Markudjik 3 Snowpit

Kalin Markov 16/04/2023 - 17:00

Bulgaria Co-ord: 42.20843N, 23.57679E

Elevation: 2520 m Slope Angle: 32° Aspect: NE Wind Loading: yes

Sky Cover: X

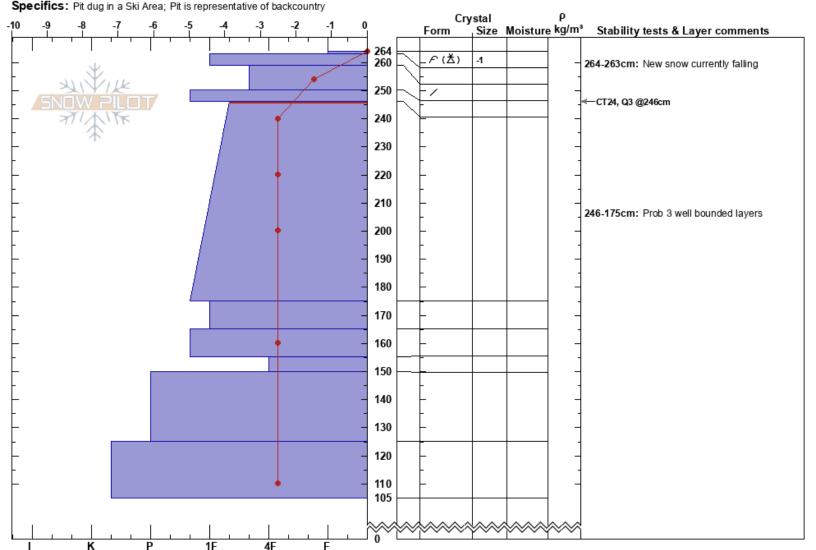
Precipitation: S5 Wind: SE Moderate

Air Temperature: -1°C

Stability: Good

**HS**:264 Layer Notes:

264-263cm: New snow currently falling 246-175cm: Prob 3 well bounded layers 246-175cm: Problematic layer



Temperatures around freezing, but the snowpack in the region (eastern aspect) during the day was very moist, wet and sticky, as if temperatures were way higher, due to the warm April sun.

Snow depth measured at two other nearby locations (the snowpit location was severely wind drifted) - around 140-150 cm at a similar elevation on the upper part of the Mark slopes, and around 200 cm at the bottom of the "Lavinata" slope nearby.

A few layers near the surface, alternating in hardness, likely formed due to new snowfall, wind drifting snow and successive melt-freeze cycles in the past week.

In direct sunlight and warm temps earlier in the day, CT results could be a lot less stable than what we observed.

Notes: Stable at this location at the end of the day, when temps started falling and a short snow squall passed through.

We observed a crack at around CT24, no slide, and a progressive breakup of the block above the crack to the end of the test. No smooth sliding surface.

The good news is that no real problematic layers of graupel, surface or depth hoar, faceted crystals, or smooth, slippery icy layers can be found in the snowpack and the wind drifted slab layers from last week have likely started to create a better bond with the snow below.

The large layer from 246-175 cm, progressively getting harder, likely consists of 3 old layers - when removing the column from the compression test, we "let it fall" on its side and it broke cleanly in 2 places there. However, they are deep in the snowpack, well bonded, and similar in hardness - cannot be differentiated with the snow study card - no reason for concern.

No real avalanche activity noted in the region - only 1 or 2 very small, wet surface slides.

Temperatures likely to remain similar during the week, with on and off snowfall, mainly light, winds not too strong, avalanche danger likely will remain similar as it is now this