

08 July 2021

Gibsons Drill Program Targets Massive Sulphide Potential

Highlights

- **Drill program of 14 holes for a total of 2500m entering permitting stage**
- **Drill program of 3 holes for Sunnyside prospect for a total of 1,500m is also entering permitting stage and will be discussed in a separate announcement**
- **Reinterpretation of geophysical data has identified deeper targets at Gibsons, possibly representing the source of high-grade surficial mineralisation**
- **Holes are designed to confirm near surface mineralisation and deeper targets to a maximum depth of up to 500m**
- **Previous exploration identified intersections including 37.2m @ 8.7% Zn, 3.0% Pb, 85g/t Ag, 1.4% Cu from hole DDH HP 026 (see ASX announcement dated 03 January 2014 – Precious Metal Resources)**
- **Deeper holes to be surveyed by down hole electromagnetics to identify further extensions of mineralisation at depth and plan future drilling**
- **Previous exploration in 2016 identified high grade massive sulphides which forms the basis of this drill program**
- **Program to be run in conjunction with exploration activities at the nearby Sunnyside prospect**
- **Historical mining has produced high grade Zinc, Lead, Copper, Silver and Gold**

Critical Resources Limited (ASX:CRR) (“Critical Resources” or the “Company”), is excited to announce its upcoming drill program at its 100% owned Gibsons prospect located on its Halls Peak Tenement EL 4474 in NSW. Historical drilling has intersected, and workings have mined, near surface, high grade, massive sulphides containing Zinc (Zn), Lead (Pb), Copper (Cu), Silver (Ag) and Gold (Au).

A recent review of previous geophysical data (see ASX announcement 2nd June 2021) has provided additional clarity on an exploration strategy that will focus on recently identified deeper targets and further define near surface mineralisation.

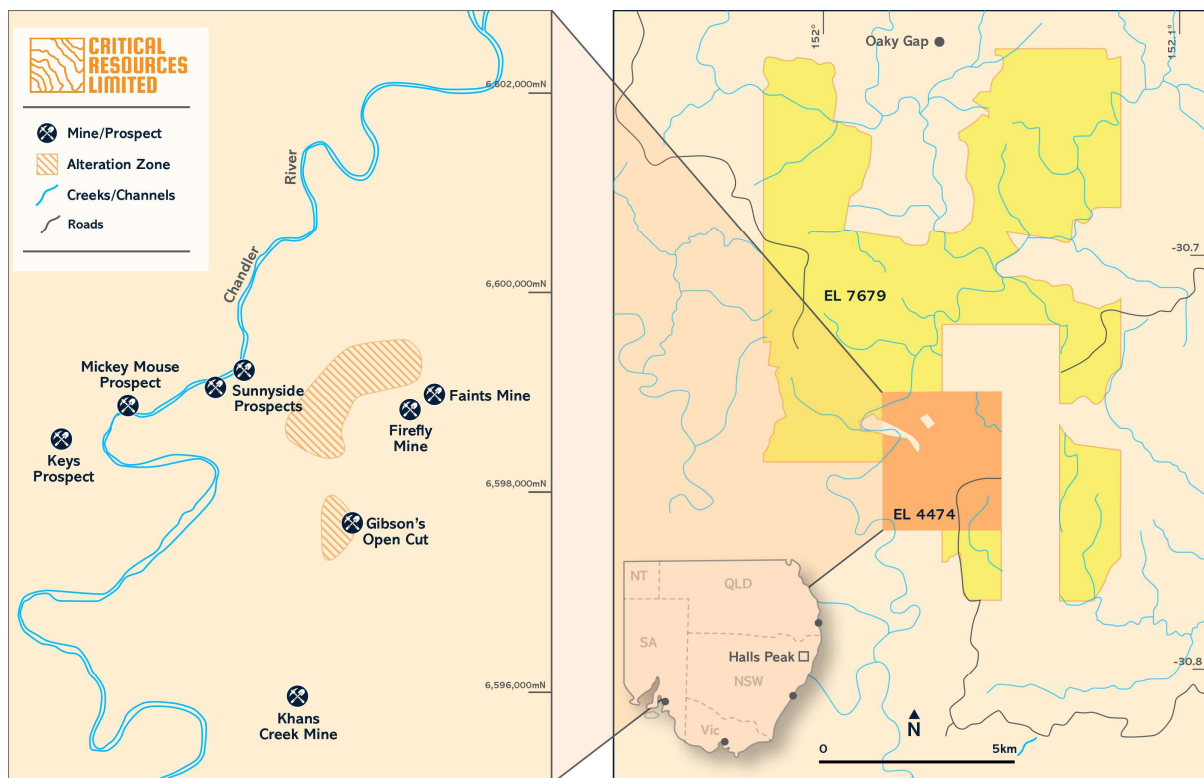
Critical Resources Chief Executive Officer Alex Biggs said: “The crystallisation of a clear exploration strategy for the Halls Peak project represents the technical diligence and strategic thinking of our management team and consultants. These targets represent a very exciting opportunity for the Company to potentially delineate large-scale massive sulphide mineralisation. We thank our shareholders for their ongoing support and look forward to informing the market of the exciting story unfolding at Halls Peak.”

Halls Peak Project Description

The 100% owned Halls Peak-Gibson project is located in New South Wales approximately 45km South-East of Armidale in the New England Fold Belt, an area well known for its mineral endowment and production. The Halls Peak massive sulphide deposits were discovered in 1896 where near surface mining extracted high-grade Zinc, Lead, Copper and Silver. More recent near surface exploration has been conducted by Precious Metal Resources Limited, Sovereign Gold Company Limited (now Critical Resources Limited) and Force Commodities Limited (now Critical Resources Limited) yielding high-grade intercepts to a depth of approximately 150m.

The project area comprises multiple historic mines and prospects including Gibsons, Sunnyside, Firefly, Faints, Khans Creek, Keys and Mickey Mouse. All current exploration activities are focused on exploration licence EL 4474 with primary targets being the Gibsons and Sunnyside prospects. A summary of the project location is shown in Figure 1.

Figure 1 - Halls Peak project location



Previous Exploration

Previous drilling at Gibsons has only focused on near surface targets and has intersected high-grade mineralisation as shown in Figure 2. Most recently exploration activities were conducted in 2016.

