

Explore Deeper Using MUD[®]

(Mapped Underworld Dimension)

Background

Mineral exploration and development are critical to the global economy, providing essential resources for every economic sector. Making profitable discoveries can be very complex and capital intensive.

With industry margins squeezed on all fronts, mineral exploration and development must embrace technological advancements to find more sustainable ways to extract value from the minerals mined in increasingly challenging environments at depth, under cover, underwater and in remote and extreme regions.

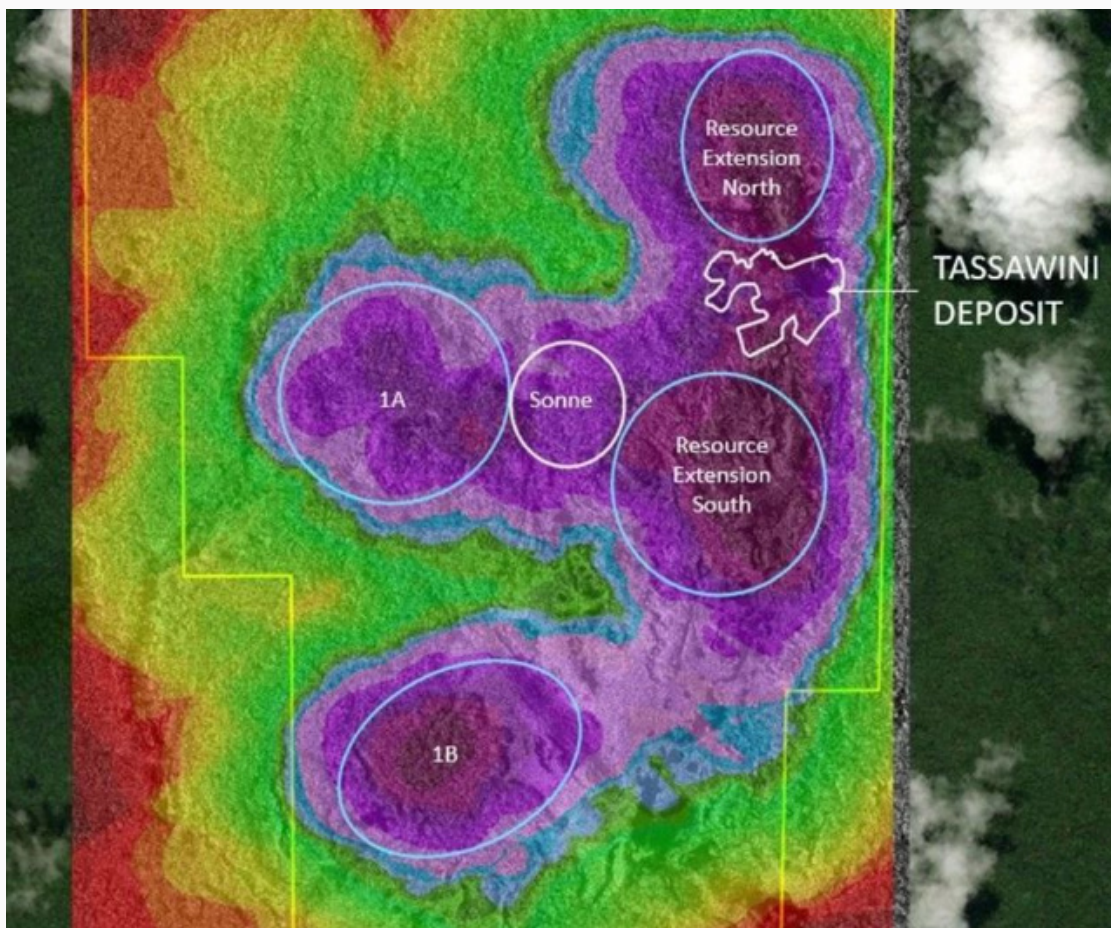
MUD[®] 3D technology offers precise and deep subsurface intelligence to map rock surfaces, structures, contacts, textures and lithologies hidden deep beneath the Earth's surface.

By mapping subsurface geology in extreme, remote environments, exploration companies can expedite identification of prospective areas and prioritize targets on a regional and local scale. Exploration costs are lowered and valuable resources can be efficiently located and extracted, leading to increased profitability and a reduction in environmental impact.

