ASX RELEASE

28 June 2021

Mount Squires Exploration Update

HIGHLIGHTS

- **Potential Porphyry Copper style geochemical signature recognised at the new Duchess Prospect**
  - **Characteristic Mo-Pb-Cu-Au zonation over an area >2km^2**
- **IP chargeability anomaly recognised adjacent to Handpump Prospect**
- **Planning of reconnaissance drilling and extension of soil geochemistry program well advanced**
- **Additional Ni-Cu potential to be assessed through geophysical surveys**

Caspin Resources Limited **(ASX: CPN) ("Caspin" or "the Company")** is pleased to provide an update on the Company's exploration activities at the Mount Squires Project in the West Musgrave region of Western Australia. The Mount Squires Project is an early stage, greenfield exploration project prospective for gold, nickel and copper, complementing the Company's flagship Yarawindah Brook Ni-Cu-PGE Project.

Caspin Chief Executive Officer, Mr Greg Miles, said "These results are a timely reminder of the exceptional opportunity that exists at the Mount Squires Project. The Mount Squires Project is vast, under-explored but highly prospective and we can make significant advancements rapidly with relatively small investments in new data.

"We've previously identified gold mineralisation at the Handpump Prospect that demonstrated evidence of mineralising processes at the project, but this is now dwarfed by the scale of the potential Porphyry Copper style system at the Duchess Prospect. In addition, we've now identified an interesting IP anomaly between Handpump and Duchess that is also consistent with a porphyry mineralisation model. The results warrant further exploration and we are currently planning work programs to be conducted in parallel with our Yarawindah Brook activities, giving our investors further exposure to a large-scale discovery."

The Duchess Prospect - A Potential Porphyry Copper Style System

675 close-spaced soil geochemical samples were collected over the Handpump structural corridor utilising an ultra-fine fraction assay technique which is well suited to sandy soil conditions.

The survey has identified a zoned molybdenum (Mo) – lead (Pb) – copper (Cu) – gold (Au) anomaly covering an area of at least 2km^2, approximately 4km southeast of the Handpump Prospect, referred to as the Duchess Prospect (Figure 1). The zonation of the anomaly is characteristic of deeply-weathered Porphyry Copper systems in which Cu, Au and Pb are usually strongly leached, whilst more immobile elements such as Mo remain in-situ, proximal to mineralisation in the core of the system.

Additional zonation effects are observed in tin (Sn), thallium (Tl), bismuth (Bi) and selenium (Se), which are all common elements found in halos around intrusive porphyry systems (See Appendix A).

Caspin Resources Limited
ABN 33 641 813 587
Ground Floor, 16 Ord Street
West Perth WA 6005, Australia
PO Box 558, West Perth WA 6872
www.caspin.com.au
ASX Code: **CPN**
E admin@caspin.com.au
T +61 (8) 6373 2000

In this geological model the Handpump Prospect could represent a distal, gold-only part of the larger system (see Appendix A for simple description of porphyry systems).

The Duchess Prospect has not been drill tested with almost all the previous drilling focussed at the Handpump Prospect.

