results included:
 - **69m @ 4.38g/t Au** [181m] in BCRD467 including **19m @ 7.22/t Au** [204m]
 - **56m @ 2.69g/t Au** [181m] in BCDD372 including **18m @ 4.85/t Au** [203m]
 - **55m @ 3.21g/t Au** [175m] in BCRD468 including **8m @ 7.56/t Au** [179m]
 - **53m @ 2.14g/t Au** [147m] in BCRC466
 - **45m @ 2.25g/t Au** [259m] in BCRC475 including **5m @ 10.77/t Au** [261m]
 - **34m @ 2.48g/t Au** [170m] in BCRC470 including **4m @ 7.75/t Au** [170m]
 - **21m @ 6.07g/t Au** [264m] in BCRC476 including **2m @ 47.83/t Au** [268m]

Brazil - Juruena

- Commenced 2021 Brazilian drilling program targeting a potential Copper-Gold porphyry system beneath the high-grade Juruena Epithermal gold deposits.
- The initial 3,600m drilling campaign tested the peak of the chargeability anomaly defined by the 2020 Deep IP and MT survey with three diamond drill holes.
- Drill-hole **JUDD042** currently at 750 within a zone of strong brecciation, porphyritic intrusives, mafic intrusives all strongly overprinted with strong phyllic alteration hosting quartz molybdenite, quartz-pyrite and traces of common porphyry copper minerals including: chalcopyrite (CuFeS₂) and bornite (Cu₅FeS₄).
- This is the first observation of bornite outside the Juruena Fault Zone at Crentes adding further conviction to the porphyry search.
- The second major target for hole JUDD042 is the Juruena fault which is expected to occur approximately 1000m downhole. The Juruena fault host significant copper gold mineralisation at the Crentes prospect close to surface and the depth extension is an exciting target. **JUDD039**, one of the final holes in the 2020 campaign, intersected significant shallow (118m) epithermal style gold-copper breccia mineralisation on the Juruena Fault at the Crentes Prospect including 51.0m @ 1.40 g/t Au & 0.25% Cu from 118m.
- Resource estimate update for the Juruena Gold Project imminent.

Palm Springs Gold Project, WA

Meteoric acquired the high-grade Palm Springs Gold Project in the Kimberley Region of Western Australia in June 2020. The project covers more than 12,000 hectares including 3 MLs, 4 ELs and 6 PLs and contains more than 60 known gold occurrences over a 20km strike. Previous mining in the late 1990s at the Butchers Creek Open Pit Gold Mine saw 52,000oz @ 2.1g/t Au produced until the mine closure due to low gold prices in 1997¹.

Following intensive preparatory work during the Quarter, In April 2021, Meteoric commenced its 2021 field season at Palm Springs Gold Project. Following the success of the initial exploration program in 2020, a further 7,000m of diamond and RC drilling has been planned at Butchers Creek with three aims – extending recently discovered mineralisation further south-west; targeting high grade “fold hinge gold mineralisation”; and confirming and extending historic high-grade drilling beneath the Butchers Creek open pit.

An initial field reconnaissance visit to Halls Creek was conducted during early April. Mobilisation to site is expected by the end of April with the setup of an onsite camp and earthworks to allow for pit dewatering. Drilling on the Mining Licence will commence in May.

The Company achieved impressive exploration success during its initial exploration program in 2020 and interpretation of the data clearly shows the best mineralisation is located within a regionally extensive trachyte unit and in particular at the culmination of an anticlinal fold hinge, see Figure 1 for the spatial relationships of the gold mineralisation.

