



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

26 September 2006

**AUSTRALIAN STOCK EXCHANGE ANNOUNCEMENT**

**SOUTHDOWN MAGNETITE RESOURCE UPGRADE AND PROJECT UPDATE**

- Southdown Indicated Resource increased by 23% from 347 million tonnes to 427 million tonnes, grading 38.2% magnetite
- The total Indicated and Inferred Resource increased from 458 million tonnes grading 36.9% magnetite to 479 million tonnes grading 37.3% magnetite.
- Work to commence on final mining schedules for the Southdown mine development
- Discussions with potential blast furnace and direct reduction pellet consumers commenced
- Malaysian environmental approval expected in the fourth quarter of 2006

Grange Resources Limited (**ASX Code: GRR**) is pleased to announce a substantial increase in the Indicated Mineral Resource at the Company's Southdown Project, located 90km northeast of the port of Albany on the south coast of Western Australia.

The Indicated Resource has increased by 23% from 347 million tonnes as announced to the market in January 2006, to 427 million tonnes, grading 38.2% magnetite, as at 22 September 2006. The total Indicated and Inferred Resource has increased from 458 million tonnes grading 36.9% magnetite to 479 million tonnes grading 37.3% magnetite.

This substantial increase in the Indicated Mineral Resource meets one of the goals of the bankable feasibility study into the development of the Southdown Magnetite Project and Malaysian Pellet Project, which was to establish an Indicated Resource capable of providing 6.6 million tonnes of magnetite concentrate to a pellet plant for over 20 years.

***Resource Model and Resource Statement***

Golder Associates Pty Ltd (Golder) has completed a resource model using all geological and assay data available as at 4 September 2006 and prepared a mineral resource statement (Table 1).

The model was constructed using geological data from 195 diamond drill holes from the Grange drilling programme and 52 diamond drill holes from earlier drilling undertaken in 1986/87. Assay data from 8,611 samples from the Grange drill holes and 892 samples from resampling the 1986/87 drill holes were included in the model.

The magnetite deposit within the Company's mining leases has a strike length of approximately 6,000 metres and a vertical depth ranging from approximately 50 to 500 metres. The available data has allowed Golder to estimate the resource contained within 5950 metres of strike, with variable depths ranging from 50 metres below surface in the west to 480 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). The classification was considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation and representativeness of all available data. The resource has been defined using geological boundaries and a nominal cut-off grade of 10 wt% Davis Tube Concentrate (DTC) and includes minor internal dilution. All estimated grades were weighted by %DTC.

There is potential to increase the total magnetite resource by including material from the oxidised zone but further drilling is required for this material to be upgraded to Resource status.

### **Project Update**

With the latest resource model being completed, work will immediately commence on the final mining schedules for the Southdown mine development.

At the same time a number of other pre development activities are being progressed or have been achieved:

#### **I. Malaysian Tax Incentives**

The Malaysian Industrial Development Authority (MIDA) has approved "Pioneer Status" for the Kemaman pellet plant project on the 5<sup>th</sup> September 2006. The package of investment incentives resulting from "Pioneer Status" includes 100% corporate income tax exemption at the statutory income level for a period of 15 years.

Based on Grange Resources' financial model for the Project, which includes assumptions and estimates of future iron ore prices, foreign exchange rates, capital and operating costs determined from feasibility studies, these incentives are estimated to provide a 34% increase in project value, providing a significant underpinning of the Project.

#### **II. Malaysian Environmental Approval**

The final Project review meeting for the Detailed Environmental Impact Assessment (DEIA) with the Malaysian environmental authorities was held in Kuala Lumpur on 7 September 2006. Approval is now expected in the fourth quarter of 2006.

#### **III. Southdown Infrastructure**

Grange Resources is working closely with Western Power on the alignment and easement for the 220Kv power line from Muja to Southdown. Grange representatives attended a number of regional public information days with Western Power during August.

