

REPORT ON THE  
CEMENT CREEK TUNGSTEN PROSPECT  
NEAR MAYO, Y. T.

Conclusion - In the remote locality of the Cement Creek prospect only an unusually large or rich tungsten deposit could be worked, even under war conditions. In order to permit rapid prospecting and development the structure of a deposit should be simple and apparent.

I find the Cement Creek prospect lacking in these attributes. It is not associated with any well-marked bed or group of beds and may consist of disconnected spots. The grade, except in specimens, is low and there is no indication of very large size. The fine size of the scheelite grains and the hardness and toughness of the enclosing rock would make milling difficult.

Therefore I should not recommend the expenditure of either private or government funds in prospecting or developing this property. The owners may persist with further trenching, but their chances of success look slim.

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Location - The property is on the high divide between Johnson Creek and the South Fork of McQuesten River, at the head of Cement Creek, a tributary of the South Fork. It is above timber line.

Access - The route to the property follows the main Keno road for about ten miles from Mayo and then runs 12 miles up Minto and Hight Creeks over a poor road. From the end of the road one goes by trail about four miles to the upper part of Johnson Creek and then about three miles up a steep ridge to the prospects at the divide.

History - Scheelite has been known for some years in gold placers in the vicinity and was found in place by a Geological Survey party in 1942. A large number of claims were staked in the fall of 1942, including those of T. McKay, Hare, and others that were the object of my examination.

Geology - A large area surrounding the prospect is underlain by pre-Cambrian schistose quartzites into which are intruded some small stocks of granitic rocks. One such small stock lies immediately to the south of the tungsten showings.

The quartzites are of monotonous lithologic type with no prominent variants such as persistent shaley or limey members. This lack of variety in the composition of the metamorphosed sediments, together with generally poor exposures, makes the tracing of particular beds difficult.

Scheelite occurrences - In a trench near the point of discovery scheelite-bearing rock is exposed over a width of about 12 feet. The best ore is a black hornstone, a limey shale now metamorphosed to an extremely hard and tough black rock resembling a fine-grained diabase. This rock contains finely disseminated pyrite (or pyrrhotite), and the richer specimens contain thickly scattered grains of scheelite up to about a half

millimeter across. The richer specimens contain several percent of  $WO_3$ , but it is doubtful if a cut across the trench would exceed 1%.

About 1000 feet to the east of the discovery trench another trench had exposed some scheelite-bearing rock, probably in place. The width was not exposed at the time of my visit on July 1st. This second scheelite exposure seems to be about at the same horizon as the first altho the rock is not exactly the same type. Between the two trenches some scheelite float had been found, but no trenches had yet exposed ore in place.

Two specimen samples were taken by me from the two trenches and sent to Dawson, but I do not consider it necessary to have these samples analysed.

Other scheelite occurrences - Another scheelite occurrence is known in this vicinity in the claim of J. Hawthorne in Scheelite Creek.

Scheelite and cassiterite are found in the gold placers in Haggart Creek and its tributaries, and scheelite is reported to have been found in place, partly in quartz veins in granite. I did not visit Haggart Creek as the lode discoveries to date do not sound important.

Dr. Bostock of the Geological Survey believes that part of Haggart and Lynx Creeks could be dredged. He reports that low-grade scheelite lode material is wide-spread in the vicinity. To date only a limited effort has been made to recover and separate scheelite and cassiterite concentrates.

Respectfully submitted,

(Sgd.) J. B. Stone

Pasadena, Calif.,  
July 17, 1943.

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W. H. S. McFarland, Esq.,  
General Manager,  
The Yukon Consolidated Gold Corpn., Ltd.,  
D a w s o n, Y. T.

Dear Sir:

The accompanying report covers the examination of the Williams Creek copper property made by me on June 22 - 25, 1943, with the assistance of Mr. A. M. Nordale.

As you will see from the report, I have found no evidence that commercially valuable mineralization either has been found or is probable in the property and I have, therefore, recommended that you do not proceed with any further prospecting or development of it.

Very truly yours,

*J. B. Stone*  
J. B. Stone.

Dawson, Y. T.  
June 28, 1943.

REPORT ON THE WILLIAMS CREEK COPPER PROPERTY  
WILLIAMS CREEK, YUKON TERRITORY

LOCATION

The Williams Creek property is located on the left (southwest) bank of the Yukon River between Carmacks and Selkirk. The mining claims cover a strip 16,000 feet long by about 1,500 feet wide, parallel to the river and about 4,000 feet from it. This strip crosses the narrow valleys of Merrit (Merrice) and Williams Creeks and the adjacent hills, which have a relief locally of about 1,000 feet. The area is largely overgrown with aspen and small spruce.

