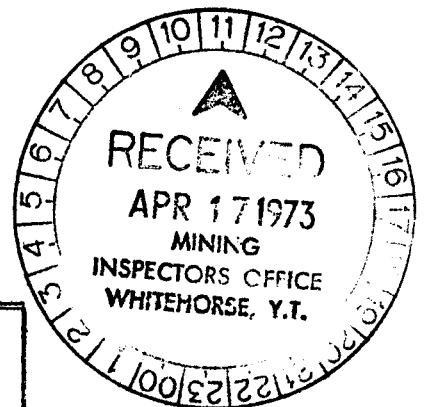


QINTANA MINERALS CORPORATION LTD.
TED GROUP, EAST RIDGE - BOULDER CREEK
LAT 63°50' - LONG 136°45'
CLAIM SHEET 115-P-15
MAYO MINING DISTRICT
CLYDE L. SMITH - 18 AUGUST 1972



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 3000.00

D.B. Craig

Resident Geologist or
Resident Mining Engineer

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.

[Signature]

Commissioner of Yukon Territory

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INTRODUCTION

The Ted group consists of 66 unpatented mining claims located on East Ridge, between Boulder and Forty Mile creeks, about 30 line-miles west-northwest of Mayo, Yukon Territory. The claims are in the Mayo Mining District, on N.T.S. sheet 115P-15. Access is by helicopter from Mayo or points along the Hight Creek road, about 18 miles northwest of Mayo. Bulldozer trails lead to the property from winter roads along the McQuesten River valley.

During the period July 1 - August 5, 1972, the following work was conducted by a three man crew on the Ted claims: geologic mapping of a nine square-mile area on a scale of 1" = 1000' and a two square-mile area on a scale of 1" = 400', chip sampling of numerous mineralized outcrops for assay, geochemical soil and rock-chip surveys and a ground magnetic survey on a 4000' x 7000' grid in the F.M. Creek area, geochemical silt sampling of larger creeks.

Previous work performed on the property consisted mainly of bulldozer trenching of vein and skarn showings by H. Triggs and associates in the late 1960's. A qualifying report was written for Zulco Explorations Ltd. on claims Ted 1-8 and 11-16, by E.O. Chisholm, dated May 20, 1970. Showings were examined and sampled by I.B. Gray in September, 1970. Gray reported values in Au, Ag, Cu, Mo, Pb, Zn, WO₃, Sn, and Sb from preliminary sampling over a 2000' x 3000' area. During the period June 12-15, 1971, M.R. Wolfhard conducted reconnaissance geologic mapping on a scale of 1" = 1/2 mile.

Timberline in the Ted property area is at about 4000 feet. In stream valleys below this elevation abundant trees include spruce, alpine fir and willow;

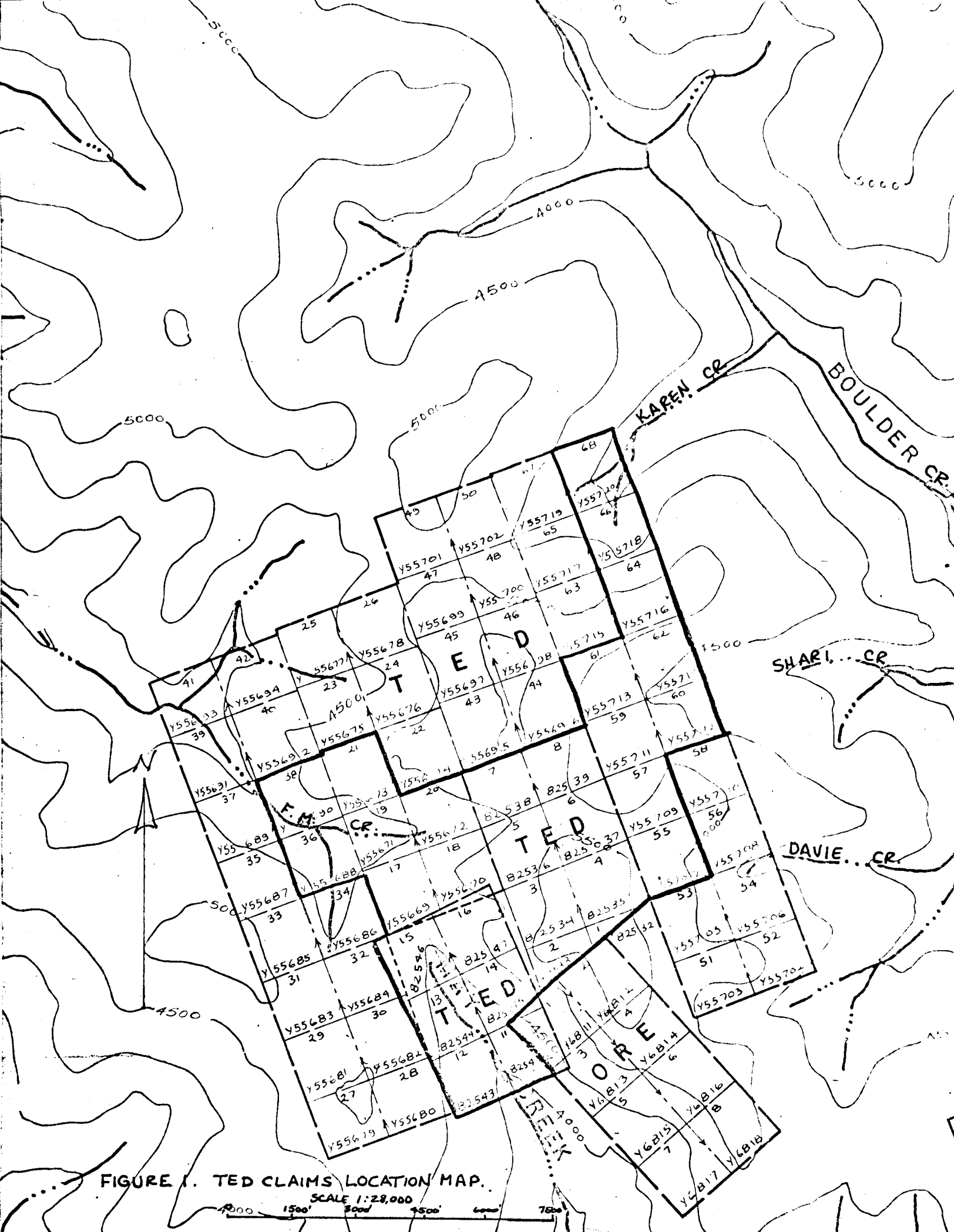
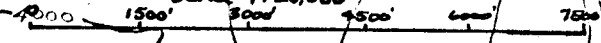


