OVERBERG GEOSCIENTISTS GROUP (OGG)

Newsletter #12 – 17 August 2024

***(OGG –** Reg. No. 275-138 NPO)*

Dear All, herewith information and a reminder of the next OGG breakfast meeting and presentation to be held at Onrus Manor on **5 September 2024.** This will be an in-person presentation (also streamed on Zoom) by **Dr Dave Cornell** (see details that follow).

The breakfast event and in-person presentation by Dave Cornell will be on the 5 September at **Onrus Manor**, starting at 09h30 (coffee), breakfast at 10h00 (R130 pp), and presentation (also on Zoom) at 11h00. Please advise *Hennie.greeff@gmail.com* (mobile: 082 569 5314) or *Annabelle.greeff@gmail.com* (mobile: 082 443 0699) if you will be attending the breakfast and presentation at Onrus Manor.

Thursday 5 September	**Dave Cornell** *(Onrus Manor + Zoom)*	*The 2.7Ga Ventersdorp volcanics of the Kaapvaal Craton – their geology and dating conundrum*
Thursday 3 October	**Richard Horn** *(Onrus Manor + Zoom)*	*Update on exploration, new diamond mine and progress of Angola's diamond sector*

Zoom Link: https://us02web.zoom.us/j/82172892738?pwd=M1NWUkJFYzhqdTJ2Qk0yZ3BrV2srZz09
Meeting ID: 821 7289 2738; Passcode: Overberg

The Ventersdorp Volcanics – This very extensive and thick sequence of volcanics rocks, including basalts and rhyolites (or Large Igneous Province), with an age of +/- 2.7 billion years extends from the north-east and central parts of the Kaapvaal Craton to its western edge in Namaqualand.

The Ventersdorp lavas covers most of the gold bearing Witwatersrand Basin, and are in turn covered by much younger rocks of the Karoo basin. The Ventersdorp succession has been extensively drilled and sampled in the past during many years of gold exploration and mining of the Wits Basin.

The Ventersdorp lavas have also been correlated with the similar age Fortesque volcanic succession in Western Australia (in pre-Gondwana times).

OGG Presentations on YouTube - All previous OGG YouTube videos since 2021 are available for viewing and sharing, and can be accessed by cut/pasting the link below into your browser, clicking on the GSSA YouTube Website, locating the **OGG-Playlist** and selecting the topic and speaker you wish to listen to:
https://www.youtube.com/playlist?list=PL-MPMaHidsW1jR8f-KMmPX8ANZGA-OYna

Field Excursions and Conferences (Reminders) **–**

Bot River Estuary Excursion - The OGG will be running a Bot River and surrounds half-day Geology excursion on Saturday 19 October. It will start at 8h30 for 9h00 at the Kleinmond Main Beach/Bot

River outlet, and end at Beaumont in Botrivier Village for lunch and will be led by Jean Malan and Mike De Wit. Members, Non-members, Families and Kids are most welcome. Further details will follow.

University of the Free State (UFS) Geocongress (Bloemfontein, 24 - 27 June 2025). For details of the 2025 event see the following link - *https://geocongress2025.CONTACT US org.za/*

OGG Membership, Fees + Sponsorship – Our thanks to All the members who have paid their subs for 2024. The generous donations received from several of our Members are likewise greatly appreciated. Membership fees for the OGG are R250.00 per person. For those of you who have not yet settled your membership dues, Bank details are as follows:

STANDARD BANK ACCOUNT NAME: OVERBERG GEOSCIENTISTS GROUP NPC
ACCOUNT NUMBER: 10168933800 TYPE: CURRENT ACCOUNT
BRANCH CODE: 051001 SWIFT ADDRESS: SBZA ZA JJ

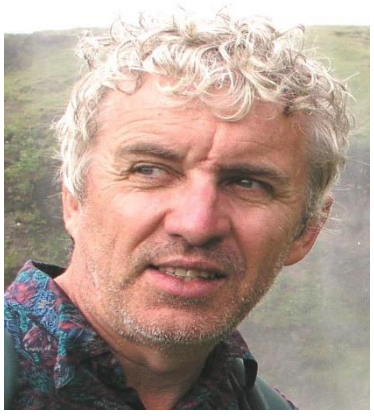
The OGG welcomes new Members and please share these documents with colleagues, non-geologists, laypersons, students and scholars. For more information and membership details see contacts below.

