

# New chromite supply potential

Recent start-ups, new players, and reserve extensions aim to ease shortages

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SOARING DEMAND FOR chromite in ferrochrome production is squeezing availability of special grade chromite while pushing prices to new heights. Help maybe at hand with the emergence of new producers and potential players in the pipeline.

The market is reviewed on p.32 while here we report on several new developments which are expected to positively impact the special grade chromite supply market during the course of 2007 and beyond.

## Itshe Resources

Itshe Resources (Pty) Ltd, has been established by Graham Evans of Independent Mineral Distributors (Pty) Ltd, South Africa and Arnik Plomp of Netherlands-based Plomp Mineral Services BV to exclusively market foundry and chemical chromite grades produced by International Ferro Metals SA (Pty) Ltd (IFMSA).

International Ferro Metals Ltd (IFM), an Australian company, through its subsidiary IFMSA, recently started operations at its Buffelsfontein mine and ferrochrome smelter facility in North West Province, South Africa. Jiuquan Iron & Steel Co. (JISCO), a major steel producer in Gansu province, China, funded the equity portion of financing for the Buffelsfontein Fe-Cr smelter.

The mine was commissioned in July 2006, and for the first quarter of 2007 produced an average of 33,000 run of mine

tpm. IFMSA's furnaces started in January 2007, shipping the first batch of ferrochrome during the first quarter. The pelletising and sintering plant was commissioned on 4 May 2007.

Production is apparently operating "24/7" to reach IFM's goal to produce 3% of the world's ferrochrome, and is on schedule to achieve a run rate of 267,400 tpa of ferrochrome by the end of 2007

Itshe's main focus will be the domestic and export market for foundry grade chromite sand, and is planning to market around 24,000 tpa of foundry grade shipped in full container loads from Durban or wet loose in bulk from Richards Bay. The first trial containers have been sent out and exports are expected to be in full swing by Q3 2007.

## Lanxess reserves extension

Leading chrome chemicals producer, Lanxess (formerly Bayer AG), has announced that 80m. tonnes of "extra ore reserves have been found" in its Rustenburg chromite mine in North West Province, South Africa.

With these newly discovered reserves the company is expecting to considerably expand its position in this market. Lanxess is currently drawing up a concept for mining these additional volumes and has already invested €5m. in measures to improve efficiency and safety at

the site.

The underground mine is run by the Leather business unit of Lanxess and supplies company sites in South Africa and Argentina that process the raw material into products for leather manufacture.

The ore from Rustenburg is produced as chrome concentrate (450,000 tpa plant capacity) and is then processed into sodium dichromate and chromic acid at the company's Newcastle chrome chemicals plant. Processing into chrome tanning salts for the global tanning industry then takes place in Merebank.

Until 1 February 2007, the Newcastle plant was operated by Chrome International South Africa (CISA), a 50:50 joint venture between Lanxess and Dow Chemical Group. In February 2007, Lanxess completed the acquisition of Dow Group's 50% stake in CISA which now operates under the

name Lanxess CISA (Pty) Ltd.

CISA was established in the mid-1990s and its 2005 sales were equivalent to about €40m.. The plant, which came on stream in 1999, produces 70,000 tpa of sodium dichromate which is used mainly in the production of tanning materials for leather. CISA's main customers are Lanxess's Merebank plant and the group's Inorganic Pigments business unit.

On 30 March 2007, Lanxess opened its first leather application laboratory in Pakistan, located in the heart of the leather-manufacturing industrial zone in Karachi. Pakistan is the fourth largest consumer of Lanxess' leather chemicals sales in the Asia Pacific region, and ranked tenth in the world.

## Chromex

In another development, Chromex Mining PLC, listed on London's AIM on 7 September



Leading chrome chemicals producer, Lanxess has discovered 80m. tonnes of "extra ore reserves" in its Rustenburg chromite mine in North West Province, South Africa. "With these we will be able to safeguard the growth of this profitable business for several decades," said Lanxess management board chairman Axel C. Heitmann while visiting Rustenburg. Courtesy Lanxess.

2006, through its recently acquired Chromex Mining (Pty) Ltd subsidiary, aims to acquire, control, and expand chromite mining and processing facilities at its Mecklenburg Project, Limpopo Province, South Africa.

In April 2007 Chromex completed a bankable feasibility study (BFS) to mine chromite ore at the Mecklenburg Project, situated on the Eastern limb of the Bushveld Complex. The BFS concluded that the project is economically viable and has a low to moderate risk profile.

Once the company has received its mining right, the next phase will be to arrange appropriate funding, followed by the construction and

development of the chrome mine and processing plant. The company expects to export chemical and foundry grades, and sell metallurgical grades domestically.

The Mecklenburg Project site contains two chromite reefs known as LG-6 and LG-6A. The LG-6 reef is currently being extensively mined to the south of Mecklenburg. The LG-6 is the thickest chromitite layer in the lower chromitite group. The LG-6A is commonly mined together with the LG-6.

The resource estimate defines a measured resource of 3.24m. tonnes (36% of total), an indicated resource of 2.62m. tonnes (29% of total) and an inferred resource of 3.19m.

tonnes (35% of total) of chromite. The BFS indicated that the measured and Indicated Mineral Resource can be mined "with a high degree of confidence".

### Oregon Resources

In the USA, Oregon Resources Corp., owned by the Industrial Minerals Corp., is proceeding with the development of a heavy minerals project in Oregon which includes the production of chromite ore from a surface mine.

Listed on the Australian Stock Exchange in November 2006, Industrial Minerals Corp. has been established primarily for the purpose of developing the project. During Q1 2007 the company continued to assess

results from limited production undertaken at a 10 tph pilot plant which was commissioned in December 2006.

Results will be used to assist with the final design of the main processing facility. So far, results from the wet gravity process have shown 90% chromite recovery. Test results of the dry separation have shown 80% chromite recovery.

The company is now moving forward with main plant design and construction in order to produce and supply a unique foundry grade chromite to north-western based and offshore foundries. The main plant to be constructed on this property will have the capacity of processing at least 400,000 tpa of material.



New products and processes for the leather industry are developed at Lanxess' Leather Technology Centre in Leverkusen, Germany. Courtesy Lanxess Deutschland GmbH.



Chrome concentrate from Lanxess Rustenburg mine is processed into sodium dichromate and chromic acid at the company's New-castle chrome chemicals plant pictured here. Courtesy Lanxess.

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