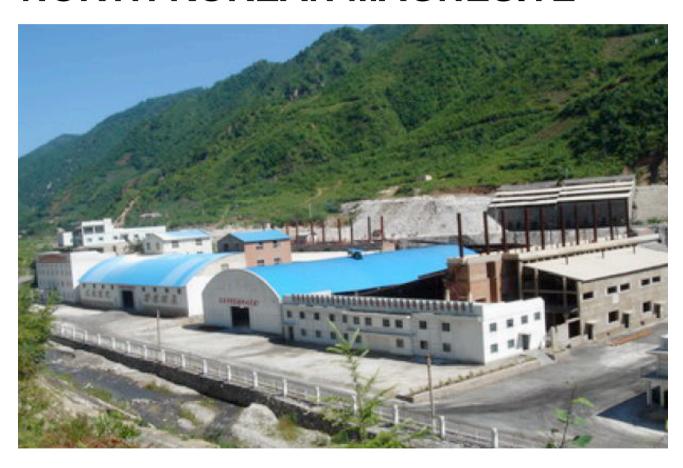




#### **NORTH KOREAN MAGNESITE**



DAVID COPLET
MANAGING DIRECTOR

Amsterdam May 10-12, 2009











# LOCATION OF MAGNESITE DEPOSITS AND OPERATIONS IN NORTH KOREA









## **ENERGY**





#### SUNGRI CCM PLANT - NORTH KOREA

## BUSINESS AGREEMENT BETWEEN QUINTERMINA AND SUNGRI FOR EXPORT OF CCM

## KMCIG – KOREA MAGNESIA CLINKER INDUSTRIAL GROUP

BUSINESS AGREEMENT BETWEEN QUINTERMINA AND KMCIG FOR EXPORT OF FM, DBM AND CCM



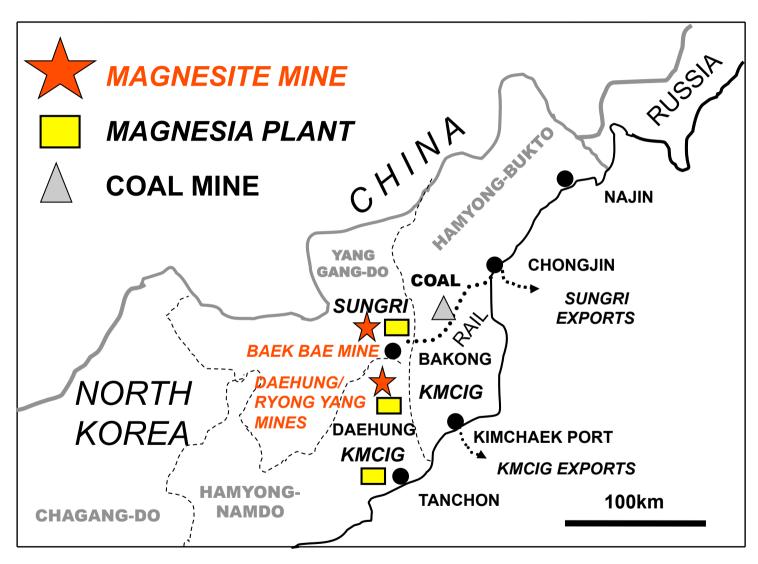


#### DEVELOPMENT PLANS IN NORTH KOREA

- PRODUCTION OF CCM IN JOINT VENTURE WITH SUNGRI TRADING COMPANY
- EXPORT OF FM, DBM AND CCM OF KMCIG (KOREA MAGNESITE CLINKER INDUSTRY GROUP)
- FILLING VOID CREATED BY CHINA RESTRICTING MAGNESIA EXPORTS BY LICENCE SYSTEM







