

## ASX ANNOUNCEMENT

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### **Breakthrough Results at the Rockwell Prospect, Little Broken Hill Gabbro, NSW**

- **Strongly anomalous copper +/- nickel and PGE mineralisation discovered over a distance of at least 1,500 metres in pXRF and assay data from reconnaissance drill holes completed as part of the first ever drill programme at the Little Broken Hill Gabbro.**
- **Disseminated copper sulphide present in zones up to 25 metres true thickness, increasing to the south towards an interpreted feeder zone for magmatic nickel-copper-PGE sulphides at Rockwell.**
- **Disseminated nickel sulphide occurs in one to metre thick layers within the copper sulphide zones.**
- **Assays awaited from all key drill holes containing the disseminated sulphide.**
- **Drilling was guided by Impact's proprietary ratio for PGE exploration and successfully identified the zones of disseminated sulphide. However further assays are required for confirmation that the ratio is a good predictor for PGE grade in this area.**

Strongly anomalous copper-nickel-PGE mineralisation has been discovered over a distance of at least 1,500 metres in first pass reconnaissance drilling at the Rockwell prospect, part of the wider Little Broken Hill Gabbro (LBHG) area at Impact Minerals Limited's (ASX:IPT) 100% owned Broken Hill project in New South Wales.

Although assays from key drill holes are still awaited, new assays and hand held XRF data indicate the mineralisation appears to be increasing in thickness and grade from north to south into a priority target area interpreted by Impact to contain potential "feeder zones" to the main LBHG. Feeder zones are fault-controlled conduits through which hot magma migrates into a larger intrusion from depth and which are common sites for the deposition of nickel-copper sulphides (ASX Release 9<sup>th</sup> July 2020 and see below).

The mineralisation occurs mostly in an ultramafic unit at the base of the Little Broken Hill Gabbro (LBHG) and confirms the highly prospective nature of the entire six kilometre long intrusion for magmatic nickel-copper-PGE sulphide deposits as predicted from Impact's previous work in the area.

This work has shown the LBHG to be of a similar size, age, chemical composition and in the same geodynamic setting as the giant Jinchuan nickel-copper-PGE deposit in China (550Mt at 1.1% nickel, 0.7% copper and 0.5 g/t PGE: ASX Release 9<sup>th</sup> July 2020 and see below).

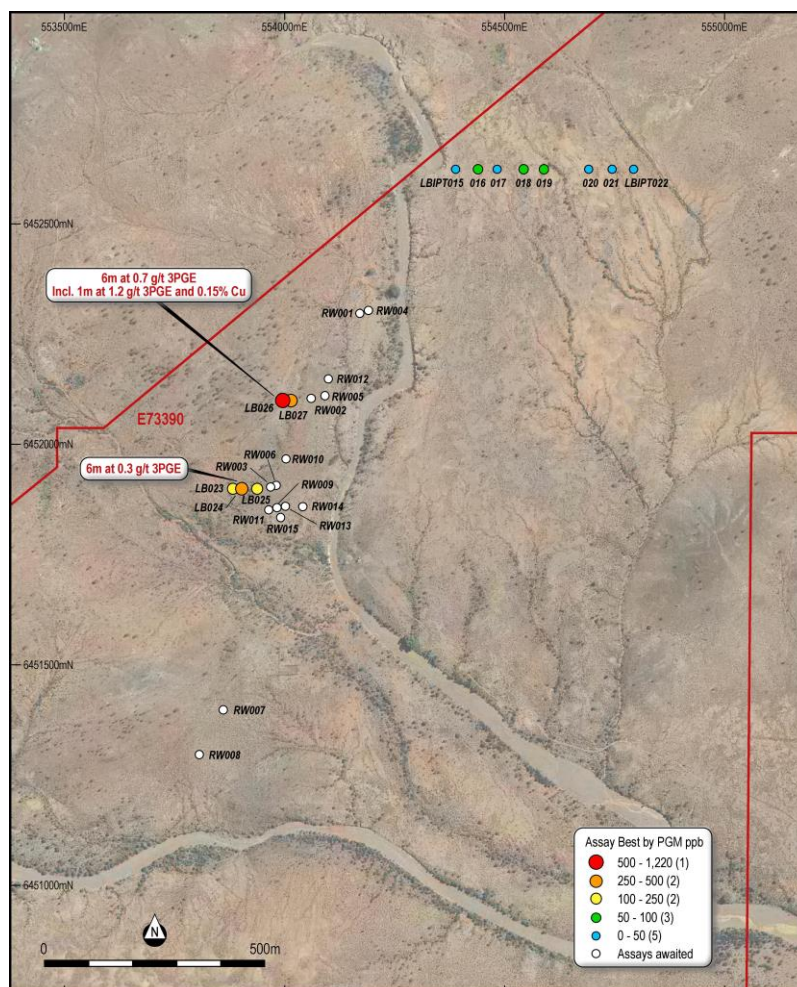
Impact's drill programme is the first ever drill programme to depth anywhere at the Little Broken Hill Gabbro and therefore these initial scout drilling results are considered to be very encouraging for the discovery of a Jinchuan-style deposit in the area.

## About the Drill Programme and Assays at Rockwell

Impact has completed 28 drill holes at Rockwell for 2,412 metres as summarised in Table 1 and Figure 1. Laboratory assays for the first 13 holes are reported here for the first time with significant intercepts listed in Table 2 and further details on the programme noted in the JORC Table. The precious metal results are reported as 3PGE (gold+palladium+platinum; Figures 1 and 2) with individual metal assays also listed in Table 2.

Assays from the remaining holes, which includes all the important drill holes with visible disseminated sulphide, will be available in early January 2021.

A further 41 drill holes for 3,286 metres have also been completed in the central part of the LBHG with assays awaited.



**Figure 1.** Location of Impact's 28 drill holes at Rockwell with best down hole assay result for 3PGE for the 13 drill holes for which assays have been returned from the laboratory.

In addition to the chemical assay data all one metre samples were assayed with a handheld XRF instrument for a wide variety of metals including copper and nickel as well as the calculation of Impact's proprietary ratio for PGE exploration (ASX Releases 6<sup>th</sup> October 2020, 21<sup>st</sup> October 2020 and 2<sup>nd</sup> December 2020).

The ratio was used to help guide the drill programme and this lead directly to the discovery of the areas of encouraging copper and nickel mineralisation at Rockwell.

The limited assay data received to date suggest the ratio is also providing a guide to the presence of PGE's at the LBHG. However, it is emphasised that there are as yet insufficient assays to properly quantify the relationship and therefore no conclusions about the significance of the ratio should be drawn at this stage.

## Results

The assay results are shown in Figure 1 and in cross section on Figure 2. Impact's ratio is shown overlain on airborne magnetic data in Figure 3 and an interpretation of the magnetic data in Figure 4.

The results to date show an overall general increase in thickness and grade of copper (+/- nickel) mineralisation together with an increase in the strength of the ratio from north to south towards the postulated feeder zones. Importantly the grade and thickness also seems to be increasing with depth (Figures 3 and 4).

On the northern most drill traverse, drilled to test an unusual hook structure present in the magnetic data, low grade PGE's with little to no copper are present. However robust thicknesses of PGE's within the ultramafic unit occur in a few places for example **21 metres at 51 ppb 3PGE from 7 metres in LB019.**

To the south disseminated sulphide has been found over a distance of at least 350 metres and is also increasing in thickness and intensity to the south. This is shown in cross sections A, B and C in Figure 2.

