



OIL, GAS AND PETROCHEMICALS TRAINING

Produced Water Treatment and Water Injection

5 day course

Classroom, online or in-house

Course overview

In a mature field the volume of water handled can be many times the oil produced, and the plant that treats it often decides whether the field keeps flowing. A reservoir that loses injectivity, sours from bacterial activity or plugs with scale is usually the victim of water quality that drifted unnoticed. The programme opens with the chemistry of formation water, aquifer water and seawater, then works through deoiling with hydrocyclones, induced gas flotation and nutshell filters, followed by fine solids removal, deaeration, sulphate removal membranes and the dosing of biocide and scale inhibitor. The second half turns to injection pumps and wells, the diagnosis of declining injectivity, mixing compatibility and the limits that govern overboard discharge or disposal. Participants finish able to set water quality targets, monitor them and trace an injection problem back to its root.

What you will learn

- Characterise produced, aquifer and seawater sources by their chemistry and contaminants
- Select deoiling equipment for a given droplet size distribution and oil in water target
- Explain the operation of hydrocyclones, induced gas flotation units and media filters
- Specify injection water quality for solids, oxygen, bacteria and sulphate
- Predict scale formation when incompatible waters are mixed
- Diagnose injectivity loss from wellhead pressure and rate data
- Plan chemical treatment for corrosion, scale and reservoir souring
- Apply discharge and reinjection limits to daily operation

Who should attend

- Production and process engineers on water handling plant
- Water injection and facilities supervisors
- Production chemists and chemical vendor engineers
- Reservoir engineers responsible for pressure support
- Environmental staff managing discharge compliance

Course outline

- 01 Water sources and their chemistry
- 02 Oil in water measurement and limits
- 03 Hydrocyclones and gas flotation
- 04 Media filtration and solids control
- 05 Deaeration and sulphate removal
- 06 Scale, souring and bacterial control
- 07 Injection pumps, wells and injectivity
- 08 Disposal, discharge and reinjection compliance

Upcoming dates

Dates	Venue	Format	Fee per delegate
12 to 16 October 2026	Online	Online	R8,500
16 to 20 November 2026	Addis Ababa, Ethiopia	Classroom	USD 1,325
22 to 26 February 2027	Durban, South Africa	Classroom	R19,950



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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