

Friday 26 July 2013

The Manager (Companies)
ASX Limited
Perth Western Australia

FOR IMMEDIATE RELEASE TO THE MARKET

Dear Manager,

ORE RESERVE STATEMENT

**WIM150 Mineral Sand Project, portion of EL 4521, western Victoria
Maiden Ore Reserve Statement
As defined under the Joint Ore Reserves Committee Code 2012**

PROVED and PROBABLE ORE RESERVES
of
552 MILLION TONNES of 4.3% TOTAL HEAVY MINERAL

As previously reported to ASX, Australian Zircon the Company holds an entitlement to earn an 80% participating interest in the WIM150 project by completing a Bankable Feasibility Study as defined in the relevant Farm-In Agreement.

Mineral Resource and Ore Reserve estimation experts, Optiro Pty Limited, have recently completed an analysis which quantifies the economically viable mineralisation which has been defined within the 1.65 billion tonnes of WIM150 Mineral Resource announced to ASX on 18 June 2013.

The 1.65 billion tonne Mineral Resource was based upon the following drill data

- CRA Exploration Pty Limited 1982-1992
- Australian Zircon 2006-2007
- Australian Zircon 2011
- Australian Zircon 2012-2013

The Mineral Resource used a cut-off grade of 1% total heavy mineral recoverable in the range 20-75 microns. Grain size recoverability criteria were determined by an extensive program of bulk sample mineral processing testwork. The estimated Mineral Resources excludes areas of restricted access around waterways and the Western Highway.

Optiro have now converted Measured and Indicated Mineral Resources to Proved and Probable Ore Reserves by reference to both mine design and physical modifying parameters and economic parameters. Mineralisation excluded from the Ore Reserve in the estimation is:

- stand off from roads, including the Western Highway and Northern Grampians Road
- gas pipelines
- selected water pipelines
- a power line / fibre optic link
- areas external to Australian Zircon's ongoing Environmental Effects Statement studies

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Ore Reserve Statement (JORC 2012)

Ore Reserve Category	Ore Tonnes Millions	In Situ HM Tonnes Millions	HM Grade (%)	HM Mineral Assemblage						
				Rutile (%)	Ilmenite (%)	Leucoxene (%)	Zircon (%)	Monazite (%)	Xenotime (%)	Other HM (%)
Proved	268	12.0	4.5%	11.7	32.7	5.9	22.0	2.4	0.4	24.9
Probable	283	12.0	4.2%	11.6	30.8	5.9	21.3	2.2	0.4	27.7
TOTAL	552	24.0	4.3%	11.7	31.7	5.9	21.6	2.3	0.4	26.4

Notes accompanying the Statement:

- Ore Reserves are based upon a variable cut-off grade calculated by assessing the revenue of each block.*
- The Ore Reserves are based upon a State Royalty of 2.75%*
- Mineral Resources have been reported as Inclusive of Ore Reserves.*
- The Total Heavy Minerals (HM) is reported as a percentage of In situ HM content.*
- Tonnes and Grade data has been rounded to one significant figure. Discrepancies in summations may occur due to rounding.*
- This Ore Reserve statement has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition).*
- The Ore Reserves have been compiled by Mr Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law 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 Law consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

The following attachments contain the JORC 2012, Table 1, Sections 1 to 4, pertaining to the Ore Reserve Statement, and an Executive Summary of the Ore Reserve statement.

Yours faithfully,

Jeremy D Shervington

Chairman

for and behalf of
Australian Zircon NL

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EXECUTIVE SUMMARY

Optiro Pty Ltd (Optiro) was commissioned by Australian Zircon NL (AZC) to provide an independent Ore Reserve estimation for the WIM150 project as at June 30 2013. The ore reserve estimate was requested following the creation of an open pit Mineral Resource estimate in June 2013.

The WIM150 deposit lies along the south-eastern margin of the Murray Basin, south-eastern Australia approximately 20 km south-east of Horsham. The landform is comprised of a generally flat plain with minor features, and is accessible by the Western Highway - connecting Melbourne with Adelaide, the Henty Highway - connecting Horsham with the nearest port (Portland) to the south and Mildura to the north. The Henty Highway also connects the site via the A8 to the new Wimmera Intermodal Freight Facility (WIFT) located 9 kms to the north of Horsham and The Wimmera Highway – connecting Horsham with Bendigo to the east and Naracoorte to the west.

