

AUSTRALIAN STOCK EXCHANGE



ILU000270

Facsimile**Date:** 13 November 2002**Ref:** SHR5**ILUKA RESOURCES LIMITED****To:** Company Announcements Office**Company:** Australian Stock Exchange**Fax No:** 1300 300 021**Pages:** 18**From:** Ian Gregory**Fax No:** (08) 9221 7744**email:** ian.gregory@iluka.com**Subject: Investor Site Visit to Iluka's WA Operations – Midwest Presentation**

Please find attached a presentation given to Investors visiting Iluka's WA Operations.


IAN GREGORY
Company Secretary

021112 FAX ASX Investor Site Visit Midwest:ieg:nm

ILUKA RESOURCES LIMITED

ABN 34 008 675 018

Level 5, 553 Hay Street, Perth, WA 6000 GPO Box U1988, Perth WA 6845

Telephone : +61 8 9221 7611 Facsimile : +61 8 9221 7744

Investor Presentation Mid-West Operations

Iluka Resources Limited

- **Mid-West Operations**
- **History, People**
- **Eneabba Mining Operations**
- **Minerals Separation Process**
- **Synthetic Rutile Process**

Mid-West Workforce

- **Total workforce of 472**
- **235 people Eneabba**
 - **137 contractors**
- **237 people Geraldton**
 - **12 contractors**

Mid-West History

- **1970 Heavy mineral sands discovered at Eneabba (Adamson)**
- **1974 Jennings Mining Ltd commenced at Eneabba**
- **1975 Allied Eneabba Limited commenced at Eneabba**
- **1976 Western Titanium Ltd commenced at Eneabba**
- **1977 Western Titanium --> AMC**
- **1978 AMC acquires Jennings**
- **1986 AMC acquired Allied Eneabba**
- **1987 AMC commissions SR plant Narngulu**
- **1990 SR plant & Minerals Separation plant 2**
- **1992 AMC is renamed RGC Minerals Sands Ltd**
- **1996 SREP SR production commences**
- **1998 RGC & WSL merge --> Iluka**

Mid-West Products

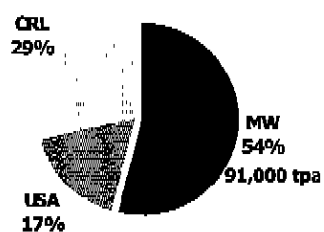
Titanium Products

- Ilmenite 58% TiO_2
- Rutile 96% TiO_2
- Synthetic Rutile 90% TiO_2

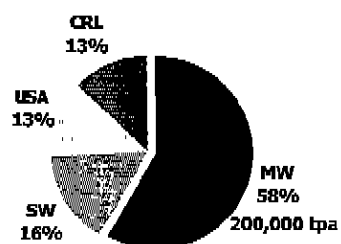
Zircon

Mid-West Production

Rutile Production

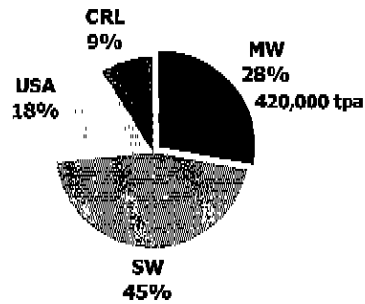


Zircon Production

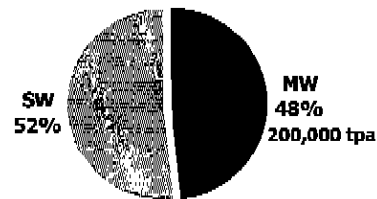


Mid-West Production (cont'd)

