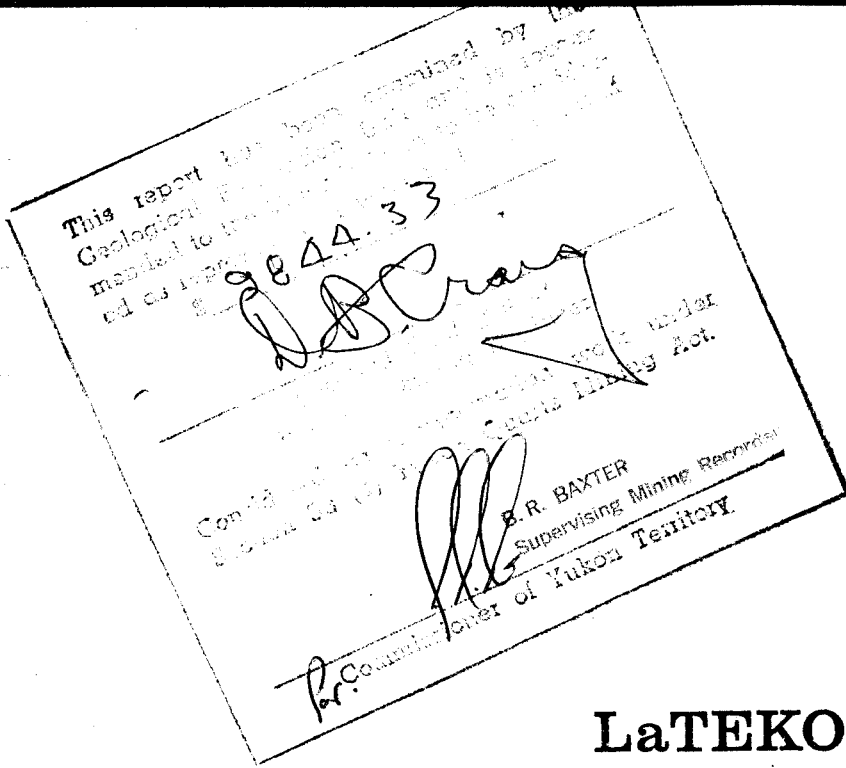


July, 1977

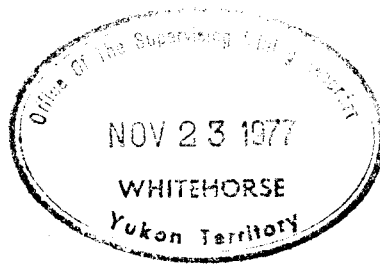


LaTEKO RESOURCES LTD.

NEIL & FOX CLAIMS

WATSON LAKE M.D., Y.T.

Lat. 61°17' N Long. 127°03' W



Geological Report



by V. CUKOR, P. ENG. • NVC ENGINEERING LTD. • VANCOUVER, B.C.

FIG. 1

Location Map



Cover page -

Photo 1 NEIL - FOX Claims - Camp Site

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LaTEKO RESOURCES LTD.

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WATSON LAKE M.D., Y.T.

1. INTRODUCTION

Between July 2 and 13, 1977, a three man crew spent twelve field days on the NEIL-FOX property in the Twin Lakes area, Y.T., on behalf of the LaTeko Resources Ltd., of Vancouver, B.C. The field work performed included prospecting, geological mapping on 1:10,000 base map, trenching on two showings and sampling. A number of claim posts were surveyed and six additional claims were located.

This report summarizes the highlights of reports by other authors and describes in detail the writer's findings during the program. All sampling was done by the author and the assays were conducted by General Testing Laboratories Ltd. of Vancouver, B.C.

The history of the property has been described in detail in the report of P.H. Sevensma, P. Eng of January 1977 and is not repeated at this time.

2. REVIEW

2.1 SUMMARY

The NEIL-FOX property is underlain by a sequence of sedimentary deposits consisting of buff dolomite in the lower part and various clastic sediments in the upper part of the structure. The clastics form the syncline with the axis roughly following the top of the ridge. Small sills of fine grained gabbroidic intrusive invaded the clastic unit. Fairly high magnetic anomaly which was outlined by the airborne survey in 1968, overlies the area with detected intrusives.

Two kinds of mineral showings are found on the property: copper and silver-lead-zinc showings. All mineralization is located in the dolomite unit along the zones of intense fracturing, brecciation and silicification, more or less following the contact with clastics and over the total length of over 2.5 miles. Some extremely high grade assays from selective samples were reported for both copper and silver-lead-zinc. The author's chip-channel sample across the 5.4 metres of the main showing returned 2.1 oz/t silver and 4.41% copper with trace of gold. Two chip samples across silver-lead veins assayed 5.04oz/ton silver 7.87% lead, .21% zinc and 7.10oz/ton silver, 8.69% lead .12% zinc across .65 and .95 metres respectively.