FIGURE 1. TED CLAIMS LOCATION MAP.

SCALE 1:28,000



less abundant are aspen, poplar, balsam poplar, white birch and alder. Underbrush may be dense and consists of dwarf birch or buckbrush. Above timberline, vegetation is light and slopes are covered by a mantle of moss and lichen-coated felsenmeer and solifluction sheets. Outcrop density in the property area is about one percent and is most abundant in creek valleys and along ridge tops. Permafrost is present over much of the region.

The claims cover moderately rugged terrain between 3500 and 5800 feet in elevation. Slopes are generally broad (Plate I) but become steep above deeply incised streams and within northerly-facing cirques (Plate II).

The region has a climate characterized by low annual precipitation and a wide average temperature range from -9° in January to $+57^{\circ}$ in July. Summer weather is extremely variable and may change suddenly from warm and sunny to cold and overcast.

GENERAL GEOLOGY

The greater part of the Ted property is underlain by a homoclinal succession of quartzitic rocks which dips moderately to the northwest. South of this succession and separated from it by a thrust fault is an open folded, lithological similar sequence of quartzites of slightly higher metamorphic grade and more intense deformation. Stratified rocks are intruded by granitic rocks of the Ted and Boulder Creek stocks, as well as other minor plutons.

Strata of the homoclinal succession are believed correlatable with Lower Schist division and Keno Hill Quartzite rocks of the neighbouring Mayo and Dawson regions.

Recent work (Templeman-Kluit, 1970; Green 1971) has confirmed that these divisions are Jurassic(?) and Lower Cretaceous(?) in age, respectively, and that they are separated from overlying Precambrian strata by a major thrust fault which has been traced for a distance of more than 150 miles in the central and west-central Yukon. The thrust fault mapped on the Ted property is believed a part of this major thrust, for units south of the fault are readily correlated lithologically with Precambrian age Grit division rocks of the Mayo (Green, 1971) and McQuesten (Bostock, 1964) regions. Furthermore, the Ted group lies about 15 miles west of the boundary of (Green's 1971) map area and on-strike with the thrust; relative stratigraphic positions in the Ted area are also similar to those mapped by Green.

All rock units have been regionally metamorphosed within the lower subfacies of the greenschist facies. Biotite does not have regional distribution and appears to be confined to contact metamorphic aureoles where it may be found in porphyroblastic mode with pyrrhotite and rare andalusite. All rocks are strongly deformed and are characterized by pervasive foliation and complex tight folding. Deformation was roughly contemporaneous with regional metamorphism, but a later metamorphic event produced fine flakes of random-oriented muscovite; this event is believed regional in scale, for nearly all outcrops examined contain random muscovite.

Widespread destruction of bedding and presence of minor isoclinal and recumbent folds indicates that strata have been "stacked" and contorted to such an extent that thickness determinations of units are unreliable.

