



Association of Mine Resident Engineers Seminar

**THE SAFETY ACHIEVEMENTS OF THE SOUTH
URANIUM PLANT**

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Content

- Plant Description
- Plant Activity
- Safety Achievements
- Safety Achievers
- Dressing Case Rates
- Lost Time Injury Trends
- Safety Program
- What Works?
- Conclusion

Plant Description

The South Uranium Plant is situated in the Vaal Reefs mining area outside of Orkney and was commissioned in 1978.

The plant was originally designed to treat 200 000tpm, following an upgrade in 1991 this was increased to 250 000tpm.

The uranium is dissolved in the leach section where acid, manganese and steam are added.

The dissolved uranium is washed from the pulp via 6 thickeners, concentrated in the CCIX section, purified in a solvent extraction plant and finally it is precipitated in the form of ammonium-di-uranate. 720tpa.



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Plant Activity

- Upgrading of infrastructure
- Dorr Oliver thickener refurbishment – all 6 rebuilt
- Refurbishment and relocation of sulphuric acid storage tanks
- Continuous failure of CCIX components, most significantly ec columns + replacement of four 28m columns
- New CCIX section R150million 2006 – 2007
- Major boiler rebuilds
- Numerous contractors



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Safety Achievements

- Achieved 700 000 Lost Time Injury Free Shifts on 30/03/2007 (729 325 ytd)
- Achieved 8 years without a Lost Time Injury on 31/10/2006
- 5 062 089 Fatality Free Shifts
- Winners of the Annual Physical Condition Rating (PCR) Competition 2005 & 2006
- Awarded the MMMA Lowest Reportable Injury Category A – Trophy 2005 & 2006