¹ Annual report to DMIRS GML 80/197 (May 1998)

The best results from the 2020 program include thick continuous zones of gold mineralisation that surround a high-grade core of gold mineralisation. Defining these zones at a closer drill spacing will be a core focus of the upcoming drill campaign. Highlight results included:

- 69m @ 4.38g/t Au [181m] in BCRD467 including 19m @ 7.22/t Au [204m]
- 56m @ 2.69g/t Au [181m] in BCDD372 including 18m @ 4.85/t Au [203m]
- 55m @ 3.21g/t Au [175m] in BCRD468 including 8m @ 7.56/t Au [179m]
- 53m @ 2.14g/t Au [147m] in BCRC466
- 45m @ 2.25g/t Au [259m] in BCRC475 including 5m @ 10.77/t Au [261m]
- 34m @ 2.48g/t Au [170m] in BCRC470 including 4m @ 7.75/t Au [170m]
- 21m @ 6.07g/t Au [264m] in BCRC476 including 2m @ 47.83/t Au [268m]

Detailed logging and analysis of the core and the best mineralised intercepts showed gold is strongly confined to a magnetic trachyte unit and that high gold grades are associated with strong alteration comprising quartz-albite-pyrite-pyrrhotite and minor arsenopyrite. The magnetic nature of the trachyte and the strong sulphide content of the high-grade zones lend themselves to geophysical exploration to look for blind deposits. Meteoric is planning a detailed magnetic survey to map out the subsurface distribution of the host trachyte and an IP survey to look for disseminated sulphides that may be associated with additional gold mineralisation outside the main Butchers Creek zone.