On Section A, Hole LBIPT026 has returned

**6 metres at 0.72 g/t 3PGE and 760 ppm copper from surface including**

**1 metre at 1.2 g/t 3PGE 0.2% copper from 4 metres,** and Hole LBIPT027 has returned

**7 metres at 0.2 g/t 3PGE and 0.2% copper from surface and 3 metres at 0.26 g/t 3PGE and 0.15% copper from 23 metres .**

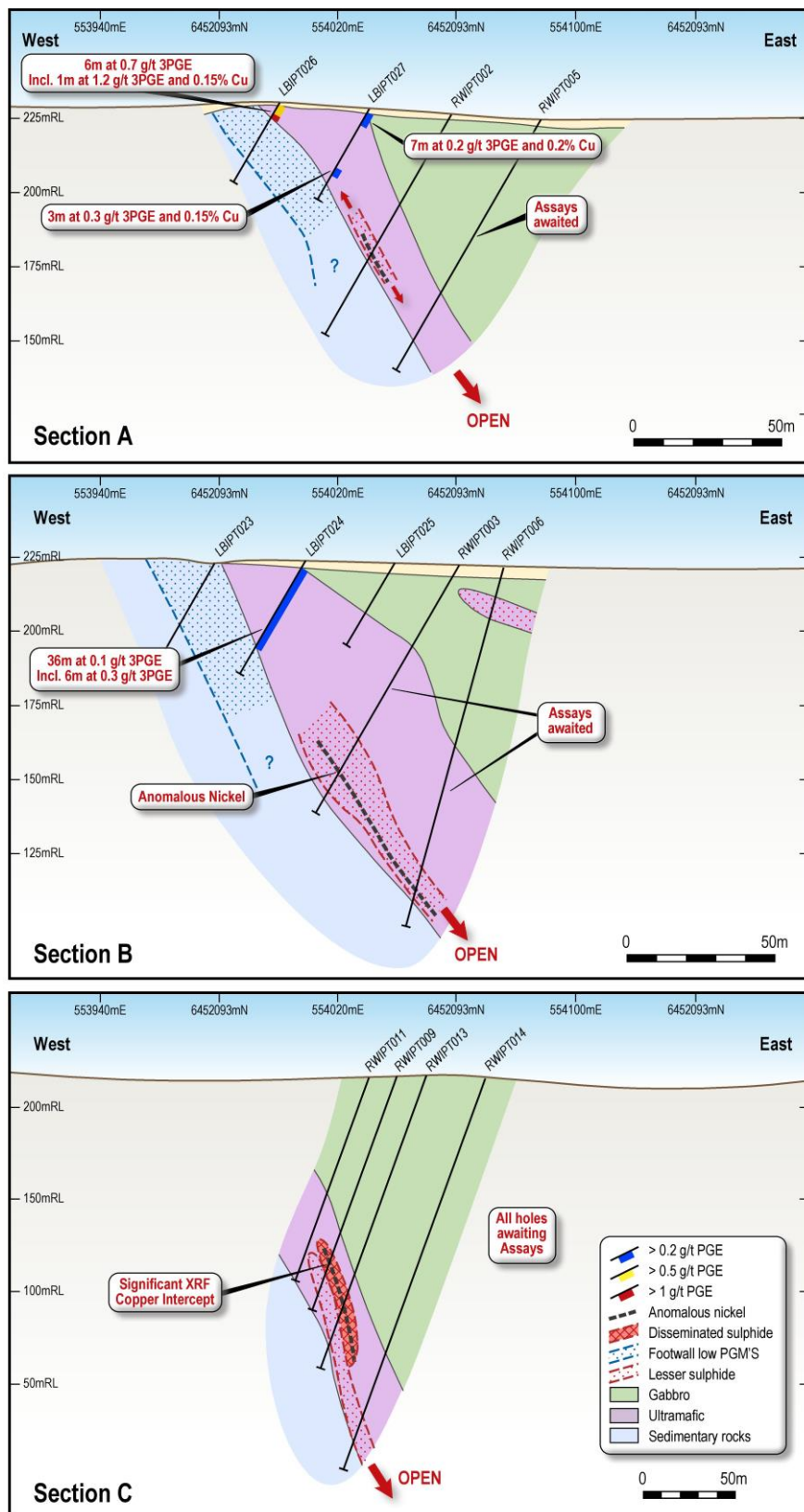
Assays are awaited from two adjacent holes to the east including RWIPT002 which contains a six metre thick zone of 1-5% disseminated copper sulphide (Figure 3).

On Section B, Hole LBIPT024 has returned

**36 metres at 0.1 g/t 3 PGE from 2 metres including 6 metres at 0.3 g/t 3PGE from 24 metres.**

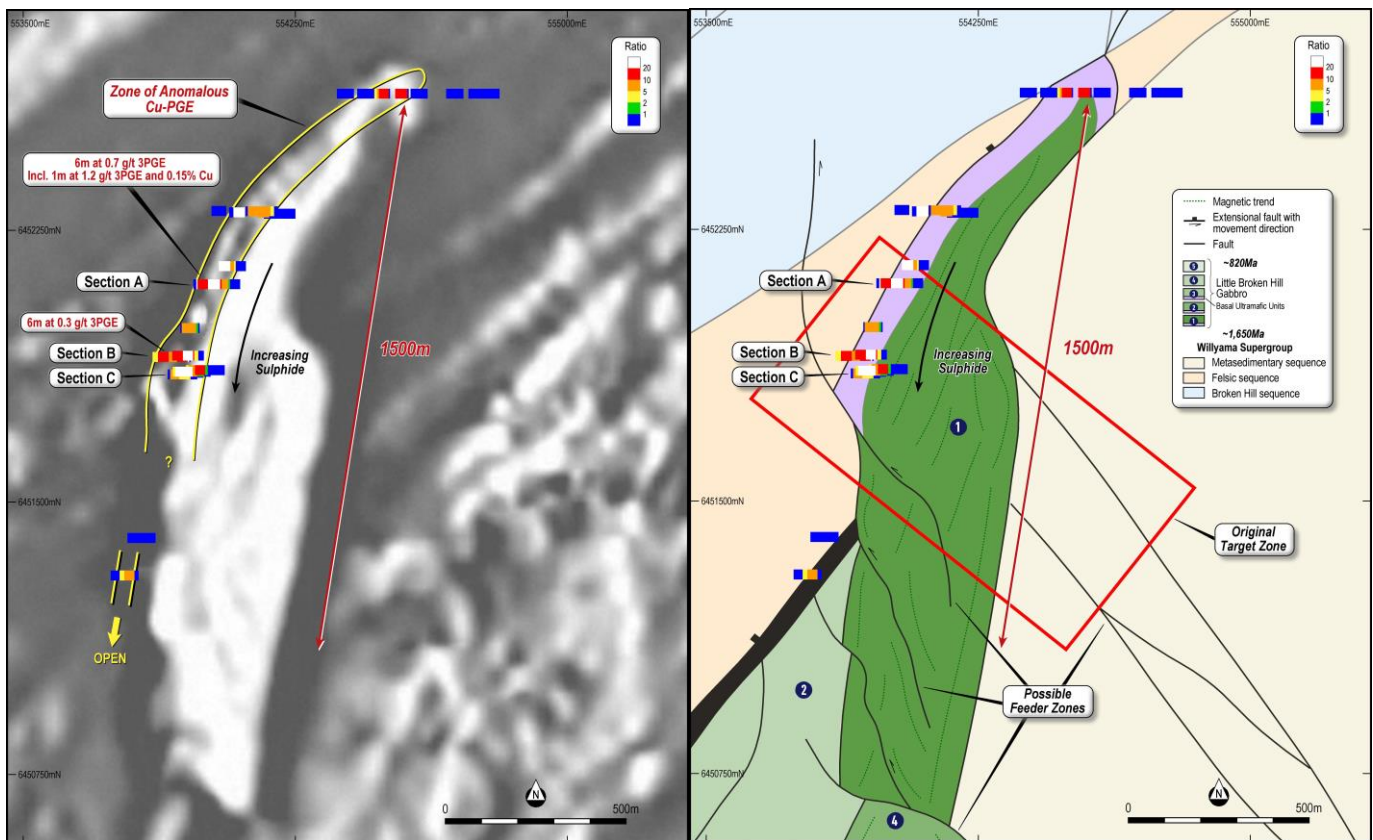
Hole LBIPT025 did not reach target depth.

