



# ASX ANNOUNCEMENT

ASX : CXO

2<sup>nd</sup> July 2014

## **5km prospective copper trend identified at Selins Prospect Albarta Project, NT**

- **Core's rock chips assays up to 13% copper at Selins**
- **10 rock-chip samples average 4.1% copper at Selins**
- **Copper occurrences identified along 5km trend**
- **Exciting new addition to pipeline of drill targets developing from the Albarta Project in the NT**
- **Follow up mapping and geochemistry planned to prioritise drill targets**

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Core Exploration Ltd (ASX:CXO) mapping and rock chip sampling has returned assays up to 13% copper at the Selins Prospect that appears to be part of newly identified 5km prospective copper trend, within the Albarta Project located 100km NE of Alice Springs in the NT.

Selins Prospect is located at the western end of a folded, 5km long lithology that is prospective for copper. Selins is on the western limb of an open fold within the Riddock Amphibolite and an historical copper occurrence is reported to be located on the interpreted eastern limb of the trend, possibly on the same lithological layer (Figure 1). Mapping and sampling for copper occurrences on the eastern limb of the fold is Core's next step.

Core's exploration mapping and sampling work along with historical workings highlight the potential of the 5km long trend. Copper occurrences at either end of the copper trend, within a regional fold, indicate that Selins Prospect is prospective as a sizeable copper target (Figures 1 and 2).

Core has identified and sampled copper mineralisation at Selins in shears within a metamorphosed/altered garnet-rich amphibolite. The host rocks at Selins has similarities in setting to CXO's Virginia Prospect (refer ASX Announcement 3/6/2014), which is also in the Riddock Amphibolite of the Irindina Province (Figure 3).

Follow up mapping is planned along with geochemistry over the highly prospective outcropping geology and also the sediment covered plains which mask the prospective geology to the north. Results from the next round of work will enable the prioritisation of targets for drilling.

The exciting new copper target being developed by Core at Selins continues to build the pipeline of high quality drill targets which are flowing from the Albarta Project in the NT.

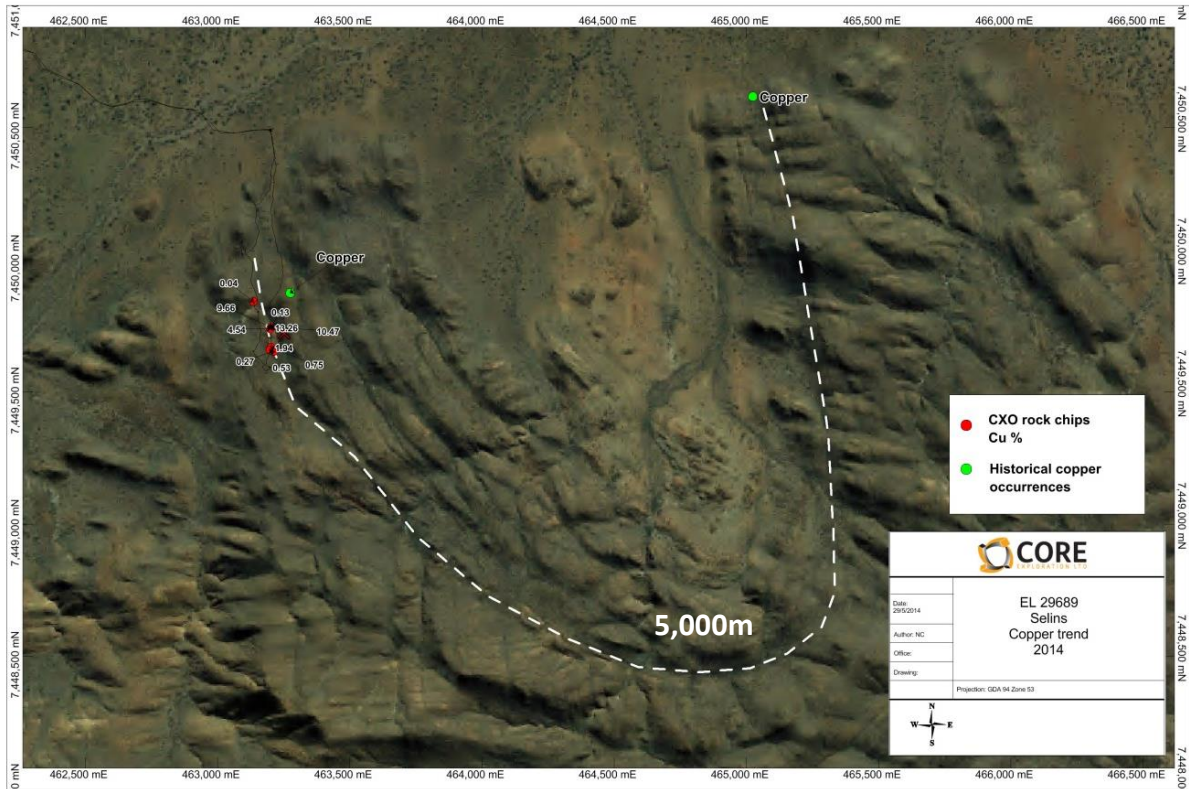
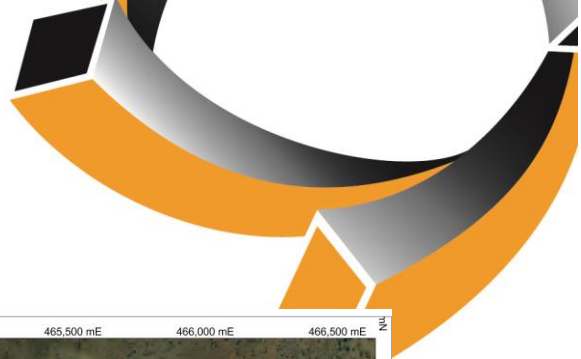


