Abstract

The following paper amply illustrates the importance of understanding geology within the context of the need for efficient evaluation. The authors will demonstrate the impact this has had on two separate projects in which, the geological understanding and interpretation has led to an entirely different outlook on how evaluation should proceed. The projects reviewed belong to a large mining company within South Africa and represent primary exploration targets.

![Diagram](image)

**Figure 1:** Southwest to northeast section across SOFS (Bloemhoek) showing the unconformity surfaces between the VS5 to Leader Reefs, Beatrix Operation, South Africa, Muntingh et al. [1]

This is especially prevalent in the development and preservation of Witwatersrand Reefs across the basin, in particular the Kimberley reefs, within the Central Rand Group sequence, which display the intricate geometric relationships that exist between a series of unconformities which characterise the multi stacking depositional nature of these conglomerate packages. It can be clearly illustrated towards the western folded margin and southern closure of the basin in the Southern Free State Goldfield (SOFS), as well as in the South Rand basin, at the Burnstone project area.

Acknowledgements:
