MUD® Solves InSAR Data Representation Errors
## (Mapped Underworld Dimension)

Background

Radar SAR Interferometry is a well-established method used to measure movement and deformation on the Earth's surface. By duplicating the orbital path, the precise time and geometry, successive radar signals are captured and analyzed for their differences. It is possible to detect movement or change, between captured images, as small as 2 mm.

SAR (Synthetic Aperture Radar) satellite data has great potential for monitoring infrastructure and assets, from space. However, there are inherent limitations in standard SAR interferometry processing that create data coverage noise and interfere with signal clarity.

Persistent Scatterer lnSAR method is used to overcome the errors typically associated with processed SAR data. Data points are randomly selected but not from the data void areas within the processed image. This generally means that the data samples are not representative of the conditions and changes within the entire study area.

MUD®, with its proprietary acquisition and processing algorithms, removes noise and distortion to produce void free data. With MUD®, all data points are included, revealing millions of samples that represent important patterns of change on the surface, subsurface and underwater.
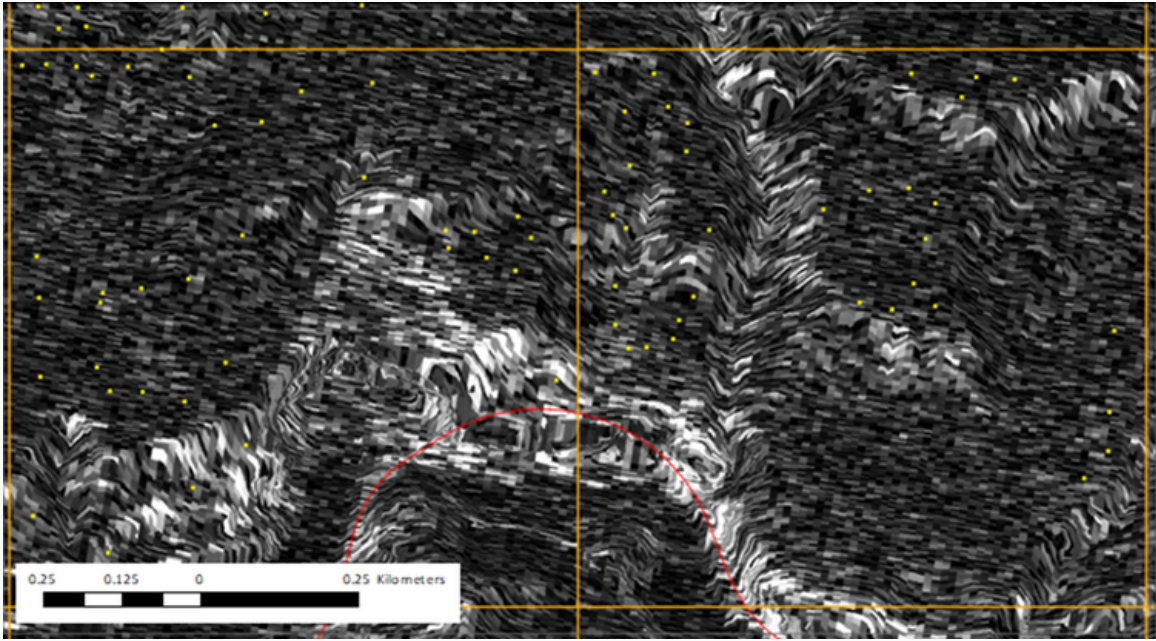
PS lnSAR produced 36 samples per kilometre^2 in a standard Sentinel SAR image.
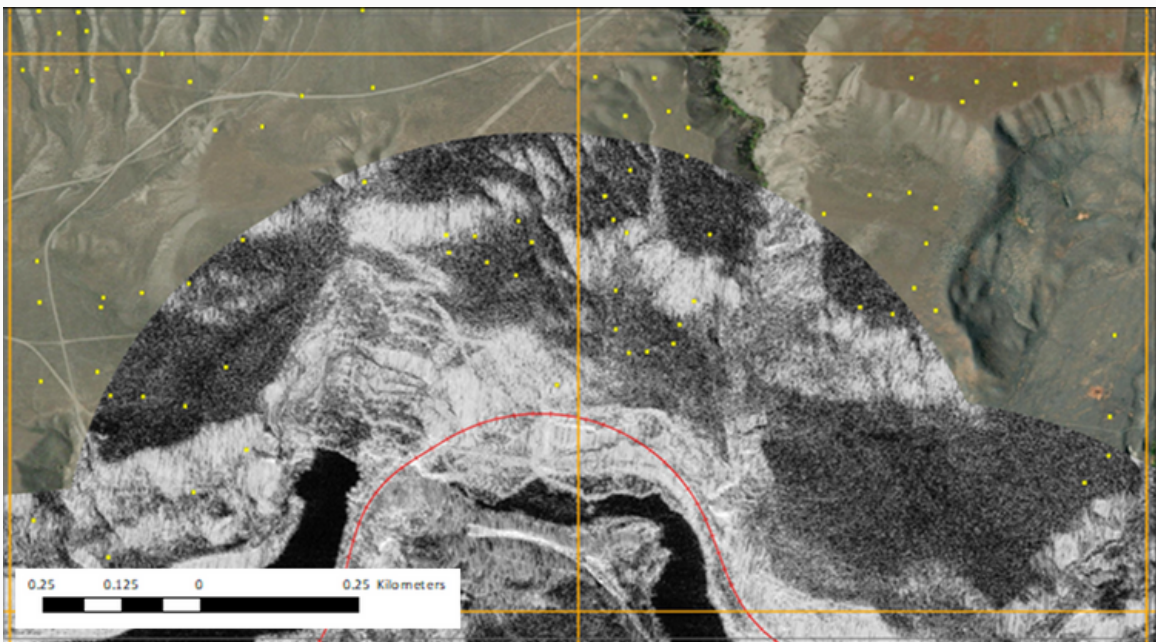
MUD removed the noise and distortion, filled the previous InSAR data gaps, and produced 2.5 million samples per kilometer^2

AURACLE GEOSPATIAL