






## Analyst visit


27 October 2006



## Agenda



<p><b>Introduction</b> The issue The solutions</p>	}	<p><b>David Brown</b></p>
<p><b>Mining plan</b> <b>Productivity</b> DDT implementation Incentive scheme</p>	}	<p><b>Shadwick Bessit</b></p>
<p><b>Progress to date</b> Grade Ounces Costs</p>	}	<p><b>David Brown</b></p>

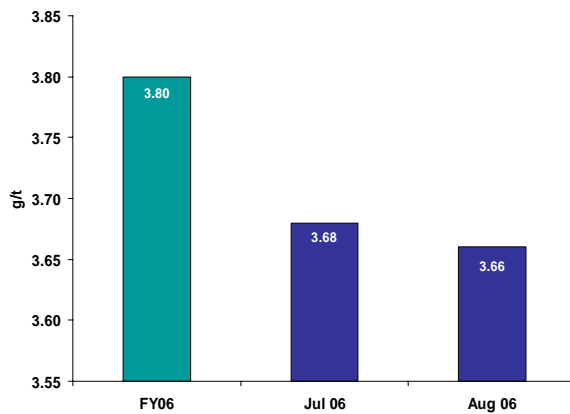


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## The issue



### Decline in head grade



## The reasons

- Poor mining / Dilution control
  - Stoping width
  - Off reef mining
- Productivity gains not realised
  - DDT implementation
  - Incentive scheme



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## The solution



- Back-to-basics mining plan
- Productivity
  - Re-focused and measured DDT implementation
  - Revised bonus system rewarding quality production



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## Mining plan



## Back-to-basics mining plan



- **Improve mining basics**
  - Maximising conventional Merensky volumes
  - Focus on 3<sup>rd</sup> generation Merensky shafts
  - Training of miners on correct mining parameters
  - Appoint grade control observers for follow-up coaching
  - Supervision at the face with regards to marking, drilling & blasting practices
  - Review stope and strike plots daily with regards to mining panels at correct parameters
  - Review trends weekly at shaft level



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## Back-to-basics mining plan



- **Improve management information**
  - All panels mined observed & sampled at least three times per month
  - Reports generated daily for actioning
- **Senior management review trends & progress**
  - Mid-month & month-end



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## Back-to-basics mining plan



- **Other influencing parameters**
  - On reef development metres vs. stope m<sup>2</sup>
  - On reef excavation dimensions
  - Sweepings
  - Waste control
  - Ore mix
    - Merensky versus UG2
    - Conventional Merensky versus mechanised Merensky
    - Underground versus opencast



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**IMPLATS**  
Distinctly Platinum 

**Productivity**



**IMPLATS**  
Distinctly Platinum 

**DDT Implementation**



## DDT Scorecard



### Primary benefits

- **Safety**
  - Remove RDO from danger area ✓
  - Permanent support close to face ✓
    - 70% of roofbolting Merensky teams
  - Reduction in number of FOG's ✓



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## DDT Scorecard



### Secondary benefits

- **Reduce physical effort** ✓
- **Productivity improvement**
  - 30% of 290 teams using DDT's ✗
  - Assuming a blast frequency of 19 blast/month ✗
  - Potentially 1.2m advance per blast ✗
  - Achieve better face advance per blast ✓
- **Cost per ounce benefit** ✗



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## DDT challenges



- **Logistics**
  - Spare equipment ✓
  - Maintenance by team Ongoing
  - Repairs turnaround time ✓
  - Equipment availability ✓
  - Transporting of equipment ✓



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## DDT key features and action plans

