24 January 2022

# **Caspin Advancing on Multiple Fronts at Yarabrook Hill**

#### **HIGHLIGHTS**

- Large-scale PGE-Ni-Cu mineralisation trends emerging at the Central Yarabrook Hill Prospect
  - Continuity of mineralised ultramafic now demonstrated over 1,500m down-dip and 3,000m of strike extent
  - Multiple target concepts to be evaluated
- Further nickel-copper sulphides intersected at XC-22, now emerging as a separate prospect; mineralisation remains open
- Assay results from Phase 2, 16-hole drilling program still pending
- Drilling to recommence in February 2022 with several Phase 2 holes to be extended with 'diamond tails' in addition to drilling new, previously untested targets
- Airborne Electromagnetic survey now providing complete project-wide coverage

Caspin Resources Limited (ASX: CPN) ("Caspin" or "the Company") is pleased to provide an update on exploration activities and drill results from Yarabrook Hill Prospect at the Company's Yarawindah Brook PGE-Ni-Cu Project in Western Australia.

Phase 1 of an RC program was completed in August-September 2021, the assay results of which have now been received in full. These results have been integrated into an updated geological model which is also based on pre-existing data and visual results from more recent drilling, which includes Phase 2 of the RC drilling program and two diamond drill holes. All drilling has been focused on the Yarabrook Hill intrusion, which is only a small area within the overall Yarawindah Brook project area.

## Recent Drilling at the Yarabrook Hill Intrusion

Phase 1 of the RC program consisted of 11 holes for approximately 3,000m of drilling as a first pass test of the Yarabrook Hill intrusion, with the aim being to provide early insight into the architecture of the intrusion and assist any subsequent programs in vectoring towards its most prospective parts.

Due to difficult ground conditions, the 11 holes were prioritised on ease of access within the prospect area and did not necessarily test the highest-ranking targets (e.g., the main part of the Eastern geochemical soil anomaly). The program was suspended in September to allow for surface ground conditions to improve resulting in Phase 2 of the RC program being completed from October to December.

Phase 2 consisted of a further 16 RC holes (~2,500m) and two diamond drill holes (YARCD0012, YAD0019; ~1,500m). The RC program mostly tested targets at the Eastern geochemical soil anomaly (5 holes, YARC0017 – YARC0021) and XC-22 airborne electromagnetic anomaly (6 holes; YARC0024 – YARC0027). Three holes (YARC0013-YARC0015) tested a magnetic feature to the south of Yarabrook Hill but only intersected barren lower sequences of the intrusion. YAD0019 was an EIS-funded deep diamond drill hole designed to drill through as much of the intrusion as possible to help development of the geological model. Unfortunately, due to excessive ground water, many of the RC holes in Phase 2 have failed to reach target depth and will be extended with diamond tails on the recommencement of drilling.

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Results from the Phase 1 drilling have returned broad zones of mineralisation. Note that these intersections contain some internal dilution from rocks such as late-stage, barren dolerites. The previously reported result from YARC0001 of 263m @ 0.24g/t Pd+Pt+Au (3E), 0.11%Ni & 0.13% Cu is the standout intersection, but further broad zones were returned in YARC0009, including 116m @ 0.11g/t 3E, 0.15% Ni & 0.11% Cu, hosted within peridotite and pyroxenite rocks. YARC0009 was drilled 135m up dip of YAD0017 which previously intersected multiple zones of PGE-Ni-Cu sulphide mineralisation (See ASX announcement of 5 July 2021).

See Table 1 for full details of significant assays.

Based on a review of the results received to date, it is now thought that the XC22 Prospect, while still hosted within the large Yarabrook Hill intrusion, may be a separate mineralised position to the main Yarabrook Hill mineralised zone which has been the focus of most exploration to date.

#### **Central Yarabrook Hill Intrusion**

The combined results from Phase 1, and visual observations from Phase 2 RC and diamond holes have given the Company a greater understanding of intrusion architecture and controls on mineralisation, therefore helping the targeting of potentially economically-mineralised positions.

These new results are broadly consistent with the geological model for the Yarabrook Hill intrusion that has been previously reported. The key elements of this model are that the intrusion (or at least its eastern section) is interpreted to dip moderately to the NE and has been overturned, with a thick section of mineralisation-hosting ultramafic rocks (peridotite and pyroxenite) present immediately below the hanging-wall contact. The hanging-wall contact is interpreted to be a structural contact, where intersected to date, with significant later granitoid intrusions emplaced above and along it.



Figure 1. Sulphide mineralisation at 320m downhole in YARCD0012

The footwall of the mineralised section is defined by an interpreted fault, referred to as the Radio Tower thrust. Below this structure, the intrusion is barren and more fractionated, consistent with an originally higher stratigraphic position. It is not known whether the intrusion remains downward facing below this structure. Drill holes YARC0004 – YARC0008 & YARC0010 are now recognised to have intersected this structurally lower, but stratigraphically upper, barren section of the intrusion, below the Radio Tower thrust, and therefore would not be expected to be significantly mineralised.

Given the context of this geological model, the Company has defined three significant target concepts at the main Yarabrook Hill prospect. Each of these is discussed below.

