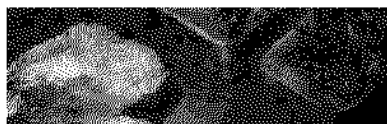


**St Barbara**



## **Paydirt's Gold Conference 2007**

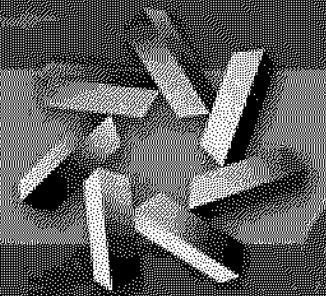
We attach a copy of the presentation to the Paydirt's Gold Conference 2007 being presented in Perth by Mr Peter Thompson, General Manager Exploration.

**Ross Kennedy**  
Company Secretary

22 May 2007

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Website [www.stbarbara.com.au](http://www.stbarbara.com.au)

# St Barbara Limited

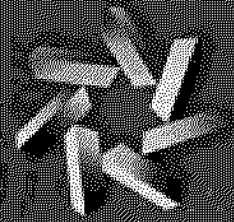


## Exploration Driven Growth



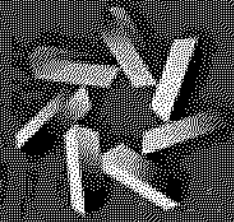
Peter Thompson, General Manager Exploration

# Brief History



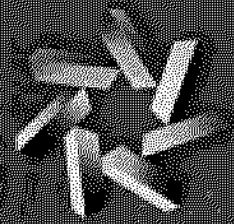
- 1969 St Barbara floated as Endeavour Oil
- Jul 2004 Eshuys & Wise appointed by shareholders
- Mar 2005 Sons of Gwalia gold assets bought for \$38M (US\$28M)
- Oct 2005 Sold Sth Laverton & Meekatharra A\$48M (US\$38M)

## Brief History cont....



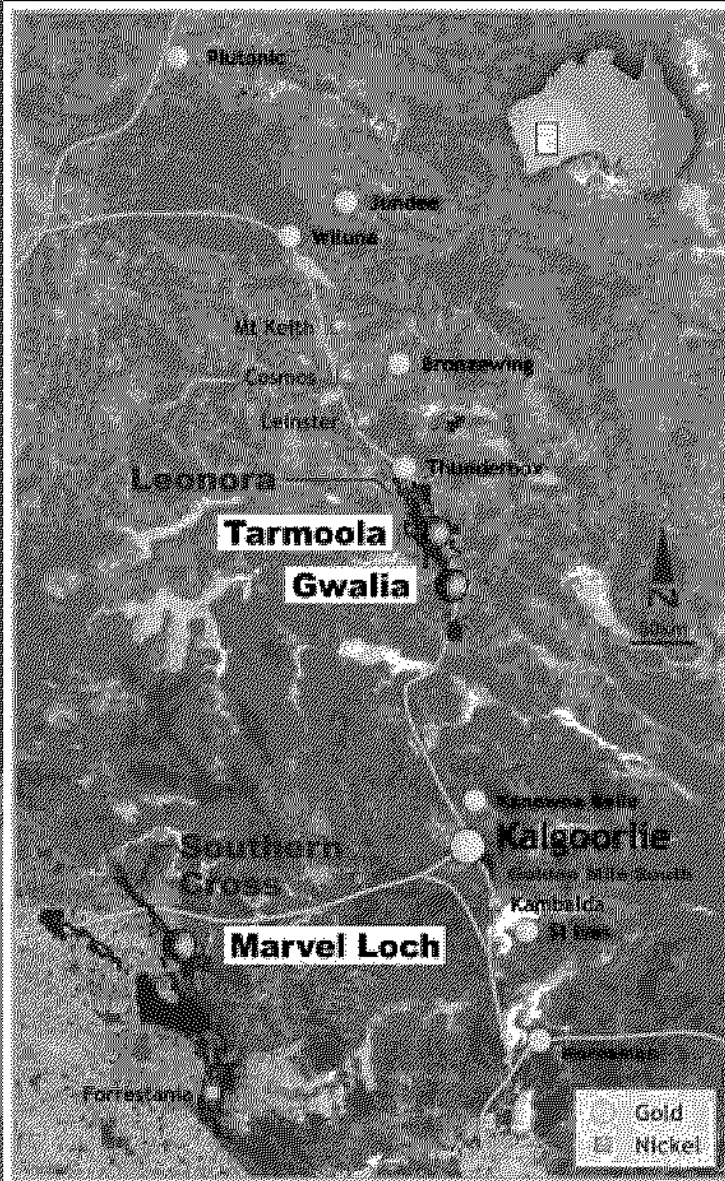
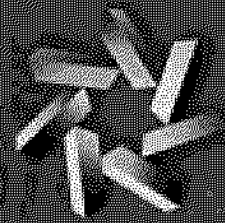
- Dec 2006 Reserves 1.7M ounces, production 0.26M, total 1.96M
- Feb 2007 Gwalia Deeps development approved
- Mar 2007 Cash / investments A\$51M (US\$41M)
- Mar 2007 Tarmoola put up for sale

# Issued capital at 31 March 2007



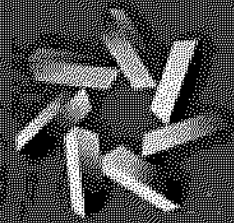
- 820M shares, 35M options
- 137m shares in A\$100m convertible note, matures 2012
- Shareholders at 31 March 2007
  - Resource Capital Funds II and III LP 22.4%
  - JP Morgan Asset Management 5.2%

# Our Current Interests...



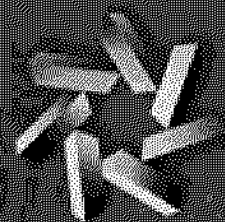
- Land portfolio 5,000sq km
- Three mills capacity 7.7Mt pa
- Endowment 23.2M ounces of gold
- Past exploration only 30% effective on Southern Cross & Leonora holdings
- Golden Mile South joint venture

# Capital Expenditure 2 Years to 31 March 2007



|                | <u>A\$M</u> | <u>US\$M</u> |
|----------------|-------------|--------------|
| Gwalia Decline | 31          | 25           |
| Southern Cross | 30          | 24           |
| Exploration    | <u>39</u>   | <u>32</u>    |
|                | <u>100</u>  | <u>81</u>    |

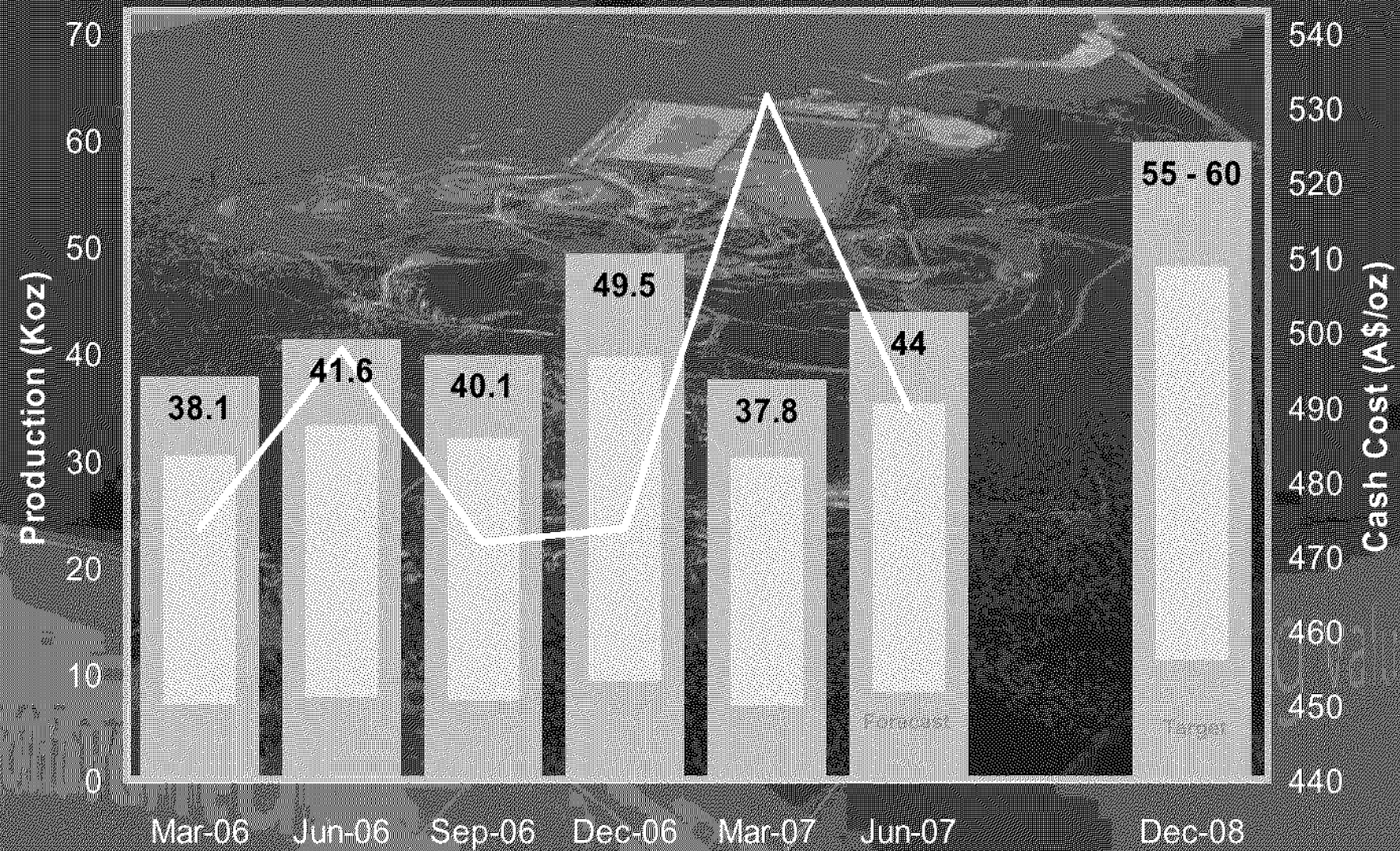
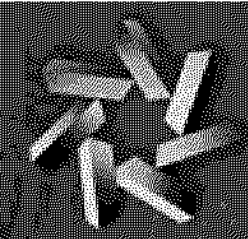
On the way to establishing target production of 450,000oz pa



