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\* 1.

Geological and Geochemical Report on 1956 season program  
on Heather, Fran and Giselle Groups of Mineral Claims.

Property and General Location

The Heather, Fran and Giselle Groups each comprise eight mineral claims designated No. 1 to No. 8. The three groups are adjacent to each other making a single block 6 claims long and 4 claims wide. This block of claims is located in the Kamloops mining division about 2 miles north of Witches Brook and one half mile west of Guichon Creek.

General Geology

The entire block of claims is within the Guichon Batholith and near its eastern contact with the Nicola volcanics. From Memoir 249 by W. E. Cockfield of the Geological Survey the Guichon Batholith in the area is composed of granodiorite and quartz diorite with more basic phases of diorite to gabbro rocks. The batholith is considered to be of Jurassic age. The Nicola volcanics are locally andesitic and are classed as Upper Triassic age.

General Program and Procedure

A crew of one technical operator, and 2 to 3 line cutters and prospectors with a part time engineer in charge were employed for 52 work days to prospect, geologically map and chemically soil silt test the ground. A 1500 foot

grid was first cut out and tape and compass surveyed by following the claim lines. These lines were then mapped geologically noting any mineralization, rock outcrops and type of overburden. The creeks and gulleys were then surveyed and sketch mapped showing the geology and overburden. From this work and general reconnaissance prospecting old workings and pits were located. The geochemical survey was done with the Rio Tinto soil silt method and field testing kits. The 1500 foot grid lines were first tested at 300 ft intervals followed by systematic testing of creeks and gulleys. From prospecting, geological mapping and the broad soil testing survey six areas were chosen for more detailed work. This work comprised soil testing on 100 ft spaced lines at 50 foot intervals, pitting and close prospecting. General mapping was on a scale of 500 feet to the inch with detailed maps 100 feet to the inch.

### Results

A. Geological mapping of the 24 claim group showed glacial drift, probably too deep for soil test results on the single row of claims on the north, east and south boundaries. The remaining 12 claims in the centre of the block have fairly good rock outcrops and are well cut up by deep, abruptly turning gulleys. A dark fairly fine grained dioritic rock was found to cut across the eastern side of the claim block in a north westerly direction and in contact with the regional granodiorite on the Giselle No. 4, Fran No. 3 and No. 4

mineral claims. The eastern contact of this diorite was not seen. The remainder of the claims to the west are underlain by granodiorite.

An area on the western contact of the diorite on the Fran No. 4 claim was found by reconnaissance soil testing to be mineralized and was detailed with eight pits and nine detail soil test lines. An area approximately 1000 feet long and 500 feet wide was outlined by soil sampling. The pitting showed some N50°E fracturing filled with quartz calcite stringers carrying a little chalcopyrite. One sample over 10 ft in the best pit gave a copper assay of .05%.

In the granodiorite 3 mineralized areas, on Fran No. 4, 5 and 6 mineral claims, were located by prospecting and were found to be small stringers of mineralization in joint planes or tight fractures. The occurrences were dug out by pits and detailed by soil testing. On Fran No. 8 claim one old caved adit and several pits were found <sup>on</sup> a small andesite inclusion in the granodiorite. A little copper mineralization seemed to be localized in the inclusion where N50°E fracturing in the granodiorite met the andesite. The old pits on the Giselle No. 7 and 8 claims were found to be on quartz stringers up to 2 feet wide in a N30°E trending highly altered zone about 100 feet wide in the granodiorites. The alteration is probably silicification. Chalcopyrite is apparently confined to the quartz with pyrite in both the

in both the quartz and altered granodiorite. Three new pits were dug and the area soil tested in detail. Assays from the pits were very low. (see map)

B. Soil testing of the 1500 foot grid and creeks was done concurrently with the general geological mapping. This work involved the taking of samples at 360 stations. Following this, reconnaissance lines (not shown on map) across light overburden areas were paced and sampled. This grid and reconnaissance soil testing work resulted in the discovering of the mineralized diorite contact zone on Fran No. 4 claim and two of the small mineralized fracture zones on Fran No. 5 and No. 6 claims. Detailed work on the six areas involved the cutting and surveying of 17000 feet of line and the taking of soil tests at 350 stations.

In general the combined geological, geochemical and surface pitting showed much scattered copper mineralization on the 12 claims in the centre of the block which were amenable to these prospecting techniques. The detailed work in 6 areas indicated the mineralization was too weak to be economical.

L. B. Gatenby  
L. B. Gatenby, P.Eng.

Expenditures

Work done between May 25th and July 25/56

HEATHER GROUPLabour

1 - technical operator	
14 work days @ \$300.00 per month (salary)	\$ 168.00
2 - line cutters and prospectors	
14 work days @ \$10 per day, plus board	280.00
Engineer in charge (P.Eng)	
10 work days @ \$20 per day, plus board	200.00

Food

Average cost of \$2.50 per day per man	
52 man days @ \$2.50 per day	130.00

Soil Samples

Average two tests to each station	
120 grid stations plus 90 detail stations	
or 210 stations	
Chemical value - \$0.50 per test	
Cost 210 x 2 x \$0.50	<u>210.00</u>

Total Expenditures	\$ 988.00
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FRAN GROUPLabour

1 - technical operator	
14 work days @ \$300 per month (salary)	168.00
3 - line cutters and prospectors	
14 work days @ \$10.00 per day plus board	420.00
Engineer in charge (P.Eng)	
10 days @ \$20.00 per day plus board	200.00