MINING CLAIMS

As shown on the accompanying plan, the property consists of 12 Crown-granted claims having a total area of 720.57 acres. Several old corner posts and survey lines were found by us.

HISTORY

The Williams Creek property was apparently first prospected about 1907 and some work was done after that time, but it had been idle for years in 1931.

GEOLOGY

The geology of the region is discussed by H. S. Bostock in Mem. 189 "Carmacks District, Yukon", Geological Survey, Canada, 1936. According to Bostock's report and map, the Williams Creek property lies along an intrusive contact between rocks of the Late Mesozoic Mt. Nansen group of volcanic rocks on the northeast and younger granites on the southwest. Where exposed on the property, the rocks of the Mt. Nansen group are generally schistose meta-andesites, and the granites are coarse-grained and slightly gneissic. The contact effects of the granite are limited to the development of schistosity in the adjacent volcanics and to some recrystallization of them. Only occasional boulders of pegmatite and aplite were seen, and no sign of hydrothermal alteration.

VEINS

Prospecting in the past has exposed a number of quartz veins along or near the granite-andesite contact. The greatest width of quartz seen was six feet but generally the veins are much

narrower and they are highly lenticular and non persistent. The veins consist of coarse-grained glassy quartz that carries in places a very little pyrite and chalcopyrite. A little bornite, probably of secondary origin, was seen, and commonly the quartz is stained green by malachite (copper carbonate).

#### PROSPECT WORKINGS

The property has been thoroughly prospected, chiefly by trenches and pits. The most extensive work has been done on the north side of Williams Creek, where are located the three prospect shafts and two adits shown on the accompanying plan. The shafts expose a quartz vein 2 to 5 feet wide, striking N 70 W and dipping 85 degrees south, over a length of 35 feet.

Shaft No. 3 and Adit No. 2 expose a lenticular quartz vein striking about N 20 W. In Adit No. 2 this quartz vein is cut obliquely by a well marked fault striking N 35 W and dipping 65 degrees to the SW. The fault zone is 2 to 3 feet wide and consists chiefly of brecciated schist and gouge but contains a very little quartz.

No. 1 Adit exposes the same fault seen in No. 2 Adit but at a lower elevation. Here the fault zone includes two small lenses of shattered quartz and occasional spots of copper stain. In both No. 1 and No. 2 Adits the quartz lenses are older than the latest faulting.

A prospect shaft about 20 feet deep was seen on the top of the ridge between Williams and Merrit Creeks. It exposes a quartz lens a few inches thick.

The only other working of any size is on the east side of Merrit Creek. Here there is a small cut and a caved adit on a vein of coarse quartz about 4 feet wide. The quartz contains a very little limonite and copper stain. The vein does not appear on a bare ridge a few hundred feet to the northwest.

#### SAMPLING AND ASSAY

Although it is apparent to the eye that the quartz veins are not of payable size or grade, a few samples were taken. The locations of the samples are shown on the plan of the workings. The sample descriptions and assays are as follows:-

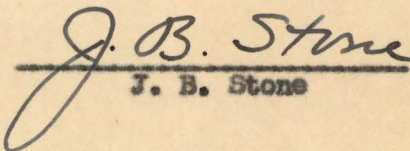
<u>No.</u>	<u>Width</u>	<u>Assay</u>			<u>Remarks</u>
		<u>Oz. Au</u>	<u>Oz. Ag</u>	<u>% Cu</u>	
1.	5 ft.				Quartz with copper stain.
2.	5½ "				same
3.	5 "				same
4.	1 "				Crushed quartz with copper stain.
5.	3½ "				Fault breccia & gouge - a very little copper stain.
6.	1½ "				Crushed quartz and copper stain.

