



Manager of Company Announcements  
ASX Limited  
20 Bridge Street  
SYDNEY NSW 2000  
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By e-lodgement

**DONALD MINERAL SANDS PROJECT – REVIEW OF URANIUM/THORIUM  
WASH PROCESS AND PROVED ORE RESERVE UPDATE**

**Summary**

A third party technical expert review of Astron's proposed zircon washing process has affirmed that the washing process is feasible and capable of reducing the impurities in the Donald zircon sand, to produce a premium zircon product. This has enabled the company to declare an Ore Reserve classified in the Proved category as defined by the JORC Code<sup>1</sup>. It also enables the company to progress to its next step of constructing a mini-production plant for the zircon washing process, to finalise the engineering for a full-scale plant.

Commenting on this milestone, Astron CEO Hayden Stockdale said: "This is a major development for Astron. It represents a significant de-risking of the Donald Project and progresses us ever closer to financing and developing one of the largest titanium and zircon deposits in the world."

**Zircon Washing Process**

Astron Corporation Limited (ASX: ATR) engaged independent technical consultants Mineral Engineering Technical Services Pty Ltd (METS) to conduct a review of the company's proposed hot acid leaching process including its efficiency, engineering, estimated capital expenditure and operating costs. This leaching process is designed to reduce the level of uranium and thorium in the company's Donald zircon product from around 1,000 parts per million (ppm) to around 500 ppm, as well as to minimize impurities such as iron, titanium, aluminium and phosphorus.

METS have completed this review and concluded that i) there are no fatal flaws preventing the processing of zircon to achieve a saleable product, and ii) the project is reasonable, sensible, prudent and produces a premium zircon which will be saleable.

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<sup>1</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 Edition, prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia.

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As a consequence Astron has upgraded the Ore Reserve in the area of the Mining Licence (MN5532) from a Probable Ore Reserve to a Probable and Proven Ore Reserve.

### Proved Ore Reserve Update

Donald Mineral Sands Pty Ltd (DMS), a fully owned subsidiary of Astron Corporation Limited, engaged AMC Consultants Pty Ltd (AMC) to undertake an ore reserve estimation. The ore reserve estimate is based on a Mineral Resource that pre-dates that contained in the company's 1 December 2011 announcement.

The Ore Reserve, set out in Table 1, is geographically limited to the Exploration Licence (EL4433, granted on 16 December 2009, owned by DMS). The Mining Licence (ML5532) is contained wholly within the Exploration Licence (EL4433). The Mineral Resource used in the estimation of the Ore Reserve for EL4433 is set out in Table 2.

**Table 1: Donald Mineral Sands Ore Reserve for EL4433**

Classification	Tonnes (Mt)	HM (%)	Slimes (%)	Zircon (%HM)	Rutile (%HM)	Ilmenite (%HM)	Leucoxene (%HM)
<b>Within MN5532</b>							
Proved	141	5.9	15.4	19.4	7.0	32.9	20.3
Probable	48	5.7	14.0	19.9	7.1	33.3	21.7
<b>Total within MN5532</b>	<b>189</b>	<b>5.8</b>	<b>15.1</b>	<b>19.5</b>	<b>7.0</b>	<b>33.0</b>	<b>20.6</b>
<b>Within EL4433 outside of MN5532</b>							
Proved	9	4.2	15.4	14.8	9.3	35.2	20.3
Probable	263	5.9	16.7	18.8	7.9	34.0	17.7
<b>Total within EL4433 outside of MN5532</b>	<b>272</b>	<b>5.9</b>	<b>16.7</b>	<b>18.7</b>	<b>8.0</b>	<b>34.0</b>	<b>17.8</b>
<b>Total within EL4433</b>							
Proved	150	5.8	15.4	19.2	7.1	33.0	20.3
Probable	311	5.9	16.3	19.0	7.8	33.9	18.3
<b>Total within EL4433</b>	<b>461</b>	<b>5.9</b>	<b>16.0</b>	<b>19.1</b>	<b>7.5</b>	<b>33.6</b>	<b>18.9</b>

Note:

1. The ore tonnes have been rounded to the nearest 1 Mt and grades have been rounded to one decimal place.
2. The Ore Reserve is based on Indicated and Measured Mineral Resource contained within mine designs above an economic cut-off.
3. The economic cut-off is defined as the value of the products less the cost of processing.
4. Mining recovery and dilution have been applied to the figures above.
5. The mining licence is wholly within the exploration licence.

