

In the different localities which have been described, seven, at least—perhaps eight—varieties of auriferous wash drift have been noted. These are,—

- (a.) The older breccia conglomerates.
- (b.) The older quartz drifts.
- (c.) The newer quartz drifts.
- (d.) The newer breccia conglomerates.
- (e.) The sandstone conglomerates ("Maori bottom").
- (f.) Old lake-margins—Wanaka, Wakatipu, &c.
- (g.) Recent alluvium.
- (h.) Sea-beach deposits.

(a.) *The Older Breccia Conglomerate* is found forming the Blue Spur between the upper parts of Gabriel's and Monro's Gullies; at Weatherstone's; Forsyth; Waitahuna Gully; Scandinavian Claim, at the head of Waitahuna Gully; Glenore, or the Woolshed, Diggings; at Adam's Flat, on the borders of the Tokomairiro Plain; at the Nevis Township; Bob's Cove, Lake Wakatipu; Macgregor's Creek, Lower Shag Valley; on the south-west slopes of the Horse Range; and on the north side of the Horse Range, along the gorge of Trotter's Creek.

(b.) *The Older Quartz Drifts* are found at Beaumont Hill; Tuapeka River; Monro's Farm; Racecourse, Lawrence; Coghill's Hill; Sutherland's Hill; hills east of Waitahuna Gully; Waitahuna Flat; Manukau Hill; Glenore Railway-station, hills west of; Coal Creek, Roxburgh; Noisy Creek; Bald Hill Flat; Butcher's Gully, Bald Hill Flat; Conroy's Gully; Bannockburn; Cairnmuir Range; Nevis Valley; Roaring Lion Creek; Gibbston; Cardrona Saddle; Bob's Cove, Lake Wakatipu; Stony Creek, Shotover Valley; Skipper's Creek, Shotover Valley; coal-mine, Upper Cardrona; Cardrona Valley, coal-mine to township; Criffel Diggings, Mount Criffel; Fat Boy, Mount Criffel; Clyde; Waikerikeri Creek; Lower Manuherikia and Chatto Creek; Cambrian's; Vinegar Hill; St. Bathans; Muddy Creek; Hawkdun Home Hills, west face; Pipeclay Gully, Blackstone Hill; Hill's Creek; Marion Burn; western base of Hawkdun Mountains; Gorge Creek; the Woolshed; Blackstone Hill; Black's No. 3; German Hill; Wether Burn; Garibaldi Diggings; Sowburn Diggings; Hamilton Diggings; Shepherd's Hut, Hamilton; Taieri Bridge, Hamilton to Naseby Road; Maniototo Plain, Taieri Bridge to Ewe Burn; Ewe Burn, above the Clyde-Naseby Road; Government dam, Naseby; Hogburn Valley, near Naseby; foot of Mount Ida Range, Hog Burn to Little Kye-Burn Creek; Clark's, or Mount Buster, Diggings; Upper Kye Burn; Swin-Burn and Hound-Burn Valleys; Hyde; Fullerton's and Mare Burn; Station Hill; Horse Flat, Deepdell; Macrae's Flat; Nenthorn; Green Valley and Waihemo, Shag Valley; Dunback to Taieri Peak, Shag Valley; Pleasant River; Macgregor's Creek, Lower Shag Valley; south-west slopes of Horse Range; Trotter's Creek; Kaurou Creek, Kakanui Gorge; Windsor and Ngapara; Livingstone Diggings; north side of the Maraewhenua River; Otekaike Valley; Awakino Valley; Switzer's; Muddy Creek, Switzer's; Waikaka Diggings; Mackenzie; Landslip Hill; and Knapdale Run.

At forty of these eighty localities where the older quartz drifts occur, so far as has yet been ascertained, gold is found as the colour only. At the other forty localities, whether at present working or abandoned, payable gold has been found; and it can hardly be doubted that many localities might be worked with profit could a better or sufficient water-supply be brought on to the ground.

(c.) *The Newer Quartz Drifts*.—These beds are contemporaneous with the newer breccia conglomerates, and, with them, occur at the following places: Upper Waipori Valley; Deep Lead, junction of Lammerlaw Creek with the Waipori (possibly these beds are younger than the others which are found at Tinker's); Drybread, in the Manuherikia Valley; and also on Criffel Face, in the middle of the line of fault, and at its western end.

(d.) *Newer Breccia Conglomerates*.—These beds occur at Criffel Face, upper end, and on Criffel Face, opposite the middle part of the Cardrona Valley; at the Devonshire Diggings, Tinker's, and Drybread, Manuherikia Valley; and are distinguished from the older by containing the proceeds of the denudation of the older quartz drifts.

(e.) *"Maori Bottom" (Sandstone Gravels)*.—These beds are auriferous, and have been worked in the Cardrona Valley, below the township. It is hard to distinguish between these and the gravels worked at Frenchman's and Mid Run, in the watershed of Luggate Creek, though the latter more properly belong to the old shore-line of the great lake of which Lake Wanaka and Lake Hawea are but the remaining deeper parts.

Tarras Creek and the Lower Lindis show a development of these beds, though here they are not known to be auriferous—at least, no gold-workings are or have been carried on at these localities. These beds are not clearly defined at the Bannockburn, but they form high terrace-hills in the lower part of the Manuherikia Valley, and reach down the Molyneux Valley as far as the junction of Gorge Creek. They are also seen on both sides of the gorge of Chatto Creek, at Tinker's and Drybread, and at St. Bathans, between the lower part of Dunstan and the Manuherikia. They form high terraces between Muddy Creek and the Manuherikia, and occur between the Manuherikia and Pipeclay Gully, Blackstone Hill. So far as known, these beds are not auriferous in the Manuherikia Valley, except it be on the right bank of the Waikerikeri. Within the watershed of Ida Burn the beds are largely developed, and occur throughout the central and eastern parts of the Maniototo Basin, but it is only at the Upper Kye Burn, and possibly on the left bank of the Hog Burn, below Naseby, that the beds are worked for gold. In the southern part of the district they are worked for gold at Switzer's, and perhaps at Muddy Creek in the same watershed. The higher terraces along the foot of the Mount Pisa Range to nearly abreast of Cromwell are not of the same age as the beds filling the middle part of the Cardrona Valley.

(f.) *Old Lake Margins (Lakes Wanaka, Hawea, and Wakatipu)*.—Beds of this description are found on the north-east end of Mount Criffel, at the Cromwell Reef, on the north slope of the