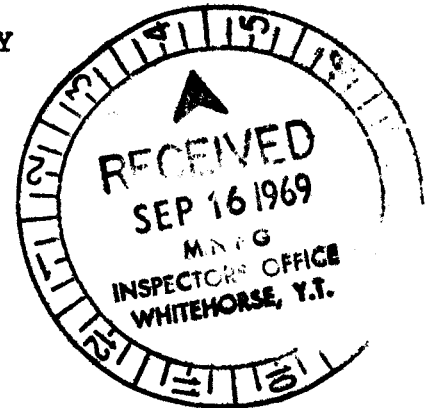


ENGINEERING EVALUATION REPORT



RE: MUSH LAKE, Y.T. PROPERTY

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*See report by Wm Dolley-Pardy - May 1 - Sept. 1968*

# ARCHER, CATHRO

AND ASSOCIATES LTD.

CONSULTING GEOLOGICAL ENGINEERS

BENTALL CENTRE, VANCOUVER, B.C. 688-3022 OR 522-1562

POST OFFICE BOX 1708  
WHITEHORSE, Y.T.

September 9, 1968.

Mr. Gordon V. Murray,  
President,  
Kel-Alen Mines Ltd.,  
1014-1030 W. Georgia St.,  
Vancouver 1, B. C.

Dear Sir,

Re: Mush Lake, Y. T. Property

To confirm our recent telephone conversation, I visited this property on August 27, and September 8, the first time with W. Dollery-Pardy, and later with Dr. E. J. Lees and Dollery-Pardy.

On the first examination I made a rapid reconnaissance of the claims by helicopter and landed at two of the showings, one at the head of the low canyon in Little Dalton Creek, on about KEL #15 claim, and the other on the south edge of the property beside the road, probably on KEL #9 claims. Both showings were purported to have produced rich assays and I took representative samples. A short description of the showings and method of sampling is given later.

The assays were received by telephone from the Whitehorse Assay Office on September 3 and relayed to you at once by Mr. Archer. The results were extremely low (assay certificate attached).

As a result of our subsequent telephone conversations, I met Dr. Lees at the property on Sept. 8 and in company with Dollery-Pardy we revisited the two showings mentioned previously and another situated in the canyon about one quarter mile downstream from the first. Dr. Lees concurred with my opinion of the mineralization exposed and, in fact he did not regard the road showing as warranting a sample at all. He sampled the two showings in the canyon in a similar manner to the procedure used by me on my first visit.

1.) Upper Canyon Showing - Little Dalton Creek

This showing is situated on the north bank of the creek in a small outcrop area just below the meadow in which the creek heads. The country rock is medium grained andesite, assigned by the G.S.C. to the upper Triassic Mush Lake formation. They display little texture, are non-magnetic, and are relatively unaltered except for the presence of epidote and hematite. Chalcocite, with a little bornite in the ratio of about 9:1, occurs as small lenses and pads, less than 6 inches in longest dimension, associated with weak faults which cut

Cont'd.

the outcrop. A minor amount of malachite (copper stain) occurs on the weathered surface and the sulfides have been exposed by blasting a small open cut (see sketch). A chip channel sample was taken across the showing as shown on the sketch.

Sample #8561- 6 foot width of green andesite with purple bands on west side of fault.

8562- character sample of purple rock purported to contain disseminated chalcocite- probably flow top rock.

8563- 3 feet wide-crushed fault gouge-colour varies from white to purple to green-minor copper stain but no sulfides seen.

8564- 6 foot width of green and purple andesite on east wall, contains 1 foot fault in centre similar to that sampled by #8563.

The main concentration of sulfides occurs on the contact between samples 8563 and 8564.

2.) Lower Canyon Showing - Little Dalton Creek

This showing is situated on the southeast bank of the creek about one quarter mile downstream from (1). Chalcocite mineralization similar to that at (1) occurs along a narrow, fine-grained purplish band in amygdaloidal andesite. The zone ranges from 2 to 12 inches in width, and has less than 3% copper over a one foot width. The wallrocks are unmineralized and the purple band is probably a flow top. Dr. Lees sampled this zone.

3.) Road Showing - South Slope of Hill Facing Junction of Alder and Fraser Creeks

The outcrop at this showing, which is located fifty feet vertically above the road, is a fairly fresh, medium-grained andesite, weakly magnetic. It shows poikilitic texture, is weakly porphyritic, and contains some secondary epidote and calcite. A few tiny flecks of disseminated chalcopyrite and pyrite is the only mineralization seen. One piece of chalcocite-rich float was found downhill on the surface but it did not resemble the rocks in the outcrop and may be from a different place. This showing was sampled by taking 20 to 25 chips at random from all parts of the outcrop, which has been blasted open, and from the large blocks of rock scattered below the outcrop by the blast. This sample, #8565, assayed trace in copper, silver and gold. The pyroxene in this rock displays a slight tarnish on its cleavage faces which looks somewhat metallic in the right light, but otherwise this rock has no semblance of value.

When I phoned you after my first visit, you will recall that my opinion was somewhat guarded, because I had been told at the property that the rocks assayed very high in copper and yet I had seen very little mineralization. However, the assay results and two examinations have convinced me that the showings found to date on your property have no significance in themselves, except as indicators of the type of mineralization which may occur elsewhere on your claims in bigger quantities. None of the showings have enough potential to warrant a drill hole. More basic prospecting supplemented by geochemical and/or geophysical work might turn up something better but I am rather disappointed at the small amount of work accomplished and data compiled by your crew up to now.

Cont'd.

It would appear that you have received very sloppy assaying or that the earlier samples were high-graded.

