PROJECT IS STRATEGICALLY IMPORTANT TO YANACOHA OPERATION

- Project is economically attractive.

- Ores are becoming more complex. Gold Mill is an alternative process to treat these materials.

- Gold Mill Facility provides the base facilities and skills for future complex ores at Yanacocha.
RESOURCES SUMMARY FOR GOLD MILL

- Total Tonnes: 41.5 million tonnes
- Average Ore Grade:
  - Au: 3.92 g/t  Ag: 24.37 g/t
- Contained Ounces:
  - Au: 5.2 Moz  Ag: 32.5 Moz
- Recoverable Ounces:
  - Au: 4.15 Moz  Ag: 14.2 Moz
- Deep Transition Reserves Ounces (Contained):
  - Au: 980 Koz
CRUSHING

- Use existing agglomeration Crusher
- 1500 TPH
- ~9.5 h/d operation
- Feed Stockpile
- ~11 hours live capacity in stockpile
- Consumables
  - Power and Steel liners
MILLING

- New SAG and Ball Mill
- D-26 Krebbs Hydrocyclones
  - Classify ground ore (80% - 75 µm)
- Consumables
  - Power, steel balls, mill liners
PRE-LEACH THICKENING

Objective

- Recover process water for grinding circuit
- Thicken pulp for subsequent leaching to optimize leach residence time

Consumables

- Flocculent, anti-scalent, and power
GOLD LEACH

- Slurry is mixed in large agitated tanks with the objectives:
  - Leach gold and silver from ore – copper is leached as a by-product

- Consumables
  - Power, cyanide, lime, low pressure air
CCD THICKENING AND WASHING

- **Purpose**
  - Solids/liquid separation to produce metal/cyanide rich solution for recovery of gold, silver, copper and cyanide
  - Solids routed to mill sands
- **5 Stages of Thickeners- 28 – 30 meters diameter**
- Approx 600 m3/h of wash solution – 1.2:1 was ratio for >99% solute recovery
- Final thickener is also a high density mill sands thickener – deeper cone
SART SOLUTION TREATMENT

- Sulfidization, Acidification, Recycle, and Thickening.
  - 1\textsuperscript{st} CCD thickener overflow is treated in a SART process to remove Cu and Ag
  - Precipitation of (WAD) metal cyanide complexes – Ag, Cu, Zn
  - Cu and Ag sulfides sold as a concentrate
  - Neutralization with lime for gypsum removal
  - Au recovery via 7 stage CIC
SART SOLUTION TREATMENT

Batu Hijau – Copper Sulfide Precipitation Filter Press

Copper Sulfide product
CARBON ELUTION / REGENERATION

- Will be performed in existing plants at La Quinua
- Final Au recovery in existing Merrill Crowe plant/refinery at Yanacocha Norte

Objective
- Acid wash carbonate and organic material from carbon
- Concentrate gold from carbon to an enriched solution
- Regenerate carbon activity
- Return sized barren carbon to leach circuit

Consumables
- Carbon, power, caustic, cyanide, anti-scalent, diesel fuel, hydrochloric acid
AVR CYANIDE RECOVERY

- Acidification, Volatilization, and Recovery
  - Excess cyanide used in the mill will be recovered and reused in the mill to maintain cyanide balance
  - Only in years where transition ores containing high copper values are treated
    - Solution contacted with air in packed bed towers
    - HCN is stripped from the solution to the gas phase
    - Recycled cyanide is returned to the mill.
NEW REAGENT FACILITIES

- Cyanide
- Lime
- Caustic Soda
- Carbon
- Flocculant
- Diesel Fuel
- Anti-Scalent
- Sulfuric Acid
MILL SANDS DISPOSAL

- High compression thickened mill sands.
- Dispose mill sands on the south section of the LQ pad.
- Mill sands disposal area has same foundation preparation and liner system as La Quinua heap leach.
- Heap leach and mill sands drainage systems are continuous.
- Continuous monitoring program.
MILL SANDS CROSS SECTION
LA QUINUA PAD
PROJECT MILESTONE DATES

- Submit AFE: March 2005
- Start EIS Workshops: March 2005
- Submit EIS: January 2006
- Start Detail Engineering Plant: November 2005
- Start Bulk Earthworks Const: August 2006
- EIS Approval: January 2007
- Start Mechanical/Elect. Const: March 2007
- Mechanically complete: November 2007
- Start-up Plant: January 2008
IMPORTANT RISKS

☑ Manageable Risks
  – Expenditure schedule controlled by social acceptance/permit progress.

☑ Other Risks Considered
  – Political (Elections).
  – Social acceptance.
  – Metal prices.
  – Reagents & Consumable prices.
  – Escalation.