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SOUTHDOWN MAGNETITE PROJECT RESOURCE UPGRADE

Grange Resources Limited (**Grange** or the **Company**) is pleased to announce a substantial increase in the *in situ* Mineral Resource at the Southdown Project (**Southdown**) (Grange 70%, Sojitz Resources & Technology Pty Ltd 30%) located 90km northeast of the Port of Albany on the south coast of Western Australia.

The total Mineral Resource has increased by 37% from 479 million tonnes grading 37.3% magnetite reported to the ASX on 27 September 2006 to **654.4 million tonnes grading 36.5% magnetite.**

This increase in Mineral Resources includes the **substantial conversion (51%) of Indicated Resources to Measured Resources** and meets one of the key goals of the definitive feasibility study into the development of the Southdown Magnetite Project. A comparison between the previously advised 2006 resource estimate and the new 2009 resource estimates is summarised in the following table.

SOUTHDOWN MAGNETITE PROJECT COMPARISON BETWEEN THE 2006 and 2009 IN SITU MINERAL RESOURCE ESTIMATES						
Classification	20	009	2006			
	Tonnes (Mt)	Grade (DTC wt%)	Tonnes (Mt)	Grade (DTC wt%)		
Measured	219.7	37.4	-	-		
Indicated	210.3	38.9	427.3	38.2		
Inferred	224.4	33.4	51.8	30.1		
Total	654.4	36.5	479.1	37.3		

Managing Director, Russell Clark, commented: "This Mineral Resource increase significantly improves our confidence in the ore body characteristics and in the expectation that the Mineral Resource will continue to grow as we drill additional holes in the eastern portion of the deposit within the exploration lease that surrounds the mining leases. The ability to finance this project is significantly enhanced through the conversion of the Indicated Resource to a Measured status."



SOUTHDOWN RESOURCE MODEL

Golder Associates Pty Ltd (Golder) has updated the 2006 Southdown resource model using all geological and assay data available as at 28 April 2009 and prepared a Mineral Resource statement (Table 1).

The 2006 resource model was updated to include geological data and 1,795 analyses collected from 53 diamond drill holes (10,689m) completed over the Southdown deposit by Grange Resources in 2008. In addition, this resource model now includes magnetite mineralisation within the eastern 6km portion of the Southdown deposit which Grange purchased from Rio Tinto in September 2007.

The magnetite deposit within the Company's Mining Leases has a strike length of approximately 12,000 metres and a vertical depth ranging from approximately 50 to 500 metres below surface. The available data has enabled Golder to estimate the resource contained within 8,500 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 with the deposit increasing in width towards the east as the thicknesses of low-grade and non-mineralised internal geological units increases.

MINERAL RESOURCE STATEMENT

The resource estimates were classified in accordance with guidelines provided in the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC Code, 2004). The classification of Mineral Resources was considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation and representativeness of all available assay data.

The resource estimate is based on the Ordinary Kriging interpolated block model sdok_300609.bmf and is reported below the depth of oxidation (Table 1).

This Mineral Resource has been defined using geological boundaries and a cut-off grade of 10 wt% DTC and includes minor internal dilution. All reported concentrate grades were weighted by DTC.

There is further potential to increase the total Southdown magnetite resource by extending the drilling at closer spacing along strike within the eastern 6km portion of the deposit.

TABLE 1 SOUTHDOWN MAGNETITE PROJECT IN SITU MINERAL RESOURCE ESTIMATE						
Classification	Measured Resources	Indicated Resources	Inferred Resources	Total Resources		
Tonnes (Mt)	219.7	210.3	224.4	654.4		
DTC wt%	37.4	38.9	33.4	36.5		
DTC Fe%	69.2	69.3	69.1	69.2		
DTC SiO ₂ %	1.72	1.94	2.07	1.91		
DTC Al ₂ O ₃ %	1.43	1.27	1.29	1.33		
DTC S%	0.46	0.40	0.54	0.46		
DTC LOI%	-3.04	-3.06	-2.96	-3.02		



ASSUMPTIONS AND METHODOLOGY

This Mineral Resource estimate is based on a number of factors and assumptions:

- All of the available historic and current drilling data was used for the Mineral Resource estimation.
- Estimates representing extrapolations greater than 200 m from drilling are not included in this resource statement.
- Geological domains were interpreted and modelled in three dimensions. The geological domains were based on stratigraphy and Davis Tube concentrate (DTC).
- The survey control for collar positions was considered adequate for the purposes of this study. There is a degree of uncertainty (possibly ±10 m) associated with some of the historical collar coordinates. Downhole surveys of the historical holes used acid-etch tubes and are also imprecise.
- A review of the field duplicates, sample preparation duplicates and lab repeats as well as the certified and laboratory reference materials was completed. With the exception of standards submitted in 2009, no obvious discrepancies were identified with the duplicates, repeats and laboratory reference materials. For samples from the 2009 analytical program, Fe values reported by the laboratory for the two certified reference materials were consistently lower than the reference value; whereas, the reported DTC SiO₂ and DTC S were consistently higher than the reference value. The values reported for Al₂O₃ and LOI by the laboratory were higher for one certified reference material and lower than the reference value for the other.
- Statistical and geostatistical analysis was carried out on drilling data composited to 3 m downhole. This included variography to model spatial continuity relationships in the geological domains.
- The Ordinary Kriging (OK) interpolation method was used for resource estimation of DTC, DTC Fe, DTC SiO₂, DTC Al₂O₃, DTC S and DTC LOI, using variogram parameters defined from the geostatistical analysis.
- Wet bulk density was routinely recorded using water displacement and calliper methods. The Inverse Distance Squared interpolation method was used for the estimation of wet bulk density.
- Estimations for concentrate grades were weighted by DTC in order to appropriately reflect the relationship between DTC and the DTC assays. Weighting was completed by calculating the accumulation (DTC ´ DTC assay) and subsequently back calculating the DTC assay estimates by dividing by relevant estimated DTC values.
- For Type 3a in the Eastern Zone, four high DTC composites were identified as outliers and excluded from the estimation.
- Oxidised mineralisation is not included in this statement of Mineral Resources.

-ENDS-

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Or visit <u>www.grangeresources.com.au</u>



The information in this statement which relates to the Mineral Resources is based on information compiled by James Farrell who is a full-time employee of Golder Associates Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. James Farrell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2004). James Farrell consents to the inclusion of this information in this statement of Mineral Resources in the form and context in which it appears.