2.1 SUMMARY (Cont'd)

Trenching in the area of high grade float (see fig.3 showing No.8) failed to reach the bedrock, although more brecciated silicified dolomite with high grade malachite, chalcopyrite and bornite was encountered, material that was obviously almost in place.

Zones of coarse talus with a good grade chalcopyrite, bornite and malachite over 100 metres wide was found (see fig.3 showing No.10) but no source for the float was discovered.

2.2 CONCLUSIONS

Dolomite underlain fine grain clastic makes a potentially good environment to entrap sulfide mineralization in the proximity of the intrusive bodies. An extremely high grade copper and/or argentiferous galena float and numerous showings extended along the carbonate clastic contact over the length of over 2 miles, indicate the presence of significant mineralization source. The grade of mineralization, together with the number and frequency of the showings along the significant length, is in discord with the small size of the intrusive bodies found on the property during the mapping. Thus, the conclusion, that a magnetic anomaly outlined by the air-

2.2 CONCLUSIONS (Cont'd)

borne survey is originated by a deeper sitting, fairly large intrusive body, seems very logical. It is also highly possible that a sulfide body of significant grade and size was entrapped in dolomite under the clastic sediment and showings found on the surface represent a leakage along the open fractures from such main source.

In the author's opinion, the property possesses an excellent potential and further exploration is fully warranted.

2.3 RECOMMENDATIONS

The NEIL-FOX property is considered by the author as an excellent exploration target and continuation of the exploration program is highly recommended. In the showing area, further work should be geared toward finding mineralized bodies of economic size and grade. The next stage of exploration should consist of geophysical survey, with ground magnetic and electromagnetic methods probably being the best suited for this kind of mineralization. Several test lines should be run first in the areas with known mineralization and if positive response is encountered the survey should be carried out over the entire showing area. At the same time, thorough prospecting should be carried out on the east facing slope, for the possible mineralization appearances along the eastern clastic-carbonate contact. In the areas with grassy

2.3 RECOMMENDATIONS (Cont'd)

slopes, void of outcrops and/or coarse talus, geochemical soil reconnaissance is recommended. In case of any positive results, additional staking on the Northwest Territories side should cover the entire contact area.

If enough encouragement is obtained in this stage of exploration, a minimum of 300 metres initial diamond drilling from sites selected after completion of the geophysical survey, will be performed employing a smaller size drill. If this initial program indicates a greater sulfide accumulation, a large scale drilling program will require construction of a permanent camp and organization of camp facilities to eliminate the need of expensive helicopter support.

2.4 COST ESTIMATEStage I

Prospecting	15 days	50.00 day	\$ 750.00
Soil Sampling			1,000.00
Magnetic & Electromagnetic surveys			4,000.00
Camp Rental, Supplies, Food			1,000.00
Mobilization and Demobilization			2,000.00
			<u>8,750.00</u>
Contingencies			<u>1,250.00</u>
TOTAL STAGE I			<u><u>\$10,000.00</u></u>

2.4 COST ESTIMATE (Cont'd)Stage II

Drilling 300 metres	60.00 /m	18,000.00
Assays		1,500.00
Geologist		4,000.00
Radio Telephone		500.00
Camp, Food, Supplies		2,000.00
Mobilization, demobilization, drill moves, helicopter and fixed wing		4,500.00
Drill sites preparation - two man crew for one-half month		1,500.00
		<u>30,000.00</u>
Engineering and contingencies		<u>6,000.00</u>
TOTAL STAGE II		<u><u>\$36,000.00</u></u>

SUMMARY

Stage I	\$10,000.00
Stage II	<u>36,000.00</u>
TOTAL PROGRAM	<u><u>\$46,000.00</u></u>

3. PROPERTY

3.1 CLAIMS

The NEIL-FOX group consists of 24 full size mineral claims, with record numbers and anniversary dates as follows:

<u>Claims</u>	<u>Record No.</u>	<u>Expiry Date</u>
NEIL 1 - 8 Inc.	YA 34 to YA 41	June 25, 1978
FOX 1 - 16 Inc.	YA 11824 to YA 11889	November 12, 1977

The property is fully owned by LaTEKO RESOURCES LTD. of Vancouver, B.C. The author's survey of the claim posts revealed that FOX 1 - 8 claim posts were spaced too far apart, leaving wide gaps between the claims. The author located six additional claims to fill in these gaps.