Many thanks. Best wishes,
HENNIE, JOHN, ANNABELLE + OGG TEAM
Hennie.greeff@gmail.com (mobile: 082 569 5314)
Annabelle.greeff@gmail.com (mobile: 082 443 0699)
jwbdia@gmail.com (mobile: 082 571 3004)

OGG Breakfast Presentation details – 5 September, 20245 (Onrus Manor)

Dr David Cornell

University of Gothenburg, Sweden and Stellenbosch, South Africa
email: cornell@gvc.gu.se



1. Born Bellville, South Africa 1948.
2. Schooling Rondebosch Boys High School

3. University: BSc Hons, Geochemistry, University of Cape Town 1971.

PhD mineralogy and Petrology, University of Cambridge UK, 1975. Thesis: *Petrology of the Marydale Metabasites.*

4. Exploration Geologist, Messina (Transvaal) Development Company 1972 and 1976

5 Academic Career:

5.1 Geochemist (1977-1979), **then Senior lecturer** University of Stellenbosch 1980-88.

5.2 Professor of Geology, University of Natal, South Africa 1989-1994

5.3 Senior Lecturer, then Professor of Geochemistry University of Gothenburg, Sweden, 1995-Aug 2015.

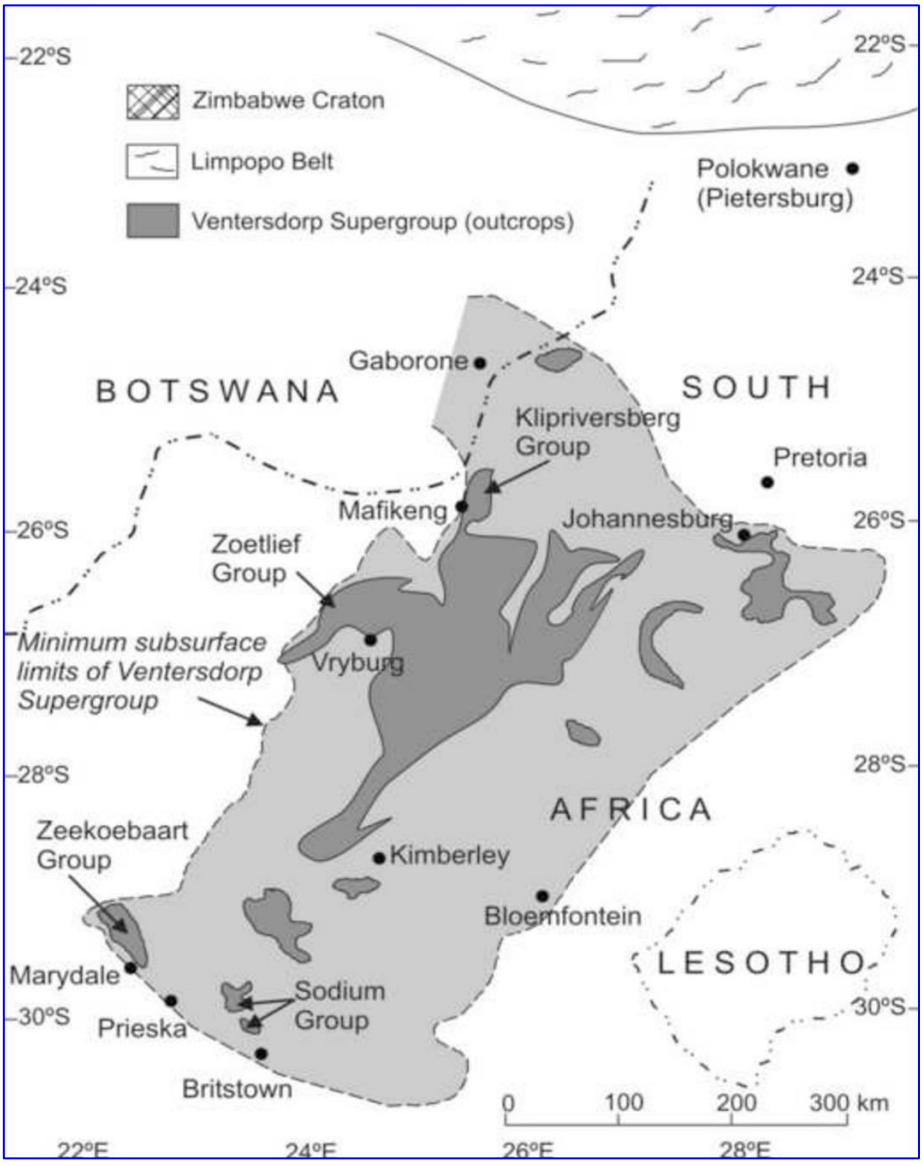
5. Current Position: Emeritus Professor, University of Gothenburg, Sweden. **Extraordinary Professor,** University of Stellenbosch from 2018.

