

## ASX ANNOUNCEMENT

Date: 8 December 2015

Number: 445/081215

### EXCEPTIONAL ZINC-SILVER GRADES AT RED HILL

#### Drill hole RHD018 returns

**1 metre at 26.8% zinc, 2.8% lead, 133 g/t silver (4 ounces); and**

**1 metre at 21.4% zinc, 0.8% lead and 31.5 g/t silver (1 ounce)**

*within a broader intercept of*

**5.1 metres at 10% zinc, 0.8% lead, 40.4 g/t silver.**

**First significant assay of Broken Hill-style mineralisation by Impact**

**Follow up drilling required**



**Very high grade zinc-silver mineralisation from Hole RHD018**

**Drilling to test high conductance EM anomaly for PGM-copper-nickel mineralisation to commence this week at the Platinum Springs Prospect**

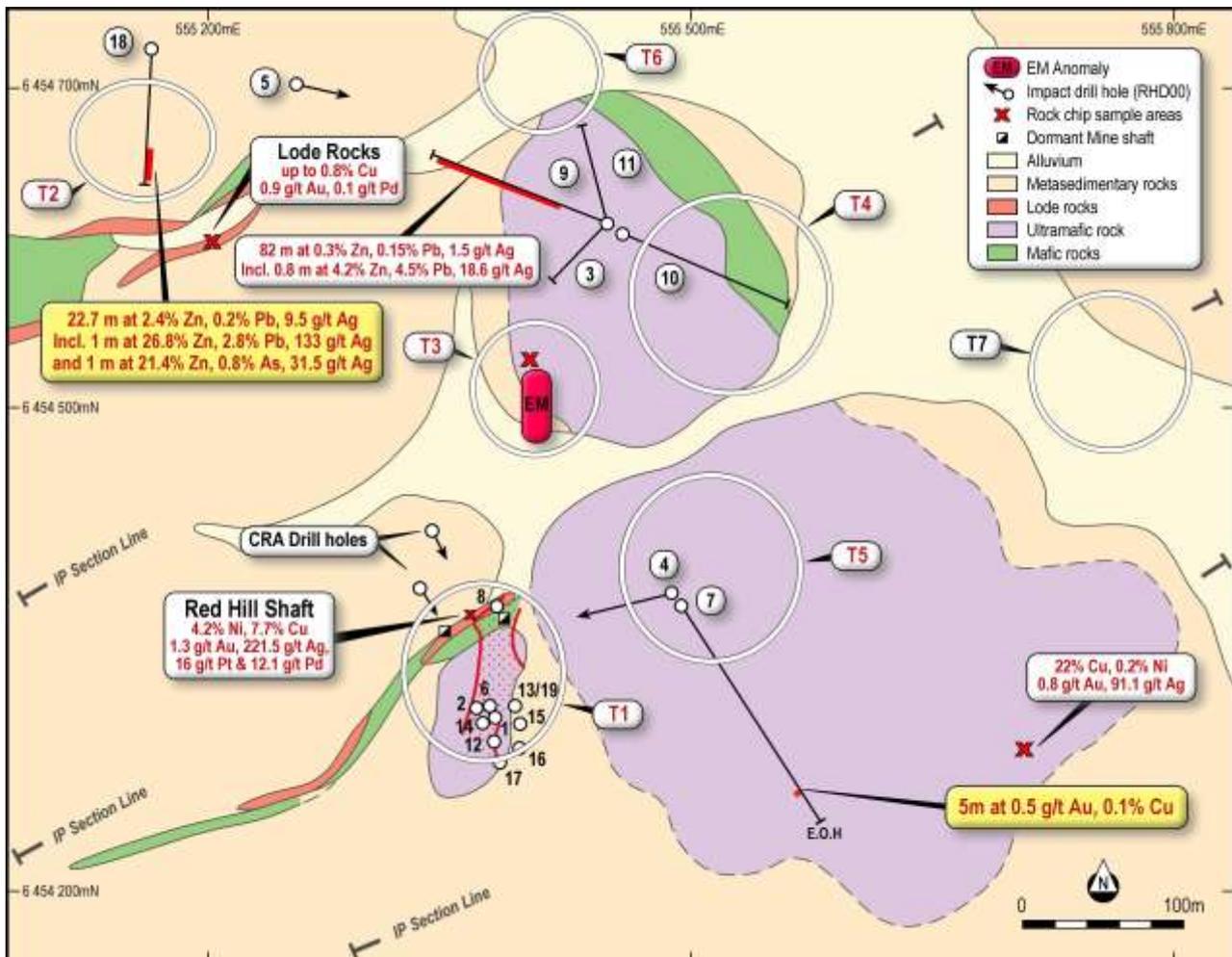
Very high-grade zinc-silver and significant lead assays have been returned from Impact Minerals Limited (ASX:IPT) Red Hill Prospect, part of the Broken Hill Project in New South Wales (Figure 1).

