

# **PRODUCTION PROFILE**

## **2003 - 2006**

### **Anglo Platinum**

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**28 November 2002**

- **Supply / demand review supports Anglo Platinum's growth target to produce at a rate of 3,5 million ounces of refined platinum by end 2006**
- **Targets remain achievable**

# BRIEF PGM MARKET OUTLOOK

- **Platinum demand to grow strongly**
  - Autocatalysts, primarily diesel (short term)
  - Jewellery (medium term)
  - Electronics & fuel cells (long term)
- **Palladium demand to remain at current levels**
- **Rhodium demand expected to grow**
- **Platinum price likely to remain strong**
- **Palladium price dependent on Russia**
- **Rhodium price flat**

# **AGREEMENT WITH GOVERNMENT**

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# MINING AUTHORISATIONS

- 6 key mining authorisation applications
- Court action on 2
  - these authorisations now processed
- 2 further authorisations
  - process agreed
- Agreement reached on key 2
  - Twickenham & Der Brochen

# AGREEMENT WITH GOVERNMENT

- BEE groupings holding mineral rights adjacent to each project area will contribute those rights to the project.
- Within each project area a 50:50 JV will be established over portion of the area.
- The remainder of the project area will be developed 100% by Anglo Platinum.

# AGREEMENT WITH GOVERNMENT

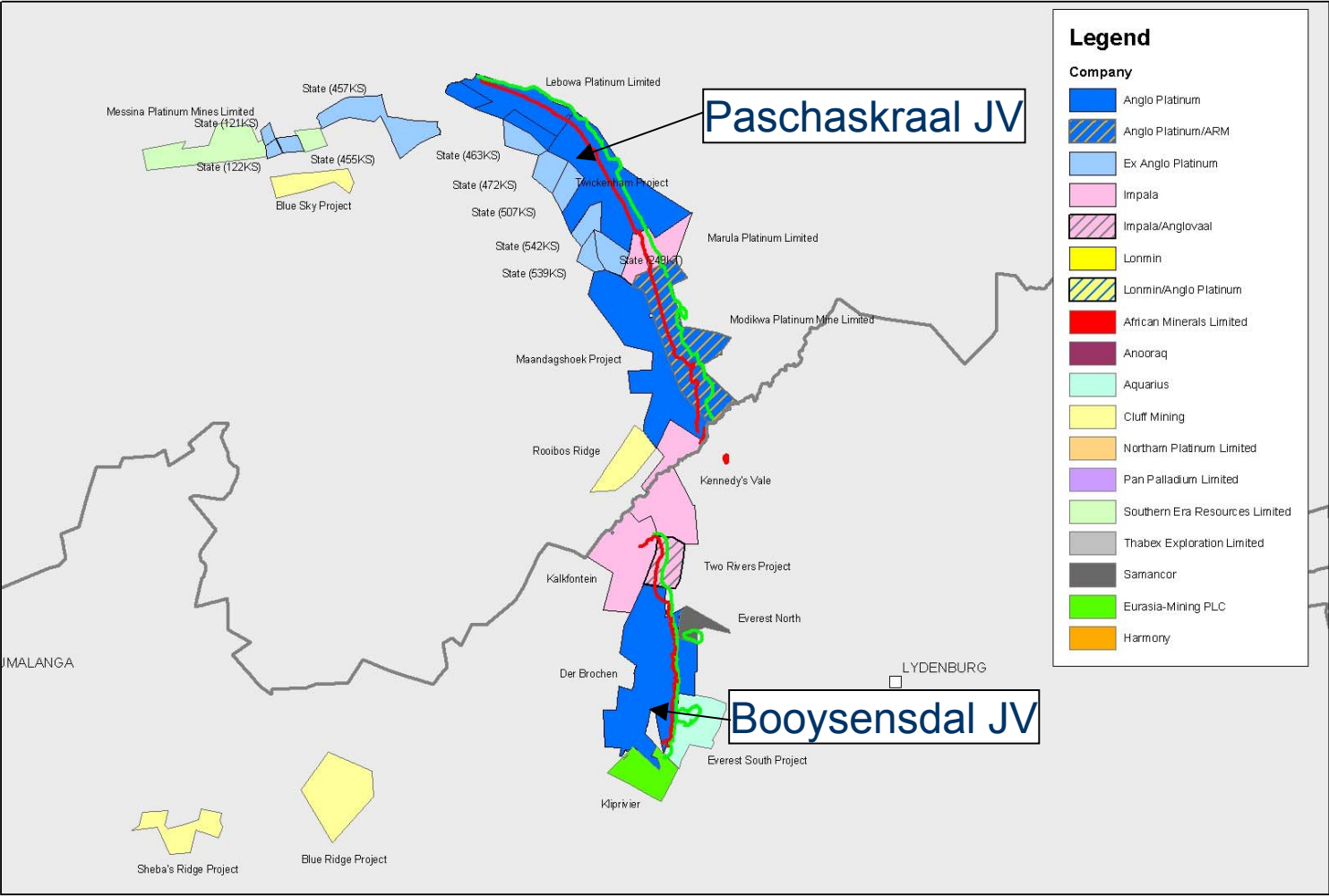
- The BEE groupings will contribute rights plus 50% of the capital and operating expenditure on the JV project.
- Anglo Platinum received “credit” for excess ounces (depth adjusted) contributed.
- As a result of this credit Anglo Platinum will have satisfied its BEE participation requirements on any extensions to the Potgietersrust Platinum Mine.

