



Harmony Gold Mining Co.Ltd



Wafi Gold Deposit
Golpu Porphyry Cu-Au Deposit

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Wafi Gold Project

6.2Moz Au resource

Golpu Copper-Gold Project

1.63Mt Cu – 2.6Moz Au resource

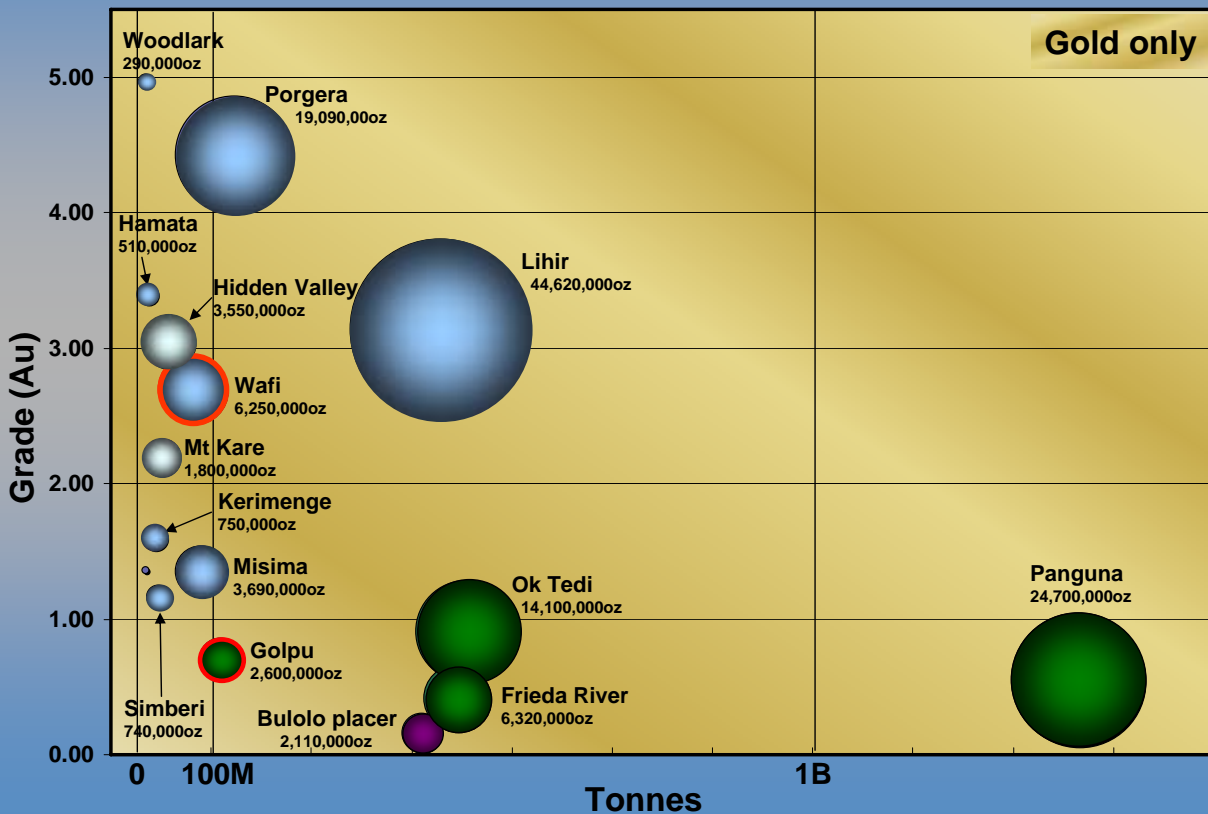


Comparison of Selected Gold Deposits in PNG

| Deposit | M Tonnes | Au | | Ag | | Cu | | Tonnes Au Equiv |
|---------------|-------------------------------------|-------|-------|-------|-------|-------|-------|-----------------|
| | | Grade | M Oz | Grade | M Oz | Grade | B lbs | |
| Panguna | 1,397 | 0.55 | 24.70 | | | 0.46 | 14.17 | 1,815 |
| Lihir | 442 | 3.14 | 44.62 | | | | | 1,388 |
| Ok Tedi | 482 | 0.91 | 14.10 | | | 0.85 | 9.03 | 1,074 |
| Frieda River | 468 | 0.42 | 6.32 | | | 0.70 | 7.22 | 705 |
| Porgera | 134 | 4.43 | 19.09 | | | | | 594 |
| Golpu | 114 | 0.71 | 2.60 | | | 1.43 | 3.59 | 334 |
| Wafi | 72 | 2.70 | 6.25 | | | | | 194 |
| Hidden Valley | 36.2 | 3.05 | 3.55 | 55.0 | 31.55 | | | 123 |
| Misima | 85.0 | 1.35 | 3.69 | | | | | 115 |
| Bulolo River | 413.7 ^(207m³) | 0.16 | 2.11 | | | | | 66 |
| Mt. Kare | 25.5 | 2.20 | 1.80 | 29.0 | 23.78 | | | 65 |
| Kainantu | 1.2 | 28.00 | 1.08 | | | | | 34 |
| Kerimenge | 14.6 | 1.60 | 0.75 | | | | | 23 |
| Simberi | 19.7 | 1.17 | 0.74 | | | | | 23 |
| Edie Creek | 2.7 | 8.40 | 0.73 | | | | | 23 |
| Tolukuma | 1.5 | 13.77 | 0.66 | | | | | 20 |
| Hamata | 4.6 | 3.40 | 0.51 | | | | | 16 |
| Woodlark | 1.8 | 4.97 | 0.29 | | | | | 9 |
| Imwauna | 1.0 | 6.10 | 0.19 | 12.0 | 0.38 | | | 6 |
| Weiko | 1.7 | 1.36 | 0.07 | 12.3 | 0.67 | | | 3 |