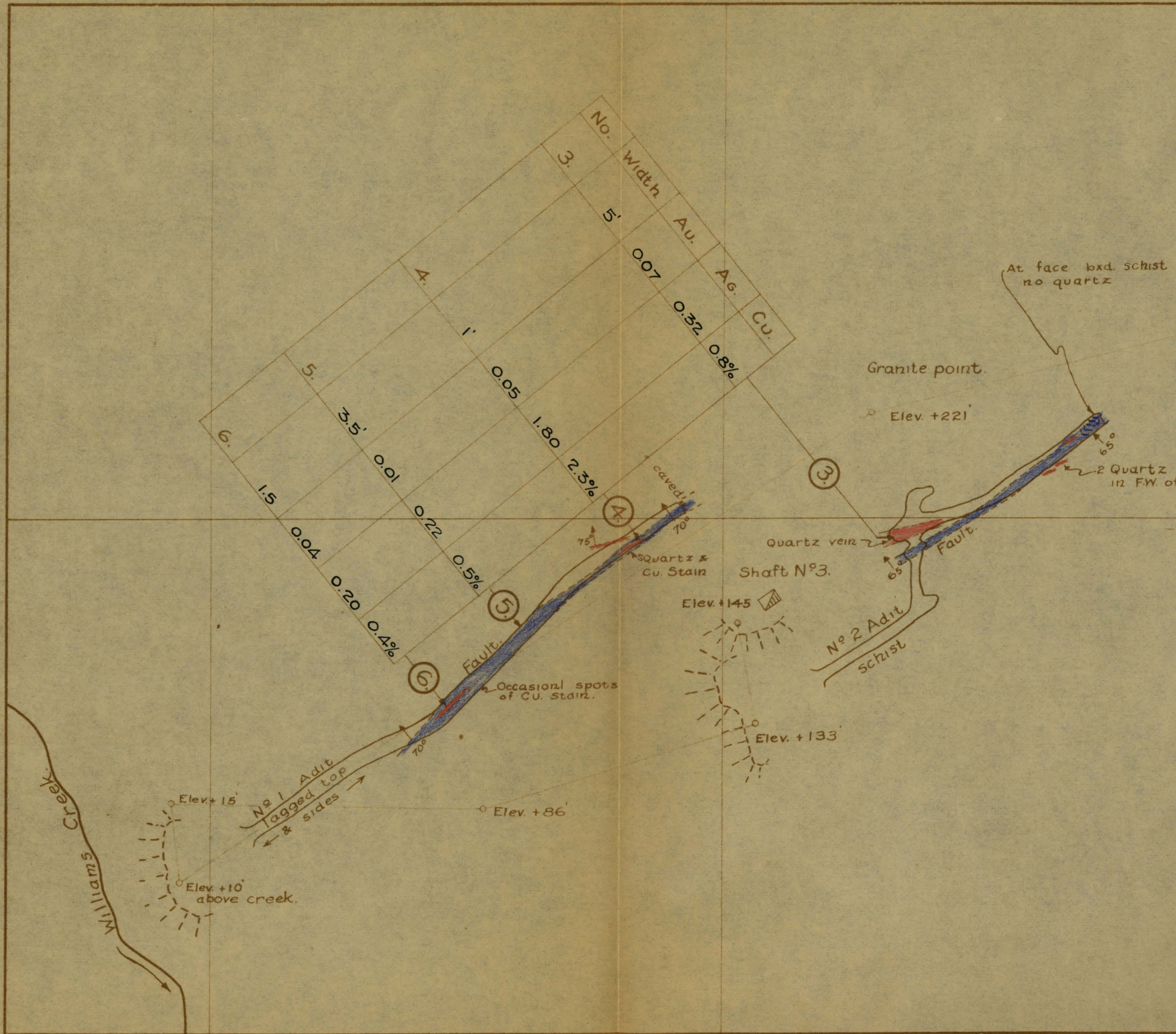
On the chance that the quartz veins might contain tungsten in the form of scheelite, the vein in Adit No. 2, as well as a number of specimens from various exposures and prospect pits were examined with the ultra-violet lamp. Results were negative.

CONCLUSION

Past prospecting at Williams Creek has been quite thorough but has failed to show any mineralization that might possibly be of commercial value. Furthermore, there is nothing in the geology of the area to suggest that undiscovered commercial mineralization is probable there. I must therefore recommend that you do not undertake any further prospecting or development of the property.

