

GLA's Principal Engineer and Mining Services Manager, Robert Valceschini, P.E., will be presenting on Evapotranspirative Covers at PERUMIN 34 Mining Convention!

EVAPOTRANSPIRATIVE COVERS FOR MINE CLOSURE

Robert B. Valceschini, P.E.

Evapotranspirative (ET) covers have gained wide acceptance over the last 20 years in the US, Australia and other countries as an alternative to conventional resistive barrier (compacted clay, geomembrane) covers in arid and semi-arid climates. ET covers typically consist of a single soil type throughout their entire thickness with no geosynthetic elements or highly compacted layers. Due to their composition and nature, ET covers typically require much less earth works preparing the facility for the cover, are less expensive to construct and are less expensive to maintain than conventional resistive barrier covers.

ET covers minimize percolation of water into the waste by storing infiltrated meteoric water within its pore spaces, similar to a sponge, for later release back up to the atmosphere through evaporation from the cover surface and transpiration by plants. With the proper design of soil type, placement and plant community an ET cover can provide as good or better short- and long-term performance to that of conventional resistive barrier covers at substantially less initial and life cycle cost.

This paper presents the basic principals behind ET cover performance and design, typical limiting climatological parameters and case histories of performance verified by monitoring.

"EVAPOTRANSPIRATIVE COVERS FOR MINE CLOSURE"



THE SECOND LARGEST MINING CONVENTION IN THE WORLD
FROM 16th TO 20th OF SEPTEMBER 2019

Geo-Logic
ASSOCIATES