The zinc-lead-silver mineralisation occurs within a 60 metre thick zone of “Broken Hill-style mineralisation” hosted by so-called “Lode Rocks” which are similar to those that surround, and are integral to, the world class Broken Hill zinc-lead-silver deposit located 15 km north west of Red Hill.

Impact, subject to final Ministerial approval, recently purchased 80% of the rights to such Broken Hill-style mineralisation from Silver City Minerals Limited and will free carry their 20% interest in those rights up to a Decision to Mine (see announcement dated 23 October 2015).

The style of mineralisation is distinct from, and separate to, the platinum-copper-nickel mineralisation associated with ultramafic rocks that has been the focus of Impact’s work thus far at the project. Impact owns 100% of the rights to this style of mineralisation.

In Hole RHD018, the Broken Hill-style Lode Rocks comprise variably disseminated, vein and massive iron, zinc, copper and lead sulphides hosted in garnet-bearing metasedimentary rocks and two amphibolite units (Figures 1 and 2).



**Figure 1.** Geology and drill hole locations in the greater Red Hill area.

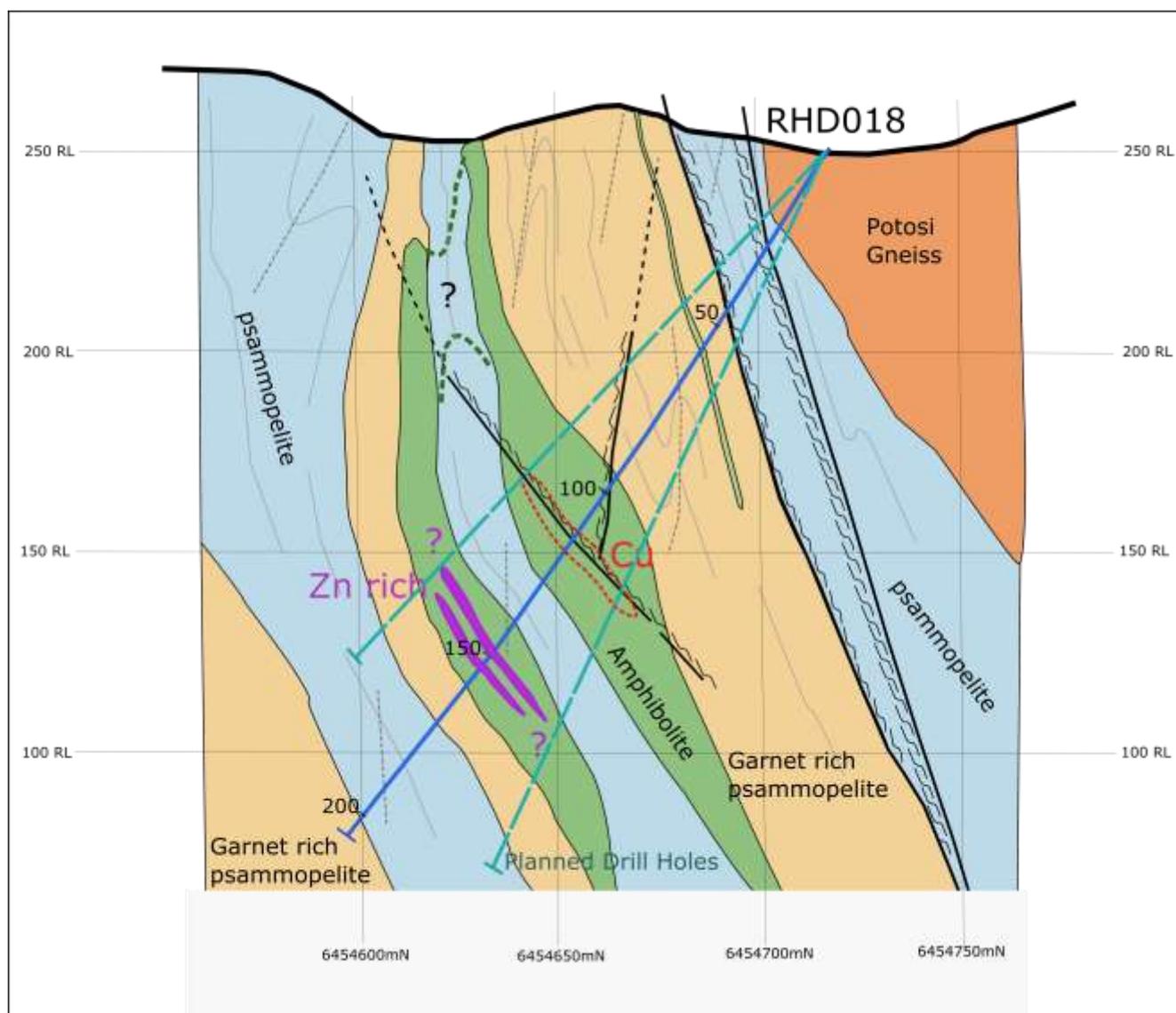
The lower amphibolite unit contains a five metre thick zone of massive and disseminated zinc and lead sulphide mineralisation including two separate one metre intervals of high grade zinc sulphides that returned (Figure 2):

