



ASX ANNOUNCEMENT

ASX : CXO

21st October 2015

Second zone of breccia and veining intersected in drilling

Yerelina Zinc Project, SA

HIGHLIGHTS

- **Diamond drilling has intersected a 30m wide zone of intermittent breccias and veining at Big Hill Prospect**
- **Box works, voids and iron oxides (after zinc, lead and iron sulphides) observed in the zone of breccias and veining similar to that at Great Gladstone**
- **Breccia zones at Big Hill interpreted to be a shallow, oxidised analogue of the mineralised breccias recently intersected by Core at Great Gladstone 5km to the west**
- **The intersected breccia zone presents as a 10m wide gossan outcrop at surface and occurs within the Big Hill fault zone interpreted to be up to 3,000m long**
- **Assays expected in 4-5 weeks**

Diamond drilling has intersected a broad 30m wide zone of intermittent breccia and veining at the Big Hill Prospect within Core Exploration Ltd's (ASX:CXO) Yerelina Zinc Project, which covers a total area of approximately 1,000km² in northern South Australia.

Zinc and lead mineralisation is interpreted to be hosted in carbonate-quartz-goethite veining and breccias as indicated by leached sulphides (goethitic boxworks and voids) at various intervals within a 30m intersection (approx. true width) from 30m to 60m depth downhole (Figures 1-5).

The mineralised zone intersected in YRDH005 is located down dip of a 10m wide outcropping mineralised gossans. Surface channel sampling of these gossans have returned significant zinc, lead and silver assays (*refer ASX Announcement 2nd June 2015*) (Figure 5).



The Big Hill Gossans are interpreted as the mineralised surface expression of a fault zone thought to be up to 3,000m long at Big Hill and are also considerably thicker than that at Great Gladstone prospect located ~5km further west (*refer ASX announcement 12th October 2015*) (*Figure 6*).

The host rocks at Big Hill have more sandy, carbonate-rich interbeds showing stronger MVT-type zinc lead mineralisation style affinities. Also the degree of oxidation, veining and structural complexity is significantly higher than at Great Gladstone.

Numerous fault zones and veining, with alteration selvaging and discrete zones of intense brecciation were identified, but strong weathering has leached much of the sulphide minerals leaving goethite stained vuggy voids in breccias and fault zones and haematite (marcasite) in veins interpreted after sulphides.



Figure 1. YRDH005 31.7-32m Oxidised fault breccia within laminated carbonate rich slate.



Figure 2 YRDH005 Fault and mineralised breccia at 45.7-46.7m



Figure 3. YRDH005 60.5-61m Brecciated slate with calcite/quartz matrix and black puggy (after sulphide).



Figure 4. YRDDD005 44.2-48.1 Veining, faulting and brecciation within carbonate rich slate.

Next Steps

Core’s diamond drilling program at Yerelina comprises a total of five angled diamond core holes totalling approximately 1037m at a number of prospects (Table 1).

The drill core from these recently completed drillholes is currently being transported from site to Adelaide, where the core will be cut, sampled and submitted for laboratory assay. Assay results are expected in approximately 4-5 weeks.

Yerelina Project Background

The Yerelina project area is highly prospective for base metal and silver mineralisation as evidenced by previously identified, high grade mineralisation and historic mine workings within repeated structures over an 8km by 3km area.

Core’s analysis of modern satellite imagery and the Company’s detailed heli-borne magnetic and radiometric survey data have identified that these mineralised structures are potentially part of a large scale system of repeated north/south regional faults (Figure 6).

The Adelaide Geosyncline has long been considered prospective for sedimentary basin hosted (MVT) base metal mineralisation styles. Core believes that the mineralisation at Yerelina may represent a surface exposure of part of one of these large regional mineralisation styles.

The drill core from the current program will provide valuable information to help unlock and target the interpreted MVT-style “engine room” that is driving the observed surface mineralisation over this large area (Figure 6).



Core has also been awarded a grant of up to \$75,000 for drilling as part of the SA Government's PACE Discovery Drilling 2015 program.