Ilmenite Production



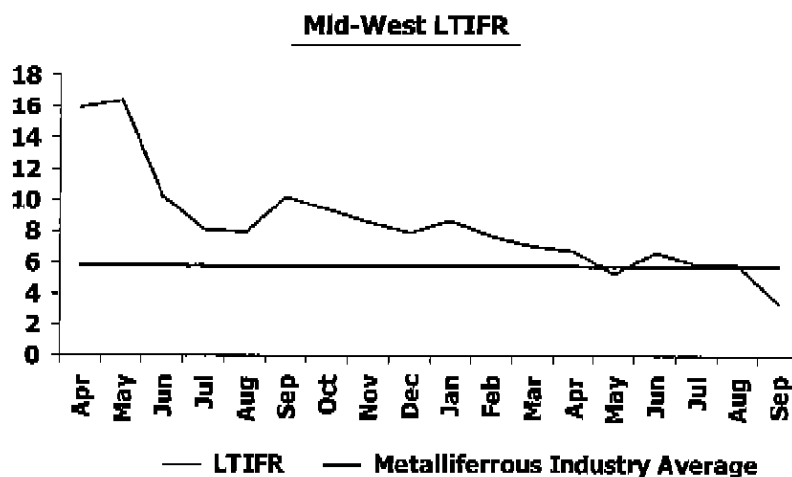
SR Production



Mid-West Key Priorities

- **EHS & Community**
 - **Safety Performance**
- **People Development**
 - **Culture & Empowerment**
- **Production**
 - **Safely and with Excellence**
- **Process Improvement**
 - **IBSM Project & Planned Maintenance**
- **Financial Performance**
 - **MnM Business Improvement**

Mid-West Safety Performance



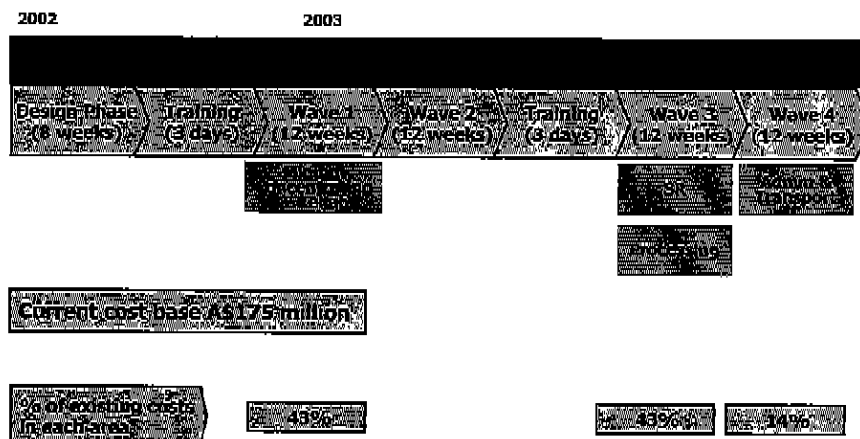
Mid-West Production

2002 Target	Production (kt)
Ilmenite	425
Rutile	90
Zircon	203
Standard SR	130
SREP SR	76

Margins Matter (MnM) Program

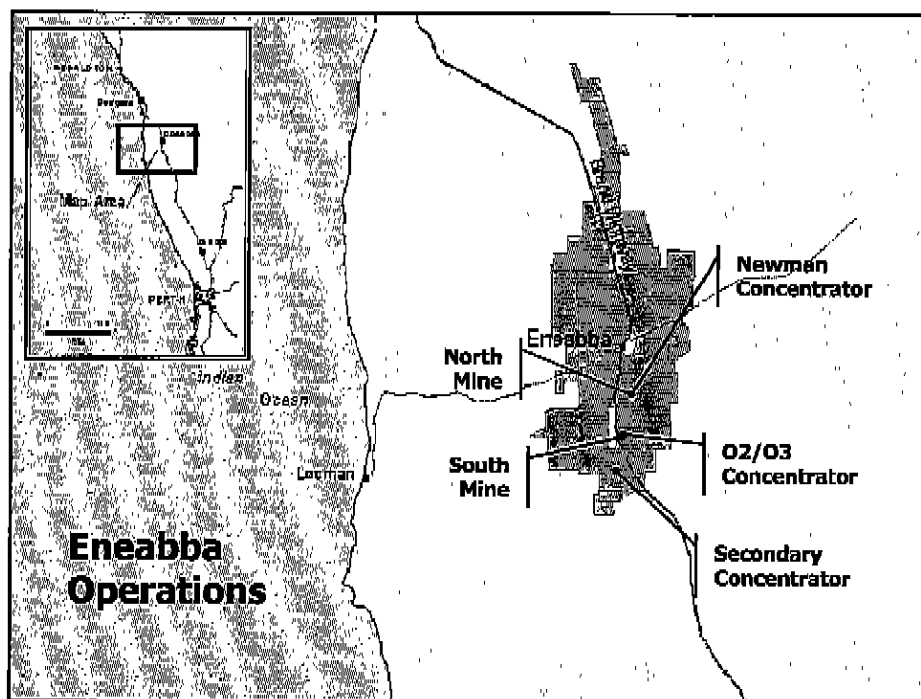
- ▶ MnM program underway – Iluka split into 21 work units/cost bases
- ▶ Program will be implemented in 4 “waves” of performance improvements over the next 12 - 14 months
- ▶ Each “wave” will be led by a team of Iluka people (both site and corporate) supported by GEM consulting
- ▶ Initial target is a sustainable A\$40 million improvement in Iluka Group pre-tax earnings based on
 - ▶ cost savings and
 - ▶ productivity enhancements
- ▶ Benefits will be progressively realised over the next 12 - 14 months with full benefits realised by end 2004