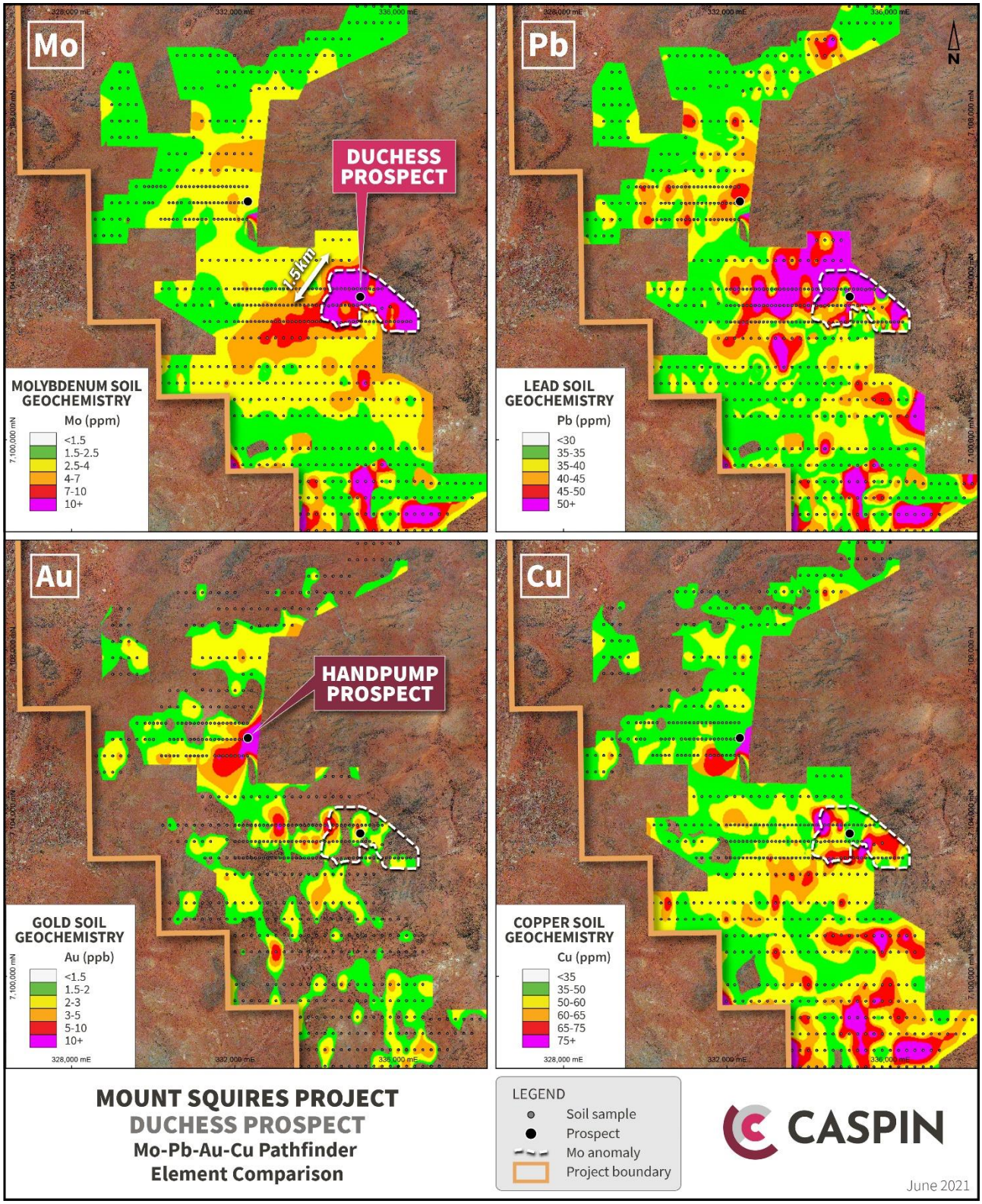


Figure 1. Duchess Prospect multi-element anomaly zonation mapping.

IP Chargeability Anomaly adjacent to Handpump Prospect

Induced polarisation (IP) is a geophysical technique that measures chargeability and resistivity and is the primary geophysical technique used in exploration for Porphyry Copper deposits. The IP method is particularly well-suited for targeting disseminated-sulphide mineralisation, which characterises Porphyry Copper orebodies.

An IP survey was completed across the Handpump Prospect by previous explorers in 2010, consisting of a gradient array grid to map shallow IP/resistivity, and a single line of Dipole-Dipole IP to add some depth constraints to the anomalies seen in the gradient array data. The Company has re-processed the Dipole-Dipole data and generated a new inversion model, extending below the 200m depth limit of the historical model.

The new model confirms a zone of shallow chargeability, coincident with the historical gradient array anomaly, closely associated with the known gold mineralisation at the Handpump Prospect. Very significantly, however, a second feature has emerged from this reprocessing that appears to represent a deeper chargeability anomaly below the depth of investigation of the gradient array survey. This deeper anomaly is a consistent feature in all recent inversion model iterations. This deeper anomaly could potentially represent sulphide mineralisation and has not been drill tested.

Detailed magnetic data for the Handpump area provides further support for this deeper IP anomaly. The anomaly occurs on the margin of a well-developed circular magnetic feature, closely associated with the Handpump Prospect (see Figures 2 and 3). The Company considers that this magnetic feature might represent a magmatic intrusion associated with the Handpump mineralised system.