The WIM150 Project Tenement is currently held by Orient Zirconic Resources (Australia) Pty Ltd (OZR) and is operated by Australian Zircon NL (AZC) under the terms of a farm in agreement. In mid-2007 AZC commissioned the preparation of a pre-feasibility study (“PFS”), which was completed in 2008. Work on the Bankable Feasibility Study started in 2011, upon the completion of which AZC is entitled to an 80% participating interest in the project.

The work has been carried out under the supervision of Andrew Law, a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (the JORC Code).

Optiro’s Ore Reserve estimate followed the creation of an open pit Mineral Resource estimate in May 2013 for the WIM150 project. Work has been carried out under the supervision of Mr Andrew Law, a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (the JORC Code).

All material was subjected to an economic evaluation wherein costs have been based on a ore mining rate of 10.1M tpa, wet plant throughput of 10 M tpa and an overall processing recovery (heavy mineral contained in ore to saleable product) of 68%.

The proposed WIM150 project is to be operated using conventional heavy mineral sands open pit mining methods (dozers, in-pit mining units, and excavators/trucks). Key ore and overburden removal equipment will be operated by Australian Zircon personnel using dry hire equipment. Auxiliary machinery will be operated on an owner operator basis. Dilution and recovery of the ore zones was estimated at 5% and 97% respectively. These parameters were agreed to in consultation with Australian Zircon.

Revenue was based on an AUD:USD exchange rate of 0.98. Pricing ranges are discussed in the Marketing section of the attached table 1. Exact pricing has not been stated, due to commercial sensitivity.

To the best of Optiro’s knowledge, Australian Zircon is currently compliant with all legal and regulatory requirements. All government permits and licenses and statutory approvals are either granted or in the process of being granted. No risk factors have been applied to the mining rates.

Measured and Indicated Mineral Resources were converted to Proved and Probable Ore Reserves, subject to mine designs, physical modifying factors and an economic evaluation. The following Ore Reserve statement outlines the Ore Reserves for the WIM150 Project.

Material excised from the Mineral Resource model to generate the Ore Reserve model includes the following areas: standoff from roads including the Western Hwy and Northern Grampians Road (40 m). Additional exclusion zones include the Gas pipeline (50 m) water mains and power line corridor (including fiber optic link). The Mineral Resource Model has also been clipped to the Project Footprint provided by the client.

Table 0-1 contains the WIM150 Ore Reserve estimation and statement for July 2013.

Table 0-1: WIM150 Ore Reserve Estimation and Statement

Ore Reserve Category	Ore Tonnes Millions	In Situ HM Tonnes Millions	HM Grade (%)	HM Mineral Assemblage						
				Rutile (%)	Ilmenite (%)	Leucoxene (%)	Zircon (%)	Monazite (%)	Xenotime (%)	Other HM (%)
Proved	268	12.0	4.5%	11.7	32.7	5.9	22.0	2.4	0.4	24.9
Probable	283	12.0	4.2%	11.6	30.8	5.9	21.3	2.2	0.4	27.7
TOTAL	552	24.0	4.3%	11.7	31.7	5.9	21.6	2.3	0.4	26.4

Notes accompanying the Statement:

1. *Ore Reserves are based upon a variable cut-off grade calculated by assessing the revenue of each block.*
2. *The Ore Reserves are based upon a State Royalty of 2.75%*
3. *Mineral Resources have been reported as Inclusive of Ore Reserves.*
4. *The HM Mineral Assemblage (HM) is reported as a percentage of In situ HM content.*
5. *Tonnes and Grade data has been rounded to one significant figure. Discrepancies in summations may occur due to rounding.*
6. *This Ore Reserve statement has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition).*
7. *The Ore Reserves have been compiled by Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves”.*

Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.

