MINOTAUR EXPLORATION LIMITED
ACN 108 483 601
ASX: MEP

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ASX Release

Coherent EM conductor identified at Breena Plains, Queensland

Highlights

- EM geophysical survey at Breena Plains generates conductors at three locations
- Compelling 4km long high-conductance EM anomaly 'The Gap' to be drill tested
- Preparing for drilling in October
- Minotaur's Alliance position enhanced through recent purchase of Breena Plains tenure

Background

OZ Minerals (ASX: OZL), through the Breena Plains Alliance, is farming-in to the Breena Plains +1,200km² tenement package adjacent the Eloise and Jericho joint venture tenements (Figure 1). Breena Plains is the subject of a recent acquisition by Minotaur[1] where, at completion, full ownership will reside with Minotaur. The Alliance's funding arrangements and earn-in phases are detailed below. Minotaur's role is to conceive and develop exploration targets and manage program delivery.

Exploration results

The Alliance has been seeking Cannington style and Eloise/Jericho style polymetallic base metals mineral systems within the broader JV project area using deep-penetrating SQUID EM geophysical techniques.

A new basement interpretation geology model published by Karen Connors[2] from the Sustainable Minerals Institute, the University of Queensland, directed Minotaur's focus to the flank of a structural corridor where interpreted D2-age thrusts (faults) transect favourable stratigraphy (Figure 2). Minotaur views D2-age faults as key to mineralisation at the Jericho Cu-Au deposit, 30km north, discovered by Minotaur under the Eloise JV with OZ Minerals in 2017, using systematic ground EM surveys along a favourable fault corridor.

EM surveys were recently completed over the Murphy's Tank and Garnet Creek areas (Figures 1 and 2), targeting Eloise/Jericho Cu-Au style mineralisation. The Garnet Creek survey yielded 3 conductive anomalies.

1 Minotaur Exploration ASX release dated 24 August 2021 *Minotaur acquires full ownership of Altia polymetallic project*
2 Connors, K. 2019, Central Eastern Fold Belt, *North West Queensland: Solid Geology Interpretation and Insights from Crustal Architecture.* The University of Queensland, Report and Digital Data Package CR123565, 57p.

The most significant response is a +4km-long, very strong basement conductor named 'The Gap' (Figure 3). The Gap has modelled plate conductivity thickness values ranging 1,000-5,500 Siemens and depth extents in excess of 500m. The size, strength and overall length of The Gap anomaly is similar to that defined at Jericho. Significantly, The Gap conductor lies immediately adjacent and parallel to an interpreted D2 thrust cutting the interpreted Mount Norna Quartzite, the same stratigraphic unit hosting Jericho. The anomaly is covered by younger sediments, however historic drilling in the general area (none into the anomaly), indicates the cover is likely less than 30m thick. The Gap is a compelling drill target and will initially be investigated with up to 5 x 200m RC drill holes.

Basement conductors are also identified at 'Maxwells' and 'Bond' (Figure 3). Maxwells lies at a separate interpreted D2 thrust position and is 3km long, generally has lower conductance than The Gap and an historical drill hole indicates the presence of graphitic basement rocks could be the source of this anomaly. Similarly at Bond, the conductance of the EM plate model is only modest and an adjacent historic drill hole intersected graphite. However, that hole reported a 2m zone containing 2.4% Zn. Both Maxwells and Bond conductors will be assessed for further attention.