#### 1. Higher-Grade Segments within the extensive Main Mineralised Zone

A localised segment within the thick (typically 100-200m), extensive and continuous sulphide-mineralised zone with higher sulphide content and/or mineralisation tenor. Based on analogies with similar systems elsewhere (most notably the high-grade FlatReef deposit within the PlatReef zone of the Bushveld complex in South Africa), we expect that such significant changes may occur with variations in the geometry of this



mineralised zone. In particular, we expect that segments that were originally in a flatter orientation to be more strongly mineralised.

There is a large potential search-space at Yarabrook Hill for the discovery of such a position, as the main mineralised zone has been traced over 3,000m of strike and has now been intersected over 1,500m of downdip extent. To date there are only a small number of holes that have both intersected the entire width of the mineralised zone and have assays for both PGE and base-metals (see Figure 2) and therefore there is currently insufficient data to vector towards this target position. There are large areas with no effective drilling at all.

However, it is encouraging that the mineralisation section appears to be thickening down-dip, based on observations from YAD0019 which reported a sulphide zone in mixed peridotite and pyroxenite over a thickness of at least 200m (See ASX release of 26 November 2021).

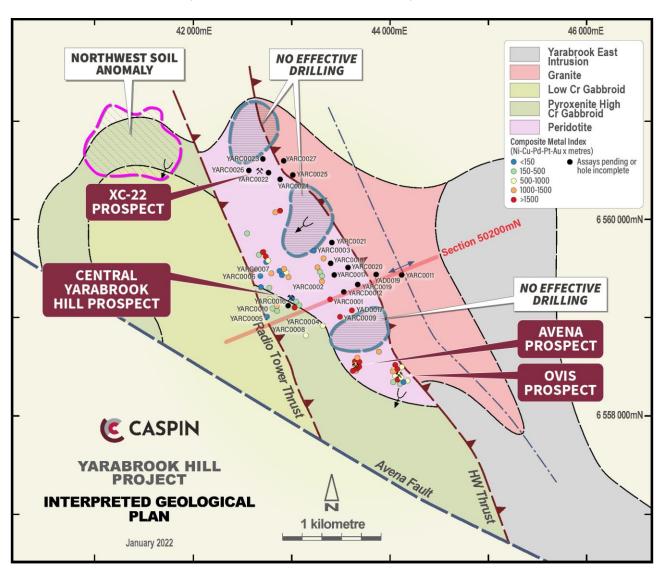


Figure 2. Interpreted geology of Yarabrook Hill with effective drilling and total metal accumulations combining Caspin drilling (labelled) with historical drilling. Some historical drilling requires further geological interpretation to confirm sulphide intersections, particularly at the summit of Yarabrook Hill. The figure provides some evidence that mineralisation is increasing down-dip, although large areas are yet to be effectively drill tested, including areas where Caspin is yet to complete drill holes or receive assay results.



### 2. Narrower, higher-grade zones within the broader Main Mineralised Zone

Within the broad zone of mineralisation at Yarabrook Hill, a number of narrower, higher-grade zones have been intersected. For example, new results from YARC0009 included intersections such as **2m @ 0.58g/t 3E, 0.37% Ni & 0.57% Cu** and **3m @ 0.85g/t 3E, 0.16% Ni & 0.09% Cu**. Previous examples of narrower, higher-grade intersections include 4.4m @ 0.88 g/t 3E, 0.43% Ni & 1.00% Cu, in YAD0017. If continuity of these zones can be demonstrated with closer spaced drilling in future drill programs, they may possibly represent an economic exploration target.

# 3. Primary Basal Contact Massive-Sulphide mineralisation below the HW contact Shear Zone

In all holes drilled to date, the hanging-wall of the mineralised zone has been a structural contact with peridotite and a primary igneous basal contact position has not been observed. This is important because such basal contact positions within mineralised intrusions are commonly where massive sulphide mineralisation occurs. Therefore, any positions where a primary contact may be preserved below the Hanging Wall Shear zone are a very important conceptual target for the company. Deep penetrating ground-EM surveying is likely to be the best method to help target such a position. Previous EM surveys did not cover the down dip extent of the intrusion to the NE. This target concept may also be relevant to the XC-22 Prospect.

Of note from the first phase of RC drilling is hole YARC0011, which is the largest step-out in the down-dip position to date, approximately 1,500m from the mineralised outcrop at the summit of Yarabrook Hill. This hole passed through a large thickness of granite before terminating in the upper part of the mineralised sequence of peridotite and pyroxenite. This hole also returned the highest-grade mineralisation from the first phase of 3m @ 1.32g/t 3E, 0.06% Ni & 0.82% Cu from 340m. This intersection appears to be a secondary vein system, that was remobilised from a nearby primary source. It is very encouraging to obtain such an intersection so far downdip from the original discovery of outcropping mineralisation. Therefore, this hole will be extended with a diamond tail to test the full mineralised sequence of peridotite-pyroxenite.