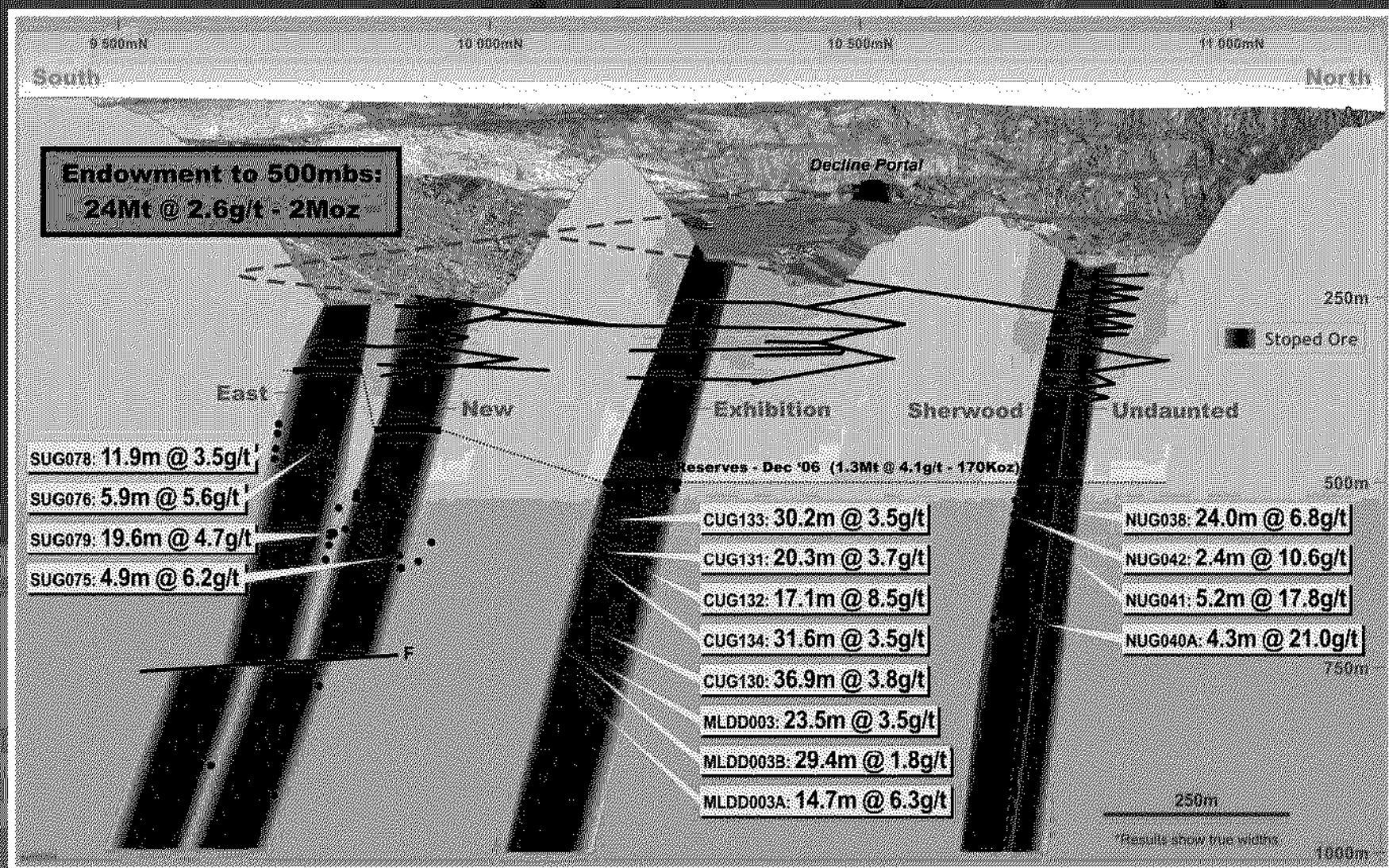
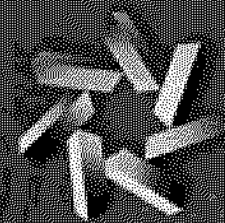
# Southern Cross Operations



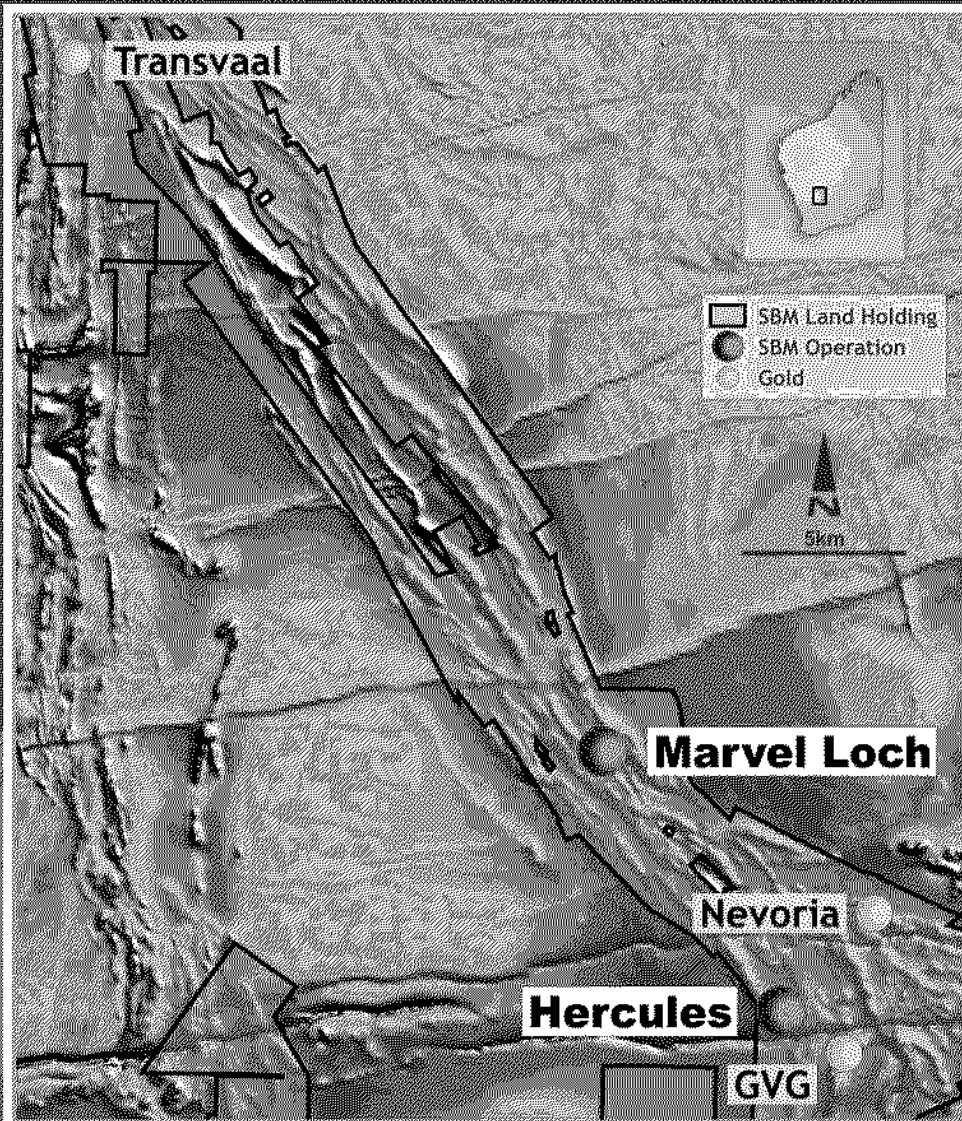
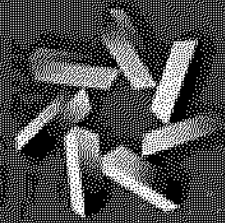
# Southern Cross Quarterly Production