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
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	<ul style="list-style-type: none"> For the AZC 2012/13 programme aircore drilling was used to obtain 1 m samples. Samples were selected from the Parilla Sand that were estimated to contain THM of over 1%. These samples were combined at the assay laboratory to form 2 m composited samples.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> For the AZC 2012/13 programme aircore drilling was used. Previous exploration used reverse circulation and aircore drilling methods. All drillholes are vertical.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 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"> AZC site geologist reported good recoveries for all samples.
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. 	<ul style="list-style-type: none"> All 2012/13 aircore samples logged by AZC site geologist for colour, lithology and induration (as qualitative data) and estimated heavy mineral content.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged. 	
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. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • All AZC 2012/13 aircore samples were collected over 1 m intervals. • Samples were selected from the Parilla Sand that were estimated to contain THM of over 1%. • These samples were riffle split and combined at the assay laboratory to form 2 m composited samples. • The analysis was carried out on a nominal 500 g riffle split
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"> • Industry standard method used for particle size separation. • Industry standard methods used for heavy liquid separation of the total heavy mineral fraction. • Field and laboratory duplicates submitted as blind samples indicated good levels of precision for the AZC 2013/13 drilling programme.
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • A twin-drilling programme was completed by AZC in 2006. • Data from the CRAE drilling campaigns was extracted from Victorian Government database. • The AZC 2006/07 and 2011 data was provided as Excel spreadsheets and imported by Optiro. • 2012/13 data was imported by Optiro from the laboratory datasheets. • Data validation included checking for out of range assay data and overlapping or missing intervals.
Location of data points	<ul style="list-style-type: none"> • 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. • Specification of the grid system used. 	<ul style="list-style-type: none"> • National MGA94 (54S) grid system used. • AZC 2012/13 drillholes were surveyed using DGPS by Ferguson Perry Surveying Pty Ltd to approximately ± 0.02 to 0.03 m for horizontal and ± 0.03 to 0.04 m for vertical accuracy.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> AZC 2006/07 and 2011 drillholes were surveyed by a handheld GPS. Previous CRAE drillholes surveyed by chain and compass
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Not relevant . Mineral Resource defined for Feasibility Study.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> All drillholes are vertical. Flat sheet like ore body and so no sampling bias.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All AZC samples were sorted and placed in sealed bags on private land. Samples securely packed and sent to laboratory by courier.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Twin hole drilling programme undertaken by AZC in 2006; results reviewed by Snowden.

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"> EL4521 and RL2007 (application). In 2004, Austpac entered into a joint venture agreement with AZC (previously Southern Titanium NL) that requires AZC to complete a Feasibility Study in return for an 80% equity in the project. In 2012, Orient Zirconic Resources (Australia) Pty Ltd purchased EL4521 from Austpac Resources NL and is now AZC's farm-in partner.
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"> Drilling data collected by CRAE from 1979 to 1995.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> WIM-style mineralisation, fine-grained heavy mineral deposit within

Criteria	JORC Code explanation	Commentary
		Parilla Sand.
<i>Drill hole Information</i>	<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 drillhole 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, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> • Tabulation of drillhole collar information and total depth included as Appendix A to this report. • All drillholes are vertical.
<i>Data aggregation methods</i>	<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"> • Not relevant . Mineral Resource defined for Feasibility Study.
<i>Relationship between mineralisation widths and intercept lengths</i>	<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 drillhole 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"> • Flat sheet like ore body intersected by vertical drillholes. • Not relevant . Mineral Resource defined for Feasibility Study.
<i>Diagrams</i>	<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"> • Not relevant . Mineral Resource defined for Feasibility Study.
<i>Balanced reporting</i>	<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"> • Not relevant . Mineral Resource defined for Feasibility Study.

Criteria	JORC Code explanation	Commentary
<i>Other substantive exploration data</i>	<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 deleterious or contaminating substances. 	<ul style="list-style-type: none"> Not relevant . Mineral Resource defined for Feasibility Study.
<i>Further work</i>	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Further work would involve drilling on a 400 m by 400 m to upgrade Indicated Mineral Resource to a Measured classification. Additional exploration work would involve aircore drilling around periphery of deposit.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Date entry by geologist, checked by geological supervisor and additional checking and validation by resource geologist. Data validation included checking for out of range assay data and overlapping or missing intervals.
<i>Site visits</i>	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Site visit undertaken during March 2013 by independent consultant (Competent Person for the Mineral Resource estimate). Site visit completed when large diameter core was obtained for the bulk density testwork.
<i>Geological interpretation</i>	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> High level of confidence in the interpretation of the mineralised horizon. All available geological data used to interpret overlying Shepparton Formation, Parilla Sand (that contains mineralisation) and underlying Geera Clay and localised coal. THM mineralisation has been defined above a nominal cut-off grade of 1% THM.
<i>Dimensions</i>	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> Flat sheet like ore body that extends for 10 km north-south and 12 km east-west. Thickness of mineralisation ranges from 2 m to 22 m with an average thickness of 11.2 m.