Mid-West MnM Program and Cost Base

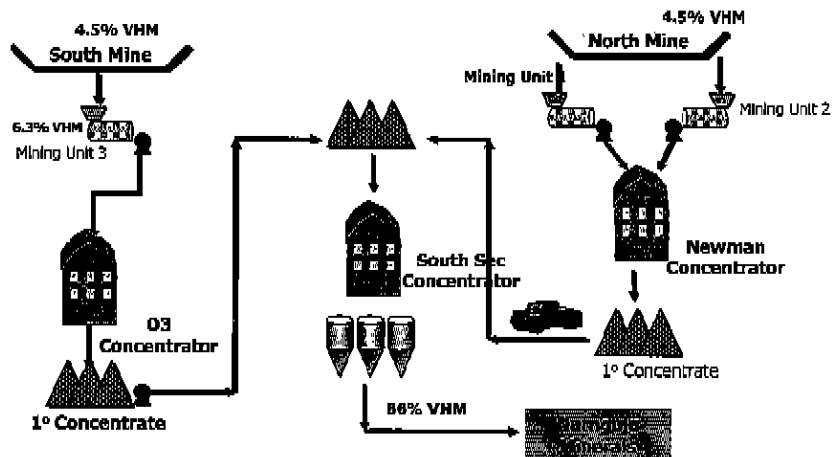


Mid-West Mining

Steve Miller
Mining Manager

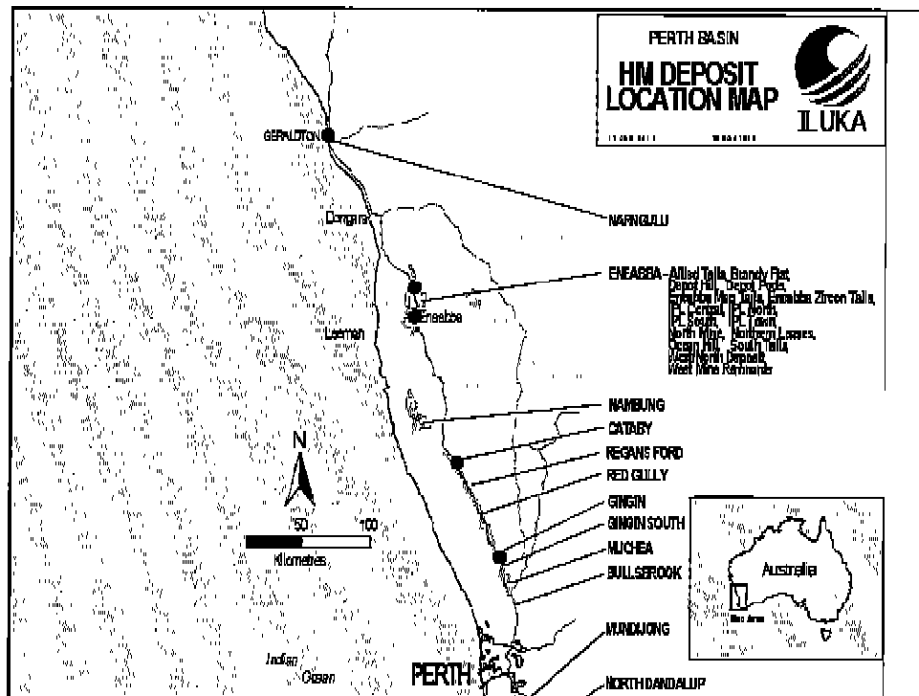


Eneabba Flow Diagram



Mining Performance

- ▶ Moving 6 million BCM overburden
- ▶ Moving 17 million tonnes of ore
- ▶ Represents 29 million tonnes material
- ▶ Ore grade = 4.5% VHM
- ▶ 1.1 M tonnes of concentrate @85% VHM