# Marvel Loch Cornerstone of SX Operation

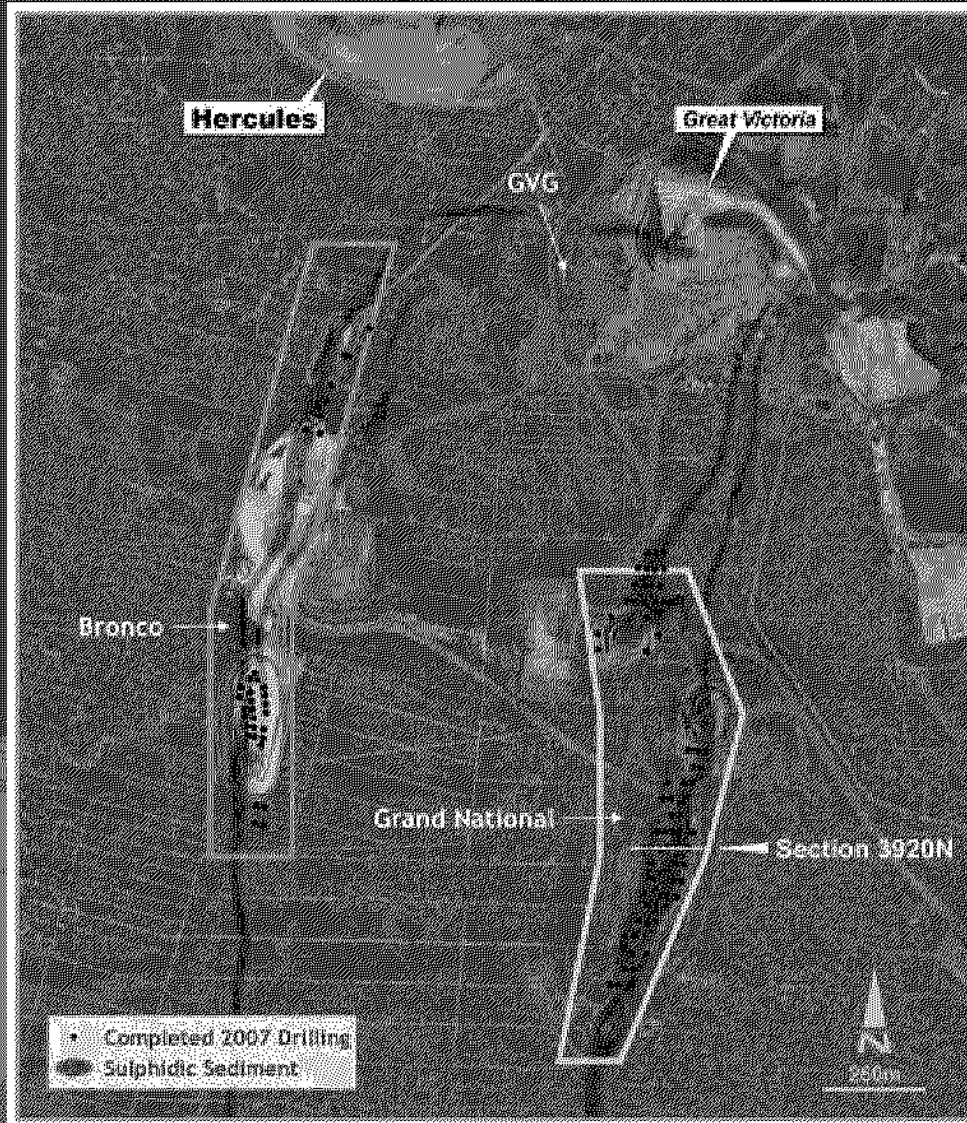


# Focus on Nevoria, Hercules & GVG



- Past production 864k oz
- Nevoria u/g and open pit
- Hercules / GVG open pit

# GVG Open Pit Focus



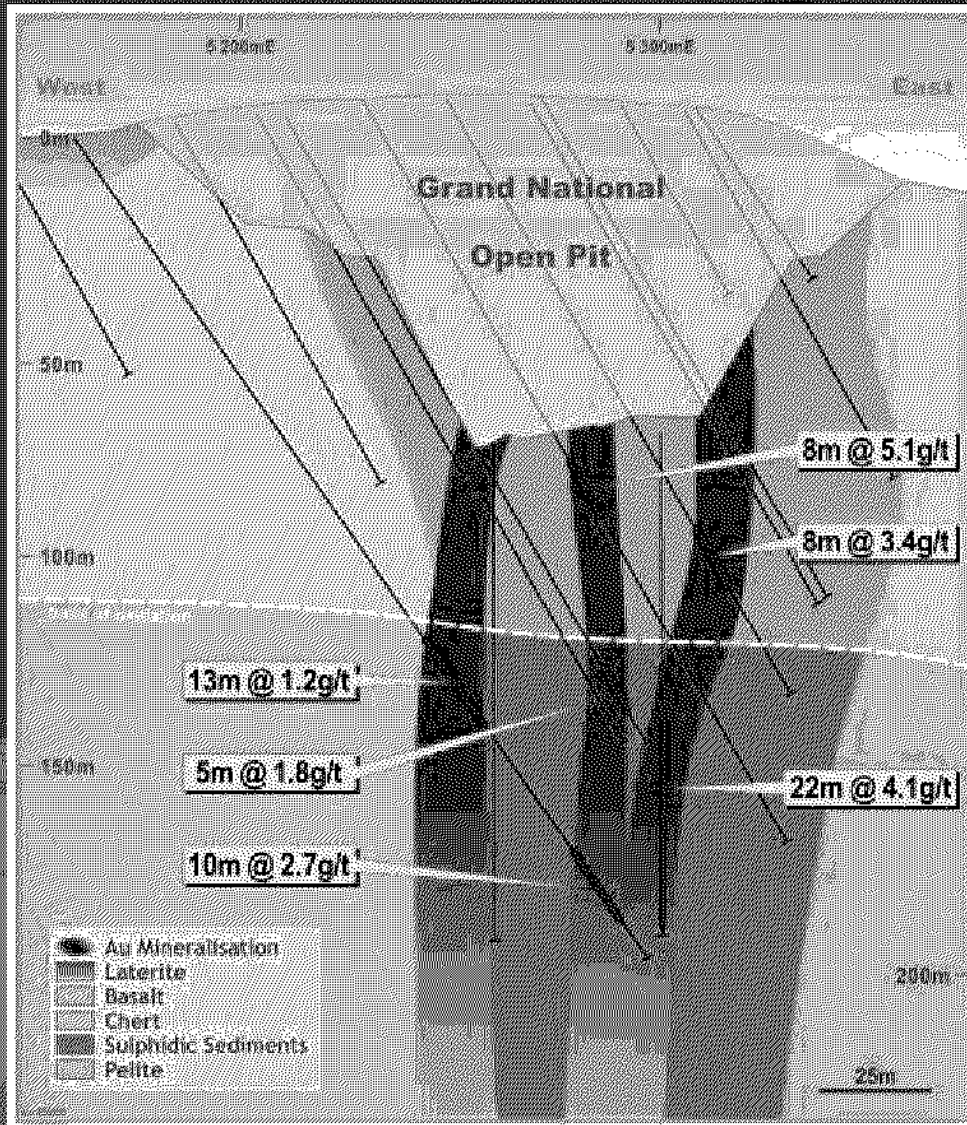
■ Potential for 5Mt @ 2.0g/t

■ 7 kilometres strike

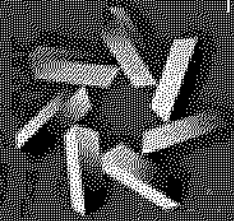
■ Shallow pits to generally 50m

■ Surface laterite potential

# GVG Cross Section 3920N

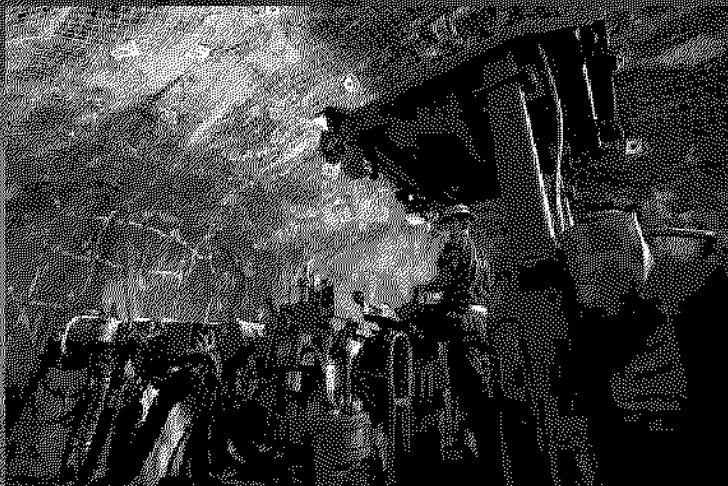


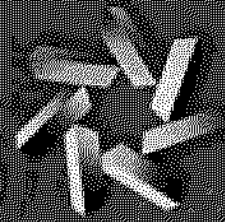
# Southern Cross Expansion Target



December 2008 annualised production target

- Marvel Loch underground ~ 100,000 oz
  - Nevoria underground ~ 30,000 oz
  - GVG / Nevoria open pits ~ 100,000 oz
- 230,000 oz