# AGREEMENT WITH GOVERNMENT

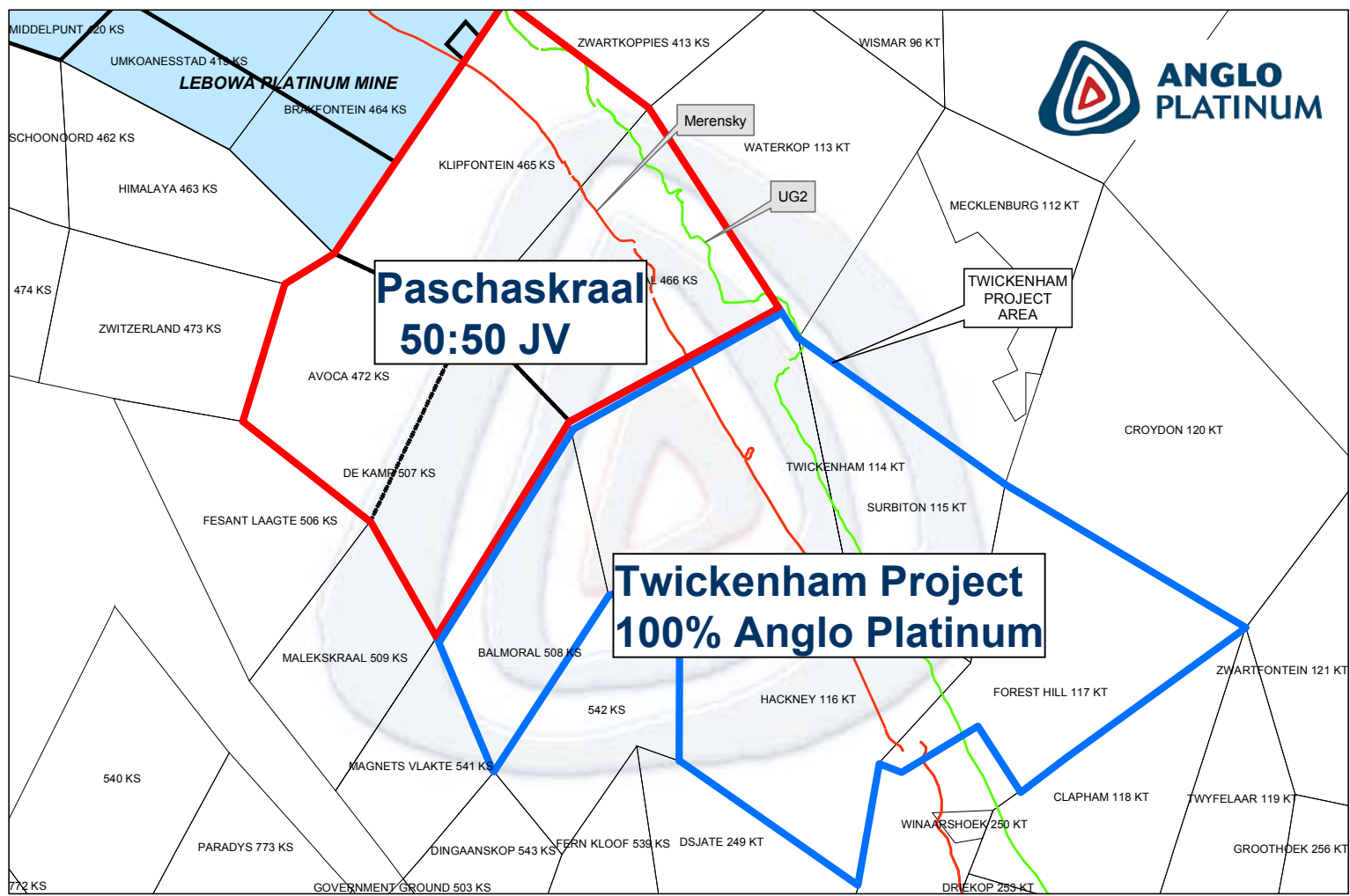
- Negotiations with two BEE consortiums have commenced:
  - Paschaskraal JV adjacent to the Twickenham project
  - Booysendal JV adjacent to the Der Brochen project
- JV mine designs, planned production rates, capital costs and funding are under discussion