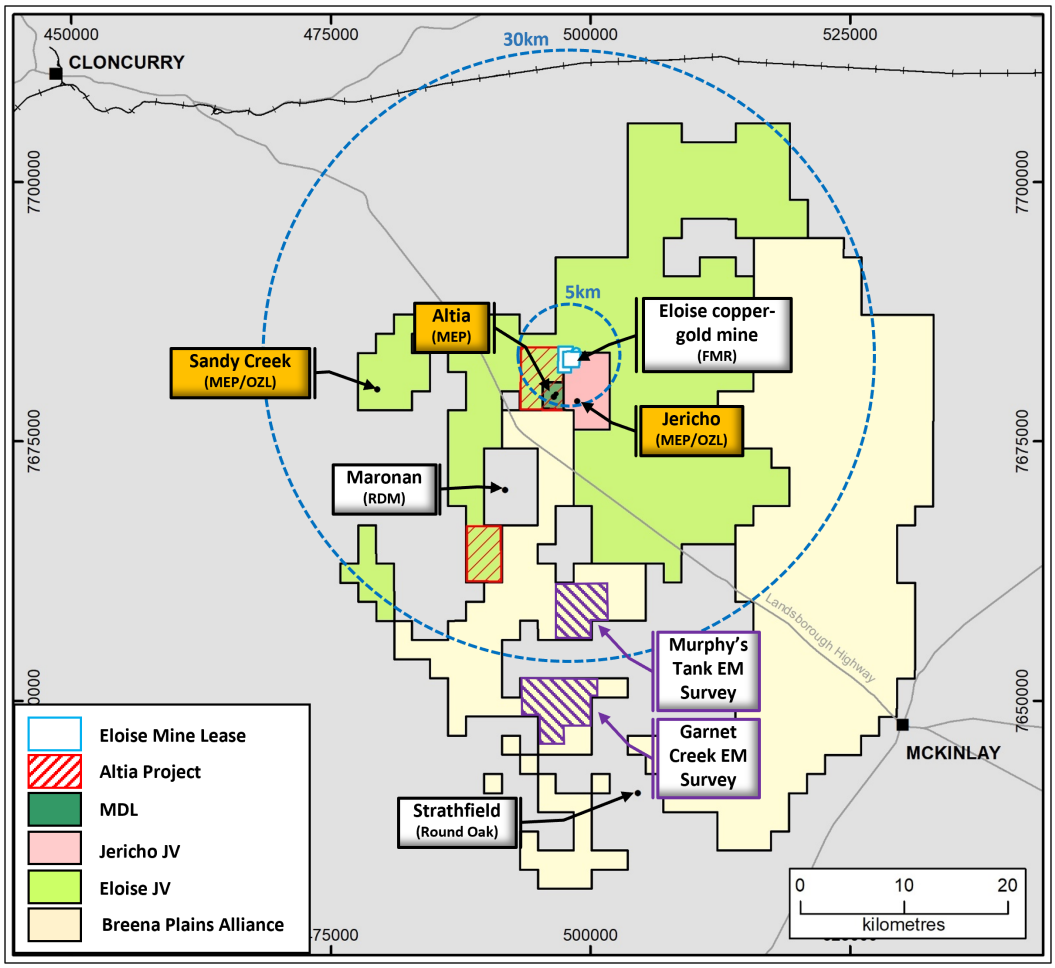

Figure 1: *Tenement Map showing Breena Plains Alliance area, Eloise and Jericho JVs, Altia project area, significant deposits and EM survey areas*