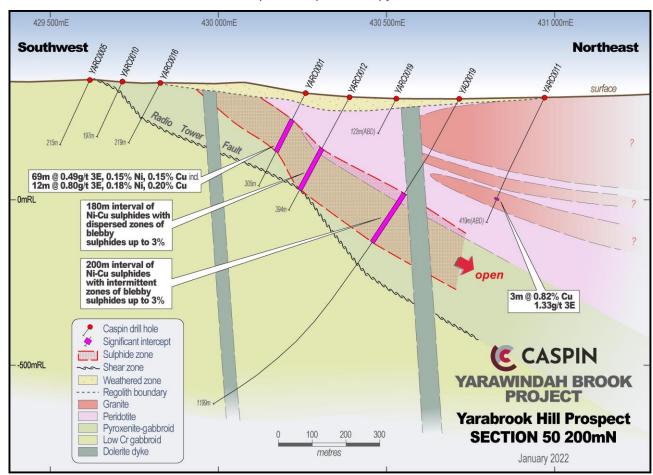


Figure 3. Section through Yarabrook Hill showing results and potential mineralised zones yet to be tested.



#### **XC-22 Prospect**

The Company recently announced a new nickel-copper sulphide discovery at the XC-22 airborne electromagnetic (AEM) anomaly (See ASX announcement of 26 November 2021). A further four holes have been drilled at XC-22, with some further intersections of disseminated sulphide mineralisation. However, due to difficult drilling conditions, three additional holes (YARC0024, YARC0025 and YARC0027) were unable to reach their target depth and therefore the down-dip position from YARC0022 is yet to be tested. The geology of YARC0027 is particularly encouraging, intersecting a 38m zone of disseminated sulphides in a peridotite unit before the hole was abandoned. This peridotite unit is generally associated with stronger mineralisation at Yarabrook Hill.

Historical drilling in this area was shallow and assayed only for PGE's. Results from holes YBR060-YBR062 suggest some lateral supergene dispersion of PGE's in the weathered zone and a deeper sulphide intersection in YBR063. This could be a near-surface expression of sulphide mineralisation intersected in YARC0022 (Figure 4).

Drilling has defined a granite contact to the east of YARC0022 coincident with the margin of the AEM anomaly (Figure 5). It is possible the sulphide mineralisation plunges beneath this granite contact in an east-north easterly direction and if so, would not have been detected by the AEM survey. Further ground and down-hole EM surveying is planned to assist future targeting.

The failed holes will either be extended with diamond tails or re-drilled during the next campaign to fully test the mineralised peridotite-pyroxenite stratigraphy in this area.

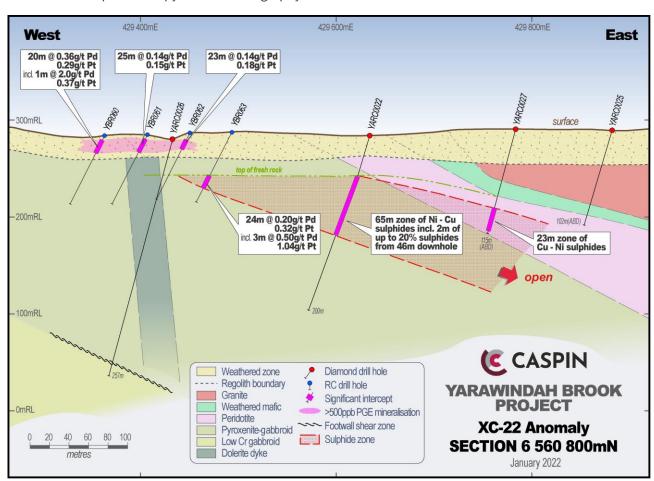


Figure 4. Section through XC-22 showing YARC0022 and mineralisation in historical drilling.



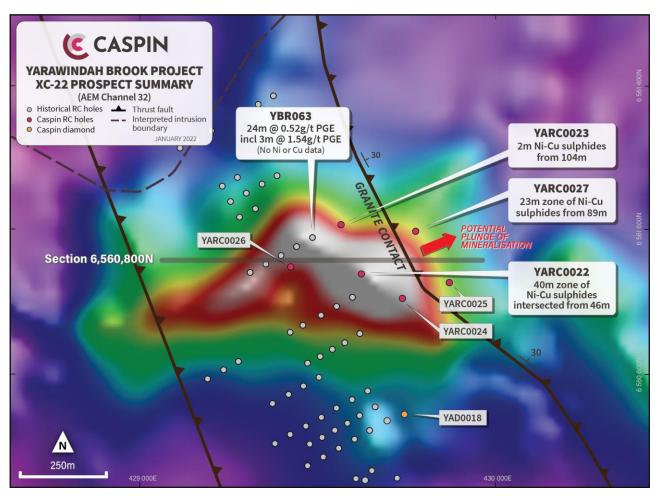


Figure 5. Drill plan at the XC-22 Anomaly and major features, over Airborne EM.

#### **Airborne Electromagnetic Survey**

Airborne Electromagnetics (AEM) has successfully been proven to identify sulphide mineralisation at the Yarawindah Brook Project. A survey has been completed comprising approximately 2,000-line km to complete coverage across the northern project-area.