# BUSHVELD COMPLEX EASTERN LIMB

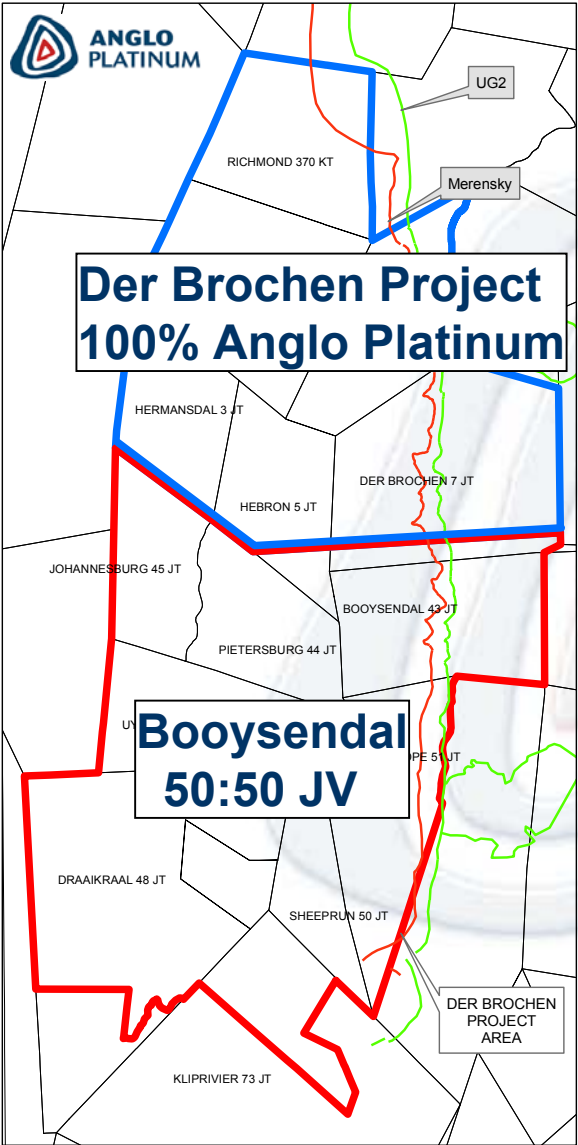


# PASCHASKRAAL JV & TWICKENHAM PROJECTS



**Twickenham Project**  
**100% Anglo Platinum**





# BOOYSENDAL JV & DER BROCHEN PROJECTS

# IMPACT ON EXPANSION

- Delays associated with mining authorisations and JV negotiations have impacted on the rate of build-up to 3,5 million ounces per annum.
- A revised project suite has mitigated the impact but reduced the rate of production increase particularly in 2003 and 2004.
- Current projects, together with base production will take Anglo Platinum to a production rate of 3,5Moz Pt per annum by end 2006 and position the group for expansion beyond 2006.