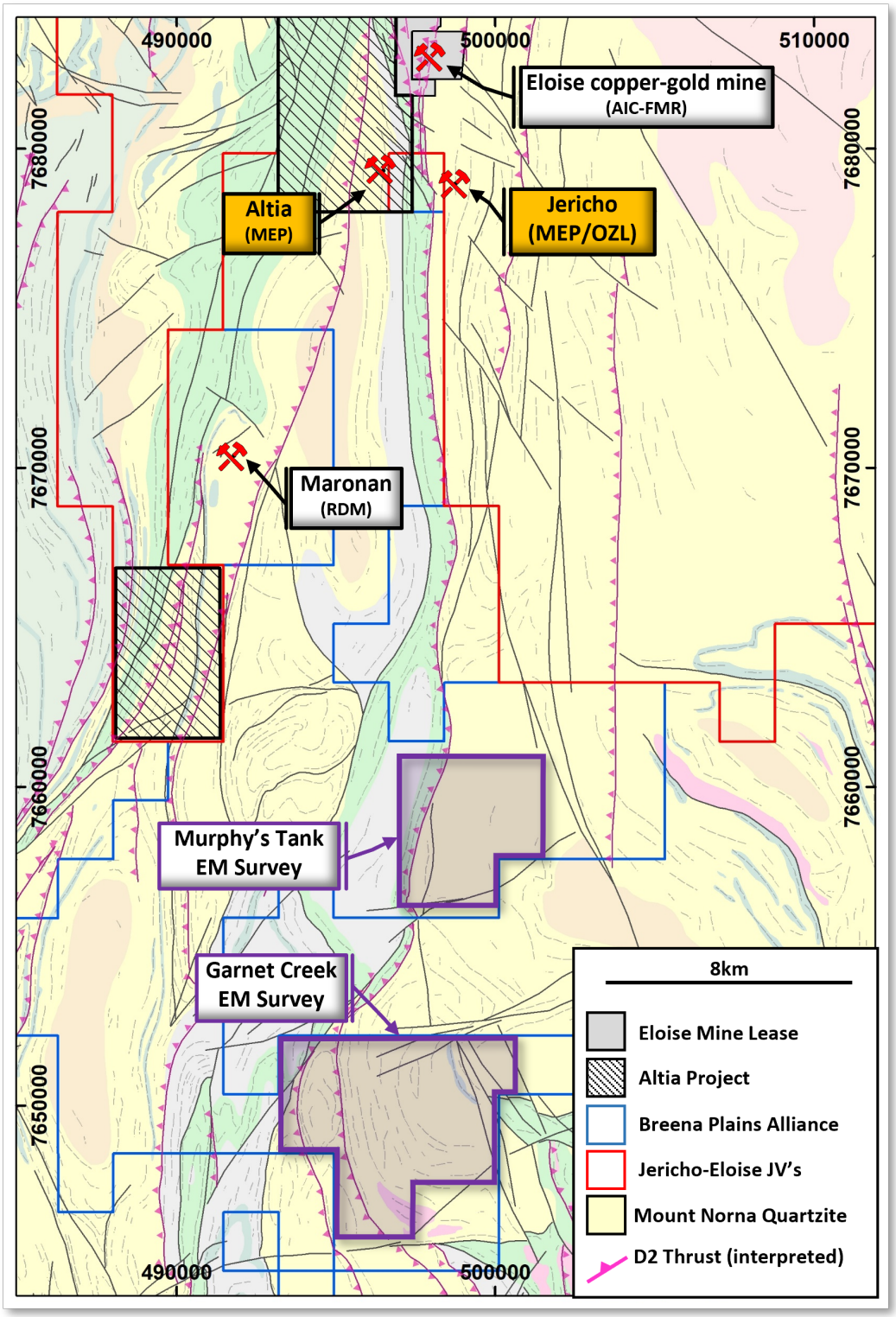

Figure 2: *EM survey areas over interpreted base geology with main deposit locations (basement geology map modified from source referenced in Footnote 3)*