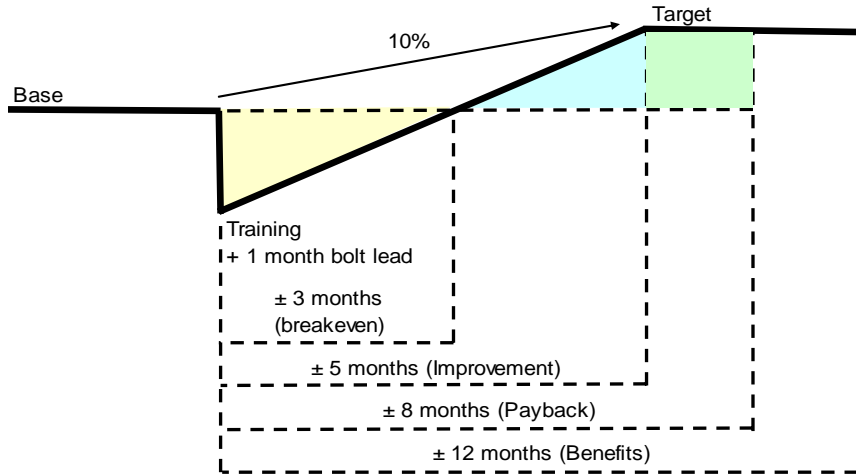


- **Cycle completion**
  - Cycle study in progress
  - Team complement setting
  - Re-focus on training (40 teams re-trained)} End Feb 07
- **Mining environment**
  - Rolling Reef (technical re-design/modifications)
  - Ledging / Vent holings / Bad blast - ongoing challenge} Nov 06
- **Alignment of incentive scheme**
  - Face advance component
  - Quality component (sweepings) – team
  - Dilution component - supervision} Nov 06



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## Team learning curve (Built into 5-year plan)



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## Incentive Scheme



## New bonus scheme



- 3 KPI's for Panel team

<b>Centares Efficiency</b>	<ul style="list-style-type: none"> <li>• Cut-off point 36 Ca's/man.</li> </ul>
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<b>Face Advance</b>	<ul style="list-style-type: none"> <li>• New table for team members. Start at 16m &amp; 36 Ca's/man.</li> <li>• Keep existing table for Miners. Same rules as team members.</li> </ul>
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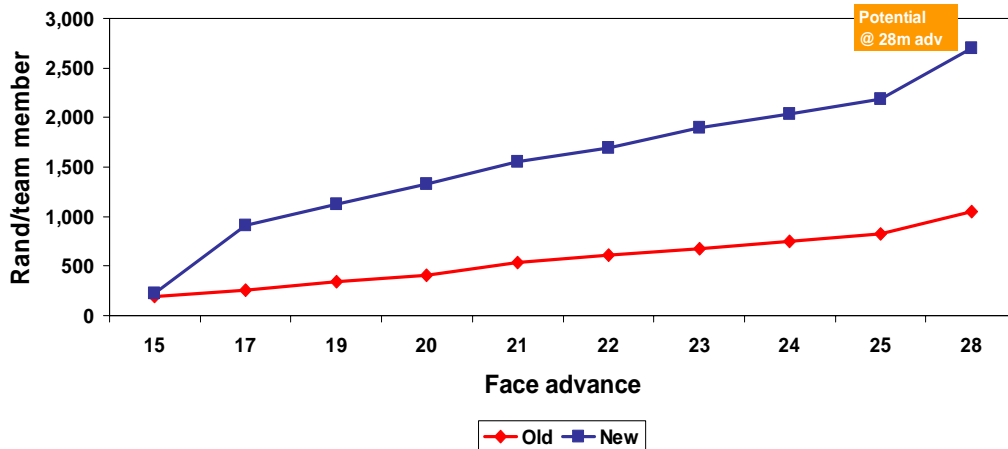


<b>Sweepings</b>	<ul style="list-style-type: none"> <li>• Qualifies if sweepings are within 15m of the blasting face.</li> <li>• Payment of 20% of bonus.</li> </ul>
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## New Bonus for team member