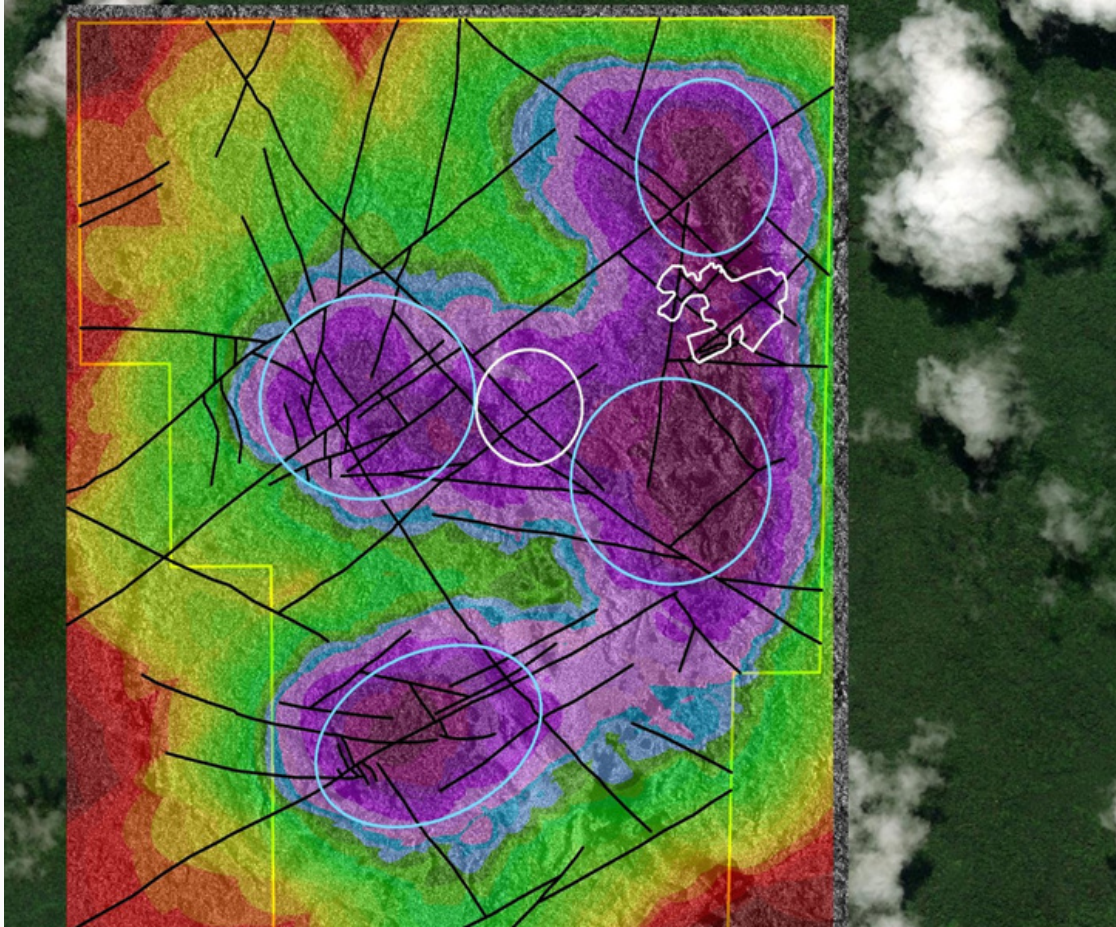
Alerio Gold and Auracle Geospatial, two Canadian companies, joined forces to apply MUD® to produce new geographic and geological information to refine and prioritize targets for Alerio’s exploration programs at their Tassawini Gold Project, a 1470 hectare project in Guyana. This is a valuable prospect, with historical and inferred gold deposits.

The primary objective was to add to the understanding of fracture networks and rock competencies to inform future drilling programs.

Apparent and non-apparent shear zones, lineaments and geological structures would be mapped with a focus on minimizing the environmental footprint often associated with exploration activities.



Known historical gold resources are outlined in white. Newly identified exploration targets, labeled 1A and 1B, and extensions are outlined in blue.



The **MUD[®] Fracture Density Model** shows spatial density of fractures and faults per square meter.

Violet zones display “high” density and red zones display “low” density. Fracture density within the newly detected target zones have high density, a pattern similar to that present at the Tassawini Deposit.

Solutions

MUD® successfully penetrated water, thick rainforest vegetation and overburden (unconsolidated soils, sands and sediments) to analyze for surficial and bedrock geological information at, near or subsurface within the AOI.

Advanced MUD® 3D models and analytics extended known deposits and added 2 new, yet to be verified target zones.

By exposing the non-outcropping near surface, the MUD® modeled subsurface structural features including non-apparent strike and dip.

MUD® provided a well-defined 3D view of potential target zones. With the new level of prediction and accuracy, fewer drill holes are needed when testing prospective targets.

As a remote technology, MUD® solves the issues involved in exploring in extreme, remote environments, for deep and buried deposits by minimizing the need for boots on the ground.

Get in touch with any questions you may have.

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features and lithological
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