

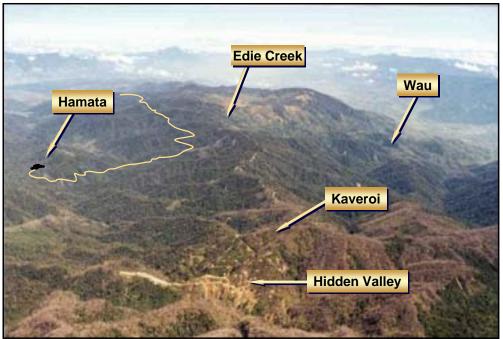
Hidden Valley/Hamata

Mining and Logistics



- Presentation will cover:
  - Overview of what type of country we are dealing with
  - Ore reserve situation
  - Mining plan
  - Infrastructural issues
  - Progress to date
  - Timelines
  - Opportunities







## **Hidden Valley Project**

## Hidden Valley-Kaveroi Deposit

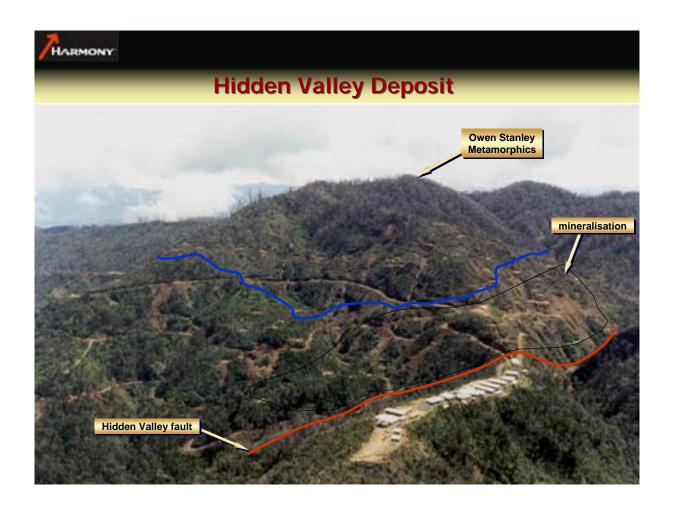
31Mt @ 3.12g/tAu 3.20Moz Au 56Moz Ag resource 19Mt @ 2.91g/tAu 1.75Moz Au 29.5Moz Ag reserve

## **Hamata Deposit**

4.6Mt @ 3.40g/tAu 506,000oz Au resource 2.7Mt @ 3.30g/tAu 290,000oz Au reserve

## **Objectives**

Establish annual production of 300,000oz Au and 60,000oz Au-equivalent silver





#### Mine Plan

- Hamata sole producer for first 10 months
- HV and Hamata mined in months 11 18
- HV only mined from month 18 onwards
- 115 M bcm to be mined at HVH
- Yields 21.5 Mt of high grade ore in 6.3 years
- Overall stripping ratio of 13:1



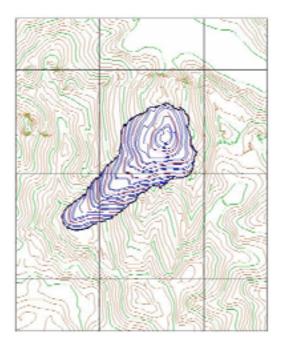
#### Hamata

- The pre-strip provides the final material needed to complete the tailings storage facility walls
- Batters are sloped between 50 and 70 degrees
- No waste dumps are envisaged
- The Hamata final pit contains an inferred resource of 0.3 Mt grading 3.6 g/t undiluted
- There is potential for Hamata to go underground
- Hamata ore contains minimal silver and therefore requires only the basic CIL circuit

