



3 November 2014

Australian Securities Exchange Limited

### **Birla Nifty Underground Reserve Estimate**

Aditya Birla Minerals Limited (ABY) is pleased to advise that the Nifty Sulphide Reserve Estimate is now complete. The Ore Reserve estimate as of 1<sup>st</sup> October 2014 carried out in accordance with JORC Code 2012 guidelines is tabulated below:

**Table 1 Nifty Ore Reserves as at 1 October 2014**

<b>Item</b>	<b>Tonnes (Mt)</b>	<b>Grade (% Cu)</b>	<b>Metal (kt Cu)</b>
Proved Ore Reserve	8.58	1.87	160
Probable Ore Reserve	3.64	1.57	57
<b>Total Ore Reserve</b>	<b>12.2</b>	<b>1.78</b>	<b>217</b>

Significant work was undertaken by AMC Consultants Pty Ltd (AMC) to produce a new Life of Mine Plan for the Nifty Sulphide operation. This detailed work resulted in a change of stoping method in the South and West Limbs of the ore body to Open Stopping with yielding pillars. Current Long hole Open Stopping with paste fill will continue in the Checker Board and North Limb. The unit cost of mining for the new mining method is expected to be similar to the current Long Hole Open Stopping method. It should be noted that the new stoping method in the South and West will require the Department of Mines and Petroleum (DMP) approval and as such, the updated Life of Mine Plan will be submitted to DMP for approval of the change of stoping method.

The below table summarizes the Ore reserve as at 31<sup>st</sup> March 2013, depletion of ore reserve due to mining between 1<sup>st</sup> April 2013 and 30<sup>th</sup> Sept 2014 and Ore Reserve as at 1 October 2014.

<b>Item</b>	<b>Total Ore Reserve</b>		
	<b>Tonnes (Mt)</b>	<b>Cu %</b>	<b>Metal (kt Cu)</b>
(A) Total Ore Reserve as at 31 March 2013	15.0	2.00	303
(B) Ore Mined between 1/4/2013 to 30/9/2014	2.52	2.04	51.4
(C) Balance as at 1/10/2014 (A-B)	12.8	1.96	251.6
(D) Total Ore Reserve as at 1 Oct 2014	12.2	1.78	217
(E) Net (+/-) after taking into account conversion from resource to reserve, geotechnical impact post sinkhole, change of mining method in South and West Limb etc. (D-C)	-0.6	-0.18	-34.6

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**Competent Persons Statement**

The information above is based on reports compiled by Mr Bradley Watson an employee of AMC Consultants Pty Ltd. Mr Watson is a member of Australasian Institute of Mining and Metallurgy. Mr Watson has sufficient experience, which is relevant to the style of mineralization 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 Watson consents to the release of this information in the form and context in which it appears.

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#### Section 4. Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section.)