Significant intersections at Gibsons undertaken by:

Critical Resources Limited (formerly Sovereign Gold Company and Force Commodities Limited) – ASX Announcements

11.3m @ 15.18% Zn, 8.02% Pb, 597g/t Ag, 1.61% Cu from hole SG-03
(see ASX announcement dated 15 December 2016)

11.2m @ 19.71% Zn, 10.77 % Pb, 134.96 g/t Ag, 0.8% Cu from hole SG-06
(see ASX announcement dated 29 December 2016)

7.2m @ 20.19% Zn, 7.17 % Pb, 30.93gpt Ag, 0.66% Cu from hole SG-05
(see ASX announcement dated 29 December 2016)
5.7m @ 9.44% Zn, 7.09% Pb, 155g/t Ag, 0.53% Cu from hole SG-03
(see ASX announcement dated 15 December 2016)

Precious Metal Resources Limited – ASX Announcements

37.2m @ 8.7% Zn, 3.0% Pb, 85g/t Ag, 1.4% Cu from hole DDH HP 026

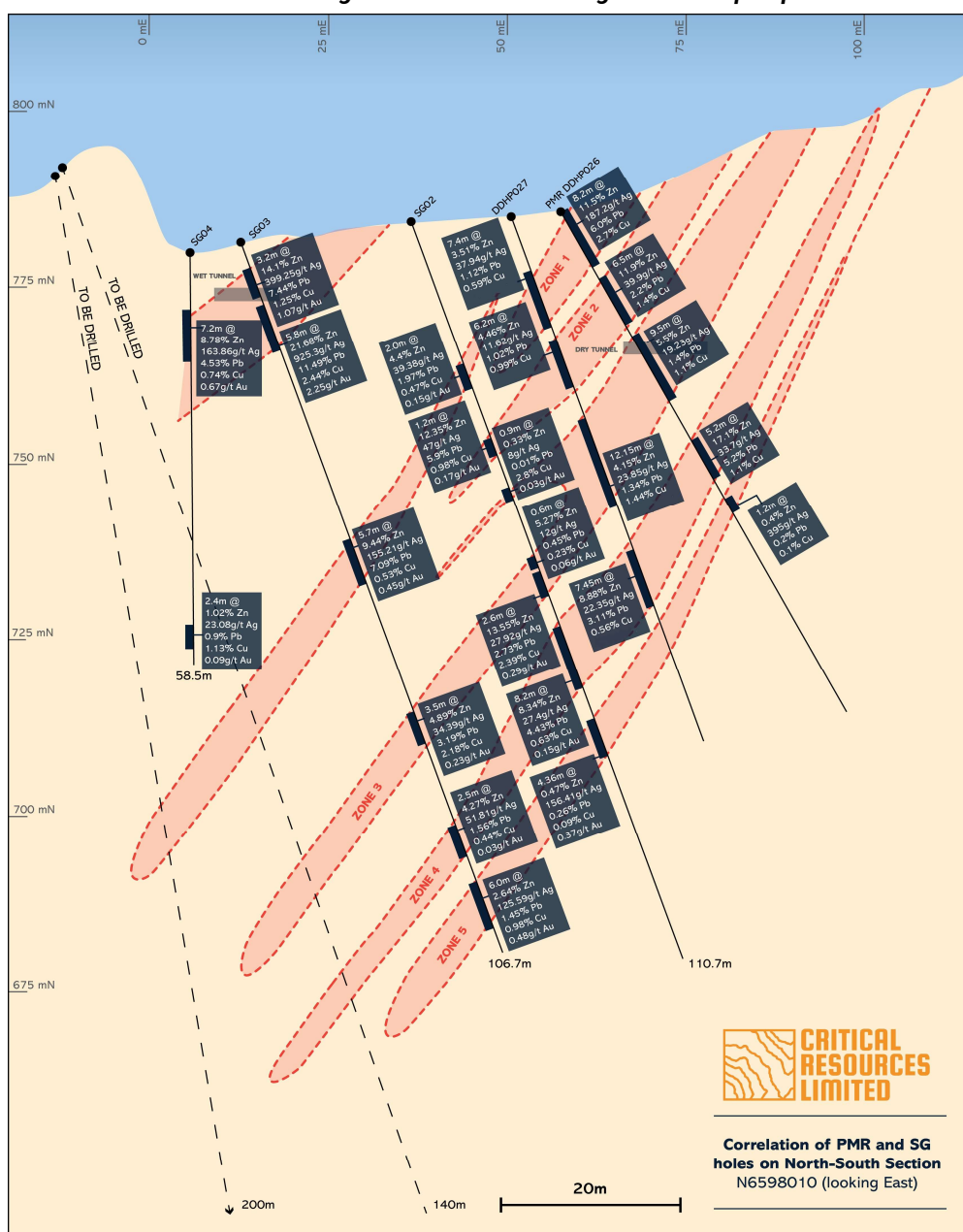
(see ASX announcement dated 03 January 2014)

7.45m @ 8.88% Zn, 3.11% Pb, 22 g/t Ag, 0.56% Cu from hole DDH HP 027

(see ASX announcement dated 15 January 2014)

The information required pursuant to listing rule 5.7 is included within the announcement.

Figure 2 - Historical drilling at Gibsons prospect



Drilling Strategy and New Targets

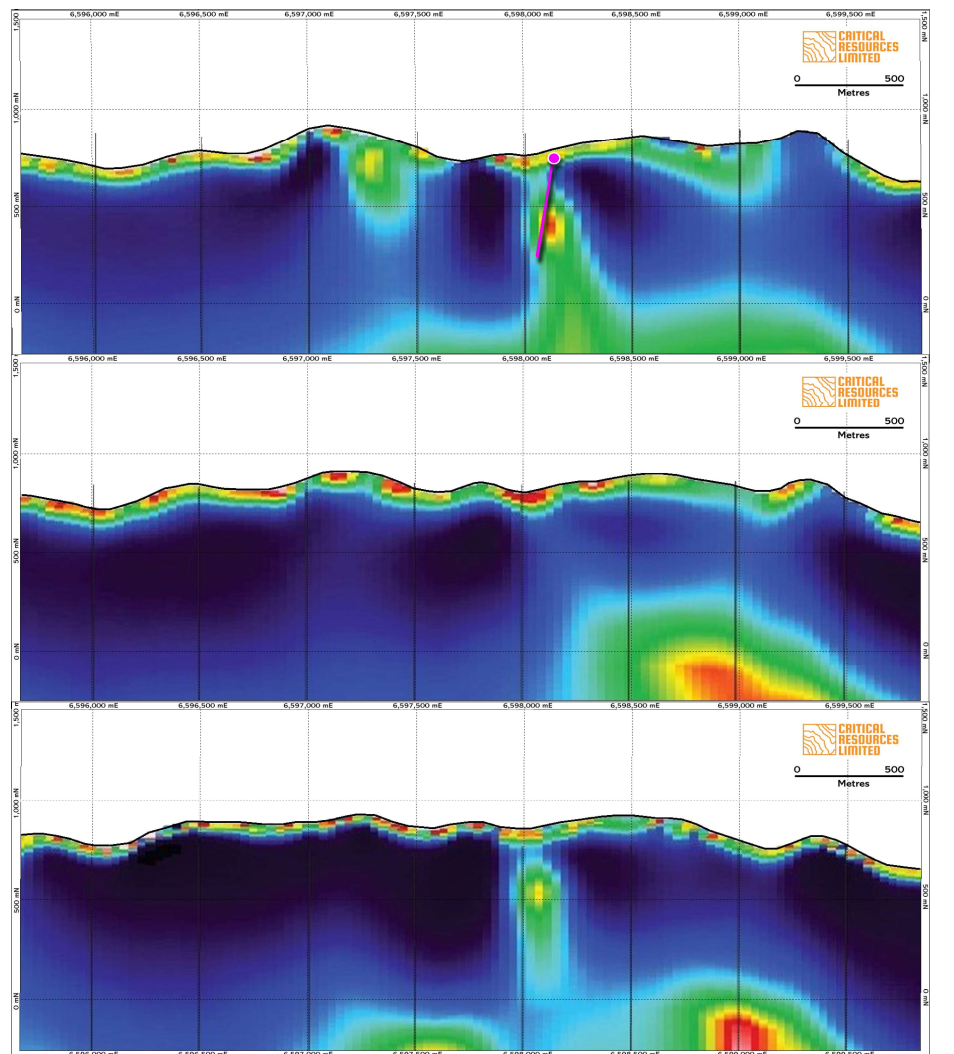
Historical drilling has focused on near surface mineralisation. The depth potential of this high-grade mineralisation will require drill testing and forms the basis for the upcoming exploration program at Gibsons. Drilling will initially twin an existing hole for the purpose of validating previous drill results, providing results that are JORC QAQC compliant and to act as infrastructure to allow for downhole electromagnetic surveying. This surveying will then inform the next targets at depth for drilling.