Assays are awaited from both RWIPT003 and 006 to the east which contain about 20 metres and 10 metres respectively of 1-5% disseminated copper sulphide together with a 1 to 2 metre zone of minor disseminated nickel sulphide (Figure 3).



**Figure 2.** Cross-sections through the Rockwell Prospect. Note the increasing sulphide content from north to south. See Figures 3 and 4 for location of cross sections.





**Figures 3 and 4.** Impact ratio plotted over airborne magnetic data (left) and an interpretation of the geology from the magnetic data (right). Note the increasing “warmth” of the ratio to the south and into a target area containing interpreted feeder zones (ASX Release 9<sup>th</sup> July 2020 and see below).

In addition, zones of weak PGE mineralisation in the tens to low hundreds of ppb extend for up to 30 metres into the immediate footwall of the LBHG in places and attest to hydrothermal remobilisation of the PGE mineralisation (Section A and B, Figure 3).

On Section C, a significant zone of disseminated copper sulphide up to 25 metres thick is present in three of the four holes on this traverse with laboratory assays awaited for all of them (Figure 3).

Of note, Hole RWIPT009 in particular has returned grades of elevated copper over the entire width of sulphide including an upper zone up to 5 metres thick with up to 1% copper as measured with a hand held XRF instrument. Impact’s ratio is also elevated through this zone. In addition the higher grade zone contains minor nickel sulphide (Figure 3).

This is very encouraging and RWIPT009 is considered a breakthrough drill hole for exploration of the LBHG.

The increase in Impact’s ratio towards the feeder zones at Rockwell is also evident in Figures 3 and 4.

## **Discussion**

The widespread occurrence of anomalous copper, nickel and PGE mineralisation along at least 1,500 metres of strike of the LBHG at Rockwell indicates that there is a very large inventory of those metals contained within the basal ultramafic unit of the intrusion. The abundance and grade of the mineralisation appears to be increasing both to the south and at depth.

To the south a number of faults cut through the intrusion and these have been interpreted as potential feeder zones that were active magma conduits providing fresh pulses of magma into the main gabbro chamber. These faults are priority areas for follow up drilling. Other feeder zones identified by Impact have also been tested as part of this programme (Figure 7).

In addition the presence of thick zones of weak PGE mineralisation in the immediate footwall of the LBHG suggests significant hydrothermal activity and redistribution of the PGE by fluids possibly related to the main intrusive event.

Such processes are important for the formation of high grade vein-hosted mineralisation at Impact's Red Hill prospect as well as at globally significant deposits such as Sudbury in Canada where high grade PGE's are found for up to several hundred metres into the footwall below the main intrusion. There has been no exploration of the footwall to the LBHG and this considerably expands Impact's search space for high grade nickel-copper-PGE mineralisation.

## **Next Steps**

Extensive follow-up drilling is clearly required at Rockwell and in all likelihood other places within the LBHG.

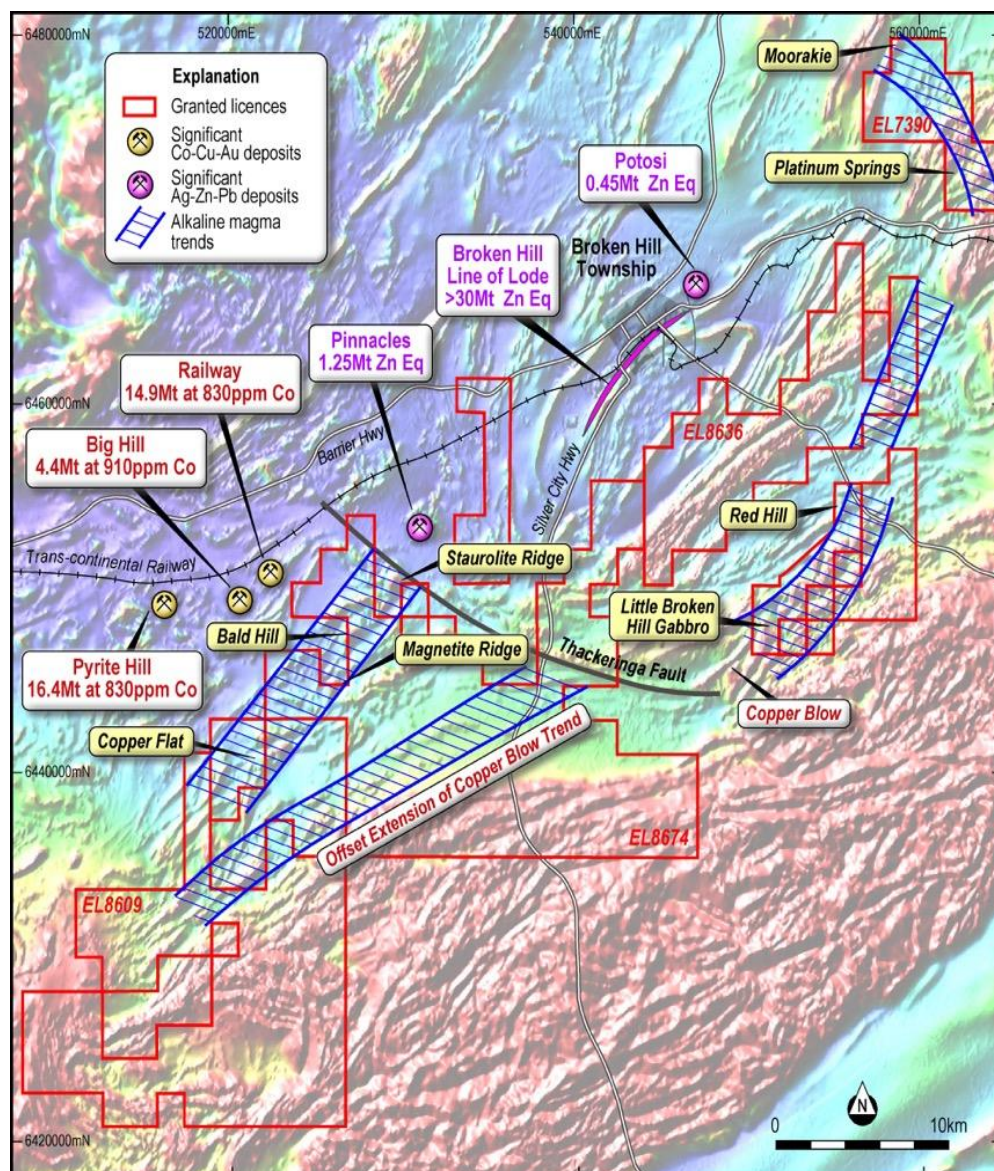
A large amount of new data has been generated from the extensive drill programmes now completed at Broken Hill and a significant number of assays are still outstanding from all four prospects: LBHG, Platinum Springs, Red Hill and Dora East.

A detailed interpretation of all of this data in context is required in order to prioritise areas for follow up drilling and a strong news flow into January is anticipated. This will include further research and calibration of Impact's ratio for PGE exploration.

Drilling will resume as soon as practicable in Q1 2021 and discussions are in progress with drilling contractors to determine timing and cost.

## ABOUT THE LITTLE BROKEN HILL GABBRO

The Little Broken Hill Gabbro (LBHG) lies about 25 km south of the town of Broken Hill and is the largest of a suite of mafic to ultramafic intrusions that occur in a 40 km long belt from Little Broken Hill in the south west to Red Hill, Darling Creek, Platinum Springs and Moorkai in the north east (Figure 5).