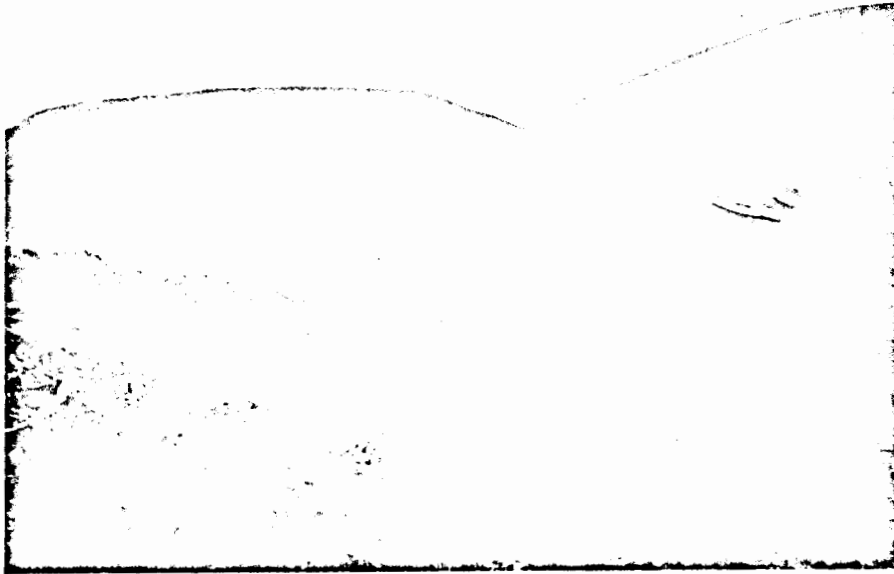


PLATE I

View of moderately rugged terrain characteristic of Ted group area; looking northerly from 5882 Ridge.....

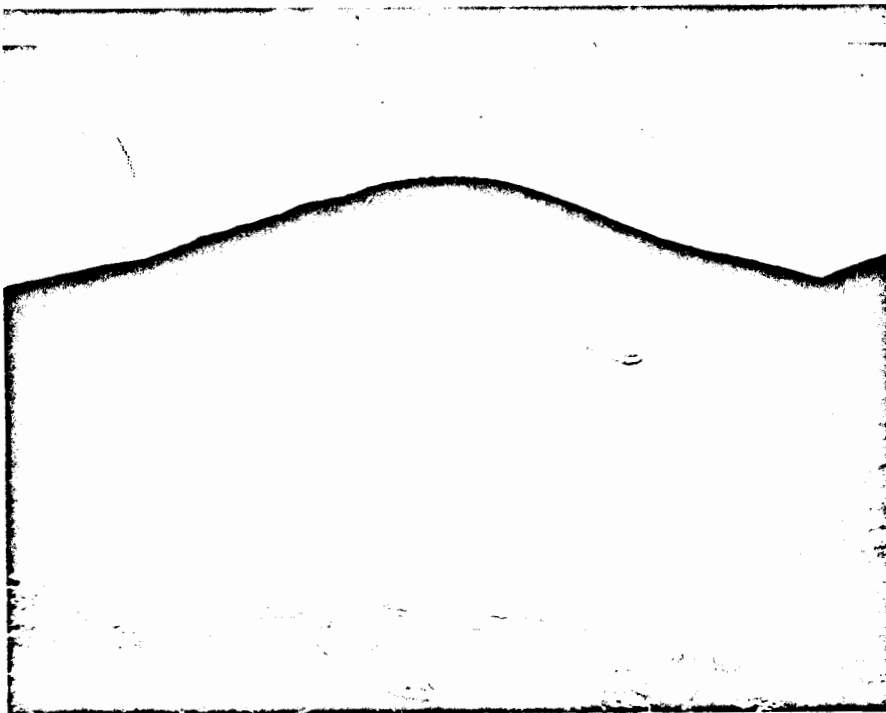


PLATE II

View of cirque wall at head of Shari Creek; looking southerly from ridge south of Shari Creek.....

Table of Formations

<u>Era</u>	<u>Period or Epoch</u>	<u>Name or Map-unit</u>	<u>Lithology</u>
Mesozoic	Cretaceous	4	4b-Felsite 4a-Hornblende-biotite granite 4-Undifferentiated granitic rock
			-----Intrusive contacts-----
	Lower Cretaceous(?)	3; Keno Hill Quartzite	3c-Limy quartzite, phyllite 3b-Micaceous quartzite
			-----Unconformity(?)-----
			3a-Micaceous and limy quartzite
	-----Probable conformable contact-----		
Jurassic(?)		2; Lower Schists	2b-Calc-silicate quartzite, micaceous quartzite 2a-Calc-silicate quartzite 2-Undifferentiated quartzites
-----Thrust fault contact in map area-----			
Precambrian	Proterozoic	1; Grit Division	1d-Gritty micaceous quartzite 1c-Quartz-muscovite schist 1b-Quartz-chlorite-muscovite-graphite schist 1a-Gritty micaceous quartzite

Grit division (units la, lb, lc, ld)

The Grit division is composed of buff to bluish gray gritty micaceous quartzite and tan to dark green quartz-chlorite-muscovite-graphite schist with minor quartz-muscovite schist and calc-schist. Rocks assigned to this division may be included in four mappable units (la,lb,lc,ld) outcropping west and south of the Ted thrust; best exposures are in the valleys of F.M., Wolverine and Spar Creeks and on the south side of 5882 Ridge. It is not possible to predict a thickness for the division but Unit lb has an apparent thickness of about 300 feet in the F.M. Creek area.

Gritty quartzites make up unit ld, are interbedded with quartz-chlorite-muscovite-graphite schist in unit la and occur locally in unit lb. Quartzites are massive and occur in beds from a few inches to several tens of feet thick, commonly separated by schist. Fresh surfaces are white or buff to bluish gray and weathered surfaces are tannish gray. The gritty quartzites are composed of tectonically deformed coarse quartz grains and rare plagioclase grains in a matrix of fine-grained quartz and muscovite with rare chlorite and graphite. Quartz grains commonly range from 1-4 mm. in diameter and constitute from 5-80% of the rock. Rare individual beds are quartz-pebble conglomerate with pebbles up to 10 mm. forming much of the rock. Quartz grains are gray, pale blue or black and are densely packed and separated by thin partings of mica. Generally the grains are lensoid or augen-shaped and elongated with the major axis deformed to as much as five times the minor axis.