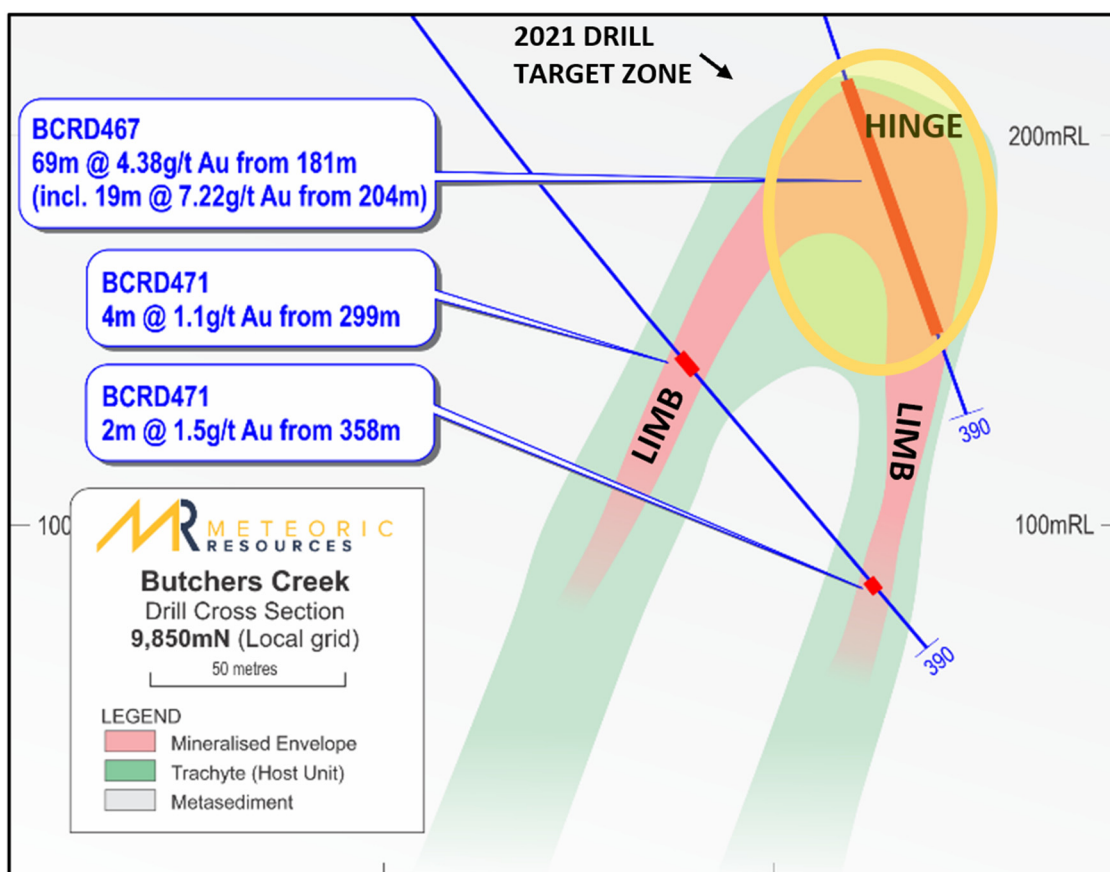


Figure 1: 9,850mN Drill cross section highlighting the preferential mineralisation stratabound within a Trachyte unit and preferentially increased in the hold hinge zone. The yellow ellipse highlights our 2021 target zone.

Juruena Copper-Gold Porphyry Project, Brazil

The Deep Drilling program at the Juruena Project area commenced on 15 February 2021 with the first of three (3) 1,200m long holes designed to follow up exciting results from the deep IP survey carried out over the region at the end of 2020. This survey was definitive in highlighting Juruena's potential to contain various major magmatic hydrothermal related Porphyry and Epithermal styles of Au-Cu mineralisation (Figure 2).

The IP survey returned a large, high chargeability anomaly just below the outcropping high-grade epithermal Au-Cu deposits, centred at the Uilliam/Mauro Target. The high chargeability anomaly was interpreted to be located approximately 500m below the surface and associated with a potential giant porphyry Au-Cu target (ASX:MEI 09/12/2020 & 02/02/2021).

The first of the three planned deep drillholes (**JUDD042**) reached 643m before drilling was temporarily halted due to the detection of Covid 19 on site on 7 April 2021. The Covid 19 occurrence immediately initiated Meteoric's emergency action plan, with all staff and contractors evacuated from site into isolation facilities in Alta Floresta and Goiania. Fortunately, the majority of infected staff were asymptomatic and only two staff experienced moderate symptoms. Based on local medical advice, all non-infected staff were returned to site in the following days and drilling recommenced on the 14/04/2021.

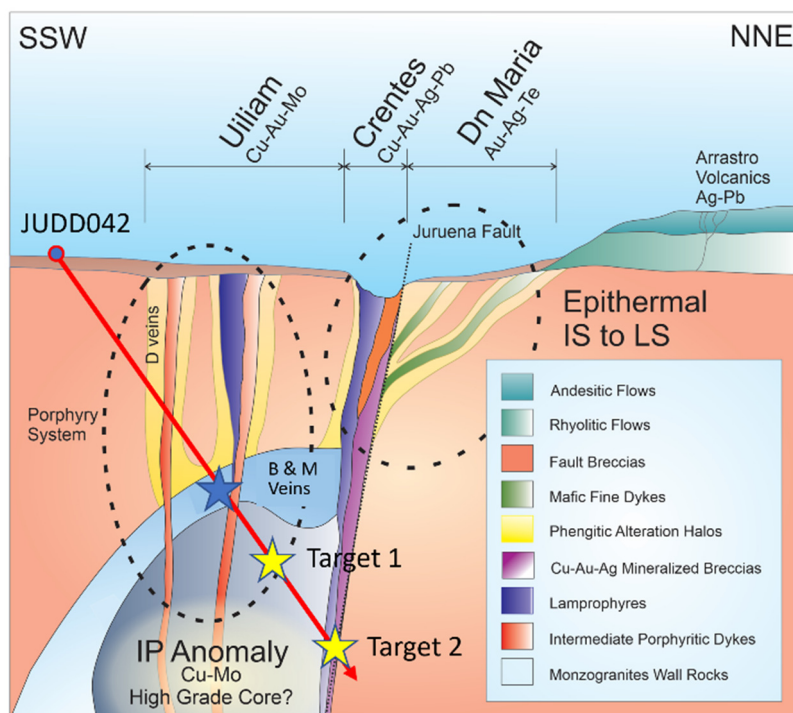


Figure 2: A stylised cross-section showing the interpreted magmatic system for a porphyry-epithermal Au-Cu-Mo-Ag style of mineralisation. IS = Intermediate Sulphidation LS = Low Sulphidation. The Red line indicates the approximate trace of JUDD042 and the Blue Star marks the approximate position of the hole at 500m depth.