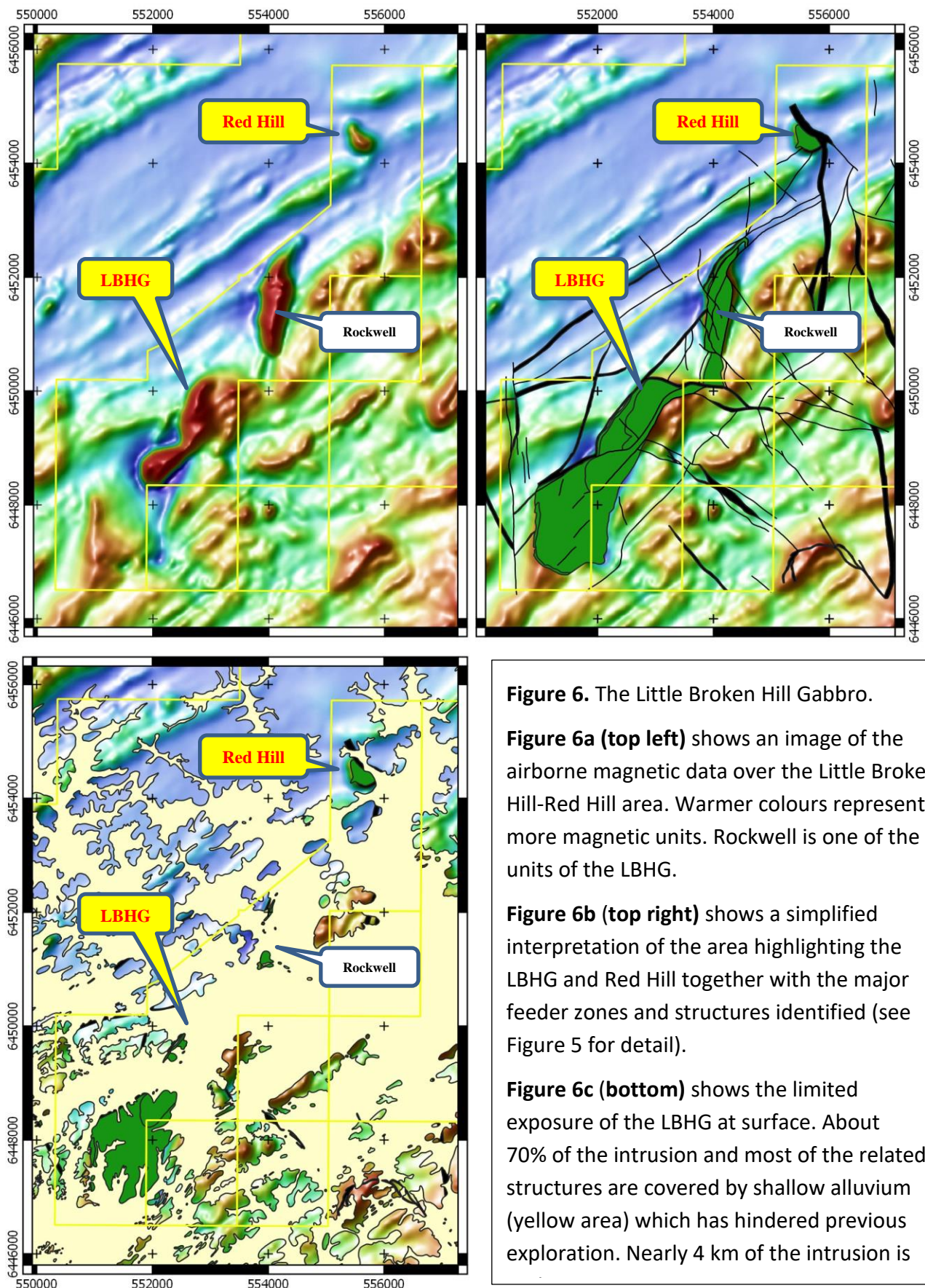


**Figure 5.** Impact's ground holdings in the Broken Hill area showing key prospects including Red Hill, Platinum Springs and Little Broken Hill Gabbro.

The LBHG is evident in airborne magnetic data (Figure 6a) and is about six kilometres long and up to one kilometre wide. There are no detailed published studies on the gabbro and it is poorly understood.

On-going work by Impact has shown that it is comprised of a number of individual units or lobes that have differing magnetic and chemical properties (compare Figures 6a and 6b and Figure 7).





**Figure 6.** The Little Broken Hill Gabbro.

**Figure 6a (top left)** shows an image of the airborne magnetic data over the Little Broken Hill-Red Hill area. Warmer colours represent more magnetic units. Rockwell is one of the units of the LBHG.

**Figure 6b (top right)** shows a simplified interpretation of the area highlighting the LBHG and Red Hill together with the major feeder zones and structures identified (see Figure 5 for detail).

**Figure 6c (bottom)** shows the limited exposure of the LBHG at surface. About 70% of the intrusion and most of the related structures are covered by shallow alluvium (yellow area) which has hindered previous exploration. Nearly 4 km of the intrusion is



Importantly, about 70% of the gabbro and four kilometres of strike is covered by up to about 25 metres of alluvium (Figure 6c). This cover has been a hindrance to previous exploration and only very limited sampling and drilling has been completed by previous explorers away from the areas of outcrop. This work returned only modest results and discouraged further exploration given the very high grade nickel-copper-PGE results returned from the other prospects in the region.

However, Impact's work has now shown that the gabbro has many of the characteristics required to potentially host a major nickel-copper-PGE deposit and that compelling targets exist under the alluvial cover or at depth. Three important lines of evidence for this are:

1. The structural controls on the intrusion and formation of the LBHG.
2. The age and geodynamic setting of the LBHG and related mafic and ultramafic rocks.
3. The internal chemistry of the individual units within the LBHG which is a work in progress.

### **1. The Structural Controls on the Intrusion of the Little Broken Hill Gabbro**

A new interpretation of the internal geometry and structure of the Little Broken Hill Gabbro by Impact is shown in Figure 7 (further details are in ASX Release 9<sup>th</sup> July 2020).

Impact's work has shown that the Little Broken Hill Gabbro is a mid-crustal magma chamber that was fed at least in part by ultramafic to mafic magmas sourced from the mantle such as those at Red Hill and the

9 km long Platinum Springs-Moorkaie trend (Figure 5). Those magmas were demonstrably carrying extensive nickel-copper-PGEs both as magmatic sulphides such as at Platinum Springs and in related hydrothermal fluids such as at Red Hill. These deep seated magmas fed the mid-crustal chamber through a sequence of extensional faults and shears that constitute feeder zones for the main intrusive body. Three possible feeder zones have been identified (Figure 3).

In addition, Impact has recognised five different units within the LBHG each of which has different magnetic, chemical and field characteristics (Figure 3). The geometry of the units, four of which are folded, are best explained as the product of repeated pulses of magma being injected from the feeder zones into a laterally expanding magma chamber. Each new pulse of magma causes gravitational instabilities in the chamber leading to slumping and sliding of the magmas towards the centre and edges of the chamber.

Such gravity slides have been shown to be important controls on the deposition and sorting of magmatic massive sulphide in a number of major deposits including the Bushveld Complex in South Africa (Maier et al 2012).

