



## Lodestone Exploration Limited

ABN 20 075 877 075

[www.lodestonex.com](http://www.lodestonex.com)

*Exploring historic mineral fields with  
modern techniques*



MARKET UPDATE PRESENTATION 5 May 2005

# Introduction: Lodestone

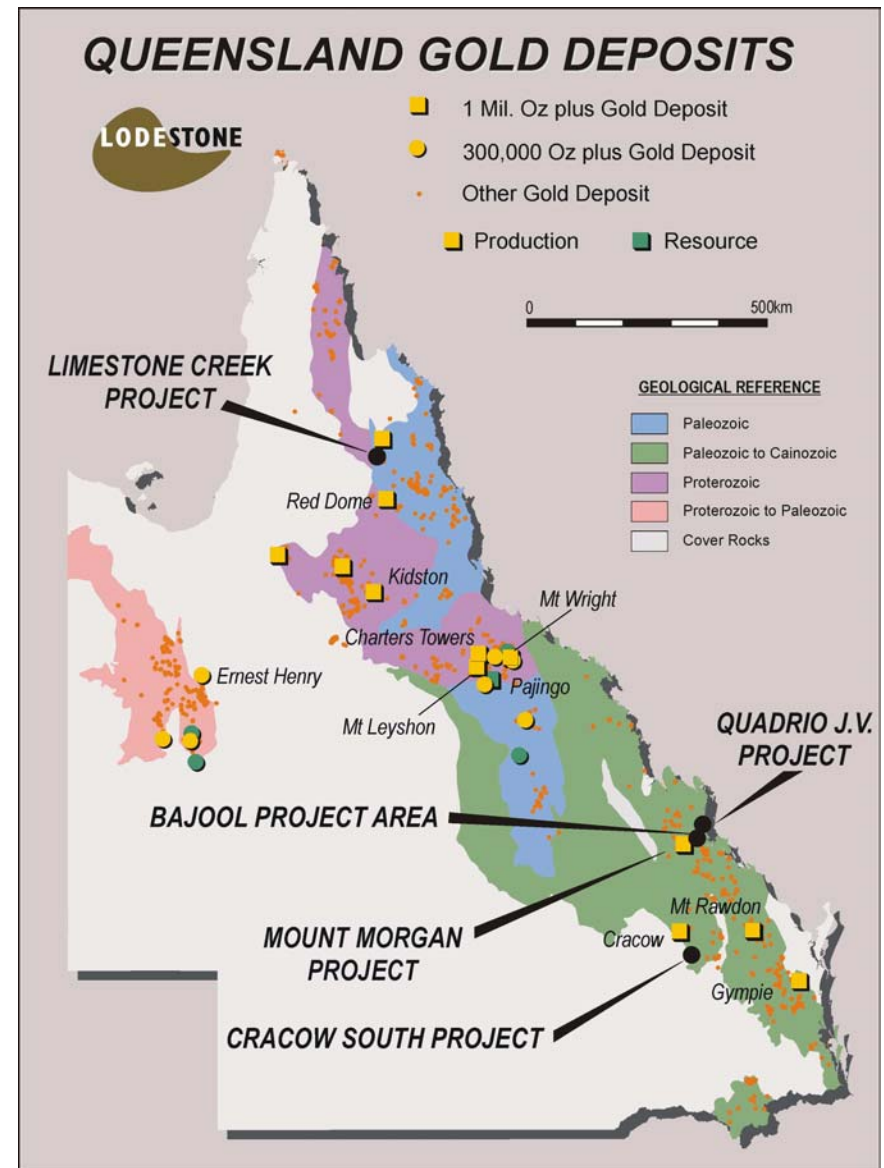
## **Lodestone Exploration Limited**

- Lodestone Exploration Ltd (ASX:LOD) IPO March 2003, raised \$2.5 million, and made a \$0.4 million placement in November 2004
- Since listing Lodestone :
  - Continues to explore for Mount Morgan-style deposits in the Mount Morgan District using modern techniques under challenging, widespread cover rock
  - Has broadened its interests to include the historic Cracow & Mt Chalmers Mineral Fields which are under-explored
- Drilling near Mount Morgan, Mount Chalmers and at Cracow South is planned between May and September 2005
  - 5800 metres on 17 targets
- Additional drilling of up to 4,700 metres on 9 other targets is envisaged between October & December this year



# Portfolio – Multiple Projects & Targets

- Mt Morgan District Projects**
  - VMS/epithermal copper/gold targets
  - Eg Mount Morgan & Mt Wright
  - 4 drill targets
  
- Quadrio farm-in Project**
  - VMS/epithermal copper/gold targets
  - Eg Mount Morgan & Pajingo
  - 7 drill targets
  
- Bajool Project**
  - Intrusion-related gold targets
  - Eg Kidston, Mt Leyshon
  - 5 target areas
  
- Cracow South Project**
  - High grade epithermal gold targets
  - Eg Cracow & Pajingo
  - 9 drill targets
  
- Limestone Creek Project**
  - Sediment hosted gold targets
  - Eg Red Dome
  - 3 target areas



# Mt Morgan – The Endowment



“...find another Mount Morgan VMS deposit”

- 9.5 million ounces gold produced
- Average 5 grams/tonne Gold
- 360,000 tonnes Copper
- 1.6 million ounces Silver
- Gross Value > A\$6.4billion

World class gold-copper deposit

“Australia’s premier VMS deposit”

