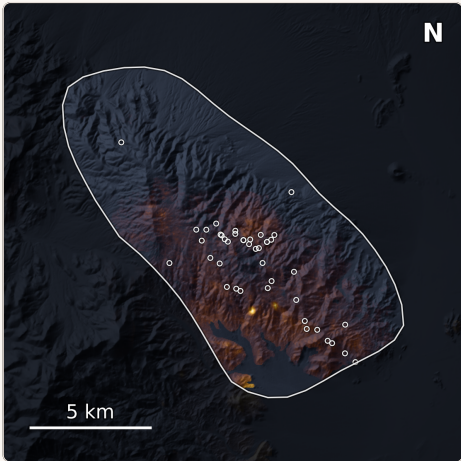




Modelled prospectivity, brighter is higher. White outline is the district boundary, white circles are recorded gold occurrences. Colour is scaled against each district's own region. Viewable in CARTA over imagery.

OVERVIEW

All forty-four recorded gold occurrences fall in the top quarter of ranked ground and all forty-four in the top tenth, with the median deposit in the top 1.9% of ranked ground. Silver Peak is in the Walker Lane training region, so this is a measure of fit rather than of prediction. The anomaly follows the mineralised belt along the range front rather than breaking into isolated cells.

LOGIC CHAIN

This is the one district in the set where the rock geochemistry supplies the largest single term: kriged rock arsenic well above regional background, with the silver-over-base-metal ratio and a propylitic index behind it. Proximity to spectrally mapped phyllic alteration contributes about as much again, so the spectral and geochemical families end up near-equal here. Arsenic with a high silver-to-base-metal ratio is what reads as a precious-metal rather than a base-metal system. The controls on record are bedding planes in Cambrian limestone and dolomite, and carbonate-hosted replacement is not the style the score targets.

COORDINATES

37.7972°N, 117.7105°W · UTM 11N 437,446E / 4,183,556N

DEPOSIT TYPE

Gold-quartz veins and bedding-controlled replacement in Cambrian limestone and dolomite. Not an epithermal system.

MODEL PERFORMANCE IN THIS DISTRICT · IN-SAMPLE

Known deposits in top 25% of ranked ground	100%		1.00
Known deposits in top 10% of ranked ground	100%		1.00
Median deposit rank, against all ranked ground	top 1.9%		0.98
Peak score in district	0.826		0.83

NEAREST KNOWN ANALOG

Homestake Mine at 0.431, the highest-scoring named past producer. Drinkwater Mine, one of six records still coded as an active producer, follows at 0.422. Thirty-two of the district's forty-six records are producers or past producers, with output recorded from 1865 onward, one of the longer production histories in the state.

LOCAL GEOLOGY

Gold- and silver-bearing quartz veins and bedding-controlled replacement bodies in Cambrian limestone and dolomite, with greenstone and schist hosting further workings. Galena with pyrite is the common ore mineral, in a quartz and calcite gangue. Silicification and sericitisation are the recorded alteration, some of it post-ore. Thrust faults and post-ore faulting and crushing cut the district.

DATA DENSITY

no rock sample falls inside the district boundary, 38 within 5 km, no soil sample · 42 recorded gold occurrences, 32 of them producers or past producers · no drill data · Walker Lane training region, in-sample

SUGGESTED NEXT ACTION

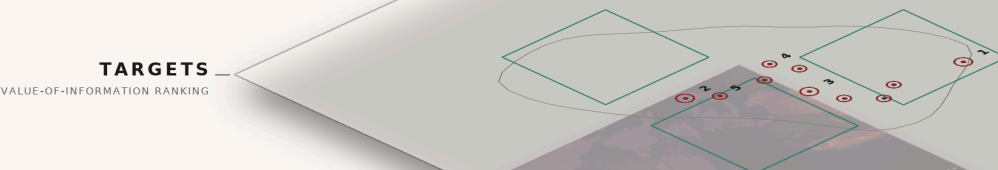
Walk the top-decile ground along the range front between the Homestake and Drinkwater workings, where the anomaly runs continuous across ground carrying no recorded occurrence. Aeromagnetic drone survey, 5 x 5 km AOI, ~25 km², 50 m line spacing, one flying day.