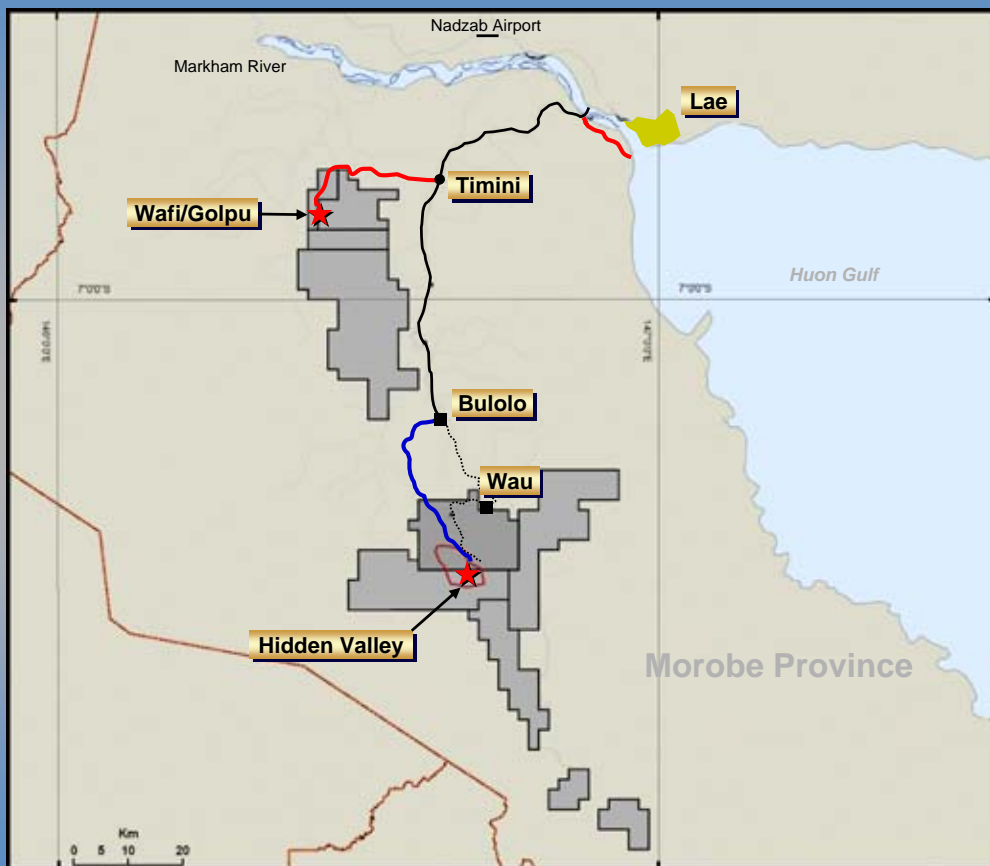
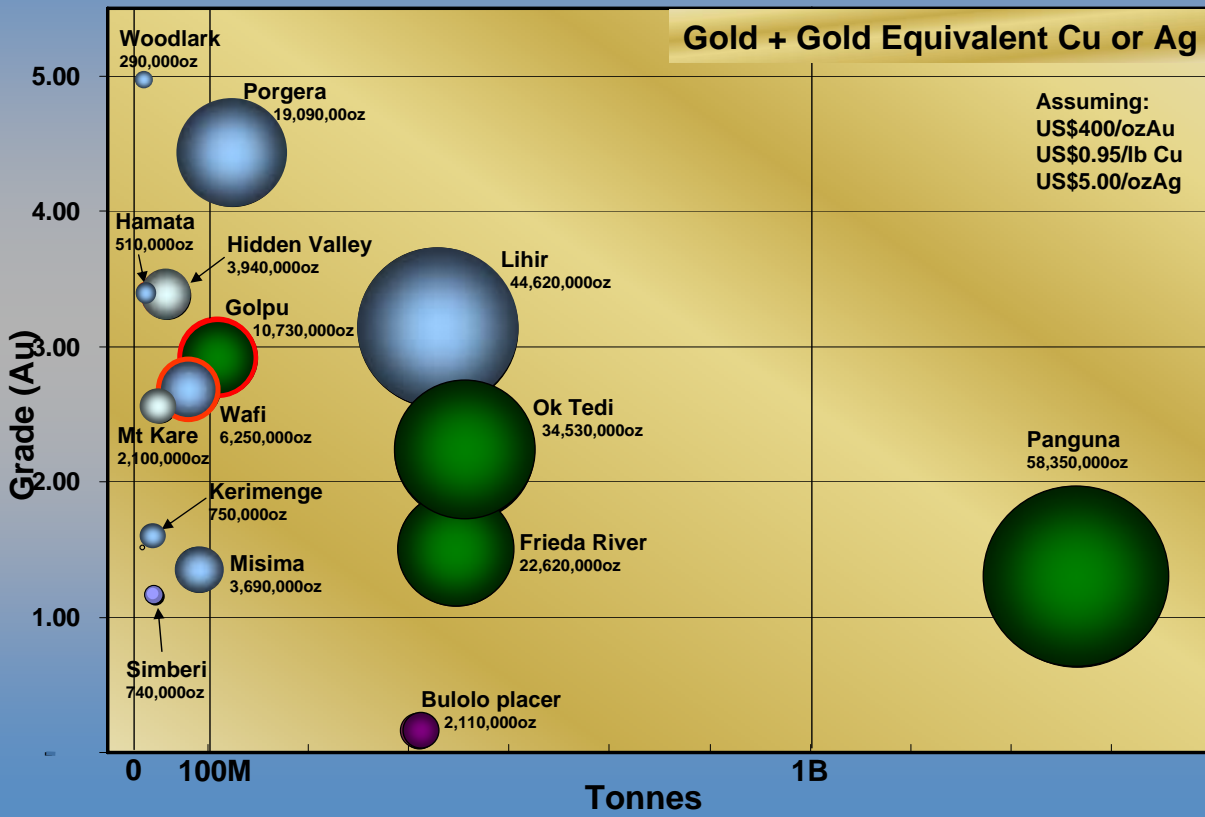