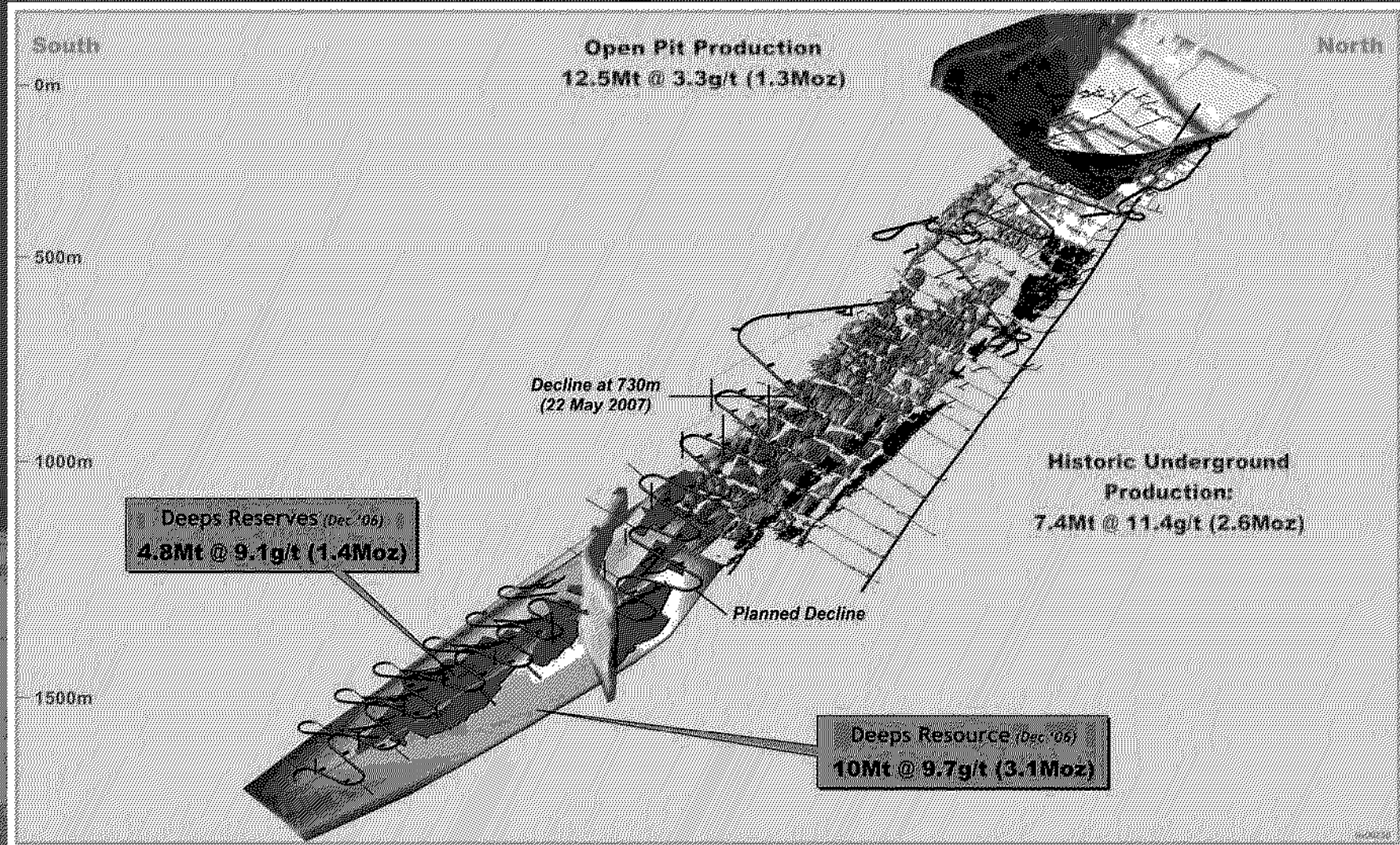
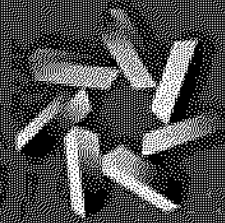




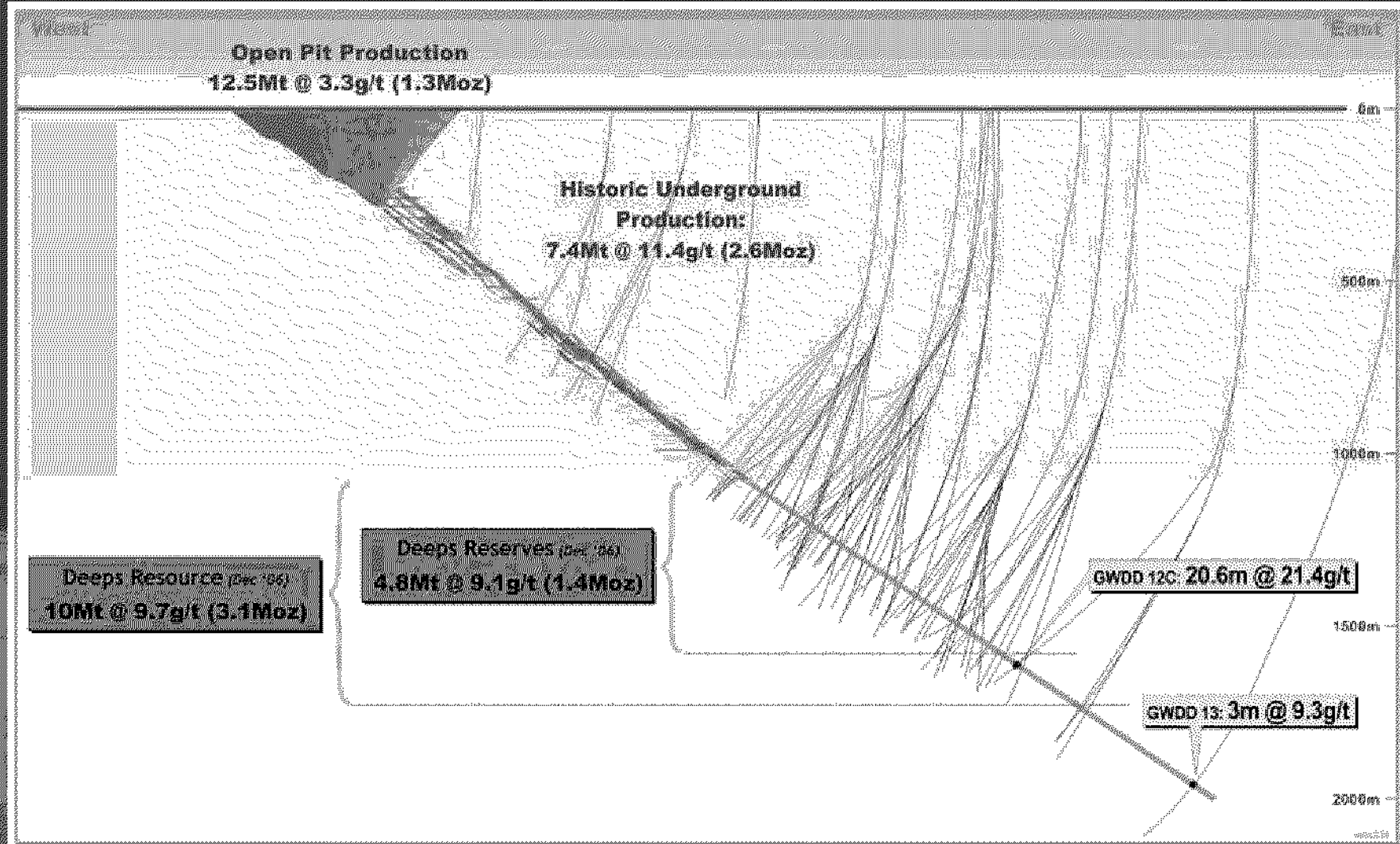
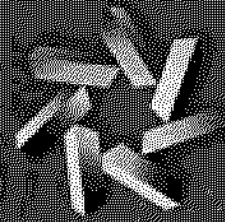
# Gwalia Deeps