KNOWN UNKNOWN

Silver Peak lies inside the training region, so these figures measure fit rather than prediction. Only four of forty-six records carry a deposit-model code, and the dominant style on record, bedding-controlled replacement in carbonate, is not the style the score targets. With 77% of the district in the top decile the anomaly is close to district-wide, which limits how far it narrows a target.

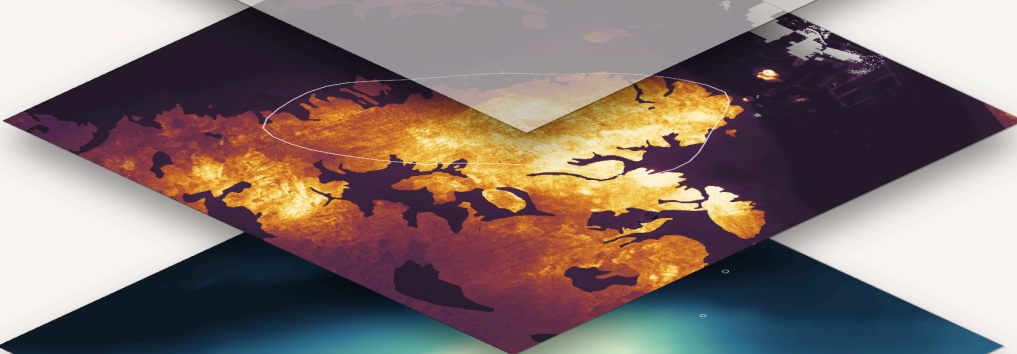
TARGETS

VALUE-OF-INFORMATION RANKING



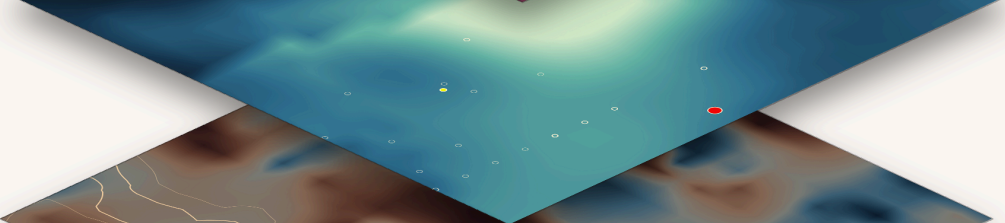
