MINNOVA

MEMORANDUM

DATE:

December 13, 1990

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Ian Pirie

COPIES À COPIES TO:

DE FROM:

C.J. Clayton

SWET SUBJECT: TIP TOP PROPERTY EXAMINATION

Bonaparte Lake Area
Clinton Mining Division
Latitude 510 10' Longitude 1200 45'
NTS 92P/2
Owner: Michael Dickens
Record #'s: 2077-2080, 2637-2644

PROPERTY LOCATION, ACCESS, AND PHYSIOGRAPHY

The Tip Top claims are located approximately 55 km northwester of Kamloops in the Bonaparte Lake area of southwestern B.C. Three access routes exist. The first is via the paved Loon Lake Road from the Caribou Highway followed by roughly 40 km of well maintained logging roads. The second access route is via logging roads from the North Thompson Highway via Bonaparte Lake and 3300 road. The last approach is by way of the Deadman River road from the Trans Canada Highway. A 4 km four wheel drive section connects this route to the Loon Lake and North Thompson routes.

Topography of the claims is typified by flat to gently rolling hills around 1200 metres in elevation. Vegetation consists of open lodgepole pine and Douglas fir on hilly areas, with spruce occupying lower areas. Logging is active in the area. Climate is moderate ranging in temperature from -20° C to +35° C. Rainfall is low to moderate and snow can be expected from mid-October to May.

SUMMARY OF CLAIM STATUS

The claims are wholly owned by Michael Dickens of Savona B.C. The following table summarises pertinent claim information.

CLAIM	RECORD #	UNITS	DATE RECORDED
IP#1	2077	16	20 OCT 1986
IP#2	2078	18	20 OCT 1986
[P#3	2079	16	20 OCT 1986
IP#4	2080	12	20 OCT 1986
IP#5	2643	12	18 JUL 1988
IP#6	2644	8	18 JUL 1988
OP#1	2637	20	18 JUL 1988
OP#2	2638	15	18 JUL 1988
OP#3	2639	20	18 JUL 1988
OP#4	2640	12	18 JUL 1988
OP#5	2641	20	18 JUL 1988
OP#6	2642	_12	18 JUL 1988
		TOTAL 181 U	NITS

The claims are contiguous four post claims. It should be noted a 150×1700 metre fraction occurs between Tuleric M.C. and TOP#3 and #4 M.C.'s. The Tuleric M.C. is owned by M. Dickens and is currently under option to another company. The Precisely #7 (1824) and #8 (1825) claims to the southwest are owned by Inter Pacific and/or QPX Minerals Inc. The TOP#1 claim is bordered to the west by the Casa #3 and #4 claims (ownership unknown at this time).

PROPERTY HISTORY

Prospecting of the area was first carried out in the 1930's, around which time the Vidette Mine, 7 km west of the TIP claims, was discovered. This mine produced an estimated 29,869 oz Au and 46,573 oz Ag from 53,900 tons of ore during its lifetime (1988 Assessment report, Bruaset for Northgate Exploration Ltd.). Ore zones consisted of narrow quartz veins containing pyrite, chalcopyrite and bismuth tellurides. To the south of the TIP#4 claim the Telluric mine is indicated by a shaft. Production from this mine is not well documented, although it did provide small amounts of ore to Vidette Lake Gold Mines Ltd.

In 1986 the ground was staked by M. Dickens after he noted large blocks of vuggy silica healed, crackle brecciated granitic rocks torn up from shallow bedrock during road construction by Ainsworth Logging. In 1988 Northgate Exploration Ltd. entered into an option agreement with M. Dickens for further exploration on the property. The 1988 and 1989 programs consisted of geological mapping, geochemical sampling (both soil and biogeochemical methods), road surveying, line cutting and trenching. The 1989 program was specifically focused on generating a drill target near the showing on TIP#1, and determining the overall distribution of gold in soils in the previously unsampled portions of the TIPTOP group. A shift in exploration strategy by Northgate terminated the program before both these objectives could be met.

