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## Increase in Mt Weld Resource Estimate for the Central Lanthanide Deposit and Duncan Deposit

### Highlights

- **The Mineral Resource estimate for Mount Weld is now 23.9 million tonnes, at an average grade of 7.9% REO, for a total of 1.9 million tonnes REO. This represents a 37% increase versus the previous Resource estimate announced in September 2010 and a 34% increase in contained REO. This Resource is comprised of the Central Lanthanide Deposit and the Duncan Deposit.**
- **The Resource estimate for the Central Lanthanide Deposit has increased by 51% to 14.9 million tonnes, at an average grade of 9.8% REO, for a total of 1.5 million tonnes REO. This represents a 38% increase in contained REO.**
- **The Resource estimate for the Duncan Deposit has increased by 18% to 9.0 million tonnes, at an average grade of 4.8% REO, for a total of 431,600 tonnes REO. This also represents an increase of 18% in contained REO.**
- **Preliminary process test work on the Duncan deposit continues.**

Following the results of the extension drilling program at Mount Weld announced in September 2011, the Board of Lynas Corporation Limited (ASX:LYC, OTC:LYSDY) is pleased to announce a significant increase in the Mount Weld Mineral Resource estimate at both the Central Lanthanide Deposit and the Duncan Deposit.

### THE CENTRAL LANTHANIDE DEPOSIT - CURRENT OPERATION

The existing Rare Earths operation is based on a mine plan covering a high grade Rare Earths Oxide (REO) zone in the centre of the Mount Weld Carbonatite, this area is within the Central Lanthanide Deposit (CLD). The CLD has a Resource, above a REO cut-off of 2.5%, of 14.9 million tonnes at an average grade of 9.8% REO for a total of 1,460,000 tonnes REO.

The Resource estimate for the CLD is 51% higher versus the 6 September 2010 Resource estimate which was 9.9 million tonnes, at an average grade of 10.7% REO, for a total of 1,057,000 tonnes REO. Table 1 shows the updated classification of the Mineral Resource for the CLD. The Rare Earths distribution of the CLD is shown in Table 5.

**TABLE 1: CLASSIFICATION OF MINERAL RESOURCES FOR THE CENTRAL LANTHANIDE DEPOSIT**

Central Lanthanide Deposit Category	'000 tonnes	REO (%) *
Measured	6,873	12.2
Indicated	6,983	8.1
Inferred	1,093	4.6
<b>Total</b>	<b>14,949</b>	<b>9.8</b>

\* REO (%) includes all the lanthanide elements plus Yttrium



The recent drilling program on the western side of the CLD has increased the confidence levels in the resource with a large portion of the resources in the measured and indicated categories. In the first half of 2012 metallurgical test-work, pit optimisation and design work will be carried out with a view of bringing some of the resources defined by the recent drilling into the ore reserves.

### THE DUNCAN DEPOSIT

The Duncan deposit is located immediately to the east and south of the Central Lanthanide Deposit.

The Duncan Deposit has an estimated Resource of 9.0 million tonnes at a grade of 4.8% REO for a total of 431,600 tonnes REO with a distribution biased more towards high value heavy Rare Earths. A cut-off grade of 2.5% REO has been used for the Duncan Deposit.

The latest Resource estimate represents an 18% increase from the 6 September 2010 Resource estimate. Table 2 shows the classification of Mineral Resource for the Duncan Deposit.

**TABLE 2: CLASSIFICATION OF MINERAL RESOURCES FOR THE DUNCAN DEPOSIT**

Duncan Deposit Category	'000 tonnes	REO (%) *
Measured	4,499	5.1
Indicated	3,925	4.7
Inferred	569	3.7
<b>Total</b>	<b>8,992</b>	<b>4.8</b>

\* REO (%) includes all the lanthanide elements plus Yttrium

The average REO distribution of the Duncan Deposit is shown in Table 5. The Duncan Deposit is a shallow deposit and could easily be exploited using open cut mining methods. Preliminary metallurgical test-work has begun on the Duncan Deposit to determine if the rare earths, in particular the heavy rare earths, can be economically extracted from the mineralisation. Most of the Duncan Deposit is in the measured and indicated category giving a high level of confidence in the Resource estimate.

The Duncan Deposit is open to the east and south-west with a high likelihood that further drilling would increase the size of the Duncan Deposit.

### THE COMBINED CENTRAL LANTHANIDE DEPOSIT AND DUNCAN MINERAL RESOURCE ESTIMATE

The combined Rare Earths Resource estimate for the Central Lanthanide Deposit and the Duncan Deposit at Mount Weld is 23.9 million tonnes at 7.9% REO, at a cut-off grade of 2.5% REO, giving a total Resource of 1.9 million tonnes REO (Table 3).

**TABLE 3: CLASSIFICATION OF THE RARE EARTHS MINERAL RESOURCES AT MOUNT WELD**

Category	'000 tonnes	REO (%) *
Measured	11,372	9.4
Indicated	10,908	6.9
Inferred	1,662	4.3
<b>Total</b>	<b>23,941</b>	<b>7.9</b>

\* REO (%) includes all the lanthanide elements plus Yttrium

Table 4 shows a comparison between the 2012 Resource estimate and prior estimates. The latest estimate shows a 60% increase in contained REO compared with the 2008 estimate.

**TABLE 4: COMPARISON OF 2012 RESOURCE ESTIMATE TO PRIOR ESTIMATES**

Model	'000 tonnes	REO (%)	Contained REO '000 tonnes
<b>2012 Model</b>	23,941	7.9	1,891
<b>2010 Model</b>	17,490	8.1	1,416
<b>2008 Model</b>	12,240	9.7	1,184

**TABLE 5: REO DISTRIBUTION OF MINERAL RESOURCES**

Rare Earths Oxides	Central Lanthanide Deposit	Duncan Deposit
Lanthanum Oxide	23.88%	24.87%
Cerium Oxide	47.55%	39.38%
Praseodymium Oxide	5.16%	4.75%
Neodymium Oxide	18.13%	17.89%
Samarium Oxide	2.44%	2.83%
<b>Europium Oxide</b>	<b>0.53%</b>	<b>0.77%</b>
<b>Gadolinium Oxide</b>	<b>1.09%</b>	<b>1.99%</b>
<b>Terbium Oxide</b>	<b>0.09%</b>	<b>0.26%</b>
<b>Dysprosium Oxide</b>	<b>0.25%</b>	<b>1.27%</b>
<b>Holmium Oxide</b>	<b>0.03%</b>	<b>0.19%</b>
<b>Erbium Oxide</b>	<b>0.06%</b>	<b>0.41%</b>
<b>Thulium Oxide</b>	<b>0.01%</b>	<b>0.04%</b>
<b>Ytterbium Oxide</b>	<b>0.03%</b>	<b>0.18%</b>
<b>Lutetium Oxide</b>	<b>0.00%</b>	<b>0.02%</b>
<b>Yttrium Oxide</b>	<b>0.76%</b>	<b>5.17%</b>
Total	100.00%	100.00%

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## COMPETENT PERSON'S STATEMENT

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Brendan Shand, who is a member of The Australasian Institute of Mining and Metallurgy. Brendan Shand is an employee of Lynas Corporation Limited. Brendan Shand has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Brendan Shand consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

### Notes on Resource Estimates

The Resource estimates were prepared by Brendan Shand MAusIMM who is an employee of Lynas Corporation. Brendan Shand is a Competent Person as defined by the 2004 JORC Code. Information in this release relating to resource estimates is based on and accurately reflects information provided by Brendan Shand who consents to the inclusion of the new Resource estimates. Brendan Shand consents to the inclusion of these results and the accompanying notes in the form and context in which they appear.

REO are defined as the rare earth oxides from La to Lu. Yttrium is associated with REO and in this report Yttrium has been included in the REO grades. Some Resources within the pit have been mined and are currently on stockpiles awaiting processing.

**Quality assurance and quality control.** The surveying, sampling and assaying carried out by Lynas Corporation has had rigorous QAQC applied to them to ensure accuracy and representivity of the drilling data collected by Lynas Corporation. Previous work by Hellman and Schofield (H&S) draws attention to an uncertainty with assaying accuracy in pre-Lynas assays that may contribute to the resource estimates being understated by up to approximately 5-10%. These holes have only been used to estimate inferred resources. Grade control and mining has been carried out in one section of the Central Lanthanide Deposit and there has been very good reconciliation between the grade control drilling, the mined ore and the wider spaced Resource drilling. This has given a lot of confidence in the accuracy of the data and modelling.

**Geology and mineralisation.** The area referred to in this report occurs within the Mount Weld carbonatite which is a 3.5 km diameter near-vertical plug that has been deeply weathered and covered with lake sediments ranging from 20 m to 50 m in thickness. The mineralisation has been defined on the basis of various regolith units, approximately 30 m thick, below the lake sediments and above the fresh carbonatite. These include the "CZ", "LI" and "AP" units. The mineralised CR unit at the top of the regolith was excluded because of a lack of sampling in the unit.

**Drilling and sampling.** The geological database used for the Resource Estimates consists of 780 assayed vertical holes (6 diamond core holes and 774 air-core reverse circulation holes ("RC")), representing 18,232



assayed metres. In addition, there are 173 assayed RC holes (4896 assayed metres) that are suspected to have suffered loss of fines in the hydrocyclone sampling plant due to high water flows experienced before dewatering of the regolith in 1991. Accordingly, these have only been used to estimate inferred Resources. The drill hole spacing is a combination of 10 by 10 and 20 by 20 metres in the pit area where grade control and Ore Reserve definition drilling has been carried out. The Duncan Deposit and the bulk of the Central Lanthanide Deposit have a 40 by 40 metre pattern over them and peripheral areas have a nominal 100 by 100 metre drilling pattern.

**Assaying.** Routine assaying of 14 lanthanides, Y, Th, U, Al, Si, P, Mn, Fe and Ca has been undertaken by Genalysis Laboratories, Perth. The lanthanides and Y, Th and U were assayed using a 0.2 g sample and a total fusion/HCl digestion.

**Geological modelling.** Cross-sectional geological interpretations were completed for the entire area referred to in this report and used to create wireframes to define the boundaries of different lithologies. The wireframes were used to create a geological block model with dimensions of 10 x 10 x 2.5 m (x, y, z). Each lithology was assigned a constant density ranging from 1.6 to 2.1. The densities were determined for each lithology from 71 samples in previous resource estimations and it was found during mining there was good reconciliation with these bulk densities. Hence they have been used in these resource estimations.

**Resource Estimation.** Ordinary kriging was used to estimate TLnO grades from two metre composites within the mineralised zone using three estimation passes. Confidence classification is on the basis of proximity to and number of data points as well as data quality. Measured block grades are estimated from a 60x60x10 m search with a maximum and minimum number of data of 32 and 10, respectively. Indicated block grades result from a 60x60x12 m search (32/5 points) and 120x120x24m search (32/5 points) search inside a solid around all the 40m by 40m drilling pattern. Both measured and indicate grade blocks were derived from drill hole data collected after the area was dewatered. Inferred block grades result from 60x60x12 m search (32/5 points) and 120x120x24m search (32/5 points) search outside the 40m by 40m drilling area on the west side of the dolerite dyke dissecting the mineralisation. All the drill hole data was used for the inferred resources.

**Cut-off grades.** Reported cut-off grades have been based on the assumptions made by Lynas Corporation that are believed to be realistic in terms of current considerations of prices, processing and mining costs and the marketability of the REO Resource.