Results of the AEM survey are expected to be delivered in late January and will be integrated with magnetic and gravity data sets to identify suitable host rocks and potentially mineralised targets.

# **Upcoming Work Program**

Drilling activities will recommence in February 2022. On resumption, the Company intends to test the Northwest geochemical anomaly with RC drilling as a priority whilst assay data from XC-22 and Yarabrook Hill is returned and interrogated.

A number of RC holes that have not reached target depth at both XC-22 and Yarabrook Hill will be extended with diamond tails, also expected to commence in early February. Ground EM is expected to commence at XC-22 over the coming weeks to assist drill targeting.

The Company also intends to expand its soil geochemistry coverage in the northern parts of the project area to complement the recently acquired gravity and AEM datasets. This work will be ongoing over the coming months as access to new farmland becomes available.



**TABLE 1: Significant Drill Intercepts - Yarabrook Hill Prospect** 

|          |        |         |     |     |     |            |             |              | INT        | TERSECT   | ION        |         |         |
|----------|--------|---------|-----|-----|-----|------------|-------------|--------------|------------|-----------|------------|---------|---------|
| HOLE ID  | East   | North   | RL  | Dip | Azi | EOH<br>(m) | From<br>(m) | Width<br>(m) | Pd<br>g/t  | Pt<br>g/t | Au<br>g/t  | Ni<br>% | Cu<br>% |
| YARC0001 | 430254 | 6559580 | 300 | -60 | 240 | 305        | 44          | 11           | 0.38       | 0.11      | 0.17       | 0.20    | 0.27    |
|          |        |         |     |     |     | Incl.      | 44          | 1            | 0.22       | 0.04      | 1.46       | 0.13    | 0.12    |
|          |        |         |     |     |     | And        | 46          | 2            | 1.27       | 0.25      | 0.61       | 0.33    | 1.04    |
|          |        |         |     |     |     |            | 79          | 16           | 0.22       | 0.09      | 0.02       | 0.16    | 0.17    |
|          |        |         |     |     |     |            | 109         | 69           | 0.30       | 0.15      | 0.04       | 0.15    | 0.15    |
|          |        |         |     |     |     | Incl.      | 138         | 5            | 0.49       | 0.21      | 0.05       | 0.17    | 0.18    |
|          |        |         |     |     |     | And        | 150         | 12           | 0.56       | 0.26      | 0.08       | 0.18    | 0.20    |
| YARC0002 | 430170 | 6559761 | 300 | -60 | 240 | 275        | 73          | 22           | 0.23       | 0.14      | 0.04       | 0.09    | 0.16    |
|          |        |         |     |     |     | Incl.      | 76          | 6            | 0.44       | 0.29      | 0.04       | 0.12    | 0.31    |
|          |        |         |     |     |     | And        | 81          | 1            | 0.60       | 0.94      | 0.03       | 0.31    | 0.36    |
|          |        |         |     |     |     |            | 64          | 6            | 0.23       | 0.09      | 0.04       | 0.02    | 0.16    |
|          |        |         |     |     |     |            | 124         | 1            | 0.10       | 0.05      | 0.01       | 0.30    | 0.42    |
| YARC0003 | 430093 | 6560064 | 300 | -60 | 240 | 275        |             | No Sigr      | nificant I | ntercep   | t (Dolerit | e dyke) |         |
| YARC0004 | 430181 | 6559309 | 300 | -60 | 240 | 227        | 10          | 11           | 0.14       | 0.10      | < 0.01     | < 0.01  | 0.04    |
|          |        |         |     |     |     |            | 26          | 5            | 0.13       | 0.09      | 0.01       | 0.03    | 0.23    |
|          |        |         |     |     |     |            | 42          | 6            | 0.04       | 0.02      | 0.02       | 0.15    | 0.37    |
|          |        |         |     |     |     |            | 85          | 2            | 0.01       | 0.01      | 0.01       | 0.15    | 0.32    |
|          |        |         |     |     |     |            | 212         | 6            | 0.01       | 0.01      | 0.01       | 0.12    | 0.26    |
| YARC0005 | 429618 | 6559398 | 350 | -60 | 240 | 215        | 7           | 7            | 0.22       | 0.12      | < 0.01     | 0.05    | 0.19    |
| YARC0006 | 429549 | 6559814 | 350 | -60 | 240 | 215        | 0           | 10           | 0.14       | 0.07      | 0.09       | 0.09    | 0.08    |
| YARC0007 | 429660 | 6559843 | 336 | -60 | 240 | 293        | 1           | 5            | 0.11       | 0.08      | 0.01       | 0.24    | 0.15    |
|          |        |         |     |     |     |            | 7           | 17           | 0.12       | 0.06      | 0.02       | 0.08    | 0.10    |
|          |        |         |     |     |     |            | 36          | 2            | 0.13       | 0.06      | 0.02       | 0.10    | 0.11    |
|          |        |         |     |     |     |            | 107         | 2            | 0.02       | 0.02      | <0.01      | 0.13    | 0.47    |
|          |        |         |     |     |     |            | 113         | 5            | 0.02       | 0.02      | <0.01      | 0.13    | 0.31    |
| YARC0008 | 430012 | 6559208 | 342 | -60 | 240 | 269        |             |              |            |           | ntercept   |         |         |
| YARC0009 | 430355 | 6559402 | 314 | -60 | 240 | 355        | 9           | 29           | 0.28       | 0.13      | 0.02       | 0.22    | 0.18    |
|          |        |         |     |     |     |            | 41          | 13           | 0.12       | 0.04      | <0.01      | 0.15    | 0.07    |
|          |        |         |     |     |     |            | 60          | 49           | 0.27       | 0.12      | 0.02       | 0.14    | 0.12    |
|          |        |         |     |     |     | Incl.      | 96          | 2            | 0.43       | 0.09      | 0.06       | 0.37    | 0.58    |
|          |        |         |     |     |     | And        | 105         | 3            | 0.58       | 0.25      | 0.02       | 0.16    | 0.09    |
|          |        |         |     |     |     |            | 114         | 10           | 0.22       | 0.09      | 0.01       | 0.09    | 0.08    |
|          |        |         |     |     |     |            | 158         | 9            | 0.12       | 0.04      | <0.01      | 0.14    | 0.07    |
|          |        |         |     |     |     |            | 206         | 2            | 0.13       | 0.06      | 0.02       | 0.22    | 0.16    |
|          |        | 6559457 | 358 | -60 | 240 | 197        |             |              |            |           | ntercept   |         |         |
| YARC0011 | 430972 | 6559834 | 302 | -60 | 240 | 419        | 340         | 3            | 0.60       | 0.62      | 0.10       | 0.06    | 0.82    |
|          |        |         |     |     |     | Incl.      | 340         | 1            | 0.88       | 0.81      | 0.18       | 0.07    | 1.03    |
|          |        |         |     |     |     |            | 394         | 3            | 0.17       | 0.07      | < 0.01     | 0.13    | 0.08    |