**Table 2: Donald Mineral Sands Mineral Resource for EL4433**

Classification	Tonnes (Mt)	HM (%)	Slimes (%)	Oversize (%)	Zircon (% HM)	Rutile (% HM)	Ilmenite (% HM)	Leucoxene (% HM)
<b>Within MN5532</b>								
Measured	239	5.1	15.1	17.4	18.9	6.8	32.4	20.8
Indicated	85	5.0	14.0	16.1	20.1	6.5	33.5	21.7
Inferred	10	4.7	14.0	13.8	21.0	10.0	35.9	15.7
<b>Total within MN5532</b>	<b>334</b>	<b>5.1</b>	<b>14.8</b>	<b>17.0</b>	<b>19.3</b>	<b>6.8</b>	<b>32.8</b>	<b>20.9</b>
<b>Within EL4433 outside of MN5532</b>								
Measured	7	5.4	16.0	13.3	15.9	8.6	32.6	21.0
Indicated	447	4.9	16.3	14.9	17.8	7.0	33.9	17.9
Inferred	796	5.4	14.4	6.7	18.3	9.8	33.4	15.5
<b>Total within EL4433 outside of MN5532</b>	<b>1,250</b>	<b>5.2</b>	<b>15.1</b>	<b>9.7</b>	<b>18.1</b>	<b>8.9</b>	<b>33.6</b>	<b>16.3</b>
<b>Total within EL4433</b>								
Measured	246	5.1	15.1	17.3	18.8	6.9	32.4	20.8
Indicated	532	4.9	15.9	15.1	18.2	6.9	33.8	18.5
Inferred	806	5.4	14.4	6.8	18.3	9.8	33.4	15.5
<b>Total within EL4433</b>	<b>1,584</b>	<b>5.2</b>	<b>15.0</b>	<b>11.2</b>	<b>18.4</b>	<b>8.4</b>	<b>33.4</b>	<b>17.3</b>

Note:

1. The Mineral resource is based on the material above a cut-off grade of 1% HM.
2. The tonnes have been rounded to the nearest 1 Mt and grades have been rounded to one decimal place.

### Competent Persons Statements

The information in this report relating to Mineral Resources is based on information compiled by Mr Rodney Webster. Mr Webster is a full time employee of AMC Consultants Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Webster has sufficient experience relevant to this style of mineralisation and type of deposit under consideration, and to the activity he undertook to qualify as a Competent Person as defined in The JORC Code, 2004 Edition.

The information in this report relating to Ore Reserves is based on information compiled by Mr Pier Federici. Mr Federici is a full time employee of AMC Consultants Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. Mr Federici has sufficient experience relevant to this style of mineralisation and type of deposit under consideration, and to the activity he undertook to qualify as a Competent Person as defined in The JORC Code, 2004 Edition.

The metallurgical factors and assumptions, associated with the Minerals Processing Plants excluding the Zircon Washing Process, used in producing the Ore Reserve Estimate have been reviewed and accepted by Mr Arno Kruger. Mr Kruger is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of Robbins Metallurgical Pty Ltd. Mr Kruger has sufficient experience relevant to the style of mineralization and type of deposit, and to the activity he undertook to qualify as a Competent Person as defined in The JORC Code, 2004 Edition.

The metallurgical factors and assumptions, associated with the Zircon Washing Process, used in producing the Ore Reserve Estimate have been reviewed and accepted by Mr Damian Connelly. Mr Connelly is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of Mineral Engineering Technical Services Pty Ltd. Mr Connelly has sufficient experience relevant to the style of mineralization and type of deposit, and to the activity he undertook to qualify as a Competent Person as defined in The JORC Code, 2004 Edition.

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