Quartz-chlorite-muscovite-graphite schist makes up most of unit lb, is interbedded with gritty quartzite in unit la and is rare in units lc and ld. Schists are finely laminated with alternate dark green and buff to white layers composed respectively of chlorite-muscovite-

graphite and quartz-plagioclase (Plate III). Weathered surfaces are buff to orange-tan in color. Quartz layers and lenses of 1/2-4" thick occur at intervals of 1-4 feet. Interbeds of calc-schist may constitute up to 20% of outcrops (Plate IV). Calc-schist occurs in 1/2-2 foot thick beds and contains varying amounts of siderite and calcite in a schist or quartzite assemblage. West of the Ted thrust along F.M. Creek calc-schist beds have been contact metamorphosed to actinolite-epidote.

Unit lc is quartz-muscovite schist which outcrops north of F.M. Creek and appears to be a sheared and strongly foliated basal portion of unit ld. Abundant isoclinal folds, tight chevron folds, Gleitbritten, quartz rods and "stretched" pebbles in unit lc are more intensely developed than elsewhere in the map area; mica crystals are also unusually coarse for the area. The proximity of the mapped area of unit lc to the Ted fault suggests that deformation and metamorphism are the result of shearing within the zone of the thrust.



PLATE III

View of unit lb outcrop along lower F.M. Creek.
Note tight folds, scale 1" = 6".....

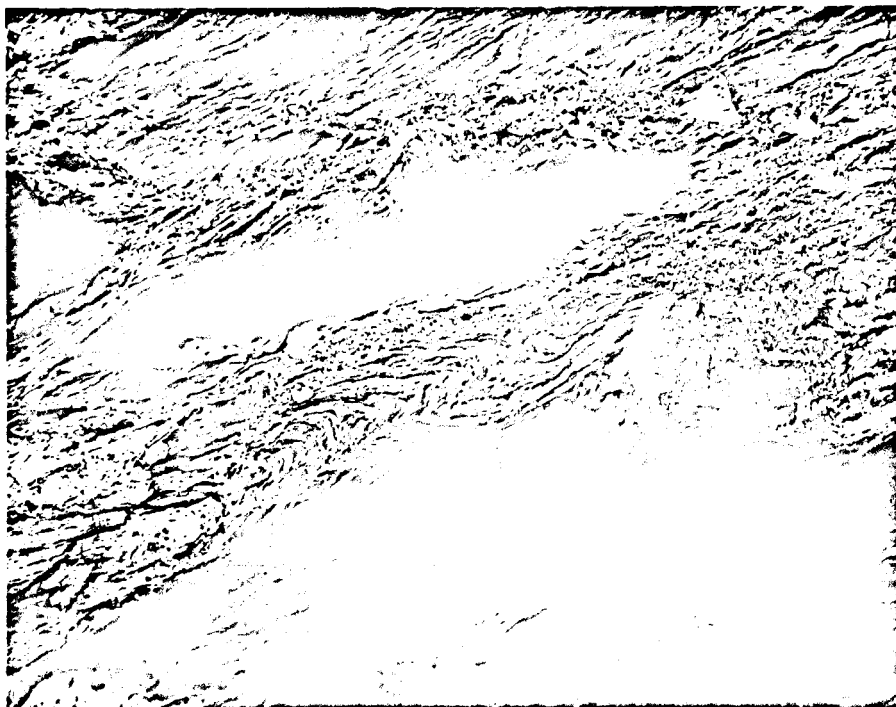


PLATE IV

View of calc-schist interbeds in quartz-chlorite-
muscovite-graphite schist of unit lb along lower
F.M. Creek, scale 1" = 8".....

Lower Schist division (units 2, 2a, 2b)

The Lower Schist division is composed of finely banded and buff to gray-green calc-silicate quartzites, tan to pale green micaceous quartzites and minor quartz-muscovite-chlorite schist. Two mappable units (2a, 2b) have been defined west of the Ted stock and along F.M. Creek (Plate V); undifferentiated lithologically correlatable rocks (unit 2) crop out between the Ted and Boulder Creek stocks. The lower contact of the division is not exposed in the map area and a thickness may not be predicted; a minimum thickness in the F.M. Creek area is about 700 feet. Unit 2a is made up of about 80% calc-silicate quartzite and 20% micaceous quartzite with rare schist; unit 2b contains about 50% calc-silicate quartzite, 45% micaceous quartzite and 5% schist; undifferentiated unit 2 is about 90% micaceous quartzite, 5% calc-silicate quartzite and 5% schist.

Lower Schist division rocks are thin-bedded with individual beds ranging from $\frac{1}{4}$ -5" thick separated by thin gray to dark green phyllitic or schistose partings.