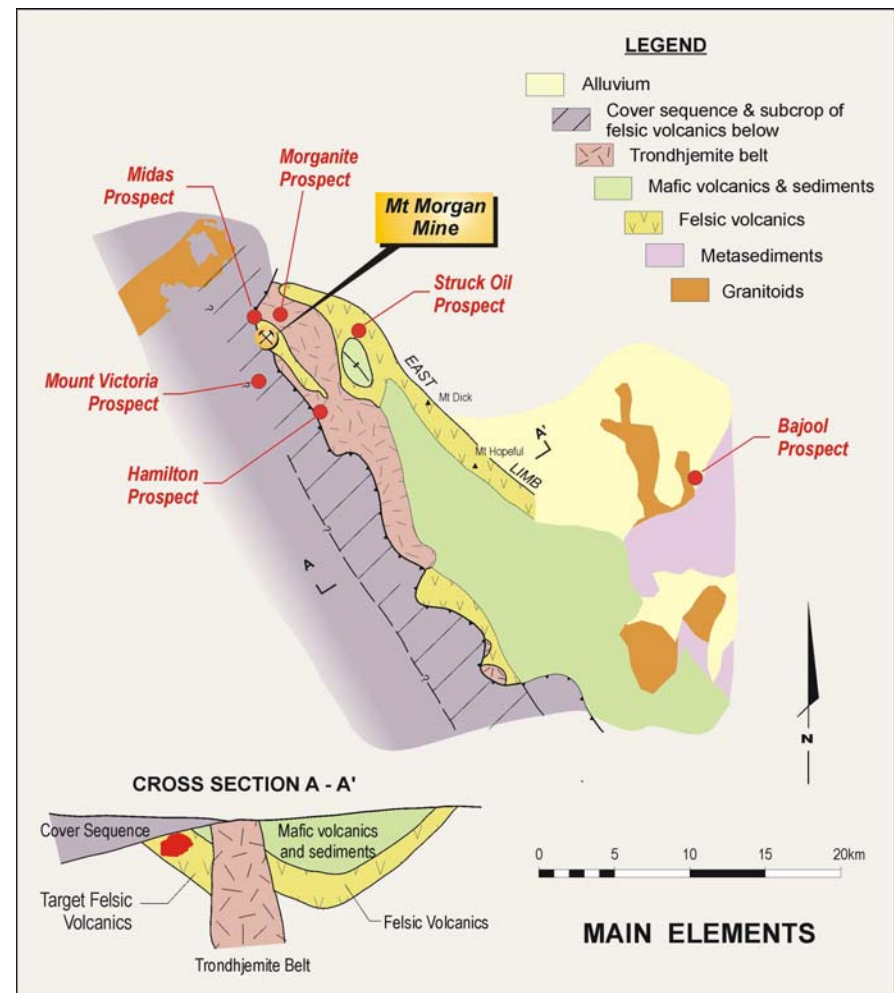
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Deposit	Au Grade grams/tonne	Million Oz Au
Kalgoorlie	4.3	54
Telfer	1.3	26
<b>Mount Morgan</b>	<b>5.0</b>	<b>9.5</b>
Boddington	1.4	8.6
St Ives	3.7	6.4



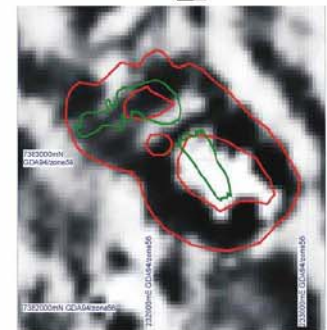
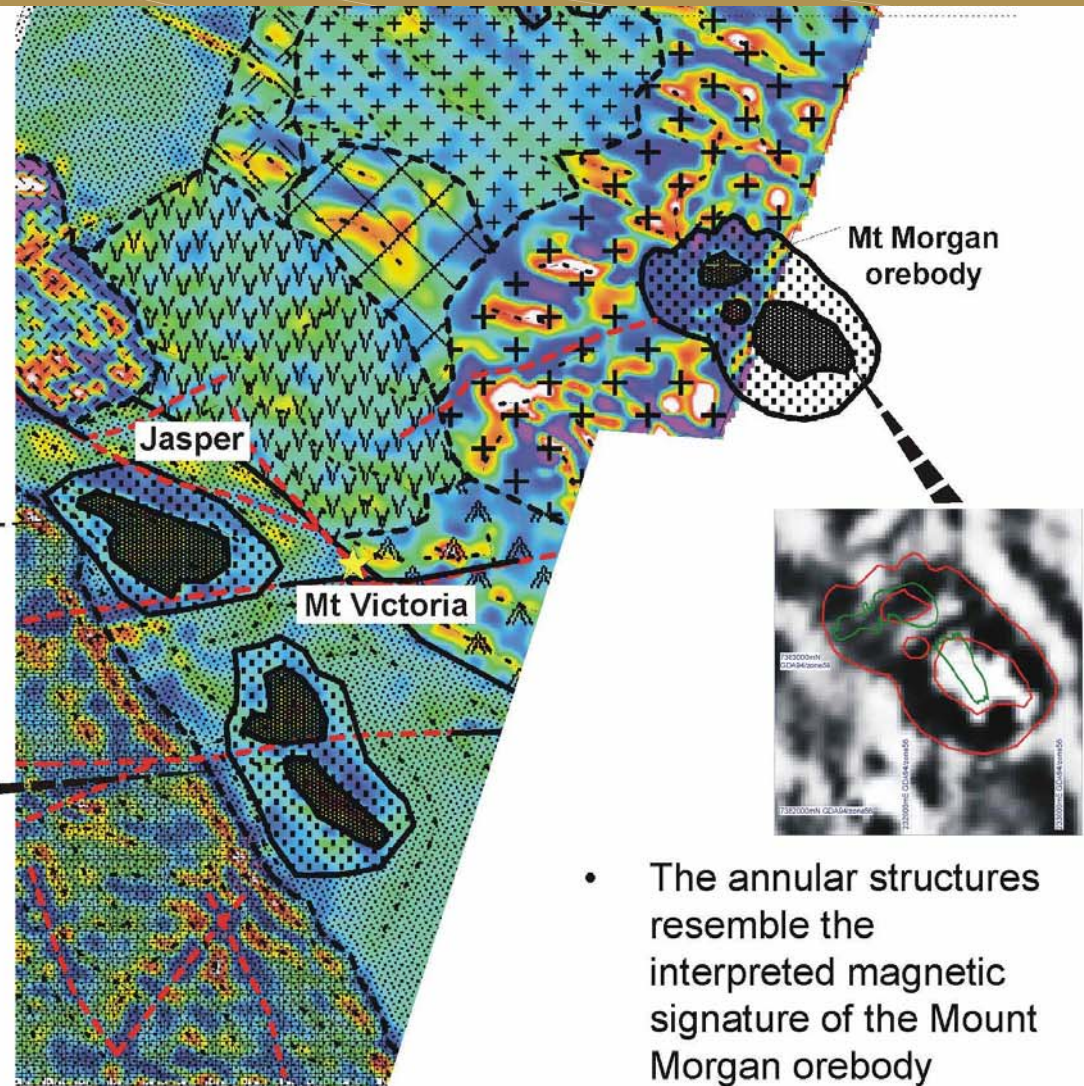
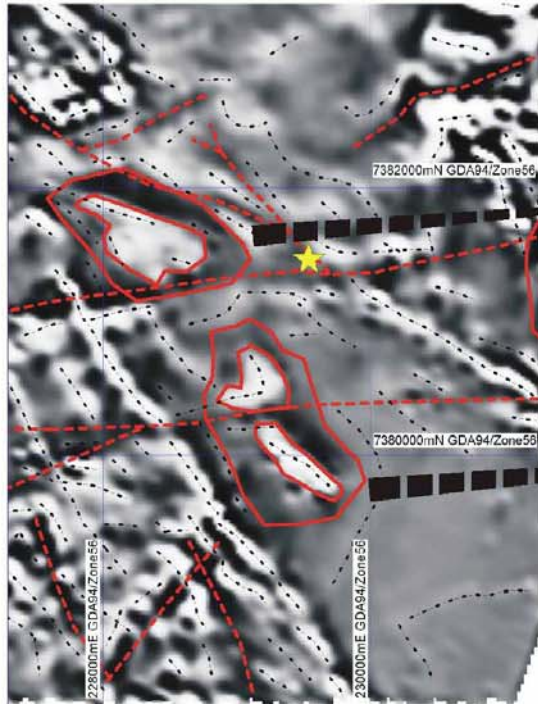
# Mount Morgan District Project: Mt Victoria Prospect