Food

Average cost of \$2.50 per day per man  
66 man days @ \$2.50 per day \$ 165.00

Soil Samples

120 grid stations plus 160 detail stations  
cost 280 x 2 x \$0.50 280.00

Total Expenditures \$ 1,233.00

GISELLE GROUPLabour

1 - technical operator  
14 work days @ \$300 per month (salary) \$ 168.00

2 - line cutters and prospectors  
14 work days @ \$10 per day plus board 280.00

Engineer in charge  
10 work days @ \$20 per day plus board 200.00

Food

Average cost of \$2.50 per day per man  
52 man days @ \$2.50 per day 130.00

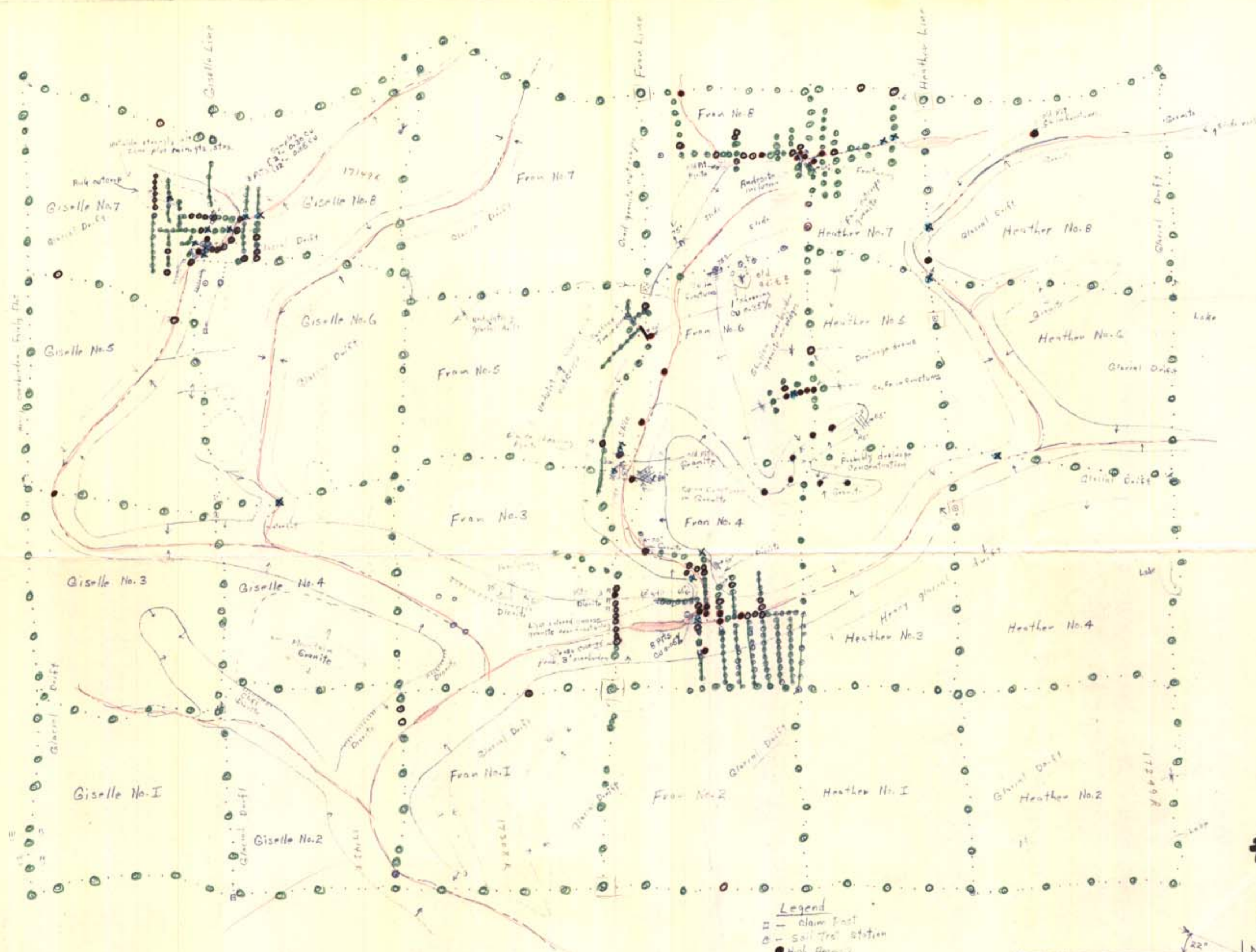
Soil Samples

120 grid stations plus 100 detail stations  
cost 220 x 2 x \$0.50 220.00

Total Expenditures \$ 998.00

*L. B. Gentry*  
L. B. Gentry, P. Eng

December 12, 1956



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. **135** MAP **#1**

- Legend**
- — claim East
  - — soil test station
  - — High Anomaly
  - ⊗ — Medium Anomaly
  - — Low Anomaly
  - ⊙ — Bare ground
  - — Survey stations (compass and tips)
  - — Rock outcrop
  - — cliff
  - — stream and gulch

#135<sup>30F3</sup>  
**MAP 1**

DEERHORN MINES Ltd  
 Heather, Fran and Giselle Groups  
 Twenty four Claims  
 Guichon Batholith  
 GEOLOGICAL and GEOCHEMICAL  
 MAP  
 December 1956 Scale: 1"=500'  
 K. Leebing P. Eng.