

**S.P.L NO. 20**  
**REPORT**  
**RENISON LTD.**

**JULY 1967**

**67 - 473**

**MICROFILMED**

166002

LEASE S.P.L. No. 20 - NORTH DUNDASREPORT ON PROGRESS TO DATE

Stage I of the proposed exploration programme has been completed although geological mapping and sampling did not fully achieve its aim.

The programme included:

- a) Access Tracks
- b) Line Cutting
- c) Geological Mapping and Sampling

Access

A road from the Renison Lease over Confidence Saddle to the North Dundas Tram has been completed. Access by vehicle is also possible along the N.E. Dundas Tram from the main road south of Serpentine Hill, although this route involves more time and mileage. Eastwards from Confidence Saddle the tramway has been improved as far as the Montezuma Falls. At present this is considered as sufficient for immediate purposes. A four berth hut has been built at the end of this four-wheel drive track immediately west of Montezuma Falls. The possibility of making a vehicular track along Wallaces Tram was investigated but proved financially impracticable at the present time.

Track Cutting

92,000 ft. of lines have been cut. The lines are cut on a magnetic bearing of  $63^{\circ}$  (Mine Grid East at Renison) at eight hundred foot intervals starting from Wallaces Tram. Twelve lines have been cut, giving a good coverage of the lease. Since the direction of the lines are approximately at right angles to the general strike they will be extremely valuable for further mapping geophysics etc. In addition to the east-west lines a 3,000 ft. sub-base line has been cut from Fraser Creek southward onto the Godkin Ridge.

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LEASE S.P.L. No.20 -- NORTH DUNDAS (Cont'd)Mapping

The N.E. Dundas Tramway has been mapped from Confidence Saddle to Bonnie Point. Some mapping has also been carried out along the creeks, traverses and Wallaces Tram. The preliminary mapping, particularly the good exposure along the N.E. Dundas tramway has shown that the rocks are divisible into six units. The general strike is N.E., the dip S.W. and the rocks younging south-eastwards.

Succession after Blisset (1962)

|                                  |                            |
|----------------------------------|----------------------------|
| 6. Montezuma Group               | ?                          |
| 5. Grits                         | ?                          |
| 4. Siltstones with Conglomerates | ?                          |
| 3. Siltstones, Slates, Shales    | Brewery Junction Formation |
| 2. Conglomerate and Grits        | Razorback Conglomerate     |
| 1. Siltstones and Mudstones      | Hodge Slate                |

Lithologies

The lithologies for 1, 2 and 3 are as seen in Blisset (1962) for Hodge Slate, Razorback Conglomerate and Brewery Junction Formation.

1. Hodge Slate

"..... hard grey to black laminated micaceous shale, flaggy siltstone and silty mudstone with narrow partings of pale greywacke which become more abundant towards the top". (Blisset 1962).

2. Razorback Conglomerate

"..... massive grey, green and purplish-red greywacke and conglomerate which form prominent craggy outcrops.

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LEASE S.P.L. No.20 - NORTH DUNDAS (Cont'd)2. Razorback Conglomerate cont.

The inclusions are of the sub-angular to rounded pebbles and cobbles of pale grey and pale green chert, black siltstone or slate and pale quartzite. There may be impersistant bands of buff-weathering greywacke and siltstone interfingering with conglomerate or pebbly greywacke grit". (Blisset 1962).

3. Brewery Junction

"This is a variable succession of grey, green and purple siltstone, slate or shale with frequent alternations of yellowish-brown greywacke. Purple and green greywacke grit and breccia conglomerate are common and increase in thickness in the upper part of the Formation which passes up to the Fernfields Formation". (Blisset 1962).

4. Siltstones and Conglomerates

From the above it would seem that this formation could be the upper part of the Brewery Junction of Blisset (1962). It consists of siltstones, greywacke siltstones, paraconglomerates, conglomerates and grits. Many of the grits are quartzitic verging on quartzites. Conglomerates are subordinate to siltstones.

5. Grits

Continuing eastwards along the N.E. Dundas Tramway, the hard siltstones give way to soft friable sandy grits and grits with frequent mudstone bands. According to Blisset the Fernfields Formation which overlies the Brewery Junction is "mainly rudaceous" which could suggest that these grits may be the equivalent of the Fernfields Formation. It would seem however from Blisset's description that conglomerate beds are far more numerous in the Fernfields Formation.

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LEASE S.P.L. No.20 - NORTH DUNDAS (Cont'd)5. Grits cont.

Only two conglomerate horizons were located within this division along the N.E. Dundas Tramway.

6. Montezuma Group

This is a complex group (if indeed only one group) of greywackes, siltstones, cherty conglomerate, quartzites, tuffs and lavas.