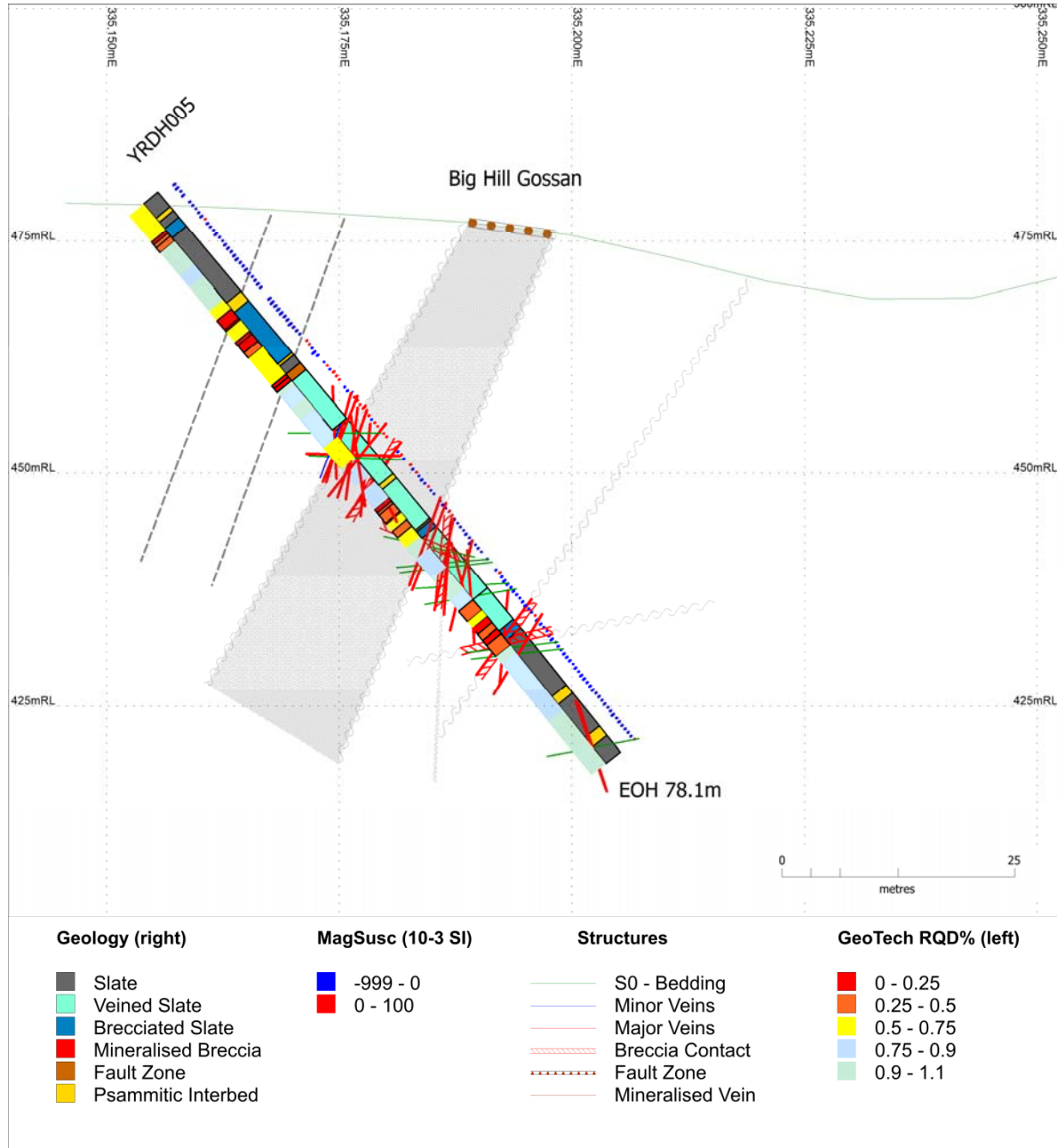


Figure 5. Drill hole trace and interpreted geological cross section, YRDH005 Big Hill Prospect, Yerelina Project South Australia.