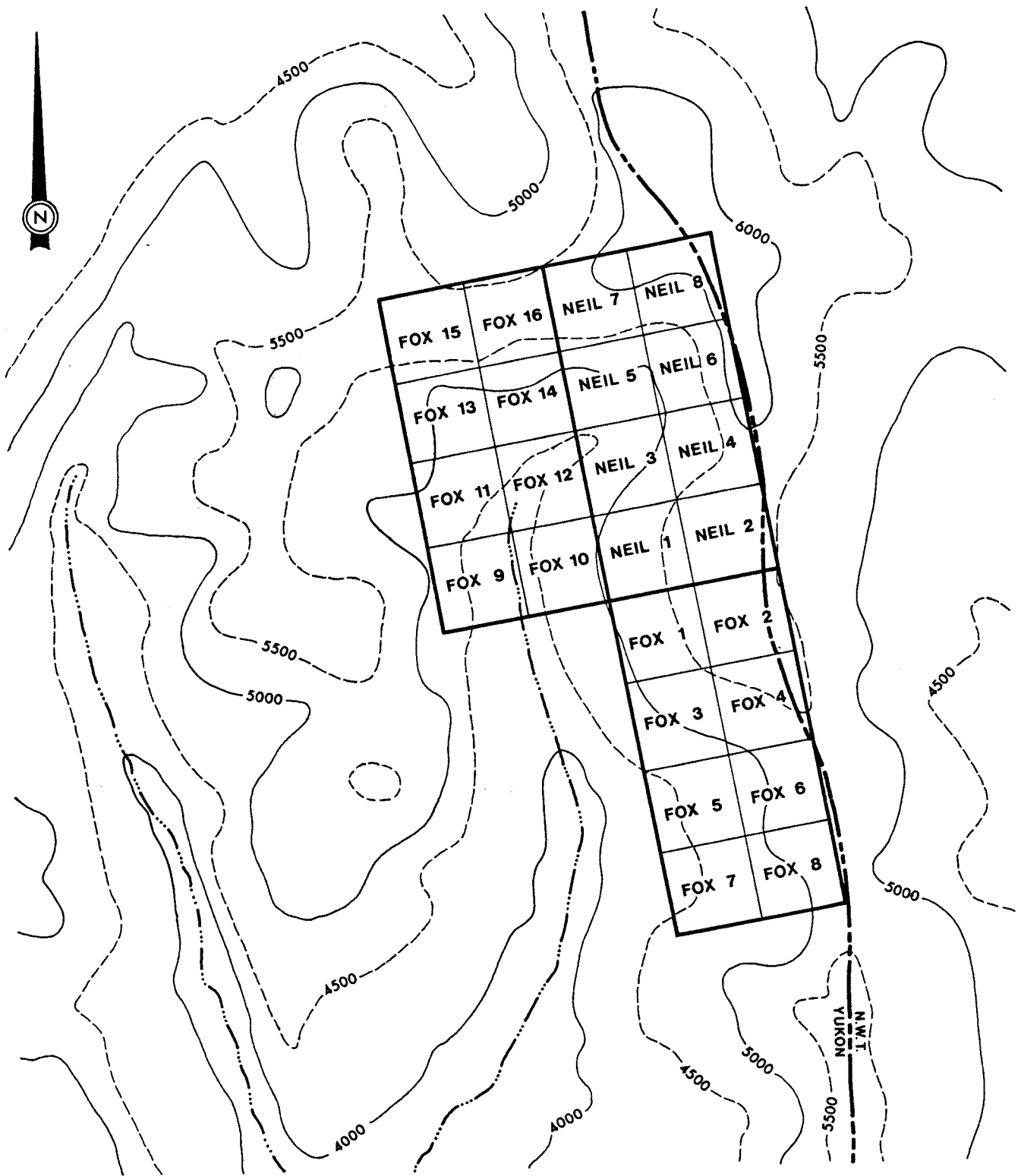
3.2 LOCATION

The property is located approximately 100 air miles N.N.E. from Watson Lake, Y.T. and only 3 miles north of Twin Lakes. It lies along the Y.T. and N.W.T. border on the Y.T. side. It is on the NTS 95-E-6 map in the Watson Lake M.D. and at approximately north latitude $61^{\circ}17'$ and west longitude $127^{\circ}03'$

3.3 ACCESS

Presently, the NEIL-FOX property is accessible by aircraft only. A float equipped fixed wing aircraft can land on the northern lake of Twin Lakes from where the supplies

Claim Map



SCALE 1 : 30,000 approx.

3.3 ACCESS (Cont'd)

can be ferried by helicopter to the property. The nearest suppliers base is Watson Lake, 100 airmiles S.W. of the claims.

3.4 TOPOGRAPHY

The claims cover the western slope of the north-south mountain ridge - along the Y.T. and N.W.T. border. The slopes are changing from gentle to steep, covered by coarse talus, mountain tops are rounded with fairly wide ridges. The elevation of the property is from 1,200 to 1750 metres above sea level.

3.5 CLIMATE

A variety of continental climate characterizes the area with long and cold winters and short, wet summers. Although the area generally does not receive heavy snowfalls, on the higher elevations and north or west facing slopes, some snow could be found to the end of July. As all mineral showings are at an elevation of approximately 1500 metres the exploration program could be carried out from the middle of June to probably end of October. There is enough water on the property to support the exploration and camp necessities although some locations will require vertical lift of up to 500 metres.