Criteria	JORC Code explanation	Commentary
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> Thickness of overlying Shepparton Formation ranges from 1 m to 13 m with an average thickness of 6.8 m. Drillhole sample data was flagged from a three dimensional interpretation of the mineralised horizon. Sample data was composited to a 2 m downhole length. The influence of slimes and oversize high grades outliers was reduced by top-cutting. The top-cut level was determined using a combination of top-cut analysis tools including examination of grade histograms; log probability plots and the coefficient of variation. THM mineralisation continuity was interpreted from variogram analyses to have an along strike range of 3,000 m and an across strike range of 1,200 m. Zircon, monazite and xenotime have high to moderate positive correlations and rutile has a low, positive correlation with rutile. The VHM continuity was interpreted from variogram analyses to have an along strike range of 1,350 m and an across strike range of 600 m. Kriging neighbourhood analysis was performed in order to determine the block size, sample numbers and discretisation. Grade estimation was into parent blocks of 200 mE by 200 mN on 2 m benches. Estimation was carried out using ordinary kriging at the parent block scale. Three estimation passes were used for THM, slimes and oversize; the first search was based upon the variogram ranges that account for approximately 80% of the variability domain in the three principal directions; the second search was 1.5 times the initial search and the third search was two times the initial search, with reduced sample numbers required for estimation. The majority of blocks (75%) were estimated in the first pass. The THM, slimes and oversize estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the declustered drillhole data and by northing, easting and elevation slices. VHM data are from single drillhole composites. Three estimation passes were used for VHM; the first search was based upon the variogram ranges the two principal horizontal directions; the second search was two times the initial search and the

Criteria	JORC Code explanation	Commentary
		<p>third search was seven times the initial search, with reduced sample numbers required for estimation. The majority of blocks (63%) were estimated in the first pass.</p> <ul style="list-style-type: none"> The VHM estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the declustered drillhole data and by northing and easting slices. <ul style="list-style-type: none"> The global ordinary kriged THM estimate was compared to an inverse distance cubed estimate
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages estimated using dry density measurements. Moisture content determined from 2013 testwork of 58 samples taken from five wide diameter drillholes across the WIM150 deposit.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The Mineral Resources are reported above a 1% THM cut-off grade, to reflect current commodity prices and open pit mining methods.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> Planned extraction is by open pit mining. Mining factors such as dilution and ore loss have not been applied. The Mineral Resource has been reported within EL4521 and excludes exclusion zones relating to lakes and to the environmentally sensitive area at Potters Creek, and the Western Highway. Mining study has been completed as part of the Feasibility Study.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> A processing study has been completed as part of the Feasibility Study. Testwork undertaken by Mineral Technologies indicates recovery of HM from the +20 µm fraction can be achieved. Mineralogical work for the Feasibility Study was carried out by Amdel using QEMSCAN with particle classification rules developed in conjunction with process engineers from CPG Resources. Particle classification data used for Mineral Resource estimation of VHM components.
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and 	<ul style="list-style-type: none"> Environmental studies have been completed as part of the Feasibility Study. The Mineral Resource excludes exclusion zones relating to the lakes and to the environmentally sensitive area at Potters Creek, and the

Criteria	JORC Code explanation	Commentary
	<i>processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i>	Western Highway.
Bulk density	<ul style="list-style-type: none"> • <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i> • <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> • <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> • Mineral Resource tonnages estimated using dry density measurements of the Parilla Sand from 2013 testwork of 58 samples of core of around 10 cm length taken from five wide diameter (200 mm) drillholes across the WIM150 deposit. • No consistent trend with depth and geological logging indicates there is no trend with estimated THM contents. • Data confirmed dry density measurements taken by AMC during 2011. • Average density values determined for the Shepparton Formation, Parilla Sand and Geera Clay.
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> • The THM Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (kriging efficiency). • Measured Mineral Resources have been defined generally in areas that were tested by the AZC 2012/13 drilling programme and where these drillholes are not more than 400 m apart. • Indicated Mineral Resources have been defined generally in areas that were not tested by the AZC 2012/13 drilling programme, and have with a drill spacing of less than 600 m. • Inferred Mineral Resources have been defined in areas with sparser drilling. • The variability of the zircon, monazite, xenotime, rutile, ilmenite and leucoxene is low and the classifications applied to the THM Mineral Resources have been applied to the zircon, monazite, xenotime, rutile, ilmenite and leucoxene concentrations. • The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • The geological interpretation, estimation parameters and validation of the resource models were peer reviewed by Optiro staff.
Discussion of relative	<ul style="list-style-type: none"> • <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach</i> 	<ul style="list-style-type: none"> • The assigned classification of Measured, Indicated and Inferred reflects the Competent Person's assessment of the accuracy and

Criteria	JORC Code explanation	Commentary
accuracy/ confidence	<p>or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</p> <ul style="list-style-type: none"> 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<p>confidence levels in the Mineral Resource estimate.</p> <ul style="list-style-type: none"> The confidence levels have been assigned to the parent block size.