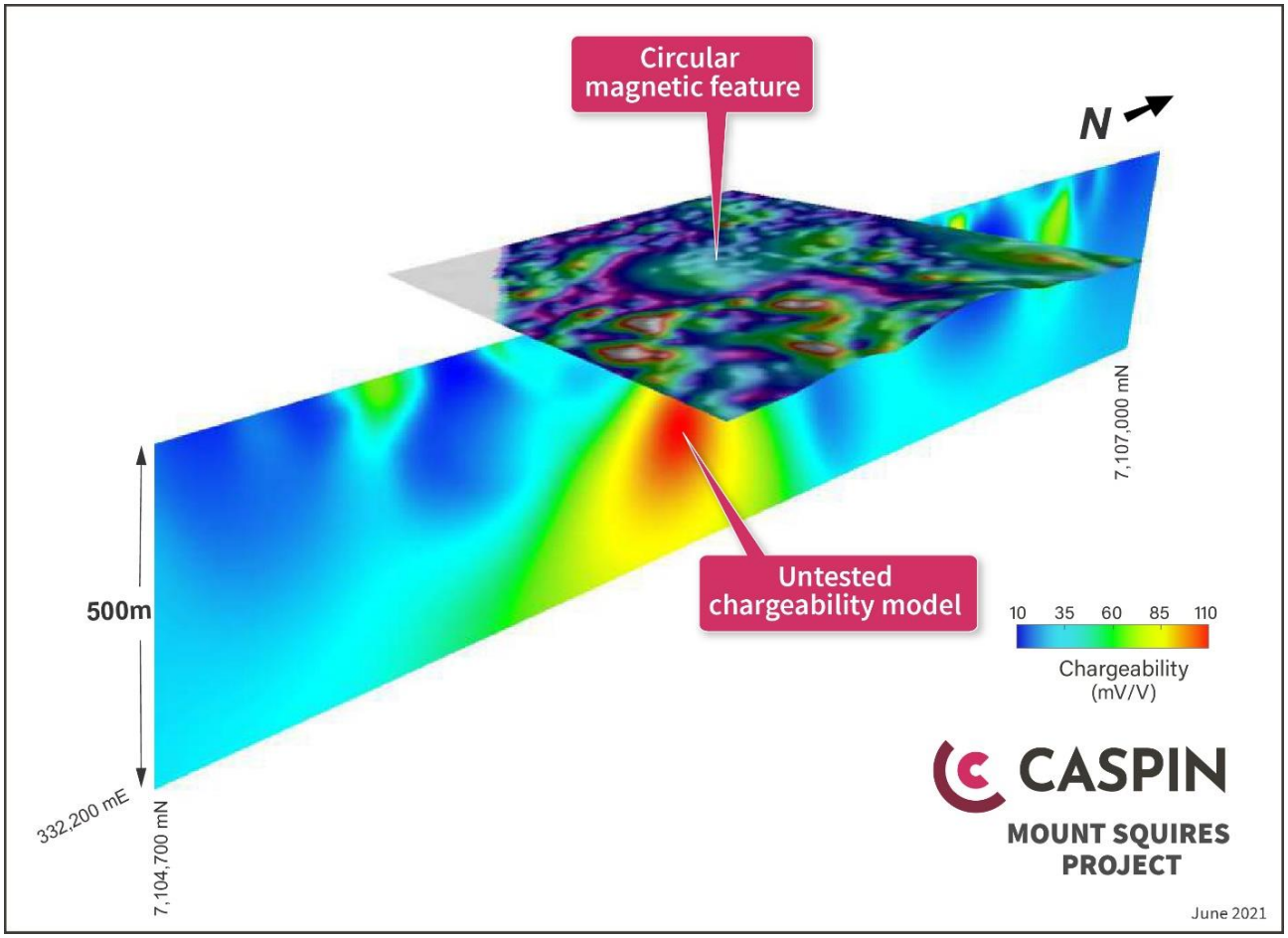


Figure 2 – Oblique view of Handpump Dipole-Dipole IP Inversion and magnetics showing relationship between IP anomaly and circular magnetic feature.

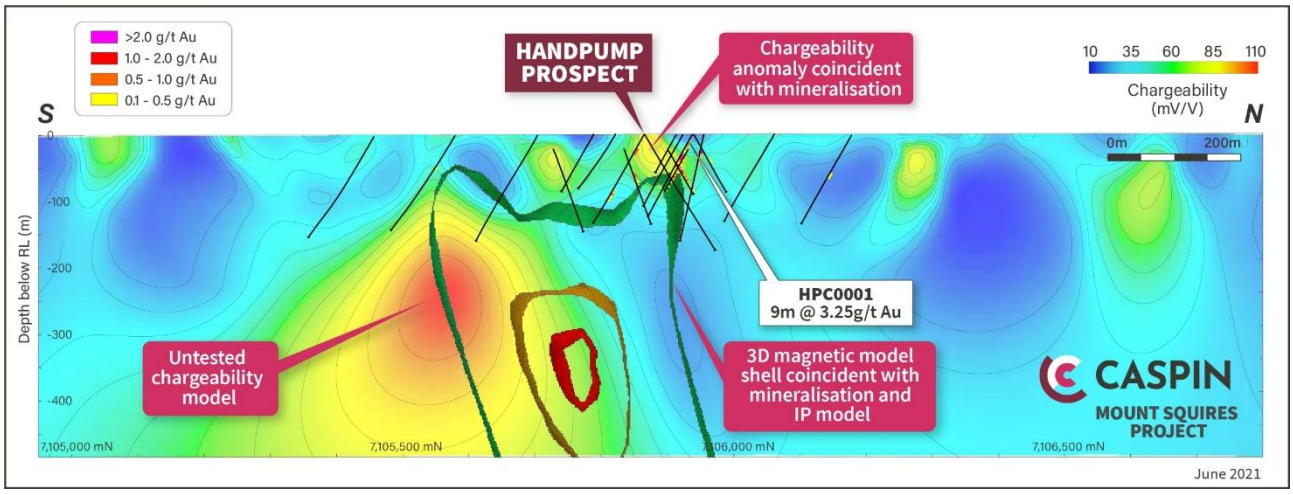


Figure 3. Handpump Dipole-Dipole IP Inversion section showing IP anomaly, drill holes, gold mineralisation and association with 3D magnetic inversion model.

Next Steps – Au-Cu Exploration

The Company has identified several fronts on which to advance the Mount Squires Project:

- Undertake a new IP survey over the Duchess Prospect to identify potential sulphide mineralisation that may represent a blind Porphyry Copper style deposit.
- Simultaneously conduct a reconnaissance-style drilling program across the Duchess Prospect to test Au and Cu mineralisation beneath the weathering zone. A suitable drill rig is currently being sourced.
- Drill test the Handpump IP anomaly. This would be a separate program from the reconnaissance drill program requiring a rig with greater depth capabilities.
- Extend the soil geochemistry program further to the southeast along the Handpump structural corridor.