# PRODUCTION PROFILE



# PROJECTS: CURRENT STATUS

- **Safety: LTIFR: 0,2**
- **Waterval concentrator commissioned on schedule - exceeding design targets.**
- **Waterval mine into production - ramping up**
- **Modikwa Mine into production - very positive performance**
- **Modikwa plant commissioned - met design targets in first full month of operation.**
- **Mortimer plant completed - running at design rate.**
- **ACP into commissioning - good results**
- **Polokwane Smelter - construction going well**
- **Tailings Retreatment Project approved.**



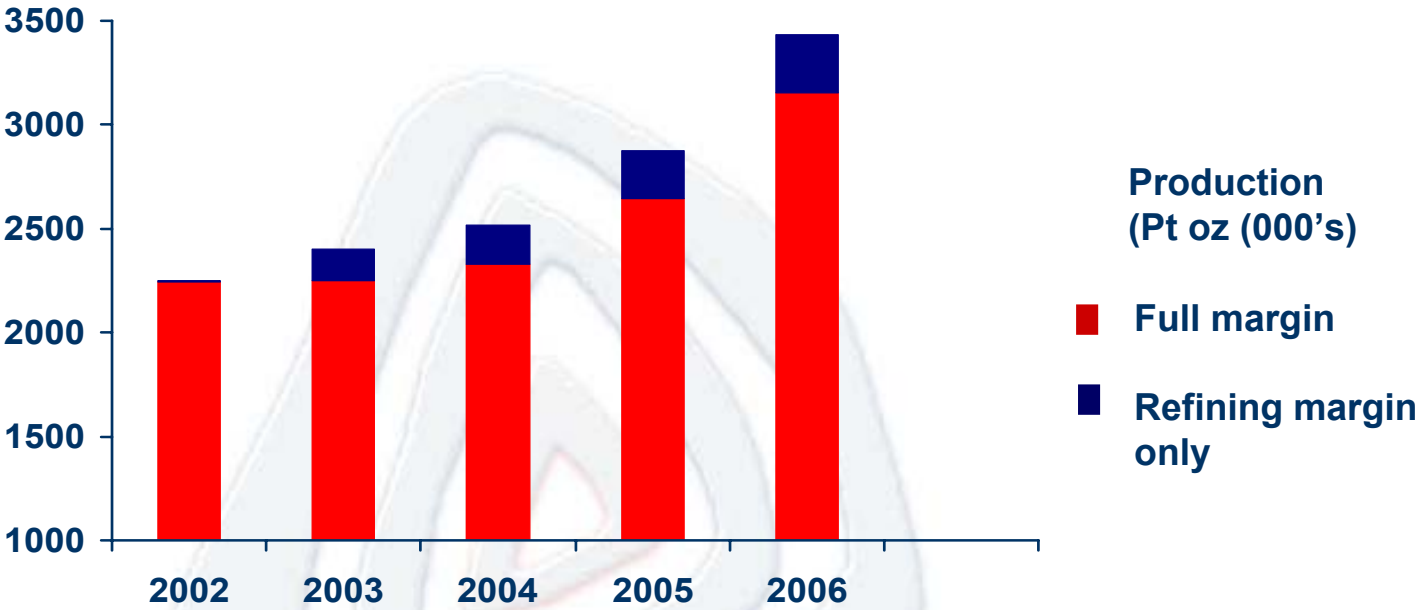
# PRODUCTION PROFILE

|                                          | Pt Oz (000's) |       | CAPEX (R m)                           |
|------------------------------------------|---------------|-------|---------------------------------------|
|                                          | Total         | AP**  | 2003 to completion<br>Real 2003 terms |
| 2002 Base Production                     | 2 250         | 2 242 |                                       |
| <i>Increase over 2002 Base</i>           |               |       |                                       |
| BRPM                                     | 72            | 36    | -                                     |
| Modikwa                                  | 146           | 73    | 120                                   |
| RPM UG2 Ph 1                             | 246           | 246   | 210                                   |
| Twickenham                               | 160           | 160   | 3 000                                 |
| RPM Tailings                             | 140           | 140   | 1 600                                 |
| JV's & other                             | 420           | 255   | 8 300                                 |
| 2006 Production                          | 3 434*        | 3 152 | 13 230                                |
| Process division                         |               |       | 2 070                                 |
| Total Remaining Capex                    |               |       | 15 300                                |
| JV funding                               |               |       | (2 400)                               |
| Remaining Anglo Platinum Expansion Capex |               |       | 12 900                                |