## LOCATION OF MAGNESITE MINES AND PLANTS OF KMCIG AND SUNGRI IN NORTH KOREA

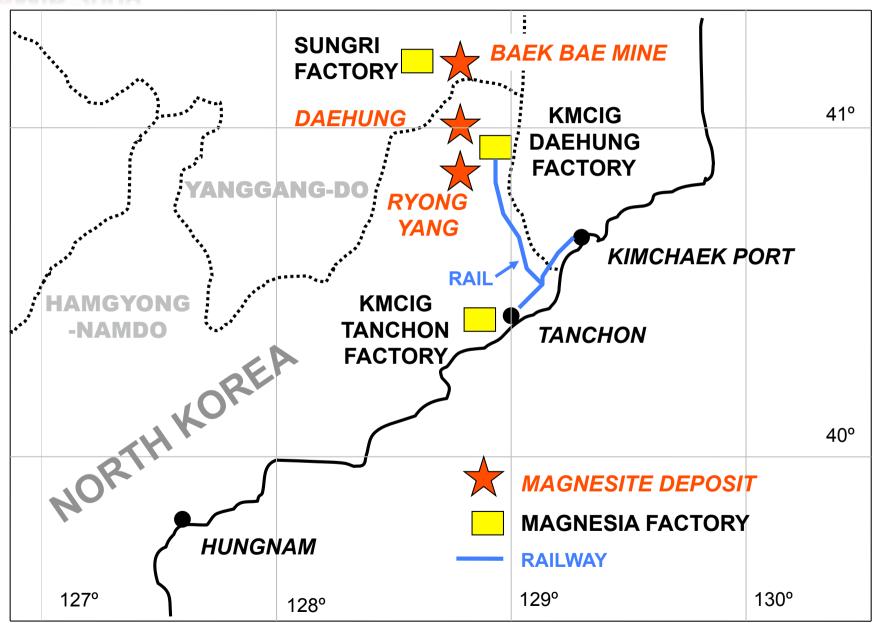




## **OPERATIONS**







**LOCATION OF MINES AND MAGNESITE PLANTS** 





## SUNGRI







MAGNESITE STOCKPILE AT SUNGRI FROM WHITE ROCK MINE



#### **SUNGRI PLANT AND CCM PRODUCTION**







#### **TYPICAL 200# QUALITY OF CCM FROM SUNGRI**

	<b>Wt.</b> %
MgO	91.5
CaO	1.6
SiO <sub>2</sub>	1.1
$\overline{Fe_2O_3}$	0.6
$Al_2O_3$	0.1
LOI	4.6

<200 MESH POWDER





## **KMCIG**





#### Quintermina AG to assist KMCIG

Quintermina AG is now a business partner with KMCIG and is investing to grow and improve production. Quintermina AG will advise on:

- Helping to re-fit a Rotary Kiln for CCM
- If re-fit successful will look at 2 larger rotary kilns to see if they can be adapted for DBM and/or CCM
- Kilns used oil and will now be operated with new gasification system
- Modifying existing Shaft Kilns for Agricultural CCM

