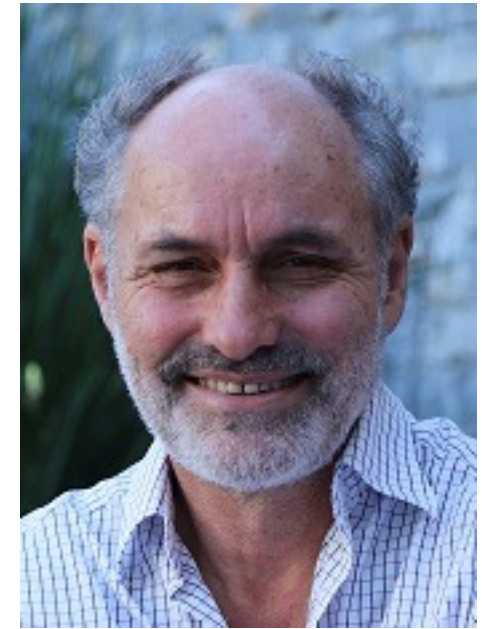


SEMINARIO ORGANIZADO POR LOS MÁSTERES DE GEOLOGÍA AMBIENTAL Y RESTAURACIÓN DE ECOSISTEMAS, Y EL PROYECTO LIFE RIBERMINE



**13:00 - Tailings dam failures have one thing in common – “Marginal stability”!
– We can do better**

**13:30 - Repurposing of the Genex
Kidston mine site in Queensland,
Australia**



13:00-14:00 horas

Jueves, 26 de octubre de 2023

Salón de Actos, Facultad de Geológicas, UCM

**David Williams, Catedrático de Ingeniería Geotécnica,
Universidad de Queensland, Australia**

- ***Tailings dam failures have one thing in common – “Marginal stability”! – We can do better***

Ideally, we should separate tailings “containment” (aiming for a safe, stable and non-polluting landform in perpetuity, preferably built mainly from mine wastes, removing credible failure modes) from “storage” (with the motivation to maximise dewatering and density to minimise containment height and cost). This is aligned with the GISTM (and with ANCOLD and CDA for closure). This Seminar will overview recent tailings dam failures, and cover site settings, tailings dam design and construction, stacking, risk and ALARP, geotechnical parameter assessment, water balance and seepage, and closure.

- ***Repurposing of the Genex Kidston mine site in Queensland, Australia***

The Genex Kidston mine site is among the best examples in Australia of repurposing post-closure. The rehabilitation history of the Kidston mine site as it approached closure in 2001, and the performance of the rehabilitation over the last 20 to 25 years, will be presented. The mineralised (PAF) waste rock was encapsulated in barren (NAF) waste rock to prevent its exposure to rainfall incident on the dump slopes. A store and release cover was developed for the top of the waste rock dump to minimise the net percolation of incident rainfall, while the relatively benign tailings were directly revegetated. Genex Power Limited purchased the Kidston mine site in 2016 and is converting it to a Renewable Energy/Battery Hub, including a Solar Farm on the tailings storage facility and a Pumped Storage Hydro Project taking advantage of the two open pits.