

# Airborne EM processing and modelling applied to Nickel and Diamond exploration: the devil is in the detail

**When:** Sunday 10<sup>th</sup> September (Full day)

**Minimum Delegates:** 15

**Includes:** Lunch, Tea/Coffee

**COST:** R3 616 (VAT incl.) [Special student rate: R700] (VAT incl.)

## Presenters:

### Andrea Viezzoli (Principal Geophysicist at Aarhus Geophysics)

Andrea Viezzoli earned his Ph.D. in geophysics from Monash University. Andrea manages Aarhus Geophysics Aps since 2009. Author of several publications, he is interested in all aspects of airborne EM, with special focus on hydrogeological applications and on IP effects in AEM data



### Gavin Selfe (Consulting Geophysicist at GRS Consulting)

Gavin Selfe has 26 years' experience in the mineral exploration industry and currently consults to many, varied exploration companies in Africa. He graduated from Wits in 1987 with a dual major in geology and geophysics. He subsequently worked as a geophysicist for De Beers and Anglo American for 15 years and was based in an exploration office in West Africa for 5 years. His experience includes diamonds, gold, nickel, copper, platinum, iron ore and zinc exploration. He specialises in EM and AMT surveys, as well as in interpreting structure and geology from airborne datasets.



### Wayne Pettit (Geophysicist on the Isithelo Geoscience Team)

After studying Geology and Geophysics in KZN as a bursar with the Chamber of Mines Research Organization, Wayne graduated from WITS with an honours degree in Geophysics and took employment with Genmin in 1988 as a junior geophysicist. He remained with this organization through its metamorphosis from Gencor to Billiton to BHP Billiton, where he managed the geophysical work in Africa and South America and then ran a Geophysics Department supporting mineral exploration in Africa. When BHPB pulled out of Africa he joined Anglo Technical Solutions (ATS) in July 2012, where he managed a team of specialist geoscientists providing technical solutions to Anglo's mines and exploration teams. This team was focused on mapping geohazards and improving safety ahead of mining, and developing and applying new technologies for more effective structure mapping, orebody delineation and exploration. With the demise of ATS in June 2015, he joined other ex ATS technical specialists in forming a new company called Isithelo Mining Consultants and Services, through whom he now consults as an associate.



## **About the workshop**

This workshop is aimed at exploration geophysicists and geologists with an interest in applying AEM quantitatively. The focus is AEM data processing and modelling (with a spruce of airborne IP), using data from several modern airborne systems e.g., VTEM, Xcite, SkyTEM, Spectrem. The co-chairs will help blend the driest of the geophysical and numerical aspects of the AEM modelling with a boots on the ground approach to exploration.

The morning, with co-chair Gavin Selfe, will be dedicated to the exciting Sunnyside Nickel project, featuring up to 4 (!) overlapping AEM datasets, a high-resolution AMT survey, and plenty of drill hole control. Amongst other things, we will experience the joys and sorrows of comparing AEM systems.

The afternoon program, co-chaired by Wayne Pettit, will cover a number of diamond exploration case studies (kimberlite and alluvial), all with a heavy AEM component, from Canada, Russia, and Angola. Core measurements, system comparisons, and airborne MAG data will be served on the side.