



**GRANGE**  
RESOURCES LIMITED  
ABN 80 009 132 405

## STOCK EXCHANGE ANNOUNCEMENT

### SIGNIFICANT INCREASE IN RESOURCES AT SOUTHDOWN

30 September 2005

The directors of Grange Resources Limited are pleased to announce a substantial increase in mineral resources at the Company's Southdown Project located 90km northeast of the Port of Albany on the south coast of Western Australia.

The resource has increased from 279 million tonnes, announced to the market in July 2005, to 426 million tonnes, grading 36% magnetite, as 20 September 2005. An increase in tonnage of 53% over the previous resource estimate.

This substantial increase in mineral resources meets one of the goals of the bankable feasibility study ("BFS") into the development of the Southdown Magnetite Project and Malaysian Pellet Project, which was to increase the targeted global resource for the project to above 400 million tonnes.

To date 140 holes (39,000 metres) have been drilled out of the budgeted 156 drill holes programme. The drill programme is expected to be completed in the first week of October 2005.

A preliminary pit optimisation for Southdown schedules 142 Mt of concentrate production at a grade of 68.3% Fe with a mine life of 22 years.

A preliminary scoping study for the development of Southdown Magnetites and Kemaman Pellets at a rate of 6.8Mtpy indicates a pellet operating cost of approximately US\$33/tonne FOB Kemaman. At forecast pellet prices of US\$64/tonne, the cash margin is US\$31/tonne. Final capital and operating cost will be determined at the completion of the BFS.

The technical aspects of the BFS are targeted for completion by the end of 2005 with environmental and statutory approvals expected by mid 2006.

The board of directors of Grange Resources Limited is confident that a suitable partner will be found to develop this significant asset.

#### *Interim Resource Model and Resource Statement*

Golder Associates Pty Ltd (Golder) has completed an interim resource model using all geological and assay data available as at 20 September 2005 and prepared an interim mineral resource statement (Table 1). The model was constructed using geological data from 126 diamond drill holes from the current Grange drilling programme and 52 diamond drill holes from earlier drilling undertaken in 1986/87. Assay data from 4,511 samples from the Grange drill holes and 177 samples from the 1986/87 drill holes were included in the model. The magnetite deposit within the Company's mining leases has a strike length of 6,000 metres and a vertical depth ranging from 50 to 450 metres. The available data has allowed Golder to estimate the resource contained within 5,400 metres of strike with variable depths ranging from 50 metres below surface in the west to 360 metres below surface in the east. The average thickness of the deposit is 85 metres.

## *Mineral Resource Statement*

The resource estimate was classified in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves (JORC Code, 2004).

SOUTHDOWN MAGNETITE PROJECT IN SITU MINERAL RESOURCE ESTIMATE			
Class	Indicated Resource	Inferred Resource	Total
Tonnes (Mt)	153.9	272.3	426.2
DTC wt%	37.4	35.1	35.9
DTC Fe%	68.3	68.2	68.3
DTC SiO <sub>2</sub> %	2.2	2.3	2.3
DTC Al <sub>2</sub> O <sub>3</sub> %	1.5	1.5	1.5
DTC TiO <sub>2</sub> %	0.51	0.57	0.54
DTC S%	0.7	0.7	0.7
DTC Na <sub>2</sub> O%	0.05	0.05	0.05
DTC K <sub>2</sub> O%	0.017	0.018	0.018
DTC P%	0.003	0.004	0.004
DTC MgO%	0.27	0.29	0.28
DTC CaO%	0.2	0.2	0.2
DTC Mn%	0.037	0.039	0.038
DTC V%	0.035	0.037	0.036

### Notes:

- Estimation method: Block model, Ordinary Kriging using 3m composite data.
- Resources reported below the depth of oxidation (approx 25m) with depths ranging from 50m to 360m below surface.
- Resources reported for 5,400m of strike from deposit strike length of 6,000m.
- The resource was defined using geological boundaries and a nominal cut-off grade of 10 wt% Davis Tube Concentrate (DTC).
- Extrapolation was limited to within 100m of drill holes with assays.
- In-situ density was assigned to the mineralised domains using a regression of  $0.0083 \times \text{DTC wt\%} + 3.206\text{t/m}^3$ . This regression was derived from 1348 paired density and DTC wt% values.
- The Ordinary Kriging interpolation method was used for resource estimation of DTR, Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, S, TiO<sub>2</sub>, Na<sub>2</sub>O and K<sub>2</sub>O using variogram parameters defined from geostatistical analysis.
- The Inverse Distance Squared interpolation method was used for resource estimation of P, MgO, CaO, V, LOI and Mn, to allow reporting of these additional variables.
- Recovery and grade rounded to 1 decimal place (except TiO<sub>2</sub>, Na<sub>2</sub>O, Mn, MgO & V - 2 decimal places and P & K<sub>2</sub>O - 3 decimal places)
- Resources rounded to nearest 100,000 tonnes.

*The information in this statement of Mineral Resources is based on information compiled by Mr Richard Gaze who is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient relevant experience to qualify as a Competent Person as defined in the JORC Code (2004). Mr Richard Gaze consents to the inclusion of this information in the form and context in which it appears.*

For further information visit the Grange website at [www.grangeresources.com.au](http://www.grangeresources.com.au) or alternatively contact Mark Smith on + 61 (8) 9321 1118.

**MARK SMITH**  
Company Secretary