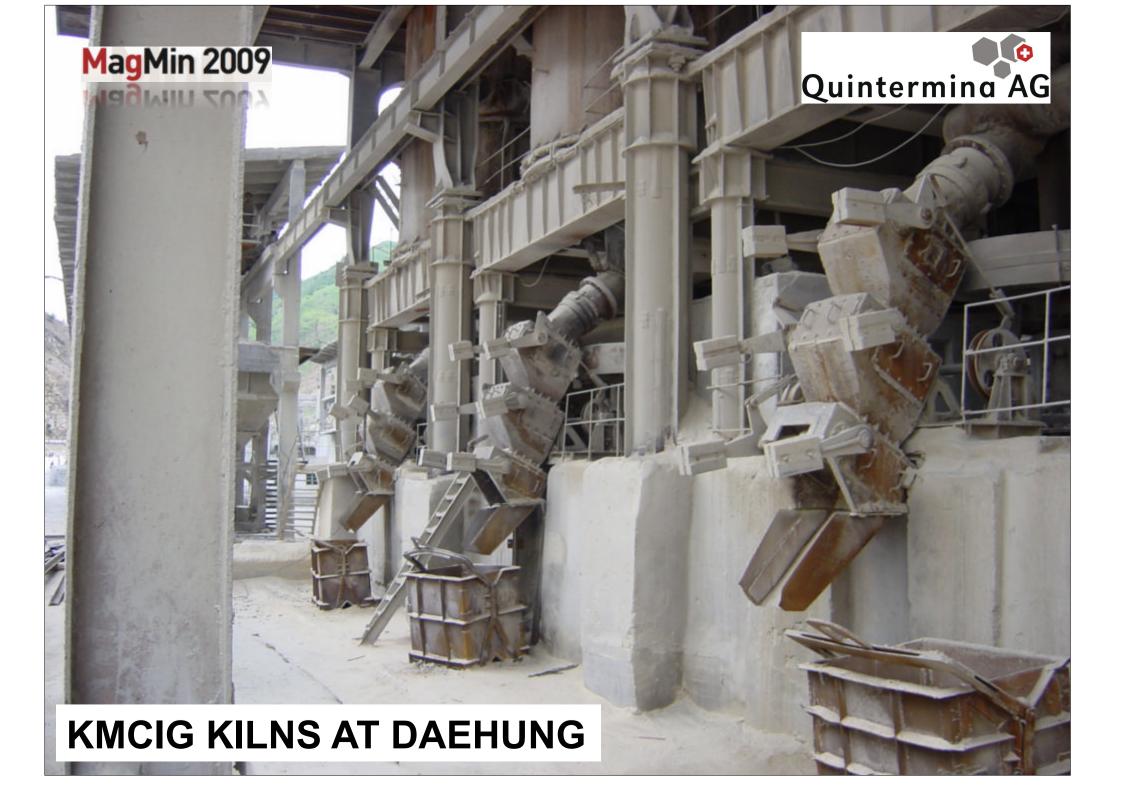






#### Typical DBM and FM products from KMCIG

PRODUCT/ Typical Results	DBM 9010	DBM 9003	FM 96
% MgO	90	90	96.2
% SiO <sub>2</sub>	4.3	3.7	1.3
% CaO	1.6	1.5	1.4
% Fe <sub>2</sub> O <sub>3</sub>	0.9	8.0	0.6
% Al <sub>2</sub> O <sub>3</sub>	1.4	1.2	0.3
% LOI	0.56	1.48	0.18
Bulk Density g/cm <sup>3</sup>	3.15	2.87	3.47
Size (mm)	0 - 10	0- 3	0 - 40
Shipment form	BULK	BULK	BIG BAGS





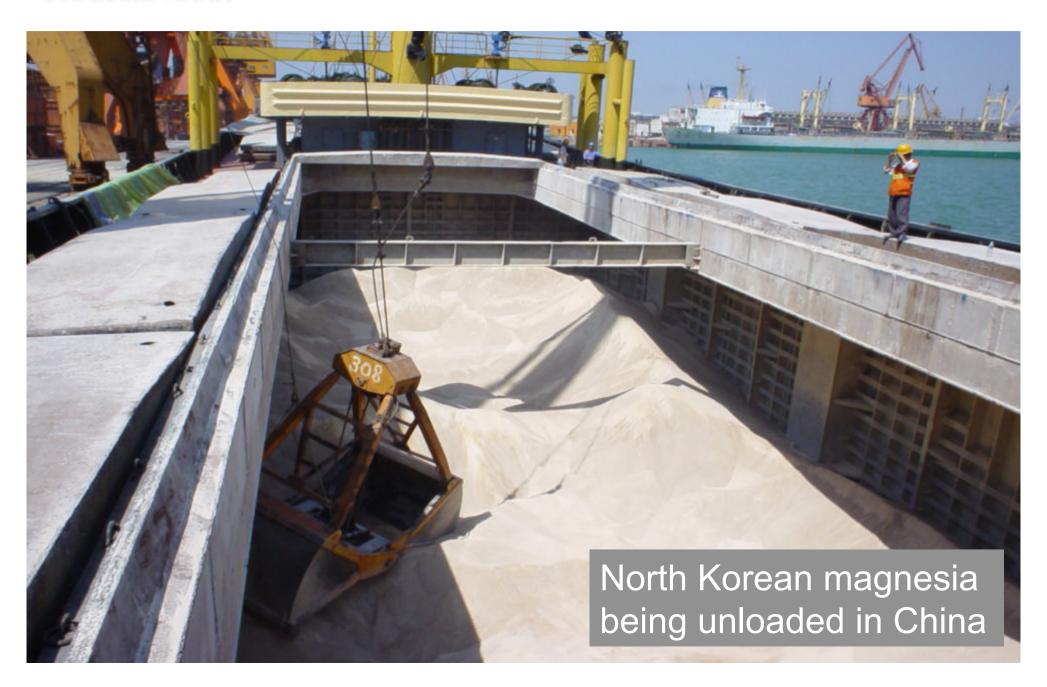


## LOGISTICS





















### **Strategic Partners**

www.rhi-ag.com

www.cargill.com

www.igma.nl



















