

and from the situation, a better site could not, in my opinion, be selected. This, together with the fact that 120 feet of boring would be avoided, would cheapen the cost of boring considerably.

#### SPALLUMCHEEN.

Spallumcheen Valley, including that part from Lansdowne to Enderby, was next examined. In the town of Lansdowne water is much wanted, as wells sunk to the first water-bearing strata soon become strongly impregnated with alkali from the surface. Water could be obtained at a depth varying from 200 to 350 feet.

Turning from the town of Lansdowne to the north, you enter the Spallumcheen Valley proper. On the east it is bounded by a high range of mountains running north. At their foot a wooded undulating bench falls gradually to a slough-like creek, called Bennett Creek. Rising from this creek is a flat bench from one-quarter to one mile in width. All the land on this bench is under cultivation, but for domestic and irrigation purposes there is no water. Wells have been sunk, but nearly always without striking water. The supply hauled from Bennett Creek is, in the summer months, neither plentiful nor good. The well on the Bennett & Lumby farm was some 65 feet deep, and at this depth the soil was found to be the same as that found a few feet from the surface.

To the west of this bench, and rising to a considerable height, are undulating ridges with some good land in their hollows; but from their height and the light sandy nature of the greater part of the soil, and the irregular contour of the land, irrigation, even if water could be obtained, would be difficult; and from the depth of Deep Creek Valley, it is extremely unlikely that water would be found here by boring.

The drainage of this upland is partly into Deep Creek and partly into Bennett Creek; so that, boring on the bench above Bennett Creek, water might be met with at a depth of 250 feet. This would hold good for almost the entire length of the valley, except that portion of it which widens out at the north end, near the ranches of Messrs. Fortune and Campbell, where the valley widens out and the creek keeps on the western side. The boring here would be much deeper—I should say, in the neighbourhood of 500 or 600 feet.

#### NICOLA VALLEY.

Nicola Valley, or that portion lying to the west and on the right bank of the Nicola River, contains some 1,400 acres of good land, but entirely without water for irrigation or domestic purposes. This flat of land is, in one unbroken bench, on the right bank, at an elevation of about 80 feet above the river. Above this bench, to the west, rise the main range of mountains, with undulating foot-hills rising to the upper plateau. On this plateau are numbers of swampy lakes, which give rise to Mill Creek, which flows into the Nicola River near the western end of the lake. At a point about one or one and a half miles above the junction of Mill Creek and Nicola River, a small stream enters Mill Creek from the north-west. Both these creeks, at the time of my visit (May 1st), were running bank full; but I was assured by Mr. Clapperton that in an average year, in July, the creeks do not carry much more than the already recorded number of inches of water. A scheme was on foot to bring water from Mill Creek on to the bench mentioned, by fluming and ditching. I went over the line of ditch (which had been surveyed) in company with Messrs. Clapperton and Dalley. The length of ditch would be some four or five miles, and the greater portion would have to be fluming, as the sides of the creek are steep and have not holding ground for a ditch, and the gravelly nature of the soil would require puddling in places. At the point where the ditch would leave the valley of the creek, it would come out on a side-hill of gravel on a rocky bottom, where the depth of soil nowhere exceeds six feet. This side-hill is cut up by numerous ravines, which during melting snow carry heavy streams. Each of these ravines would need to be flumed, or the ditch would be cut out every spring. I considered, in face of these drawbacks, that a ditch which would have to carry 300 inches of water would be much more costly than a trial boring, which would, on the easterly line of Corbett's ranch, be quite likely to strike water at a depth of less than 300 feet.

Further to the west, between the Coldwater River and the Nicola River, there is an extensive flat of good land where water could be obtained by boring, at no great depth—I should say under 100 feet.