

SUMMARY OF EXPERIENCE

SOIL AND GROUNDWATER CONTAMINATION

Over one hundred projects undertaken in all Australian states. These projects have involved assessment and remediation of contaminated industrial sites; landfill, landfill leachate and landfill gas investigations; leaking underground storage tanks; feedlots; stream and lake-bed sediment evaluations, and subsurface waste injection studies.

Major studies undertaken in this field include:

- Assessment and remedial strategy for Katoomba–Leura Gas Works, NSW.
- Statutory environmental audit of residential sites, Melbourne, Vic.
- Homebush Bay and Newington soil and groundwater contamination investigation, Sydney.
- Cockatoo Island environmental audit and forensic investigation, Sydney, NSW.
- Geophysical and hydrochemical investigation of leakage from waste lagoons, Dubbo, NSW
- Assessment and modelling and remediation of groundwater contamination at feedlots, NSW.
- Lucas Heights landfill investigations, West Menai, NSW.
- Assessment and remediation of numerous service station sites, regional NSW.
- Assessment of drum reconditioning plants, Western Sydney.
- Assessment and remediation of chlorinated hydrocarbon contamination, Villawood, NSW.
- Chlorinated hydrocarbon solvent contamination, Perth, WA.
- Stream sediment evaluation, Maryville, Newcastle, NSW.
- Groundwater chemistry assessment at aluminium smelter, Tomago, NSW.
- Contamination assessment of former gas works, Brompton, SA.

MINING

Studies related to mine water management in Australia, Indonesia, New Zealand and Oman.

These projects have included dewatering, water resources, mine water disposal (including reinjection) and tailings management.

Projects have included:

- Peak Hill Gold Mine, NSW: Groundwater supply.
- Bowdens Silver prospect, NSW, Groundwater supply and environmental effects.
- Weipa Bauxite, Qld: Dewatering design.
- Latrobe Valley coal mines, Vic: Dewatering and depressurisation assessment.
- Attunga Limestone Quarry, NSW: Groundwater supply and EIS studies.
- Tomingley Tailings Reprocessing, NSW: Groundwater supply.
- Tom's Gully Gold Mine, Mount Bunday, NT: Dewatering and tailings management studies.
- Kelian Gold Mine, East Kalimantan, Indonesia – Groundwater monitoring program.
- Tanilba Silica Sand mine, NSW: Groundwater assessment and monitoring.
- WIM 150 Mineral Sands Project, Horsham, Vic: Environmental effects.
- Hird's Prospect Gold Mine, Bendigo, Vic: Design of reinjection scheme.
- Oaklands Mine Feasibility Study, Oaklands, NSW: Water resources, dewatering and large-scale groundwater reinjection studies.

SUMMARY OF EXPERIENCE

DEWATERING AND GROUNDWATER CONTROL

Engineering studies related to groundwater control in Australia and Iraq.

Projects include:

- Eastern Distributor Motorway, Sydney.
- M5 East, Sydney.
- Sydney Harbour Tunnel, NSW.
- Andoom slot dewatering, Qld.
- Ritz-Carlton Hotel, Double Bay, NSW.
- Mardi Dam foundation depressurisation, Wyong, NSW.
- Saline groundwater seepage at a new sports complex, Healesville, Vic.
- Design of dewatering wells, Baghdad Airport Road, Iraq.

WATER RESOURCES EVALUATION

Water resources projects undertaken in Australia, New Zealand, United Kingdom, Saudi Arabia, Oman, Bahrain, Zimbabwe and Ethiopia. Projects have ranged in scope from major regional studies involving extensive numerical modelling and the development of large wellfields to the siting and construction of single-source village water supplies in Africa.

Significant projects have included:

- Parkes Water Supply Borefield, NSW
- Surface-groundwater interaction, Darling River, NSW.
- Geophysical prospecting for farm water supplies, Western NSW.
- Groundwater supplies for irrigation and feedlot development, Western NSW.
- Wollo Water Development Project, Ethiopia.
- Geophysical and water supply surveys, Sultanate of Oman.
- Victoria Province Drought Relief and Rural Water Supply Project, Zimbabwe.
- Groundwater for reverse osmosis, Bahrain.
- Dammam Aquifer Model, Saudi Arabia and Bahrain.
- Umm Er Radhuma Study, Saudi Arabia and Bahrain.
- Stour Valley nitrates study, England.
- Shropshire groundwater investigation, England.
- Surface and groundwater resource studies, Westland, New Zealand.

LITIGATION

Preparation of evidence, affidavits and briefing Counsel. Giving evidence as an expert witness in the Land and Environment Court and Commissions of Inquiry. Negotiation with other parties.

Cases included:

- Coronial Inquiry into Thredbo Landslide, NSW.
- Development of ceramic sand mine, Tanilba Dune, Port Stephens, NSW
- Commission of Inquiry into Cadia gold mine, Orange, NSW.
- Commission of Inquiry into Balpool piggery, Moulamein, NSW.
- Commission of Inquiry into extension of the Parkville Piggery.
- Water and sediment management aspects of sand quarry on Hawkesbury Sandstone, Calga.
- Preparation of defence for a manufacturer prosecuted under Clean Waters Act, Liverpool.