Reserves 4.8Mt @ 9.1g/t for 1.4 million ounces

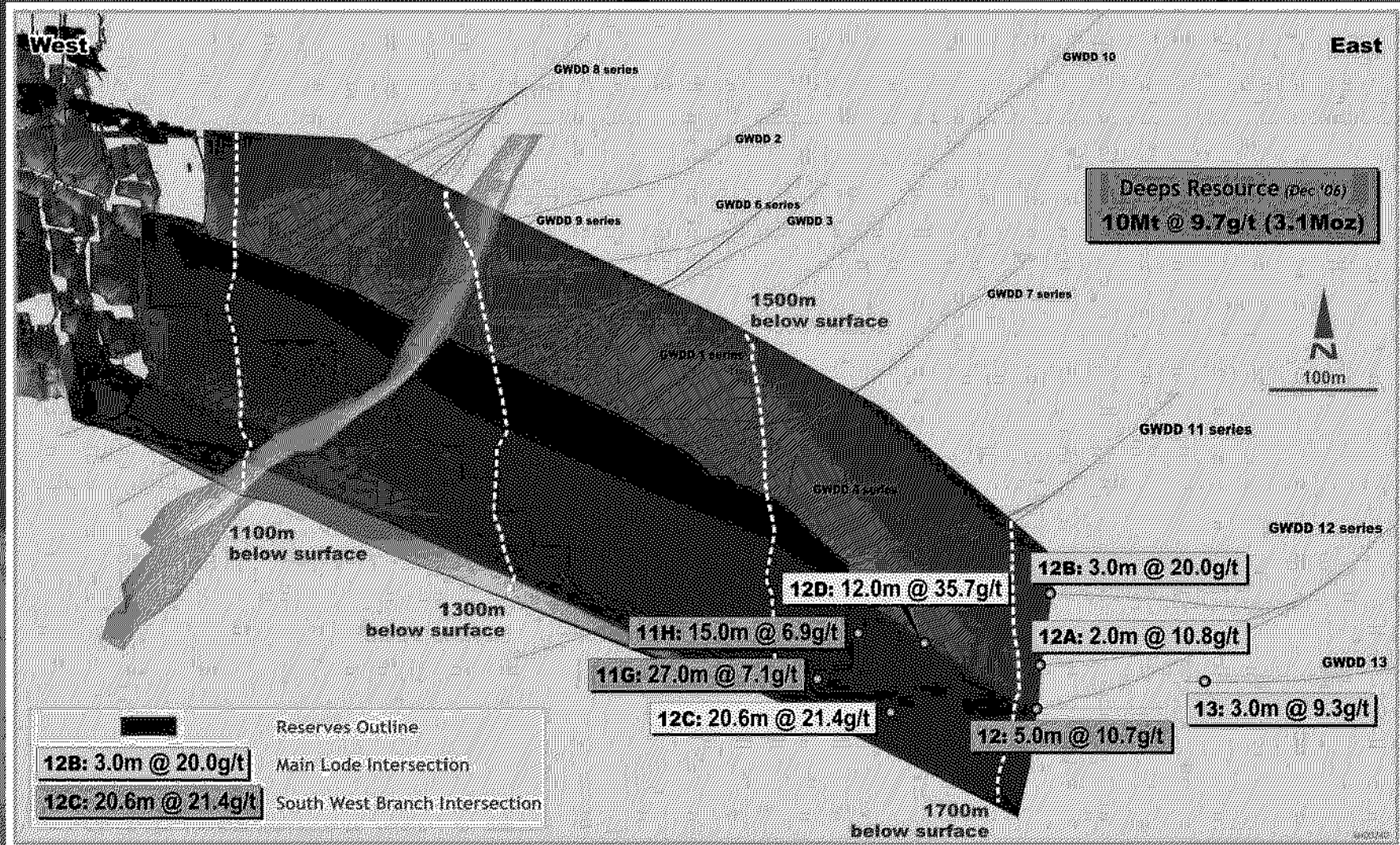
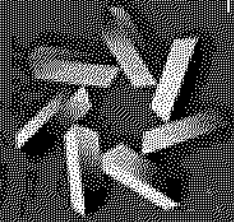
# Gwalia Deeps Reserves & Resources



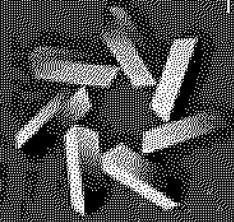
# Gwalia Deeps Long Section



# Gwalia Deeps Plan Projection



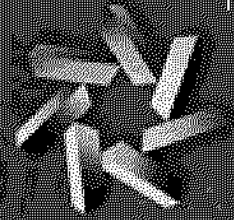
# Gwalia Deeps Development



- Decline at top of Deeps in March Quarter 2008
- Initially at the rate of 100,000 oz pa September Quarter 2008
- At the rate of 200,000 oz pa starting in June Quarter 2010

# Gwalia Deeps

## Estimated Life of Mine Costs

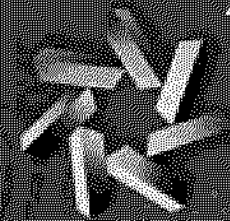


|                   | <u>A\$</u> | <u>US\$</u> |
|-------------------|------------|-------------|
| Mining costs      | 102/t      | 82/t        |
| Milling and admin |            |             |
| Cash costs        | 395/oz     | 320/oz      |

# Gwalia Deeps Feasibility Study

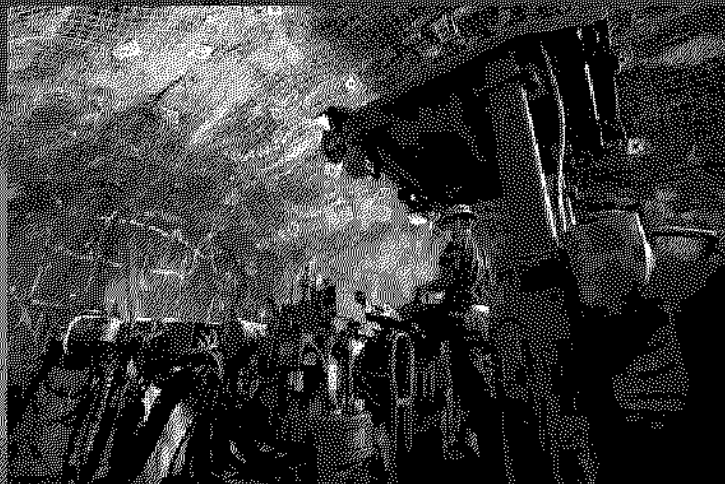
- Pre-production capital A\$110M (US\$89M)
- Financing to be finalised June Quarter 2007
- 1m put options at strike A\$700 (US\$566)/oz purchased for less than A\$7/oz

# Leonora Gold Production Target

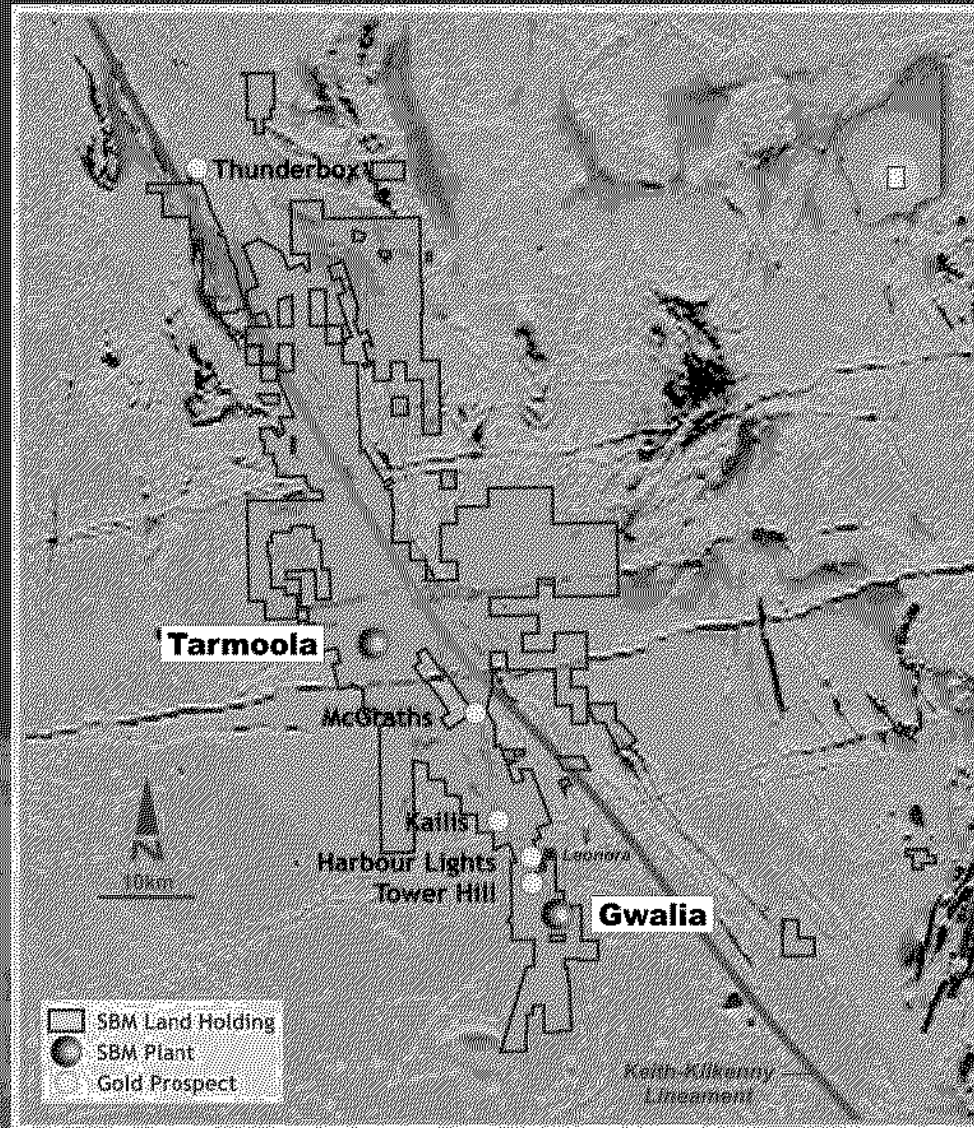


December quarter 2008 annualised production target

- Gwalia Deeps ~ 112,000 oz
- Open Pits: Tower Hill, Kailis ~ 108,000 oz
- Total Leonora ~ 220,000 oz



