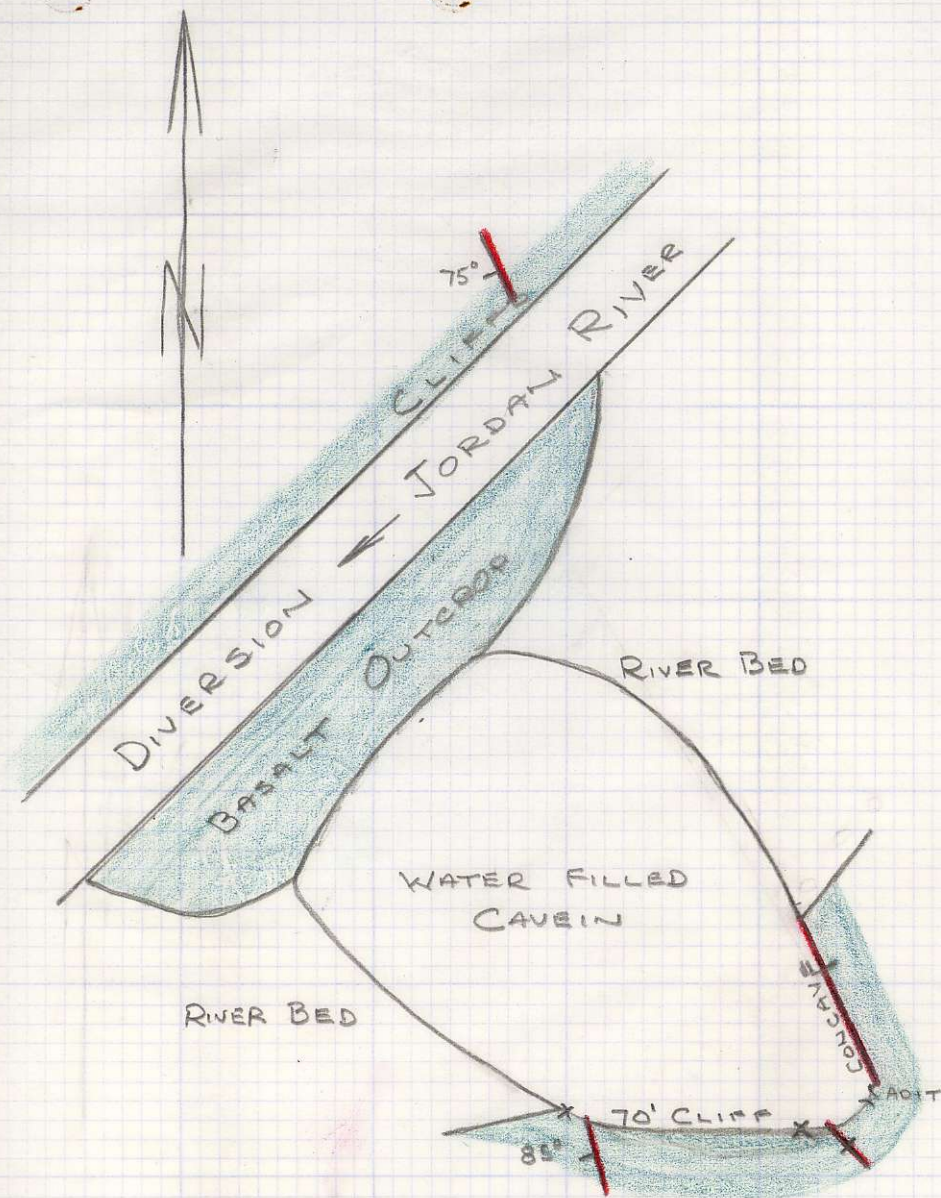


672868



W. R. Bacon, P. ENG.

X - OLD CUT OR ABUT

SEPT. 3, 1970

SCALE: 1" = 40'

October 19th, 1970.

Members of the Cowichan staff were negligent because they failed to heed their own observations, that the River Zone exposed in the canyon of the Jordan River was fractured, sheared, weak and incompetent.

*Under these circumstances, the staff should have proceeded with more care, and in his published report of March 4th, 1963, Mr. J.R.*

Billingsley makes the following comments:

"The River Zone, which is the first to be mined, occurs in a shear zone or shatter zone in basalt, approximately 400 feet northeast of <sup>a</sup> gabbro intrusive, in which the Cave Zone occurs. The River Zone is characterized by numerous steeply dipping slips or faults which converge at the northwest end. The slips are frequently slickensided and often display breccias."

Concerning the River Zone, Mr. Carl Miller in his report of September 6th, 1963, makes the following comments:

"Three main fracture systems diverge in a southerly direction from the cross-fault shear (that underlies the Jordan River). These also diverge in section with increasing depth. The bulk of the River Zone ore is localized in the triangular shaped brecciated zone at the point of convergence, immediately south of the cross-fault, with three long tails extending southward along the fracture zones."

In our memorandum of September 14th, 1970, concerning our examination of the cavein, we noted the following:

"Three steeply dipping shears stand out prominently in the cliffs and are noted in the accompanying sketch. All strike northwesterly and are marked by slickensides, i.e. planes of movement.

Because of the fracturing and the shearing, the rock bordering the cavein on the south must be classified as incompetent."

The foregoing statements all testify to the weakness of the rock enclosing the River Zone.

*W. B. Bann, P. Eng.*

---