Land owner easement agreements for the slurry pipeline from Southdown to the Port of Albany have been distributed. Responses are now being received.

Design work for the proposed seawall at the reclamation area at the Port of Albany is in progress.

#### **IV. Metallurgical Testwork**

Following the test results from the pelletising of Southdown concentrates, which indicated that pellets suitable for direct reduction use could be made, Grange has initiated further laboratory pellet production to allow in-plant basket tests to be undertaken. These tests are planned to be made at operating Midrex, HYL and other direct reduction facilities.

#### **V. Joint Venture Tender Process**

Due diligence by potential joint venture partners in the Project is continuing. After the delay to the completion of the resource model due to laboratory congestion, the final mining schedules can now be completed and this should assist in the finalisation of this stage of the process.

Grange continues to work with a number of interested investors and proposals on various structures are being discussed and evaluated. Included in these discussions has been the assessment of alternative

equipment supply which could potentially offer significant capital cost savings compared to existing assumptions.

**VI. Marketing**

Grange has commenced discussions with potential blast furnace and direct reduction pellet consumers in Asia and the Gulf region. The proposal for an Asian, regionally based (Kemaman) pellet producer is recognised as an attractive alternative to existing supply from South America.

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

**NEIL MARSTON**  
Company Secretary

**TABLE 1  
SOUTHDOWN MAGNETITE PROJECT  
IN SITU MINERAL RESOURCE ESTIMATE**

Class	Indicated Resource	Inferred Resource	Total
Tonnes (Mt)	427.3	51.8	479.1
DTC wt%	38.2	30.1	37.3
DTC Fe%	69.2	69.0	69.2
DTC SiO <sub>2</sub> %	1.9	2.0	1.9
DTC Al <sub>2</sub> O <sub>3</sub> %	1.4	1.3	1.3
DTC TiO <sub>2</sub> %	0.37	0.44	0.37
DTC S%	0.42	0.63	0.44
DTC Na <sub>2</sub> O%	0.05	0.04	0.05
DTC K <sub>2</sub> O%	0.009	0.011	0.009
DTC P%	0.002	0.003	0.002
DTC MgO%	0.23	0.25	0.24
DTC CaO%	0.18	0.22	0.18
DTC Mn%	0.036	0.036	0.036
DTC V%	0.021	0.023	0.021
DTC LOI%	-3.0	-2.9	-3.0

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 480m below surface.
- Resources reported for 5950m of strike.
- 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 for the main mineralised unit was assigned to the mineralised domains using a regression of 0.0091 x DTC wt% + 3.172t/m<sup>3</sup>. This regression was derived from 3097 paired density and DTC wt% values.
- In-situ density for the other mineralised unit was assigned to the mineralised domains using a regression of 0.0081 x DTC wt% + 3.250t/m<sup>3</sup>. This regression was derived from 614 paired density and DTC wt% values.
- The Ordinary Kriging interpolation method was used for resource estimation of DTC, DTC Fe, DTC SiO<sub>2</sub>, DTC Al<sub>2</sub>O<sub>3</sub>, DTC TiO<sub>2</sub>, DTC S, DTC,Na<sub>2</sub>O and DTC K<sub>2</sub>O using variogram parameters defined from geostatistical analysis.
- The Inverse Distance Squared interpolation method was used for resource estimation of DTC P, DTC MgO, DTC CaO, DTC Mn, DTC V, and DTC LOI to allow reporting of these additional variables not required to be of the same level of rigour as the other variables.
- Estimations for concentrate grades were weighted by Davis Tube concentrate (DTC) in order to appropriately reflect the relationship between DTC and the DTC assays. Weighting was completed by calculating the accumulation (DTC x DTC assay) and subsequently back calculating the DTC assay estimates by dividing by relevant estimated DTC values.
- Recovery and grade rounded to 1 decimal place (except TiO<sub>2</sub>, S, Na<sub>2</sub>O, MgO & CaO - 2 decimal places and K<sub>2</sub>O, P, Mn & V - 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*