Target 1 is the deep IP anomaly and Target 2 is the Juruena Fault.

The hole was halted at approximately 650m depth due to a Covid outbreak onsite and drilling recommenced on 14/04/2021.

JUDD042 is designed to test two deep targets; Target 1 is the central portion of the deep IP chargeability anomaly seen in the 2020 deep IP survey, Target 2 is the depth extension of the copper-gold zone at Crentes within the Juruena Fault zone. Core examined to date from drill-hole **JUDD042** exhibited strong phyllic alteration of granitic host rocks with multiple thin quartz pyrite +/- molybdenite veins. Rare quartz + chalcopyrite + bornite veins have also been observed during preliminary logging. This is the first time bornite (Cu_5FeS_4) has been observed outside the Juruena Fault Zone and when combined with the presence of molybdenite and phyllic alteration, is certainly suggestive of a potential porphyry copper environment.

The Crentes Prospect immediately south of the Dona Maria gold zone is an East West trending zone of breccias and intrusives hosting significant copper-gold mineralisation. The Juruena Fault zone is clearly a deep-seated structure that is one of the main faults controlling mineralisation across the Juruena Project. Geological targeting suggests the Juruena Fault is the major fluid pathway for copper gold fluids and intrusive rocks and testing this structure at depth is one of the major objectives of the Company's 2021 deep drilling program.

Final assay results from the 2020 Drill Program showed a standout intersection from Target 2, drill-hole **JUDD039**, which intersected the Crentes Epithermal Au-Cu Prospect within a zone of intense hydrothermal brecciation cemented by intense silicification and assayed 51.0m @ 1.40 g/t Au & 0.25% Cu from 118m (Table 1).

Table 1: JUDD039 main mineralised intersections.

Prospect	Hole ID	From (m)	To (m)	Interval (m)	Au Grade (g/t)	Gram.Metres (g/t.m)	Cu Grade (%)
Dona Maria/ Crentes	JUDD039	118.00	169.20	51.20	1.40	72	0.25*
	<i>including</i>	127.80	130.60	2.80	6.41	18	0.85*
	<i>and</i>	143.60	163.20	19.60	1.88	37	0.51*
	<i>and</i>	165.50	167.30	1.80	6.92	12	0.04*

NOTE: min width 1.0m, lower-cut 0.5g/t, max 2m internal dilution

Other Australian Projects

Webb Diamond JV (Ownership 16 MEI / 84% Geocrystal Pty Ltd)

The Webb Diamond JV is focused on the evaluation of a large kimberlite field comprising 280 nulls-eye targets and covers an area of 400km². About 23% of the targets have been drill tested with 51 kimberlite bodies identified. There was no activity reported during the quarter.

Warrego North IOCG Project (Ownership 49% MEI / 51% Chalice Gold Mines Limited)

Located in the Northern Territory, the Warrego North Project is approximately 20km north west of the historical high-grade Warrego Copper-Gold Mine, the largest deposit mined in the area producing 1.3Moz Au and 90,000 tonnes of copper.

Chalice Gold Mines Limited (ASX:CHN) can earn up to 70% interest in the project by sole funding \$800,000. There was no activity reported during the quarter.

Corporate

The Company maintains a strong cash position with \$5.2 million cash on hand and 12,150,000 Rafaella Resources shares as at 31 March 2021.