PROSPECTIVITY

EVERY FAMILY COMBINED · POSTERIOR MEAN



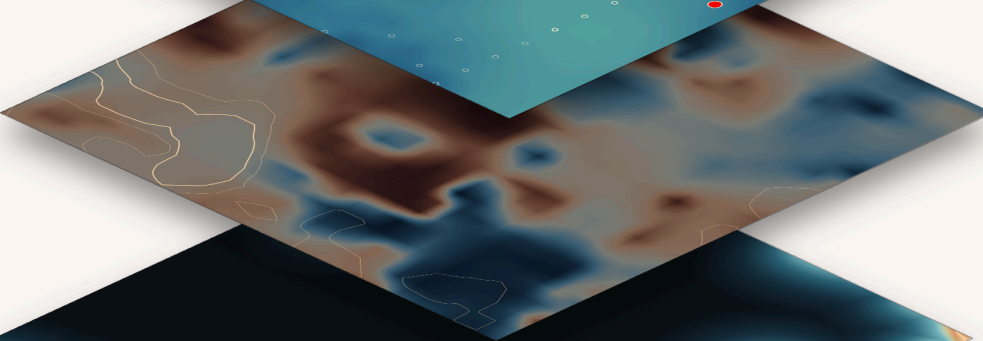
GEOCHEMISTRY

ASSAYS KRIGED BETWEEN SAMPLE POINTS



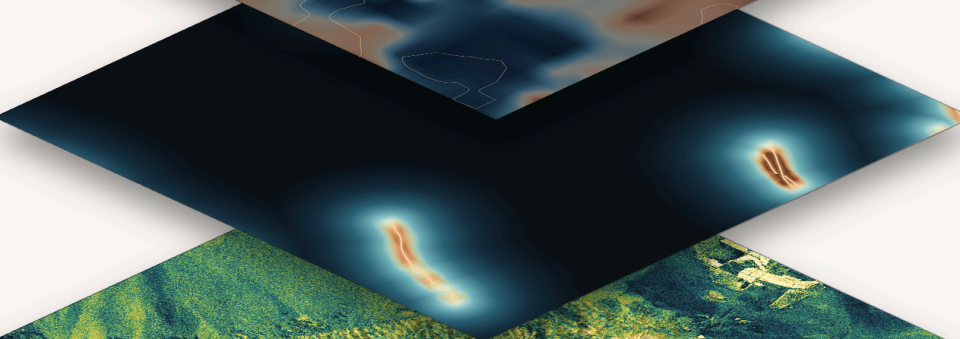
GEOPHYSICS

MAGNETICS REDUCED TO POLE · TILT AND GRADIENT



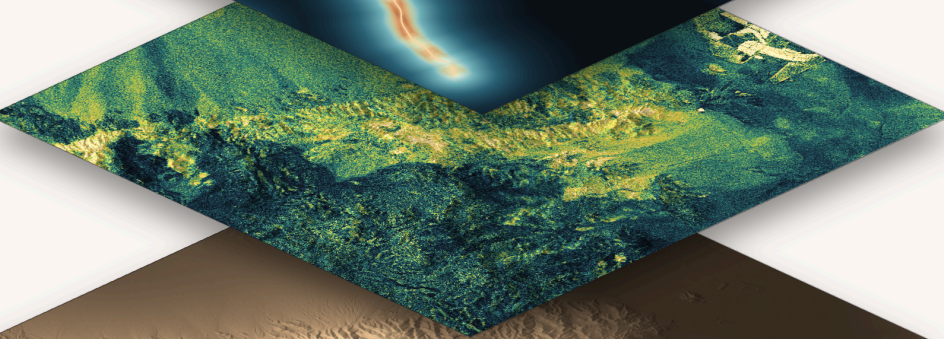
STRUCTURAL

FAULT ARCHITECTURE · PROXIMITY AND DENSITY



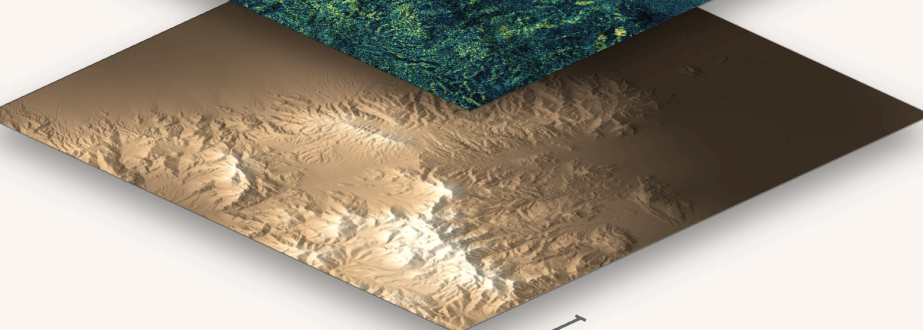
SPECTRAL

ASTER ALTERATION SIGNATURE BAND RATIOS



TERRAIN

ELEVATION MODEL · TERRAIN DERIVATIVES



- Ranked drill target
- Drone survey block

5 km