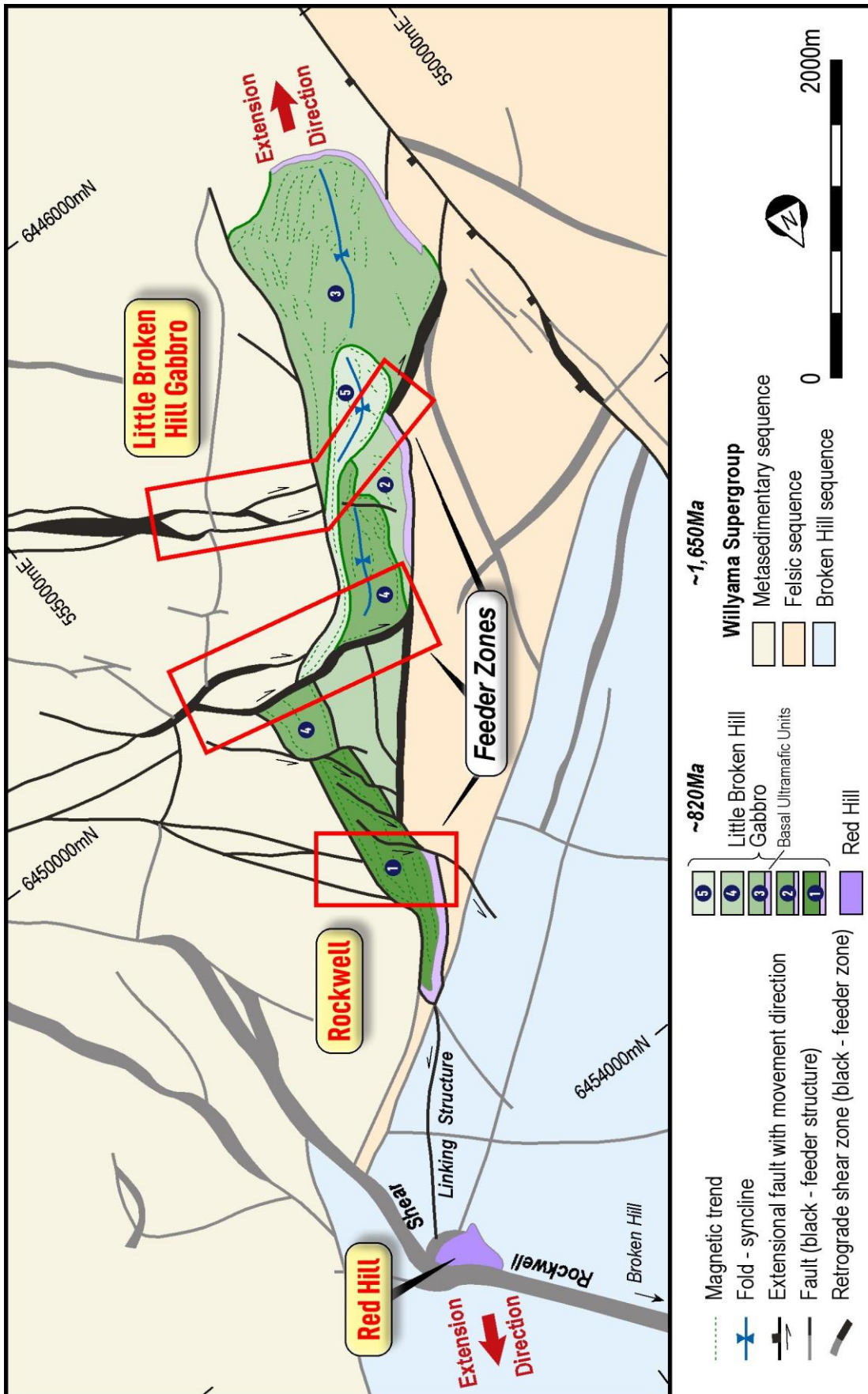
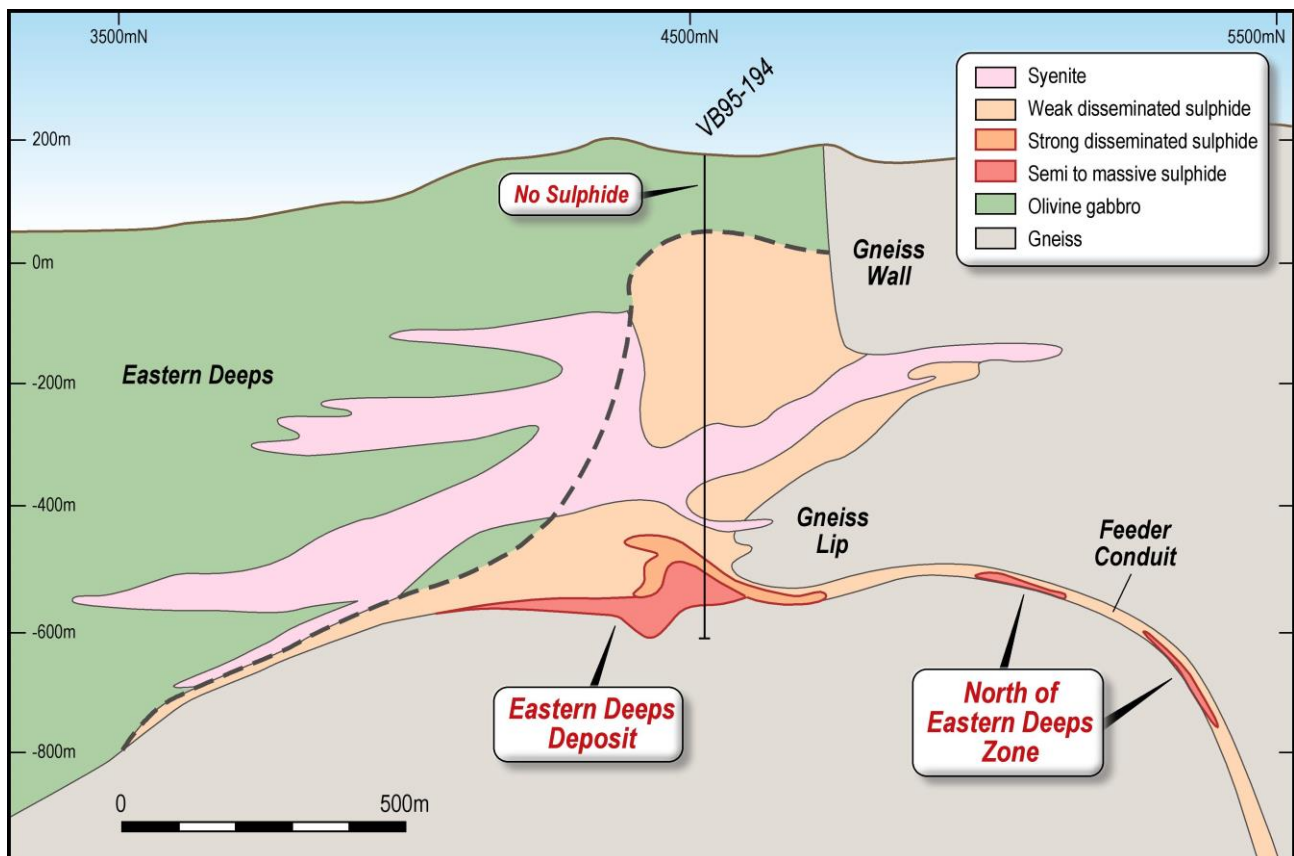


Figure 7. Interpretation of the Little Broken Hill Gabbro. Note the opposite fault slip direction either side of the central of the three possible feeder zones identified. The gabbro has expanded further to the right of this zone (SW) than the left (NE – Rockwell Lobe)

Feeder zones (and associated gravity slides) are well known loci for nickel-copper-PGE mineralisation. A very good example of a feeder zone is the Eastern Deeps mineralisation at the world class Voiseys Bay in Canada (>150 Mt at 1.6% nickel, 0.9% copper and 0.1% cobalt) as shown in Figure 8. Here, a significant massive sulphide body and a related large cloud or halo of disseminated sulphide has been deposited at the exit point of a feeder zone which in itself was carrying extensive sulphide mineralisation.

This is a useful conceptual model for Little Broken Hill and Impact's exploration programme is focussed in the first instance on the search to find an outer halo of disseminated sulphide in this intrusion which may then provide vectors to the ultimate target of massive sulphide.