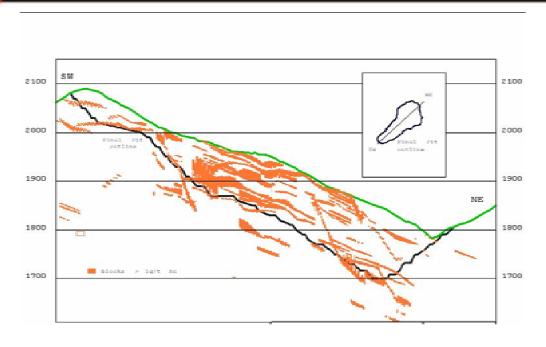




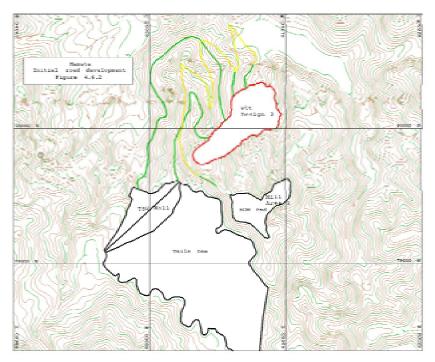




## HARMONY"





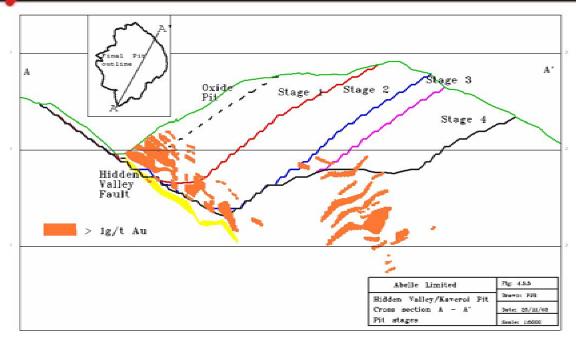


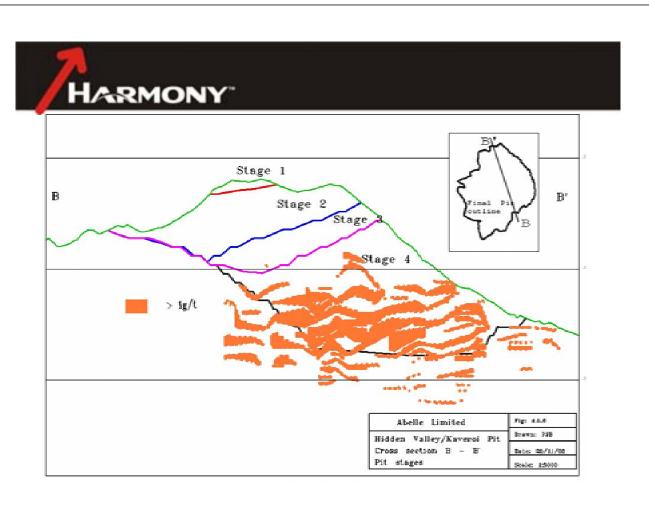


## **Hidden Valley**

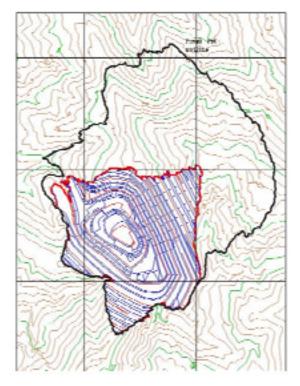
- HV is mined in 4 stages (selected Whittle FourX shells)
  - Stage 1 is an oxide ore pit that is mined in the first
     18 months as well as the waste that is mined in the first 10 months to create an ore pad
  - Stage 2 and 3 are cutbacks of the HV resource
  - Stage 4 is a cutback to mine Kaveroi indicated and measured resource

# HARMONY"

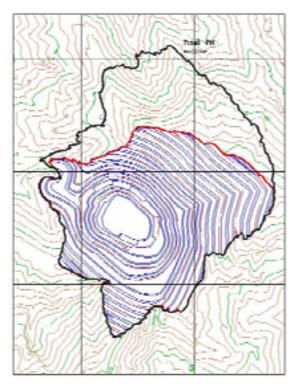




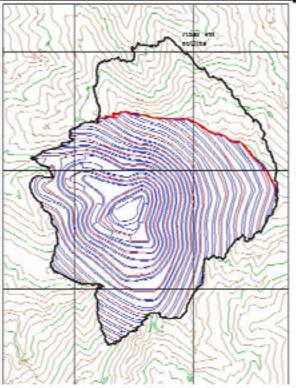




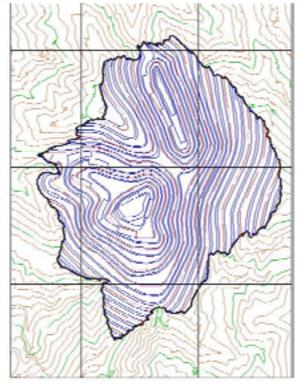




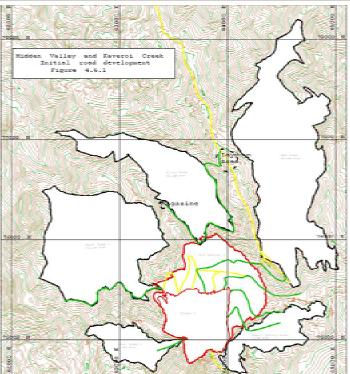














Hidden Valley cont'd

- The final pit design contains an Inferred Resource of 4.2Mt at a grade of 3.0g/tAu and 66 g/t Ag (undiluted) that has not been included in cash flows or schedules
- Batters vary from 45 degrees in the metasediments and oxidised granodiorites to 60-65 degrees in the fresh metasediments and granodiorite