The Company is of the opinion that this staged approach to exploration will enable more accurate, lower risk, target development and more efficient placement of future holes and further exploration of the down dip and down plunge extensions to known mineralisation.

New targets have been generated through a first principles review of VTEM data (see ASX announcement dated 02 June 2021). Cross sectional slices taken at 100m intervals are shown in Figure 3.

These targets represent a clear strategy and work program developed by the Company and form the basis of the upcoming drill program, inclusive of down hole electromagnetics aiding in subsequent drill hole placement.

Figure 3 - Gibsons geophysical targets demonstrating three sections at 100m intervals



Geophysics Background

Historically exploration has trialled numerous geophysical methodologies, including Induced Polarisation (IP), Electromagnetic (EM) and Mise a la Masse, all with some degree of success.

The most recent and expansive survey, completed in 2012, was an aerial electromagnetic survey. The purpose of the survey was to measure the conductance of the rock mass with the aim of delineating an economic massive sulphide deposit.

Near surface massive sulphides were delineated at Gibsons by the survey in 2012 as well as a deeper target to the north-west which may represent the source of surficial mineralisation. This is a view that is reinforced by an early Mise a la Masse survey that saw extensions to the mineralisation in this direction (*Silver-Lead-Zinc-Copper Mineralisation Halls Peak N.S.W., Carpentaria Exploration Company Pty. Ltd., GS 1971/749*).

A significant recent review of previous geophysical data has been completed with a view to developing a new thesis and generate new, higher confidence drilling targets. Previous modelling of data utilised algorithms that envisage flat lying conductors. More recent modelling employs algorithms that better model vertical conductors. The company has engaged geophysical modelling specialists to assist in the review of previous data and has diligently been undertaking a first principles analysis and review.

Drilling Plan

A total of 14 drill holes have been designed for a total of 2,500m. Potentially not all these holes will be drilled in the upcoming drill program although all will be included in the permitting process. This provides the option for additional drilling locations both in this program and for the subsequent program. All holes will be completed via diamond drilling and assayed at an appropriate laboratory with the intention of data being valid for a JORC compliant Resource estimate in the future. A plan of the proposed Gibsons drill holes is shown in Figure 4.

Sunnyside Drilling

The Company will be releasing an announcement on its exploration strategy at the Sunnyside prospect in the near future. Sunnyside drilling will be occurring at the same time as the proposed Gibsons drilling.

