Verity — Comparison Report

Calibrated weight of evidence for a forensic surface comparison

Case/exhibit: DEMO-2026-001 Examiner: E. Hare

Likelihood ratio

LR = 146.0 $\log_{10}$ LR = +2.16 (95% CI on $\log_{10}$ LR: [1.83, 2.16])

moderately strong support for same source

Reference population	*pooled bullet-land reference (Hamby-252 & 173, Beretta, Phoenix)*
Direction	**same source**
Score	**0.1527 (bullet-contrast)**
Reference size	**146 same-source / 1755 different**
Calibration cost (Cllr)	**0.193 (floor 0.168)**
Discrimination (AUC)	**0.984**
LR bound |log10 LR|	**2.16**
Domain	**striated**

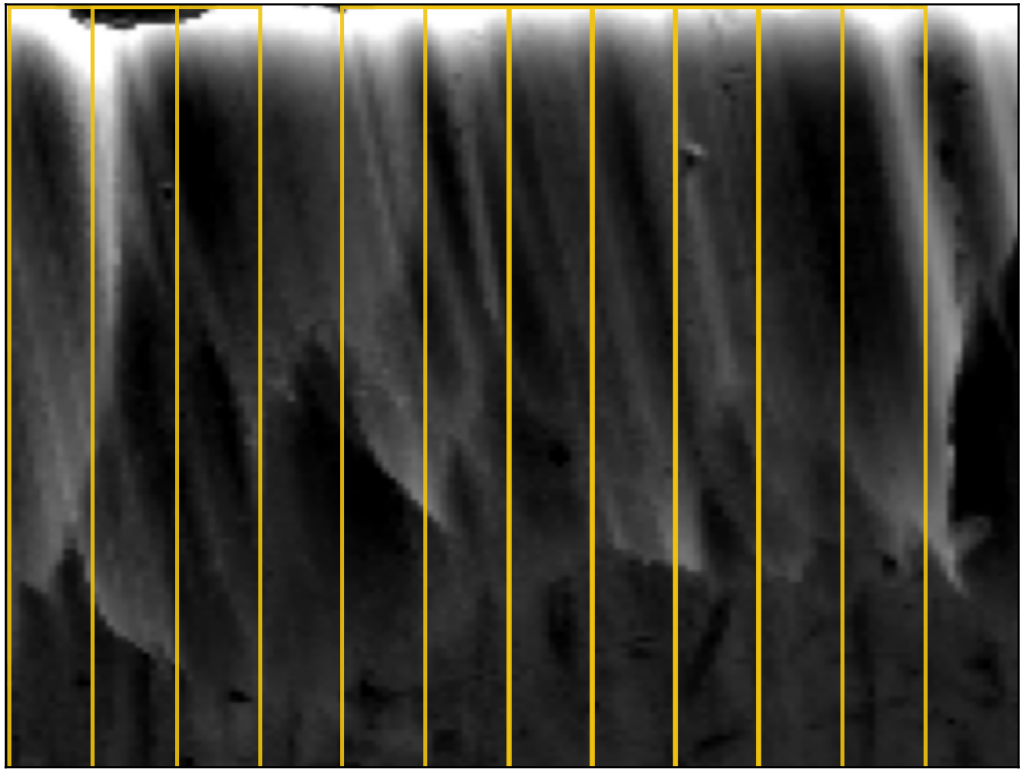
Method & provenance

Engine / API version	`0.1.0 / 0.1.0`
Scorer	`bullet-contrast`
Input scans	Mark A: 6 · Mark B: 6
Combined SHA-256	`6c3c40f781942c38e4f2d836770081da9d3d1acbda69b0ec186bc735566510d4` pins the exact input set; per-scan hashes in the data record

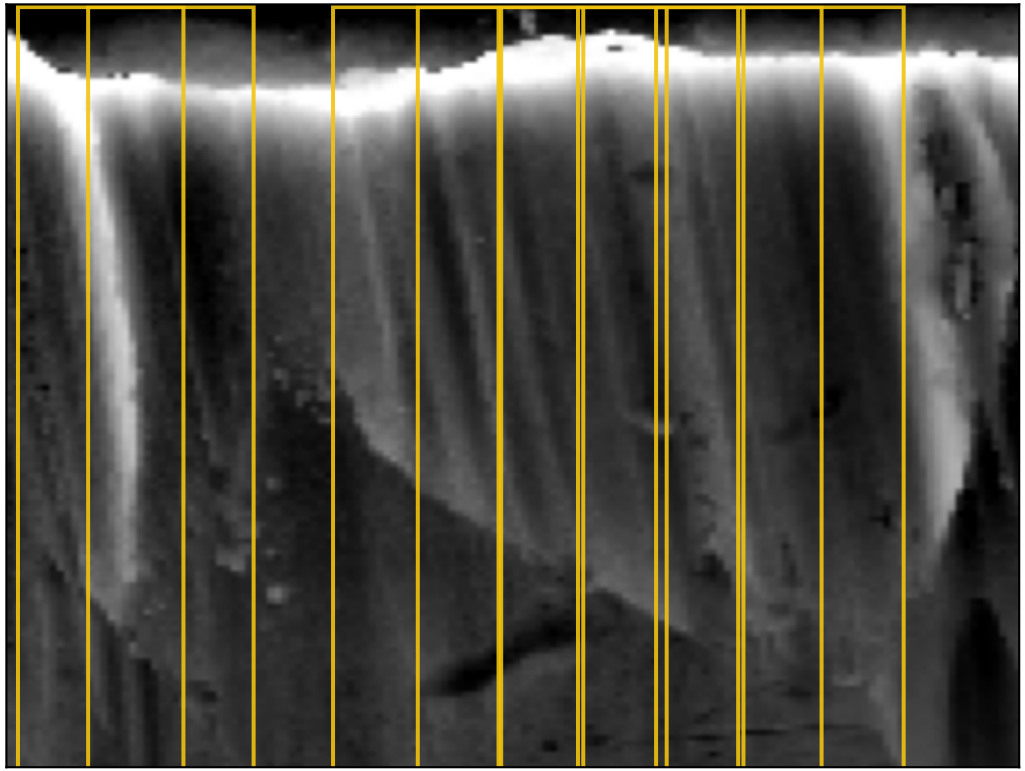
Scope. This is a calibrated weight of evidence on the pooled bullet-land reference (Hamby-252 & 173, Beretta, Phoenix) reference population; it is not a claim about the error rate of striated examination, which remains unknown.

Attribution — the congruent regions that drove the comparison

Mark A — matched regions



Mark B — matched regions



Highlighted regions are the congruent matching regions (the examiner-facing evidence). This shows what the score is built on; it is not a separate claim.