



iah
Australian National
Chapter
NSW Branch

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Tuesday 16 February 2016
5.30 pm for 6 pm start

Parsons Brinckerhoff offices
Ernst & Young Centre
Level 26, 680 George Street, Sydney CBD

*****For late arrivals, please phone Sean Daykin on [0413412980](tel:0413412980) for access*****



IAH NSW proudly presents a talk by
Murray Brooker
Principal, Hydrominex

Lithium salt lakes – powering the future

Salt lakes are fascinating geological and hydrogeological environments located in some of the world's most extreme climates from outback Australia to the Andean high Plateau. Despite the inhospitable environments these lakes host a treasure trove of mineral wealth that is of increasing importance for humanity. As the importance of lithium ion batteries grows, powering everything from phones to laptops and cars, the demand for batteries is expanding rapidly. Lithium from salt lakes is the cheapest production source and is expected to provide much of the needed supply. Often as a secondary product potassium (potash) is another important product from salt lakes, supplying the global fertiliser market for speciality SOP or MOP fertilisers.

The talk will present geology and hydrogeology related to the evaluation and development of a number of salt lakes in Argentina and Australia. It will outline the geological and hydrogeological characteristics of these remarkable environments, where hypersaline brines form under conditions of extreme solar radiation, in closed drainage basins. Examples include lithium-potash projects in Northern Argentina in the "Lithium Triangle" and in Central Australia, two very distinct environments, with different brine characteristics. The presentation will discuss the features required to form a brine deposit, the different types of salt lake, porosity and permeability testing, brine sampling, chemical evolution of the brine and requirements for groundwater modelling for management of the brine resources.

Please RSVP to:

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