Ni-Cu Exploration Potential

The Company is also evaluating the Ni-Cu sulphide potential on the eastern-side of the Mount Squires Project area. The Company's tenure covers the strike-extension of >40km long, ENE-trending West Musgrave mineralised corridor. The known mineralised extent of this corridor, extends from the Suez prospect in the east to the One Tree Hill prospect outside the immediate eastern lease boundary of the Company's Mt Squires project. This West Musgrave corridor hosts major ore-deposits at Babel, Nebo and Succoth (owned by OZ Minerals), together with a number of other prospects. The One Tree Hill prospect, located only 200m outside the Company's tenement boundary, has previously returned drill intercepts of 40m @ 1.2% Cu & 22m @ 1.8 % Cu. Mafic intrusive rocks of the same age as those that host Babel-Nebo are known to occur within the projected strike-extension of this mineralised corridor into the Mt Squires project area. Therefore, an aerial electromagnetic survey, over an area of approximately 100km^2, is being planned to cover this corridor and projected strike-extension.

This announcement is authorised for release by the Board of Caspin Resources Limited.

-ENDS-

For further details, please contact:

Greg Miles
Chief Executive Officer
admin@caspin.com.au
Tel: +61 8 6373 2000

APPENDIX A:

Background on Porphyry Deposits and Geological Context for the Duchess and Handpump Prospects

Porphyry deposits are the dominant source of global copper and molybdenum production and can also be very large gold deposits, either as the primary metal or as an important by-product. Some of the more well-known deposits include Escondida in Chile, Grasberg in Indonesia, Bingham Canyon in USA and Cadia in Australia.

These deposits are formed in volcanic arc settings, from the fractionation of large volumes of hydrous magma and the concentration of ore-metals into hydrothermal fluids. These deposits are closely associated with concentrations of syn-mineralisation porphyritic intrusions (hence the deposit-type name)

The alteration and mineralisation in porphyry systems is often zoned outwards from the central concentration of magmatic intrusions. Typically, Cu ± Au ± Mo mineralisation is centred on the core of the system, grading outwards to Cu ± Au, to distal Au or Zn-Pb-Ag deposits. This zonation occurs laterally as well as vertically and therefore the erosional surface must be considered when exploring for these types of deposits as well as the effect of weathering processes (i.e. leaching or supergene enrichment).

The Handpump and Duchess prospects are hosted by a sequence of rhyolitic volcanic and associated volcaniclastic rocks. These rocks are part of the c. 1075 Ma Bentley Supergroup, which is dominated by volcanic rocks associated with the Warrakurna Large Igneous Province. This is the same province that host the Babel-Nebo Ni-Cu sulphide deposits. Although these volcanic rocks are Mesoproterozoic, they are almost undeformed because of their unusual intracratonic setting. This setting is very significant because it permits Porphyry – epithermal mineralised systems to be preserved, whereas they are normally eroded away in such older rocks.

The Handpump and Duchess Prospects are located on the margin of the Palgrave Caldera, which has a diameter of about 20-30km. The Palgrave Caldera has been interpreted as the remnants of super-volcano, similar to that observed today at Yellowstone in Wyoming. Caldera margins are commonly prospective for magmatic-hydrothermal mineralisation.

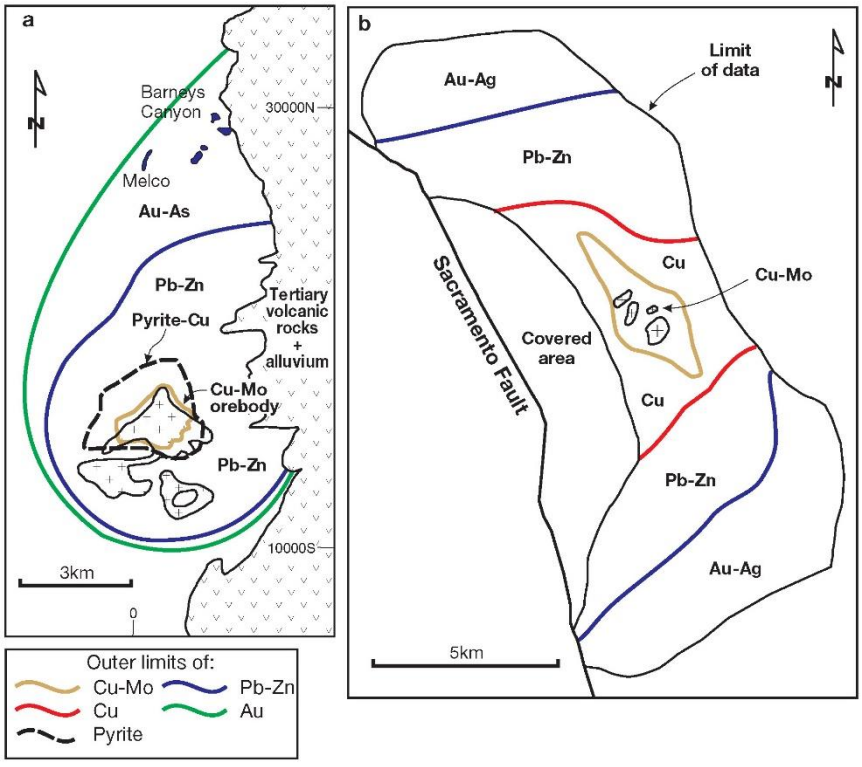


Figure 4. Examples of metal zonation at Bingham, USA (a) and Mineral Park USA (b). Sillitoe 2010.