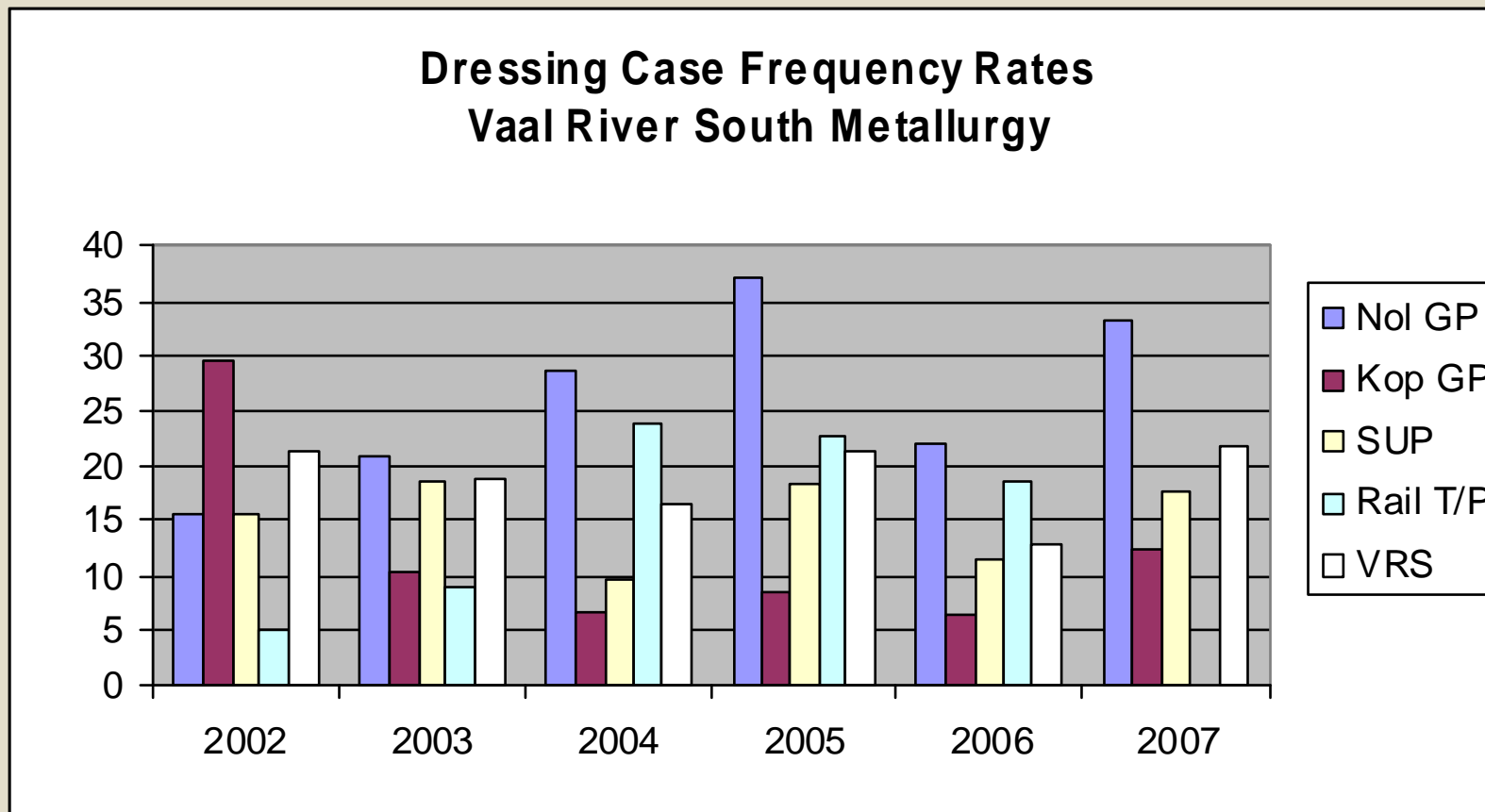


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Safety Achievers

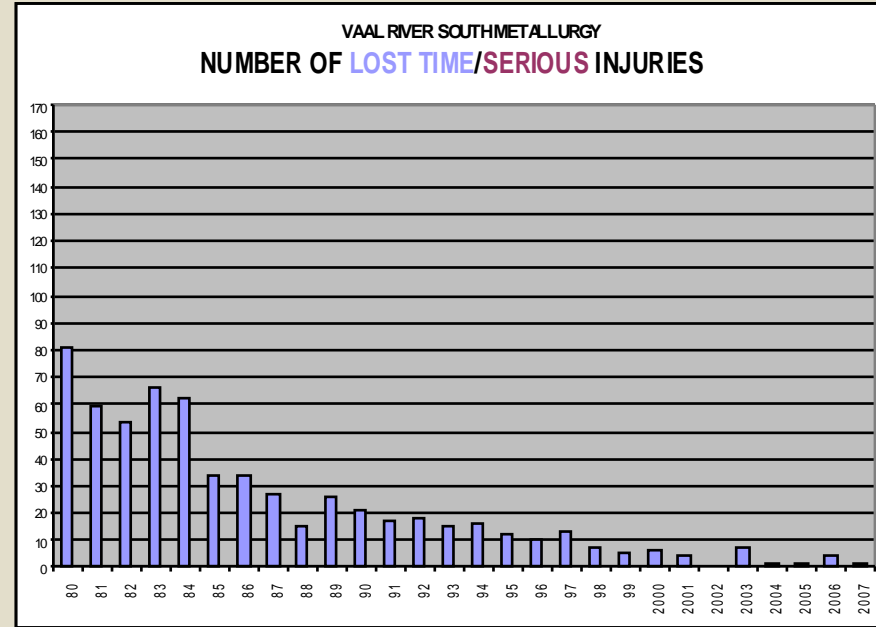
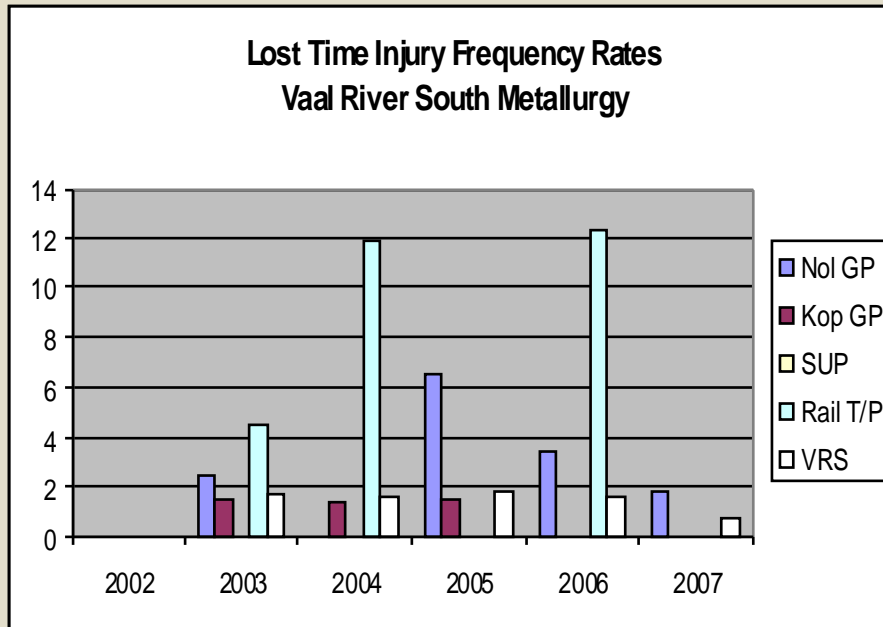
<i>LTI Free Shifts</i>	<i>Date Achieved</i>	<i>Engineer</i>	<i>Plant Manager</i>
100 000	09-Nov-99	I. E. Basson	G.C.V. Wade
200 000	10-Oct-00	V.M.D.S. Pinto	P.J. McManus / G.C.V. Wade
300 000	13-Dec-01	V.M.D.S. Pinto	P.J. McManus
400 000	10-Jun-03	V.M.D.S. Pinto	M. Steyn
500 000	18-May-04	Z. Mapanza	G.C.V. Wade
600 000	04-Jun-06	D.A. Berry	G. Nicholson
700 000	30-Mar-07	D.A. Berry	G. Nicholson

