

# STAGE 2 INITIAL RC DRILL RESULTS - MOJARDINA LOOP PROSPECT - CUITABOCA, MEXICO

18 November, 2016. Santana Minerals Limited ("Santana") is pleased to announce initial Reverse Circulation (RC) Drill results from the Mojardina Loop area of the Cuitaboca Project in Sinaloa, Mexico (Figure 1). **Drilling has confirmed the continuous broad mineralisation which remains open at depth and along strike and is now reasonably predictable within an uncomplicated geometry.** 

Reported results represent the first 5 drill holes of the current 24 drill hole RC program. Additional results will follow from all three target areas in the coming weeks.

#### **Highlights – RC Drill Results (Phase 2)**

#### Mojardina 'Loop'- Southern Sector

	RC16CT-16	5m @ 61 g/t Ag from 49m
$\triangleright$	RC16CT-16	6m @ 54 g/t Ag from 60m

RC16CT-17	5m @ 56 g/t Ag from 45m
RC16CT-17	10m @ 56 g/t Ag from 61m

> RC16CT-17 31m @ 32 g/t Ag from 82m, including 8m @ 49 g/t Ag from 100m

> RC16CT-18 16m @ 58 g/t Ag from 40m, including 1m @ 530 g/t Ag from 48m

> RC16CT-18 17m @ 50 g/t Ag from 78m

> RC16CT-19 11m @ 55 g/t Ag from 0m

> RC16CT-19 45m @ 45 g/t Ag from 65m, including 8m @ 116 g/t Ag from 100m

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RC16CT-20
 7m @ 83 g/t Ag from 83m
 RC16CT-20
 24m @ 47 g/t Ag from 115m

### Discussion:

The current program consists of 24 RC drill holes (2,800+/- metres) commencing from RC16CT-16 (1 to 15 completed in Phase 1 drilling earlier in 2016) across three target areas: the **Mojardina Loop**, the **Jesus Maria** breccia and **Mojardina South**. Drilling is complete in the current program at Mojardina Loop (Holes 16 to 24 and 26) and all samples have been submitted for assaying with results pending for drill holes 21 to 24 and 26 on the northern side of the Mojardina Loop (Figure 2). The program now continues at the Jesus Maria breccia.

The drill results again highlight the significant potential of the Mojardina Loop. The geological model for Mojardina Loop is becoming more predictable and simplified with results to date suggesting the bulk tonnage target remains open at depth and along strike. The geometry of the mineralisation does not appear to be complex (dipping planar bodies). A significant flexure is confirmed in the area of the Evangelina shoot and 3D modelling will assist in the ongoing interpretation process.

The Jesus Maria breccia is currently being drilled before the program proceeds to Mojardina South later this month.

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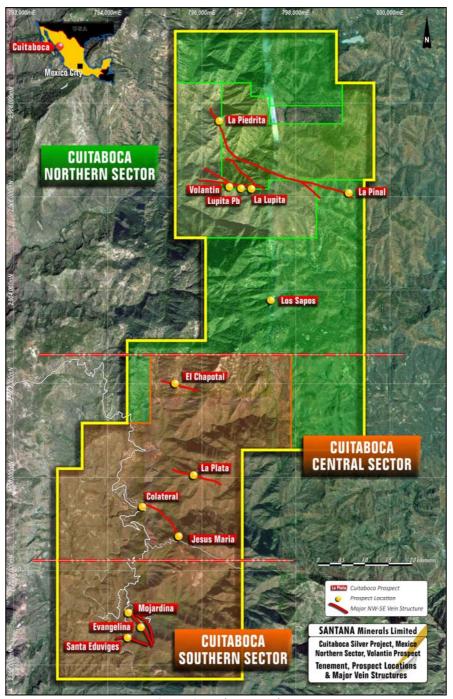
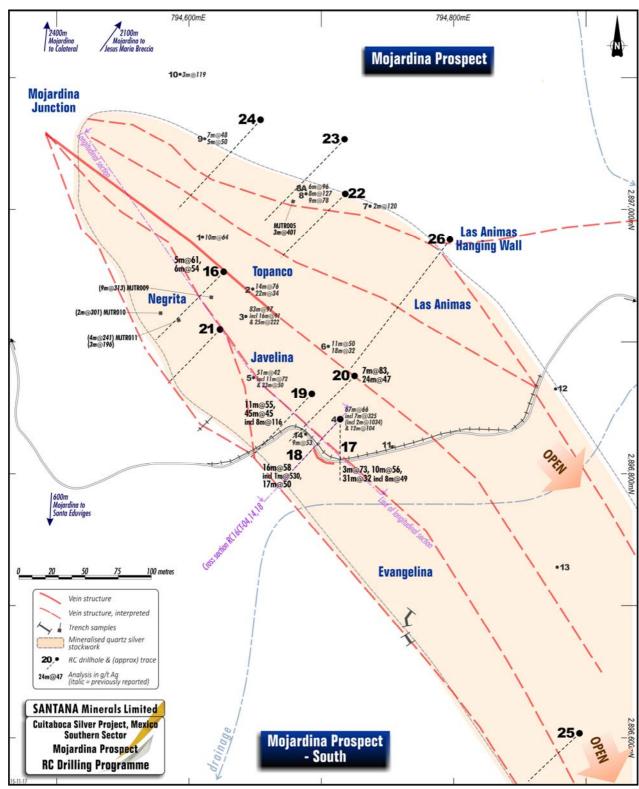