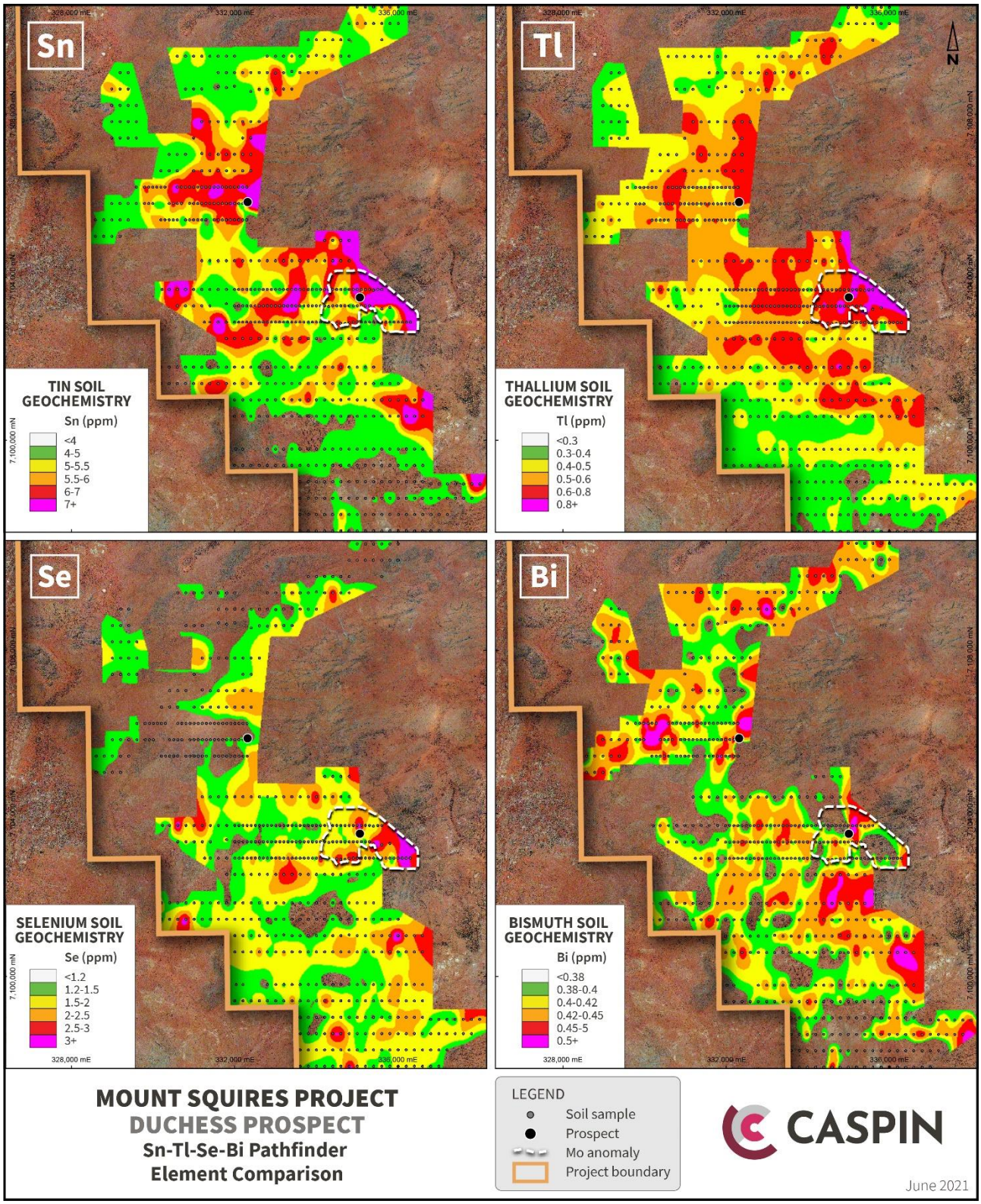


Figure 5. Duchess Prospect pathfinder element zonation mapping.

