

Water Quality Results Certificate



Client Name: Aquapark Group - Cardiff

Water Body Name: Cosmeston Lake

Certificate Reference: CHEM-AC-140425

Analysis Start Date: 15/04/2025

Report Date: 16/04/2025

Analysis Results – Chemistry

Sample 1

Test Parameter	Result
Temperature - °C	(13)
pH - Lab reading	7.5
Ammonia (NH ₃ -N) - mg/l	0.04
Ammonia (un-ionised) - mg/l	<0.001
Nitrite - mg/l	<0.01
Nitrate - mg/l	3.1
Phosphate - mg/l	0.06

Comments

The sample was analysed in the laboratory for ammonia, nitrite, nitrate, phosphate & pH using a HANNA HI-83303 Multiparameter photometer.

The temperature was estimated.

Ammonia (un-ionised) was calculated using recorded pH and Ammonia (NH₃-N) levels, as well as the estimated temperature.

Summary

All the parameters were low, well within the expected range for freshwater bodies at this time of year.

Please visit www.swim-safety.co.uk/results-guidance/ for more info on results thresholds.

Parameter	Your Result	Public Health / Recreational Guidance Level	Public Health Interpretation 
Ammonia (NH ₃ -N)	0.04 mg/l	< 0.2 mg/l = good; < 1.0 mg/l = tolerable	✔ Well below thresholds — safe for swimmers.
Un-ionised Ammonia	<0.001 mg/l	< 0.02 mg/l (chronic exposure); < 0.05 mg/l (acute exposure)	✔ Extremely low — non-toxic level for humans and wildlife.
Nitrite (NO ₂ ⁻)	<0.01 mg/l	< 0.05 mg/l = low; > 0.1 mg/l = caution	✔ Very low — no public health concern.
Nitrate (NO ₃ ⁻)	3.1 mg/l	< 10 mg/l (ideal for recreation); 50 mg/l = WHO drinking water limit	✔ Low — far below drinking water limit and safe for bathing.
Phosphate (PO ₄ ³⁻)	0.06 mg/l	< 0.1 mg/l = low nutrient; < 0.3 mg/l = potential eutrophication	✔ Low — does not present a health risk and unlikely to trigger algal blooms.