An interpretation of the geochemistry of rock chip and drill assays from the LBHG is now underway and will no doubt add to the exciting model that Impact has built for its nickel-copper-PGE exploration in the Broken Hill region.



**Figure 8.** Cross-section through the Eastern Deeps deposit at Voiseys Bay. Note the feeder zone to the main intrusion and the large halo of disseminated sulphide mineralisation adjacent to the feeder. The massive sulphide body is some 600 metres deep and there is no surface expression of mineralisation.

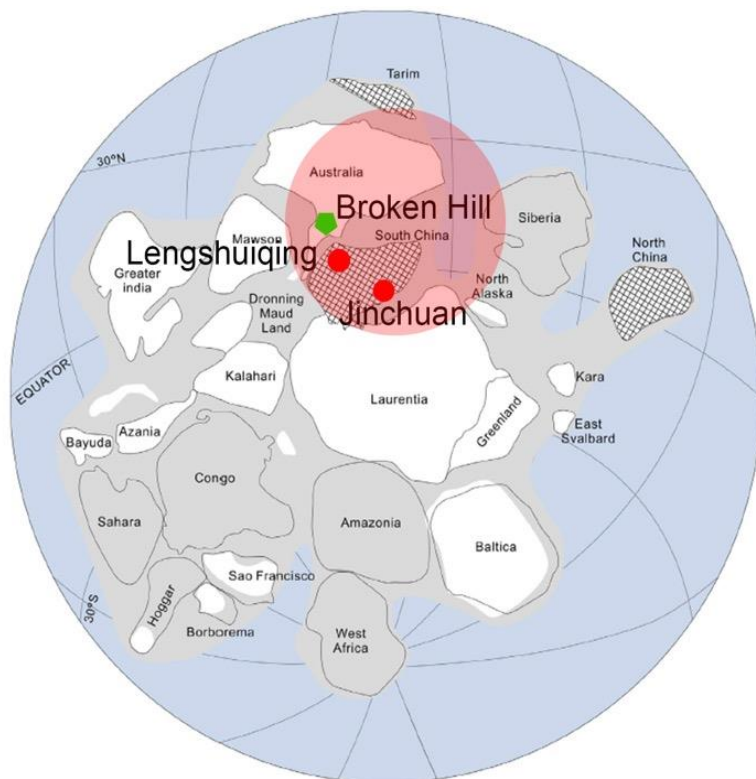


## 2. The Age, Size and Geodynamic Setting of the Little Broken Hill Gabbro

The LBHG is about 827 million years old and related to the break-up of a supercontinent called Rodinia by a rising “plume” of mafic to ultramafic magma likely derived from the core-mantle boundary (Figure 9, Wingate et al 1998). Unpublished age dating by Impact indicates all of the mafic-ultramafic rocks in the Broken Hill area are likely to be of a similar age.

At that time, Broken Hill was located close to Jinchuan, one of the world’s largest nickel-copper-PGE deposits (>550Mt at 1.2% Ni 0.7% Cu 0.5 g/t PGM) which is also of a similar age (Figure 9). This geodynamic framework of a rising mantle plume is widely recognised as a crucial component to the formation of major magmatic nickel-copper-PGE sulphide deposits (ASX Release March 6<sup>th</sup> 2019).

The Voiseys Bay deposit also formed in a similar geodynamic environment but at an earlier time in the Earth’s history, 1.3 billion years ago.



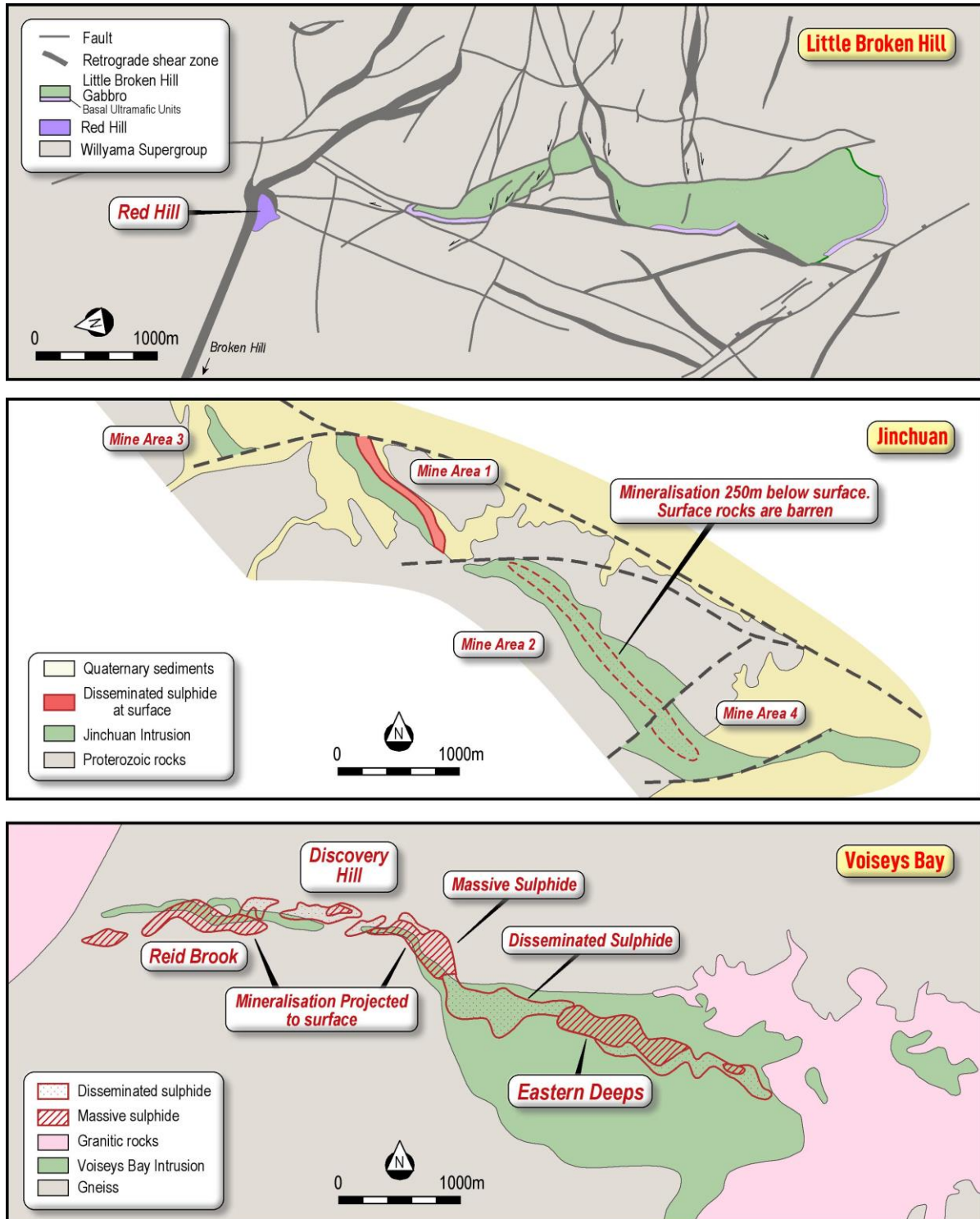
**Figure 9.** Position of the proposed mantle plume head (red circle) responsible for the breakup of Rodinia showing the location of Broken Hill in relation to the Jinchuan and Lengshuiqing Ni-Cu- Co-PGE deposits at about 800 million years ago (after Huang et al., 2015).

A comparison of the size of the Little Broken Hill Gabbro and the host intrusions at Jinchuan and Voiseys Bay is shown in Figure 10. The geometric similarities are obvious.