These six basic divisions are based mainly on mapping along the N.E. Dundas and only further mapping will test their validity. It can be seen that correlation above Brewery Junction with the regional succession is almost impossible at this stage. Also the simple succession 4, 5 and 6 may be incorrect, since we have evidence that east of the Fraser Creek folding is important. Blisset (1962) states "..... because of close folding and intense faulting the succession is difficult to work out east of the Great Northern Creek".

Structure

An inspection of aerial photographs revealed some distinct trends which are plotted on the attached plan (Fig. 2). Some of these lineations have been confirmed by field mapping as strike directions. The photographs indicate that folding may occur in the Godkin Ridge - Montezuma Creek area but as yet this has not been confirmed in the field. Reference to Blisset's map suggests that folding must take place if his interpretation is correct. J.N. Elliston's work (1951) in the area appears to be mainly photo-interpretation with only limited field mapping. Since the rocks which are conformable young eastwards, it seems that the Godkin Ridge is essentially synclinal or at least the western limb of a syncline and that this syncline develops into a complementary anticline eastwards. The axes of these folds run approximately N.- S.

004

LEASE S.P.L. No.20 - NORTH DUNDAS (Cont'd)Structure cont

Although the general dip is easterly small scale folding and vertical strata are common. This together with cleavage makes any estimation of true thicknesses difficult.

It seems probable that faulting may play a more important structural role in the area than our preliminary map suggests. It definitely seems to play a role in the mineralisation of the area for some of the mineralisation was located along well defined shears. No evidence has been found to support J.N. Elliston's (1951) interpretation in regard to the importance of faulting, where he envisages wholesale repetition of formations by repeated faulting.

Mineralisation

The lease has numerous small old workings, most of which ceased production early this century. The dominant minerals worked being of copper, silver and lead. The great majority of these are located east of the Fraser Creek.

The only mineralisation observed other than around the old workings was along the N.E. Dundas Tramway. A trace of Chalcopyrites in a breccia conglomerate next to the Great Northern Creek and further east a siderite Gangue about one foot wide along a fault plane immediately west of Fraser Creek.

Re-sampling of F.H. Green's prospect along the N.E. Dundas Tramway again showed promising values but the lodes are very narrow. Preliminary investigations of three of the Curtin Davis mines on the steep northern slope of the Godkin Ridge were also made. The three adits are situated along a narrow lode striking N.N.W. dipping approximately 65° E.N.E. Evidence of shearing was present. From the evidence we have it seems that there are a series of parallel lodes striking N.N.W. in the Godkin area. Since shearing has been observed in connection with these lodes there is a distinct possibility that they may be cross faults related to the folding. There is evidence that the strike lengths

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LEASE S.P.L. No.20 - NORTH DUNDAS (Cont'd)

Mineralisation cont.

of these lodes may be considerable since lodes with a similar strike are found over the eastern side of the Godkin Ridge within Higgins lease 134M 47.

The lack of mineralisation in the Hodge Slate, Razorback conglomerate and Brewery Junction, plus the nature of the rocks, suggests them to be poor host rocks, at least in this area.

The area of immediate interest is thus the Godkin Area east of the Fraser, unfortunately the most rugged, inaccessible and geologically most complex.

CONCLUSIONS

Access to the area has been achieved and mapping having progressed eastwards has only just reached the most attractive area - the Godkin area. The rocks in the west are seemingly unfavourable for mineralisation, so our immediate interest must be the Godkin area.

Recommendations for further exploration are enclosed with this report.

*J. Elders*

J. ELDERS

NORTH DUNDASProposed Exploration Programme 1967/68

|  | <u>Cost \$</u>         |
|--|------------------------|
| 1. <u>Geological Mapping</u><br>To be continued on three lines to south to complete broad coverage of area. Followed by more concentrated work on the Godkin Ridge.  | 1,700                  |
| 2. <u>Geochemical Sampling</u><br>Stream sediments to be taken during mapping stage.   | 1,000                  |
| 3. <u>Line Cutting</u><br>7000' @ \$50.00 per 1000'  | 350                    |
| 4. <u>Magnetics</u><br>a) Orientation traverse of tramway.<br>b) Survey across cut-lines.  | 1,500                  |
| 5. <u>I.P. Survey</u><br>To be carried out by contractor (30 days at \$200 per day)<br>To be conducted over the area of interest east of Fraser Creek. Due to exceptional steepness of this area three labourers will be required for carrying gear.   | 6,000                  |
| 6. <u>Drilling</u><br>If mapping, geophysics and sampling are completed at an early stage it is hoped that some drilling targets will be obtained in time to commence during the summer.<br>The programme envisaged would involve 2000' of drilling at \$10.00 per foot,<br>Access by Helicopter or Road.<br>Camping gear. | 20,000<br>3,000<br>500 |

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North Dundas

- 2 -

1967/68Cost \$7. Road Maintenance

A minimum amount of work will be necessary to clear fallen trees and regrade after winter rain.