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**TABLE 2: Historical Significant Drill Intercepts -XC-22 Anomaly** 

|         |        |         |     |     |     |            |             |              | INT       | ERSECTI   | ON        |         |         |
|---------|--------|---------|-----|-----|-----|------------|-------------|--------------|-----------|-----------|-----------|---------|---------|
| HOLE ID | East   | North   | RL  | Dip | Azi | EOH<br>(m) | From<br>(m) | Width<br>(m) | Pd<br>g/t | Pt<br>g/t | Au<br>g/t | Ni<br>% | Cu<br>% |
| YBR060  | 429357 | 6560908 | 282 | -60 | 244 | 80         | 5           | 20           | 0.36      | 0.29      |           |         |         |
|         |        |         |     |     |     | Incl.      | 7           | 1            | 2.00      | 0.37      | 0.02      |         |         |
| YBR061  | 429400 | 6560933 | 284 | -60 | 244 | 81         | 5           | 25           | 0.14      | 0.15      |           |         |         |
| YBR062  | 429444 | 6560957 | 284 | -60 | 244 | 81         | 0           | 23           | 0.14      | 0.18      |           |         |         |
| YBR063  | 429487 | 6560982 | 284 | -60 | 244 | 81         | 40          | 24           | 0.20      | 0.32      |           |         |         |
|         |        |         |     |     |     | Incl.      | 43          | 3            | 0.5       | 1.04      | <0.01     |         |         |
|         |        |         |     |     |     |            | 43          | 1            | 0.82      | 2.36      | <0.01     |         |         |

**TABLE 3: Visual descriptions for selected drill holes** 

| Hole ID  | Northing | Easting | RL  | Dip | Azi | Depth<br>(m) | Interval<br>(m) | Observations  |
|----------|----------|---------|-----|-----|-----|--------------|-----------------|---|
| YARC0022 | 6560872  | 429624  | 280 | -60 | 280 | 200          | 0-35            | Regolith and cover sequences  |
|          |          |         |     |     |     |              | 35-46           | Moderate to weakly weathered gabbroic sequences. Trace disseminated sulphides   |
|          |          |         |     |     |     |              | 46-48           | Gabbro-pyroxenite with 3-phase disseminated stringer approximately 10-20% pyrrhotite > pentlandite > chalcopyrite.  |
|          |          |         |     |     |     |              | 48-81           | Fine grained pyroxenite-gabbro with minor disseminated sulphides approximately 1% pyrrhotite > pentlandite > chalcopyrite.  |
|          |          |         |     |     |     |              | 81-82           | Fine grained mafic with 5-10% disseminated sulphides pyrrhotite > pentlandite > chalcopyrite.   |
|          |          |         |     |     |     |              | 82-111          | Fine grained pyroxenite-gabbro with minor disseminated sulphides approximately 1% pyrrhotite > pentlandite > chalcopyrite.  |
|          |          |         |     |     |     |              | 111-EOH         | Fine grained pyroxenite-gabbro with trace to very minor disseminated sulphides  |
| YARC0027 | 6560994  | 429776  | 286 | -70 | 230 | 115          | 0-40            | Regolith and cover sequences.   |
|          |          |         |     |     |     |              | 40-50           | Weathered quartzofeldspathic granite  |
|          |          |         |     |     |     |              | 50-74           | Weathered fine grained mafic (gabbroic)<br>and intercalated quartz rich granitic<br>material  |
|          |          |         |     |     |     |              | 74-89           | Variable fine-medium grained maficultramafic pyroxenite-peridotite with very minor trace disseminated sulphides   |
|          |          |         |     |     |     |              | 89-112          | Variable fine-medium grained maficultramafic pyroxenite-peridotite with minor trace disseminated sulphides approximately 0.5-1% pyrrhotite > chalcopyrite > pentlandite |
|          |          |         |     |     |     |              | 112-114         | Variable fine-medium grained maficultramafic pyroxenite-peridotite with very minor trace disseminated sulphides   |
|          |          |         |     |     |     |              | 114-EOH         | Quartz rich granitic material (felsic pegmatite?) interfingered with above mafic-ultramafic lithologies   |



