abbreviated

Sketch p. 30

(31) Tuli Alpine Passes between Sefton & the Cook.

This row of saddles are all Sub alpine except the Douglas, They follow the line of break between the main range & the Central one, which latter is formed by the Hooker Campbell Franklin & Thomas Ranges.

This central range is in many places higher than the main divide opposite & is well defined all the way, being however cut almost to sea level by the rivers which flow from the divide & these rivers really form the passes thro' this range to the sea

This minor break or central valley has seven well defined saddles leading thro' the mountains. All are situated between the Landsborough & the Arawata, these two river valleys with the Burke & the Acton taking up nearly the whole of the break. All these saddles have been ascended & noted on the map.

i Waipara Pass

From the Waipara R. to the Waiototo is a depression on the Haast range about 4000 ft high, & it is the most elevated of them except the Douglas. Whether this is the real line break up the Waipara river or whether it is the low depression on the sea side of Mt Duncan I am not quite certain. However I am almost ~~certain~~ sure that the latter is the real break as there is a decided change of rocks at that place.

The Waipara Saddle was ascended by Mr Mueller when up the Arawata. Its height was taken by aneroid & it lead into the upper flats of the Waiototo. On both sides Spurs lead gently down to the rivers. The depression at Mt Duncan leads direct from the Arawata River well to the forks of the Waiototo. It is much lower than the other. Arawata side may other side precipitous

ii Calliope Pass

From about 3 miles up the Axius River on the shoulder of Mt Calliope into the Head of the Tuo a branch of the Turnbull. Lying at 3500 not exactly a saddle more a depression on the line of breaks. Of no value as a route.