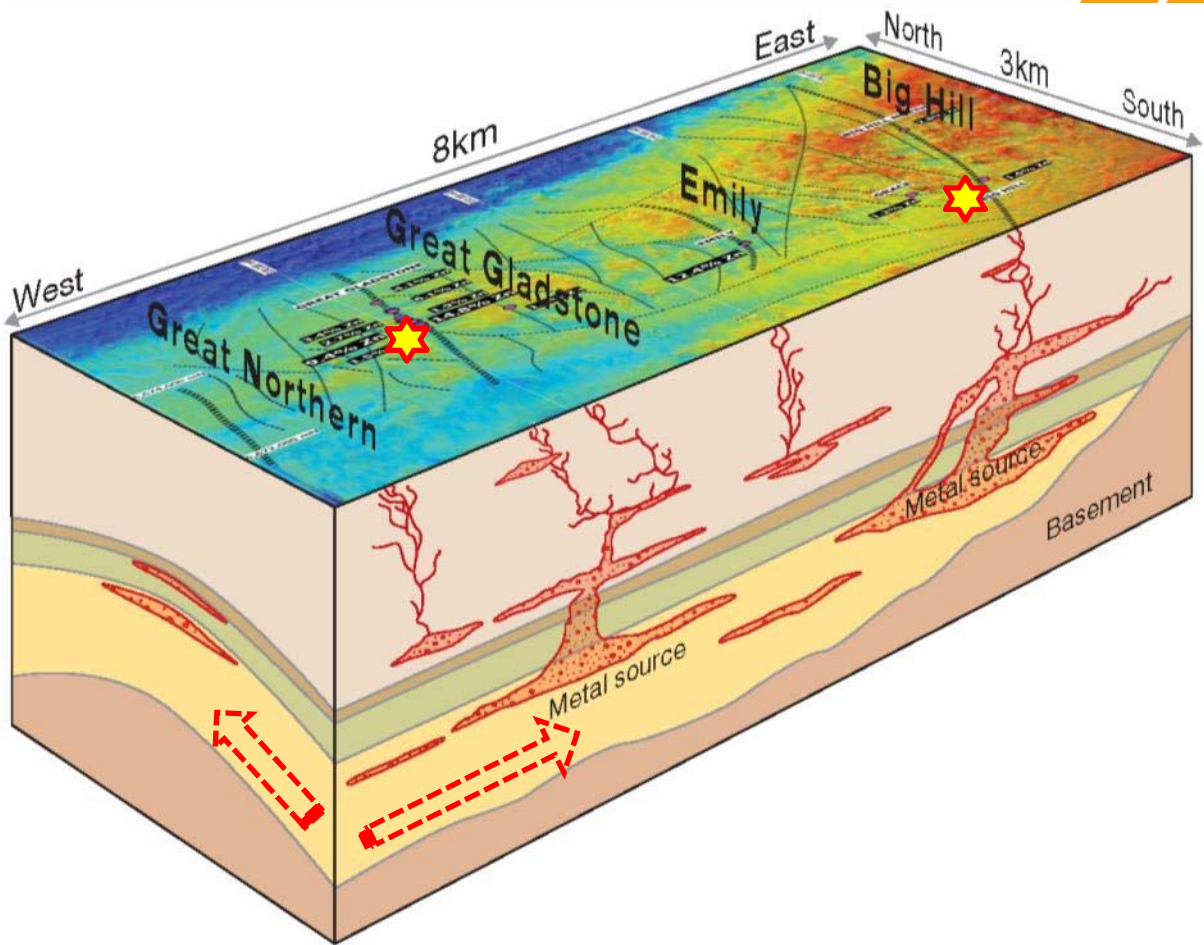


Figure 6. Ben Hill and Great Gladstone location, magnetic image and surface mineralised structures in plan view with block model of conceptual geological targets (depth not to scale).

Hole_ID	Easting	Northing	RL	DIP	TAZ	Total Depth	Completion
YRDH001	328171	6672700	403.4	-60	111.5	150.6	10/09/2015
YRDH002	330078	6673496	395.6	-60	126	348.3	24/09/2015
YRDH003	330082	6673506	397	-50	90	210.3	19/09/2015
YRDH004	330083	6673506	397	-50	36.5	249.6	28/09/2015
YRDH005	335154	6671835	479	-50	84.5	78.1	01/10/2015
Total Metres Drilled:						1037m	

Table 1: Summary of Yerelina Drilling



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The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities 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. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This report also includes exploration information that was prepared and first disclosed by Core under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. The information in all previous announcements has been compiled by Mr Stephen Biggins as the Competent Person and who provided his consent for all previous announcements. The information that was reported in announcements previously released under JORC Code 2004 is the announcement dated 19/03/2013 titled "High Grade Lead-Zinc-Silver Assays from S.A. Project"



Yerelina – October 2015– JORC 2012

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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>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.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'RC 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> 	<ul style="list-style-type: none"> Geological logging by observation of NQ2 core from diamond drilling Structural logging from oriented core drillholes orientated using electric downhole camera Core orientated using a Coretel system Structural measurements established from measured alpha betas The drill core from these recently completed drillholes is currently being transported from site to Adelaide, where the core will be cut, sampled and submitted for laboratory assay. Assay results are expected in approximately 4-6 weeks.level being attributed to this initial sampling.
Drilling techniques	<ul style="list-style-type: none"> <i>Drill type (eg core, RC, 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> 	<ul style="list-style-type: none"> NQ2 core Core orientated using electric downhole camera (refer Table1)
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> 	<ul style="list-style-type: none"> Visual geological, recovery and structural logging data