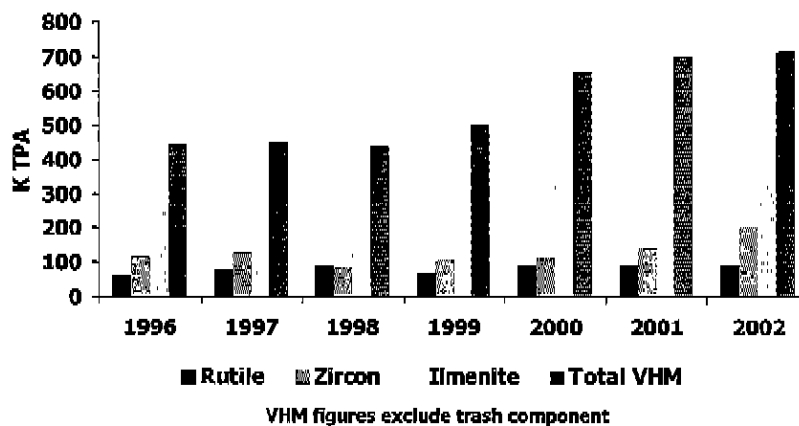
Future Mine Development

- ▶ Cataby mine to be operational H2 2004
- ▶ Newman Concentrator → Cataby
- ▶ Gin Gin mine to be operational Q2 2005
- ▶ Morgan Concentrator → Gin Gin