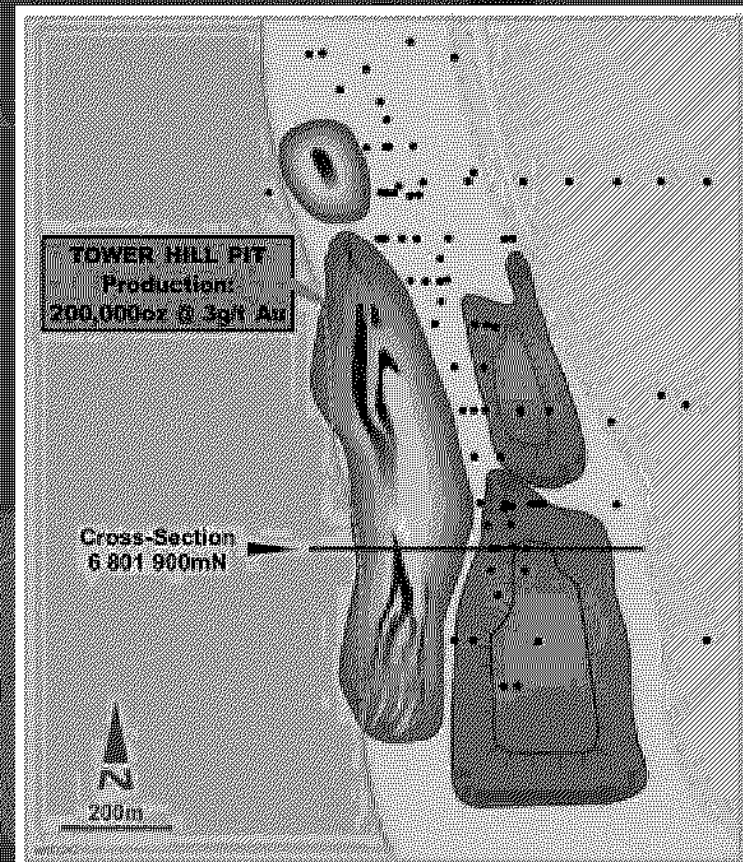
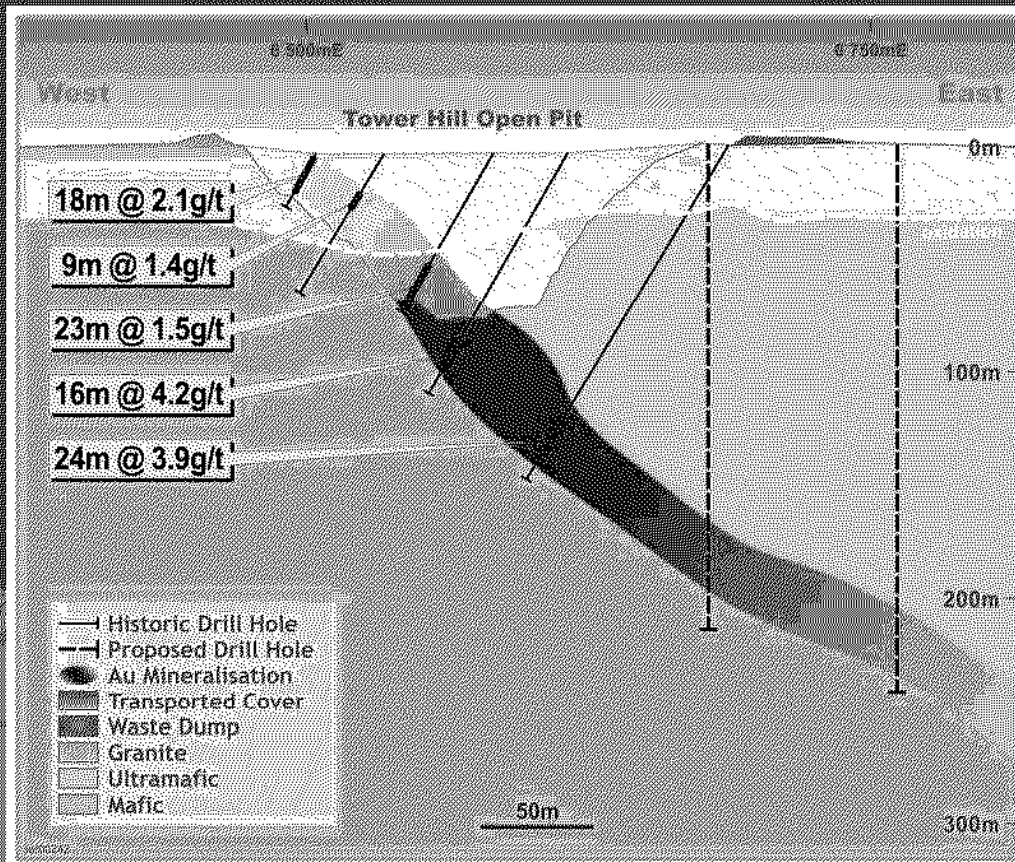
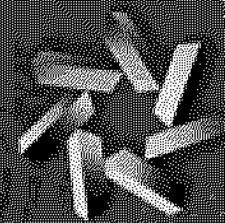
# Leonora Gold Deposits



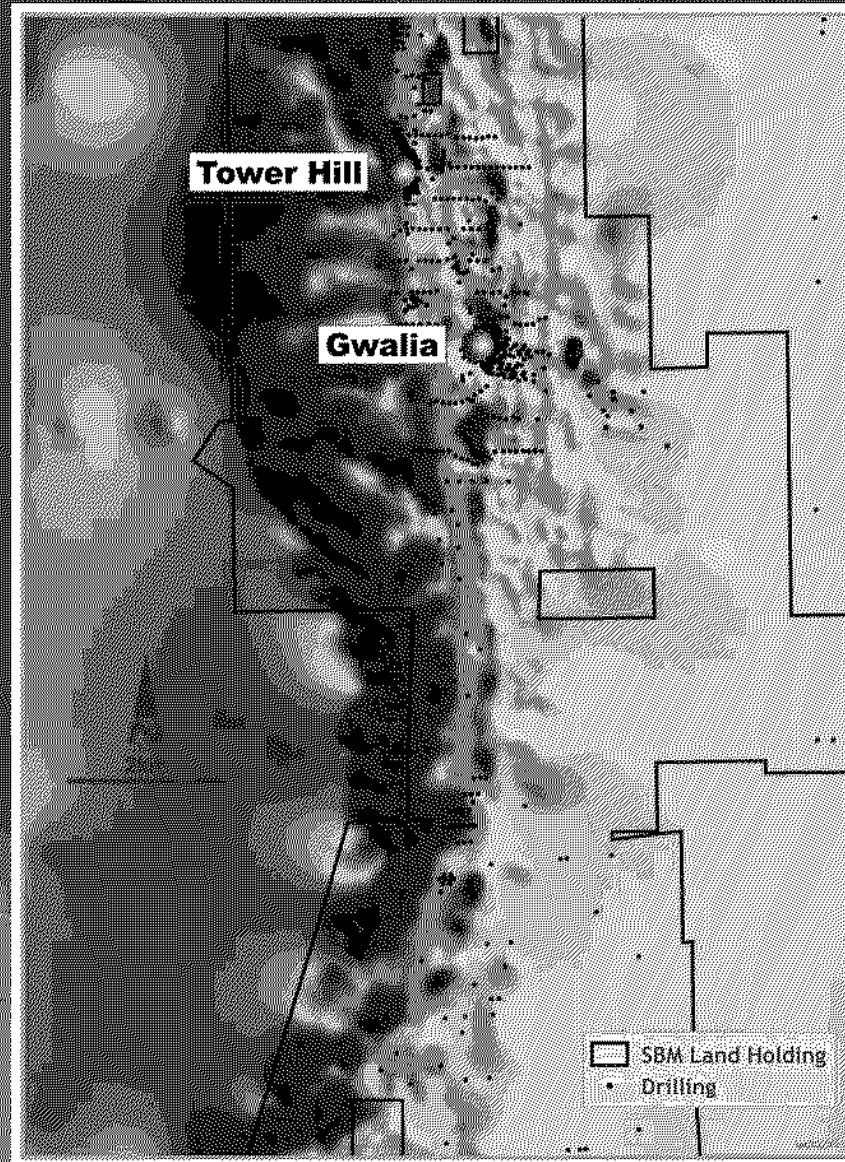
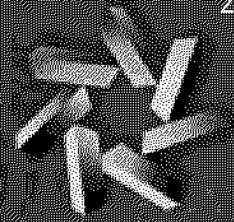
■ Evaluating open pit resources at Kailis and Tower Hill