Section 4 Estimation and Reporting of Ore Reserves

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> The Mineral Resource Estimate used is classified a JORC 2012 Mineral Resource statement as per Australian Zircon NL, WIM150 Project-Mineral Resource estimate was completed by Christine Standing of Optiro. The Mineral Resources are reported inclusive of the Ore Reserves and are as stated in the WIM150 Mineral resource statement-section 6 of the Feasibility Study.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Site visit undertaken in March 2013 by Christine Standing (the Competent Person for Mineral Resource assessment) As no mining has yet taken place at the site no further information gathering would have resulted from a second site visit by the Reserves Competent Person.
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. 	<ul style="list-style-type: none"> The level of study is to Feasibility Study. The Ore Reserves are 552 Million tonnes of Ore at 4.3% HM grade for 24.0 Million HM tonnes The Feasibility Study contains a technically achievable mine plan, which is also economically viable at a marketable price. Several appropriately

Criteria	JORC Code explanation	Commentary
	<p><i>Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></p>	<p>detailed assessments of the modifying factors have also been considered in the process of the study. Operational factors have been assessed, and a detailed financial analysis completed.</p>
<p><i>Cut-off parameters</i></p>	<ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> The cut-off grade in the case of WIM150 has been calculated using spreadsheets and optimisation software (due to the complexity of the calculations), and an individual cut-off grade applied to each block within the model. The calculations consider, among other considerations, individual mineral and product values, operating costs and practicalities (including ore and overburden variability) and recoveries. Due to the complexity of the calculation method, the calculation method is explained in detail in the complete Ore Reserve document.
<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc.), grade control and pre-production drilling.</i> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> 	<ul style="list-style-type: none"> The dozer push method has been chosen as the appropriate method to base the Feasibility Study to convert Mineral Resources to Ore Reserves. The Dozer push method is used in similar operations in the Murray Basin Region. Appropriate factors have been added to the Mineral Resource, which has been optimised using NPVS Optimisation software. The choice of the Dozer push method was deemed appropriate due to the ore thickness, access, and nature of the geology. Similar mining methods are also used in the geographical area adjacent to the mining areas proposed. Assumptions regarding geotechnical parameters are based on design parameters recommended by AMC (AMC, 2012b and stated in the ATC Williams report). Details are outlined in the in-pit tails disposal section in the Ore Reserve document. The bund ratio used is 2.5:1, H: V (incorporating an access ramp). In pit bund angles are outlined in ATC Williams Reports (dated 14th March 2013). Major assumptions include slope angle of 2.5:1 for optimisation parameters and Mineral Resource model used is WIM150_june13 (Datamine model) Mining dilution factors (5%) are assumptions made using similar mining operations and mining techniques. The dilution factor has been applied

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>The mining recovery factors used. Any minimum mining widths used.</i> • <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> • <i>The infrastructure requirements of the selected mining methods.</i> 	<p>to the tonnes scheduled. Ore Reserve tonnes reported in this statement are inclusive of any dilution and loss.</p> <ul style="list-style-type: none"> • Mining recovery factor is calculated using in-pit bund ore loss (1.5%) and ore loss between ore and waste boundary-calculated at conservative 0.15m loss between boundariesq(1.5%) Minimum mining width is calculated on dozer width, and MUP input parameters of 7m feeder dimension, and dozer blade width of 6.3 meters • Inferred resources are not used in the Ore Reserve output, however were included in a second ore schedule and evaluation. The operation is viable based on Indicated and Measured material only. Inferred material adds a further 0.17Mt at 4.5%HM (or 0.03% ore increase). • Infrastructure requirements of the selected mining method are included in the Ore Reserve document, and detail Infrastructure requirements including site preparation incorporating topsoil and subsoil removal, as well as construction of appropriate roads and drainage, and establishment of power supply and appropriate safety systems. Further infrastructure developments required include buildings-such as service, administration and workshop facilities, with appropriate ablution facilities. Transport infrastructure for Sea and Rail has also been considered in detail in the Ore Reserve document, and is considered to be well established. A summary of infrastructure requirements includes: <ul style="list-style-type: none"> • Administration buildings • Workshops and Stores-including fuel and lubrication facilities • Laboratory • Site access roads • Re-alignment of Wal Wal road • Development of Western Hwy junctions • Hydrocarbon and distribution facility • Light vehicle fleet • Mining Unit Plant (MUP) • Wet Concentrator Plant (WCP) • Mineral Separation Plant (MSP) • Zircon Upgrade Plant (ZUP) This list is not conclusive and more detail is listed in the complete Reserve Report.

