Makwiro Platinum Mines

Implats Analyst Visit

10th and 11th October 2002

IMPLATS

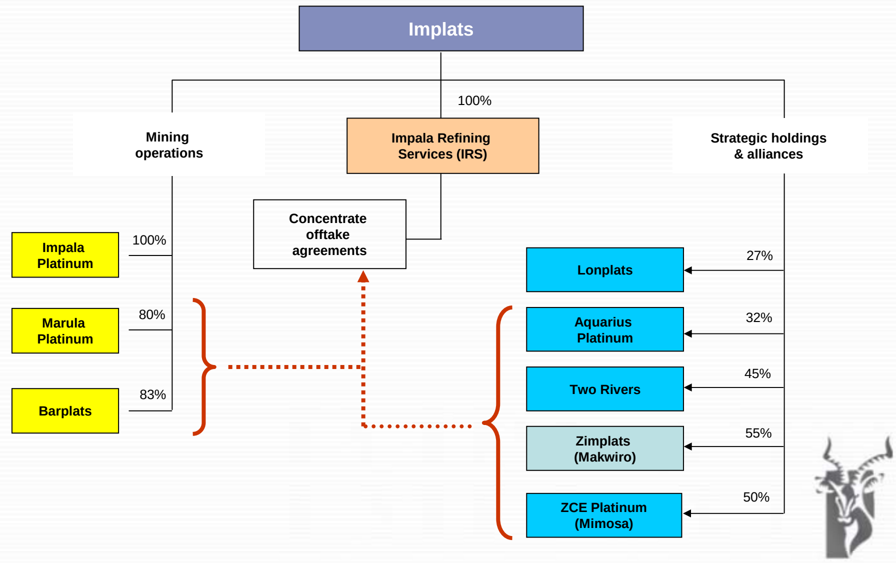
Welcome and Introduction

Les Paton - Implats

BACKGROUND

- Acquired effective 41% stake in 2001
- Increased stake to 55% in August 2002
- Offtake agreement with Impala Refining Services

IMPLATS GROUP STRUCTURE



PROJECT OVERVIEW

Makwiro Platinum Mine

Ngezi Mine
(Ngezi – Zimbabwe)

↓ **ore transported 77kms by road trains**

Selous
Metallurgical Complex
(Selous – Zimbabwe)

↓ **'green' matte transported by trucks**

IRS Contract

Mineral Processes
(Rustenburg – South Africa)

↓ **matte transported by trucks**

Refineries
(Springs – South Africa)

MAKWIRO PLATINUM MINES

Makwiro Project

Mike Houston

THE PROJECT

Objectives

- Exploit shallow ore at Ngezi
- Process at Selous Metallurgical Complex (SMC) ex BHP facility

Resource

- 40Mt at a recoverable grade of 3.36gt 4E
- Shallow dipping ore body (4°)
- Mining depth - 20 to 50m
- 13:1 strip ratio

THE PROJECT

Mining operations

- Open cast mining
- 26Mtpa bulk waste
- 2.2Mtpa ore
- Crushed to <300mm
- Hauled to SMC

THE PROJECT

Metallurgical operations

- 93 000 tonnes concentrate at 84% recovery
- 3 200 tonnes matte at 99.4% recovery
- 202 000 ounces 4E
- Metal splits

Platinum	98 658 oz
Palladium	83 632 oz
Rhodium	7 992 oz
Gold	12 407 oz
Nickel	1 302 t

THE PROJECT

Time frame

- Project duration 7 months
- Year 1 91% capacity
- Year 2 Full capacity
- Start date May 2001

THE PROJECT

- **Capital Expenditure**
  - Ngezi Mine US$10m
  - Road US$19m
  - SMC US$ 5m
  - Total US$34m
- **Funding**
  - Impala equity US$30m
  - Absa loan US$30m
  - Peak funding US$54m
- **Shareholding**
  - Impala 30%
  - Zimplats 70%

THE OUTCOMES

- **Commenced as per schedule**
- **11 months to full commissioning**
- **Capital expenditure US$32m**
- **77km road construction on time and budget**
- **First quarter sales 38 143oz 4E**
- **75% of full capacity**

THE OUTCOMES

Forecast for first full year to June 2003 versus first year feasibility and actual to September 2002

		Feasibility	Forecast
Ore milled	t	2 002 000	2 086 000
Grade	g/t	3.36	3.1
Concentrate	t	85 000	87 631
Concentrator recoveries	%	85	84
Matte	t	2 790	3 109
Matte recoveries	%	99.4	99.4
Metal 4E	oz	184 447	173 750
Nickel	t	1 185	1 453

THE OUTCOMES

- **Sales are forecast to be $24m - 25% down on feasibility**
  - Volume 5%
  - Prices 20%
- **Operating costs ($ per tonne milled)**

	Forecast 02/03	Actual to Sept
Mining	13	10.88
Haulage	2.18	2.23
Concentrator	5.79	3.52
Smelting	2.95	1.59
Total	**23.92**	**18.22**

CHALLENGES

- Equipment availability at the mine
- Grade control
- Commissioning SMC
- Retention / development of people
- AIDS
- Infrastructure / service sector support

OPPORTUNITIES

- SMC smelting capacity
- Underground mining at Ngezi
- Zimplats reserves
- Local manufacture of steel balls

SAFETY, HEALTH AND ENVIRONMENT

- **Risk analyses completed on all operations**
- **All employees inducted in SHE**
- **Internal and external audits**
- **Compliance with all local environmental legal requirements and those associated with an Australian-listed company**
- **Safety statistics**
  - 7 lost time accidents to date
  - SMC - no lost time since November 2001
  - Ngezi - no lost time since May 2002

SOCIO-POLITICAL SITUATION

- **Chairman's Committee allocates resources to local communities**
  - Health
  - Education
  - Sport
- **Self-help projects**
- **Some non-core activities outsourced to local businessmen**

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