- Mount Victoria opportunity recognised by Dr Gary Arnold and tenements optioned by Lodestone
- Intrusion-related gold mineralisation, VMS mineralisation, and 2 distinctive magnetic features sit astride “the Mount Morgan Northeast cross structure”
- Gold grades and intersection thicknesses increase NW of 2004 drillholes, and a widening halo of low-level gold surrounds the main intersections
- Golden Gully, the site of historic alluvial gold workings and ‘jasper’ float drains the distinctive northern magnetic feature



# Mount Morgan District Project: Mt Victoria Prospect

- 2 annular structures with magnetic highs surrounded by peripheral lows



- The annular structures resemble the interpreted magnetic signature of the Mount Morgan orebody

★ Site of Lodestone's  
November 2004 drilling program





# Mount Morgan District Project: Mt Victoria Prospect

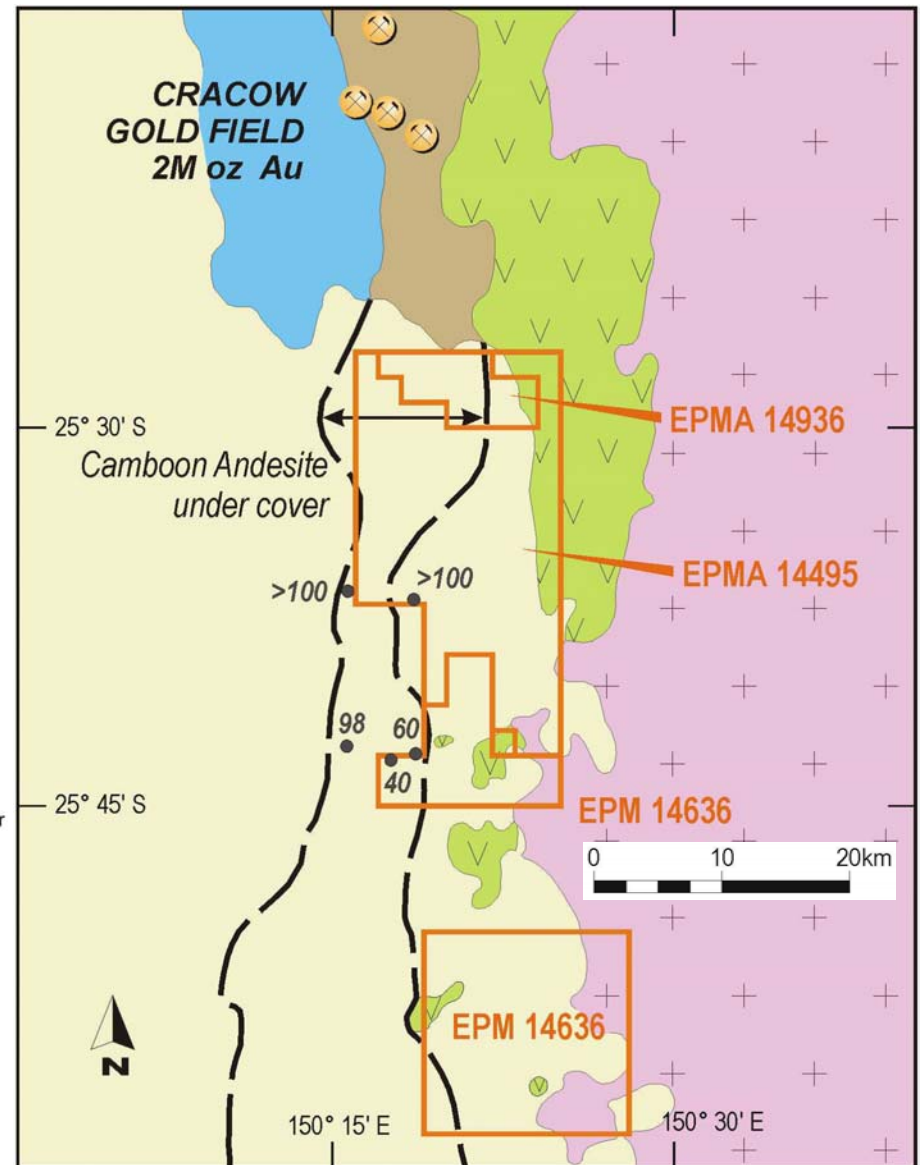
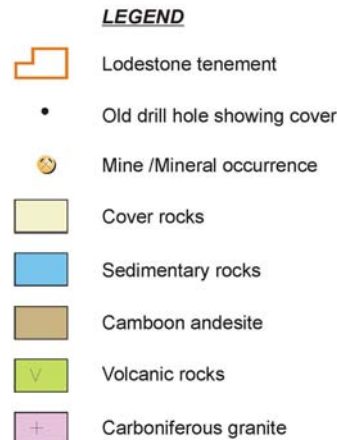


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View of Mount Morgan mine &  
township from Mt Victoria drillsite