Comparison of Selected Gold Deposits in PNG



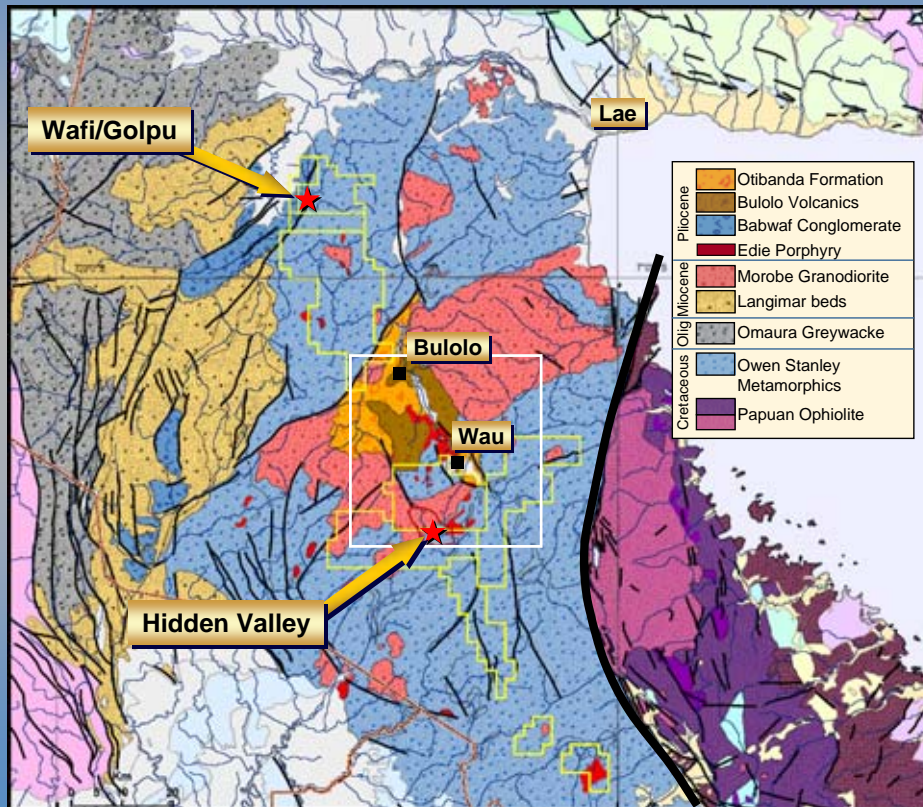


Comparison of Selected Gold Deposits in PNG





Regional Geology



Discovery

- Mineralised boulders found by CRA in 1977
- Rock chip assayed 22g/tAu, 89g/tAg and 0.5% Pb
- Outcropping mineralisation found in 1979
- 1980-1982: ridge and spur sampling, mapping – Zone A
- Drilling commenced in 1983
- Full-suite geophysics undertaken in 1985
- 1988-1990 CRA / Elders Resources JV
- 1990: WR95 intersected 263m at 1.86% Cu - Golpu porphyry copper discovered



Resource Evolution

- Total drilling (diamond+RC) to end 2004: 272 holes for 77,900m
- Drilled (mostly by CRAE) on nominal 50mx50m pattern
- Progressive increase in resource with each drilling campaign
- Link Zone discovered in 1997
- AGF briefly acquired project from CRA in 1998
- 1999-2001: care and maintenance
- 2002: Aurora explored Malaria Zone and Northern Zone
- Abelle completed 16 holes for 7,300m targeting Link Zone
- Harmony completed 70 RC holes for 13,200m – A, B Zones



Wafi Resource History

| Date | Company | Mt | Grade | Oz Au | Mt | Grade | Oz Au | Zone |
|------|---------|-------|-------|-----------|-------|-------|-----------|------------|
| 1990 | Elders | 18.10 | 2.50 | 1,450,000 | | | | A |
| 1996 | CRA | 31.00 | 2.15 | 2,140,000 | | | | A |
| 1996 | CRA | 45.00 | 2.00 | 2,890,000 | | | | A |
| 1996 | CRA | 29.00 | 2.25 | 2,100,000 | | | | A |
| 1997 | CRA | 66.90 | 2.11 | 4,540,000 | | | | |
| 1997 | AGF | 26.10 | 3.52 | 2,960,000 | 6.80 | 5.40 | 1,181,000 | A, B, Link |
| 1998 | AGF | | | | 6.70 | 6.60 | 1,422,000 | A, B, Link |
| 2002 | Aurora | 43.40 | 2.76 | 3,840,000 | 12.89 | 3.93 | 1,630,000 | A, B, Link |
| 2004 | Abelle | 72.10 | 2.70 | 6,265,000 | | | | A, B, Link |
| 2004 | Harmony | 72.20 | 2.63 | 6,101,427 | 5.96 | 6.97 | 1,327,000 | A, B, Link |

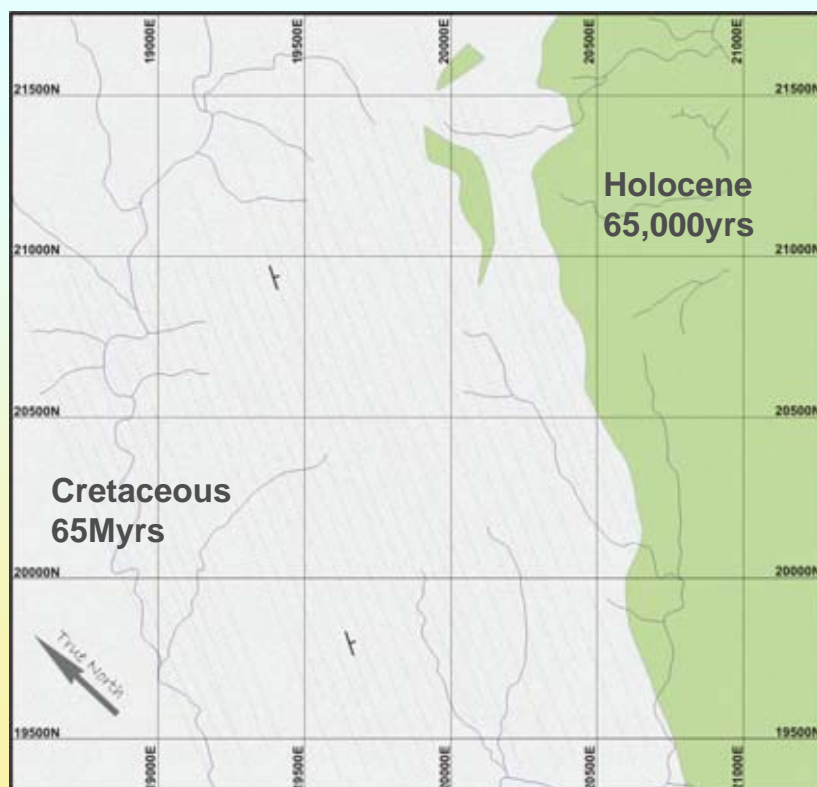


Wafi Resource Characteristics

- High sulphidation epithermal system
- Complex zonation of hydrothermal alteration assemblages around central diatreme core
- Intruded by suite of dioritic and dacitic porphyries
- Oxide ore: 95% whole ore leach cyanidation recovery
- Gold associated with fine-grained arsenical pyrite
- Whole ore pressure oxidation & roasting and whole ore heap bioxidation process being evaluated