3.6 VEGETATION

The tree line is at an elevation of approximately 1300 metres with spruce and fir being the main species. On the higher elevations clumps of shrubs, consisting of willows, juniper and alpine fir alternate with alpine meadow covered with a thick mat of heathers, scrub birch, arctic willow and various miscellaneous species of bear berries.

Plentiful good timber for exploration purposes and camp operations can be found on the lower elevations of the property.

4. GEOLOGY

4.1 GENERAL GEOLOGY

The general geology of the area is shown on the 4 mile GSC map, Flat River, 35-1964 and description of geological units are found in the paper 64-52 by H. Gabrielse, J.A. Roddick and S.L. Blussom.

According to the map, the area is underlain by a sequence of lateproterozoic and lower paleozoic sedimentary units, covered in the depression with thick unconsolidated glacial and alluvial deposits. The closest intrusive shown on the map is granitic batholith, approximately two miles north of the claims.

In the vicinity of the property, structures trend generally north south with both easterly and westerly dips. Some folding seems evident from the map, but no major faults are apparent.

4.2 LOCAL GEOLOGY

The author performed detailed geological mapping over the claim area on the topographical base map scale 1:10,000 with 20 metre contour lines

Two clearly distinctive units were recognized on the property: carbonates and clastic sediments, of the lower cambrian age or older (see fig.3)

The carbonate unit consists of buff to orange coloured dolomite, massive to thick bedded. It occupies