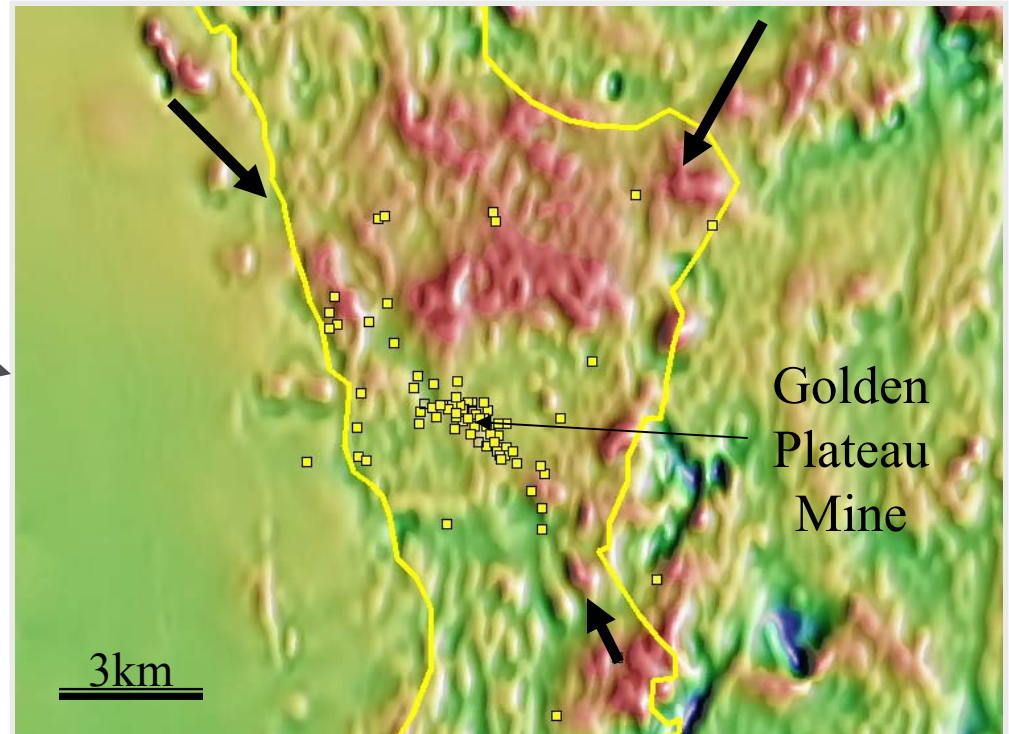
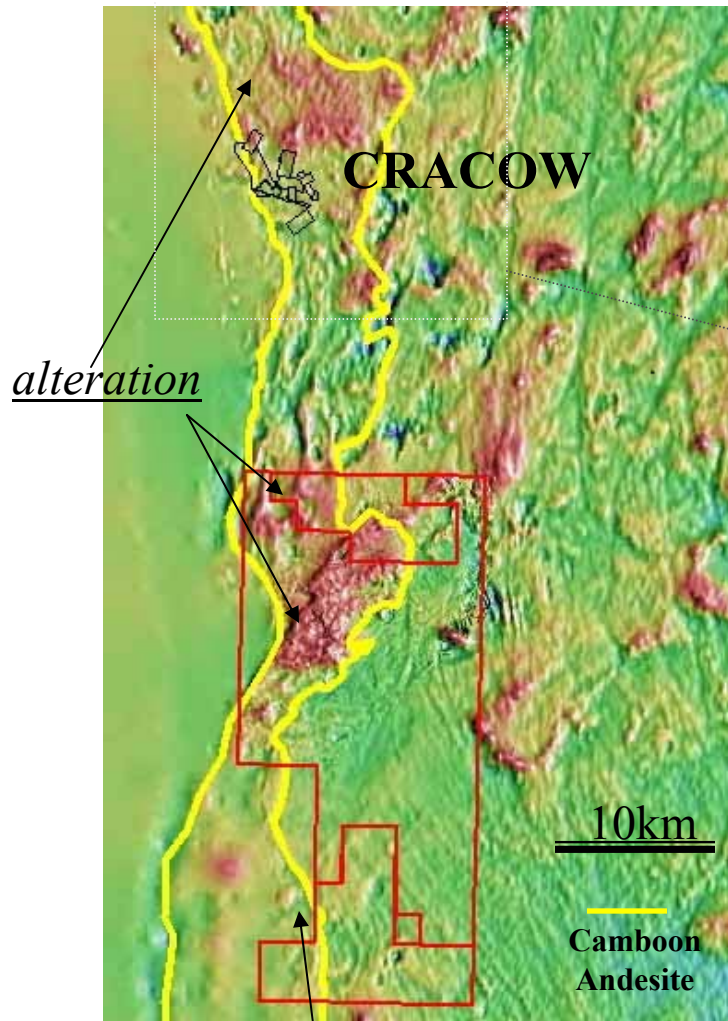
# Cracow South Project

- Cracow opportunity recognised by Lodestone's Key Consultant - tenements applied for by Lodestone
- 30km south of Cracow Gold Mine (Newcrest/Sedimentary Holdings)
- Magnetic signature similar to Cracow deposit setting
- Covered by younger rocks therefore escaping effective previous exploration
- Detailed aeromagnetic survey flown for Lodestone in December 2004
- Nine drill targets confirmed
- Drilling to begin in July 2005





# Regional & Cracow Magnetics



- Magnetic alteration in Camboon Andesite north of Cracow, likely stronger in Lodestone's tenements
- Northwest trending magnetic low associated with gold at Cracow
- Major northeast-trending structures