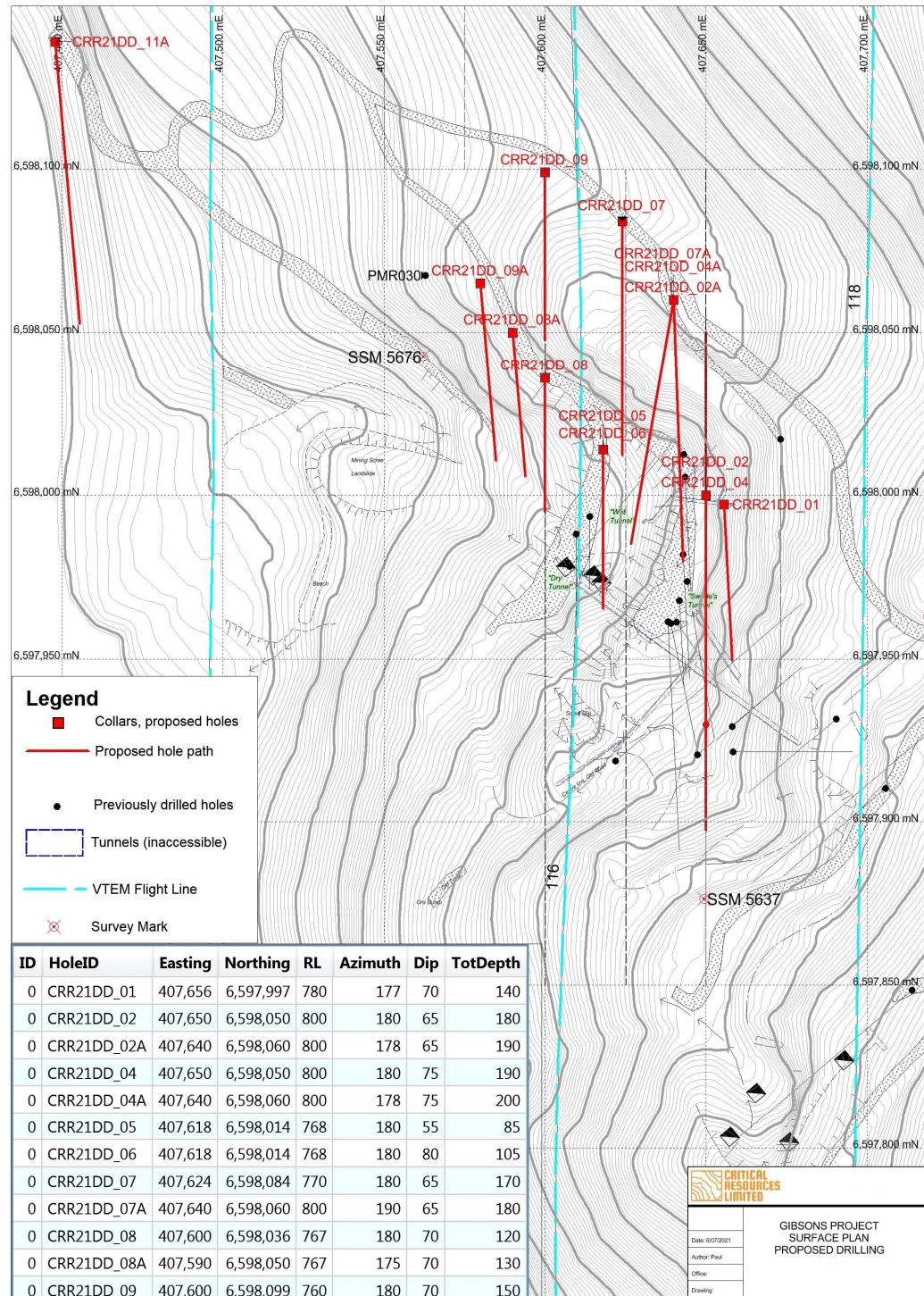
Permitting and Stakeholder Engagement

The Company has engaged Austwide Mining Title Management Pty ("Austwide") to manage the Company's tenement portfolio and assist in expediting the permitting process for upcoming drilling at the Halls Peak project, specifically at Gibsons and Sunnyside. Austwide has a strong reputation in the Australian resources industry and the Company believes engaging a group with such credibility will reduce risk and assist in streamlining application processes as much as is possible.

At the date of this announcement all drillholes have been surveyed and marked-up at both Gibsons and Sunnyside prospects and the permitting process has begun. The company will keep the market updated on progress in due course.

Key stakeholder engagement meetings have occurred in New South Wales over recent weeks with the aim of building relationships that facilitate the furthering of exploration activities at Halls Peak.

Figure 4 - Plan of proposed Gibsons drill holes



Further Option Conversion

The Company is also pleased to announce that the final outstanding 2,500,000 Options, exercisable at A\$0.02 and due to expire on 30 June 2021 have been exercised. This takes the conversion rate of these Options to 100%, providing A\$688,889. The fact that all Options were exercised into Shares, provides a strong endorsement from the Company's shareholders.

This announcement has been approved for release by the Board of Directors.

-End-

COMPETENT PERSONS' STATEMENT

The information in this ASX Announcement that relates to Exploration Results is based on information compiled by Mr Michael Leu, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Leu is a full-time employee of Critical Resources Limited. Mr Leu has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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". Mr Leu consents to the inclusion in this ASX Announcement of the matters based on his information in the form and context in which it appears.

About Critical Resources

Critical Resources is a base metals exploration and development focused company headquartered in Perth, Western Australia and is listed on the Australian Securities Exchange (ASX:CRR). The Company has recently been undergoing a structured process of change at the Director and Executive level. These changes mark the commencement of a renewed focus by the Company on providing shareholder value through the exploration, development and advancement of the Company's long held NSW assets and also of its newly acquired Copper assets in Oman.

Appendix 1: JORC Table 1 – Geophysical Reinterpretation

1.1 Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<i>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.</i>	• <i>Geotech Limited (“Geotech”) was contracted by Sovereign Gold Company Limited (“Sovereign”) to conduct a helicopter-borne versatile time domain electromagnetic (VTEM) survey over Halls Peak located 34 kilometres southeast of Armidale, New South Wales, Australia. The survey was completed with a total of 1,221 line kilometres of geophysical data acquired.</i> • <i>The survey utilised a high-power 26m diameter transmitter loop suspended beneath a helicopter in a tent shaped array. The inner part of the array contains a smaller diameter receiving coil, which measures the period of time it takes for an induced electro-magnetic field to dissipate through the ground.</i> • <i>VTEM survey design, supervision, data acquisition, processing and modelling was conducted by geophysical consultants, Southern Geoscience Consultants</i> • <i>Remodelling reinterpretation and analysis of existing geophysical and geological data has been completed by Southern Geoscience Consultants</i>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	
	<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 (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.</i>	
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	• <i>Not applicable, no new drilling results are being announced.</i>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	• <i>Not applicable, no new drilling results are being announced.</i>

Criteria	JORC-Code Explanation	Commentary
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <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>	
Logging	<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> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	• Not applicable, no new drilling results are being announced. • No mineral resources have been estimated.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	• Not applicable, no new drilling results are being announced.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	

Criteria	JORC-Code Explanation	Commentary
	<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> <i>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.</i>	• Not applicable, no new drilling results are being announced. • Survey data quality was subject to quality control during the survey and subsequent processing by Southern Geoscience Consultants.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	• Not applicable, no new drilling results are being announced.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	• Not applicable, no new drilling results are being announced. • Ancillary equipment included a GPS navigation system and a radar altimeter for survey and topographic control in MGA Zone 56
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i> <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> <i>Whether sample compositing has been applied.</i>	• Not applicable, no new drilling results are being announced. • The survey was conducted oriented north south with lines being 100m metres apart, readings were taken at a rate of 10 samples per second. • The geophysical results being presented are in no way sufficient to determine mineral resources.
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> <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 applicable, no new drilling results are being announced. • The survey was designed with the stratigraphy and mineralisation to ensure as best as possible that the survey lines were perpendicular.

Criteria	JORC-Code Explanation	Commentary
Sample security	<i>The measures taken to ensure sample security.</i>	• Not applicable, no new drilling results are being announced.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	• Not applicable, no new drilling results are being announced. • Survey data was reviewed by Southern Geoscience Consultants during its acquisition.

1.2 Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC-Code Explanation	Commentary
Mineral tenement and land tenure status	<i>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.</i>	• The Halls Peak Project comprises granted Exploration Licenses EL 4474 and EL 7679, located in north-eastern NSW and covering an area of about 84km². • There are no known impediments to operate on the tenements.
	<i>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.</i>	
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	• Exploration for base metals and gold have been conducted at Halls Peak since 1896 when massive sulphide deposits were discovered by prospectors. There was some small-scale mining of deposits of copper, lead, zinc and silver ore on the east side of the Chandler River until 1916. According to Report 52 – The Geological Survey of New South Wales “In 1965, 1,600 tons of ore were mined to give 263 tons of lead, 450 tons of zinc, 46.3 tons of copper and 12523 oz of silver”. Following this several exploration campaigns were conducted until the mid-1980’s for massive sulphides and silver by major mining companies such as BHP Co. Ltd., Mt. Isa Mines Ltd., The Zinc Corporation Ltd., Halls Peak Australia Limited and Allstate Exploration N.L. but most work was hindered as none were able to secure tenure to the whole area. All of these work programs comprising drilling, geochemistry and geophysics have resulted in an immense body of data.