| YARCD0012 | 6559654 | 430391 | 305 | -60 | 241 | 393.8 | 0-48        | Regolith and cover sequences.  |
|-----------|---------|--------|-----|-----|-----|-------|-------------|--|
|           |         |        |     |     |     |       | 48-77       | Variably weathered quartzofeldspathic granite  |
|           |         |        |     |     |     |       | 77-108.5    | Variably weathered fine grained maficultramafic pyroxenite-peridotite with very minor trace disseminated sulphides   |
|           |         |        |     |     |     |       | 108.5-132.5 | Very fine-grained mafic dolerite with sharp contacts   |
|           |         |        |     |     |     |       | 132.5-246.2 | Ultramafic peridotite-pyroxenite with variable trace disseminated to blebby and shear controlled 3-phase sulphides   |
|           |         |        |     |     |     |       | 246.2-341.5 | Variable mafic pyroxenite-gabbro with dispersed zones of blebby and heavily disseminated sulphides (locally up to 3% sulphides with pyrrhotite > pentlandite – chalcopyrite) |
|           |         |        |     |     |     |       | 341.5-EOH   | Amphibole rich metagabbro, heavily sheared and deformed becoming leucocratic locally throughout  |

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

-ENDS-

For further details, please contact:

## **Greg Miles**

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#### **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 Exploration Results extracted from the Company's Prospectus announced to the ASX on 23 November 2020 and the Company's subsequent ASX announcements of 30 March 2021, 28 April 2021, 16 June 2021, 5 July 2021, 19 August 2021 and 26 November 2021



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#### **ABOUT CASPIN**

Caspin Resources Limited (ASX Code: **CPN**) is a new mineral exploration company based in Perth, Western Australia. Caspin has extensive skills and experience in early-stage exploration and development. The Company is actively exploring the Yarawindah Brook Project in Australia's exciting new PGE-Ni-Cu West Yilgarn province and the Mount Squires Project in the West Musgrave region, one of Australia's last mineral exploration frontiers.

At the Yarawindah Brook Project, Caspin is advancing exploration on multiple fronts using soil geochemistry and geophysics in search of new PGE-Ni-Cu sulphide deposits.

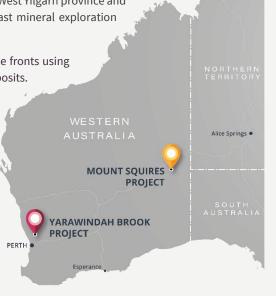
Caspin has recently confirmed primary PGE mineralisation at Yarabrook Hill

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**

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# **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<br>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. | RC drilling produced a 1m bulk where a representative sample (nominally a 12.5% split) was collected using a cone splitter. Average sample submitted for analysis was between 2-3 kg while overall sample weights averaged closer to 7-8 kg.  |
|                          | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  | Sampling techniques used are deemed appropriate for exploration purposes for this style of deposit and mineralisation.  |
|                          | 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.  |   |
| Drilling<br>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   | Caspin drilling consisted of RC with face sampling bit (140 to 130 mm in diameter) ensuring minimal contamination during sample extraction.   |
|                          | type, whether core is oriented and if so, by what method, etc).  | Drill hole locations were surveyed by handheld GPS units which have an accuracy of ±5m.   |
| Drill sample<br>recovery | Method of recording and assessing core and chip sample recoveries and results assessed.  | RC recoveries are visually logged for every hole and recorded in the database. Overall recoveries are >95% and there has been no significant sample recovery problems.  |
|                          | Measures taken to maximise sample recovery and ensure representative nature of the samples.  | Samples are checked for recovery and any issues immediately rectified with the drilling contractor. Drilling techniques to ensure adequate RC sample recovery and quality included the use of "booster" air pressure. Air pressure used for RC drilling was 700-800psi.   |
|                          |  | Logging of all samples followed established company procedures which included recording of qualitative fields to allow discernment of sample quality. This included (but was not limited to) recording: sample condition (wet, dry moist), sample recovery (poor, moderate, good) sample method (RC: scoop, split; DD core: half quarter, whole). |
|                          | Whether a relationship exists between sample recovery and grade and whether sample bias may have   | No sample bias has been observed.   |