Importantly, more than 95% of the mineralisation at both Jinchuan and Voiseys Bay occurs at depths of up to many hundreds of metres below surface and the deposits are for the most part “blind”, that is, there are no surface indications of the underlying world class orebodies (Figures 8 and 10).

This is an important consideration in exploration at the LBHG as there is only one drill hole deeper than 25 metres.

Such comparisons clearly demonstrate that the LBHG has the correct scale, geodynamic setting and lack of previous exploration to host a major nickel-copper-PGE deposit.



**Figure 10.** Comparison of the Little Broken Hill Gabbro-Red Hill area with Jinchuan and Voiseys Bay. Note the similar scale and also how most of the mineralisation at Jinchuan and Voiseys Bay is at depth.

## COMPLIANCE STATEMENT

This report contains 28 new collar locations and assay data for 13 new drill holes drilled by Impact.

**Dr Mike Jones**

**Managing Director**

*The review of exploration activities and results contained in this report is based on information compiled by Dr Mike Jones, a Member of the Australian Institute of Geoscientists. He is a director of the company and works for Impact Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which 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 (the JORC Code). Mike Jones has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

**TABLE 1. ROCKWELL PROSPECT DRILL HOLE DETAILS**

| Hole ID  | Hole Type | Grid     | Easting | Northing | Azimuth | Dip | Depth |
|----------|-----------|----------|---------|----------|---------|-----|-------|
| LBIPT015 | AC        | MGA94_54 | 554400  | 6452628  | 270     | -60 | 30    |
| LBIPT016 | AC        | MGA94_54 | 554454  | 6452623  | 270     | -60 | 25    |
| LBIPT017 | AC        | MGA94_54 | 554499  | 6452623  | 270     | -60 | 44    |
| LBIPT018 | AC        | MGA94_54 | 554548  | 6452622  | 270     | -60 | 31    |
| LBIPT019 | AC        | MGA94_54 | 554597  | 6452623  | 270     | -60 | 35    |
| LBIPT020 | AC        | MGA94_54 | 554702  | 6452629  | 270     | -60 | 32    |
| LBIPT021 | AC        | MGA94_54 | 554762  | 6452626  | 270     | -60 | 39    |
| LBIPT022 | AC        | MGA94_54 | 554802  | 6452625  | 270     | -60 | 30    |
| LBIPT023 | AC        | MGA94_54 | 553890  | 6451900  | 270     | -60 | 36    |
| LBIPT024 | AC        | MGA94_54 | 553916  | 6451903  | 270     | -60 | 44    |
| LBIPT025 | AC        | MGA94_54 | 553952  | 6451903  | 270     | -60 | 32    |
| LBIPT026 | AC        | MGA94_54 | 553993  | 6452101  | 270     | -60 | 31    |
| LBIPT027 | AC        | MGA94_54 | 554023  | 6452101  | 270     | -60 | 35    |
| RWIPT001 | RC        | MGA94_54 | 554171  | 6452298  | 270     | 60  | 31    |
| RWIPT002 | RC        | MGA94_54 | 554062  | 6452105  | 270     | 60  | 85    |
| RWIPT003 | RC        | MGA94_54 | 553972  | 6451903  | 270     | 60  | 118   |
| RWIPT004 | RC        | MGA94_54 | 554191  | 6452303  | 270     | 75  | 118   |
| RWIPT005 | RC        | MGA94_54 | 554094  | 6452111  | 270     | 60  | 97    |
| RWIPT006 | RC        | MGA94_54 | 553983  | 6451907  | 270     | 60  | 127   |
| RWIPT007 | RC        | MGA94_54 | 553865  | 6451397  | 270     | 60  | 100   |
| RWIPT008 | RC        | MGA94_54 | 553809  | 6451297  | 270     | 60  | 100   |
| RWIPT009 | RC        | MGA94_54 | 553986  | 6451858  | 270     | 70  | 166   |
| RWIPT010 | RC        | MGA94_54 | 554008  | 6451966  | 270     | 70  | 76    |
| RWIPT011 | RC        | MGA94_54 | 553968  | 6451853  | 270     | 70  | 148   |
| RWIPT012 | RC        | MGA94_54 | 554103  | 6452148  | 270     | 60  | 100   |
| RWIPT013 | RC        | MGA94_54 | 554005  | 6451860  | 270     | 70  | 208   |
| RWIPT014 | RC        | MGA94_54 | 554045  | 6451860  | 270     | 70  | 283   |
| RWIPT015 | RC        | MGA94_54 | 543996  | 6451835  | 270     | 70  | 211   |



TABLE 2. SIGNIFICANT INTERCEPTS

| Hole ID  |                  | From | To | Interval (m) | Au_ppb | Cu_ppm | Ni_ppm | Pd_ppb | Pt_ppb | 3PGM |
|----------|------------------|------|----|--------------|--------|--------|--------|--------|--------|------|
| LBIPT015 |                  |      |    |              | NSA    | NSA    | NSA    | NSA    | NSA    | NSA  |
| LBIPT016 |                  | 19   | 20 | 1            | 33     | 163    | 657    | 12     | 13     | 58   |
| LBIPT017 |                  |      |    |              | NSA    | NSA    | NSA    | NSA    | NSA    | NSA  |
| LBIPT018 |                  | 6    | 14 | 8            | 18     | 246    | 548    | 22     | 13     | 53   |
| LBIPT019 |                  | 7    | 27 | 21           | 15     | 83     | 915    | 25     | 11     | 51   |
| LBIPT020 |                  |      |    |              | NSA    | NSA    | NSA    | NSA    | NSA    | NSA  |
| LBIPT021 |                  |      |    |              | NSA    | NSA    | NSA    | NSA    | NSA    | NSA  |
| LBIPT022 |                  |      |    |              | NSA    | NSA    | NSA    | NSA    | NSA    | NSA  |
| LBIPT023 |                  | 10   | 12 | 4            | 12     | NSA    | NSA    | 6      | 115    | 133  |
| LBIPT024 |                  | 2    | 38 | 36           | 14     | 187    | 857    | 58     | 32     | 104  |
|          | <i>including</i> | 24   | 30 | 6            | 32     | 138    | 544    | 169    | 106    | 307  |
| LBIPT025 |                  | 18   | 20 | 2            | 17     | 964    | 998    | 39     | 44     | 100  |
| LBIPT026 |                  | 0    | 6  | 6            | 33     | 584    | 763    | 508    | 177    | 718  |
|          | <i>including</i> | 4    | 5  | 1            | 30     | 1447   | 1891   | 843    | 346    | 1219 |
| LBIPT027 |                  | 0    | 7  | 7            | 26     | 1115   | 1812   | 67     | 72     | 165  |
|          |                  | 23   | 36 | 3            | 45     | 914    | 1488   | 120    | 97     | 262  |

## APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA FOR THE BROKEN HILL PROJECT

| Criteria              | JORC Code explanation   | Commentary   |
|-----------------------|---|--|
| Sampling techniques   | <i>Nature and quality of sampling (e.g. 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.</i>   | Reverse Circulation (RC) percussion drilling was used to produce a 1m bulk sample (~25kg) which was collected in plastic bags. 1m split samples (nominally 3kg) were collected using a riffle splitter and placed in a calico bag. The cyclone was cleaned out with compressed air at the end of each hole and periodically during the drilling. Holes were drilled to optimally intercept interpreted mineralised zones.<br><br>For samples within the target ultramafic unit, the 1m sample in the calico bag was sent for assay. Outside the ultramafic unit the bulk sample was speared using standard techniques to produce either a 2 metre or 4 metre composite for assay.  |
|                       | <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>   | Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance / testing (QA).<br>Examples of QC include (but are not limited to), daily workplace and equipment inspections, as well as drilling and sampling procedures. Examples of QA include (but are not limited to) collection of “field duplicates”, the use of certified standards and blank samples approximately every 50 samples.   |
|                       | <i>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 (e.g. ‘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 (e.g. submarine nodules) may warrant disclosure of detailed information</i> | RC samples were submitted to Intertek Laboratories in Perth for assay by 4 acid digest with ICP-MS finish and Fire Assay technique FA/50 MS (lead collection) for gold, platinum and palladium and fire assay technique NS/25/MS (nickel sulphide collection) for gold platinum, osmium, iridium, palladium, rhodium and ruthenium. Sample preparation involved: sample crushed to 70% less than 2mm, riffle split off 1 kg, pulverise split to >85% passing 75 microns.<br><br>Individual one metre samples were also assayed with a hand held Vanta or Delta XRF instrument. Measurements lasting a minute were taken on each of the calico bags. Readings are qualitative only. |
| Drilling techniques   | <i>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).</i>  | RC drilling comprises 4-inch hammer.   |
| Drill sample recovery | <i>Method of recording and assessing core and chip sample recoveries and results assessed</i>   | RC samples were visually checked for recovery, moisture and contamination as determined from previous drill logs.  |
|                       | <i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>   | The RC samples were collected by plastic bag directly from the rig-mounted cyclone and laid directly on the ground in rows of 10. The drill cyclone and sample buckets are cleaned between rod-changes and after each hole to minimise down-hole and/or cross contamination.   |
|                       | <i>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.</i>   | No relationship has been established and it is considered unlikely to be a material issue.   |

| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
| <b>Logging</b>  | <i>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.</i>                                | Geological logging of samples followed company and industry common practice. Qualitative logging of samples included (but not limited to); lithology, mineralogy, alteration, veining and weathering.  |
|   | <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>   | All logging is quantitative, based on visual field estimates. Systematic photography of the RC chip trays was completed.   |
|   | <i>The total length and percentage of the relevant intersections logged</i>   | All RC chips samples were geologically logged by on-site geologists.   |
| <b>Sub-sampling techniques and sample preparation</b> | <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>  | Not applicable.  |
|   | <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>  | All RC samples collected in calico bags were split using a riffle splitter. Samples were dry when sampled. Composite samples were collected from the bulk sample bags using a poly pipe spear.   |
|   | <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>   | Company procedures were followed to ensure sub-sampling adequacy and consistency. These included (but were not limited to), daily workplace inspections of sampling equipment and practices, as well as sub-sample duplicates ("field duplicates").                                |
|   | <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>  | Laboratory QC procedures for rock sample assays involve the use of internal certified reference material as assay standards, along with blanks, duplicates and replicates. Impact uses field duplicates and standards for every 1 in 50 samples and blanks every 1 in 100 samples. |
|   | <i>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.</i>   | All QA/QC results were within acceptable levels of +/- 15-20%  |
|   | <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>  | Sample sizes are considered appropriate for the mineralisation style.  |
| <b>Quality of assay data and laboratory tests</b>     | <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>   | Industry standard fire assay and 4 acid digest analytical techniques were used. Both techniques are considered to be almost a total digest apart from certain refractory minerals not relevant to exploration at Platinum Springs.   |
|   | <i>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.</i> | N/A  |
|   | <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>                 | Field duplicates: 1 in every 50 samples. Standards 1 in 50 samples. Blanks 1 in 100 samples. In addition, standards, duplicates and blanks were inserted by the analytical laboratory at industry standard intervals.  |
| <b>Verification of sampling and assaying</b>          | <i>The verification of significant intersections by either independent or alternative company personnel.</i>  | The results have not been verified by independent or alternative companies. This is not required at this stage of exploration.   |



| Criteria  | JORC Code explanation   | Commentary  |
|---|---|---|
|   | <i>The use of twinned holes.</i>  | N/A   |
|   | <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>   | Primary assay data for drill assays has been received digitally from the laboratory and imported into Datashed to be combined with hole numbers and depths by Impact. Exports of data are used for plotting results in Mapinfo, Geosoft Target and Leapfrog. Original pdf laboratory assay certificates are saved for verification when required.                                   |
|   | <i>Discuss any adjustment to assay data.</i>  | There are no adjustments to the assay data.   |
| Location of data points                                 | <i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>   | Drill holes were located by hand held GPS.  |
|   | <i>Specification of the grid system used.</i>   | The grid system for Broken Hill is MGA_GDA94, Zone 54.  |
|   | <i>Quality and adequacy of topographic control.</i>   | Standard government topographic maps have been used for topographic validation.   |
| Data spacing and distribution                           | <i>Data spacing for reporting of Exploration Results.</i>   | RC drill holes are drilled at varying spacings, orientations and depths deemed appropriate for early stage exploration  |
|   | <i>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.</i> | Estimations of grade and tonnes have not yet been made.   |
|   | <i>Whether sample compositing has been applied.</i>   | Sample compositing was done for samples outside the target ultramafic unit. This was done to provide geochemical data that may help vector towards ore.   |
| Orientation of data in relation to geological structure | <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>   | The orientation of mineralisation is yet to be determined. A 3D review of the mineralisation is currently underway to better interpret the orientation of mineralisation and assist follow-up drilling.   |
|   | <i>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.</i>                   | Not relevant to early stage exploration drill results. No sampling bias has been detected.  |
| Sample security   | <i>The measures taken to ensure sample security.</i>  | Chain of custody is managed by Impact Minerals Ltd. A courier is contracted by Impact Minerals to transport the samples from Broken Hill to the Intertek laboratory in Alice Springs for preparation and then sent to Intertek in Perth for assay. Whilst in storage, they are kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples. |
| Audits or reviews                                       | <i>The results of any audits or reviews of sampling techniques and data.</i>  | At this stage of exploration, a review of the sampling techniques and data by an external party is not warranted.   |

## SECTION 2 REPORTING OF EXPLORATION RESULTS

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
| <b>Mineral tenement and land tenure status</b>                          | 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 Broken Hill Project currently comprises 8 exploration licences covering 825 km <sup>2</sup> . The tenements are held 100% by Impact Minerals Limited. No aboriginal sites or places have been declared or recorded over the licence area. There are no national parks over the licence area. |
|   | 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.   | The tenements are in good standing with no known impediments.  |
| <b>Exploration done by other parties</b>                                | Acknowledgment and appraisal of exploration by other parties.  | Previous work has been reported where required in accordance with the JORC Code in reports referred to in the text.  |
| <b>Geology</b>  | Deposit type, geological setting and style of mineralisation.  | Nickel-copper-PGE sulphide mineralisation associated with an ultramafic intrusion.   |
| <b>Drill hole Information</b>   | <p>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:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <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> | See Table details within the main body of this ASX Release.  |
| <b>Data aggregation methods</b>   | In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.   | All reported assays have been length weighted. No top cuts have been applied. A minimum grade of 100 ppb 3PGE has been used.   |
|   | 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.   | High grade semi-massive and vein-style sulphide intervals internal to broader zones of disseminated sulphide mineralisation are reported as included intervals.  |
|   | The assumptions used for any reporting of metal equivalent values should be clearly stated.  | No metal equivalents have been reported.   |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>   | The orientation of mineralisation is yet to be determined. A 3D review of the mineralisation is currently underway to better interpret the orientation of mineralisation and assist follow-up drilling.  |

| Criteria                                  | JORC Code explanation   | Commentary  |
|---|---|---|
| <b>Diagrams</b>                           | 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.   |
| <b>Balanced reporting</b>                 | 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 results reported are representative   |
| <b>Other substantive exploration data</b> | 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. | Assessment of other substantive exploration data is not yet complete however considered immaterial at this stage.   |
| <b>Further work</b>                       | The nature and scale of planned further work (e.g. 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   | Follow up work programmes will be subject to interpretation of results which is ongoing. A 3D review of the mineralisation is currently underway to better interpret the orientation of mineralisation and assist follow-up drilling. |