- 5.1 metres at 10% zinc, 0.8% lead, 40.4 g/t silver from 148.4 metres including**
- 1 metre at 26.8% zinc, 2.8% lead, 133 g/t silver (4 ounces) from 148.9 metres; and**
- 1 metre at 21.4% zinc, 0.8% lead and 31.5 g/t silver (1 ounce) from 152.5 metres**

This high grade mineralisation lies within a thicker zone of lower grade mineralisation that returned:

- 22.7 metres at 2.4% zinc, 0.2% lead and 9.5 g/t silver from 138.9 metres down hole.**

Further drilling both up and down dip of this extensive zone of mineralisation is required (Figure 2).



**Figure 2.** North-south cross-section along RHD018, looking west.

The upper amphibolite and surrounding metasedimentary rocks contain a 30 metre thick zone of patchy iron, copper, zinc and lead sulphides from about 100 metres down hole (Figure 2). One zone of selectively sampled copper sulphide mineralisation within this thicker zone returned:

**0.15 metres at 1.5% copper, 1.3% zinc and 22 g.t silver from 113.6 metres down hole.**

A moderate to strong EM conductor has been identified in a down hole EM survey about 20 to 50 metres above the drill hole at about this position. This is a drill target for further copper-zinc mineralisation.

The high grade zinc mineralisation did not give a significant EM response. It is well known that zinc sulphide (sphalerite) is a poor conductor and difficult to directly detect by electrical techniques.

Hole RDH018 is the second hole at Red Hill to intersect thick intercepts of Broken Hill-style mineralisation. Hole RHD09 (Figure 1 – and see announcement dated [2 November 2015](#)) drilled 150 metres to the east also returned a thick intercept of:

**82 metres at 0.3% zinc, 0.15% lead and 1.5 g/t silver including  
2.9 metres at 2.8% zinc, 0.4% lead and 3.7 g/t silver.**

These results are all extremely encouraging for the discovery of a significant zinc-lead-silver deposit. In particular the mineralisation discovered may represent a halo to a larger massive zinc sulphide body along trend or at depth.

Further drilling is warranted and a follow up drill programme is being designed.