I regret that our first association has been an unhappy one. I will be in Vancouver for a breather the week of the 16th. and you could contact me then if there is any further information you need. Our statement is attached.

Yours truly,

ARCHER, CATHRO & ASSOC. LTD.



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R. J. Cathro, P. Eng.

RJC:pl  
Encl.

DATE Sept. 4-68

# ASSAY CERTIFICATE

FILE NO. 4946-5

WHITEHORSE ASSAY OFFICE

P.O. BOX 346. WHITEHORSE. YUKON

RECEIVED FROM Archer & Cathro

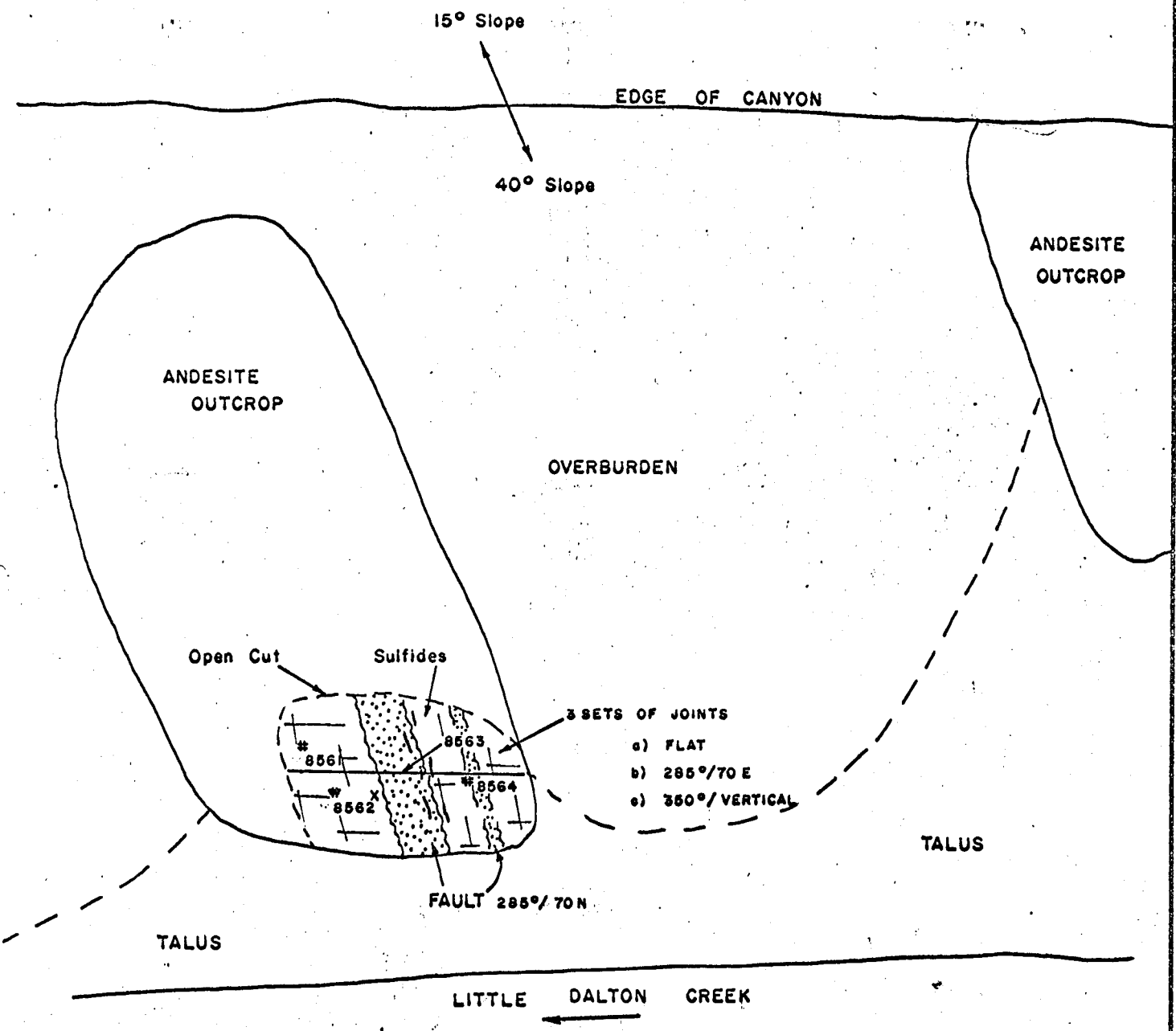
| SAMPLE NO. | GOLD<br>OZ. PER TON | SILVER<br>OZ PER TON | Copper |  |  |  |  |  |
|------------|---------------------|----------------------|--------|--|--|--|--|--|
| 8561       | TR                  | TR                   | .15    |  |  |  |  |  |
| 8562       | TR                  | TR                   | .15    |  |  |  |  |  |
| 8563       | .02                 | TR                   | .87    |  |  |  |  |  |
| 8564       | TR                  | TR                   | .16    |  |  |  |  |  |
| 8565       | TR                  | TR                   | TR     |  |  |  |  |  |

ASSAYER

*Geo. Spalding*

SW

NE



|  |                 |          |
|--|-----------------|----------|
| <b>Sketch Map</b>  |                 |          |
| Upper Canyon Showing Kel-Glen Mines Ltd.<br>LITTLE DALTON CREEK - MUSH LAKE AREA, Y.T. |                 |          |
| <b>ARCHER &amp; CATHRO</b><br>Consulting Geological Engineers                          |                 |          |
| DATE   | 9 Sept. 1968    | DWG. No. |
| DRAWN  | <i>Atkinson</i> |          |
| SCALE  | 1" = 10'        |          |