

GroundTruth AI - Synthetic Pilot Report

Demonstration report format for institutional geospatial prioritization workflows.

Disclosure status

This report is a synthetic demonstration created to show the expected structure, language and decision workflow of GroundTruth AI outputs. It must not be presented as field-verified evidence. All coordinates, zone names and score values in this report are placeholders.

Pilot scope

Example objective: prioritize investigation zones across a defined area of interest before deploying field teams, geophysical instruments or drilling resources. The workflow is designed to reduce the search space and generate a defensible review package for domain experts.

Input evidence layers

- Optical satellite indices: vegetation, brightness, bare-soil and mineral-related surface signals.
- Synthetic-aperture radar indicators: surface roughness and moisture-related backscatter patterns.
- Terrain and hydrology context: slope, elevation, drainage, curvature and proximity logic.
- Temporal context: comparison of seasonal windows and persistence of signal patterns.
- Hard-negative controls: landscapes that visually resemble the target class but should not be treated as positive evidence.

Synthetic priority output

The table below illustrates the output format. Values are synthetic and are intended to show how a pilot report would rank zones, communicate uncertainty and recommend next steps.

Zone	Synthetic score	Evidence agreement	Uncertainty	Recommended action
A-01	0.84	Optical + SAR + terrain alignment	Medium	Expert review + field reconnaissance
A-02	0.78	Terrain + temporal persistence	Medium-high	Review hydrology and access constraints
B-03	0.61	Partial optical signal only	High	Defer until more evidence is available
C-04	0.32	Weak and inconsistent signals	High	No immediate field action

Interpretation logic

GroundTruth AI does not claim autonomous proof. A high-priority zone means that several independent evidence layers align strongly enough to justify expert review and field validation. Low-priority zones are not dismissed permanently; they are deferred unless new evidence or local knowledge changes the operational context.

Recommended next steps

- Expert desk review of top-ranked zones and exclusion criteria.
- Field reconnaissance or low-cost local verification for Priority A zones.
- Geophysical or hydrogeological follow-up only where domain experts confirm plausibility.
- Update the model and report after receiving partner feedback and ground observations.

Deliverables

- PDF decision memo with evidence summary and limitations.
- GIS-ready candidate polygons and ranked table.
- Uncertainty and exclusion notes for each priority zone.
- Audit log describing input data, model version and review status.