Respectfully submitted,

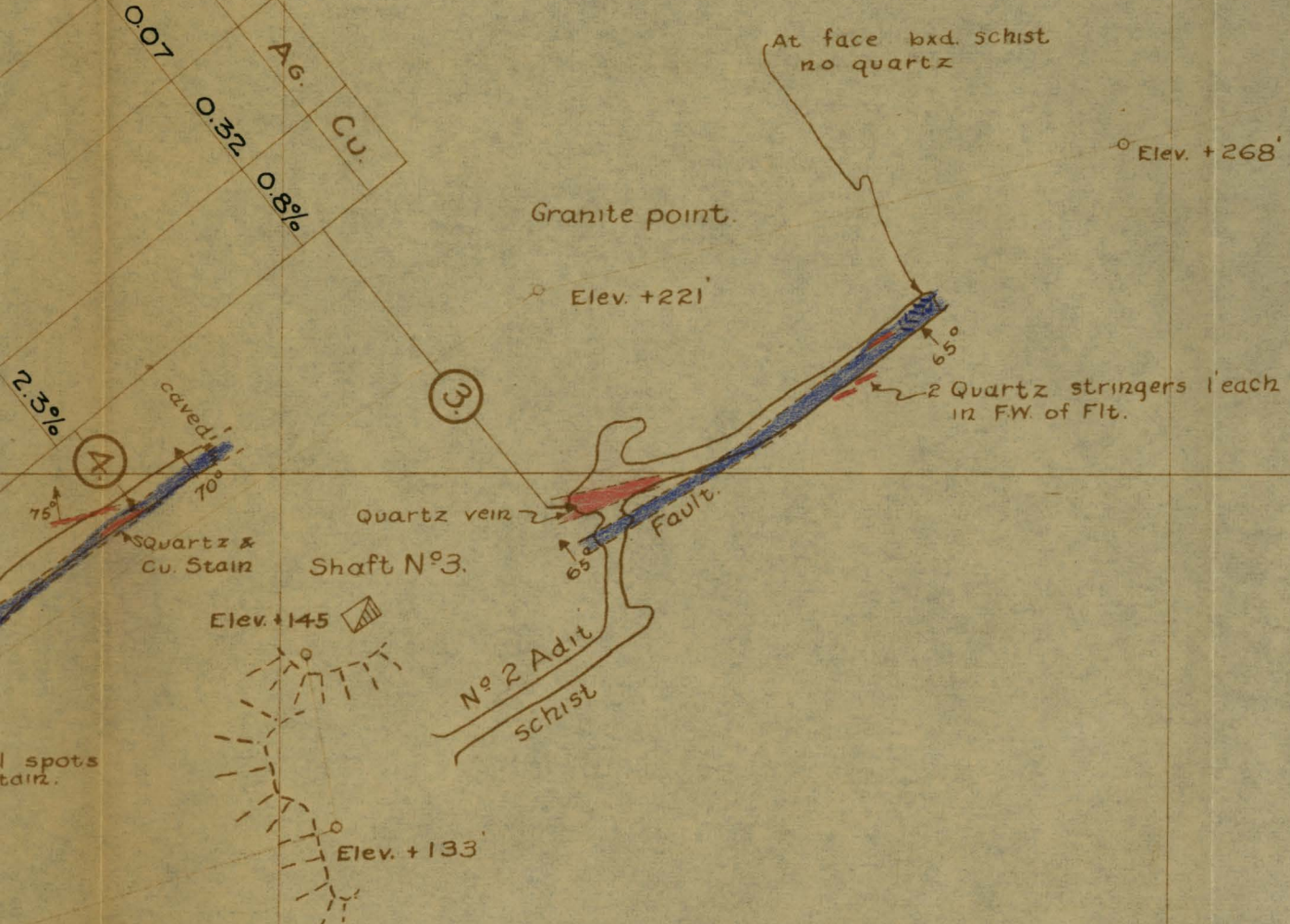
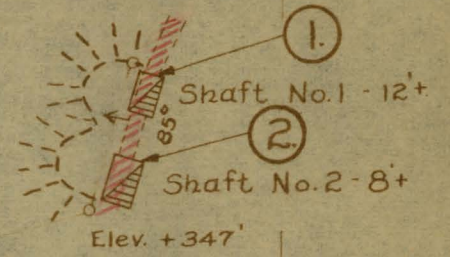
  
\_\_\_\_\_  
J. B. Stone



No.	Width	Au.	Ag.	Cu.
3.	5'	0.07	0.32	0.8%

No.	Width	Au.	Ag.	Cu.
4.	75'	2.3%		

No.	Width	Au.	Ag.	Cu.
1.	3'	0.16	0.54	1.9%
2.	3.5'	0.12	0.46	1.5%



YUKON CONS. GOLD CORP. LTD.  
DAWSON, Y.T.

WILLIAMS CREEK, Y.T.  
COPPER PROPERTY

GEOLOGICAL & ASSAY PLAN OF  
OLD WORKINGS ON WILLIAMS CREEK.  
SCALE 1" = 40'  
TO ACCOMPANY REPORT BY  
J. B. STONE.  
JUNE 28<sup>th</sup> 1943.



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