Wafi Geology





Wafi Geology

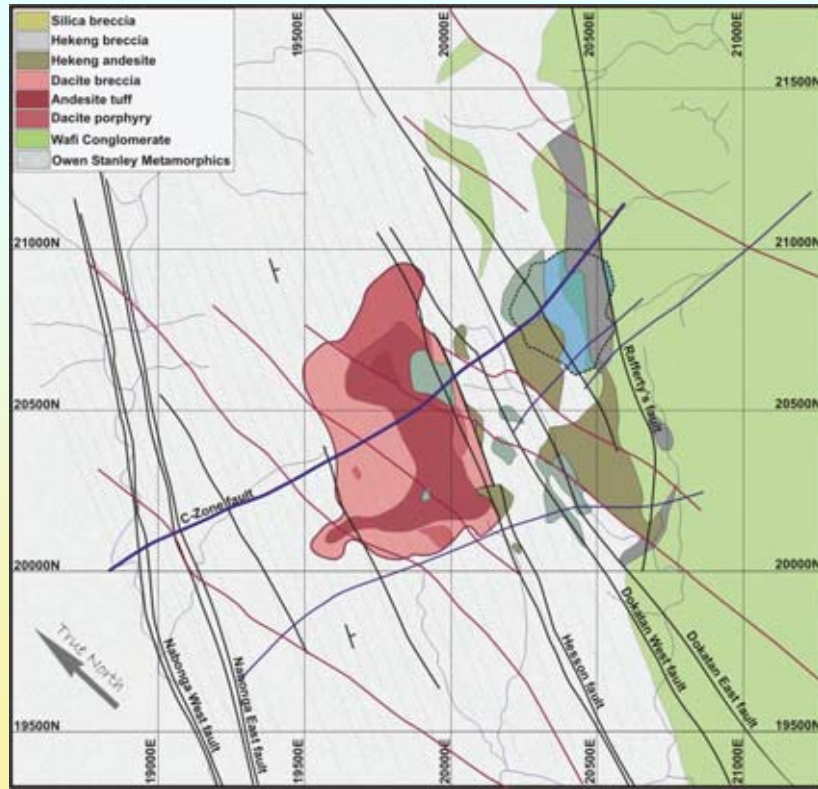


Wafi Geology

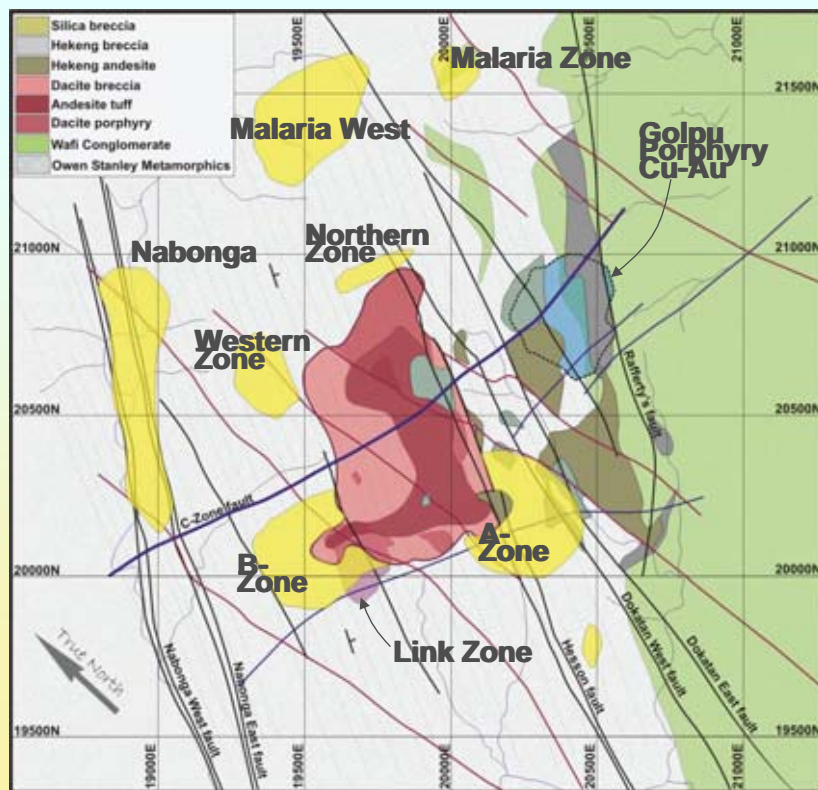




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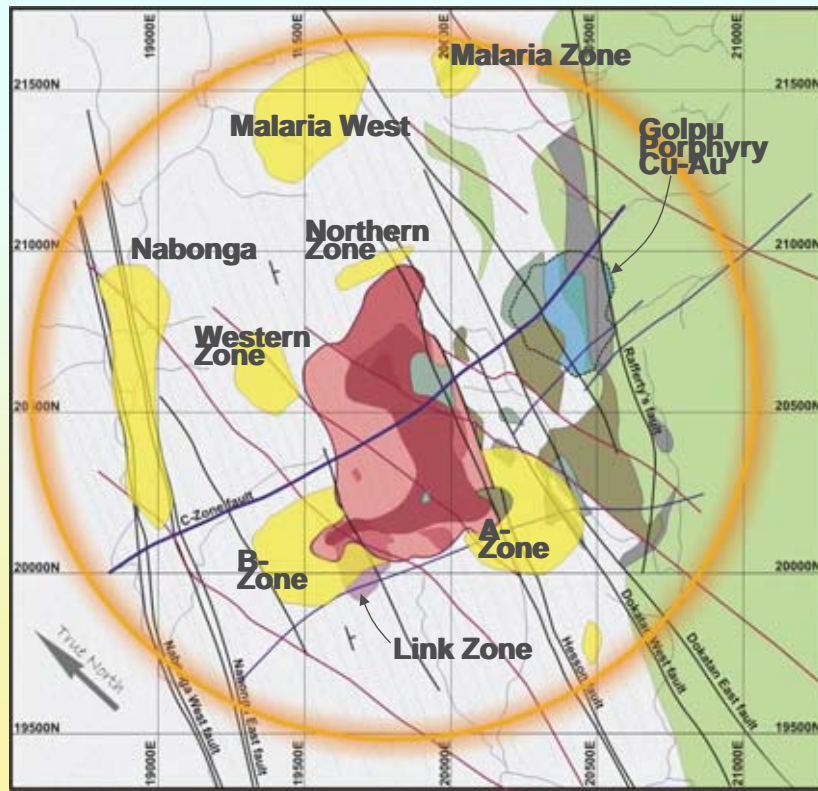