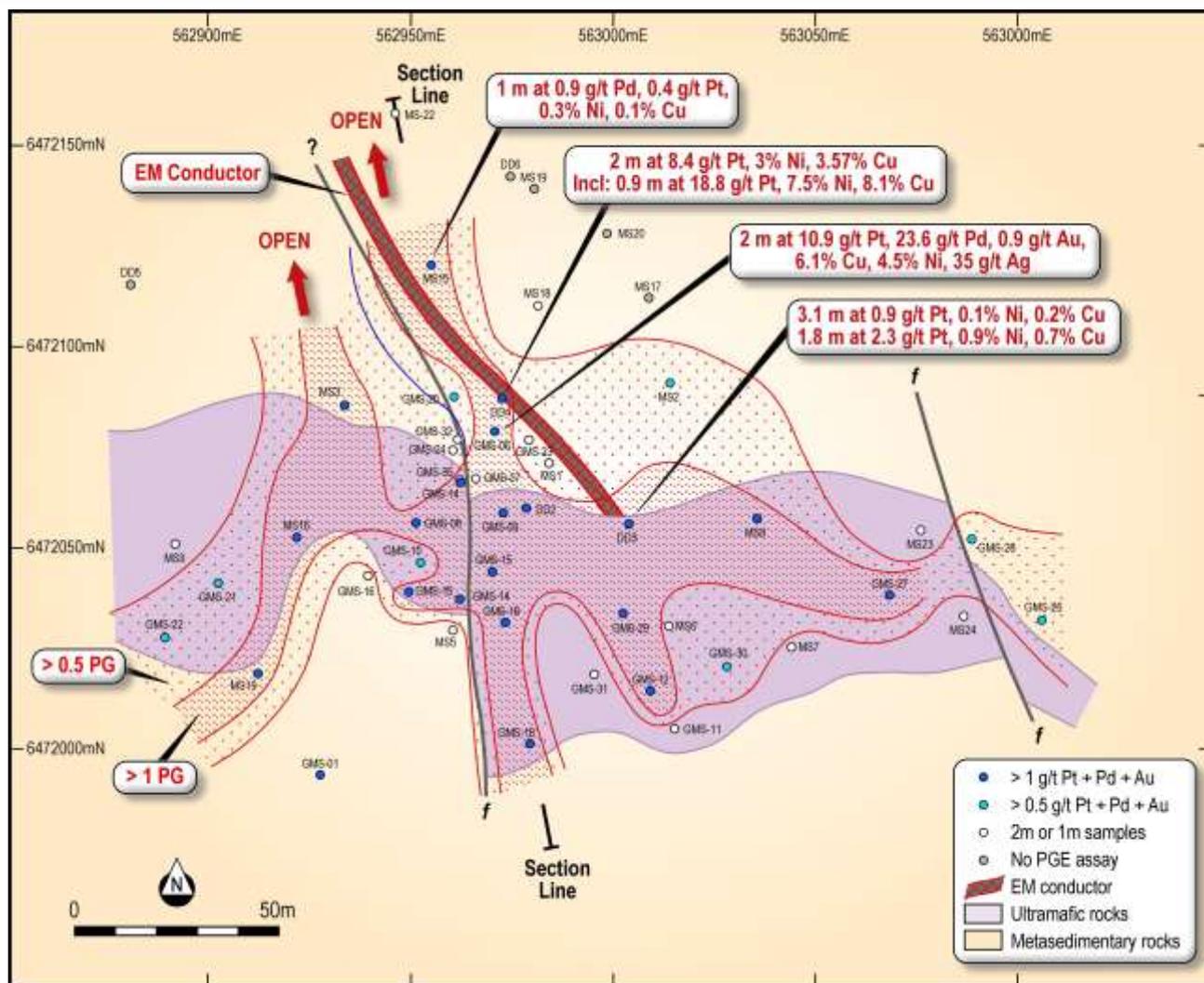
## **Drilling for platinum-copper-nickel to commence this week at Platinum Springs**

A 200 metre diamond drill programme will commence later this week to test a high conductance (>5,000 siemens) EM anomaly identified in a down hole EM survey at the Platinum Springs Prospect 20 km north east of Red Hill (Figure 3 - see announcement dated [11 November 2015](#)).

The conductor, which is modelled to be at least 100 metres long, lies close to two drill holes that contain high grade nickel-copper-platinum group elements (PGE's) in massive sulphide discovered by previous explorers.

The two drill holes returned:

**2 metres at 10.9 g/t platinum, 23.6 g/t palladium, 0.9 g/t gold,  
6.1% copper, 4.5% nickel and 35 g/t silver from 45 metres in Hole GMS-06; and  
2.3 metres 8.4 g/t platinum, 3.6% copper and 3% nickel from 47.7 metres; including  
0.9 metres at 18.8 g/t platinum, 8.1% copper and 7.5% nickel from 48.2 metres in Hole DD4  
(palladium and gold not assayed).**



**Figure 3.** Geology, previous drill holes and contoured data of previous drill assays for platinum, palladium and gold (summed from down hole intervals). A strong northerly control in mineralisation is apparent, in contrast to the east-west trend of the host ultramafic. The down hole EM survey was completed in Hole GMS-33.