REGIONAL GEOLOGY

The property is located in the southwestern Intermontane Belt and is underlain by Upper Triassic andesitic and basaltic Nicola Group volcanics. These have undergone regional lower greenschist facies metamorphism.

PROPERTY GEOLOGY

Locally, on the TIP claims, rocks are of magmatic origin representing possibly four magmatic events beginning with late Upper Triassic Nicola andesites and basalts. The showing area consists of small exposures of brecciated to massive rhyolite and brecciated granite possibly the Eocene and Oligocene Skull Hill formation of the Kamloops Group, which crop out in large areas to One of the trenches uncovered a well the west and northeast. developed siligified pebble dyke exposed for 5 metres and approximately 5 metres in width. This may be related to a larger breccia pipe at depth. The host rock of this dyke is silicified and brecciated granite showing sericitic alteration in areas and open space filling drusy quartz. Some open space fillings show well developed quartz crystals. Also found in the showing area is a silicified rhyolite plug, locally crackle brecciated, in contact with granitic rocks. This plug contains a high density of stockwork quartz veining.

A curious regional concentric radial structure roughly 8 km in diameter is present in the area with the TIPTOP claims situated along its eastern flank. This feature is apparent on the topographic map of the area and shows up well on an airborne magnetometer survey of the area. The Telluric mine is located along this eastern flank, and the main brecciated showing on the TIP#4 claim has a trend paralleling radial magnetic features. This feature has been interpreted by Northgate geologists as being a resurgent caldera and this has been the model for their exploration program. Northgate notes examples of caldera type deposits such as the Cripple Creek Camp, Colorado.

MINERALIZATION AND ALTERATION

The showing is roughly 70 metres wide by 150 metres in length where exposed by trenching. It consists of silicified brecciated granite, a pebble dyke, a rhyolitic dyke, and crackle brecciated, spherulitic, locally banded, stockwork quartz veined rhyolite plug. Alteration in the area consists of intense silicification, with local sericitization and K-spar alteration. The highest gold value obtained from work completed in 1989 was 385 ppb Au over 1.2 metres in Trench #1. This was obtained from the silicified pebble dyke. Samples of other rock types in the showing area are not anomalous in Au or other pathfinder elements.

Samples taken during the 1990 field examination were aimed at reproducing the Au value obtained from the pebble dyke, as well as assessing the Au potential of the adjacent rock types. A value of 197 ppb Au was obtained from the pebble dyke, but immediately adjacent silicified and brecciated intrusives were devoid of precious metals or pathfinder elements. Previous sampling of the intrusive has returned values of 15 ppb and 18 ppb Au. Along strike of this zone a sample of stockwork quartz veined, banded rhyolite was taken and, again, was found not to contain any significant mineralization.