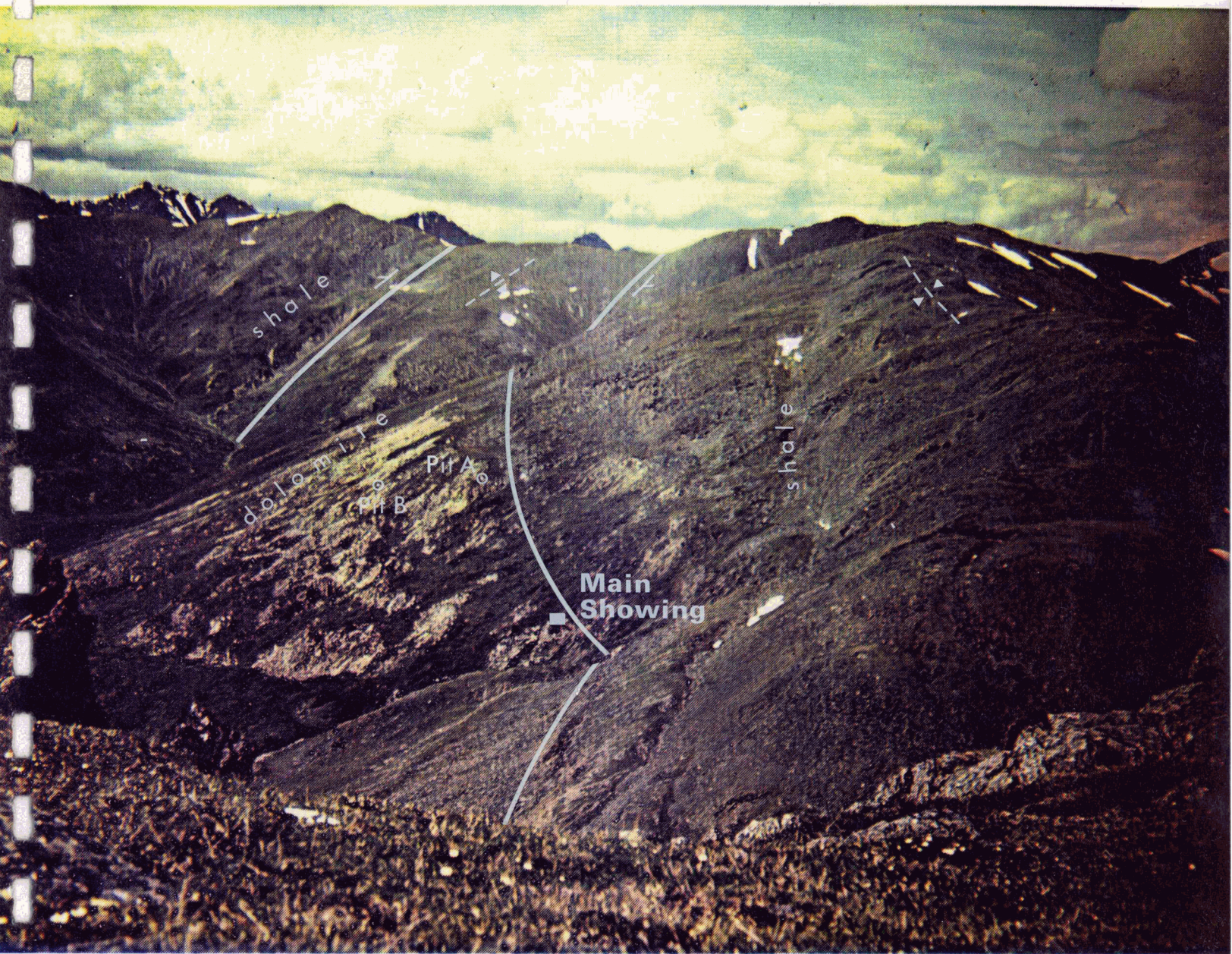


Photo 2 Panoramic View of NEIL Claims

4.2 LOCAL GEOLOGY

lower parts of the west facing slope and valley bottom, with the exposed thickness of more than 300 metres. Toward the contact with clastics, dolomite becomes sandy and thin bedded to schistose.

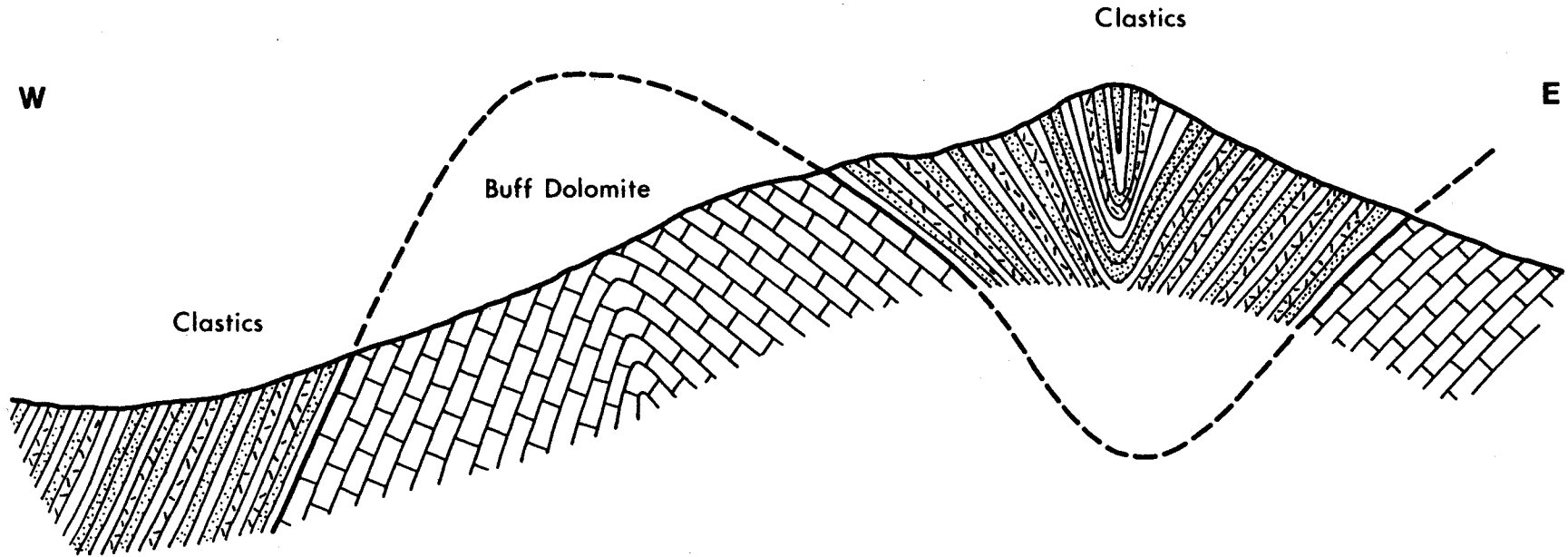
The clastic series consists mostly of fine grained to medium grained grey sediments and it clearly overlies dolomite. Toward the contact with dolomite, the unit comprises thin bedded, brown argillite, interbedded with some odd beds of buff silty dolomite. Farther from the contact prevail grey, gritty quartzite alternated with black slate and locally some fine grained sandstone. Several beds of grey limestone were also identified.

At the eastern limit of the map, yellow-grey thick bedded limestone appears, which is probably equivalent to the buff dolomite unit.

Only small sill-like bodies of medium grained gabbroic intrusive were found. The magnetic anomaly, outlined by an airborne magnetic survey in 1968 might indicate larger magnetic intrusive bodies at depth.

The bedding attitudes were undoubtedly recognized, and all units clearly strike north south with both easterly and westerly dips. Fig.4 comprises the author's reconstruction of the structural elements on the property. The buff dolomite

Cross - section A - A₁
(Looking North)



Horizontal scale 1 : 10,000
Vertical scale 1 : 10,000

4.2 LOCAL GEOLOGY (Cont'd)

unit is undoubtedly the oldest member of the series and forms the core of the anticline. It gradationally changes into clastics which are arranged in syncline at the top of the ridge. Besides these major structural elements much more isoclinal folding and drag folding was observed. Only one cross fault was detected with horizontal displacement of about 100 metres.

