

## Weak layer 20-30cm above ground in Cooke City

Date

Sun, 11/13/2022 - 12:00

Activity

Skiing

We dug three snowpits over the course of two days from 11/12 to 11/13 around Cooke City and found a weak layer 20-30cm above the ground at various aspects and similar elevations. The weak layer was composed of small rounding facets and was less than 1cm thick. The weak layer was at the interface between old and new snow. The old snow below the weak layer was composed of coarse, rounded/rounding faceted grains. The new snow above the weak layer ranged from 60-80cm in height and was right-side-up, progressing from fist hardness at the surface to one-finger immediately above the weak layer. Test results were as follows:

Goose Lake – NE aspect, 10,100 ft (45.11627, -109.92057): ECTP25, 80cm deep. HS 110cm

Scotch Bonnet – SW aspect, 9,800 ft (45.07038, -109.94489): ECTN (\*did propagate 60cm deep on "31st" tap, a very hard whack after no formal result). HS 80cm

East Henderson – E aspect, 9,700 ft (45.05855, -109.94966): ECTP29, 65cm deep. HS 90cm

Additional notes: 11/12 had clear skies, no wind, and warm temps. A 5 cm thick sun crust formed on SE, S, and SW aspects. No natural nor human-triggered avalanches were observed on 11/12-11/13. A continuous cornice had formed along the entire N-S ridgeline on the east side of Henderson by 11/13.

Region

Cooke City

Location (from list)

Henderson Mountain

Observer Name

Jack Taylor