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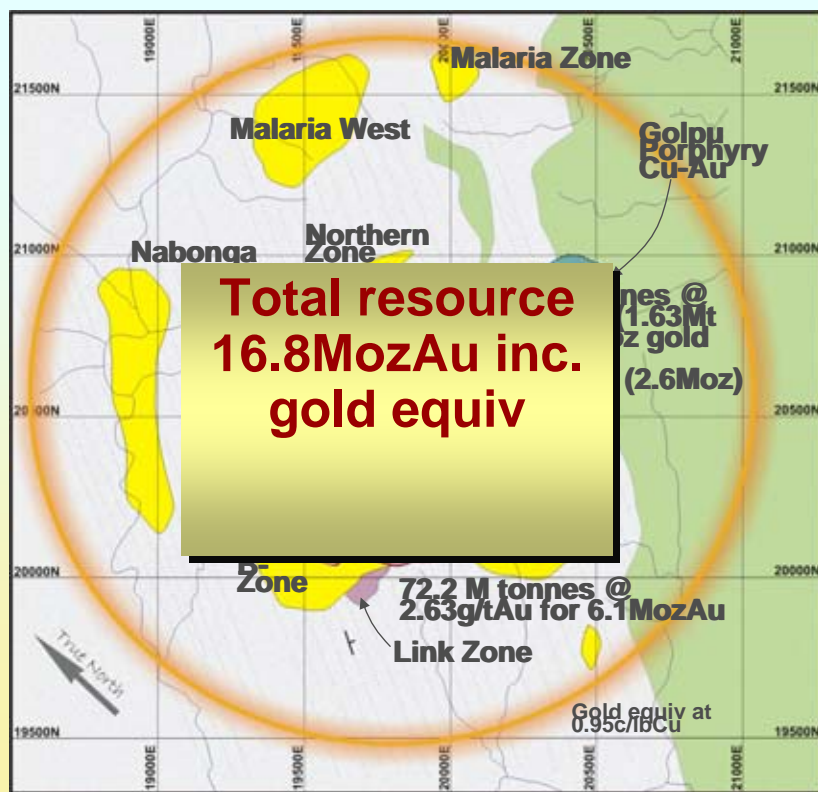


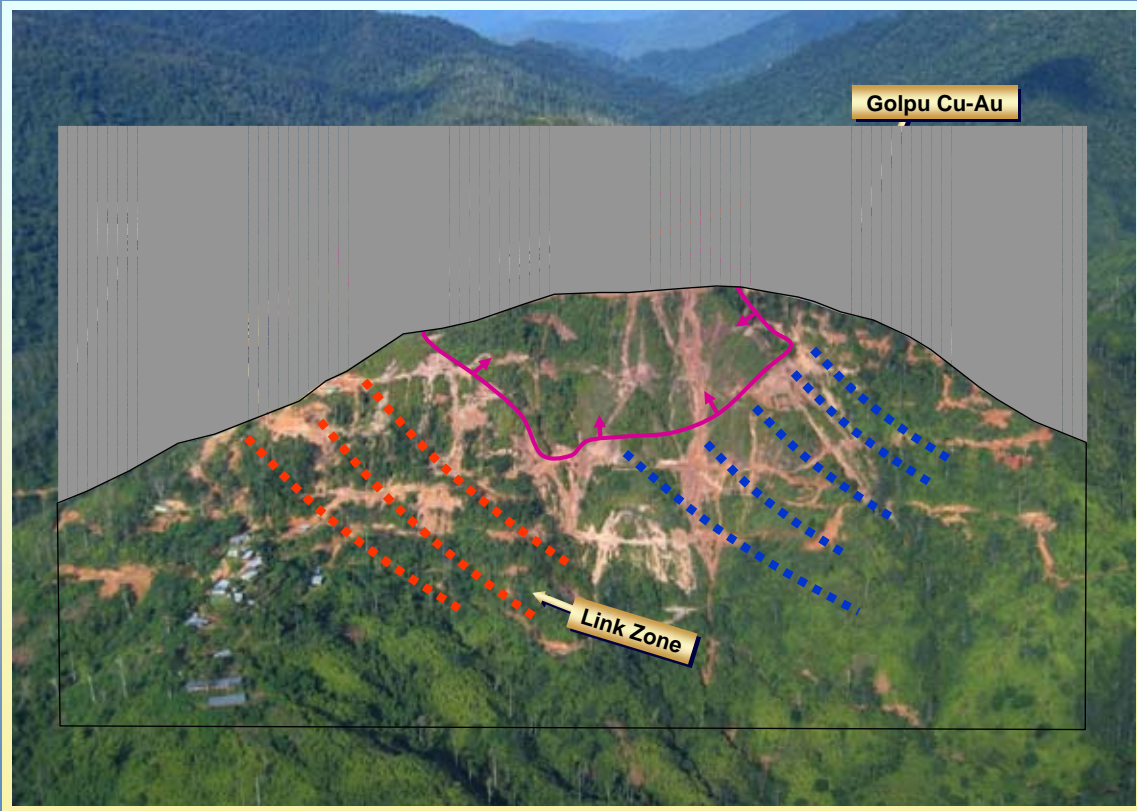


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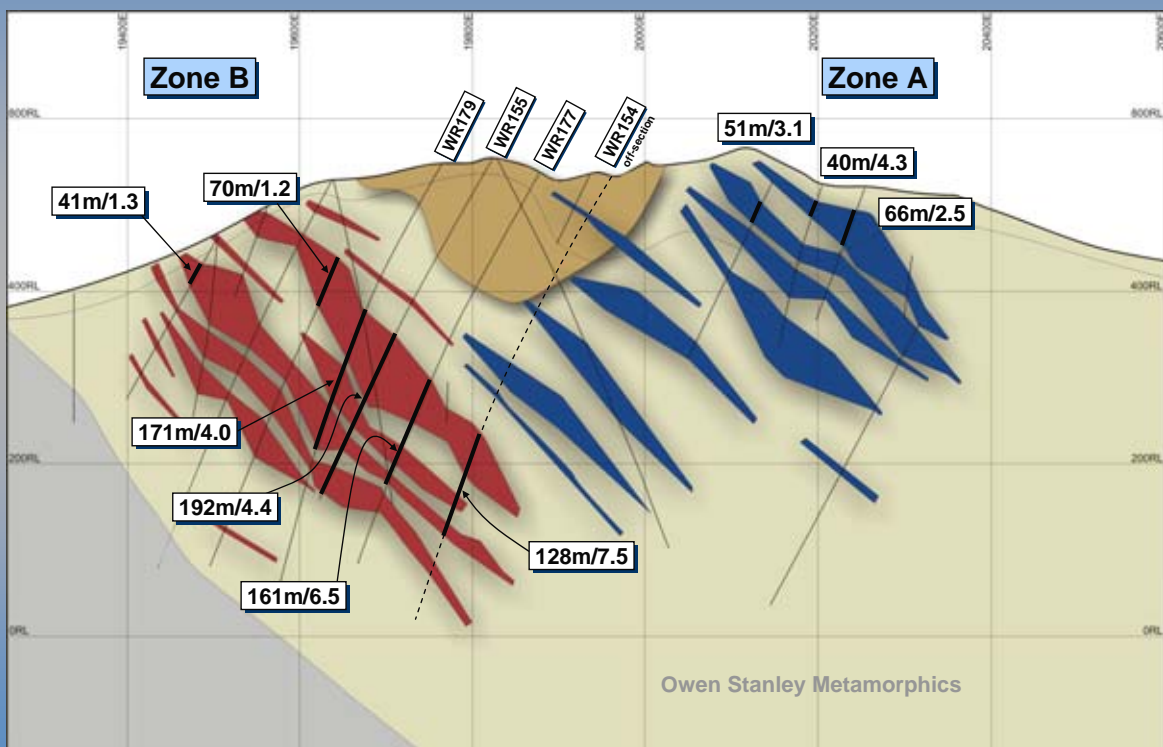