Figure 1: Selins rock chips with folded bedding trend and historic copper occurrences.



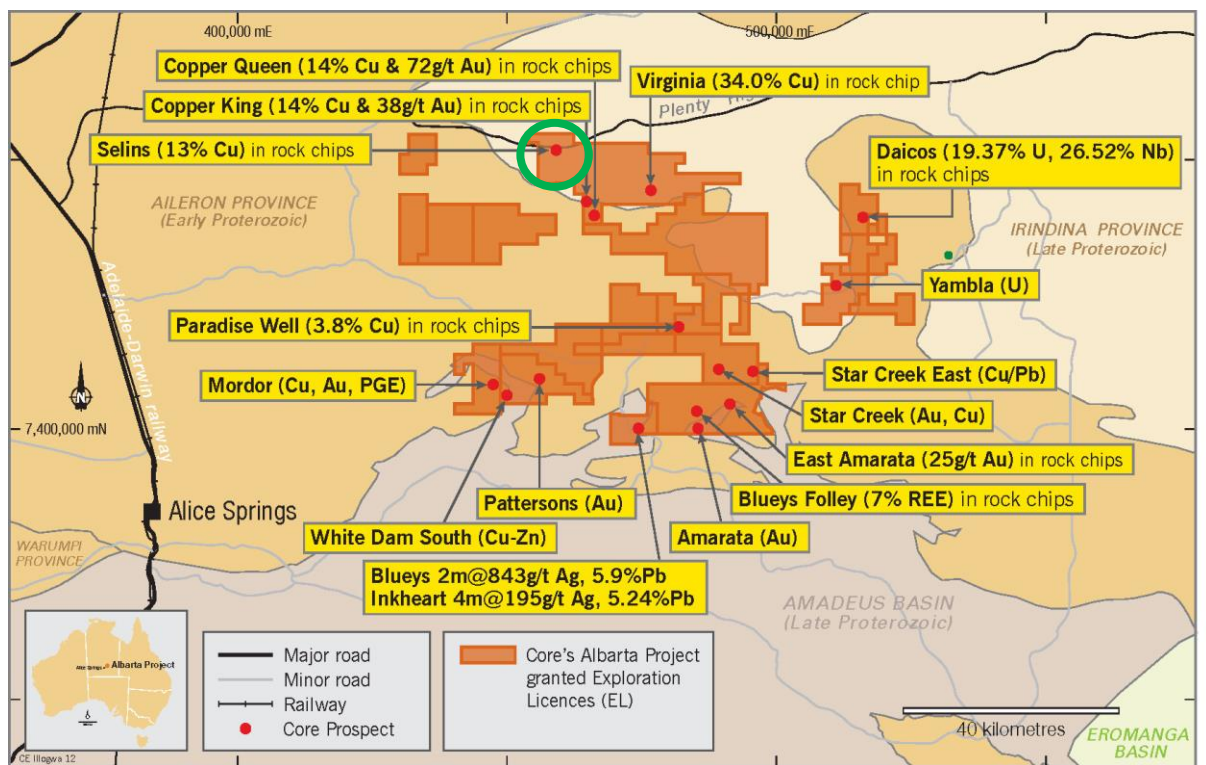
Figure 2. Historic workings Selins Prospect, NT





Albarta Project Background

Core’s Albarta project covers over 2,000km<sup>2</sup> of the newly-recognised, highly prospective IOCG Aileron Province, 100km NE of Alice Springs in the NT. Core’s tenements include a number of significant copper (+/- silver, gold, uranium, REE and PGE) mineral occurrences. The Company believes that the existing evidence of mineralisation and confirmed IOCG prospectivity by Geoscience Australia verifies the strategy that Core has pursued to build a strong position in Australia’s new copper IOCG exploration hot-spot.



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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.*



Sample ID	Easting	Northing	Cu %	Zn ppm
<b>1221</b>	463202	7449743	<b>13.26</b>	8439
<b>1222</b>	463202	7449743	<b>0.13</b>	3817
<b>1223</b>	463202	7449743	<b>9.66</b>	7167
<b>1224</b>	463202	7449743	<b>10.47</b>	4958
<b>1225</b>	463199	7449738	<b>4.54</b>	4116
<b>1226</b>	463202	7449668	<b>1.94</b>	875
<b>1227</b>	463202	7449668	<b>0.75</b>	832
<b>1228</b>	463198	7449658	<b>0.53</b>	940
<b>1230</b>	463214	7449652	<b>0.27</b>	522
<b>1231</b>	463135	7449841	<b>0.04</b>	145

Table 1. Rock chip results from the Selins Prospect samples taken by Core Exploration.

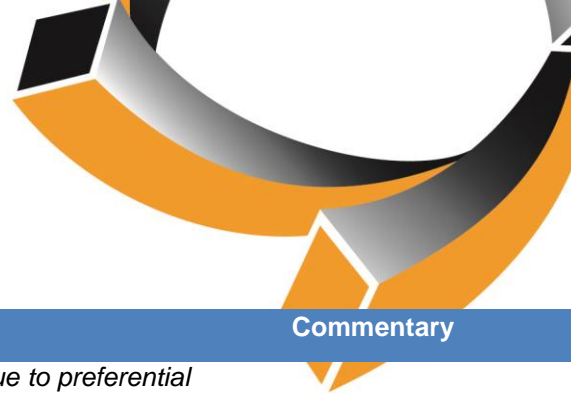


## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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></li> </ul>	<ul style="list-style-type: none"> <li>• Rock chip sampling was undertaken by Core Exploration as part of reconnaissance mapping and prospecting. Samples were taken when visible mineralisation was observed as well as of separate identified lithological units, or when alteration or veining was observed.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling has been undertaken</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling has been undertaken</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling has been undertaken</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <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></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling has been undertaken</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Rock chip samples collected by Core Exploration were sent to Genalysis for 4A/MS 4 Acid Digest Mass Spectrometry: and 4A/OE 4 Acid Digest Inductively Coupled Plasma Optical Emission Spectrometry</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Not applicable as no drilling has been undertaken</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All coordinate information was collected using hand held GPS utilising GDA 94, Zone 53.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Data spacing for rock chip samples are displayed in the diagrams.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Not applicable as no drilling has been undertaken</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Core Exploration samples were labeled and bagged and sent straight to the geochemistry laboratory. No information as to any sample security processes for previous explorers samples.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as no audits or reviews of sampling techniques have been undertaken.</li> </ul>





## Section 2 Reporting of Exploration Results

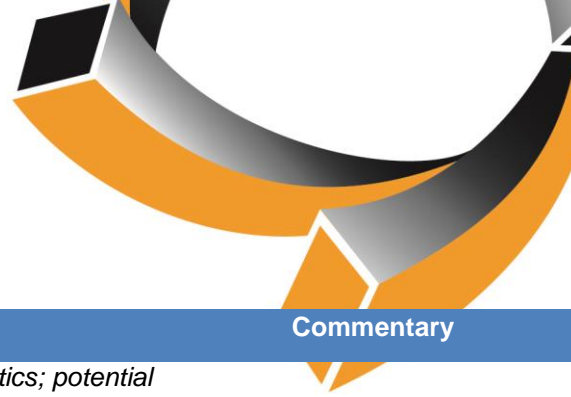
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Selins Prospect area is located within EL 29689. EL 29689 is currently held 100% by Core Exploration. It is located on pastoral land within Mt Riddoch Station.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Selins Prospect is a historical prospect with old works, possible early 20<sup>th</sup> century, no prospect scale modern exploration has previously been undertaken at Selins. To this point it has only been rock chip at the prospect scale by Core.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The geology of EL 29689 is dominated by rocks of the Aileron Province and the Irindina Province. The Aileron Province is comprised of metasedimentary pelites, calc-silicates as well as granites and mafic lithologies. Amphibolites and high grade metamorphic rocks are dominant within the Irindina Province which underwent high grade metamorphism during the Ordovician Larapinta Event. The Aileron Province area was deformed during the Alice Springs Orogeny (300-400Ma) which juxtaposed the Irindina Province against the Aileron Province.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as no drilling has been undertaken</li> </ul>





Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as no data averaging has been used.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature 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>	<ul style="list-style-type: none"> <li>As the geochemical results thus far collected by Core Exploration are from surface any potential depths of mineralisation or orientations can only be inferred from geological observations on the surface and hence are speculative in nature.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>See figures in release</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Core Exploration's rock chip samples from the Selins Prospect are listed in Table 1. They are displayed in Figure 1.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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,</li> </ul>	<ul style="list-style-type: none"> <li>See release details</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Refer announcement</li> </ul>