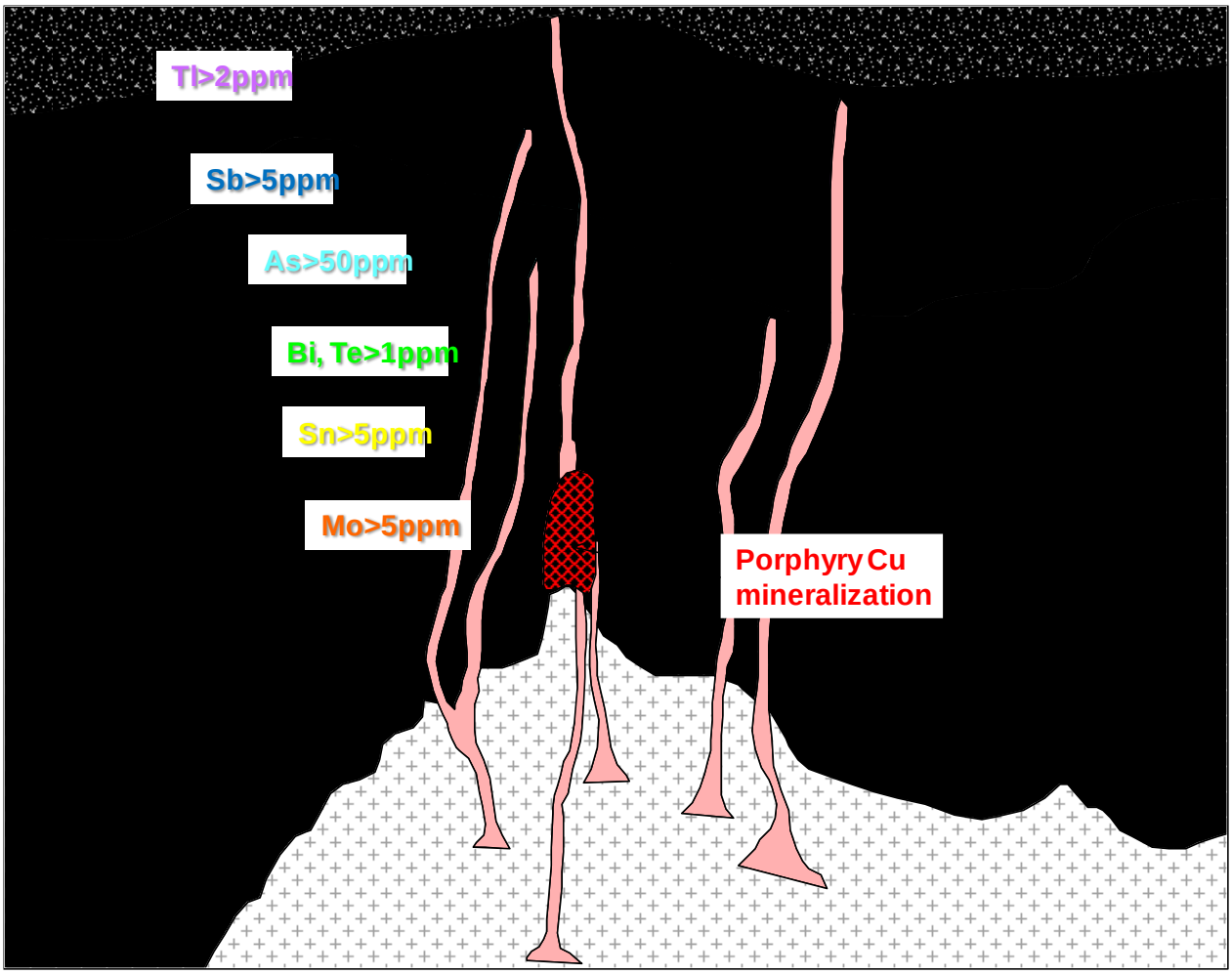


Figure 6. Zonation of pathfinder elements associated with porphyry copper deposits. (Halley, 2016)