Because mineral percentages vary widely in the F.M. Creek area, a statistical study of outcrop and talus was conducted and gave the following percentages of rock forming minerals (Fig.4): quartz 46-70%, chlorite 8-14%, epidote 4-17%, muscovite 8%, grossularite 1-9%, plagioclase 2-3%, actinolite 2%, siderite 1%, graphite 1-2%, biotite 1% and diopside 1%. In making mineral percentage determinations outcrop samples were taken at six-inch intervals from selected locations; five talus samples were collected at each grid station where outcrop is lacking in units 2a and 2b. Mineral percentages were visually estimated using a 20X hand lens.

Calc-silicate quartzite is an unusual rock type

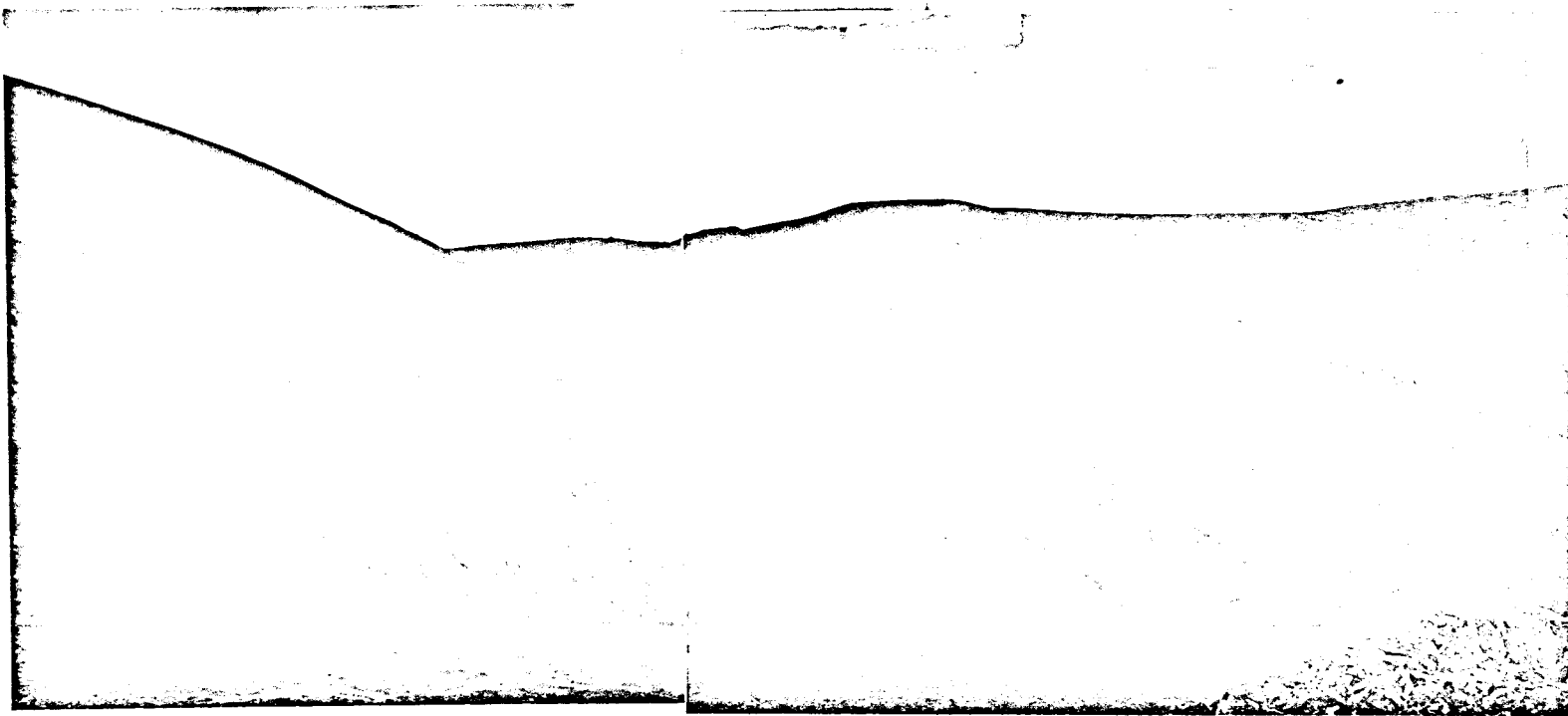


PLATE V

View of talus slope along south side of F.M. Creek; looking southwesterly from ridge at head of Shari Creek. Arcuate talus pattern generally represents contact between underlying unit 2b and overlying unit 3a

which differs from other quartzites within the Lower Schist division in its content of chlorite, epidote, grossularite, plagioclase, actinolite and diopside; the presence of the latter five minerals constitutes a calc-silicate assemblage. It is notable that the above minerals total no more than an average of 30% for all samples studied and that chlorite, which is apparently mainly hydrothermal, makes up 10% of this total. It is believed that lime silicate minerals were developed from calcic and argillaceous impurities in the quartzites by contact metamorphism and mild metasomatism. Metasomatic replacement does not appear to have been operative on an intense scale in these rocks - beds of true skarn are derived from thin limestone units, are made up entirely of epidote, actinolite grossularite or diopside, are separated stratigraphically by several feet and occur only locally.

Two textural types may be distinguished within the calc-silicate quartzites. One is a finely banded or laminated variety consisting of alternate white to gray-green bands made up of quartz, epidote, plagioclase, garnet or diopside and dark green to brown discontinuous bands containing chlorite, muscovite, graphite and iron-stained quartz. The other variety is non-banded and buff to gray-green; lime-silicate minerals are less abundant than in banded skarns. Most calc-silicate quartzites are of the non-banded type (Plate VI).