The question still remains what is the stratigraphic position of the limestones on the easternmost limit of the structure (fig.4) If the reconstruction shown on the cross-section is correct, and limestones are the equivalent of the carbonate unit in the base of the clastics, then the area in the vicinity of the eastern contact with clastics should also be searched for possible mineralization. There is also the possibility that these limestones are indeed younger than the clastics as shown on the G.S.C. map, in which case their contact with the latest is probably the fault.

4.3 MINERAL SHOWINGS

Two different kinds of mineral showings were located and described by previous authors on the NEIL-FOX claims (see report by P.H. Sevensma, P. Eng. January 24, 1977). These were copper showings concentrated mostly in the central

4.3 MINERAL SHOWINGS (Cont'd)

and northern part of the property, and silver-lead-zinc showings in its southern part. All mineralization was reported in the buff dolomite unit, along the contact with overlying argillites, supposedly following the same horizon and controlled by the bedding structure. The significance was given to the fact that the main showing appears next to the small intrusive plug, and that high magnetic airborne anomaly was outlined in that general area. The presence of that anomaly was explained by the possible larger intrusive magnetic body, or body of massive sulfides at depth.

During detailed mapping, the author gathered evidence which only partially supports those earlier conclusions. Although all mineralization was found to be developed in the buff dolomite, there was no real evidence encountered that it follows any certain horizon in this unit. Mineral showings, indeed, seem to be mostly concentrated in the proximity of the contact, the fact that could be easily explained by the almost total absence of dolomite outcrops down slope from the contact. Furthermore, there was only one showing found where mineralization is clearly controlled by the bedding. On the contrary, as a rule, mineralization is normally connected with the fracture systems, vertical or steeply dipping, with trends close to perpendicular to the strike of bedded structures.

4.3 MINERAL SHOWINGS (Cont'd)

This seems to be the common characteristic of all mineral showings, copper as well as silver-lead-zinc. It is also true, that both types of mineralization are associated with intense brecciation in dolomite and strong silicification. The silica appears as a cement in dolomite breccia, but also as quartz veins and blobs sometimes several metres wide. Locally, fully developed quartz crystals are found on the walls of opened fractures. Pyrite follows most of the showings, developed usually as large isolated crystals. Among the others, limonite and hematite are also commonly found in the showing areas as well as some minor rhodochrosite. Some extremely high grade assays were reported in the past, running as high as 35.8% copper and 71.9% lead. It is obvious that such assays were done on selective samples and that any proper sampling would produce considerably lower results.

All copper occurrences, in place and float, as found by the author are shown on the geological map fig.3 and are numbered from 1 - 10 inclusive. Primary copper minerals are chalcopyrite and bornite and seldom minor chalcocite. Malachite, cuprite and minor azurite caused secondary enrichment in the parts of the showings and a number of the highest grade samples assayed in the past were probably selected from such material. After very close

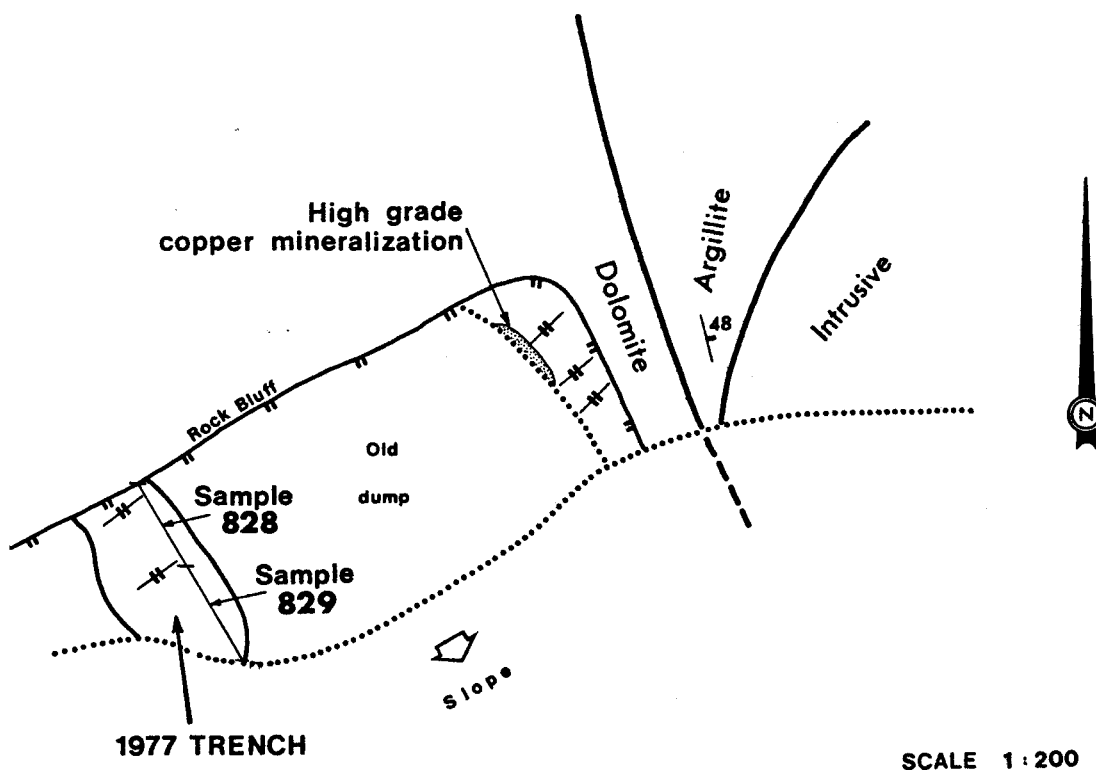
4.3 MINERAL SHOWINGS (Cont'd)