Criteria	JORC-Code Explanation	Commentary
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	Halls Peak is in the southern part of the New England Orogen, a belt of continental crust uplifted to form a mountainous region. Mineralisation is hosted in the Permian Halls Peak Volcanics, a sequence of felsic volcanic, volcanoclastic and sedimentary rocks that have been deformed and metamorphosed due to their formation in a rift setting. Sulphide mineralisation is stratiform with several massive sulphide bodies within broad zones of disseminated and stockwork sulphides. Massive sulphide bodies are generally moderate to steeply dipping and up to tens of metres across. The massive sulphides are often associated with sulphidic shale and siltstone within zones of stockwork and disseminated sulphides in sericite-quartz altered rocks. Sulphide mineralisation is dominated by sphalerite and galena, with minor amounts of chalcopyrite, pyrite and tetrahedrite. Metal grades in massive sulphides can average 3.5% Cu, 8% Pb, 24% Zn, 260g/t Ag and 0.42g/t Au.
Drill hole Information	<i>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:</i> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i>	Not applicable, no new drilling results are being announced.
Data aggregation methods	<i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable, no new drilling results are being announced.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Not applicable, no new drilling results are being announced.

Criteria	JORC-Code Explanation	Commentary
	<i>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').</i>	
Diagrams	<i>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.</i>	• An appropriate map and section are included in the Report.
Balanced reporting	<i>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.</i>	• Not applicable, no new drilling results are being announced
Other substantive exploration data	<i>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.</i>	• Targets shown in the attached plans and sections have been defined by the VTEM survey and the interpretation of results from that survey, with consideration for the understanding of the local geology due to historical works. While some mining has occurred at Halls Peak the project is still at an early stage and as such no bulk density, geotechnical, hydrogeological and metallurgical work has been completed.
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	• Drill program of 14 holes for a total of 2500m entering permitting stage to both verify historical drilling at Halls Peak but also to test deeper VTEM targets.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	

Appendix 2: JORC Table 1 – DDH026 Exploration Results

1.1 Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<i>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.</i>	• Half HQ core
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	• Consistent cut distance relative to mark up or orientation line along core.
	<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 (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.</i>	• Mineralisation within sheared shales and very soft white clay like rock has resulted in reduced core recoveries in upper parts of the hole. • Reduced recovery of this very soft clay like rock has biased the assay grades towards the grade of the harder recovered rock. • This may have lowered or raised the grade reported over intervals of core loss. • The grade of sheared shale may be comparable to the enclosed unshaded shale. Very soft clay like rock has been recorded in the past as having base metal grades ranging from anomalous to high. • As the type of rock lost during drilling is uncertain, the significance of any bias due to core loss cannot be quantified. It is unclear whether sample loss has any positive or negative relationship with grade, as discussed above. • Sawn half HQ core with sample lengths ranging from 0.1 metres to 2.51 metres was sent to ALS laboratories and was pulverised to produce a 30g charge for fire assay (Au_AA25), and 4 acid digestion for 48 element ICP-AES and ICP-MS analysis (ME-MS61)

Criteria	JORC-Code Explanation	Commentary
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	• <i>HQ diamond triple tube coring by Warman 600 drilling rig was used throughout the hole.</i> • <i>No core orientation was carried out.</i>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <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>	• <i>Lithological logging, photography</i> • <i>Core samples were measured with a standard tape within the core trays. Length of core was then compared to the interval drilled, and any core loss was attributed to individual rock units based on the amount of fracturing, abrasion of core contacts, and the conservative judgment of the core logger. Results of core loss are discussed below.</i> • <i>Experienced driller contracted to carry out drilling.</i> • <i>Drilling produced HQ core from short runs to maximise core recovery.</i> • <i>Core was washed before placing in the core trays.</i> • <i>Core was assessed by eye before cutting to ensure representative sampling.</i> • <i>See “Aspects of the determination of mineralisation that are Material to the Public Report” above.</i>
Logging	<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> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	• <i>Core samples were not geotechnically logged.</i> • <i>Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>The core logging was qualitative in nature.</i> • <i>All core was photographed</i> • <i>100%</i> • <i>Total length of the relevant intersection is 48.0 metres.</i> • <i>Total depth of the hole was 81.4 metres.</i> • <i>The relevant intersection was continuing within mineralisation, as 665 ppm (21.1 oz/tonne) of silver was recorded near its base (48.0 metres), as silver mineralisation cannot commonly be seen in the mineralisation being drilled.</i> • <i>Accordingly the “percentage of the relevant intersection logged” cannot be determined as the length of the relevant intersection is not yet known. Further assays are currently in progress.</i>
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	• <i>Half HQ core cut with a diamond bladed core saw</i> • <i>Not applicable at this stage of the program</i> • <i>For core samples: a) the samples are of sawn core; b) the quality of the core is that of good quality core, with many zones of very friable rock recovered with a minimum of core</i>

Criteria	JORC-Code Explanation	Commentary
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<i>loss; c) this sample preparation technique is appropriate and industry standard for the assay results being reported.</i> • No sub sampling has been carried out to date. • Appropriate measures taken – half core remaining if further analysis warranted. • Duplicate assays and assays of blanks and comparable standards are routinely carried out at the laboratory to check laboratory procedures and techniques. • Yes, sample sizes are appropriate to the grain size of the material being sampled
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <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> <i>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.</i>	• Analyses by Australian Laboratory Services Pty. Ltd. (ALS), • ALS is a accredited to ISO/IEC 17025-2005 standards and has ISO 9001-2008 Registration in Australia.. • Appropriate techniques of fire assay for gold and ICP-AES and ICP-MS for multi-element analysis were used. Techniques are considered total for the type of mineralization sampled. • Not relevant at this stage of the program • Internal standards and blanks not used at this early stage
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	• Not relevant at this stage of the program • Not relevant at this stage of the program • Core measured, photographed and logged by geologists. Digitally recorded plus back-up records. • There is no adjustment to assay data
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	• Drill collars recorded with Garmin GPS that has an accuracy in the order of 2 metres for location. • MGA94 (Zone 56) • Topographic control based on Department of Lands digital terrain model.

Criteria	JORC-Code Explanation	Commentary
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	• <i>Not relevant to current drilling.</i>
	<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>	• <i>Not relevant to current drilling.</i>
	<i>Whether sample compositing has been applied.</i>	• <i>No sample compositing has been applied.</i>
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>	• <i>The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the base of mineralisation by drilling three holes.</i>
	<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>	• <i>It is uncertain whether sampling bias has been introduced, or whether the thickness drilled is a true thickness.</i>
Sample security	<i>The measures taken to ensure sample security.</i>	• <i>Core samples are stored at the secure Sovereign Gold Uralla core yard before express overnight freight to Australian Laboratory Services Pty. Ltd. (ALS) Brisbane.</i>
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	• <i>Not undertaken at this stage</i>

1.2 Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC-Code Explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title</i>	• <i>The Halls Peak Project comprises granted Exploration Licenses EL 4474 and EL 7679, located in north-eastern NSW and covering an area of about 84km².</i> • <i>There are no known impediments to operate on the tenements</i>
	<i>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.</i>	• <i>Tenure is current and in good standing</i>