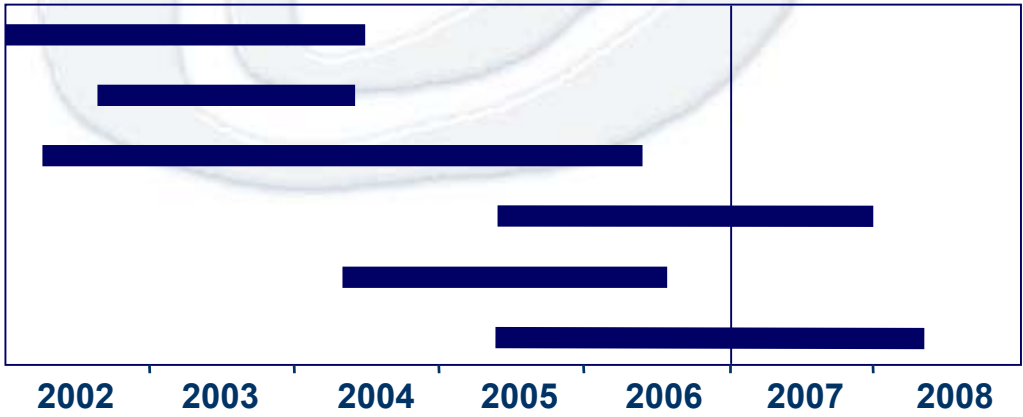
\* Annualised rate achieved by 2006 year end: 3,5 m oz

\*\* 100% attributable to Anglo Platinum (full mining to refining margin)

# PRODUCTION FORECAST



BRPM  
Modikwa  
RPM UG2 Ph 1  
Twickenham  
RPM Tailings  
JV's & other





# **COSTS CAPEX & PRODUCTION**

- In the short term costs of labour and safety are increasing at rates well above inflation. That and the change in mix of ores will put pressure on costs.
- We are targeting unit cash operating costs on steady state operations to increase at S A cpi.
- Projects in ramp up phase – lower margins until steady state reached.
- Capital expenditure in 2003:
  - to maintain operations: R3,6 bn
  - to expand operations : R4,1 bn
- Refined platinum ounces in 2003 : 2,4 million.

# KEY ISSUES

- **Regulatory approvals**
  - mining licences
  - EMPR's
- **Time to conclude negotiations.**
- **Suppliers meeting delivery commitments.**

**Project programme consistently  
reviewed and reported at financial  
results presentations**

# **CAPITAL EXPENDITURE**

## **ORIGINAL ANNOUNCEMENT REVISITED**

|                                                                    | (Rbn) |
|--------------------------------------------------------------------|-------|
| Original announcement in 2003 terms                                | 17,1  |
| Scope changes (incl time delays)                                   | 2,2   |
| Capacity projects for growth and /<br>or replenishment beyond 2006 | 2,0   |
| Revised total (2003 terms)                                         | 21,3  |

# PROJECT CHANGES SUMMARY

- Revised suite of projects and scope changes
- Certain projects still in ramp up phase by 2006
- Ability to grow beyond 2006 provides significant flexibility

# **RUSTENBURG PLATINUM MINES LIMITED**

## **TAILINGS RETREATMENT PROJECT**

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# RPM TAILINGS RETREATMENT

- **Project details**

- Production per annum: 120 000 oz Pt      and 38 000 oz Pd
- Volume per month: 450 000 / 900 000 tons
- Average grade 1 g/t
- Capex: R1,6 billion
- First production 2004, full production 2006
- 15 year project life