1,000

8. Vehicle and Salaries

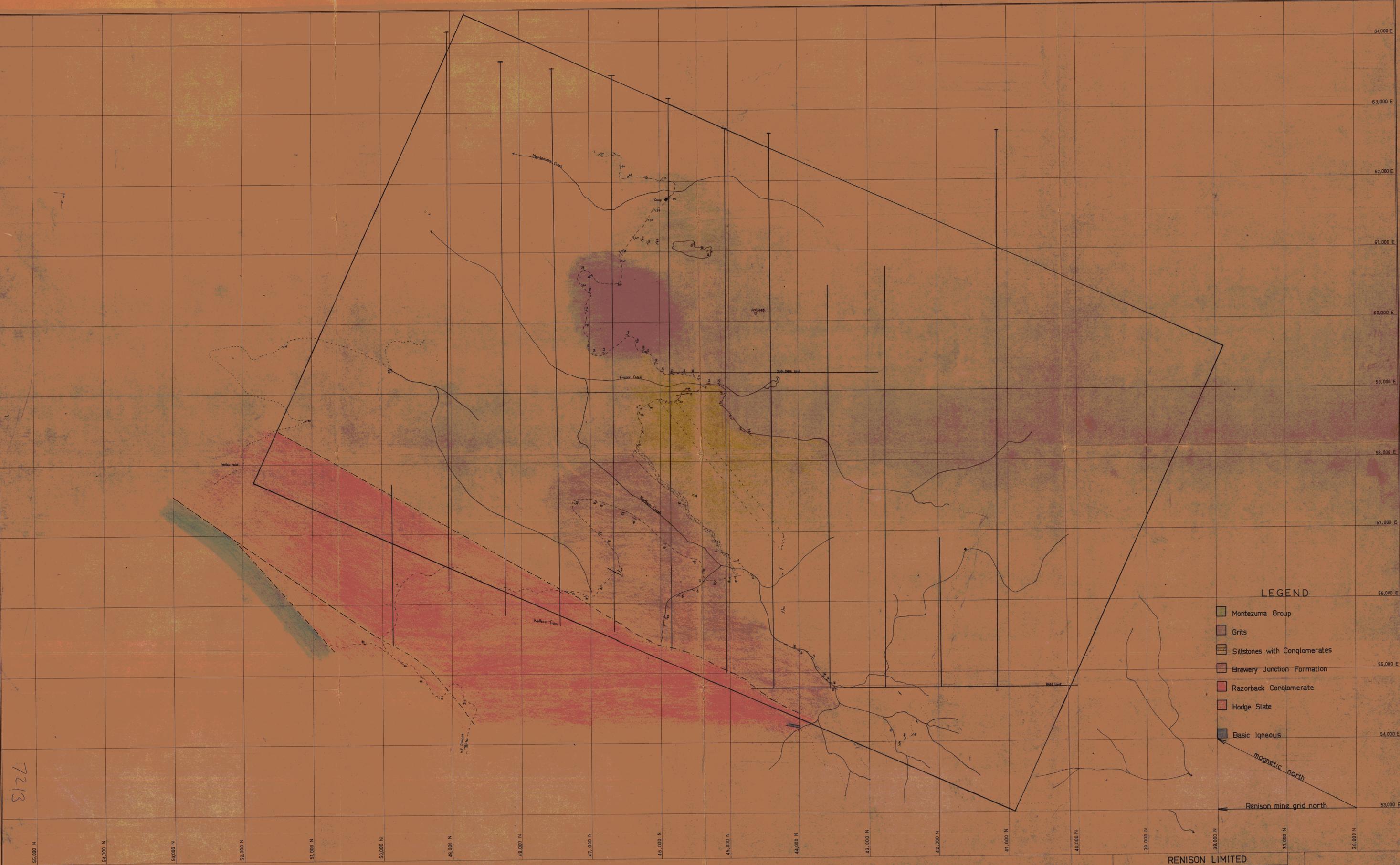
1. Supervision - 4 months

3,000

2. Vehicle @ 25 cents per mile

250

TOTAL\$39,300



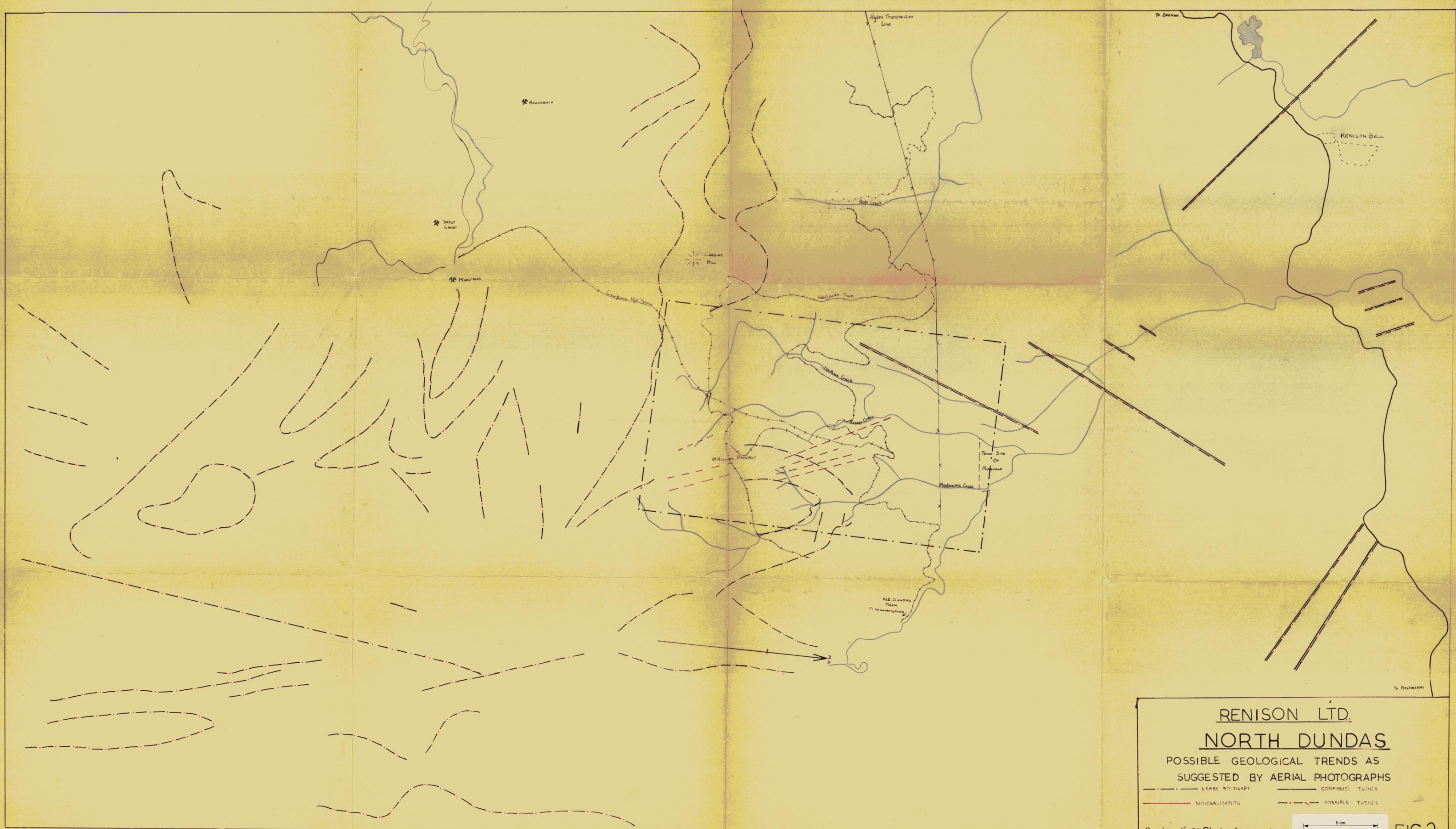
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LEGEND

- Montezuma Group
- Grits
- Siltstones with Conglomerates
- Brewery Junction Formation
- Razorback Conglomerate
- Hodge Slate
- Basic Igneous

← magnetic north  
← Renison mine grid north

|                        |              |
|------------------------|--------------|
| <b>RENISON LIMITED</b> |              |
| DATE: June 67          | NORTH DUNDAS |
| DRAWN: J.E.C.          |              |
| SCALE: 1" = 400'       |              |



**RENISON LTD.**  
**NORTH DUNDAS**  
 POSSIBLE GEOLOGICAL TRENDS AS  
 SUGGESTED BY AERIAL PHOTOGRAPHS

|                |                  |
|----------------|------------------|
| LEASE BOUNDARY | CONFIRMED TRENDS |
| MINERALIZATION | POSSIBLE TRENDS  |

Scale - 1" = 20 Chains (approx)       5 cm

**FIG. 2.**