Orogenic Gold in the Arabian Nubian Shield

This presentation discusses Orogenic Gold deposit formation using the Mineral System analysis questions as the structure for discussion. The talk endeavours to answer the 5 Questions posed in Mineral System Analysis developed by recent Cooperative Research Centres (Australian Geodynamics 1993-2000 and Predictive Mineral Discovery 2001-2007).

1 What is the Geodynamic setting?
2 What is the crustal architecture?
3 What are the fluid sources?
4 What are the fluid pathways and drivers?
5 What are the deposition mechanisms?

The talk presents a synthesis of the results of over 30 years on-going exploration research into Orogenic Gold deposits in Western Australia. It demonstrates its universal application by analysis of the Arabian Nubian Shield using the giant Sukari gold deposit as a type example.