Criteria	JORC Code explanation	Commentary
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> <i>Any assumptions or allowances made for deleterious elements.</i> <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i> 	<ul style="list-style-type: none"> The metallurgical process and appropriateness of the process is outlined in a process map by Mineral Technologies, and due to its complexity is detailed in the Ore Reserve document. However the process has been utilised in similar operations. The only modifications to the circuit is the use of a sizer to help break down the ore clumps received from the mining area. The sizer is a well-known piece of equipment specifically designed for the clay environment and used around the world. The second modification includes a Zircon upgrade, to decrease radionuclide levels of the Zircon below 500 ppm. More detail of this process is contained in the Ore Reserve report. The Metallurgical process is well tested and commonly used in similar operations worldwide. Two Bulk samples were used for metallurgical test work. A Run of Mine sample, which was processed through a pilot-scale continuous scrubbing, screening and de-sliming circuit to prepare suitable gravity circuit feed by removing trash oversize (nominally +2.0mm) and slimes (nominally -20µm). This circuit simulated the Mining Unit Plant and de-sliming process circuits. Metallurgical Domains applied are sorted into heavy mineral grade (+20µm basis), and low mineral grade (-20µm basis). Metallurgical recoveries applied are commercially sensitive in nature, so only an overall process recovery will be stated. The total HM into the plants is 24.8 M tonnes, and Product out of the plants calculated at 16.9 M tonnes, implying an overall saleable product recovery of 68%. Deleterious materials include oversize material and mildly radioactive material, which will be returned into the pit as backfill and capped by existing overburden. Two Bulk samples were used for metallurgical test work. A Run of Mine sample was processed through a pilot-scale plant. The sample is considered to be representative.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> 	<ul style="list-style-type: none"> The Ore Reserve estimation has been based on the recovery and processes outlined above which are well tested, and established as being appropriate for similar metallurgical specifications.
<i>Environmental</i>	<ul style="list-style-type: none"> <i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization 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.</i> 	<ul style="list-style-type: none"> Various Environmental Studies (noise, radiation, rehabilitation assessment, socioeconomic assessment, traffic and transport assessment, cultural, ecological, flora, fauna and land use planning) have been completed by Coffey Environmental and associated specialist consultants, as part of the Environmental Effects Statement process. This process is nearing completion, after which AZ will be in a position to apply for the appropriate permits. It is considered that the approvals will be in place within the time period before project commencement, as the prerequisite studies and reports have been undertaken by AZC. Similar approvals have been granted for operations in the Murray Basin Region.
<i>Infrastructure</i>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> The mining area is close to existing infrastructure, and similar operations exist in the vicinity. The independent studies completed by Downer EDI indicate site preparation, including plant development; power, water, transportation and construction of appropriate roads and drainage, in addition to required labour and accommodation shall be readily available to AZC as required for timely commencement of the operation.
<i>Costs</i>	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> <i>The methodology used to estimate operating costs.</i> 	<ul style="list-style-type: none"> Project capital costs have been accounted for and are detailed within the report. In summary the Capital value was established using cost estimates for, Civil, Earthworks, Mining and Engineering Equipment, MUP, WCP, MSP, ZUP, EPCM, Infrastructure and 8.5% contingency costs. Capital Costs have been estimated at A\$527M. Project operating Costs have been determined to Feasibility Study level, using calculations from first principles and industry quotations. All cost estimates have been benchmarked against industry practice. Optiro have had access to both the unit costs, which pertain to individual areas of activity and to detailed cost breakdowns. Overall, total site operating cost over the first 5 years of production will amount to approximately A\$10-12/tonne of ore mined. These costs equate to approximately 45%