Along the west contact of the Ted stock at the head of Shari Creek and in undifferentiated Lower Schist rocks between the Ted and Boulder Creek stocks the quartzites are hornfelsic and in places porphyroblastic containing biotite, pyrrhotite and rare andalusite. Calc-silicates are poorly developed and limestone beds are only partly replaced in these areas.



PLATE VI

Outcrop of unit 2a in F.M. Creek.....

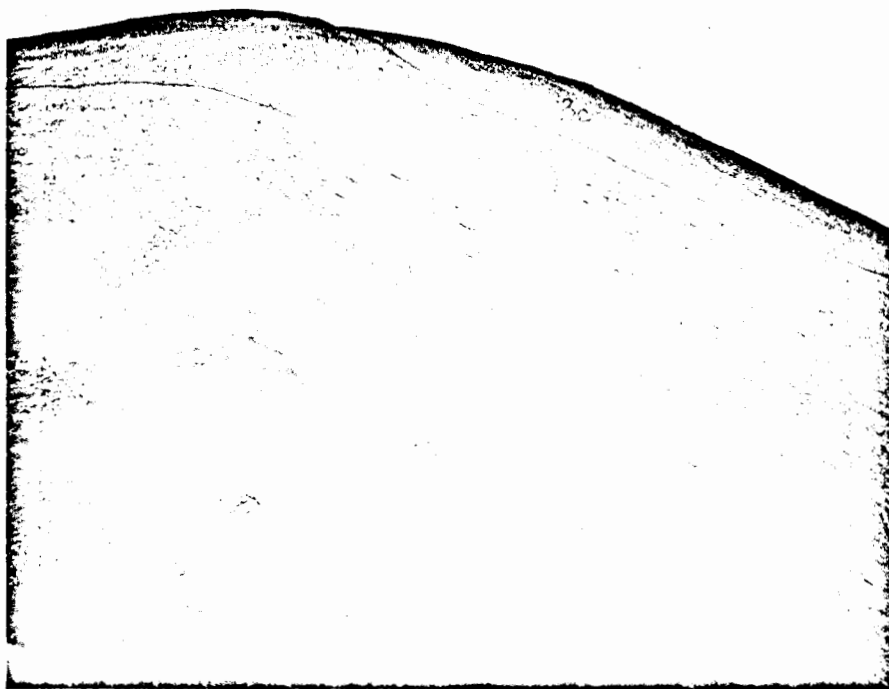


PLATE VII

View looking along ridge top located south of head of Shari Creek. Typical outcrop patterns of units 3a, 3b, 3c.....

Keno Hill Quartzite (units 3a, 3b, 3c)

Strata consisting of white to buff micaceous and limy quartzites and rare phyllite are believed correlatable with the Keno Hill Quartzites of the Mayo region. Three mappable units have been distinguished in a broad area west of the Ted stock; best exposures are along ridge tops and in cirque walls (Plate VII). Although thickness estimates are not reliable, it is possible that Keno Hill rocks have a thickness of about two thousand feet in the map area. Units 3a and 3b may be separated by an unconformity for the thickness of 3a varies from 150 feet to a few hundred feet within the map area.

Thick-bedded micaceous quartzites make up unit 3b (Plate VIII), thin-bedded micaceous quartzites are interbedded with less abundant limy quartzites in unit 3a and are a minor constituent with limy quartzites and phyllite in unit 3c. Quartzites weather mottled white, gray and orange-tan and are thin-to massive-bedded with muscovite and minor chlorite partings. Fine-grained quartz makes up about 95% of the rock with lesser muscovite, siderite or calcite, biotite, graphite, and pyrite. Unit 3a contains from 10-40% laminae and beds up to 6" thick of quartzites with carbonate content up to 50%. These beds weather buff to brown and have distinct solution-pitted weathered surfaces. Unit 3c is characterised by undulating bedding surfaces in thin-bedded limy micaceous quartzites and laminated phyllites.

Granitic rocks (units 4, 4a, 4b)

Granitic rocks make up an elongate northerly-trending stock within the central part of the property (Ted stock), the western part of a larger intrusive body (Boulder Creek