Wafi Geology



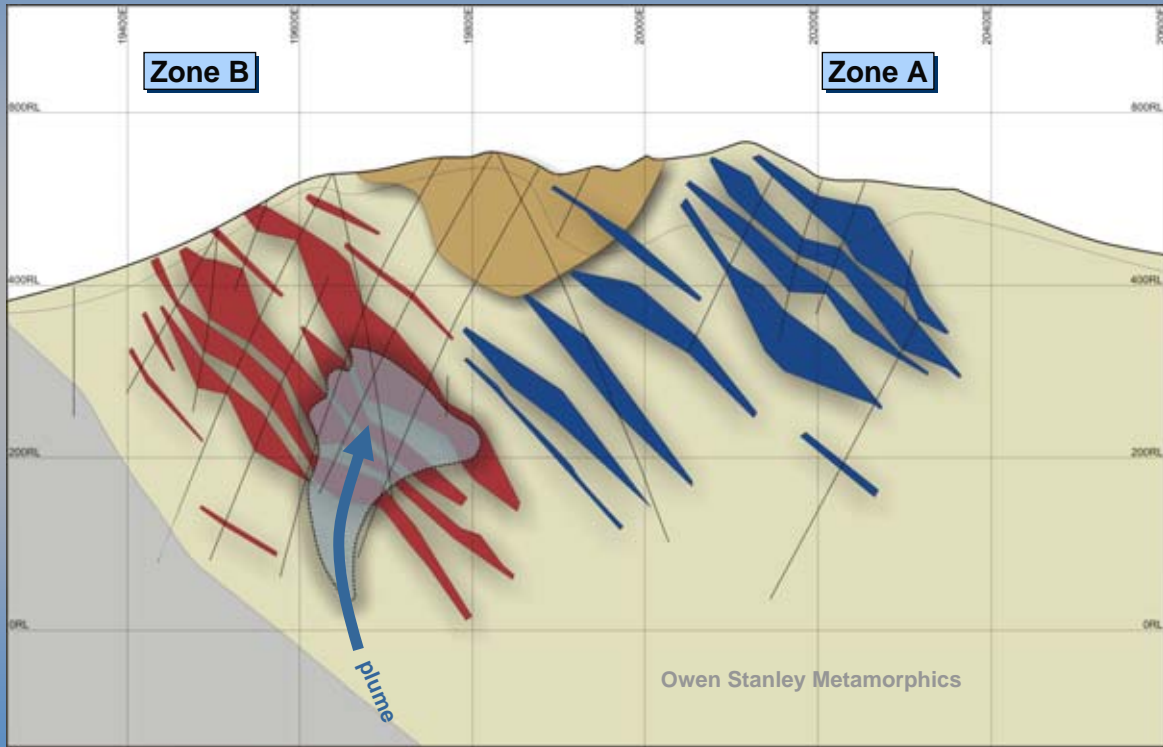


Wafi Section 20100N

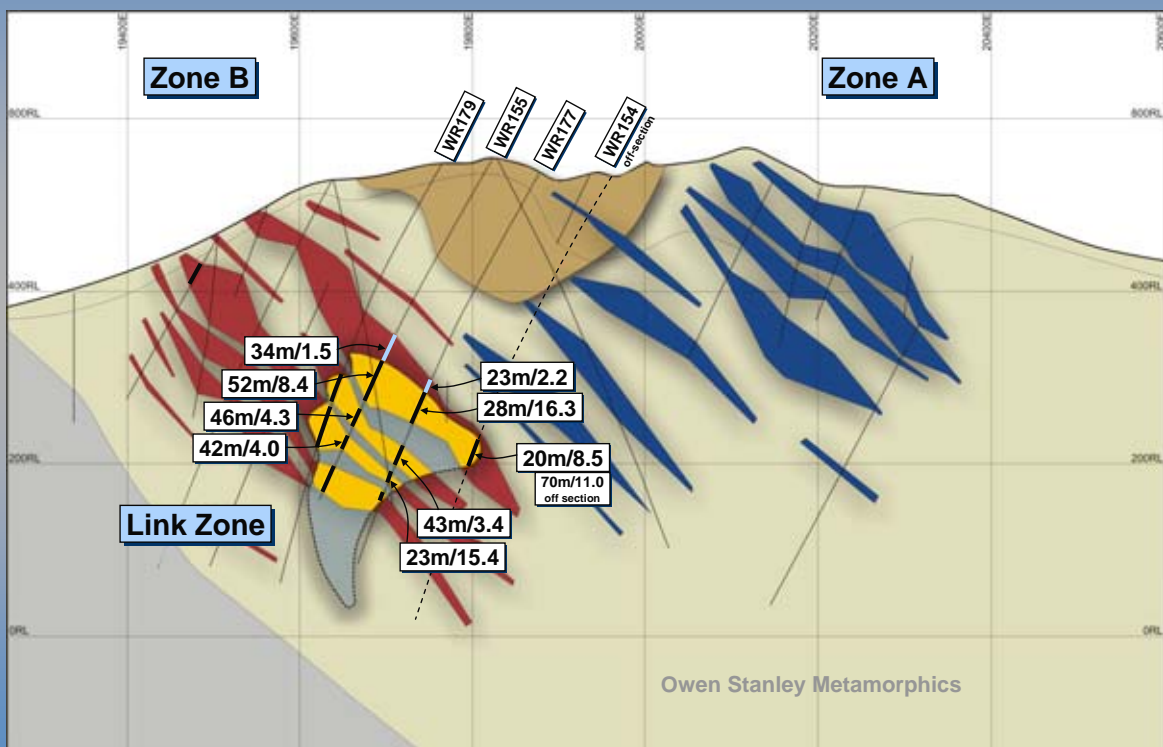




Wafi Section 20100N



Wafi Section 20100N





Drillhole WR154 Core Samples



234m: 2m @ 0.6 g/tAu. Siltstone with kaolinite/pyrite alteration, veinlets with bleached margins.