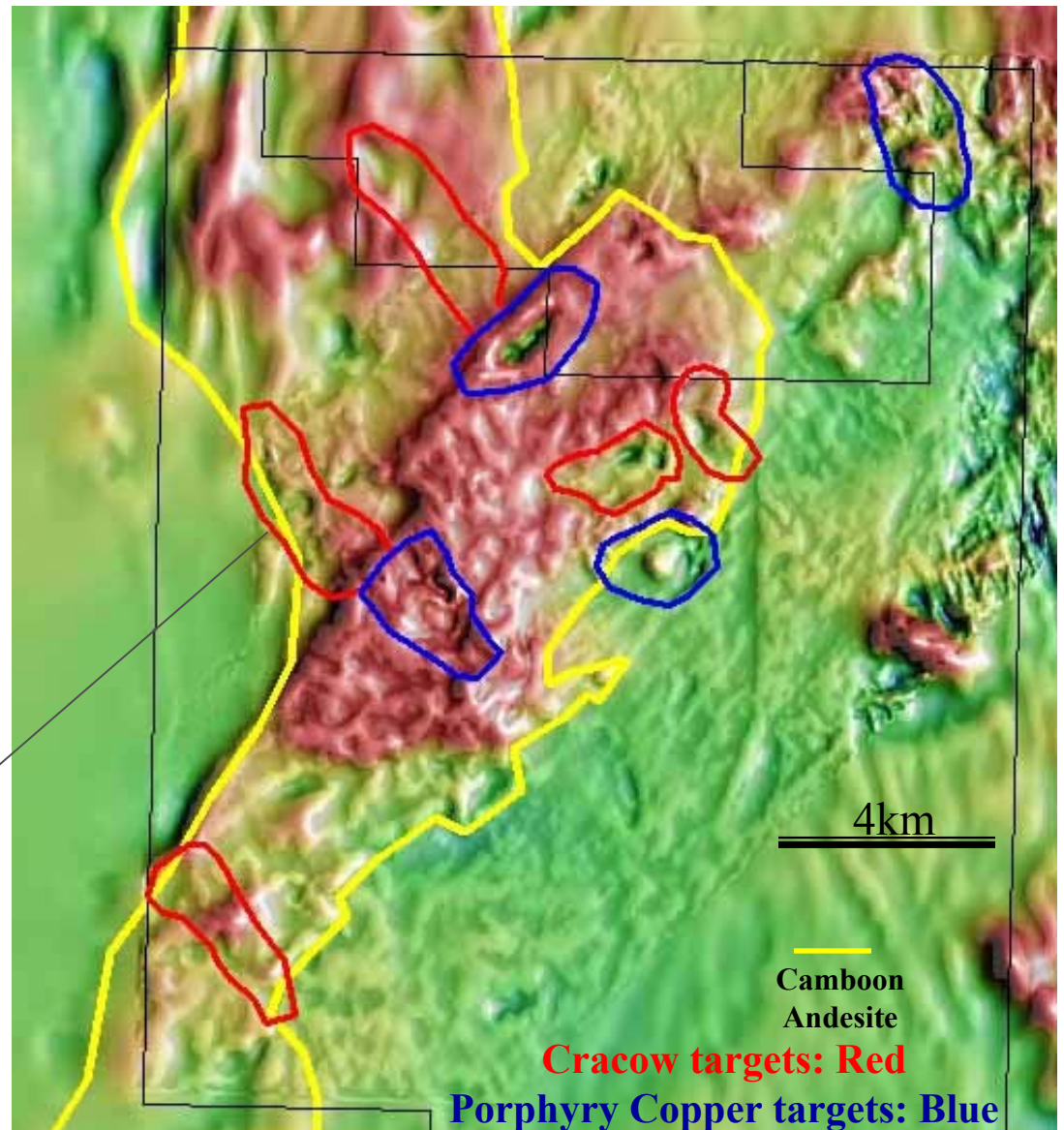
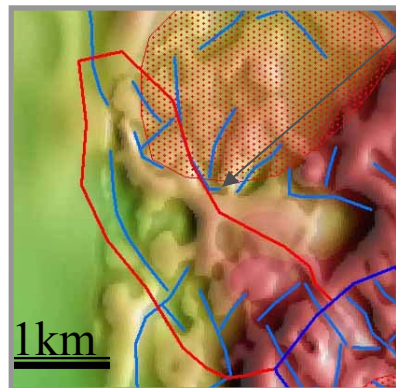
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Paradigm Gold drilling  
gold in porphyry

# Cracow South Magnetics

## Drill Targets

- 5 Cracow analogues
  - Broad magnetic alteration
  - Major northeast-trending structures
  - Northwest-trending magnetic lows
  - Subadjacent intrusive rocks interpreted
- 4 porphyry copper style
  - Paradigm drilling nearby
  - Also known at Cracow



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# Corporate & Financial Summary

## **Capital Structure**

*very tight...high leverage for a discovery*

**Shares on Issue:**

**35 million shares**

**Market Capitalisation:**

**\$2.1 million**

**Cash**

**A\$400,000**

**Major S/holders:**

**Directors – 20%**





# Board and Management

**John Shaw**

**Chairman**

**John McCawley**

**Executive Director**

**Greg Baynton**

**Non-Exec Director**

**Martin Ackland**

**Non-Exec Director**

**Mark Dugmore**

**General Manager**

**Leni Stanley**

**CFO/Company Secretary**

**Plus: Technical Leadership and Support from Lodestone's panel  
of Senior Consultants**



# Summary

- Drilling at Mount Morgan District Projects, 3,400 metres on 6 targets. May - December
- Drilling at Quadrio Farm-in Project, 1200 metres on 7 targets. July/August
- Drilling at Bajool Project, 900 metres on 3 targets. November/December
- Drilling at Cracow South, 3200 metres on 9 targets. July/August
- Awaiting grant of Limestone Creek Permit with drilling to follow in late 2005. Notionally 1000metres on 3 targets
- **Total drilling envisaged is 10,000+ metres on 20+ targets**