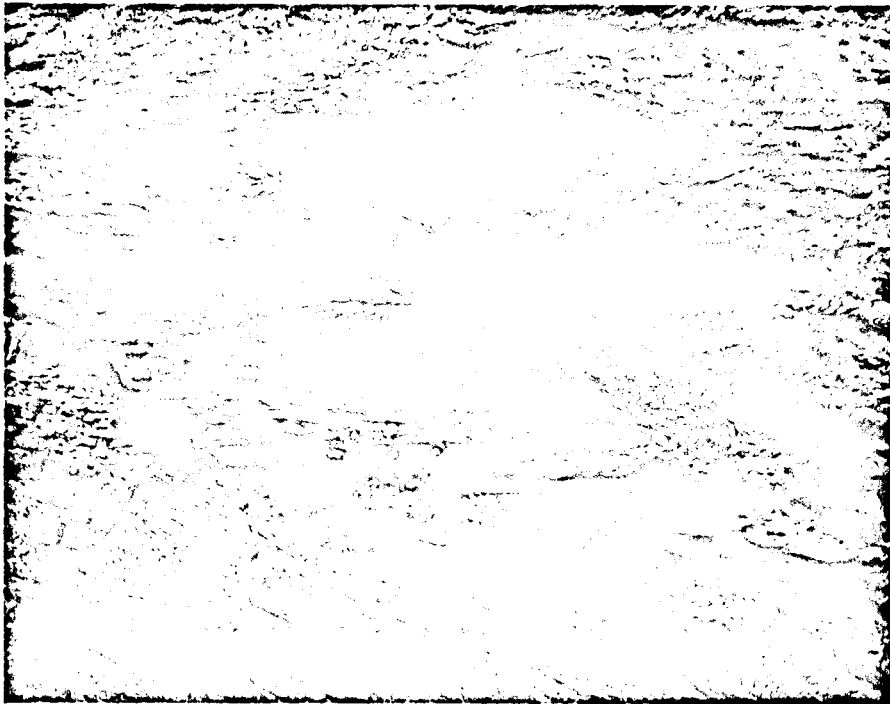


PLATE VIII

View of unit 3b outcrop at head of Karen Creek. Note tight minor folds and Gleitbrett planes; scale 1" = 8".....

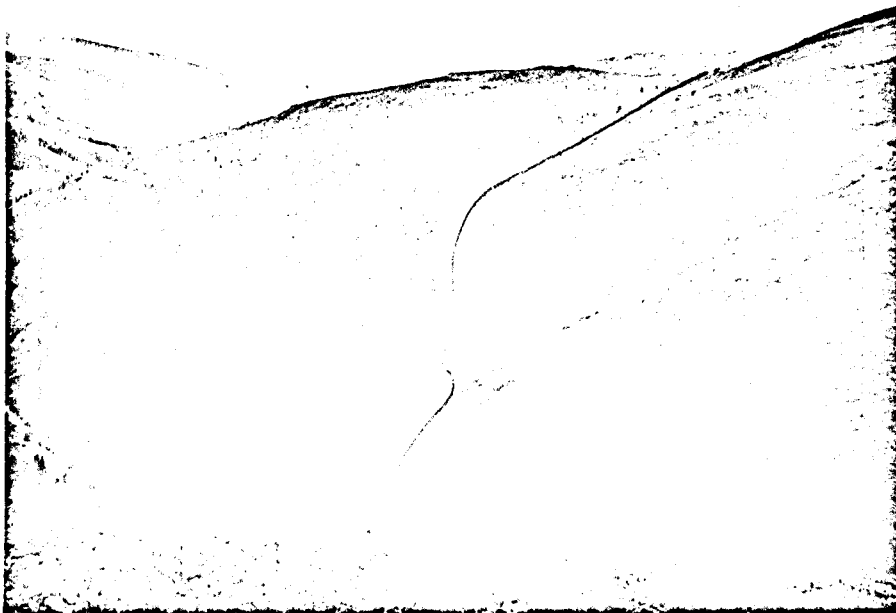


PLATE IX

View looking northwesterly from ridge south of F.M. Creek along trace of Ted thrust fault.....

stock) which underlies the eastern margin of the map area and smaller plutons located south and west of the Ted stock.

The Ted stock averages about 3000 feet in width and may be traced for more than two and one-half miles in length. The west contact is exposed along the ridge at the head of Shari Creek where it dips 70° east. All contacts are sharp and granite at one locale is chilled up to 50 feet from its contact with country rock. Unit 4a rocks are gray, medium-grained, porphyritic hornblende-biotite granite to quartz monzonite. The following is an average mode: quartz 30%, K-feldspar 20%, plagioclase 40%, biotite 8% and hornblende 2% with accessory pyrite and magnetite. Phenocrysts of K-feldspar are up to 3/4" long, are fresh and weather out to give knobby surfaces; quartz phenocrysts are up to 1/4" across, are fresh and are commonly in glomeroporphyritic clusters. Matrices are fine to medium-grained with fresh to slightly chalky feldspars, fresh biotite and mildly to intensely chloritized hornblende which locally shows a preferred orientation.

Small felsite intrusive bodies (unit 4b) are located near the south end of the Ted stock and along Wolverine Creek. Felsites are gray to dark brown-gray and contain up to 5% feldspar and quartz phenocrysts; feldspars are locally epidotized and mafics are hornblende and biotite. Rocks of the Boulder Creek stock (unit 4) were not examined and only the western intrusive contact was noted in mapping.

STRUCTURAL GEOLOGY

The dominant structural feature of the map area is

a moderately to steeply-dipping thrust fault (Ted thrust) which trends northwesterly in the F.M. Creek area and changes to an east-west trend south of Davie Creek. At F.M. Creek the fault dips 50° southwesterly but flattens as it is traced to the northwest (Plate IX). Because quartzites on opposite sides of the fault are lithologically similar, the thrust is not readily recognized; it is best seen in F.M. Creek where quartz-chlorite-muscovite-graphite schists of Grit division unit 1b are brought against calc-silicate quartzites of Lower Schistunit 2a. Mica in quartzites south of the fault is slightly more crystalline and minor deformational features such as isoclinal, ptygmatic and closed chevron folds and Gleitbritter are somewhat better developed.