310.5m: 2m @ 2.6 g/tAu over 2m. Siltstone with late veinlets with bleached margins.



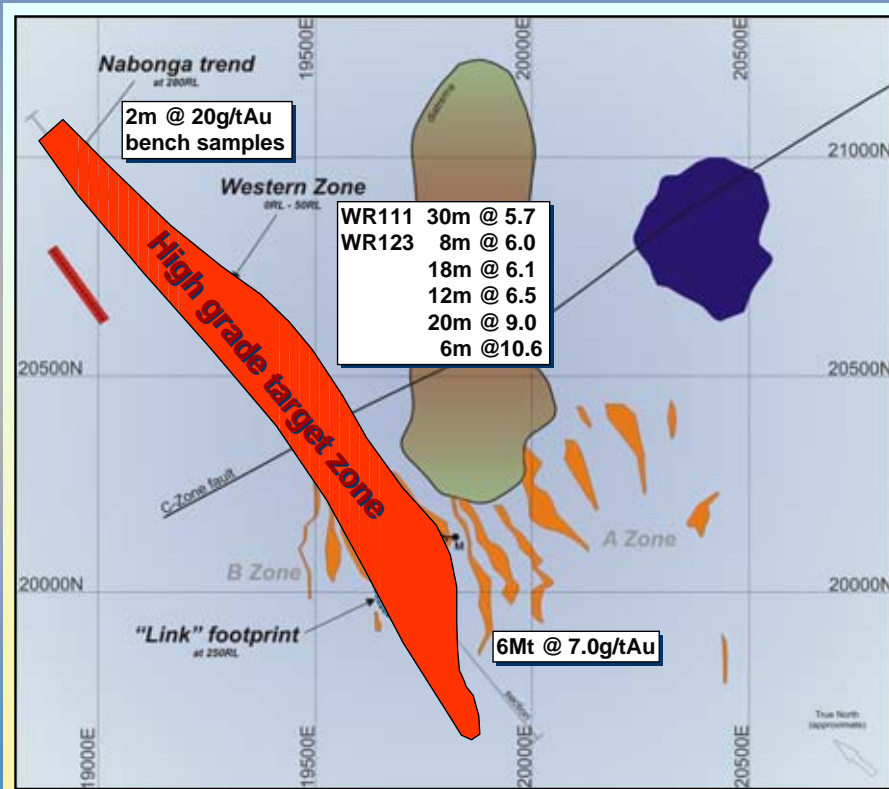
337m: 2m @ 12.5 g/tAu. Siltstone with late overprint silicification and very fine dusting/ net-veining pyrite.



343.4m: 2m @ 27.6 g/tAu. Siltstone & veinlets with bleached margins overprinted by very fine silica/pyrite.



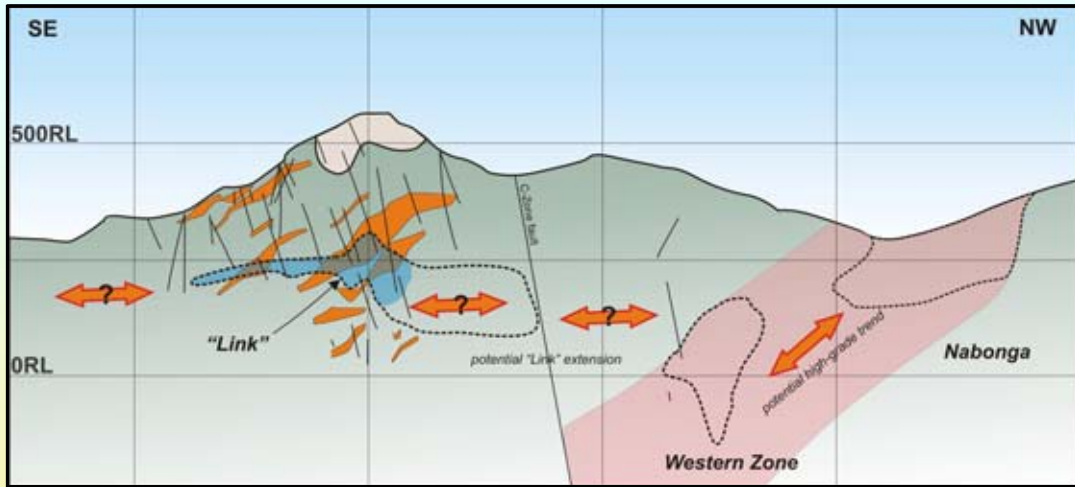
High-Grade Potential





Status

Exploration for high-grade, "Link-style" continuations

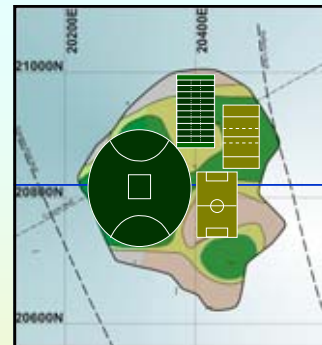
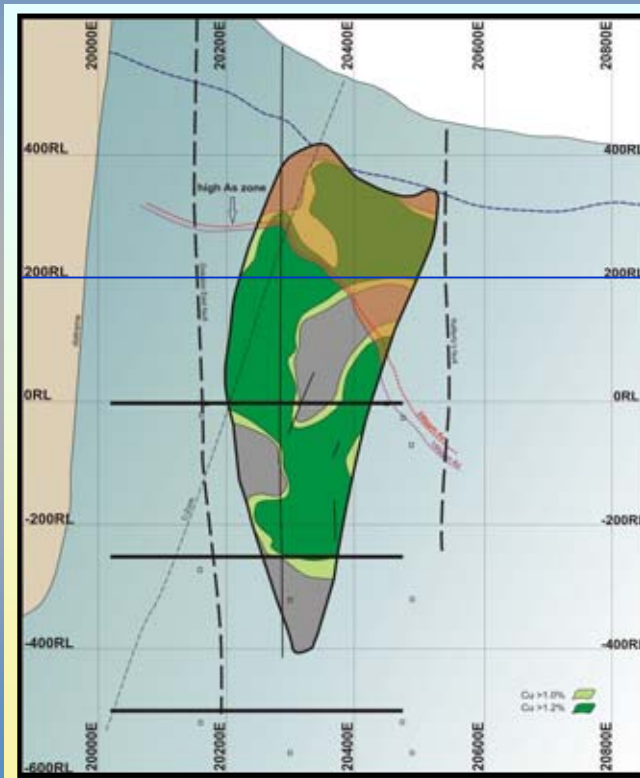