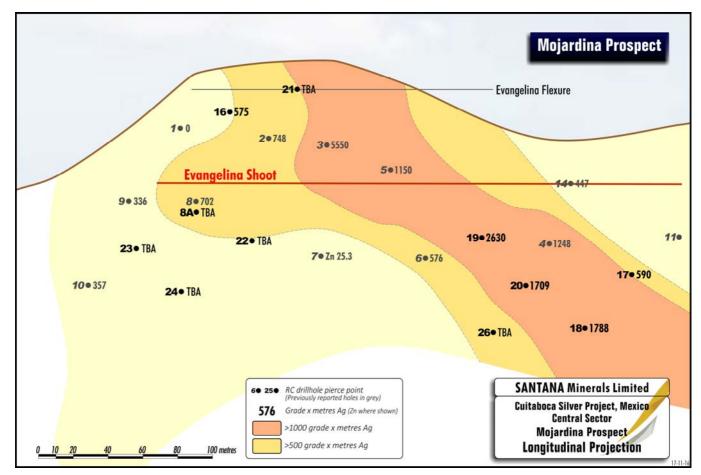
Figure 1: Project Location





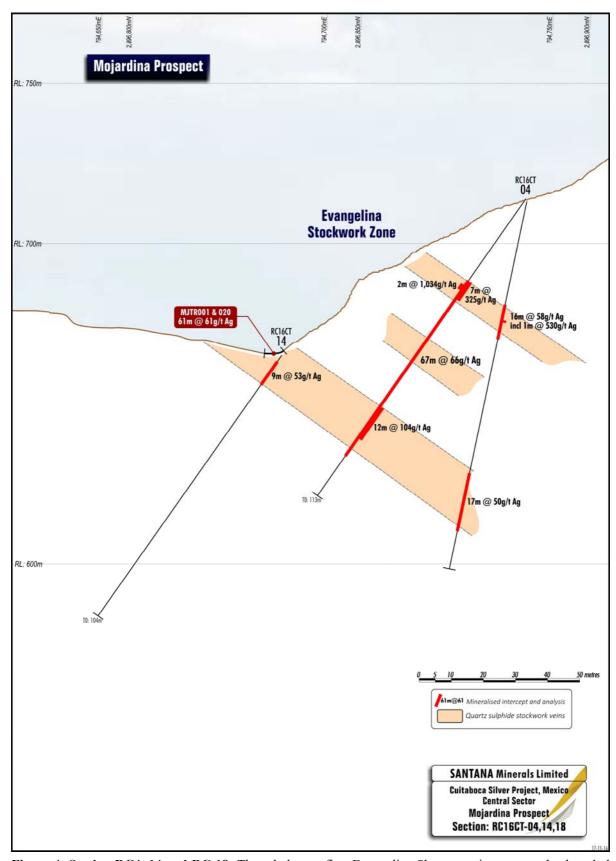
**Figure 2:** Mojardina Drill plan schematic. Results for holes 16 to 21 are reported in this release with 22 onward in the coming weeks. Long Section (Figure 3) and X-Section (Figure 4) locations are depicted. The entire Mojardina Hill is targeted with previously split Southern (Javelina – Evangelina) and Northern (Las Animas) Loops now represented by a series of 45° dip stack vein arrays or shoots. Mineralisation is presenting as more continuous after interpreting current drill information.