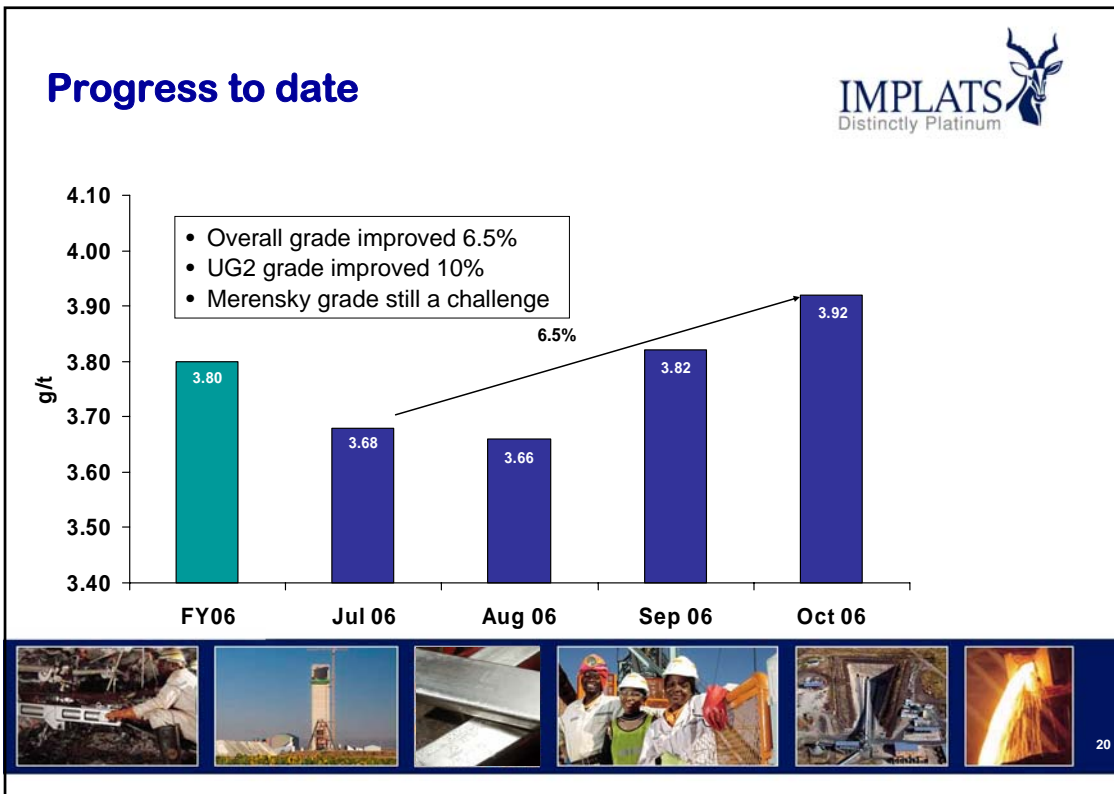
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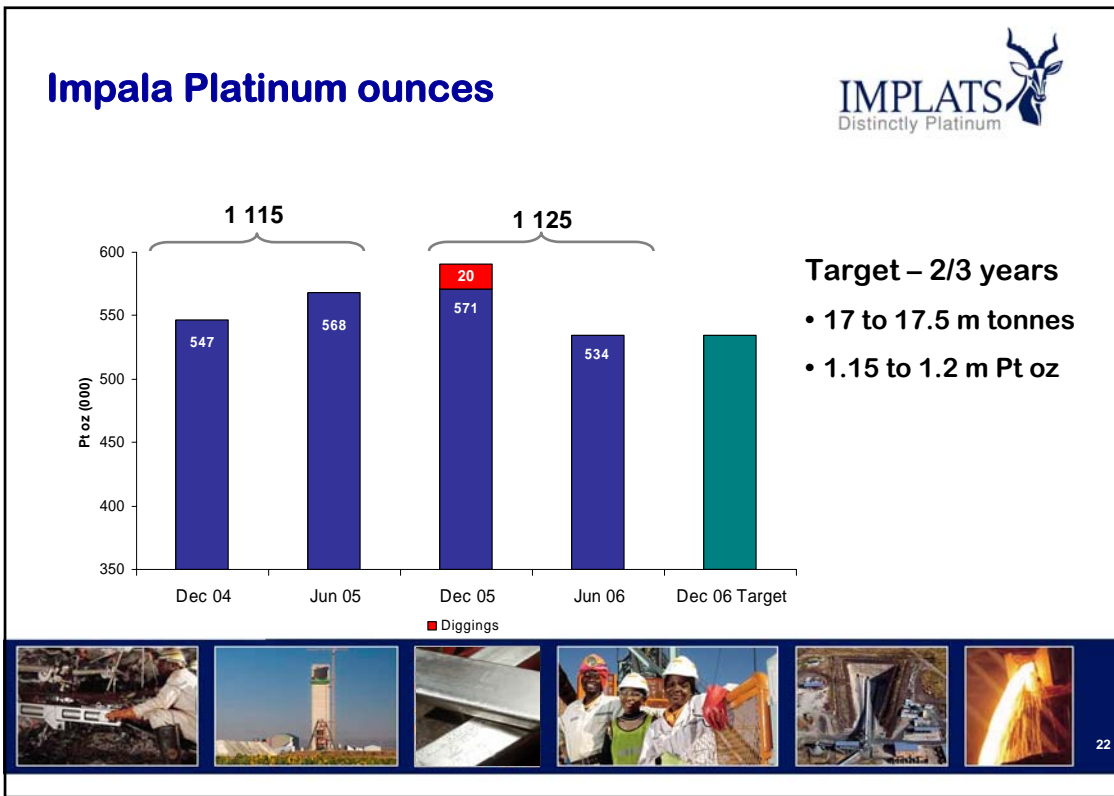
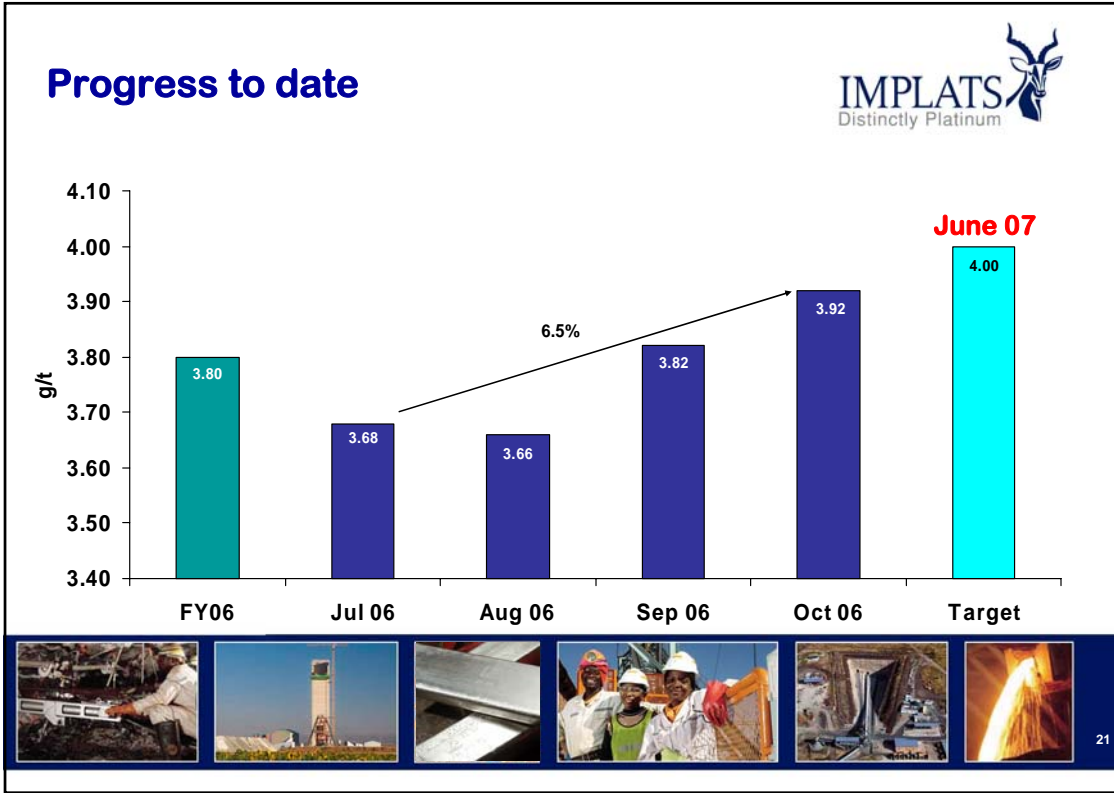


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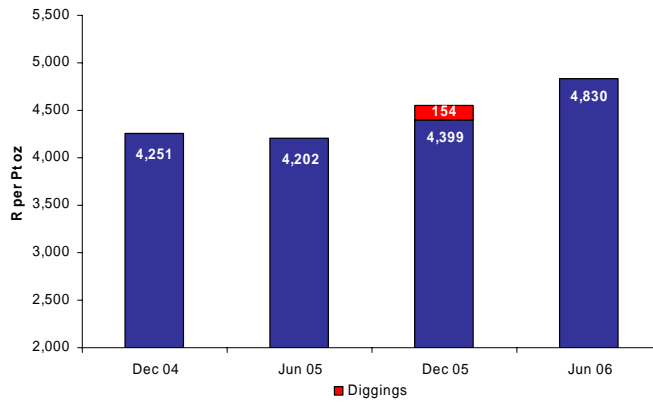
## Progress to date

David Brown



## Impala unit cost per Pt oz



### Cost drivers

- Wages
  - Annual increase
  - Skills retention
  - Additional employees/infrastructure
- Consumables
- Shock tubes



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