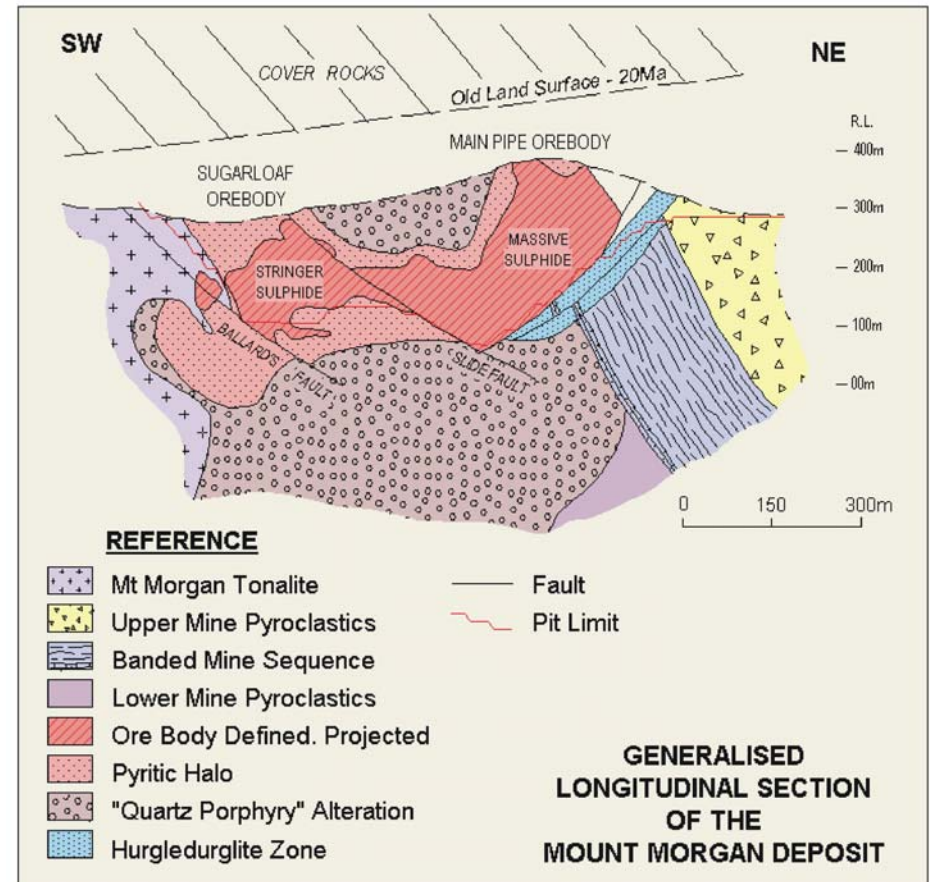
# Additional slides





# Mt Morgan VMS Deposit

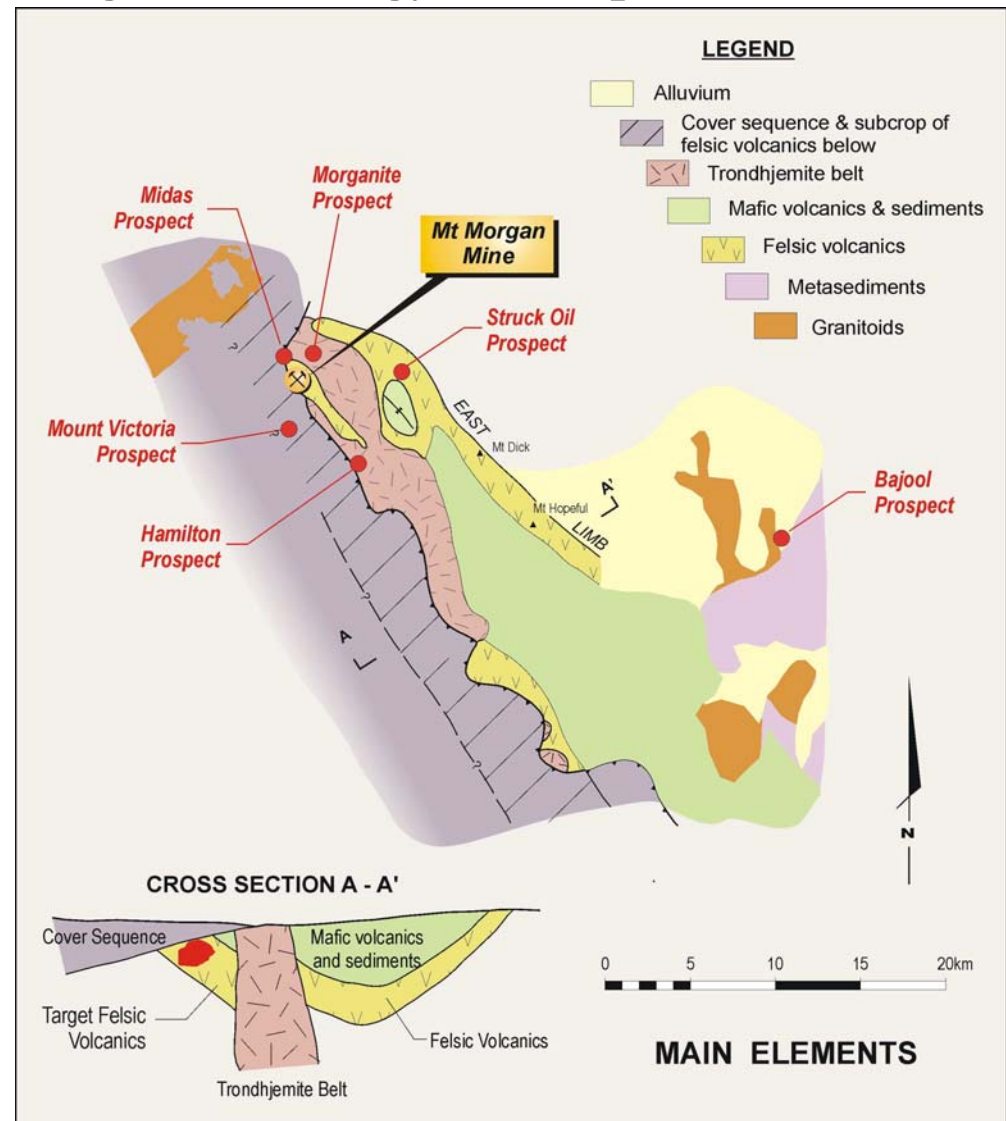
## Mt Morgan Cross-Section



# Mt Morgan District Project & Prospects

- Prior exploration restricted by overlying cover rocks
- Lodestone explored the southern area with modern geophysical systems, and drilled 8 targets in 2003 & 2004 without success.
- Recent detailed aeromagnetics has confirmed Mt Victoria's prospectivity and generated new targets to be drilled this year
- Lodestone's focus has moved progressively closer to Mt Morgan, as ground became available
- Each of Lodestone's six priority prospects partly outcrops, and cover rocks are less challenging than those further south

## Regional Geology & Prospects



# Mount Morgan District Project: Other Prospects

## **Morganite Prospect**

- 3 kms north of Mount Morgan
- 22+ holes drilled pre-1992. Possibilities at depth?

## **Midas Prospect**

- 3 kms north of Mount Morgan
- Distinctive magnetic anomaly. Mine Corridor rocks under cover?

## **Struck Oil Prospect**

- 7 kms east of Mount Morgan
- 30+ holes drilled in 1970's-80's. New concepts?

## **Hamilton Prospect**

- 6 kms south of Mount Morgan.
- 17+ holes drilled in early 1980's. Limited gold assays?



# Mount Morgan District Project: Morganite Prospect

- ☛ 3 kms north of Mount Morgan
- ☛ Part of a major cluster of silica-pyrite alteration zones and hydrothermal breccias
- ☛ 22+ holes drilled pre-1992
- ☛ Lodestone flew detailed aeromagnetics in December 2004
- ☛ Remapping and deeper drilling is warranted

# Mount Morgan District Project: Midas Prospect

- ☛ 3 kms north of Mount Morgan
- ☛ Excellent structural setting
- ☛ Strongly anomalous gold response
- ☛ Distinctive magnetic feature

# Mount Morgan District Project: Struck Oil Prospect

- Subeconomic porphyry copper-molybdenite system
- Historic alluvial gold workings at surface
- 30+ holes drilled in 1970's-80's indicated patchy low-level gold values
- Multi-element soil & rockchip anomalies, and scattered old workings occur within an area of approximately 2km x 1km
- Peripheral breccia-style gold mineralisation remains a qualified possibility, though not a high priority