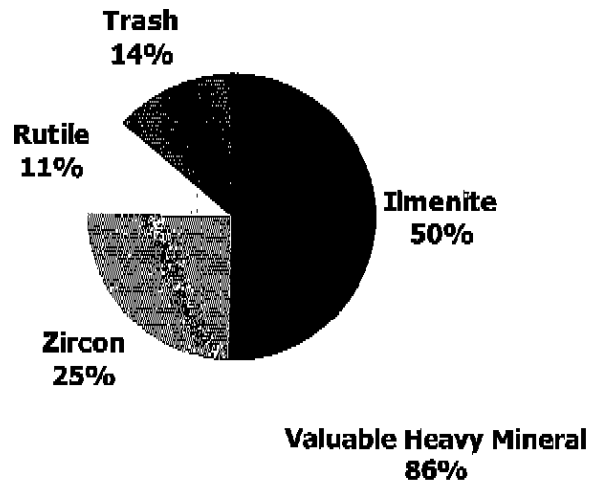
Mid-West Processing

Minerals Production

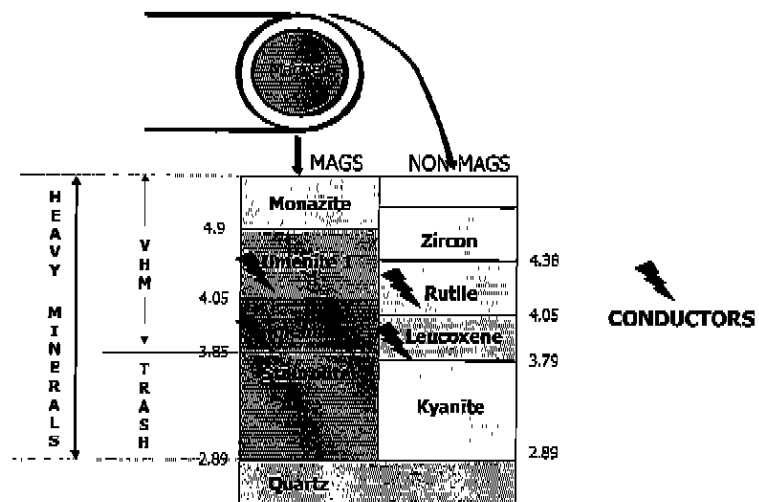
Narngulu Minerals Annual Production



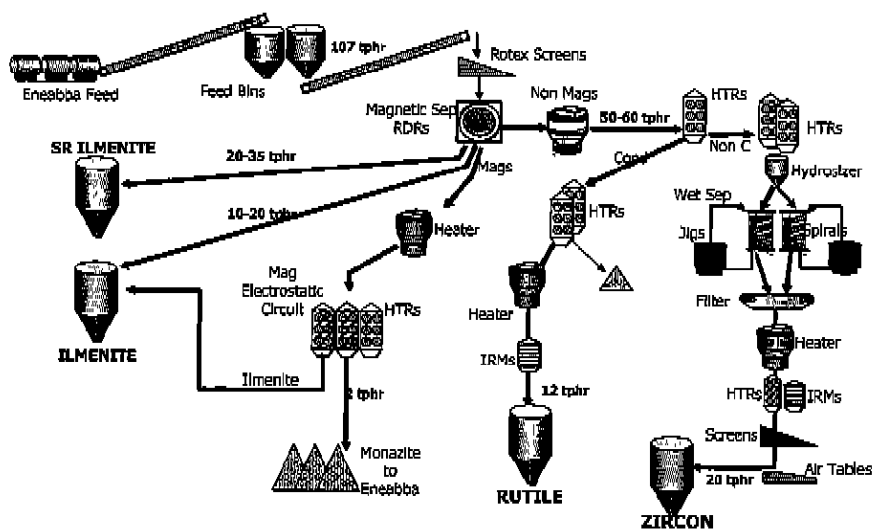