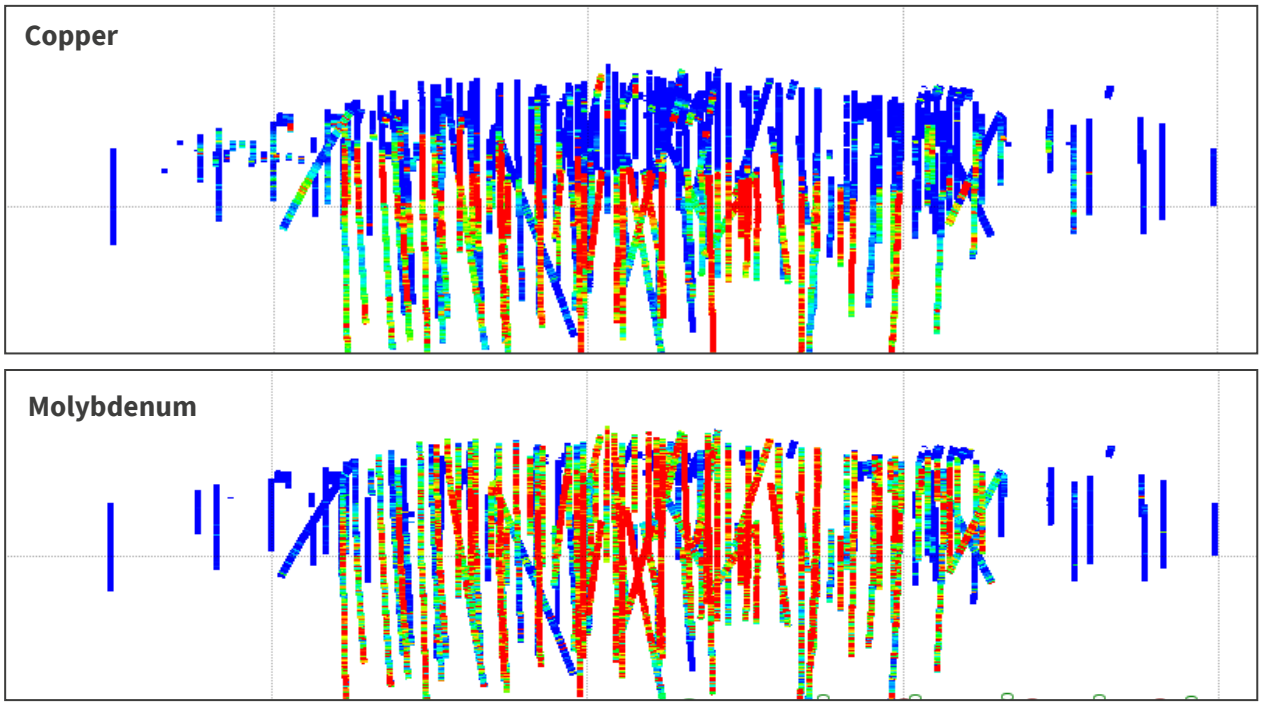


Figure 7. Contrasting behaviour of copper and molybdenum in a supergene weathered profile. (Halley, 2016)

Acknowledgement – Figures in Appendix A sourced from "Porphyry Copper Systems", Sillitoe, R. H. (2010) and Mineral Mapping Pty Ltd (www.scotthalley.com.au).

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, a Competent Person who is an employee of the Company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities 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 Miles consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

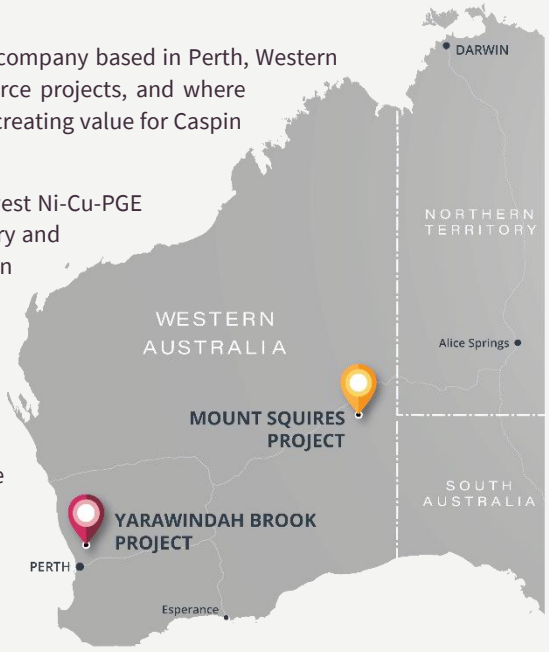
The Company confirms that it is not aware of any new information or data that materially affects the Exploration Results information included in this report from previous Company announcements (including drill results extracted from the Company's Prospectus announced to the ASX on 23 November 2020.

ABOUT CASPIN

Caspin Resources Limited (ASX Code: **CPN**) is a new mineral exploration company based in Perth, Western Australia. Caspin's strategy is to explore and progress its mineral resource projects, and where appropriate, generate, earn into, or acquire new projects with the aim of creating value for Caspin shareholders.

At the Yarawindah Brook Project, Caspin will be exploring Australia's newest Ni-Cu-PGE province, advancing exploration on multiple fronts using soil geochemistry and Airborne EM in search of new Ni-Cu-PGE sulphide deposits. Caspin will then test the most prospective targets with drilling programs.

At the Mount Squires Project, Caspin has identified a 50km structural corridor with significant gold mineralisation. The Company will conduct further soil sampling and reconnaissance drilling to identify new targets along strike from the Handpump Prospect. Caspin will concurrently continue to evaluate the potential for Ni-Cu mineralisation along strike from the One Tree Hill Prospect and Nebo-Babel Deposits.



FOLLOW US

LinkedIn: https://www.linkedin.com/company/caspin-resources-limited
Twitter: https://twitter.com/CaspinRes

ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the Yarawindah Brook Project.

SECTION 1: **Sampling Techniques and Data** (Criteria in this section apply to all succeeding sections)

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.*	All surface samples discussed in this announcement were collected by Caspin or Cassini Resources. Surface soil samples were collected on 400m lines with 200m or 100m spacing along lines. Soil samples were collected by digging a 30x30x20cm pit, cleaning the base of the pit out before homogenising the sample. The sample was immediately sieved to 80# or 177 microns, approximately 400g was collected and stored in a paper geochem bag.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sampling has been carried out under Caspin protocols and QAQC procedures as per industry best practice.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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.	Samples were analysed by Labwest using the Ultrafine+ method developed by the CSIRO for exploration of blind deposits and in areas of cover. A 2g portion of the 2 micron fraction is extracted for assay.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Not applicable as no drilling results reported.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not applicable as no drilling results reported.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable as no drilling results reported.
	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 applicable as no drilling results reported.
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 applicable as no drilling results reported.

