

RATIONALE FOR TESTING and EVALUATION OF SAMPLE

Sample Reference: HC0405

Rationales for testing: 1. At the request of the client

Evaluation (Table 3 - Test Suite B - Risk Factor assessment for mica degradation in concrete blocks)

Risk factor	Classification risk of concrete block			Critical
	Negligible	Low/Medium	High	
	Interpretation of results			
Visible evidence of deterioration or the concrete blocks	Sound	Sound but potentially susceptible	Sound but potentially susceptible or Unsound	Unsound
Presence of "free muscovite mica"	Absent/Rare	Common	Numerous	Abundant
Evidence of moisture ingress	Rare	Common	Numerous	Abundant
Microcracking	Rare	Common	Numerous / Common	Abundant or Pervasive
Degradation/Weakening of cement matrix (with possible evidence of leaching of cement hydrates)	Rare	Rare	Common	Very common or Pervasive
Microporosity	Normal	Moderate	High	Excessive

Absent/Rare	Common	Numerous	Abundant
<1%	1-10%	10-30%	>30%

Comment on evaluation Core apparently sound and containing 1.02 mass % water. Presence of Rare / Common free mica determined at 1.70% by SEM-EDS from average of five fields of view. Without evidence of degradation. Subsample deemed in good condition after 60 freeze thaw cycles showing evident durability. Pyrrhotite was sought but not found.

Robbie Goodhue

Professional Geologist Dr Robbie Goodhue, P.Geo. (IGI Member 230)