■ Kailis resources 3.6Mt @1.9g/t for 220,000 oz

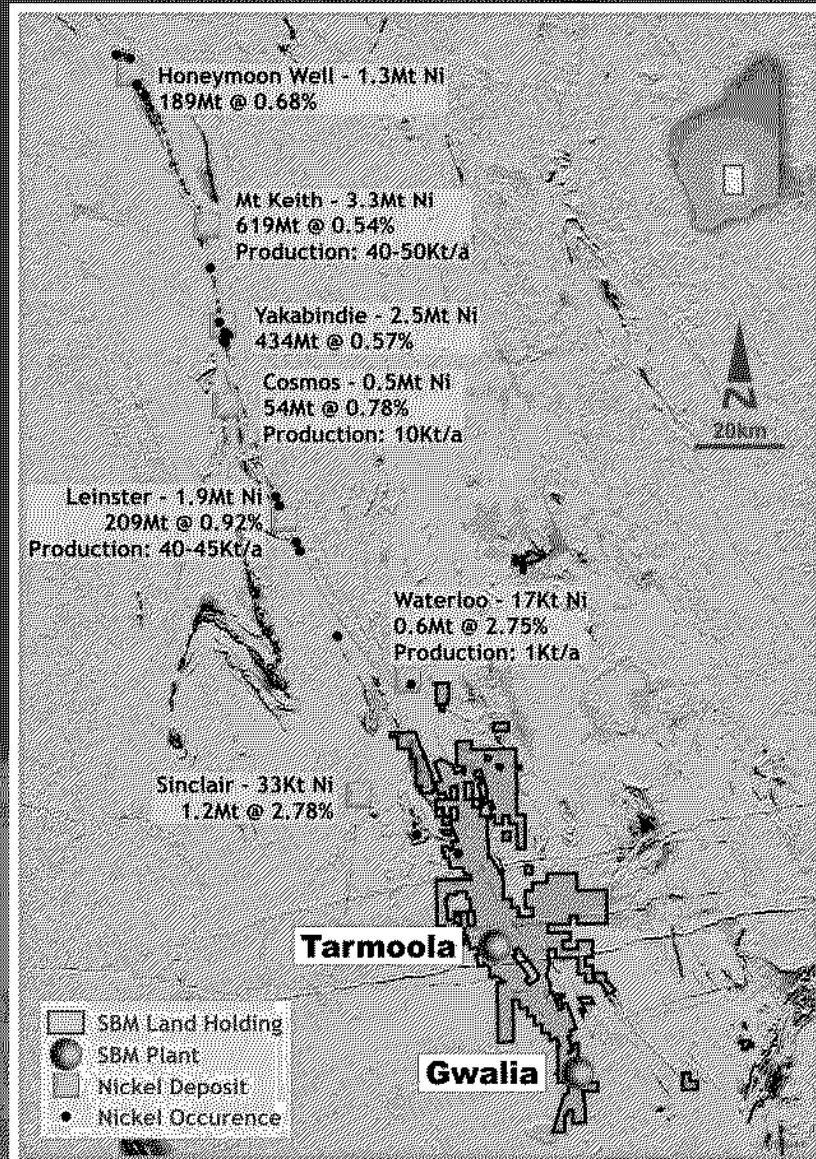
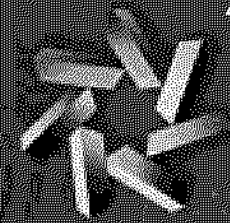
# Tower Hill Cross Section



# South Leonora Gravity



# World Class Nickel Endowment



■ World class province

■ Current reserves and resources  
- 9.8Mt contained nickel

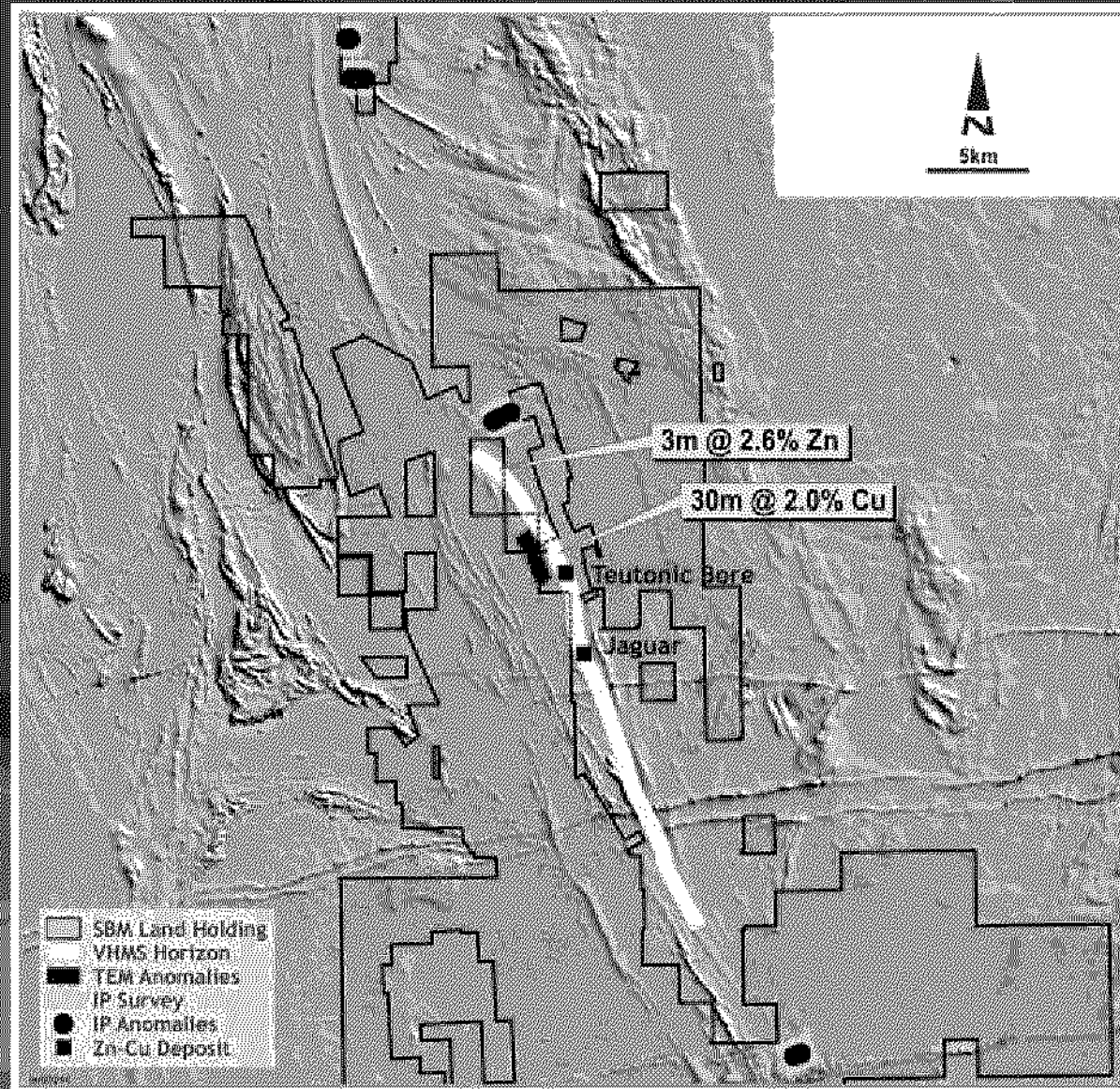
■ ~100kt annual production

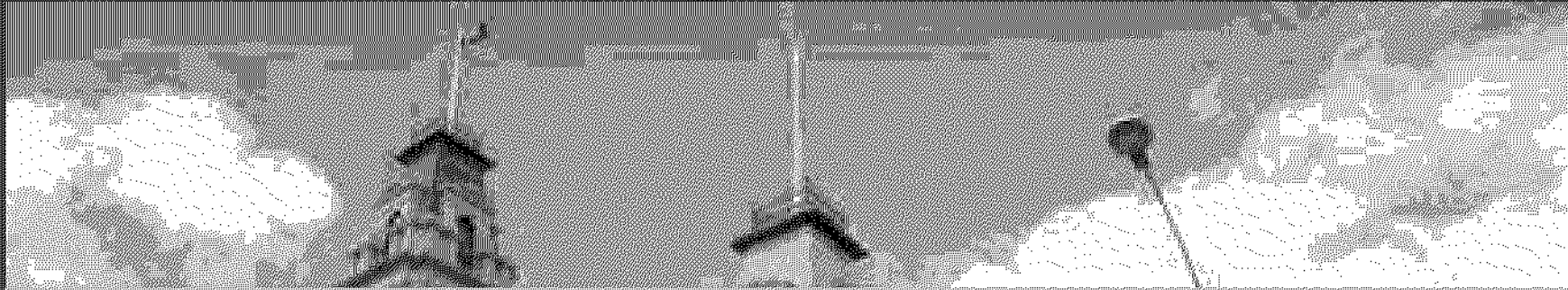
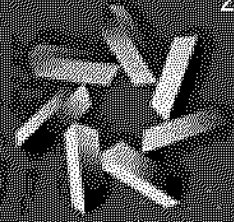
■ SBM tenements host >100 strike km  
of prospective ultramafic  
stratigraphy