## Mining factors

- Mining recovery of 90% has been allowed to account for ore loss at the 1.0g/t cut-off grade
- Dilution has been calculated by adding 10% material at the average grade immediately external to the ore block (0.3g/t and 0.4g/t respectively for Hamata and HV)
- Net overall effect is to reduce the total resource tonnage by 1% and the grade by 8%



- Equipment selection (size) is being based on:
  - Selectivity required to mine ore separately from waste
  - Capital cost
  - Spares costs
  - Diesel consumption
  - Haul road considerations
  - Stock level requirements
  - Delivery times
  - Origin of manufacture



## Present plan is to use:

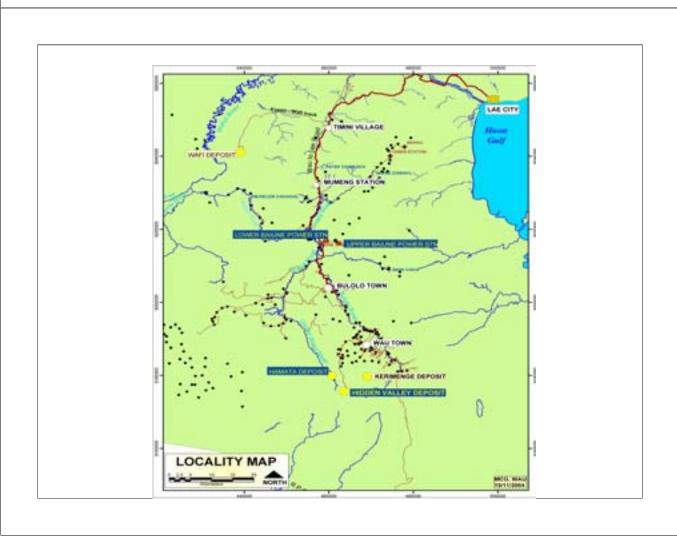
- 170 t hydraulic excavators (5)
- 100 t haul trucks (30)
- Bulldozers (4)
- Wheel loaders (3)
- Wheel dozers (2)
- Graders (2)
- Water truck (1)
- Drill rigs (3)







Markham River









### **HV** project progress

- Purchased Misima plant
- Deconstructed plant and moved 98% of it to Lae
- Constructed Bulldog Hamata access road for diamond drilling
- Completed Geotechnical drilling of the Plant site and the Tailings Storage Facility site and received a favourable preliminary Plant site design
- In the process of appointing key staff members
- Planning sterilisation drilling after the completion of the last diamond drilling that is presently taking place and which will convert inferred resources to indicated and measured resources



- Finalising mine planning and pit optimisation
- Installing systems and procedures
- Carrying out a detailed survey of the Bulolo to Hidden Valley access road in order to be better able to evaluate the cost and time required to construct such a road
- In the process of obtaining the necessary licences to operate



## Approval processes

Major constituents of the approval process:

- Compensation Agreement (CA)
- Memorandum of Agreement (MOA)
- Mining Licence approval
- Environmental Permit approval

The first two are key documents in winning over landowner support.



## **Memorandum of Agreement**

The MOA covers all issues that cannot go into the CA.

The main issues are:

- Mineral Royalty and how it is shared
- Social and physical infrastructure for communities that are to be impacted
- Participation by landowners and provincial government in the ownership of the mining project
- Business spin-off opportunities arising out of the project
- Employment and training opportunities in the project
- Social and physical environmental issues eg., closure and post mine-life sustainability



### **Approval processes**

The following has been achieved:

- A Feasibility Study was submitted to the PNG Government in March 2004
- Extensive consultations have been held between MCG, the National and Provincial Governments, and the land owners.
- The Project land owners have demonstrated that they are keen to see the Project proceed
- The Morobe Provincial Govt has involved Local Level Govt's to ensure that the Project can proceed as smoothly and as quickly as possible.
- An EIS and an EP have been submitted to DEC



## **Project Timelines**

## Timelines are expected to be as follows:

EIS approval in principal February 2005

Environment Permit February

Mining lease- March

• MOA sign off- March

• Compensation agreements- March

Execution of financial docs- June
 Construction commences- 1 July 2005

• First gold- 1st quarter 2007



## Opportunities:

- Inferred resource conversion to indicated and measured resources
- Low grade stockpile treatment at the end of the life of the pit
- Extension of orebodies underground at Kaveroi
- HV "project based exploration" extending life of mine and making use of the processing plant, infrastructure (roads and conveyor) and surface fleet



# Project based exploration – Hidden Valley