### About the Broken Hill Project (see also announcement dated [23<sup>rd</sup> October 2015](#))

The Broken Hill Project comprises three exploration licences that cover a 40 km trend of rocks prospective for two distinct styles of mineralisation:

1. PGE-copper-nickel associated with ultramafic rocks; and
2. Zinc-lead-silver in “Broken Hill-style” deposits hosted mostly by metasedimentary rocks and amphibolites.

The mineral rights for one of the licences, E7390, were split in the early 2000’s into the two different styles of mineralisation and these were the subject of two separate joint ventures between the original licence owner, Golden Cross Resources, and Endeavour Minerals Pty Limited and Silver City Minerals Limited respectively. Impact purchased Endeavour Minerals Pty Limited in 2013.

Subject to Ministerial approval, expected within a few months, Impact will acquire E7390 (via its 100% owned subsidiary Siouville Pty Limited), from Golden Cross Resources and this will entitle Impact to 100% of the nickel-copper-PGE rights, previously in joint venture with Golden Cross.

The consideration payable to Golden Cross upon Ministerial approval is \$60,000 cash and a 1% gross production royalty on all metals to which Impact and/or Siouville has the rights for. At its election, Impact also has the right to buy back the royalty for \$1.5 million at anytime up to a Decision to Mine, or leave the royalty uncapped during any production.

In addition, upon the acquisition of E7390 Impact will also move to an 80-20 joint venture for Broken-Hill style mineralisation with Silver City Minerals Limited and free-carry Silver City's 20% interest to a Decision to Mine.

The consideration payable to Silver City is \$50,000 cash.

Squadron Resources Pty Limited has the right to invest \$1 million for a 19.9% interest in the nickel-copper-PGE rights under the terms of an investment into Impact as outlined in the announcement to the ASX dated [17 July 2015](#). However, Squadron is not liable for any payment of the royalty to Golden Cross.

Squadron Resources Pty Limited has no rights to earn into the Broken Hill style mineralisation.

**Table 1.** Summary of Completed Drill Holes Phase 2 drilling Red Hill

Collar ID	Drill type	Easting	Northing	Dip	Azimuth	Depth
RHD007	Diamond	555517	6454391	-70	150	420.9
RHD008	Diamond	555381	6454371	-45	178	50
RHD009	Diamond	555434	6454599	-55	300	195.3
RHD010	Diamond	555443	6454596	-45	110	168.4
RHD011	Diamond	555440	6454604	-50	345	96.5
RHD012	Diamond	555379	6454279	-55	10	120.5
RHD013	Diamond	555394	6454303	-51	10	108.5
RHD014	Diamond	555373	6454292	-50	345	96.5
RHD015	Diamond	555397	6454292	-54	353	102.3
RHD016	Diamond	555397	6454280	-61	342	90.5
RHD017	Diamond	555383	6454263	-46	355	90.6
RHD018	Diamond	555193	6454716	-60	200	207.5
RHD019	Diamond	555392	6454303	-75	270	153.8

**Dr Michael G 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.*

## APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p><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></p> <hr/> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i></p> <hr/> <p><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></p>	<p><b>Rock Chip Samples</b> Random rock samples were taken at surface which represented favourable geology and alteration to known mineralisation in the region. Samples are variably weathered.</p> <p><b>Soil Samples</b> Soil samples were taken at 50 m intervals from a hole 15-20 deep and sieved to -2mm to collect about 250 g of material.</p> <p><b>Diamond Drilling</b> Diamond drilling was used to produce drill core either with a diameter of 63.5 mm (HQ) or 47.6 mm (NQ). A handheld XRF instrument was used to analyse the drill core at 50 cm intervals.</p> <hr/> <p><b>Rock Chip Samples</b> Representative rock chip samples at each sample site weigh between 0.8 and 1.2 kg. Soil samples are taken at a consistent depth below surface and sieved.</p> <p><b>Soil Samples and Drill Samples</b> Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance / testing (QA). 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.</p> <hr/> <p><b>Rock Chip and Diamond Drill Samples</b> Rock samples and split diamond core were sent to Intertek Adelaide where they were crushed, dried and pulverised (total prep) to produce a 25-30 g sub-sample for analysis by four acid digest with an ICP/AES finish for ore grade base metal samples and either lead collection or nickel sulphide fire assay with AAS or MS finish for gold and the PGMs. Weathered samples contained gossanous sulphide material. Soil samples were sent to SGS Perth for analysis by the MMI digest. The XRF data is qualitative only. A comparison between the XRF results and wet chemical assay data will be completed on receipt of final results.</p>
Drilling techniques	<p><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></p>	<p>Diamond Drilling comprises NQ (47.6 mm diameter) and HQ (63.5 mm diameter) sized core. Impact diamond core is triple tube and is oriented. Historical diamond core was not oriented.</p>
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed</i></p>	<p>Diamond core recoveries for all holes are logged and recorded. Recoveries are estimated to be approximately &gt;97% for the Red Hill Prospect. No significant core loss or sample recovery problems are observed in the drill core.</p>