**Figure 3: Mojardina Loop – Evangelina Shoot Long Projection (location of Long Projection slice depicted on Fig 2 - Plan View):** Pierce points into bottom surface of the Evangelina Shoot (dips 45° to NE) are depicted as a vertical plane indicating shoot remains open at depth. Importantly an additional zone at depth defined by extending Hole 8A and Holes 22, 23 and 24 will be reported.





**Figure 4: Section RC4, 14 and RC 18:** These holes confirm Evangelina Shoot remains open at depth and along strike as depicted in Fig 3 - long section (pierce points depicted at the base of the lowermost mineralised zone).



#### **About Cuitaboca Project:**

The Cuitaboca Project is in an area covered by the 5,500 Ha mining concessions and consists of a series of veins with sulphide mineralisation carrying high grade silver and low grade polymetallic minerals. The area is dominated by andesite flows and tuffs of the lower volcanic group with minor rhyolites of the upper volcanic group at higher elevations.

The main vein structures are La Lupita – El Pinal, La Piedrita and Blanca Esthela prospects in the north of the Cuitaboca Project, Los Sapos, Chapotal, La Plata, Colateral and Jesus Maria in the Central Sector and the Mojardina and Santa Eduwiges vein systems in the Southern sector.

Santana has a contractual right to earn to an 80% interest in the Cuitaboca Project through a combination of work commitments and payments following which it enters into a joint venture on an 80:20 contribution basis.

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#### **About Santana**

Santana is a precious metals explorer focused on Mexico where it owns 100% of the Namiquipa (silver/lead/zinc) project in Chihuahua and is earning into ownership of the Cuitaboca Ag-Au polymetalic project in Sinaloa.

Additional information about Santana and its projects is available on the website: www.santanaminerals.com

#### **Competent Person/Qualified Person**

The information in this report that relates to exploration targets, exploration results, mineral resources or ore reserve is based on information compiled by Mr Jason Beckton, who is a Member of the Australian Institute of Geoscientists. Mr Beckton is a part time consultant to Santana. Mr Beckton has sufficient experience which is relevant to the style of mineralisation and type of deposit 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". Mr Beckton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## JORC Code, 2012 Edition – Table 1 CUITABOCA EXPLORATION PROGRAM REPORT:

## A. RC Drilling Sample Results

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary	
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	PC Drilling  RC samples were collected at 1m intervals under the supervision of a qualified geologist.  Collar locations locations were surveyed with a handheld GPS then permanently marked with an aluminum tag by a qualified surveyor.  Spilt samples of 2-3Kg weight were taken every metre by standard dry splitter. At no time was water encountered in the sample media.  Standards inserted and duplicates taken on a frequency of at least one QAQC sample per 20 samples.	
Drilling techniques	<ul> <li>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).</li> </ul>	RC Drilling, Reverse Circulation Drilling. 51/4 inch diameter hammer, face simple return (non cross over to reduce any contamination)	
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Logging and Supervising Geologist on the rig to ensure all QAQC and geological quality control in the first RC program for this project. No recovery issues were notes and all sample weights suggest full recovery.	
Logging	<ul> <li>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.</li> </ul>	Samples were geologically logged on a per metre basis and chip trays used to retain representative samples.	

Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	RC geology was recorded metre by metre.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	RC samples were a width of at least 3cm and approximate sample support of half core NQ from diamond drilling, ie sample diameter of 56mm, being a half core sample of that.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>RC samples picked up by ALS Chemex Hermosillo at site</li> <li>Samples are stored in a secure location and transported to the ALS laboratory in Hermosillo for sample preparation of fine crush, riffle split and pulverizing of 1kg to 85% &lt; 75µm.</li> <li>Pulps are analyzed by ALS Vancouver (Canada) using method code ME-ICP61a, a 33 element determination using a four acid digestion, Au-AA26.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>RC Duplicate sampling every 40m and Standards</li> <li>Laboratory CSV files are merged with GPS Location data files using unique sample numbers as the key.</li> <li>No adjustments made to assay data</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>RC Collar have been picked up and drill pads and associated roads planned and emplaced using Surveying control</li> <li>Samples are located using an independent surveyor.</li> <li>UTM projection WGS84 Zone 12N is the Datum of the area with Ellipsoidal vertical RLs as per national standards of Mexico.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and</li> </ul>	<ul> <li>RC sampling 1 metre for results will not be used for resource estimation prior to any supporting drilling being carried out</li> <li>No compositing has been applied.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Ore Reserve estimation procedure(s) and classifications applied.  Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Representative RC samples of 2-3Kg weight are taken down the hole at 1metre intervals except where noted.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were delivered to ALS Minerals laboratory in Hermosillo by ALS Truck with sample collection from site camp and sample number accounting onsite by Santana geologists. Samples were not left unattended at any time.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of the data management system have been carried out.

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>Santana Minerals, through subsidiaries and contractual rights, holds an option to acquire 80% of the Cuitaboca Project which consists of 100% of the mining concessions: El Chapotal (126ha), San Rafael (528ha), Nuestra Senora del Carmen (79.46ha), San Pedro (29ha), Jesus Maria (13.6ha), San Rafael II (540ha), Cuitaboca (2,402ha) and Las Sapos (1,386ha). The commercial terms consist of multiple option payments which form part of a total purchase price of US\$3.5M. The seller retains a 2.5% Net Smelter Royalty.</li> <li>The laws of Mexico relating to exploration and mining have various requirements. As the exploration advances specific filings and environmental or other studies may be required. There are ongoing requirements under Mexican mining laws that will be required at each stage of advancement. Those filings and studies are maintained and updated as required by Santana's environmental and permit advisors specifically engaged for such purposes.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• The first report of mining in the Cuitaboca area was between 1760 and 1810 with small scale mine workings. In 1883 American and English investors took control of the Cuitaboca mining operations which continued for nearly a century. Between 1974 and 1975 Servicios Industriales Penoles undertook systematic exploration using surface and underground geological mapping and the collection of 180 samples. In 2006 Canadian-based First Majestic acquired the property after a merger with First Silver Reserve and initiated >300m of underground development at Colateral Mine which delineated a quartz-galena-sphalerite vein that reported elevated Ag-Pb-Zn. First Majestic withdrew from the project in late 2008 and retained no interest.

Criteria	JORC Code explanation	Commentary					
Geology	Deposit type, geological setting and style of mineralisation.	Within the Cuitaboca project area there have been 9 discreet polymetallic low sulphidation epithermal Ag-Au veins recognised that have undergone historical manual mining. Other low sulphidation epithermal polymetallic Ag-Au vein deposits host most ore within ore shoots at the coincidence of ore controls defined as: competent host rocks, dilatant structures, higher Au-Ag grade mineralisation styles and efficient mechanisms of Au-Ag deposition.					
		Host rocks identified as interlayered Cretaceous age andesitic lavas, volcanics and volcaniclastic rocks and lesser rhyolites of the Sierra Madre Occidental Volcanics, have been placed in a stratigraphic succession as an aid to the delineation of the andesite flows, and locally welded tuffs, recognised as the most favourable rocks to host through going fissure vein mineralisation. In the Colateral adit the transition from incompetent lapilli tuff to competent andesite host rocks corresponds to a 110% increase in Ag and 250% increase in Au grades. An exploration target occurs where competent andesite is interpreted to underlie incompetent tuff.					
		Mineralised veins lie within nine NW-SE (120°TN) trending structures interpreted as listric style normal faults formed in association with regional extension within the Sierra Madre. NW trending vein dips vary from steep to moderate and may locally display a relationship to rock competency as moderate dipping structures refract to steeper dips in the more competent andesites. Steeper dips mostly host better veins within listric fault environments. Using a structural model derived from Palmarejo, no dilatant flexures were identified as changes in the strike of veins from NW towards the WNW-EW, where steep dipping veins should host core shoots. Interpretation of the regional digital terrain model suggests NNE trending transfer structures might segment the listric faults and contribute towards the localisation of mineralisation.					
		quartz veins comprise dominantly banded and brecciated quartz with galena, mostly yellow sphalerite, argentite, tetrahedrite, pyrite, chalcopyrite and gangue of carbonate (calcite and rhodochrosite), barite and fluorite. The adjacent wall rocks display K-feldspar and retrograde chlorite-illite/smectite alteration					
Drill hole	A summary of all information material to the understanding of the exploration results including a	DH_Collar					
Information	tabulation of the following information for all Material drill holes:  o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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, the Competent Person should	Hole_ID	X_East	Y_North	Z_RL	Max_Depth	
		RC16CT-16	794574	2896992	780	100	
		RC16CT-17	794738	2896891.72	714	150	
		RC16CT-18	794738	2896888	714	150	
		RC16CT-19	794716	2896917	726	150	
		RC16CT-20	794747	2896925	741	210	
			NB All Coordinates are Zone 12N WGS84				