Criteria	JORC-Code Explanation	Commentary																
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration for base metals and gold have been conducted at Halls Peak since 1896 when massive sulphide deposits were discovered by prospectors. There was some small-scale mining of deposits of copper, lead, zinc and silver ore on the east side of the Chandler River until 1916. According to Report 52 – The Geological Survey of New South Wales “In 1965, 1,600 tons of ore were mined to give 263 tons of lead, 450 tons of zinc, 46.3 tons of copper and 12523 oz of silver”. Following this several exploration campaigns were conducted until the mid-1980’s for massive sulphides and silver by major mining companies such as BHP Co. Ltd., Mt. Isa Mines Ltd., The Zinc Corporation Ltd., Halls Peak Australia Limited and Allstate Exploration N.L. but most work was hindered as none were able to secure tenure to the whole area. All of these work programs comprising drilling, geochemistry and geophysics have resulted in an immense body of data.																
Geology	Deposit type, geological setting and style of mineralisation.	Halls Peak is in the southern part of the New England Orogen, a belt of continental crust uplifted to form a mountainous region. Mineralisation is hosted in the Permian Halls Peak Volcanics, a sequence of felsic volcanic, volcanoclastic and sedimentary rocks that have been deformed and metamorphosed due to their formation in a rift setting. Sulphide mineralisation is stratiform with several massive sulphide bodies within broad zones of disseminated and stockwork sulphides. Massive sulphide bodies are generally moderate to steeply dipping and up to tens of metres across. The massive sulphides are often associated with sulphidic shale and siltstone within zones of stockwork and disseminated sulphides in sericite-quartz altered rocks. Sulphide mineralisation is dominated by sphalerite and galena, with minor amounts of chalcopyrite, pyrite and tetrahedrite. Metal grades in massive sulphides can average 3.5% Cu, 8% Pb, 24% Zn, 260g/t Ag and 0.42g/t Au.																
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not	<table><tr><th>Hole ID</th><th>Easting (m)</th><th>Northing (m)</th><th>RL (m)</th><th>Grid</th><th>Collar Azi-muth (Degrees)</th><th>Collar Dip (degrees)</th><th>Total Depth (m)</th></tr><tr><td>HP 026</td><td>407648</td><td>6597956</td><td>785</td><td>MGA94 Zone 56</td><td>168</td><td>60</td><td>81.40</td></tr></table> Not relevant	Hole ID	Easting (m)	Northing (m)	RL (m)	Grid	Collar Azi-muth (Degrees)	Collar Dip (degrees)	Total Depth (m)	HP 026	407648	6597956	785	MGA94 Zone 56	168	60	81.40
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HP 026	407648	6597956	785	MGA94 Zone 56	168	60	81.40											

Criteria	JORC-Code Explanation	Commentary
	<i>detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<i>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.</i>	• Uncut
	<i>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.</i>	• All aggregate intercepts detailed on tables are weighted averages.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	• None used
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	• True width not currently known. All lengths are down-hole lengths and not true width.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	• The precise geometry is not currently known but is being tested by the planned drilling, with diamond drill hole azimuths designed to drill normal to the interpreted mineralised structure.
	<i>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').</i>	• Down-hole length reported, true width not known.
Diagrams	<i>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</i>	• Due to intense shearing and folding of the black shales hosting the mineralisation no meaningful sections can be prepared at this time. • The drilling is aimed at clarifying the structure of the mineralisation.

Criteria	JORC-Code Explanation	Commentary
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths</i>	• Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.
Other substantive exploration data	<i>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</i>	• Overview of exploration data leading to selection of drill targets provided.
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	• Drill program of 14 holes for a total of 2500m entering permitting stage to both verify historical drilling at Halls Peak but also to test deeper VTEM targets.

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Top (m)	Base (m)	Interval (m)	Recovery (%)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Weighted Average Grade of Mineralised Zone
	1.62	1.62	40	123	1.09	3.55	2.41	8.2m @ 2.7% Cu, 6.0% Pb, 11.5% Zn, 187.2g/t Ag
1.62	3.1	1.48	17	509	5.66	10.7	19.2	
3.1	5.2	2.1	52	74.1	2.19	1.98	4.87	
5.2	8.2	3	60	167	2.72	8.58	17.65	
8.2	10.5	2.3	60	37.2	1.91	4.44	14.25	
10.5	11.1	0.6	100	2.2	0.04	0.07	0.94	
11.1	12.4	1.3	16	15.85	1.4	0.19	15.35	6.5m @ 1.4% Cu, 2.2% Pb, 11.9% Zn, 39.9g/t Ag
12.4	13.5	1.1	64	65.6	2.42	1.56	3.53	
13.5	14.2	0.7	100	62.6	1.3	2.19	15.95	
14.2	14.5	0.3	50	36.9	0.58	1.74	8.5	
14.5	15.5	1	100	34.6	0.5	4.93	16.7	
15.5	15.74	0.24	100	95	0.97	11.85	31.7	
15.74	16.3	0.56	100	44.8	0.25	4.37	17.4	
16.3	16.7	0.4	100	41.7	2.52	0.47	9.31	
16.7	17.6	0.9	100	13.95	1.57	0.15	2.57	
17.6	18.6	1	100	5.94	0.56	0.13	0.97	
18.6	19	0.4	100	0.79	0.01	0.01	0.12	
19	19.25	0.25	100	2.27	0.02	0.02	0.9	
19.25	20.4	1.15	100	1.69	0.01	0.01	0.33	
20.4	21.5	1.1	100	5.21	1.35	0.02	1.06	9.5m @ 1.1% Cu, 1.4% Pb, 5.5% Zn, 19.23g/t Ag
21.5	22.6	1.1	100	26.1	2.98	1.1	4.2	
22.6	23.7	1.1	23	35.4	2.84	2.42	13.3	
23.7	24.4	0.7	100	14.8	0.36	1.59	6.19	
24.4	27.4	3	100	3.86	0.03	0.05	1.31	
27.4	28.7	1.3	69	8.8	0.17	0.29	1.19	
28.7	29.9	1.2	17	63.3	1.89	6.24	18.35	
29.9	30.7	0.8	100	2.66	0.07	0.24	0.93	
30.7	33	2.3	100	2.62	0.03	0.27	0.51	
33	34.6	1.6	100	1.03	0.01	0.02	0.22	
34.6	35.6	1	100	1.18	0.01	0.02	0.11	
35.6	36.4	0.8	100	1.16	0.09	0	0.8	
36.4	37.3	0.9	100	0.92	0.01	0.01	0.24	
37.3	38.3	1	100	48.2	2.54	6.73	32.8	5.2m @ 1.1% Cu, 5.2% Pb, 17.1% Zn, 33.7g/t Ag
38.3	38.85	0.55	100	19.95	0.29	3.34	7.01	
38.85	40.65	1.8	100	6.07	0.03	0.1	0.34	
40.65	41.2	0.55	100	2.18	0.01	0.02	0.16	
41.2	42.5	1.3	100	69.4	1.98	11.3	34.5	
42.5	43.6	1.1	100	2.4	0.02	0.1	0.83	
43.6	44.4	0.8	38	3.16	0.03	0.1	0.64	
44.4	46.1	1.7	100	19.15	0.15	0.28	2.65	
46.1	46.8	0.7	100	17.7	0.01	0.04	0.51	
46.8	47.2	0.4	100	665	0.16	0.26	0.68	1.2m @ 0.1% Cu, 0.2% Pb, 0.4% Zn, 395g/t Ag
47.2	48	0.8	100	260	0.07	0.12	0.27	