| Criteria                    | JORC Code explanation   | Commentary   |
|-----------------------------|---|--|
|                             | occurred due to preferential loss/gain of fine/coarse material.   |  |
| 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.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. | Logging at the Yarawindah Brook Project records lithology, mineralogy, mineralisation, weathering, colour and other relevant features of the core. Logging of core is both qualitative (e.g. colour) and quantitative (e.g. mineral percentages). Full detailed logging will be completed with assays in hand.   |
|                             |   | All logging information is uploaded into an Access Database which ensures validation criteria are met upon upload.   |
|                             | The total length and percentage of the relevant intersections logged.   | All drill holes are logged as they are drilled and subsequently logged in more detail following assay return.  |
| Sub-sampling techniques and | If core, whether cut or sawn and whether quarter, half or all core taken.   | Not applicable.  |
| sample<br>preparation       | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.   | RC drilling was sampled at 1 m intervals by a fixed cone splitter with a representative sample (nominally 12.5% of the total sample) taken. The representative sample was submitted to the laboratory, and the second sample retained as a duplicate sample in case a further sample was required.   |
|                             |   | All samples are dry.   |
|                             |   | Cone splitting of RC drill samples occurred regardless of the sample condition.  |
|                             |   | RC drill sample weights range from 0.6kg to 17kg, but typically average 7-8kg.   |
|                             | For all sample types, the nature, quality and appropriateness of the sample preparation technique.  | All Caspin samples were submitted to Bureau Veritas for multi-element analysis. Sample preparation involving oven drying, followed by primary crushing of the whole sample where required, secondary crushing, riffle splitting to obtain a subsample for pulverisation (total prep) using Essa LM5 grinding mills to a grind size of 90% passing 75 micron. |
|                             | Quality control procedures adopted for all sub-<br>sampling stages to maximise representivity of<br>samples.  | Caspin QC procedures involve the use of certified reference material (CRM) as assay standards and blanks along with field duplicates. The insertion rate of these will average 1:25.   |
|                             | Measures taken to ensure that the sampling is representative of the in situ material collected,   | Field duplicates were taken on 1m composites directly from the cone splitter.  |
|                             | including for instance results for field duplicate/second-half sampling.  | Review of duplicate results indicates that there is strong correlation between the primary and duplicate assay values, implying that the selected sample size is reasonable for this style of mineralisation.  |
|                             | Whether sample sizes are appropriate to the grain size of the material being sampled.   | Sample sizes are considered appropriate for the rock type, style of mineralisation (massive, stringer and disseminated sulphides), the   |



| Criteria   | JORC Code explanation  | Commentary   |
|--|--|--|
|  |  | thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements within the Yarawindah Brook Project.  |
| Quality of assay<br>data and<br>laboratory tests | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.   | The analytical techniques used fused bead XRF for base metals and all other major and trace elements of interest. Au, Pt and Pd were determined by fire assay (~40 gram) with ICP/MS finish.   |
|  | 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. | Portable XRF assay results have not been 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.                     | Sample preparation for fineness checks were carried out by the laboratory as part of their internal procedures to ensure the grind size of >90% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material (CRM), blanks, splits and replicates as part of their in-house procedures. Certified reference materials, having a good range of values, are inserted blindly and randomly. Repeat and duplicate analyses returned acceptable results. |
|  |  | No umpire laboratory checks have been undertaken by Caspin.  |
|  |  | No detailed assessment of historical QA/QC data has been undertaken to date.   |
| Verification of sampling and assaying            | The verification of significant intersections by either independent or alternative company personnel.  | RC samples and corresponding assay results have been verified by multiple Caspin geologists with further reviews and interpretation continuing.  |
|  | The use of twinned holes.  | None of the reported Caspin drill holes have been twinned.   |
|  | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.   | Primary data for the Yarawindah Brook Project was collected in the field using a set of standard excel spreadsheets on laptop computers using lookup codes. The information was sent to Geobase Australia for validation and compilation into an Access 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  | Reported drill holes were located with a Garmin hand-held GPS with an accuracy of ±3m. This is considered appropriate for exploration drill holes.   |
|  | estimation.  | Downhole surveys were completed by the drilling contractors with the data provided to Caspin Resources.  |
|  | Specification of the grid system used.   | The grid system for the Yarawindah Brook<br>Project is GDA94 MGA Zone 50.  |



| Criteria                                      | JORC Code explanation  | Commentary   |
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|   | Quality and adequacy of topographic control.   | The tenement package exhibits subdued relief with undulating hills and topographic representation is sufficiently controlled.  |
| Data spacing and distribution                 | Data spacing for reporting of Exploration Results.   | The holes drilled were for exploration purposes and have not been drilled on a grid pattern. Drill hole spacing is considered appropriate for exploration purposes.                              |
|   | 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. | Data continuity is not sufficient at the current time to justify the estimation of a resource.   |
|   | Whether sample compositing has been applied.   | No sample compositing has been applied.  |
| Orientation of data in relation to geological | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit   | At this early stage of exploration, the certainty of<br>the mineralisation thickness', orientation and<br>geometry is not known.   |
| structure                                     | type.  | RC holes were drilled at an appropriate azimuth and dip so that they intersected geology approximately perpendicular to 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.                   | The orientation of drilling relative to key mineralised structures is not considered to have introduced sampling bias.   |
| Sample security                               | The measures taken to ensure sample security.  | Sample chain of custody is managed by Caspin<br>Resources. Samples for the Yarawindah Brook<br>Project are stored on site and delivered to the<br>Bureau Veritas laboratory by Caspin personnel. |
| Audits or reviews                             | The results of any audits or reviews of sampling techniques and data.  | No reviews have been carried out to date.  |