Criteria	JORC Code explanation	Commentary
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the driller.
	<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 sample bias has been established.
<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. Diamond core logging included additional fields such as structure and geotechnical parameters.  Magnetic Susceptibility measurements were taken for each 0.5 m diamond core interval.  For diamond core, information on structure type, dip, dip direction, texture, shape and fill material has been recorded in the logs. RQD data has been recorded on selected diamond holes. Handheld XRF analysis was completed at 50 cm intervals on diamond core.
	<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 diamond core in the wet and dry form was completed.
	<i>The total length and percentage of the relevant intersections logged</i>	All diamond drill holes were logged in full.  Detailed diamond core logging, with digital capture was conducted for 100% of the core by Impact's on-site geologist.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	All core samples were sampled by half core. Selected intervals of quarter core will be selected for check assays if required.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No RC drilling results are reported.
	<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 work place 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 and diamond drill core assays involve the use of internal certified reference material as assay standards, along with blanks, duplicates and replicates.
	<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>	<b>Rock and Soil Samples</b> Field duplicates were taken at selected sample sites.

Criteria	JORC Code explanation	Commentary
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<b>Diamond Core Samples</b> Quarter core duplicate samples are taken randomly every 50 samples. Sample sizes at Red Hill are considered adequate due to 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>	An industry standard fire assay technique for samples using lead collection with an Atomic Absorption Spectrometry (AAS) finish was used for gold and aqua regia digest for base metals and silver.
	<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>	No geophysical tools were used to determine material element concentrations. A handheld XRF was used for qualitative analysis only.
	<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>	<b>Rock Chip Samples</b> For the rock chips, quality control procedures for assays were followed via internal laboratory protocols. Accuracy and precision are within acceptable limits. <b>Diamond Drill Samples</b> Reference standards and blanks are routinely inserted into every batch of samples at a rate of 1 in every 50 samples.
<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.
	<i>The use of twinned holes.</i>	No drilling results are reported.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary assay data for rock chips has been entered into standard Excel templates for plotting in Mapinfo. All historical drill data has been entered digitally by previous explorers and verified internally by Impact.
	<i>Discuss any adjustment to assay data.</i>	There are no adjustments to the assay data.
<b>Location of data points</b>	<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>	Sample locations and 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. For the diamond holes, down-hole single shot surveys were conducted by the drilling contractor. Surveys were conducted at 15 m, 30 m and then approximately every 30 m down-hole.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Sample spacing for the soil survey was on a 50 m by 50 m grid. Reconnaissance drill spacing is approximately 200 m.
	<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.

Criteria	JORC Code explanation	Commentary
	<i>Whether sample compositing has been applied.</i>	Sample compositing has not been applied.
<b>Orientation of data in relation to geological structure</b>	<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>	Not relevant to soil and rock chip results. The orientation of mineralisation in RHD001 yet to be determined.
	<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 soil and rock chip results or early stage exploration drill results.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by Impact Minerals Ltd. Samples for Broken Hill are delivered by Impact Minerals Ltd by courier who transports them to the laboratory for prep and 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.
<b>Audits or reviews</b>	<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 1 exploration licences covering 100 km <sup>2</sup> . The tenement is held 100% by Golden Cross Resources Ltd. Impact Minerals Limited is earning 80% of the nickel-copper-PGE rights in the licence from Golden Cross. No aboriginal sites or places have been declared or recorded over the licence area. There are no national parks over the license 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 tenement is in good standing with no known impediments.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	There has been no significant previous work at this prospect.
<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 in text.
<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 cut-off of approximately 0.1% Cu, 0.4% Cu and 1.0% Cu has been applied for reporting of exploration results.
	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 massive 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 in RHD001 is yet to be determined.

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.