Mineral Separation



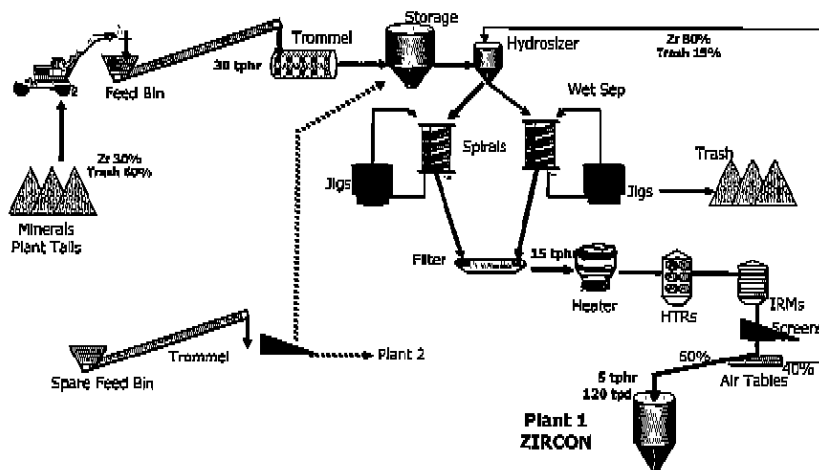
Classification of Minerals

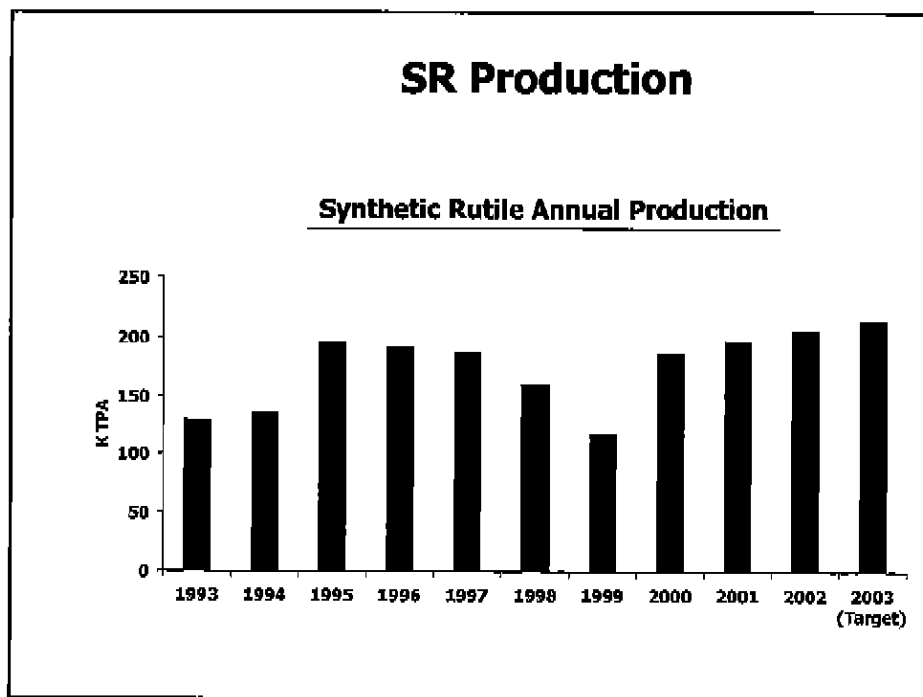
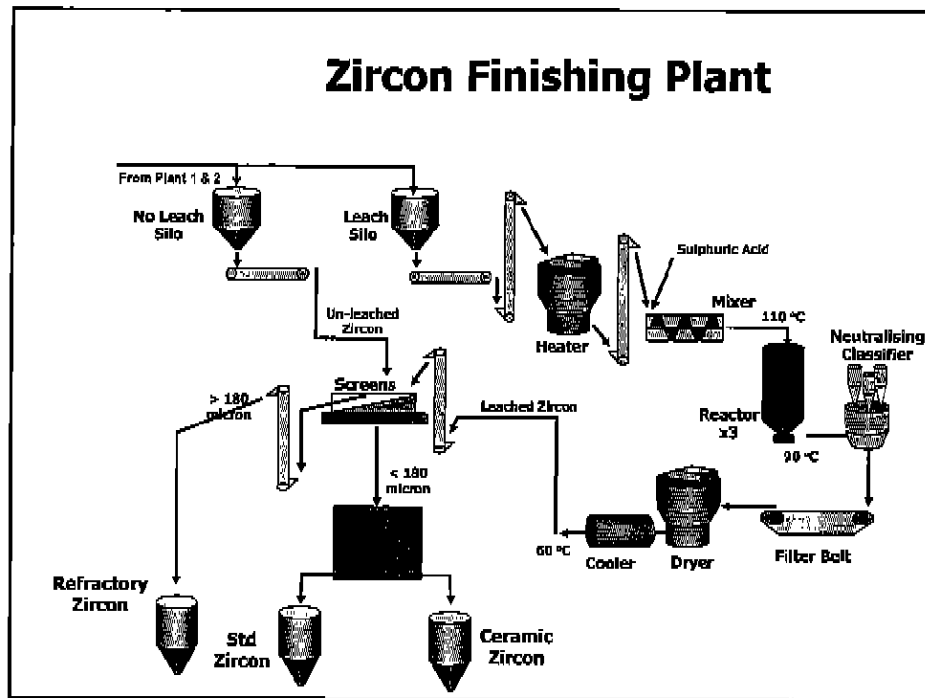