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> A visual estimate of recovery over was recorded. Generally good recovery - no bias expected
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Drill core are qualitatively logged and photographed Qualitative logging of Core includes lithology, colour, mineralogy, description, marker horizons, weathering, texture, alteration and mineralization Quantitative logging of orientated core includes structural alpha beta angles <p>Total length of the hole logged</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. 	<ul style="list-style-type: none"> Geological observation only The drill core from these recently completed drillholes is currently being transported from site to Adelaide, where the core will be cut, sampled and submitted for laboratory assay. Assay results are expected in approximately 4-6 weeks.level being attributed to this initial sampling.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	<ul style="list-style-type: none"> Geological observation only The drill core from these recently completed drillholes is currently being transported from site to Adelaide, where the core will be cut, sampled and submitted for laboratory assay. Assay results are expected in approximately 4-6 weeks.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. <p>the use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p> <p>Discuss any adjustment to assay data.</p>	<ul style="list-style-type: none"> Geological observations and primary data is captured by Core geologists directly into an in-house referential and integrated database system designed and managed by the Exploration Manager. All assay data is cross-validated within the database by various integrity scripts and externally using MapInfo drill hole validation checks including interval integrity checks. The drill core from these recently completed drillholes is currently being transported from site to Adelaide, where the core will be cut, sampled and submitted for laboratory assay. Assay results are expected in approximately 4-6 weeks.
Location of	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and 	<ul style="list-style-type: none"> All coordinates are recorded in GDA 94 MGA Zone 53.



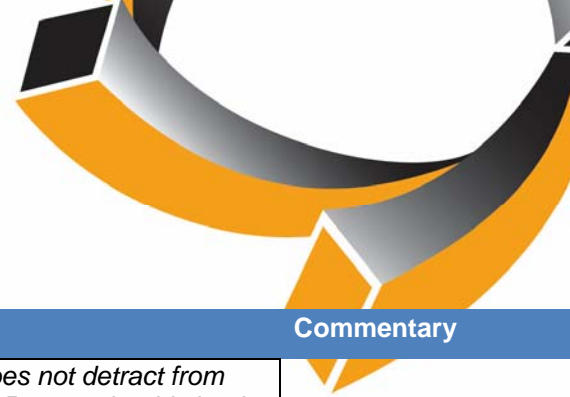
Criteria	JORC Code explanation	Commentary
data points	<p><i>down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Collar location undertaken by Core Exploration staff using a hand-held Garmin GPS this tool has an accuracy of approximately 3m. • Topographic control uses the DTM generated by the airborne heli-mag survey conducted over the area by Core in 2013 <p>Downhole surveys were undertaken using an electronic survey camera system</p>
Data spacing and distribution	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Initial geological observations only of core
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Geological observations only • Refer Figure 4. for interpreted geological and structural orientations
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • The drill core from these recently completed drillholes is currently being transported from site to secure site in Adelaide, where the core will be cut, sampled and submitted for laboratory assay. Assay results are expected in approximately 4-6 weeks.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or reviews have been undertaken



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	<ul style="list-style-type: none"> 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Yerelina is contained within EL 5015 that is 100% held by Sturt Exploration Pty Ltd a wholly owned subsidiary of Core Exploration Ltd. Core Exploration manages EL 5015. EL 5015 is located on Mt Freeling Station. All drilling was undertaken outside of Heritage, Conservation or National Parks on EL 5015.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Modern exploration is very limited in the Yerelina area however extensive historical workings dating back to 1908 are evident as a number of shafts and drives
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The mineralisation style targeted is sediment hosted base metal mineralisation within an antiformal structure of Tapley Hill Formation
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Refer Table 1.



Criteria	JORC Code explanation	Commentary
	<p>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.</p>	
Data aggregation methods	<ul style="list-style-type: none"> 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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Preliminary geological observations of core only
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Drilling intersects the mineralised zone at an angle (refer Figure 4). Estimated true width of the mineralised breccia zone is approximately 75 % of intersected width.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer figures and table in announcement
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill core either side of the breccia zone is shown in Figure 6 and drill trace in Figure 4.
Other substantive exploration data	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Exploration activity is very limited at Yerelina however CXO collected heli-magnetic and radiometric data in 2012, undertook previous rock-chip sampling of anomalous gossans / historical mullock piles and submitted a limited number of samples for petrology. Two other recent drill holes at Great Gladstone are interpreted to not reach



Criteria	JORC Code explanation	Commentary
Further work	<p><i>deleterious or contaminating substances.</i></p> <ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <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> 	<p>target.</p> <ul style="list-style-type: none"> Subject to Board approval further drilling may be undertaken