ASX Additional Information

Meteoric provides the following information pursuant to ASX Listing Rule requirements:

- ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure spend during the quarter was \$1,062,000. Full details of exploration activity during the March 2021 quarter are set out in this report.
- ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the quarter
- ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the quarter was \$206,000 cash.

End Notes

The information contained in this announcement related to the Company's past exploration results is extracted from, or was set out in, the following ASX announcements which are referred to in this Quarterly Activities Report:

- The report released 2 February 2021, 'Drilling for a Giant Copper-Gold Porphyry'.
- The report released 8 February 2021, 'Outstanding Final Assays Extend Continuity of Palm Springs Gold Project'.
- The report released 18 February 2021, 'Deep Drilling Commenced on Potentially Giant Copper-Gold Porphyry Target at Juruena'.
- The report released 17 March 2021, 'Deep Drilling Reaches Top of Copper Gold Porphyry Target'.
- The report released 7 April 2021, '2021 Palm Springs Field Season Commences & Juruena Drilling Update'.

This release has been authorised by the Board of Meteoric Resources NL.

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The information in this announcement that relates to mineral resource estimates and exploration results is based on information reviewed, collated and fairly represented by Mr Peter Sheehan who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Mr Sheehan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Sheehan consents to the inclusion in this report of the matters based on this information in the form and context in which it appears. Additionally, Mr Sheehan confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

APPENDIX 1

TENEMENT HOLDINGS AS AT 31 MARCH 2021

Tenement	Status	Project	Ownership %	Change in Quarter
E80/4407	Granted	ANGAS HILL (Webb JV)	16%	(0.5%)
E80/4815	Granted	LAKE MACKAY (Webb JV)	16%	(0.5%)
E80/5121	Granted	WEBB DIAMONDS (Webb JV)	16%	(0.5%)
E80/5471	Granted	WEBB DIAMONDS (Webb JV)	16%	(0.5%)
E80/5496	Granted	WEBB DIAMONDS (Webb JV)	16%	(0.5%)
E80/5499	Application	WEBB DIAMONDS (Webb JV)	16%	(0.5%)
EL23764	Granted	WARREGO NORTH	49%	-
M80/0106	Granted	PALM SPRINGS	97%	-
M80/0315	Granted	PALM SPRINGS	97%	-
M80/0418	Granted	PALM SPRINGS	100%	-
P80/1766	Granted	PALM SPRINGS	100%	-
P80/1768	Granted	PALM SPRINGS	100%	-
P80/1769	Granted	PALM SPRINGS	100%	-
P80/1839	Granted	PALM SPRINGS	100%	-
P80/1854	Granted	PALM SPRINGS	100%	-
P80/1855	Granted	PALM SPRINGS	100%	-
E80/4856	Granted	PALM SPRINGS	100%	-
E80/4874	Granted	PALM SPRINGS	100%	-
E80/4976	Granted	PALM SPRINGS	100%	-
E80/5059	Granted	PALM SPRINGS	100%	-

BRAZIL

Claim No.	Status	City	Ownership %	Change in Quarter
Juruena Project				
866.079/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.081/2009	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%	-
866.082/2009	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%	-
866.084/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.778/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.531/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.532/2015	Granted Exploration Permit	COTRIGUAÇU/MT	100%	-
866.533/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.534/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.535/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.537/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.538/2015	Granted Exploration Permit	COTRIGUAÇU/MT	100%	-
866.085/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.080/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.086/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.247/2011	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-

866.578/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.105/2013	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.934/2012	Granted Exploration Permit	COTRIGUAÇU/MT	100%	-
866.632/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.633/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.294/2013	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.513/2013	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANT	100%	-
Novo Astro Project				
867.246/2005	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-

CANADA

Claim No.	Province	Project	Ownership %	Change in Quarter
Various	Ontario	IRON MASK	100%	-
Various	Ontario	MULLIGAN	100%	-
Various	Ontario	MULLIGAN EAST	100%	-
517797 - 517963	Ontario	BEAUCHAMP	100%	-