examination, veinlets of galena were also found in most of the copper showings

Silver-lead-zinc showings were numbered on the map from 11 - 14. They consist mainly of argentiferous galena in brecciated, silicified dolomite. Alteration of galena into cerusite was frequently noted, and in places only remnants of galena were found. Only minor amounts of hydr-zincite were detected on examined showings, but relatively high zinc values on some of the reported samples show, that some sphalerite or smithsonite must also be present. No silver minerals were recognized. Veinlets with copper minerals were found on all showings, and some fair grade copper float was found mixed with lead.

The main showing (see fig.3 showing No. 1 and also fig.5 and photographs 2 and 3) was described in detail in the P.H. Sevensma report. Most of the old trench is presently caved in and loose blocks of fractured dolomite on the bluff above the mineralization would make the attempt to clear the showing too dangerous. To enable the proper assessment and sampling, a new trench was excavated across the mineral zone about 8 metres southwest of the original showing. Chalcopryrite, bornite and very minor pyrite and galena appears in the brecciated and silicified dolomite. Mineralization

Schematic Plan of Main Showing



Sample No.	Width metres	Ag oz/t	Cu %	Au oz/t
828	2.6	0.52	1.82	0.004
829	2.8	3.62	6.81	0.004
Average	5.4	2.13	4.41	0.004

4.3 MINERAL SHOWINGS (Cont'd)

clearly occupies a vertical well developed fracture system trending N50⁰E. The system weakens out in the dolomite toward the argillite contact and was not detected at all in the clastics. Although some very high grade samples could be selected from this showing, especially from some of the secondary enrichment, the chip channel sample across 5.4 metres taken by the author (see fig.5) which averaged 2.13 oz/ton + silver and 4.41% copper fell well in the line with his visual estimate made on the property. The sample was taken fairly conservatively avoiding the blobs of extremely high grade.

This showing, with its good width of 5.4 metres and fairly high grade mineralization, and also its proximity to the small intrusive plug, makes in itself an excellent exploration target which warrants further follow-up work.

Showings Nos. 2 and 3 were described by P.H. Sevensma, P. Eng as pit B and A respectively. The widths of showings are of the order of about 2 metres and in Pit A area, exposed length is about 15 metres. The grade of mineralization, by the author's visual estimate do not exceed 1% copper. The significance of this showing lies in the fact that between the main showing and Pit A over the 200 metres distance, a number of small showings and also fragments

4.3 MINERAL SHOWINGS

of well mineralized dolomite float could be encountered

Showing No. 4 is small and insignificant occurrence of copper in the quartz veinlets in brecciated dolomite. Southward from this showing some scattered copper float is found, for a distance of about 100 metres with a heavy concentration of large blocks of well mineralized dolomite in the area marked as showing No. 10. No source for this float was located yet.

Showings No. 5, 6 and 7 are small and low grade. The significance of No. 5 showing is that only in this area silicification and copper mineralization is clearly spread out along the bedding planes.

Showing No. 8 is again a fair concentration of good grade malachite float. The old trench failed to reach bed rock. The mineralization was traced with small pits up hill and a new trench started about 15 metres east of the old one. More good mineralization was encountered in the top part consisting entirely of malachite and deeper down larger angular pieces with chalcopyrite and bornite were dug out, where the trench bottom was apparently reaching the bedrock. However, heavy rain caused new caving of the loose material and after the snowfall of July 12 and 13 the project was abandoned.