# Mount Morgan District Project: Hamilton Prospect

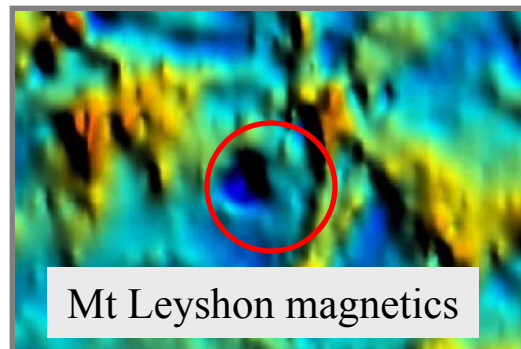
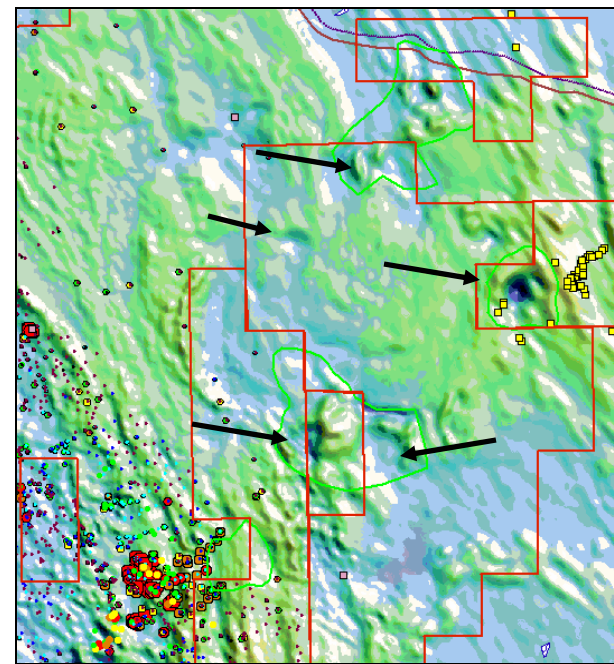
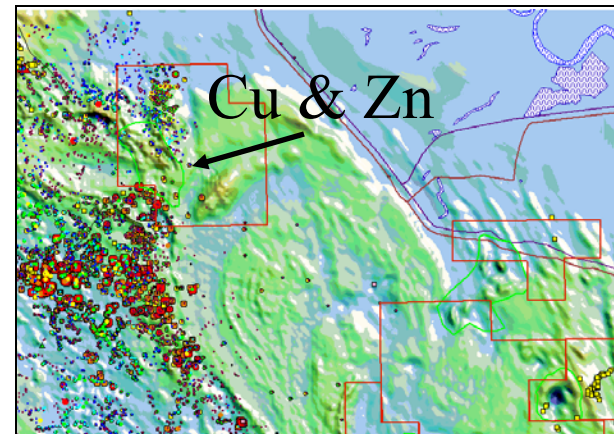
- Partly an extension of Mine Corridor Zone
- Silica-pyrite alteration & hydrothermal breccias in intrusive rhyolite
- 17+ holes drilled in early 1980's for Cu, might not have been comprehensively assayed for gold
- 7 shallow holes to bedrock drilled nearby in 2003 by Lodestone without success
- Remapping and detailed magnetics might produce significantly different perspectives



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# Bajool Project

- Area centred 25km east of Mount Morgan
- Intrusion-related gold targets
  - eg Kidston, Mt Leyshon
- Five magnetic targets similar to Kidston and Mt Leyshon signatures with associated gold mineralisation
- One area with strongly anomalous Cu and Zn adjacent to covered target
- Targets are under Recent shallow alluvium



# Quadrio Farm-in Project

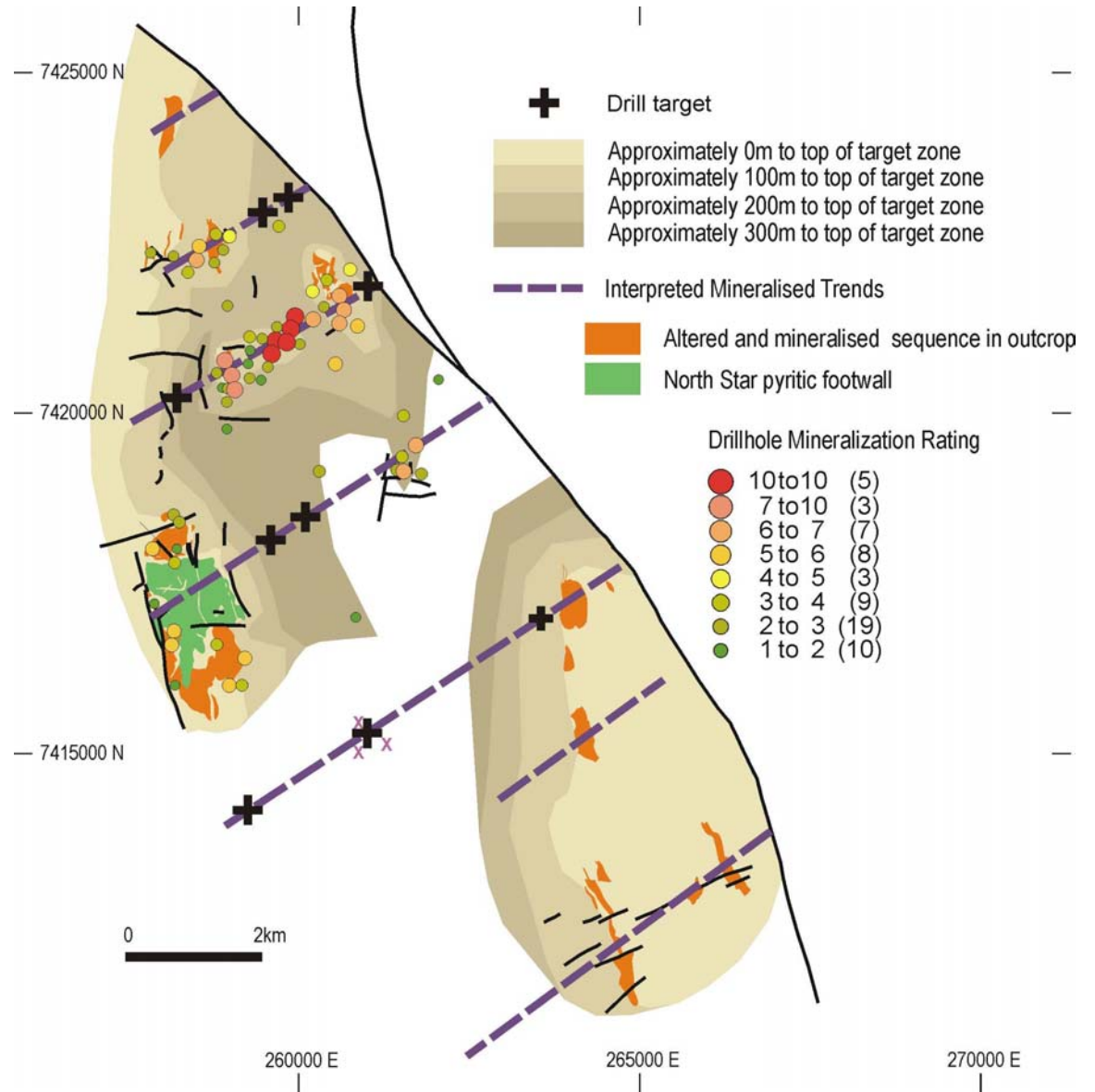
- Introduced by Dr Gary Arnold, who has a royalty interest
- 60 kms northeast of Mount Morgan
- Farm-in with Dominion Mining Ltd subsidiary
- 2 tenements surrounding the former Mt Chalmers minesite
- Mt Chalmers, owned by another company, was a Au-rich VMS orebody
  - 250,000 ounces gold equivalent (~A\$125 million)
- Clusters of similar orebodies are possible
- Past drilling effectively tested only 10% of prospective area
- 110 metres @ 0.8% Zinc intersected by previous explorers
- Main target is blind mineralisation close to prospective stratigraphy