Criteria	JORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not applicable as no drilling results reported.
	The total length and percentage of the relevant intersections logged.	Not applicable as no drilling results reported.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable as no drilling results reported.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Samples were sieved to 80# or 177 micros in the field. The lab extracted a 2g sample of the 2 micron (clay fraction) for assay.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Ultrafine+ is a relatively new technique developed by the CSIRO. Caspin collected an orientation line where conventional methods were compared with the Ultrafine method. Ultimately Caspin chose the UFF+ method for the remaining samples.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Caspin QC procedures involve the use of duplicates. Caspin also completed an orientation line and the selection of a certified laboratory with internal QAQC procedures.
	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.	The sampling of duplicates and an orientation line.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for the regolith type and style of mineralisation
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.*	All soil samples were submitted to Labwest in Malaga for analysis using UFF+. Samples were digested with a microwave assisted, aqua regia process before analysis with via ICPMS. An orientation line was completed where samples were analysed by a more conventional method and results cross referenced with the UFF+ technique.
	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 applicable as no geophysical results reported.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. Repeat or duplicate analysis for samples did not highlight any issues.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Not applicable as no drilling results reported.

Criteria	JORC Code explanation	Commentary
	The use of twinned holes.	Not applicable as no drilling results reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geochemical sample coordinates and geological information was recorded in field books and coordinates and track data from handheld GPS's was saved. Field data is entered into Excel spreadsheets and sent to Geobase Australia for validation and compilation into a SQL database server.
	Discuss any adjustment to assay data.	No assay data has been adjusted.
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 estimation.*	The location of all soil samples has been recorded using handheld GPS.
	Specification of the grid system used.	The grid system for the Mt Squires Project is GDA94 MGA Zone 52.
	Quality and adequacy of topographic control.	Topographic data was obtained from public download of the relevant 1:250,000 scale map sheets. The area exhibits subdued, low relief with undulating sand dunes and topographic representation is considered sufficiently controlled.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Variable, typically 400m x 200m with infill to 400m x 100m.
	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 applicable as no Mineral Resource and Ore Reserve reported.
	Whether sample compositing has been applied.	No compositing was applied.
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.*	At this early stage of exploration, mineralisation thickness', orientation and geometry are not known.
	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 applicable as no drilling results reported.
Sample security	*The measures taken to ensure sample security.*	Sample chain of custody is managed by Caspin Resources. Samples for the Mt Squires are returned to Perth after collection. Samples were stored in a locked sea container prior to submission.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Company geologists continue to review the data, no external reviews have been completed

Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

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 project area comprises two contiguous Exploration Licences, E69/3424 and E69/3425. Both Licences are held by Opis Resources Pty Ltd, a wholly owned subsidiary of Caspin Resources Limited. The tenements are located within Crown Reserve 17614, which is within the jurisdiction of the Ngaanyatjarra Land Council within Reserve 40783 for the Use and Benefit of Aboriginal Inhabitants.
	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.	Both tenements are currently live and in good standing. A Mineral Exploration and Land Access Agreement was signed with the Ngaanyatjarra Land Council in Feb 2017. No Mining Agreement has been negotiated.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Handpump Au anomaly was first identified by WMC in 1999 through the initial regional lag sampling in the West Musgraves, which also resulted in the discovery of the Nebo and Babel Deposits. The anomaly covered an area over 1.2km long and 400m wide with a maximum Au of 250ppb. WMC did not prioritise this target and there was no follow up work completed. In 2009, Beadell Resources drilled the Handpump anomaly with the best intersection being 15m @ 2.3 g/t Au from 31m. Two phases of follow-up RC drilling, both at the original Handpump Prospect and some of the newer prospects, were completed between 2009 and 2011, but no better results other than the original intersection were obtained. Additional work at the Mt Squires project included mostly surface geochemical sampling, which defined some additional prospects. Regional geochemical analysis by consultant Scott Halley defined an additional prospective target, Centrifical, which has not yet been drill tested. Beadell withdrew from the project in 2013 and the ground was subsequently applied for by Cassini which demerged into Caspin Resources, Cassini reviewed all existing historical exploration data and has defined several additional targets which have been previously reported. Some of the areas presently covered by Mt Squires project were also explored by Anglo American and Traka Resources. The work mostly included geochemical sampling and auger and vacuum drilling, but no significant Au anomalies were identified.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Mt Squires Project is located in the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt.

Criteria	JORC Code explanation	Commentary
		The Giles Event in the West Musgrave Province included emplacement and eruption of mafic to felsic magmas, all of which are grouped into Warakurna Supersuite. Bimodal volcanic rocks form the main component of the Bentley Supergroup. The Mt Squires Project area is south and southeast of the Mt Palgrave Intrusive Complex. The project is dominated by the bimodal Bentley Supergroup rhyolites, basalts and siliciclastic and volcaniclastic rocks, all of which were unconformably deposited on the amphibolite to granulite facies pre-Giles basement rocks. The Mt Palgrave Group is stratigraphically the lowest preserved unit of the Bentley Supergroup. The style of mineralisation is interpreted to be either epithermal or intrusion-related Au hosted within Bentley Supergroup.
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 drilling or rock chips are being reported.
	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.	The full element suite (51 elements) is not tabulated for the soil samples, some key elements and locations are shown in the figures.
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.*	No weighting has been applied.
	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.	No aggregated results are reported
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are reported.
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 respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole*	Not applicable as no drilling results reported.

Criteria	JORC Code explanation	Commentary
	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.*	Refer to Figures in body of text.
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.*	All relevant exploration data is reported.
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.*	All relevant exploration data is reported
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Caspin is continuing exploration with additional soil sampling, drilling and geophysical surveys planned for 2021.