

re: "WILLIAMSFORD ALLUVIAL LEAD"

In accordance with your verbal instructions and as a result of a conversation with Mr. Scott (on Thursday February 5th), I made an examination of the country in the vicinity of the Williamsford Deep Lead on Friday 6th February and wish to submit the following notes and sketch plan:-

The lead was first found in adit "C". This adit passes through 30 feet of slate, then through 20 feet of porphyry (?) and at 50 to 55 feet enters Pleistocene (P) clays and auriferous wash; the adit is inaccessible beyond 55 feet. As far as could be seen in the adit, the wash consists of pieces of compacted ferruginous grit, irregular quartzose and slaty fragments, and boulders of conglomerate and porphyry which vary in diameter three to eight inches; the clays overlies the coarse material of the wash but some boulders of conglomerate and porphyry were embedded in the clays. No idea of the value of the gold won from this adit could be obtained.

From the adit "C" the lead runs north and has been prospected by the shaft "B". Slates outcrop one and a half chains on either side of shaft. The shaft was sunk to a depth of 65 feet; it reached the bottom of the lead and payable wash was supposed to have been obtained, which was followed north in a drive for a distance of 16 feet. The dip of the lead in that distance was 2 feet. 3 inches (approximately). The only material left on the dump is a small heap of slate which indicates that the shaft reached bedrock. This shaft is said to have been sunk in soft clays and this seems to be consistent with the geological evidence available. The wash in this shaft is said to have been nine feet deep and fifteen wide and would, I presume, consist of similar material to that seen in the adit "C". If we assume that there was a sump (sunk in slates below the wash) of five feet at the bottom of the shaft a cross section would appear as shown:-

This shaft is really the only one on the lead in which the auriferous wash was supposed to have been payable and hence any new prospecting shaft would have to be sunk fairly close to it.

I made a general examination of the higher ground to the north. Soft clays outcrop on the oval at a distance of five chains to the N.W. of "B"; these dip to the S.E. at a very low angle. The oval would be about 50 feet higher than the collar of "B". The dump of shaft "A" had been removed but some loose boulders close by appeared to have come from the shaft. This shaft (A) did not reach the wash. It, therefore, seems probable that, in sinking, loose boulders may be met with but the material lying above the auriferous wash would be chiefly clay. The wash itself would probably be of the same material as that seen in adit "C".

The site (chosen by the syndicate) for the proposed prospecting shaft (see plan) is, I think, in a fairly

favourable position. It is approximately 170 feet north of "B", in ground which is only three to four feet above the level of the collar of "B". Originally they intended to sink in the high ground to the east of the oval. This, however, would involve about fifty feet more sinking and the shaft would be a considerable distance from "B", which as I said previously is the only one in which the auriferous wash seems to have been payable. Assuming the dip of the lead to be 2'3" in 16' the new shaft would have to be sunk to a depth of 90 feet in order to reach the bottom of the lead. If the site selected for the shaft were further south it would involve a few feet less sinking and would be nearer to the old shaft but the ground is a little more swampy.

Regarding boring operations it seems probable that the first eighty feet would present little difficulty but once the auriferous wash was entered it is difficult to say what would happen; the wash seems very broken and large boulders are likely to be met with.

On the plan I have shown two "Supposed lines of lead"/ One was mapped for information supply by Mr. F.A. Burns; the other was mapped on information supplied by L. Borich, who showed me over the ground. I think that the information supplied by Mr. Burns would be the more correct as it agrees more or less with the field evidence.

(Signed) K.J. FINUCANE,  
FIELD GEOLOGIST

7th February, 1931.

P.S. Any shaft north of the proposed shaft would be of little use. I could find out very little about the adit "C".