



**TSW Analytical**  
DELIVERING SOLUTIONS

## Mining and Exploration



[www.tswanalytical.com.au](http://www.tswanalytical.com.au)



At TSW Analytical, our team of advanced analytical scientists apply their expertise to deal with difficult chemical problems. The team have technical competence in analytical chemistry, geochemical data interpretation, mineralogy and extraction processes. Our association with various local exploration companies has resulted in a significant breakthrough in the extraction and beneficiation of a range of ore types, including zirconium, niobium and the rare earth elements from Greenland eudialyte ore. In doing so, TSW Analytical scientists have significantly improved the knowledge of the hydrometallurgical protocols required to extract industrially useful metals from technically challenging ore.

### Mineral Chemistry

Protocols are being continually developed with TSW Analytical, in order to advance mineral extraction procedures which are currently 'best practice' both within Western Australia, the broader country and abroad. These methods include heavy liquid separation, magnetic separation and froth flotation.

TSW Analytical mineral scientists have successfully beneficiated a number of complex ores including;

- pyrochlore ( Nb/Ta)
- magnesite (Ni/Mg)
- lateritic ore (Ni/Co)
- eudialyte (Zr, Nb/Ta, rare earth elements)



### Geochemical Exploration

Geochemical exploration can be a costly exercise for many mining companies; both financially and in terms of time. The TSW Analytical team aim to improve these geochemical exploration protocols to benefit Western Australia's mining community.

Our scientists have developed new bioleaching methods which can be applied to all exploration ore samples, offering a more targeted approach to exploration.

HALO, "**Hydromorphic Anomaly LOCator**", technology was developed by Professor John Watling, the Chief Scientist at TSW Analytical.



This innovative bioleaching technology provides a cheap and effective means to survey for and detect underlying ore bodies, to provide indications of deposits which may be too deeply buried or have too weak a surficial geochemical signature to be detected by traditional methods.



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To access any of the services offered by the Mining and Exploration specialists, contact:

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