Appendix 3: JORC Table 1 – DDH027 Exploration Results

1.1 Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<i>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.</i>	• Half HQ core
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	• Consistent cut distance relative to mark up or orientation line along core.
	<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 (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.</i>	• Mineralisation within sheared shales and very soft white clay like rock has resulted in reduced core recoveries in upper parts of the hole. • Reduced recovery of this very soft clay like rock has biased the assay grades towards the grade of the harder recovered rock. • This may have lowered or raised the grade reported over intervals of core loss. • The grade of sheared shale may be comparable to the enclosed unshaded shale. Very soft clay like rock has been recorded in the past as having base metal grades ranging from anomalous to high. • As the type of rock lost during drilling is uncertain, the significance of any bias due to core loss cannot be quantified. It is unclear whether sample loss has any positive or negative relationship with grade, as discussed above. • Sawn half HQ core with sample lengths ranging from 0.1 metres to 2.51 metres was sent to ALS laboratories and was pulverised to produce a 30g charge for fire assay (Au_AA25), and 4 acid digestion for 48 element ICP-AES and ICP-MS analysis (ME-MS61)

Criteria	JORC-Code Explanation	Commentary
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	• <i>HQ diamond triple tube coring by Warman 600 drilling rig was used throughout the hole.</i> • <i>No core orientation was carried out.</i>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <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>	• <i>Lithological logging, photography</i> • <i>Core samples were measured with a standard tape within the core trays. Length of core was then compared to the interval drilled, and any core loss was attributed to individual rock units based on the amount of fracturing, abrasion of core contacts, and the conservative judgment of the core logger. Results of core loss are discussed below.</i> • <i>Experienced driller contracted to carry out drilling.</i> • <i>Drilling produced HQ core from short runs to maximise core recovery.</i> • <i>Core was washed before placing in the core trays.</i> • <i>Core was assessed by eye before cutting to ensure representative sampling.</i> • <i>See “Aspects of the determination of mineralisation that are Material to the Public Report” above.</i>
Logging	<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> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	• <i>Core samples were not geotechnically logged.</i> • <i>Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>The core logging was qualitative in nature.</i> • <i>All core was photographed</i> • <i>100%</i> • <i>Total length of the relevant intersection is 67.6 metres.</i> • <i>Total depth of the hole was 78.4 metres.</i> • <i>100% of the relevant intersections were logged.</i>
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	• <i>Half HQ core cut with a diamond bladed core saw</i> • <i>Not applicable at this stage of the program</i> • <i>For core samples: a) the samples are of sawn core; b) the quality of the core is that of good quality core, with many zones of very friable rock recovered with a minimum of core</i>

Criteria	JORC-Code Explanation	Commentary
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<i>loss; c) this sample preparation technique is appropriate and industry standard for the assay results being reported.</i> • No sub sampling has been carried out to date. • Appropriate measures taken – half core remaining if further analysis warranted. • Duplicate assays and assays of blanks and comparable standards are routinely carried out at the laboratory to check laboratory procedures and techniques. • Yes, sample sizes are appropriate to the grain size of the material being sampled
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <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> <i>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.</i>	• Analyses by Australian Laboratory Services Pty. Ltd. (ALS), • ALS is a accredited to ISO/IEC 17025-2005 standards and has ISO 9001-2008 Registration in Australia.. • Appropriate techniques of fire assay for gold and ICP-AES and ICP-MS for multi-element analysis were used. Techniques are considered total for the type of mineralization sampled. • Not relevant at this stage of the program • Internal standards and blanks not used at this early stage
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	• Not relevant at this stage of the program • Not relevant at this stage of the program • Core measured, photographed and logged by geologists. Digitally recorded plus back-up records. • There is no adjustment to assay data
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	• Drill collars recorded with Garmin GPS that has an accuracy in the order of 2 metres for location. • MGA94 (Zone 56) • Topographic control based on Department of Lands digital terrain model.

Criteria	JORC-Code Explanation	Commentary
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	• <i>Not relevant to current drilling.</i>
	<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>	• <i>Not relevant to current drilling.</i>
	<i>Whether sample compositing has been applied.</i>	• <i>No sample compositing has been applied.</i>
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>	• <i>The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the base of mineralisation by drilling three holes.</i>
	<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>	• <i>It is uncertain whether sampling bias has been introduced, or whether the thickness drilled is a true thickness.</i>
Sample security	<i>The measures taken to ensure sample security.</i>	• <i>Core samples are stored at the secure Sovereign Gold Uralla core yard before express overnight freight to Australian Laboratory Services Pty. Ltd. (ALS) Brisbane.</i>
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	• <i>Not undertaken at this stage</i>

1.2 Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC-Code Explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title</i>	• <i>The Halls Peak Project comprises granted Exploration Licenses EL 4474 and EL 7679, located in north-eastern NSW and covering an area of about 84km².</i> • <i>There are no known impediments to operate on the tenements</i>
	<i>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.</i>	• <i>Tenure is current and in good standing</i>