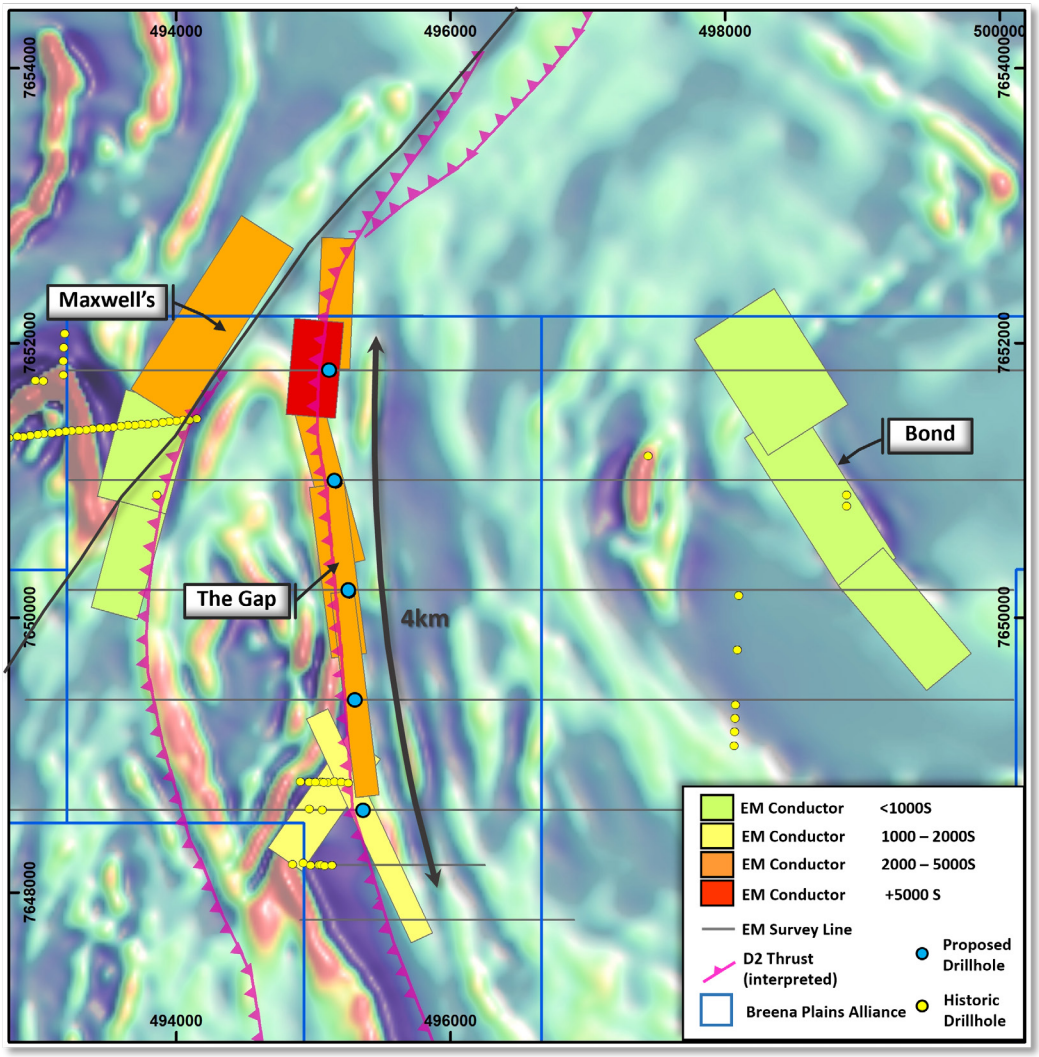

Figure 3: *EM conductor plate models for The Gap, Maxwell's and Bond over 1VD magnetic image and main D2 thrusts*

Next Steps

Minotaur is preparing for a maiden drill program to investigate The Gap EM target. Landholder meetings and NT Clearances are being arranged, with drilling anticipated in October-November.

Breena Plains Alliance earn-in phases and funding arrangement

The Alliance can elect to earn an initial 51% tenement interest, from Minotaur, by sole funding $4.35 million by February 2023. The Alliance may subsequently earn an additional 24% interest for the additional expenditure of $4 million over the next 2 years. Thus, to attain its maximum interest of 75% by February 2025, the Alliance must invest $8.35 million.

To attain the Alliance's initial 51% earn-in goal, OZ Minerals continues to fund all exploration. As a consequence of Minotaur's prior acquisition of Breena Plains, the relative ownership ratios at this stage will become Minotaur 64.3% and OZ Minerals 35.7%.

Subsequently, OZ Minerals and Minotaur may contribute further $4 million on a 70/30 basis over 2 years (conceivably 2023 – 2024) to achieve the Alliance's collective and ultimate 75% interest. As a consequence of Minotaur's acquisition of Breena Plains the ultimate ownership ratios at culmination of the final earn-in stage will be Minotaur 47.5% and OZ Minerals 52.5%.

Company comment

Minotaur is encouraged by the EM anomalism coincident with our technical team's basement interpretation geological model, particularly given evident similarities (at The Gap) to the Jericho system. While stratigraphic origins could explain the geophysical responses both Minotaur and partner OZ Minerals rank the targets highly and expect to fully drill investigate The Gap during 2021.

Emergence of these results alone validates Minotaur's recent strategy to acquire Sandfire's prospective regional tenement group, especially Breena Plains close to the Jericho resource.

Authorisation

This report is authorised by Mr Andrew Woskett, Managing Director of Minotaur Exploration Ltd. For further information please contact Mr Glen Little, Manager Business Development and Exploration on 0428 001 277.

COMPETENT PERSON'S STATEMENT

Information in this report that relates to Exploration Results is based on information compiled by Mr. Glen Little, who is a full-time employee of the Company and a Member of the Australian Institute of Geoscientists (AIG). Mr. Little has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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 (JORC Code). Mr. Little consents to inclusion in this document of the information in the form and context in which it appears.

JORC Code, 2012 Edition, Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	• The EM survey within the Breena Plains JV area was conducted by GEM Geophysics, an external geophysical contractor. • The survey was conducted as a moving loop survey using a 3-component Jessy Deep HT SQUID EM sensor. • EM data receiver stations were spaced at 50m and 100m intervals along E-W lines and each E-W line was spaced at either 400m or 800m intervals over the survey area. • Data quality was of a high standard for the whole of the survey and consistent with the type of target being sort.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Internal checks of equipment was conducted prior to and during commencement of the survey to enquire the SQUID sensor was calibrated and measuring correctly and would therefore give the best representative sample results for this type of survey.
	Aspects of the determination of mineralisation that are Material to the Public Report.	• Not relevant to this report
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.	• EM Transmitter loops were 200m x 200m in size using a moving-loop survey method. The transmitter frequency was set to 0.25 Hz with 70 Amps. This type of system and loop configuration is considered appropriate for the survey area where the targeted basement rocks are covered by <100 of younger conductive cover and for the target size of any potential mineralisation.
Drilling techniques	*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*	• Not relevant to this report

Criteria	JORC Code explanation	Commentary
	diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	• Not relevant to this report
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	• Not relevant to this report
	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.	• Not relevant to this report
Logging	*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.*	• Not relevant to this report
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Not relevant to this report
	The total length and percentage of the relevant intersections logged.	• Not relevant to this report
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	• Not relevant to this report
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• Not relevant to this report
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• Not relevant to this report
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• Not relevant to this report

Criteria	JORC Code explanation	Commentary
	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.	• Not relevant to this report
	Whether sample sizes are appropriate to the grain size of the material being sampled.	• Not relevant to this report
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• Not relevant to this report
	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.	• Not relevant to this report
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• Not relevant to this report
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	• Not relevant to this report
	The use of twinned holes.	• Not relevant to this report
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Not relevant to this report
	Discuss any adjustment to assay data.	• Not relevant to this report
Location of data points	*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*	EM stations and loop co-ordinates are located and recorded using a handheld GPS with a level of accuracy of approximately +/- 3m which is considered adequate for exploration ground geophysics.

