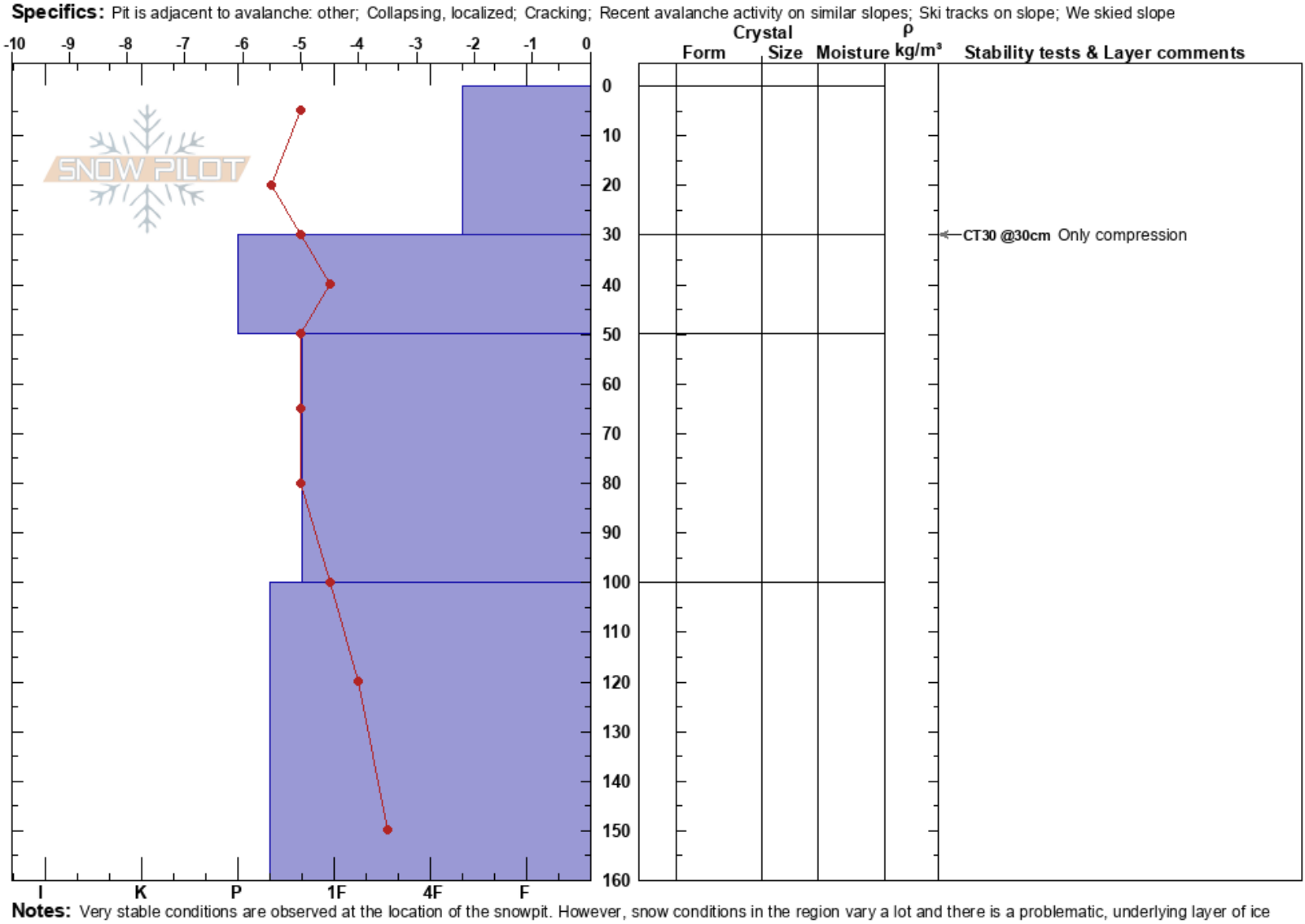
Stenata, Vitosha
Vitosha
Bulgaria
Elevation: 1867 m
Aspect: N

Kalin Markov
05/03/2022 - 11:30
Co-ord: 42.58216N, 23.28830E
Slope Angle: 36°
Wind Loading: no

Stability: Good
Air Temperature: -4°C
Sky Cover: X
Precipitation: S-1
Wind: E Light Breeze

Layer Notes:
0-30cm: Problematic layer

Specifics: Pit is adjacent to avalanche: other; Collapsing, localized; Cracking; Recent avalanche activity on similar slopes; Ski tracks on slope; We skied slope



Notes: Very stable conditions are observed at the location of the snowpit. However, snow conditions in the region vary a lot and there is a problematic, underlying layer of ice everywhere, which is a cause
of concern and can create avalanches in certain locations.

The problematic layer of ice is located at roughly around 30 cm below the surface. The bonding of the surface slab likely varies greatly according to aspect and location. The bond is very strong on the slope where the snowpit is dug.

However, the day before (04.03), a small skier triggered slab avalanche was observed nearby to this snowpit. The slab was on a northeastern slope, which got a bit of sunshine that morning, and likely that
combined with the slightly warmer temps, steeper slope, and skier-added weight was enough to break the bond between the new snow and the ice underneath.

Therefore, the fact that this icy layer lies below the snow in all locations needs to be treated as a warning sign. The temperature gradient observed is not concerning, with no changes of more than 1
degree Celsius per 10 cm observed, which means the currently existing snowpack will likely stabalize.

However, a new cause of concern is the new snow that is currently falling and will fall all week until next weekend. The current snow surface varies a lot - from fine powdery snow where the snowpit was dug
(mainly a northern aspect) to a crusty surface that "breaks" up when you pass through it. This surface breaking up is currently not a problem but the new snow that falls over locations that have a surface
crust at the moment may not bond well and may produce another slab on top that needs to be watched. Locations that do not have a surface crust likely will experience better bonding of the new snow and the
powder underneath.

There is another slab underneath at greater depth (bottom is at 1 meter) which can be isolated with a shovel in one whole block and removed, which seems to lie on top of a more slippery surface, but it is fairly deep
and does not react to any test. It is also "protected" from the hard, icy layer above it and is not a cause of any concern at the moment.