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>Allowances made for the content of deleterious elements.</i> • <i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products</i> • <i>The source of exchange rates used in the study</i> • <i>Derivation of transportation charges.</i> • <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> • <i>The allowances made for royalties payable, both Government and private.</i> 	<p>of gross revenue.</p> <ul style="list-style-type: none"> • Deleterious elements are to be contained in the in pit tails facility as backfill, and are budgeted for accordingly. The assumed cost is included in process and mining costs associated with the placement of the material • AZR have in place MOU^o and contracts for sale of various commodities produced at WIM150, at varied proportions of product volume. For the purpose of the Reserve financial calculations the contract prices are commercially in confidence, but are within 15% of the discussed price estimates shown below. • Exchange rates used are A\$0.98-US\$1.00 and were the current rate of the day. • Transportation charges are detailed in the infrastructure report and budgeted for accordingly. The transportation charges are included in the selling costs. . The selling costs include provision for bagging, handling, transport to port, and port costs. All product prices have been derived on an FOB basis and as such shipping prices have not been included. • Forecasting of treatment and refining charges are based on estimates on the tested products during the metallurgical testing process. Penalty^o for failure of specification varies dependent on the product, but will result in price decreases, dependent on the specifications. This is further explained in the Market assessment section of this JORC table1 • Allowances made for royalties 2.75% of Net Market Value (NMV) (rev-selling cost).
<p><i>Revenue factors</i></p>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Revenue factor assumptions for commodity prices, exchange rate, and transport and treatment charges are outlined in the marketing section of this table.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> Assumptions on commodity pricing for AZC are commercially sensitive and not widely available to the market. The pricing has been assessed by an independent expert in the field of Mineral sand pricing.
<p>Market assessment</p>	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. 	<ul style="list-style-type: none"> Due to the range of products produced by AZC's WIM150 project, only the key products are assessed, further detail is contained in the Ore Reserve report and Feasibility Study. The present market for zircon is unstable and has ranged from \$900/tonne to \$2400/tonne, although some stability has returned to the market over the last few months with less product availability. Titanium Minerals are expected to maintain prices and a shortage of product may require new projects to come on stream by 2016-2018. Ilmenite (with content TiO₂-44-55%) has remained in the price range of \$30-300 in previous years-with a sharp increase from 2011 onwards, due to a tightening of supply. The \$200-300 price range is expected to be the new normal price range for Ilmenite, as long as pigment prices are not forced down by end markets. The forecast for 2013-2020 is for a steady increase in prices, AZC Ilmenite, with some adverse quality aspects is expected to be \$200-450 \$US/tonne. <p>Rutile prices are seen as more volatile than Ilmenite due to a number of factors. There are several competing and interacting feed stocks for its use. Rutile (with some exceptions) is not the main feed stock, but is a preferred feedstock for Titanium metal production, driven by demand from the aircraft industry. The Rutile price curve for 1985-2013 ranges from \$300-2500, with a marked increase (not unlike Ilmenite) in 2012. The price for many contracts during 2011-2012 was in excess of \$2500/tonne. Factors which influence the assumptions made for Rutile price include increasing economic growth and increasing TiO₂ production, growth in titanium metal production, completion of a new plant in China from 2015, predicted US inflation increases, restart of production by RBM and Iluka. Availability and timing of Rutile production, and pricing policy by major suppliers. Taking these factors into account, it is expected Rutile Price will trend between \$1000-2400 from 2013-2020.</p> <p>The Market for Rare Earth minerals appears to have had renewed growth in the last few years due to China's increased hold on the Rare</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • Price and volume forecasts and the basis for these forecasts. • A customer and competitor analysis along with the identification of likely market windows for the product. 	<p>Earths market (restricting product sales), and China placing a permanent limit on exporting Rare Earth (China has the largest Mineral resource base) and therefore creating a shortage. Many analysts forecast a shortage in europium, dysprosium, terbium, neodymium and praseodymium, whereas lanthanum and cerium are forecast to be in continuing oversupply. A conservative growth forecast would relate growth of Rare Earth demand to the GDP of China. It is estimated by one industry expert that the Rare Earth demand will increase by 7%, due to a number of factors affecting demand. The price forecast for Rare Earths is dependent on pricing for the different rare earth elements.</p> <p>The independent data assessment was completed by Warwick Bartle (Mineral Sands executive, experienced in Mineral sand sales). The demand for the various commodities had been researched, modeled and the subsequent reports contain references to independent sources. Contract agreements are demonstrated in Marketing documents contained in the Reserve report and are commercially sensitive.</p> <ul style="list-style-type: none"> • Price and volume forecasts are addressed in the previous paragraph • AZC’s WIM150 project is just one of many titanium and zircon projects, some others which should go into production in the near to medium future include (only the most likely to proceed are included): <ol style="list-style-type: none"> 1. Astron Limited, which has neighboring deposits to AZC in Victoria. Astron has completed a Feasibility Study and has plan to ship to China where it has established relationships. All output will be sold to China. It is a direct competitor to AZC 2. Gunson Resources, which has the Coburn deposit in Shark bay, WA. A Feasibility Study was completed in 2010, and through its arrangement with du Pont; the project is likely to proceed in the next two years. The Rutile will compete with AZC’s Rutile. 3. Matilda Zircon, which has Keysbrook deposit south of Perth. Commissioning is expected to commence late in 2013 or early in 2014 and the mine will last for 9 years. The zircon is standard quality and would compete with AZC zircon. 4. White Mountain Titanium Corporation, Santiago, Chile: Have several tenements in the Cerro Blanco region of