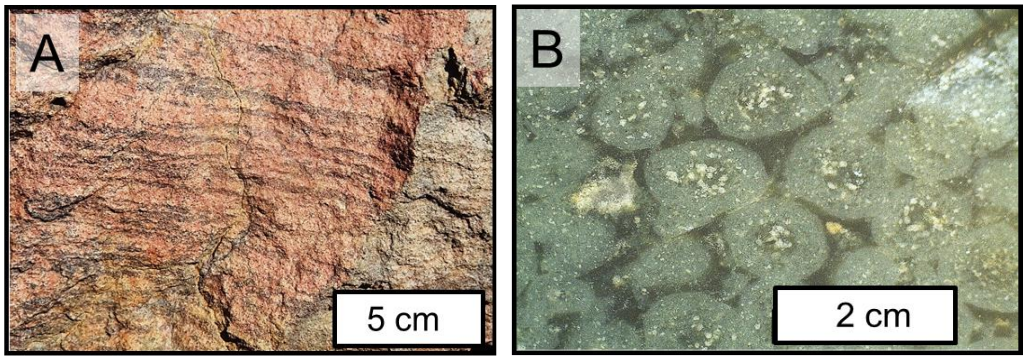
6. Supervisor for 13 Doctoral graduates, Three Postdoctoral researchers in research Group.

7. Author or co-author of 101 scientific publications, H-index 38 (Google Scholar).

(Dave's co-authors for the OGG presentation are Gehardt Meintjes and Willem van der Westhuizen of the University of the Free State, Dirk Frei of the University of the Western Cape, and Magnus Krisotoffersen of the University of Oslo, Norway.)

Outline and Extent (as currently mapped) of the Ventersdorp volcanics across southern Africa





Images of a Volcanic Tuff deposit in the 2.73 billion year old Kameeldoorns Formation at T'kuip, south of Prieska (Northern Cape).
A: Weathered surface showing layers of ash.
B: Polished surface showing spherical accretionary lapilli. The lapilli-cores were blasted out of a volcano as small fragments with white feldspar crystals, then became part of a fluidised density current (nuée ardante). The cores accreted finer grey ash as the pyroclastic surge spread over the landscape, and were deposited as rounded lapilli together with dark ash, to form the tuff. Raindrop impressions are also seen on some tuff surfaces, the atmosphere was nitrogen and carbon dioxide!

Other sources of information:

Neoarchean lavas of the Ventersdorp Large Igneous Province, South Africa: Sr-Nd-Hf isotopic and trace element evidence for a long-lived plume beneath a stationary African continent (2024).

Authors: Khulekani B. Khumalo, Lewis D. Ashwal, Ben Hayes, Linda M. Iaccheri , P., Gerhard Meintjes and Susan J. Webb. Earth-Science Reviews, Volume 252, May 2024, 104752