

## SPECIALIST PROFILE

### PROFESSIONAL GEOHYDROLOGIST

# JACQUES DU PREEZ

#### PROFESSIONAL REGISTRATIONS:

- Pr. Sci. Nat. (South Africa), 400231/12 - South African Council for Natural Scientific Professions (SACNASP) - Registration No. 4000 33/02
- International Association for Hydrogeologists (IAH): Member Number 138632
- Groundwater Division of Geological Society of South Africa (GWD of GSSA) Member Nr 183
- Groundwater Association of KwaZulu-Natal (GAKZN) – ORDE 01

#### KEY QUALIFICATIONS:

Exploration geophysical surveys,	Project Management of major and minor water supply projects.
Community water supply investigations.	Development of Catchment Management Strategies;
Bulk water Supply through Groundwater	Development of Water & Salt Balances;
Water borehole drilling and testing techniques.	Aquifer Characterization by means of airlift and pumping tests.
Design of groundwater production wells;	Interpretation of pumping test results;
Groundwater exploration in primary aquifers and fractured rock.	Data interpretation and formulation of hydrogeological conceptual models;
Groundwater Reserve Determination, assessment of ground- and surface water monitoring protocols;	Development and application of numerical models (flow & contaminant transport);
Scoping Reports and Environmental Impact Assessments (EIA's).	Water Use License Applications and Wastewater Treatment Works (WwTW's)
Prefeasibility & Feasibility Groundwater Studies;	Baseline Groundwater Investigations

#### EXPERIENCE



Extensive experience in the planning, exploration and implementation of production and domestic water supply schemes. Identification and development of production and domestic water sources using photo-geological and satellite image interpretation, geophysical surveys using magnetic, electromagnetic (EM34), resistivity and VLF electromagnetic methods. Borehole drilling supervision and test pumping supervision. Projects as Project leader include

#### SOUTHERN AFRICA:

- **Groundwater Exploration – KwaZulu-Natal, 1997-1998**  
Establishment of groundwater sources in Rural Community Water Supply Programmes. This includes verification, siting, drilling and testing supervision and reporting.
- **Groundwater Exploration – Eastern Cape, 1998-1999**  
Extensive experience in photo-geological interpretation, ground geophysical surveys, data processing and interpretation, drilling and test pumping supervision and reporting in the Eastern Cape (former Transkei).
- **Groundwater Exploration - KwaZulu-Natal, 1999-2021**  
Experience gained in all disciplines of groundwater exploration since 1999 of more than 700 projects.
- **Groundwater Bulk Resources, 1999-2021**  
Geophysical identification, development, maintenance and chemical analyses of groundwater resources for several Local and District Municipalities in KwaZulu-Natal.

Directors: Mr. EV Houart / Mrs. S van Wyngaard

- **Groundwater Protocol, 2001-present**  
The evaluation and reporting on groundwater resources and sanitation services of several communities in KwaZulu-Natal, Eastern Cape and Mpumalanga.
- **Water quality investigations, 2000-present**  
Experience in target identification during pollution studies of several coalmines in Mpumalanga.
- **Hydrogeological mapping and characterization, Risk Assessments**  
Experience in risk assessments relating to potential pollution studies of proposed developments throughout KwaZulu-Natal, Eastern Cape, Mpumalanga.
- **Hydrocensus - Mpumalanga, KwaZulu-Natal, 1999-present**  
Extensive experience in the planning and implementation of hydrocensus programmes, geological mapping and structural analysis.

#### EASTERN AFRICA:

- **Groundwater Exploration – Tanzania, 1997-1998**  
Extensive experience in photo-geological interpretation, ground geophysical surveys, data processing and interpretation, drilling and test pumping supervision and reporting in the establishment of production groundwater sources in Msoga & Iringa for Dairy Farm applications. Results: Drilling success (18000l/hr) where previous exploration failed (5 dry boreholes on the same farm).
- **Groundwater Exploration – Malawi, 2017**  
Extensive experience in photo-geological interpretation, ground geophysical surveys, data processing and interpretation, drilling and test pumping supervision and reporting in the establishment of production groundwater sources in Dakawa, Ncalo area. for Dairy Farm applications.

#### NORTHERN AFRICA:

- **Groundwater Exploration – Ethiopia, 2018**  
Extensive experience in photo-geological interpretation, ground geophysical surveys, data processing and interpretation, drilling and test pumping supervision and reporting in the establishment of production groundwater sources in Oromia Regional State, Mullo Farm for Dairy Farm applications.

### PHOTOGRAPHIC CV