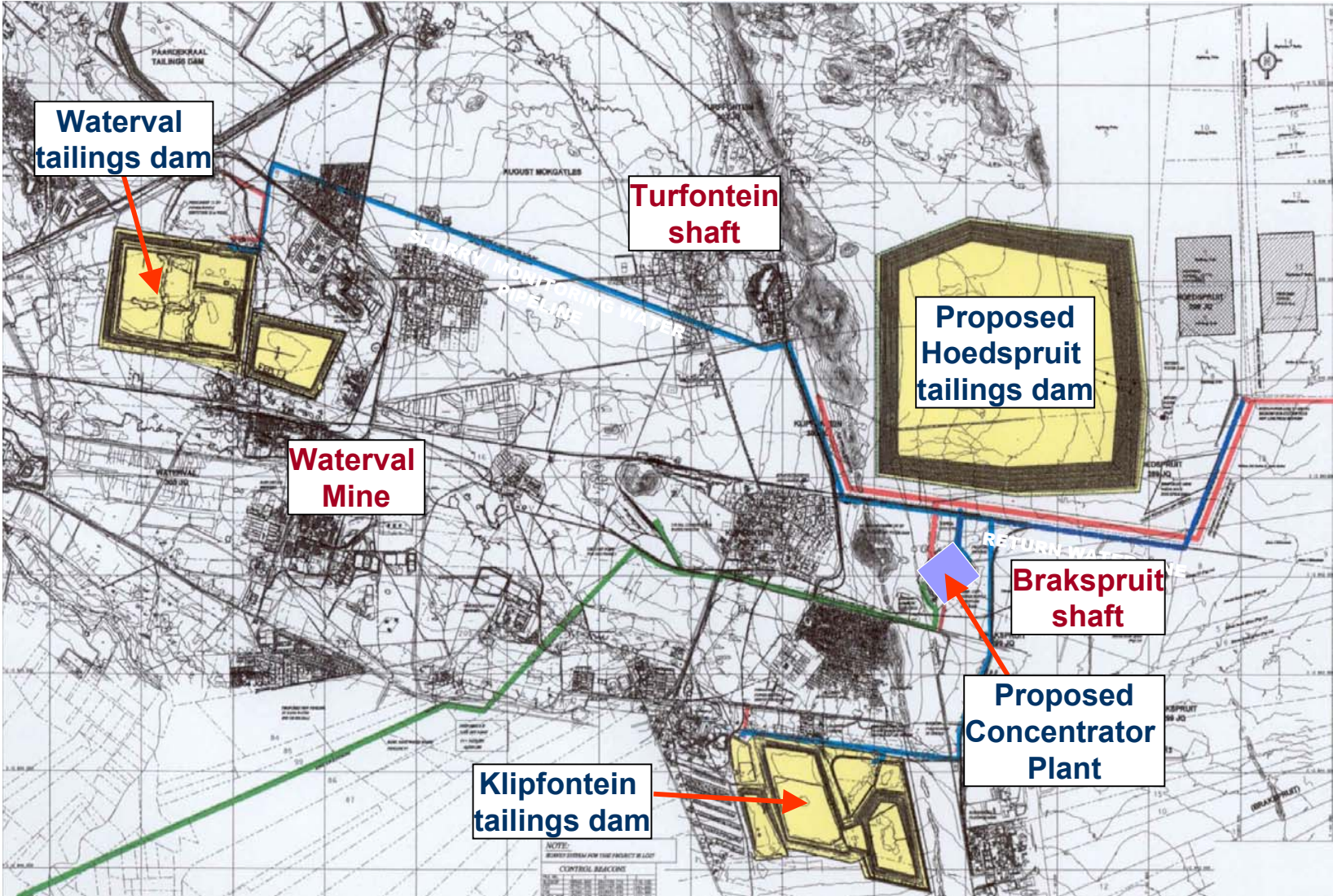
- **Production sourced from Klipfontein and Waterval tailings dams**