Criteria	2012 JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of Ore Reserves.</li> </ul>	<ul style="list-style-type: none"> <li>The Nifty September 2013 Mineral Resource estimate is the basis for the Ore Reserve estimate</li> <li>The Mineral Resource estimate reported is inclusive of the Ore Reserve estimate</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>AMC Consultants Pty Ltd representatives (A mining engineer and a geotechnical engineer) visited site in June and August 2014, and inspected underground workings and surface infrastructure.</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that Modifying Factors have been considered.</li> </ul>	<ul style="list-style-type: none"> <li>AMC have undertaken life-of-mine planning for Nifty at a PFS level.</li> </ul>
<b>Cut-off Parameters</b>	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The Nifty Ore Reserve estimate is based on a design cut-off grade of 1.1% copper. The design cut-off grade has been estimated with consideration of historical mining costs, Mineral Resources and likely production rates.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility of Feasibility Study to convert Mineral Resources to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).</li> <li>The Choice, nature and appropriateness of the selected mining method(s) and other mining parameters associated design issues such as ore-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, slope sizes, etc), grade control and pre-production drilling).</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimization (if appropriate)</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul style="list-style-type: none"> <li>The Ore Reserve estimate is based on life of mine planning, utilising a long hole open stoping mining method.</li> <li>Long hole open stoping has been the applied mining method at Nifty since production started.</li> <li>Geotechnical assessment is undertaken at Nifty on an ongoing basis as it is an operating mine. The life of mine plan has been prepared considering current geotechnical conditions of access development, stopes and backfill.</li> <li>The Mineral Resource model used to estimate Ore Reserves was "sm0913v2dep.dm"</li> <li>Mining dilution is estimated for each stope. Waste dilution varies up to a maximum of 20%, depending on the stopes place in the sequence and the anticipated condition of surrounding areas.</li> <li>Mining recovery is estimated for each stope and ranges from 50% to 98%, depending on the stopes place in the sequence and the anticipated condition of surrounding areas.</li> <li>Inferred Mineral Resources were not utilised in the life of mine planning.</li> <li>Nifty is an established and operating mine, and significant additional infrastructure is not required for the extraction of Ore Reserves.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of the process to the style of the mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical demining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample of pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the Ore Reserve estimation been based on the appropriate mineralogy to meet the specification?</li> </ul>	<ul style="list-style-type: none"> <li>The current process is using conventional grinding and flotation equipment. It is the industry standard for copper sulphide extraction and considered appropriate.</li> <li>The process is very well established, there is scope for the use of different reagents</li> <li>Ore sourced from existing parts of the mine has been processed successfully since the commencement of processing, is well understood and needs no further testwork.</li> <li>Testwork is continuing for ore sourced from new areas, but it is expected to behave similarly to the high graphite low head ore previously encountered.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>Nifty is an operating mine and has existing environmental approvals in place.</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</li> </ul>	<ul style="list-style-type: none"> <li>Nifty is an established and operating mine, and significant additional infrastructure is not required for the extraction of Ore Reserves.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul style="list-style-type: none"> <li>Initial capital cost expense are not required as Nifty is an existing project.</li> <li>Capital costs include allowance for replacement of mobile equipment, relocation of underground infrastructure, access development for new mining areas and sustaining capital for the processing plant and site infrastructure.</li> <li>Mining operating costs are based on budgeted and historical costs from the existing operation.</li> <li>Processing and site administration operating costs are estimated from historical performance and budgeted costs.</li> <li>No deleterious elements have been identified and thus no allowances made</li> <li>Concentrate transport, shipping and treatment charges are based on actual performance and consensus forecasts of future charges.</li> <li>A state government royalty of 5% applies</li> </ul>
<b>Revenue factors</b>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul style="list-style-type: none"> <li>Head grades are estimated from life-of-mine planning.</li> <li>Aditya Birla Minerals Limited (ABML) commissioned an independent corporate advisor to forecast copper prices and exchange rates to be used for the purposes of estimating Ore Reserves. ABML has included that advice in its financial model.</li> <li>Forecast copper prices increase from \$US7,060/t in FY15 to US\$7,998/t in FY22.</li> <li>Forecast exchange rates decrease from US\$0.875:1\$A in FY15 to US\$0.79:1\$A in FY22.</li> </ul>
<b>Market assessment</b>	<ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance</li> </ul>	<ul style="list-style-type: none"> <li>It is expected that current arrangements in place for the sale of copper concentrates to the Hindalco owned copper smelter in India will continue.</li> </ul>

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Criteria	2012 JORC Code explanation	Commentary
	requirements prior to a supply contract.	
<b>Economic</b>	<ul style="list-style-type: none"> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul style="list-style-type: none"> <li>The financial model prepared for life-of-mine planning indicates a positive NPV, and consequently that the project is economic.</li> <li>The NPV of the Project is estimated using a post-tax discount rate of 7%.pa. Achieving a positive NPV is not sensitive to discount rate.</li> <li>The Project exhibits a positive NPV while the copper price remains above US\$6,640/t.</li> <li>The Project exhibits a positive NPV with a +100% capital costs sensitivity.</li> <li>The Project exhibits a positive NPV with a +20% operating costs sensitivity.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul style="list-style-type: none"> <li>Nifty is an ongoing mining operation in northern Western Australia, and maintains a social license to operate.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: <ul style="list-style-type: none"> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No naturally occurring hazards have been identified</li> <li>Nifty is on ongoing mining operation, and is in possession of necessary approvals, or there is a reasonable expectation that necessary approvals will be gained.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> </ul>	<ul style="list-style-type: none"> <li>Mining tasks have been classified into Ore Reserves categories based on Mineral Resource classification. Tasks that consist of a majority of Measured Mineral Resources are classified as Proved Ore Reserves. Tasks that consist of a majority of Indicated Mineral Resources are classified as Probable Ore Reserves.</li> <li>Some areas of Nifty which have not been accessed for mining yet, and are not tested, but would otherwise be classified as Proved Ore Reserves, have been downgraded to Probable Ore Reserves to reflect that risk.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<ul style="list-style-type: none"> <li>The Ore Reserve estimate has not been audited or reviewed.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>Factors that affect the global relative accuracy and confidence of the Ore Reserve estimate include: <ul style="list-style-type: none"> <li>The Ore Reserve estimate includes areas that have not been accessed or mined yet however, they are supported by Mineral Resource estimates. The Ore Reserve estimate in these areas has been classified as Probable.</li> <li>The Ore Reserve estimate is based on the latest Mineral Resource estimate. The Mineral Resource estimate might be updated with the results of future definition drilling, should any occur, which might affect the Ore Reserve estimate</li> </ul> </li> </ul>

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