Criteria	JORC Code explanation	Commentary
	estimation.	•
	Specification of the grid system used.	• Grid system used is MGA, Datum GDA94, Zone 54.
	Quality and adequacy of topographic control.	• Not relevant to this report
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	• EM data receiver stations were spaced at 50m and 100m intervals along E-W lines and each E-W line was spaced at either 400m or 800m intervals over the survey area.
	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.	• Not relevant to this report
	Whether sample compositing has been applied.	• Not relevant to this report
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• EM lines were orientated at a high angle to the interpreted geological strike.
	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.	Not relevant to this report
Sample security	*The measures taken to ensure sample security.*	• Not relevant to this report
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• All data was reviewed by GEM Geophysics and MEP in-house geophysicist daily. Final data package was peer reviewed by the JV partner in-house technical team.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*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.*	• The information that relates to the ground EM survey conducted by Minotaur Exploration Ltd is from EPM's 26184, 26447 and 26508. The tenements are in the name of Sandfire Resources NL. • EPM's 26184, 26447 and 26508 form part of a Farm-in and Joint Venture (JV) Agreement between the Minotaur Exploration and OZ Minerals Cloncurry Alliance with Sandfire Resources Ltd called the Breena Plains JV. The Breena Plains JV tenements are part of a recent acquisition by Minotaur to assume Sandfire Resources rights. Details of the current arrangement for the JV and Alliance are provided in the main body of the report. • EPM's 26184, 26447 and 26508 have a registered Native Title Claim over it in the name of Mitakoodi and Mayi People #5 (Federal Court File No: QUD556/2015). Application No. QC2015/009). A Native Title Agreement is in place.
	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.	• EPM's 26184, 26447 and 26508 are secure and compliant with the Conditions of Grant. There are no impediments to obtaining a licence to operate.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• Historical exploration by other companies across the EM survey area includes airborne magnetic, gravity and electromagnetic surveys, along with local detailed magnetic traverses and Sirotem. Drilling has been conducted over portions of the EM survey area but The Gap EM conductor has not been previously drill tested.
Geology	*Deposit type, geological setting and style of mineralisation.*	• Within the eastern portion of Mt Isa Block targeted mineralisation styles include: IOCG and ISCG styles of mineralisation associated with ~1590–1500Ma granitic intrusions and fluid movement along structural contacts e.g. Eloise Cu-Au; and sediment-hosted Zn+Pb+Ag deposits e.g. Mt Isa, Cannington.

Criteria	JORC Code explanation	Commentary
Drill hole Information	*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:* ▪ *easting and northing of the drill hole collar* ▪ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ▪ *dip and azimuth of the hole* ▪ *down hole length and interception depth* ▪ *hole length.*	• No drill data is presented in this report. Data relating to the EM survey results is sufficiently explained in other sections above.
	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.	• No drill data is presented in this report. Data relating to the EM survey results is sufficiently explained in other sections above.
Data aggregation methods	*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.*	• Not relevant to this report
	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.	• Not relevant to this report
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Not relevant to this report
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with*	• Not relevant to this report

Criteria	JORC Code explanation	Commentary
	respect to the drill hole angle is known, its nature should be reported. *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').*	
Diagrams	*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.*	• The location of the EM survey area is presented in Figure 2 of this report. A more detailed map is provided in Figure 3 of this report showing the EM conductor plates models for The Gap, Maxwell's and Bond EM conductor anomalies.
Balanced reporting	*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.*	• Information presented in this report is relatively brief due to the nature of the geophysical data collected and models produced. The only way to test the EM "targets" is to drill them and those results will be reported once drilling is completed and the drill data becomes available.
Other substantive exploration data	*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.*	• No substantive exploration data has been omitted
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Follow-up work is yet to be determined as the EM targets are yet to be drill tested. Any further work requirements will be reported once the proposed drilling has been completed, assessed and reported.

Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Refer to Figure 3 in the report that shows the size and location of the EM targets. No other technical images are supplied due to the early stage of exploration. More detailed diagrams will be provided once the proposed drilling has been completed, assessed and reported.