Drilling metallurgical holes – 600kg sample

Golpu geotechnical drilling program being considered

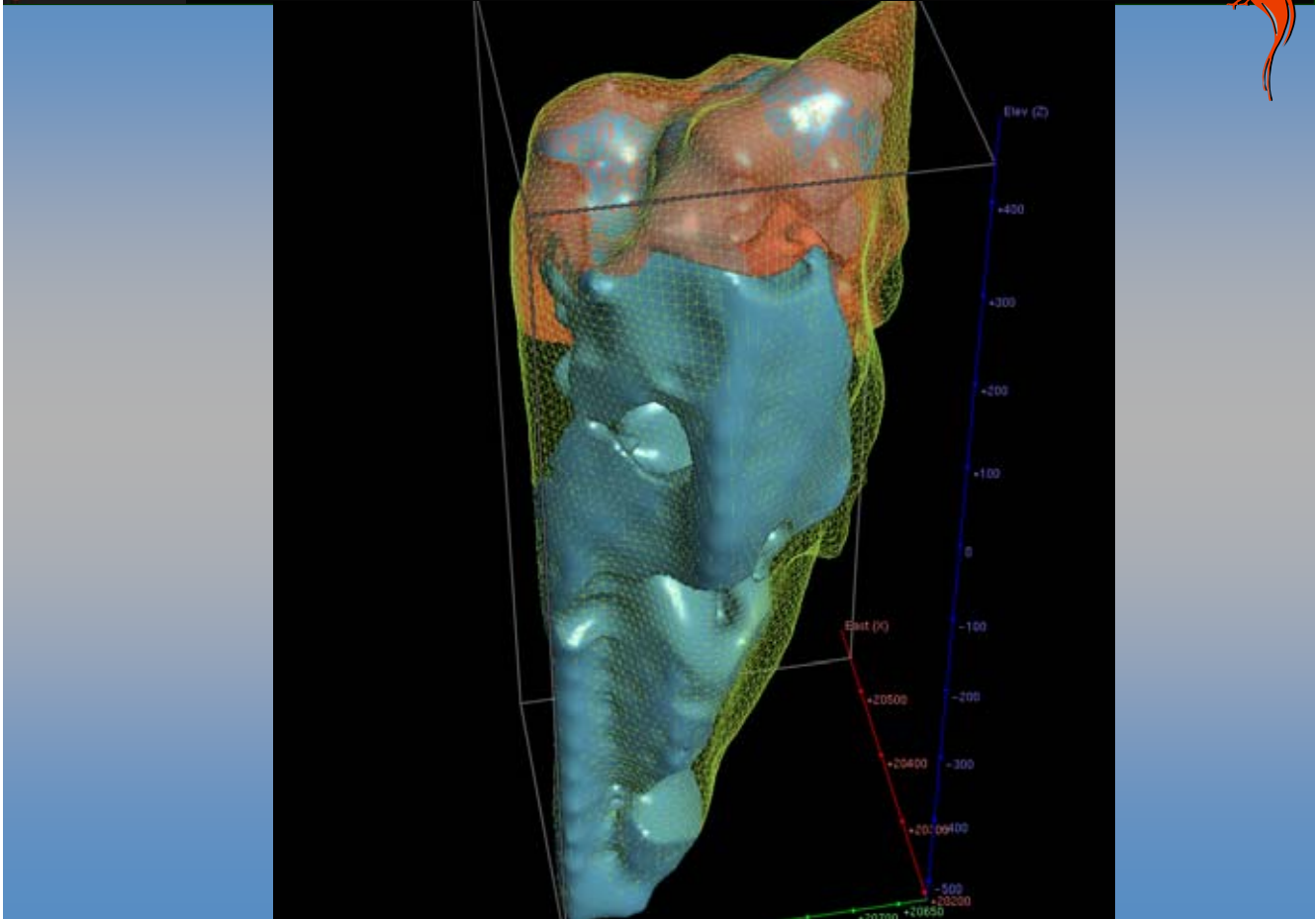


Golpu Cu-Au Porphyry



Plan View 200RL

Section 20825N



Golpu Resource Summary

Gold

| Indicated | | | Inferred | | | Total | | |
|------------|------------|-----------|------------|----------------|---------|-------------|----------------|-----------|
| Tonnes | Grade (Au) | Ounces | Tonnes | Grade (Au g/t) | oz Au | Tonnes | Grade (Au g/t) | oz Au |
| 96,984,000 | 0.74 | 2,296,752 | 21,303,000 | 0.73 | 499,982 | 118,287,000 | 0.74 | 2,796,734 |

Copper

| Indicated | | | Inferred | | | Total | | |
|------------|--------------|-----------|------------|--------------|-----------|-------------|--------------|-----------|
| Tonnes | Grade (Cu %) | Tonnes Cu | Tonnes | Grade (Cu %) | Tonnes Cu | Tonnes | Grade (Cu %) | Tonnes Cu |
| 96,984,000 | 1.49 | 1,386,539 | 21,303,000 | 1.15 | 245,000 | 118,287,000 | 1.48 | 1,631,539 |



Mining Scenario - Process Route

- **Block cave evaluation study completed by SRK (Australasia)**
 - **block cave feasible**
 - **lift heights of 250m**
 - **average caving rate of 250-300mm/day**
- **Conventional copper flotation plant**
- **Optimum size approximately 8 mtpa**
- **High arsenic levels in concentrate, require concentrate offtake agreement , or**
- **Addition of hydrometallurgical process route**



Status

Exploration for high-grade, “Link-style” continuations

Drilling metallurgical holes – 600kg sample

Re-logging of historic core

Golpu geotechnical drilling program being considered



Wafi-Golpu Conceptual Model