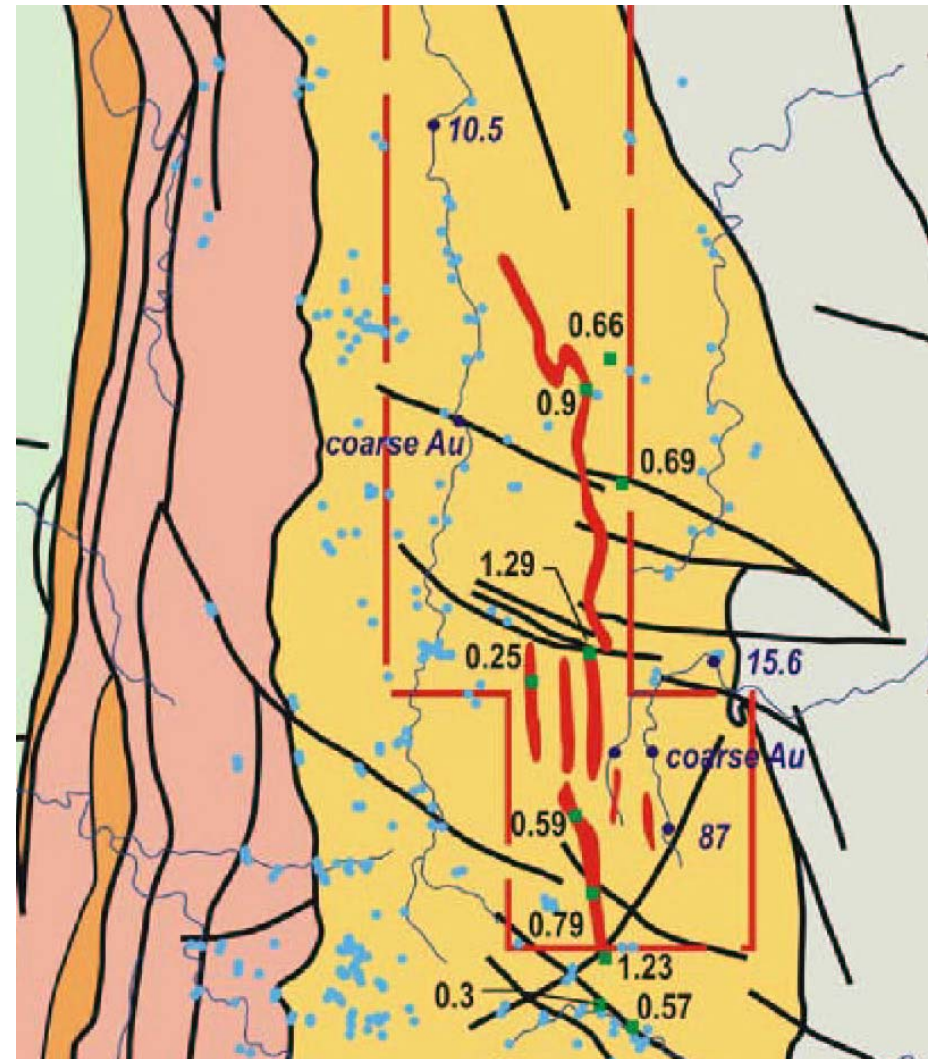
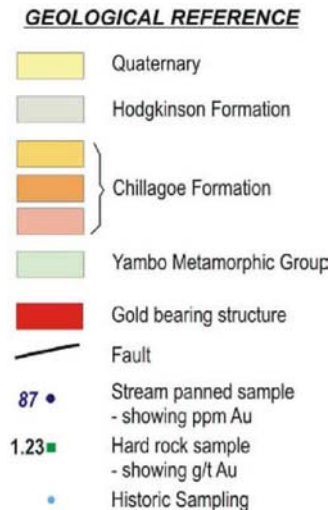
# Quadrio Farm-in Project

- Lodestone has identified 4 main mineralised trends
- 7 targets are to be drilled in July/August



# Limestone Creek Project

- 200 kms northwest of Cairns
- Sediment-hosted gold target in Chillagoe Formation
- Similar geological setting to former Red Dome mine
- Coarse gold in adjacent stream sediments
- Surface gold grades up to 1.3 grams/tonne
- No on-ground exploration since late-1980's



# Forward Work Plan for 2005

- Mount Morgan District Project
  - Drill Mt Victoria gold Prospect...May/June
  - Map & drill Morganite gold prospect...July - October
  - Map & drill Hamilton Cu/Au prospect...November
  - Map & drill Struck Oil porphyry Cu/Au prospect...December
- Quadrio Farm-in Project
  - Drill 7 targets...July - August
- Bajool Project
  - Drill 3 targets...October
- Cracow South Project
  - Drill 9 targets...July/August
- Limestone Creek Project
  - Await permit grant - anticipated soon
  - Surface sampling to define mineralised zones...July
  - Drill 3 targets...September/October





# Forward Looking Statement

This presentation includes forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties.

Actual timetables and outcomes may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

