

CUSTOMER SUCCESS STORY

Advanced Resource Estimation and Operational Efficiencies Using Studio RM for Mineral Sands Operations





The Customer

Iluka is an international mineral sands company with expertise in exploration, development, mining, processing, marketing and rehabilitation. The company's objective is to deliver sustainable value. With over 60 years' industry experience, Iluka is a leading global producer of zircon and

the high grade titanium dioxide feedstocks rutile and synthetic rutile. Additionally, Iluka has an emerging portfolio in rare earth elements (rare earths).

Headquartered in Perth, Western Australia, the company's portfolio includes mining and value additive processing operations in Australia and Sierra Leone; and a globally integrated marketing and distribution network.

The Challenges

Like most mining operations at this period in time, Iluka experienced the challenges of collecting, analysing and sharing their data in hard copy format to be an incredibly time consuming process which ultimately meant that highly qualified geologists were spending unnecessary time on tedious work that wasn't making use of their expertise. The manual workflows resulted in a significant time investment for resource estimation which could be resolved with the right software solution.

The highly qualified team of Geologists at Iluka (or the predecessor companies that formed Iluka) found their roles to be consisting of a great deal of paperwork to complete the data processing needed, beyond resource estimation into project optimisation. Finally, with the understanding that they could speed up project timelines and gain greater insights into the data they were collecting, the early team at Iluka decided it was time for a change.

The Solution

Iluka has been a long term user of Datamine solutions for over 30 years, including **Studio RM** which forms part of Datamine's core product suite.

Studio RM

With a proven track record of over 30 years, Studio RM is Datamine's industry-leading product for mineral resource and reserve modelling and evaluation. Use Studio RM to produce resource and reserve models that accurately represent geological structure, mineralisation and grade, whilst handling complex data sets such as drillhole samples, channel samples, georeferenced images and more.

With its new activity-based user interface and multi-parametric modelling capabilities, **Studio RM** is even more powerful than its predecessors. It can deliver corporate resource and reserve information with the quality, accuracy, and reliability required by geologists, management and downstream users. **Studio RM** has the required auditability, repeatability and functionality to produce resource and reserve statements according to the standards demanded by the JORC, SAMREC, NI 43-101 and Guide 7 reporting codes.



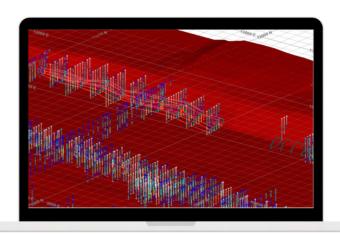


The Results

Choosing a solution that would not only meet their needs, but adapt as their needs evolved was not an easy task. "Iluka originally chose Datamine solutions over competitors at the time because of the advanced features available – data storage, resource estimation capability, customisation using macros," said Brett Gibson, Principal Development Geologist at Iluka.

Since adopting Datamine solutions across their operations, Iluka now has the ability to process large volumes of information in a short period of time – meaning their team has the chance to focus their efforts on tasks that require more of their technical expertise. "We love that the 3D visualisation allows for viewing data in space and digital block models which provide an auditable "source of truth", shares Brett.

"We've seen such a significant improvement in efficiency that we now need less people to do the same amount of work. It also means that it is relatively easy to support new or even non-users in data management and basic resource estimation", said Brett. On modern mine sites, operational efficiencies are key to unlocking extra value not only from the team, but in the ground.



Working with the latest technologies and continually adapting to these changes has meant that Iluka has been able to access hidden value that keeps adding up as time goes on. "One of the key features for us was that incremental updates to the data and block models can now be done in minutes rather than days or even weeks," Brett explains.

From geostatistical analysis to resource optimisation, their operations have truly seen a leap forward in innovation, streamlined processes and teams who are focusing on the work they are passionate about.



Brett Gibson, Principal Development Geologist, Iluka.