# Sullivans Nickel Drilling

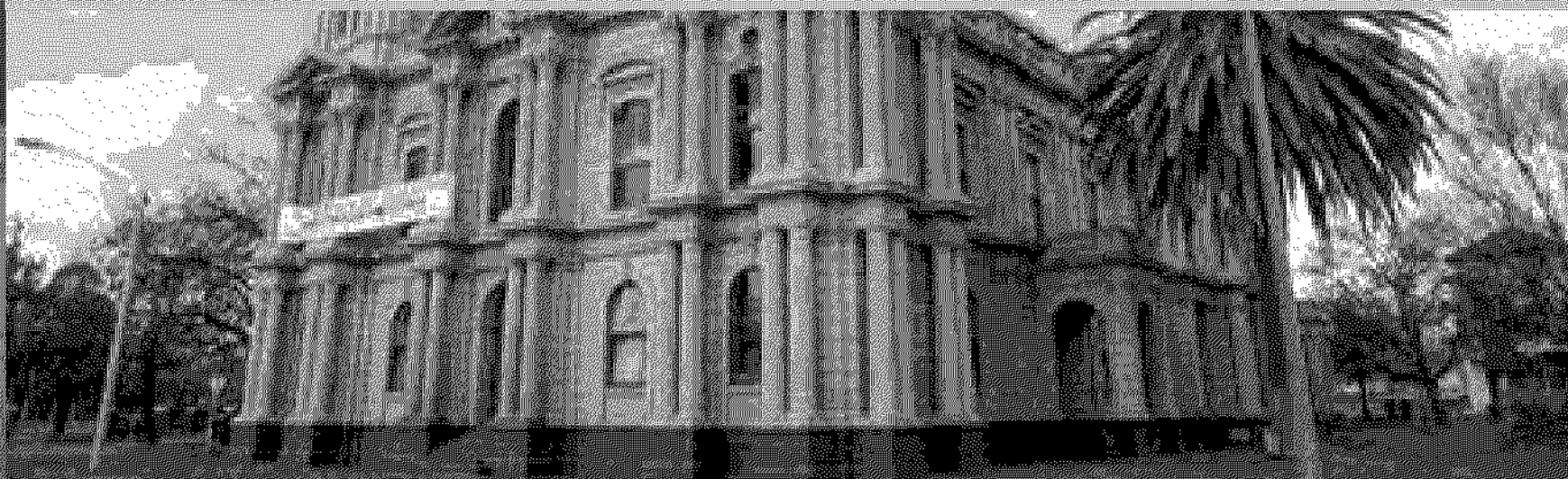


# Leonora Zn-Cu Targets

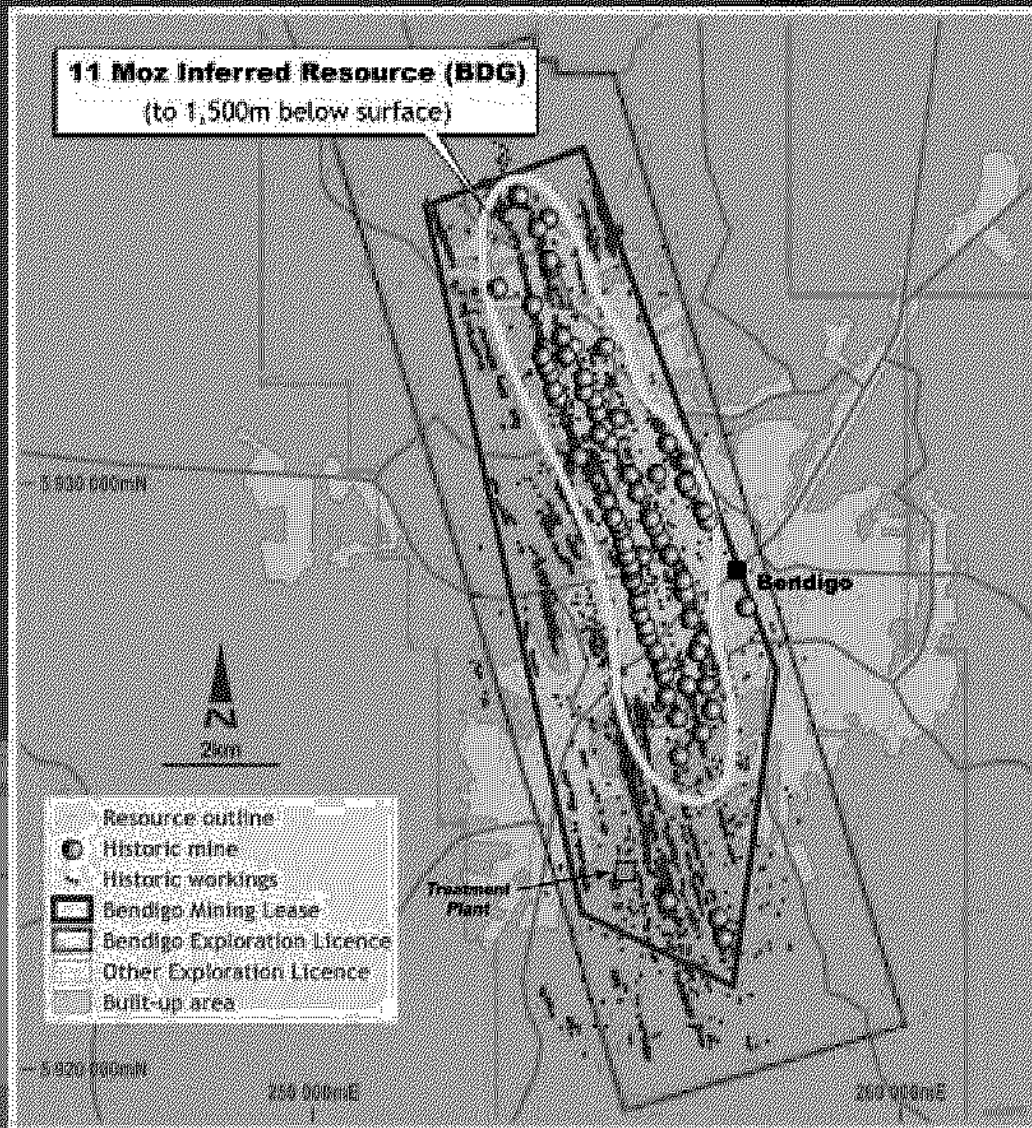
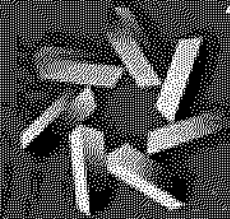




# Bendigo

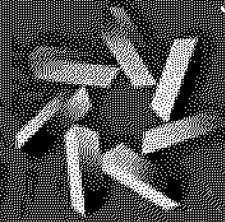


# Bendigo Mining Limited



- St Barbara holds 10%
- Historical production 22Moz to depth 750m
- Bendigo 2<sup>nd</sup> largest Australian gold field after Kalgoorlie
- Inferred resources 11Moz to depth 1,500m

# St Barbara Immediate Objectives



- Produce 172k oz pa @ A\$490/oz cash cost this year
- Complete debt capital raising of \$50m
- Focus on conversion of open pit resources to reserves
- Accelerate nickel sulphide exploration at Leonora

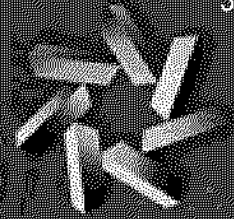
Production Dec Qtr 2008 annualised rate 450,000 oz @ A\$450/oz

Making St Barbara 7<sup>th</sup> largest in Australia and 3<sup>rd</sup> largest Australian listed



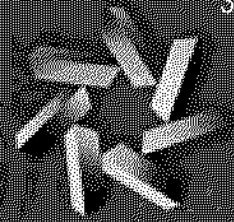


## To Achieve Longer Term Objectives by 2010...



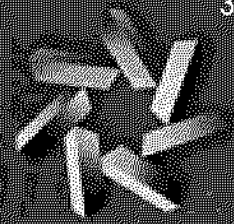
- Expand SX & Leonora combined production to 600,000 oz pa
- Move from 3<sup>rd</sup> quartile of Australian cost curve to 2<sup>nd</sup> quartile
- Make discoveries & find extensions at SX & Leonora
- Pursue growth through acquisitions
- Accelerate BigGold grass roots and base metals exploration

Objectives by Late 2010



Production of 1Moz gold pa

Reserves of 10Moz gold



**Disclaimer:** This presentation includes certain statements, estimates and projections with respect to the future performance of St Barbara. Such statements, estimates and projections reflect various assumptions concerning anticipated results, which assumptions may prove to not be correct. The projections are merely estimates by St Barbara, of the anticipated future performance of St Barbara's business based on interpretations of existing circumstances, and factual information and certain assumptions of future economic and results, which may prove to be incorrect. Such projections and estimates are not necessarily indicative of future performance, which may be significantly less favourable than as reflected herein. Accordingly, no representations are made as to the accuracy or completeness of such statements, estimates or projections and such statements, estimates and projections should not be relied upon as indicative of future value, or as a guarantee of value or future results. This presentation does not constitute an offer to subscribe for securities in St Barbara Limited. The information contained in this report relating to drilling results and resources has been compiled by Mr Peter Thompson and Mr Robert Love. Mr Thompson is a Member of the Australasian Institute of Mining and Metallurgy. Mr Love is a Fellow of the Australasian Institute of Mining and Metallurgy and both are full-time employees of the Company. Mr Thompson and Mr Love have sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2004 edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves'. Mr Thompson and Mr Love consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.