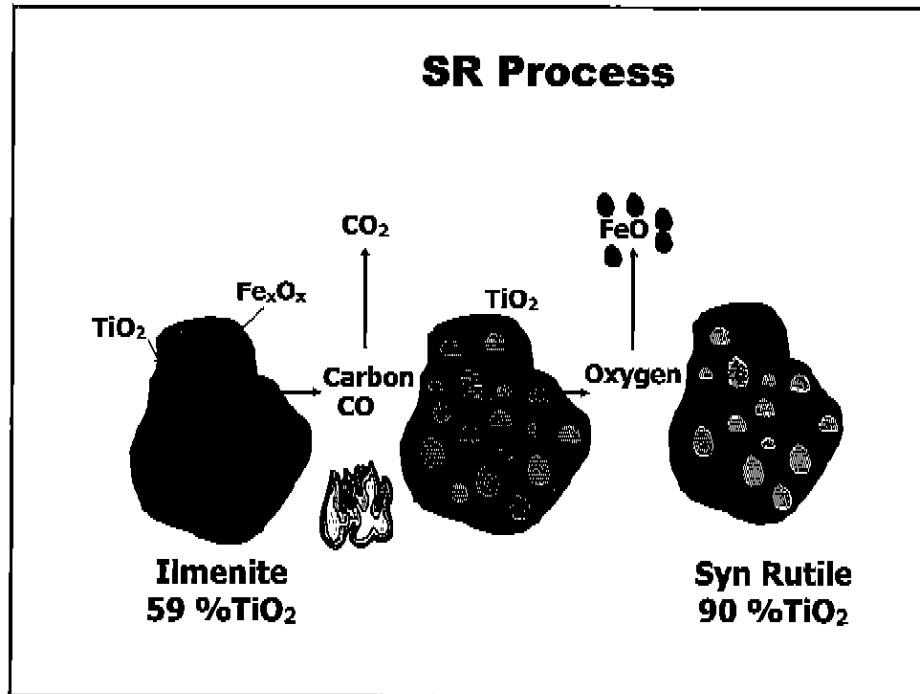
Minerals Plant 2



Minerals Plant 1





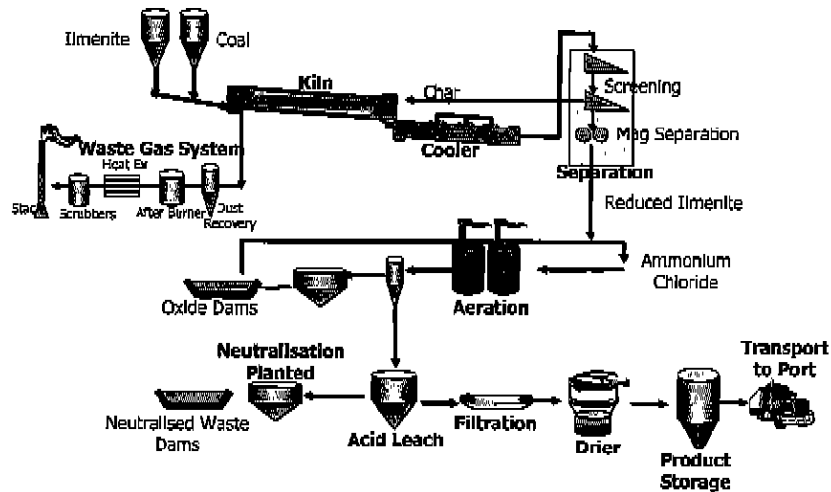


Synthetic Rutile Process

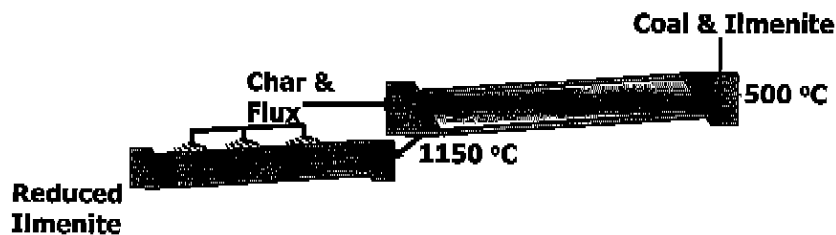
- Ilmenite = 58% TiO₂ approx 25% Iron
- Iron oxide is difficult to remove
- Reduce the FeO Fe₂O₃ to metallic Iron
- Carbon is required for the reduction

- $\text{TiO}_2 \cdot \text{FeO} + \text{C} \rightarrow \text{TiO}_2 + \text{Fe} + \text{CO}$
- $\text{TiO}_2 \cdot \text{FeO} + \text{CO} \rightarrow \text{TiO}_2 + \text{Fe} + \text{CO}_2$

Synthetic Rutile Plant

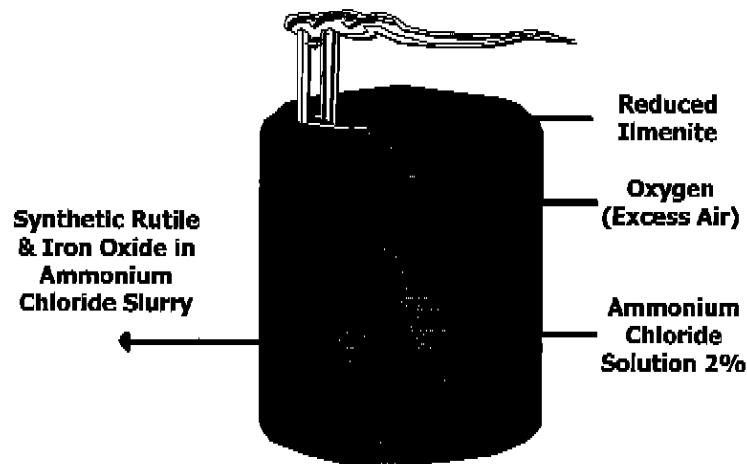


Synthetic Rutile Kilns



- ▶ The reduction kiln is 62 m, 5.1m dia
- ▶ 32mm steel, 250mm of refractory
- ▶ 1 tonne coal used for every 3 tonne Ilmenite

Aeration Process



SREP Process

- ▶ Commissioned in 1996
- ▶ Only process in the world
- ▶ Uses Hydroboracite Flux
- ▶ Glass of trash formed in kiln
- ▶ SREP process upgrades SR from 90% to 95%
- ▶ Lowers U+Th from 500ppm to 80ppm

SR Consumables

- ▶ **350,000 tonnes ilmenite**
- ▶ **128,000 tonnes coal**
- ▶ **11,600 tonnes of lime**
- ▶ **14,000 tonnes of sulphuric acid**
- ▶ **72,500 mw hrs of electricity**
- ▶ **151,000 gigajoules of natural gas**