Criteria	JORC Code explanation	Commentary
		DH_Survey
		Hole_ID Depth Dip UTM_Azimuth
		RC16CT-16 0 -55 225
		RC16CT-17 0 -55 180
		RC16CT-18 0 -75 225
		RC16CT-19 0 -55 225
		RC16CT-20 0 -55 225
		NC10C1 20   0   33   223
		In terms of Intercepts the significant results (>20 g/t Ag, 1000ppm Zn = 0.1% Zn > 2m generally) holes are reported;
		Mojardina 'Loop' – Southern Sector
		➤ RC16CT-16 5m @ 61 g/t Ag from 49m
		➤ RC16CT-16 6m @ 54 g/t Ag from 60m
		➤ RC16CT-17 5m @ 56 g/t Ag from 45m
		> RC16CT-17
		> RC16CT-17 31m @ 32 g/t Ag from 82m
		Including
		RC16CT-17 8m @ 49 g/t Ag from 100m
		➤ RC16CT-18 16m @ 58 g/t Ag from 40m
		Including
		> RC16CT-18 1m @ 530 g/t Ag from 48m
		➤ RC16CT-18 17m @ 50 g/t Ag from 78m
		DC1/CT 10 11 075 // A C 0
		<ul> <li>▶ RC16CT-19</li> <li>▶ RC16CT-19</li> <li>11m @ 55 g/t Ag from 0m</li> <li>▶ RC16CT-19</li> <li>45m @ 45 g/t Ag from 65m</li> </ul>
		➤ RC16CT-19 45m @ 45 g/t Ag from 65m Including
		➤ RC16CT-19 8m @ 116 g/t Ag from 100m
		<ul> <li>RC16CT-20</li> <li>7m @ 83 g/t Ag from 83m</li> <li>RC16CT-20</li> <li>24m @ 47 g/t Ag from 115m</li> </ul>
Data aggregation	In reporting Evaluration Deculto weighting everaging techniques, maximum and/or minimum	
methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimugrade truncations (eg cutting of high grades) and cut-off grades are usually</li> </ul>	<ul> <li>Equivalent grades were not used in any tables or summations of the data.</li> <li>For intervals of less than standard 1 metre width included within 1 metre standard</li> </ul>
	Material and should be stated.	intercepts, a Sum Product weighted average was used.
	<ul> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer length 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.</li> </ul>	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly state</li> </ul>	
Relationship	These relationships are particularly important in the reporting of Exploration Results.	All sampled intervals are reported and no lower cut is applied as campaign is a
between '	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature	• • • • • • • • • • • • • • • • • • • •

Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	<ul> <li>should be reported.</li> <li>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').</li> </ul>	geological investigation of bulk grades of entire mineralised system.
Diagrams	<ul> <li>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.</li> </ul>	The location and results received for RC Drillholes are displayed in the attached maps and/or Tables.
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Results for all samples collected in this program are displayed on the attached maps and/or Tables.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	No metallurgical or bulk density tests were conducted at the project.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Further work is dependent on management review of the existing data.