4.3 MINERAL SHOWINGS (Cont'd)

Showings Nos. 11 - 14 contain silver-lead-zinc mineralization in place and in float. Two authors samples assayed as follows

Sample No.	(M) Width	(oz/ton) Silver	% Lead	% Zinc
826	.65	5.04	7.87	.21
827	.95	7.10	8.69	.12

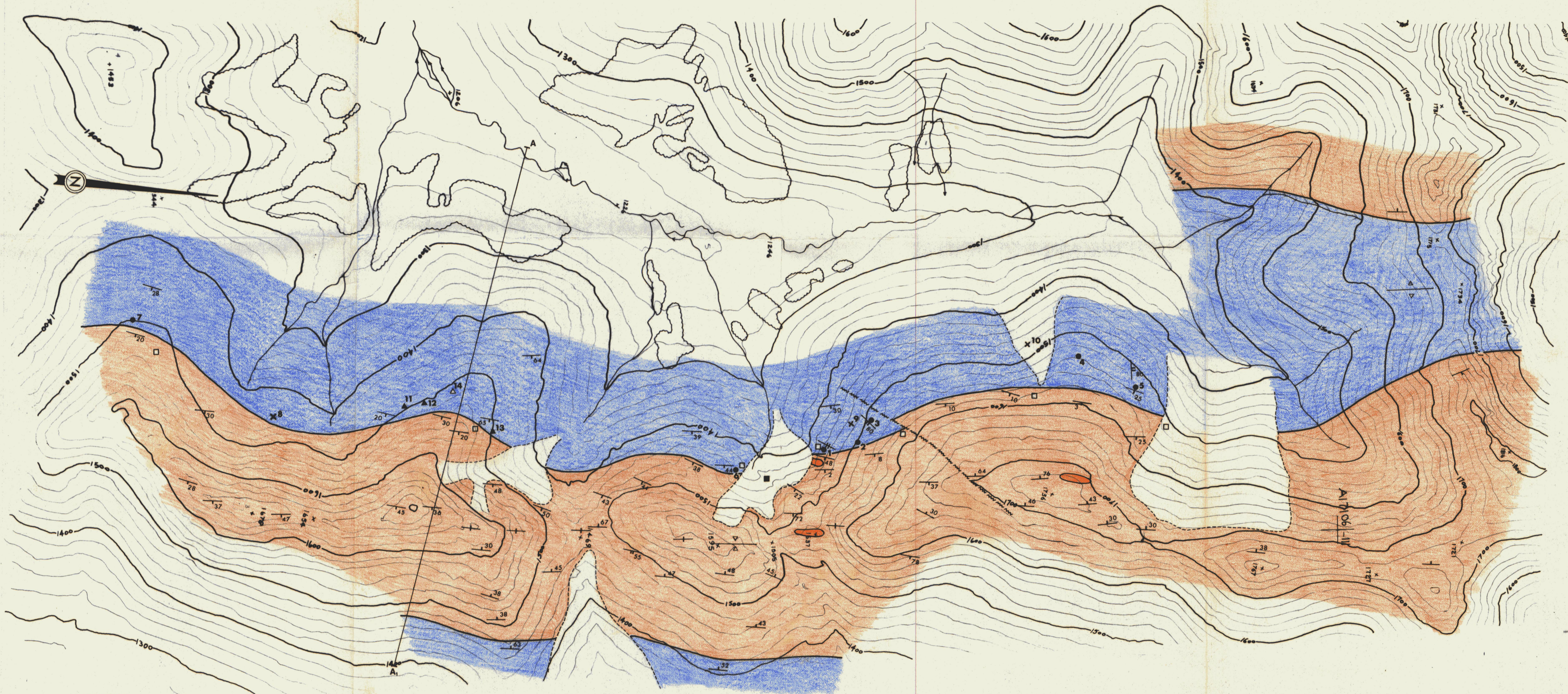
The mineralization usually appears as the galena veinlets 1 to 3 cm wide in brecciated and intensely silicified dolomite. The total area of such occurrences is approximately 150 metres wide with a number of showings of the grade and size similar to the two samples by the author. A good galena float and some copper float was also found in this area.

Further work is essential for the proper assessment of the potential of this area.

Respectfully submitted



V. Cukor, P. Eng.
N.V.C. ENGINEERING LTD.



LEGEND

GEOLOGY

- Carbonate rocks
buff dolomite and grey limestone
- Clastic rocks
Argillite, quartzite, slate
- Intrusive
Fine grained gabbroic rock
- Geological contact
- Fault
- Outline of coarse talus

- Bedding
- Major fracture system
- Syncline axis
- Anticline axis

MINERAL SHOWINGS

- Cu showing
- ▲ Pb-Ag showing
- × Cu float
- △ Pb-Ag float
- 1-14 Showing numbers
- Claim post
- Campsite
- ↔ Cross-section

LaTEKA RESOURCES LTD.		
NEIL & FOX CLAIMS		
GEOLOGICAL MAP		
WATSON LAKE M.D.	95-E-6	
N.V.C. ENGINEERING LTD.	VANCOUVER B.C.	
DATE: July 1977	SCALE: 1:10,000	FIG. 3