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<p>northern Chile. No clarity is established on the time frame for production, but it is expected to proceed in the near future. Sales will be in chloride pigment and two contract have already been signed. They should have little effect on AZC.</p> <p>5. World Titanium Resources has Ilmenite-rich deposits in SW Madagascar. Mining licences have been issued and the production target is 2014. The sulphate Ilmenite will compete with AZC Ilmenite and the rutile and zircon products, which it is thought will be processed in China or SE Asia, will also compete with AZC.</p> <ul style="list-style-type: none"> The current market acceptance is for zircon with less than 500ppm U+Th. AZC material will require further processing to reach these levels. This processing will occur in the ZUP. Testing has shown that this process is successful at reducing U+Th levels to an amount acceptable to the market. And that this process has been fully costed into the project. Discounts have been applied to the titanium products to account for contained contaminants
<p><i>Economic</i></p>	<ul style="list-style-type: none"> <i>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.</i> <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i> 	<ul style="list-style-type: none"> Considering the factors addressed in the cost breakdown, The estimated inflation, market data, applied discount rates have all been researched by independent consultants, we feel the confidence in the NPV is between -10-15% for this study due to the level of information used in the calculation parameters. The NPV has a positive revue of an acceptable value dependent on the price of the input commodities. Optiro believes the NPV is sufficient to commence mining in the timeframe of project approvals. NPV range and sensitivity to assumptions was analyzed simplistically by a range of NPV output, at a range of Sensitivity\$. The largest impact to the NPV is indicated (in the sensitivity chart) to be the price of various commodities. The NPV range of -10% to +10% (commodity price change) indicates a NPV range of \$233 Million -\$570 Million, other various sensitivity\$ on the project include opex increase and decrease (\$323Million-\$481 Million), and grade increase/decrease (\$267-\$538 Million).

Criteria	JORC Code explanation	Commentary
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> Agreements with Stakeholders are not yet formally in place but have been assessed and a strategy formulated. Appropriate studies have identified and informed key stakeholders and at the time of writing no impediment to the Ore Reserve are envisaged.
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. 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. 	<ul style="list-style-type: none"> No identifiable naturally occurring risks have been identified to impact the Ore Reserves. Marketing arrangements are commercially sensitive but include a farm in agreement with JV partners for purchase of 50% of the planned production output, as well as agreements with other parties to purchase AZC's production of Zircon and Rare Earth Concentrates. Government agreements include: EL4521 granted and RLA2007-application pending, it is expected this will be issued within the time frame of mining commencement. A Mining lease will be applied for twelve months prior to mine commencement; due to the process of license applications in Victoria. No delay to mine commencement is expected. An application to export controlled ores must be obtained prior to approval (material containing 500PPM or more uranium or thorium by weight). The application must adhere to certain conventions in regards to DRET applications, and sales to countries ensuring compliance with Australia's nuclear safeguards and non-proliferation obligations. The company is currently in the final stages of completing its environmental effects statement (EES).
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> Mineral Resources converted to Ore Reserves as per JORC 2012 guidelines, i.e. Measured to Proven, Indicated to Probable. No downgraded in category has occurred for this project. The result reflects the Competent Person's view of the deposit. No Measured Mineral Resources have been converted to Probable Ore Reserves.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> The Ore Reserve has been calculated by Independent consultants Optiro and internal peer review undertaken. Various independent contractors have undertaken inputs into the ore reserve estimate and

Criteria	JORC Code explanation	Commentary
<p>Discussion of relative accuracy/confidence</p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> • <i>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.</i> • <i>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.</i> 	<p>consulting firms. AZC, independent experts and Optiro have reviewed all this data.</p> <ul style="list-style-type: none"> • Geostatistical metrics (kriging efficiently and regression slope) were applied to obtain a qualitative assessment of the accuracy and confidence level of the Ore Reserve estimate. Statistical analysis indicates an appropriate level of confidence in the accuracy of the local grade estimates (on a parent block scale) as implied by the Proven and Probable classification. • The accuracy takes in to account local estimates. Tonnages are assessed on the Ore Reserve data of 552M Ore tonnes. Assumptions made and procedures used are as previously mentioned in this table • The Accuracy and confidence of the Ore Reserve figure is deemed to be quite high, and areas of uncertainty are downgrade due to nature of the data accuracy (quotes are use in most cases), and calculations from first principles, as well as the confidence in the Mineral Resource model. • No statement has been prepared due to the Greenfield status of the operation at time of writing.