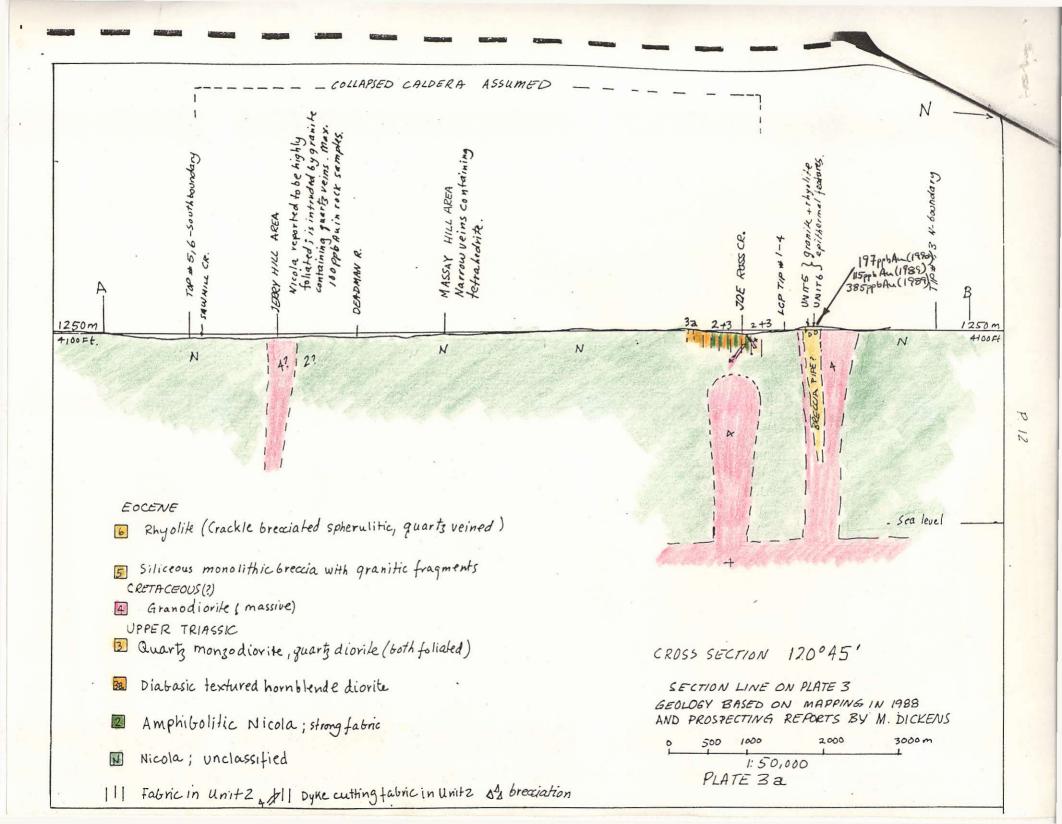
Previous samples of granodiorite and quartz monzonite sent for petrographic study reportedly showed little or no clay or sericite alteration, although brecciation, K-spar and quartz flooding, and quartz stockwork veining were noted and are visible at outcrop scale.