Criteria	JORC-Code Explanation	Commentary																								
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Geology	Deposit type, geological setting and style of mineralisation.	• Halls Peak is in the southern part of the New England Orogen, a belt of continental crust uplifted to form a mountainous region. Mineralisation is hosted in the Permian Halls Peak Volcanics, a sequence of felsic volcanic, volcanoclastic and sedimentary rocks that have been deformed and metamorphosed due to their formation in a rift setting. Sulphide mineralisation is stratiform with several massive sulphide bodies within broad zones of disseminated and stockwork sulphides. Massive sulphide bodies are generally moderate to steeply dipping and up to tens of metres across. The massive sulphides are often associated with sulphidic shale and siltstone within zones of stockwork and disseminated sulphides in sericite-quartz altered rocks. Sulphide mineralisation is dominated by sphalerite and galena, with minor amounts of chalcopyrite, pyrite and tetrahedrite. Metal grades in massive sulphides can average 3.5% Cu, 8% Pb, 24% Zn, 260g/t Ag and 0.42g/t Au.																								
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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.	<table><tr><th>Hole ID</th><th>Easting (m)</th><th>Northing (m)</th><th>RL (m)</th><th>Grid</th><th>Collar Azimuth (Degrees)</th><th>Collar Dip (degrees)</th><th>Total Depth (m)</th></tr><tr><td>HP 026</td><td>407648</td><td>6597956</td><td>785</td><td>MGA94 Zone 56</td><td>168</td><td>60</td><td>81.40</td></tr><tr><td>HP 027</td><td>407653</td><td>6597962</td><td>785</td><td>MGA94 Zone 56</td><td>177</td><td>70</td><td>78.4</td></tr></table> • Not relevant	Hole ID	Easting (m)	Northing (m)	RL (m)	Grid	Collar Azimuth (Degrees)	Collar Dip (degrees)	Total Depth (m)	HP 026	407648	6597956	785	MGA94 Zone 56	168	60	81.40	HP 027	407653	6597962	785	MGA94 Zone 56	177	70	78.4
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Criteria	JORC-Code Explanation	Commentary
	<i>the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<i>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.</i>	• Uncut
	<i>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.</i>	• All aggregate intercepts detailed on tables are weighted averages.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	• None used
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	• True width not currently known. All lengths are down-hole lengths and not true width.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	• The precise geometry is not currently known but is being tested by the planned drilling, with diamond drill hole azimuths designed to drill normal to the interpreted mineralised structure.
	<i>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').</i>	• Down-hole length reported, true width not known.
Diagrams	<i>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.</i>	• Due to intense shearing and folding of the black shales hosting the mineralisation no meaningful sections can be prepared at this time. • The drilling is aimed at clarifying the structure of the mineralisation.
Balanced reporting	<i>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</i>	• Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.

Criteria	JORC-Code Explanation	Commentary
Other substantive exploration data	<i>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.</i>	• Overview of exploration data leading to selection of drill targets provided.
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	• Drill program of 14 holes for a total of 2500m entering permitting stage to both verify historical drilling at Halls Peak but also to test deeper VTEM targets.

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Top (m)	Base (m)	Interval (m)	Recovery (%)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Weighted Average Grade of Mineralised Zone
-	2.10	2.10	31%	17.40	0.17	0.29	0.36	
2.10	2.30	0.20	100%	6.55	0.12	0.41	0.06	
2.30	4.10	1.80	100%	13.75	0.05	0.13	0.09	
4.10	6.40	2.30	39%	11.05	0.55	0.87	1.60	
6.40	8.20	1.80	95%	4.91	0.11	0.11	0.30	
8.20	8.50	0.30	100%	31.4	0.43	0.99	4.53	7.4m @ 0.59% Cu, 1.12% Pb, 3.51% Zn, 37.94g/t Ag
8.50	9.10	0.60	100%	77.2	0.54	1.00	2.67	
9.10	9.70	0.60	93%	90.6	0.39	1.14	2.48	
9.70	10.50	0.80	95%	27	0.42	0.84	1.72	
10.50	11.50	1.00	96%	24.3	0.57	0.81	2.64	
11.50	12.50	1.00	95%	39.8	0.46	2.23	4.23	
12.50	13.50	1.00	100%	24.2	0.48	0.85	5.93	
13.50	14.40	0.90	97%	44	1.48	1.07	4.01	
14.40	15.60	1.20	96%	17.6	0.41	1.00	3.12	
15.60	16.90	1.30	100%	6.35	0.17	0.71	5.01	
16.90	18.40	1.50	73%	5.37	0.14	0.57	5.16	
18.40	19.20	0.80	75%	12.6	0.47	1.50	4.84	6.2m @ 0.99% Cu, 1.02% Pb, 4.46% Zn, 11.62g/t Ag
19.20	20.40	1.20	92%	11.05	0.97	0.99	5.80	
20.40	22.30	1.90	100%	3.28	0.25	0.05	0.61	
22.30	23.40	1.10	100%	24.3	2.53	2.96	11.60	
23.40	24.60	1.20	100%	13.1	1.26	0.51	2.41	
24.60	25.90	1.30	100%	0.81	0.02	-	0.06	
25.90	26.40	0.50	100%	2.15	0.02	0.01	0.15	
26.40	29.00	2.60	100%	0.98	0.01	-	0.06	
29.00	30.30	1.30	100%	0.95	0.04	-	0.11	
30.30	30.70	0.40	100%	10.75	5.72	0.01	0.14	12.15m @ 1.44% Cu, 1.34% Pb, 4.15% Zn, 23.85g/t Ag
30.70	32.60	1.90	100%	3.54	0.70	0.01	0.14	
32.60	33.40	0.80	100%	11.25	1.26	0.18	0.81	
33.40	35.60	2.20	45%	3.33	0.23	0.09	0.36	
35.60	36.50	0.90	100%	3.24	-	0.01	0.13	
36.50	37.40	0.90	78%	6.69	0.01	0.01	0.52	
37.40	38.10	0.70	100%	1.08	-	0.02	0.13	
38.10	38.60	0.50	0%	0	-	-	-	
38.60	39.00	0.40	25%	2.39	0.01	0.03	0.39	
39.00	40.90	1.90	100%	34.6	0.85	2.82	6.17	
40.90	42.45	1.55	103%	120	6.94	6.76	23.30	
42.45	45.60	3.15	100%	4.93	0.03	0.13	0.41	
45.60	48.50	2.90	100%	1.48	0.03	0.05	0.09	
48.50	48.90	0.40	93%	0.63	0.03	0.05	0.19	
48.90	49.70	0.80	96%	0.68	0.05	0.03	1.41	
49.70	50.20	0.50	94%	6.69	0.27	0.75	3.32	

50.20	50.50	0.30	90%	29.2	0.49	6.16	10.65	7.45m @ 0.56% Cu, 3.11% Pb, 8.88% Zn, 22.35g/t Ag
50.50	50.75	0.25	80%	18.25	2.16	2.28	5.60	
50.75	51.00	0.25	88%	9.15	0.10	0.77	2.27	
51.00	52.95	1.95	93%	4.01	0.01	0.10	0.19	
52.95	53.80	0.85	93%	4.87	0.33	0.48	2.43	
53.80	54.60	0.80	94%	60.7	2.46	8.00	38.10	
54.60	55.70	1.10	91%	56.9	0.78	9.22	19.05	
55.70	57.65	1.95	49%	14.25	0.18	1.76	3.66	
57.65	59.40	1.75	100%	5.49	0.05	0.13	0.28	
59.40	61.50	2.10	52%	16.65	0.14	0.39	0.66	
61.50	62.50	1.00	100%	115	0.09	0.27	0.50	
62.50	64.10	1.60	100%	1900	0.54	0.65	1.27	
64.10	65.00	0.90	100%	187	0.18	0.24	0.62	
65.00	66.40	1.40	100%	44.4	0.02	0.05	0.14	
66.40	67.60	1.20	100%	3.17	-	0.01	0.02	