Dressing Case Rates



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Lost Time Injury Trends



Safety Program

- Scheduled inspections
 - Weekly as per schedule, management team + actioned
 - Cross inspections, artisans
 - Physical Condition Ratings, PCR Committee
- Scheduled meetings – ALL meetings incorporate safety
 - Green Area Meetings
 - Production Meeting + Sectional Meetings (6 week cycle) contractors compulsory
 - Quarterly and Monthly Campaigns
 - Health & Safety Committee



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Safety Program

- Visibility
 - Plant Tours
 - Safety Days
 - Lead By Example
 - Involvement
- Training
 - Induction – General and plant specific
 - Qualification verification and testing
 - Safety related training, activity related training
 - Assessments
 - Special or needs based



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Safety Program

- Risk Assessment
 - Base line, continuous,
 - Mini Risk Assessments,
 - Issue Based,
 - Change management
- Competition
 - Safety Rep of the month
 - Monthly Inter-plant competition
 - Quarterly Achievers
 - Section Winners
 - PCR



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Safety Program

- Recognition & Motivation
 - 100 000 Celebrations and Awards \$
 - SUNS tokens – exchange for awards
 - Specials – at meetings, functions
 - Safety Bonus 8%
- Incidents
 - Loss Announcement, informative
 - Detailed Investigation
 - Remedial Actions – captured on IRMS
- IRMS
- Policies and Procedures



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What Works?

- A Safety Culture & Positive Attitude
- Many safety initiatives + variety
- Practice what is preached – Safety First
- Housekeeping & Pride
- Know the risks to manage the risks – mini risk assessments
- Management Commitment & High Standards
- Ensure incidents have positive outcomes
- Healthy Union Relationship
- Strong & Committed Engineering Team

Conclusion

- Good Housekeeping is King - Quality work comes out of quality places
- Don't walk past it – fix it
- Guard against complacency – When you think you are good you are dead



The Safety Achievements of The South Uranium Plant

Acknowledgements -

- All members of the South Uranium Plant Team including Contractors
- Senior Management