CONCLUSIONS AND RECOMMENDATIONS

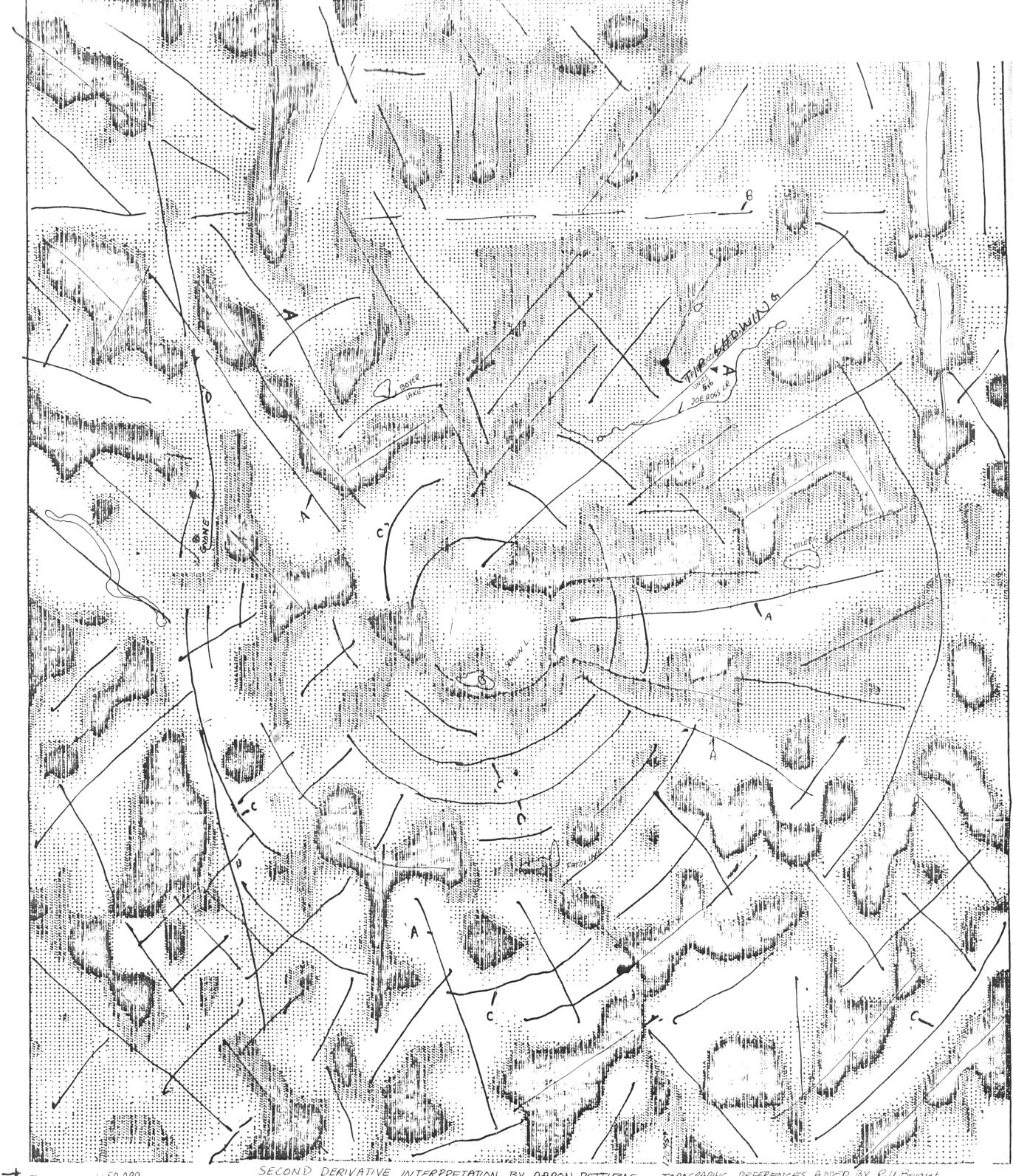
Although the Tip/Top property displays good epithermal features in the area of the showing, it is not recommended for acquisition for the following reasons:

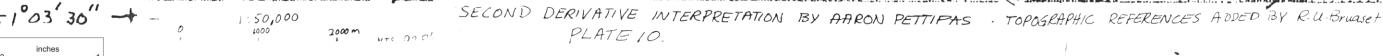
- 1. The property is still at a preliminary stage of exploration. Acquisition would require generation of more than one significant target area, as is currently the situation with the TIP showing. Although considerable work has been done previously on the property a full program of grid mapping and sampling, geophysics, biogeochemistry, and trenching would be required to generate other targets. Exploration would focus on extending the strike extent of the Tip showing, and defining other zones of silicification, potassic alteration and brecciation. Airborne geophysics would have to be considered as well due to the extremely poor outcrop exposure. Soil geochemistry in this area is ineffective due to a poorly developed soil profile.
- 2. Significant Au results obtained from the TIP showing appear to be confined to the pebble dyke. The highest value obtained from previous exploration by Northgate during 1989 was 385 ppb Au. The highest value obtained by myself from this unit was 197 ppb Au over an area roughly 1.5 metres by 3.0 metres.
- 3. Despite intense silicification, potassic alteration and brecciation of wall rock adjacent to the pebble dyke, precious metal values returned from samples taken by Northgate, and by myself, were not considered significant, nor were Au pathfinder element concentrations.

4. The lack of significant mineralization in wall rock samples adjacent to the pebble dyke lessens the possibility of a large bulk tonnage deposit in this area.



TIP TOP CLAIMS 1990 PROPERTY EXAM. TIP SHOWING. x 100 m. slicified, stockwork fractured and quarte veined rhyolite plug 3ppb Au rhyolik dyke silverfied brecciated Intrusire 25ppb Au silvafied breceized 197 pp Au (1990) Intrusive 18ppb Au 385AphAu (1989)





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2 centimetres

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