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

| Criteria                                      | JORC Code explanation  | Commentary   |  |  |  |  |
|---|--|--|--|--|--|--|
| Mineral tenement<br>and land tenure<br>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 Yarawindah Brook Project is located approximately 15 km SSE of New Norcia in the SW of Western Australia and comprises five granted Exploration Licences (E70/4883, E70/5166, E70/5116, E70/5330 and E70/5335).  Tenements are held by Southwest Metals Pty Ltd or Search Resources of which Caspin Resources Limited controls 80%, and Mr Scott Wilson, retains a 20% interest. |  |  |  |  |
|   |  | Caspin has entered into land access and compensation agreement with the property owners on which Yarawindah Brook, Avena, Ovis, Brassica and XC29 Prospects are situated.  Aboriginal Heritage Access Agreements are in place for the live tenements.  |  |  |  |  |
|   | The security of the tenure held at the time of reporting   | All tenements are in good standing. No Mining  |  |  |  |  |



| Criteria                          | JORC Code explanation   | Commentary  |
|-----------------------------------|---|---|
|                                   | along with any known impediments to obtaining a licence to operate in the area.   | Agreement has been negotiated.  |
| Exploration done by other parties | Acknowledgment and appraisal of exploration by other parties.   | The Yarawindah Brook Project area has been explored for Ni-Cu-PGE mineralisation since the discovery of outcropping Ni-Cu gossans in 1974. A series of drill programmes conducted by various companies since that time mainly focused on near-surface, laterite-hosted PGE mineralisation Later drilling programmes and limited electromagnetic surveying was conducted by Washington Resources, resulting in intersections of massive Ni-Cu-PGE sulphides; however, on-ground exploration of the project area has been limited since the GFC in 2008. The work completed by previous operators is considered by Caspin to be of a high standard. |
| Geology                           | Deposit type, geological setting and style of mineralisation.   | The Yarawindah Brook Project is located within the Jimperding Metamorphic Belt hosted in the Lake Grace Terrane at the SW end of the Yilgarn Craton. In the area of the Yarawindah Brook, outcrop is poor with deep regolith development. Regionally, the lithological trend is NW, with moderate dips to the NE.   |
|                                   |   | The western portion of the project area is dominated by metasediments and gneiss containing lenses of mafic and ultramafic rocks. It is these mafic-ultramafic lithologies that are the hosts to Ni-Cu-PGE sulphide mineralisation and have been the main targets for exploration.  |
|                                   |   | The Yarawindah Brook Project is considered prospective for accumulations of massive, matrix and disseminated Ni-Cu sulphides, both within the mafic-ultramafic complex and as remobilised bodies in the country rocks.  |
| Drill hole<br>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                        | Drill hole collar information is published in the body of the report.   |
|                                   | <ul> <li>elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul>                  |   |
|                                   | 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. | Not applicable, all information is included.  |
| 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.  | Weighted averages for Yarawindah Brook<br>mineralisation were calculated using variable<br>parameters, due to the complications of reporting<br>5 elements: Ni, Cu, Pd, Pt and Au.  |
|                                   |   | Cut off grades for reporting significant intercepts are >0.1g/t Pd and/or Pt and/or Au and >0.2% Ni   |



| Criteria   | JORC Code explanation   | Commentary   |
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|  |   | and/or Cu with a maximum internal dilution of 2m.  |
|  | 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.  | Short lengths of high-grade results use either a nominal 0.5% Ni or Cu lower cut-off or a geological boundary such as a massive sulphide interval, no minimum reporting length, 2 m maximum interval dilution and the minimum grade of the final composite of 0.5% Ni or Cu. |
|  | The assumptions used for any reporting of metal equivalent values should be clearly stated.   | No metal equivalent values reported.   |
| Relationship<br>between<br>mineralisation<br>widths and<br>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 lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').           | Mineralisation at Yarabrook Hill is poorly defined and orientations are approximate. Mineralisation is generally intersected obliquely to true-width and approximations have been made based on geological interpretations; however, true widths are unknown.                |
| 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<br>reporting  | Where comprehensive reporting of all Exploration<br>Results is not practicable, representative reporting of<br>both low and high grades and/or widths should be<br>practiced to avoid misleading reporting of<br>Exploration Results.   | All significant and relevant intercepts have been 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 shown in figures, in text and in this Annexure 1.   |
| Further work   | The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or largescale step-out drilling).   | A discussion of further exploration work is outlined in the body of the report. Additional exploration work of RC drilling is planned.   |
|  | Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.   | All relevant diagrams and inferences have been illustrated in this report.   |