- **Production processed by a new plant near Brakspruit**





# RPM TAILINGS DAM SITES





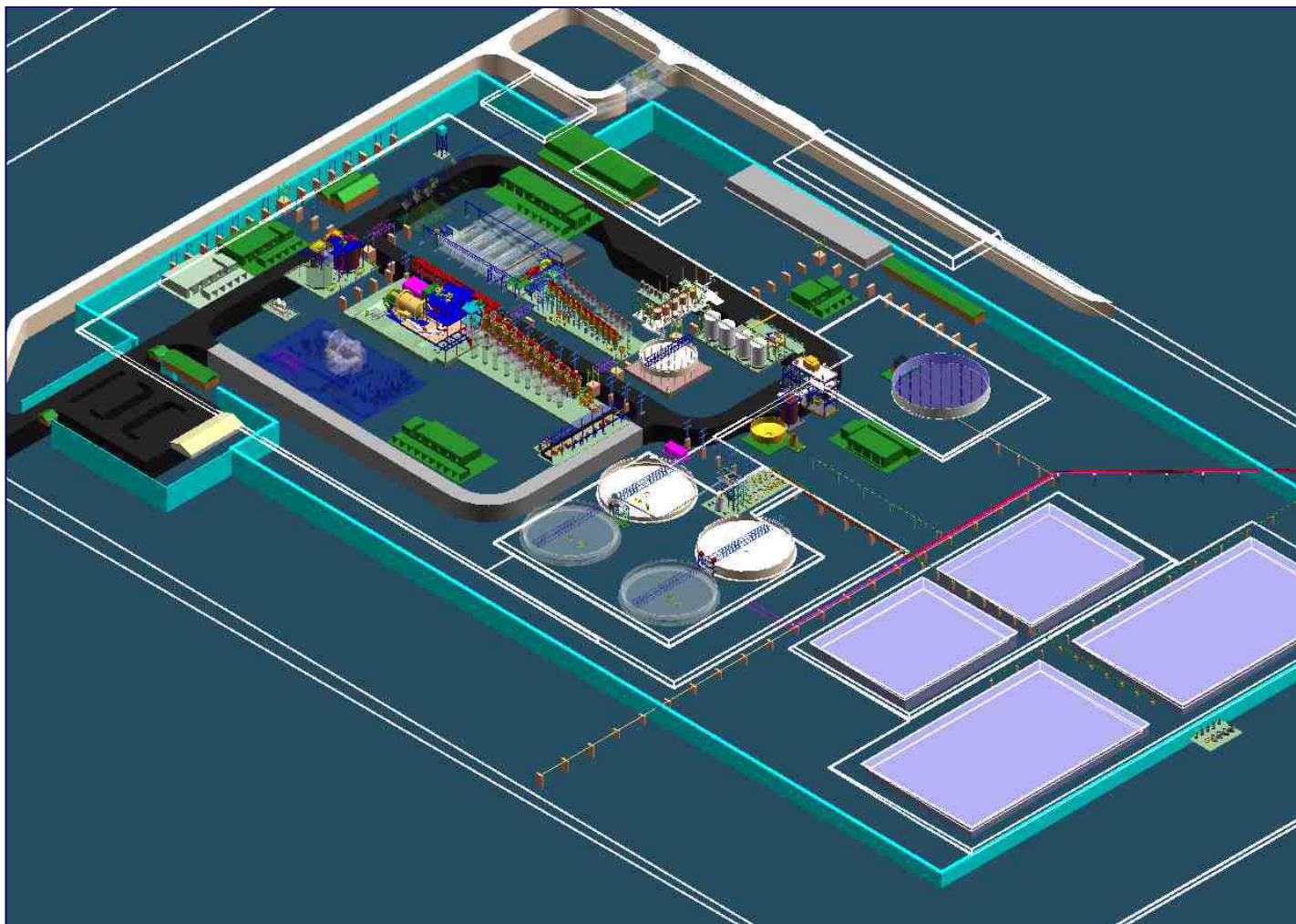
# RPM TAILINGS RETREATMENT



**Large bore auger drilling**

- **Drilling programme complete**
- **Plant design complete**

# TAILINGS PLANT DESIGN



# QUESTIONS



# **PRODUCTION PROFILE 2003 - 2006**

## **ANNEXURE**

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**28 November 2002**

# PROJECT COMPARISON & CHANGES

## 2000/1 Announcements

## Current Estimate

| Projects      | Pt Oz<br>( 000's) | Capex to 2006 (Rm)<br>in 2003 terms** | Pt Oz<br>( 000's) | Capex to 2006<br>R m 2003 terms |
|---------------|-------------------|---------------------------------------|-------------------|---------------------------------|
| BRPM          | 250               | 1 400                                 | 235               | 1 400                           |
| AM, LEB, UN * | 201               | 1 100                                 | -                 | -                               |
| Modikwa       | 162               | 1 800                                 | 162               | 1 800                           |
| Twickenham    | 160               | 3 200                                 | 160               | 3 200                           |
| RPM UG2 Ph 1  | 395               | 1 500                                 | 395               | 1 500                           |
| RPM Tailings  | -                 | -                                     | 140               | 1 600                           |
| JV's & other  | 365               | 4 600                                 | 420               | 8 300                           |
|               | <b>1 533</b>      | <b>13 600</b>                         | <b>1 512</b>      | <b>17 800</b>                   |
| Process       |                   | 3 500                                 |                   | 3 500                           |
| <b>Total</b>  |                   | <b>17 100</b>                         |                   | <b>21 300</b>                   |

\* Amandelbult, Lebowa and Union in current base

\*\* Historic expenditure plus forecast expenditure in real 2003 terms



# **PRODUCTION PROFILE**

## **2003 - 2006**

### **Anglo Platinum**

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### **28 November 2002**