North of the Ted thrust, Lower Schist division and Keno Hill Quartzite strata lie within a moderately northwesterly-dipping homoclinal succession. South of the thrust, Grit division rocks have divergent attitudes and are folded into a gently, southwesterly plunging antiform with an axis south of the Ted stock.

The Ted thrust cuts across foliation and in the map area is believed to be somewhat younger in age than regional metamorphism with which it is probably penecontemporaneous throughout most of its extent. The thrust is pre-intrusive and pre-mineral in age for it is cut by the Ted stock and similar types of mineralization may be found on both sides of the fault.

Foliation is strongly developed in all rock units. Although bedding has been largely destroyed, where visible it is sub-parallel to foliation or schistosity which suggests the dominance of an isoclinal style of folding. Figures 9 and 10 are stereoplots of poles to foliation and axes of minor folds taken throughout the map area. Both plots clearly indicate an isoclinal style of folding with

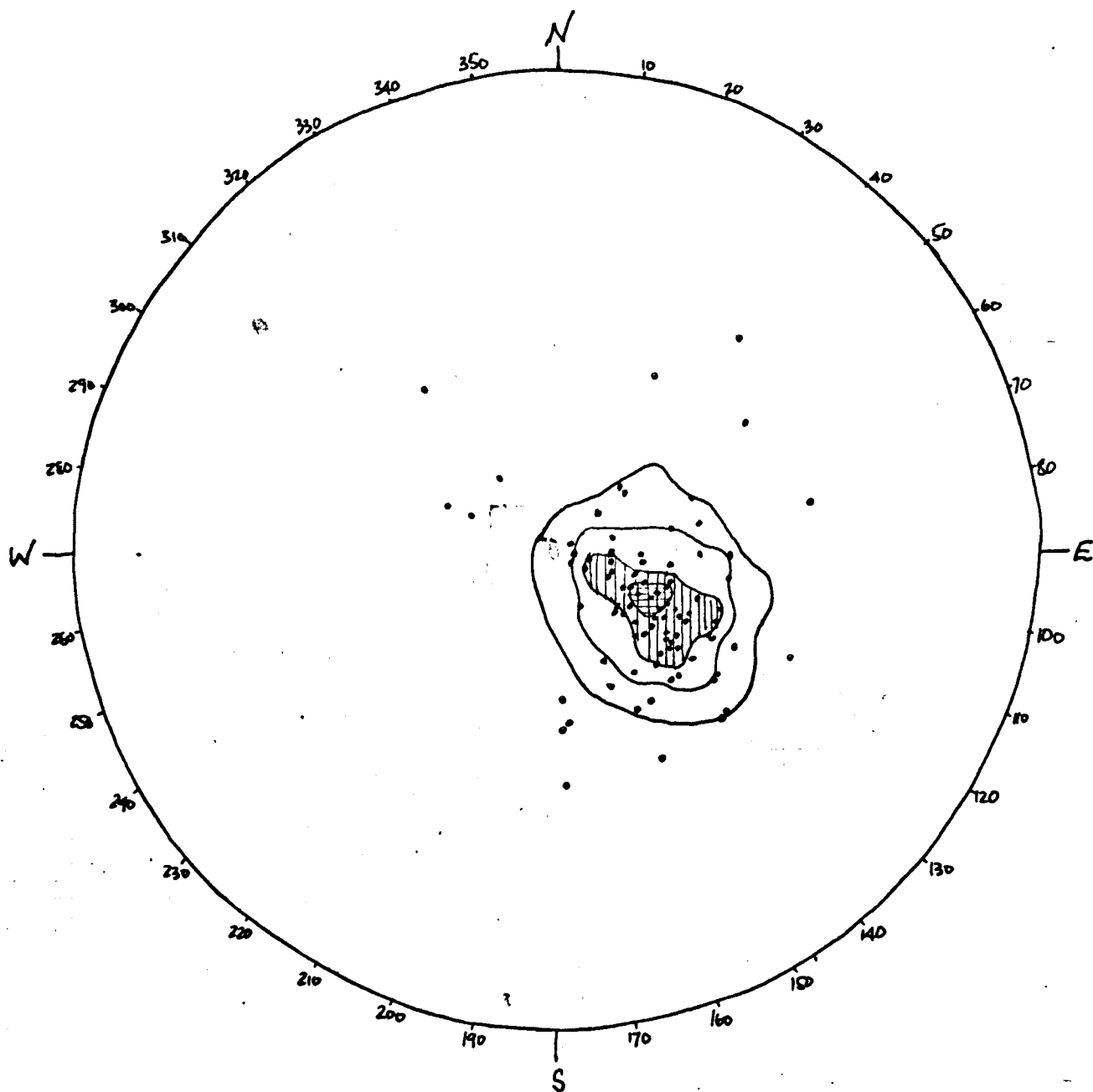


FIGURE 9. POLES TO FOLIATION OF ALL STRATIFIED ROCKS MAPPED ON TED PROPERTY. COUNTURED BY KALSBECK METHOD. SINGLE POINT MAXIMUM AT $30^{\circ}, 20^{\circ}\text{NW}$ GIVES ATTITUDE OF AXIAL PLANE OF FOLDS AND INDICATES ISOCLINAL STYLE OF FOLDING.

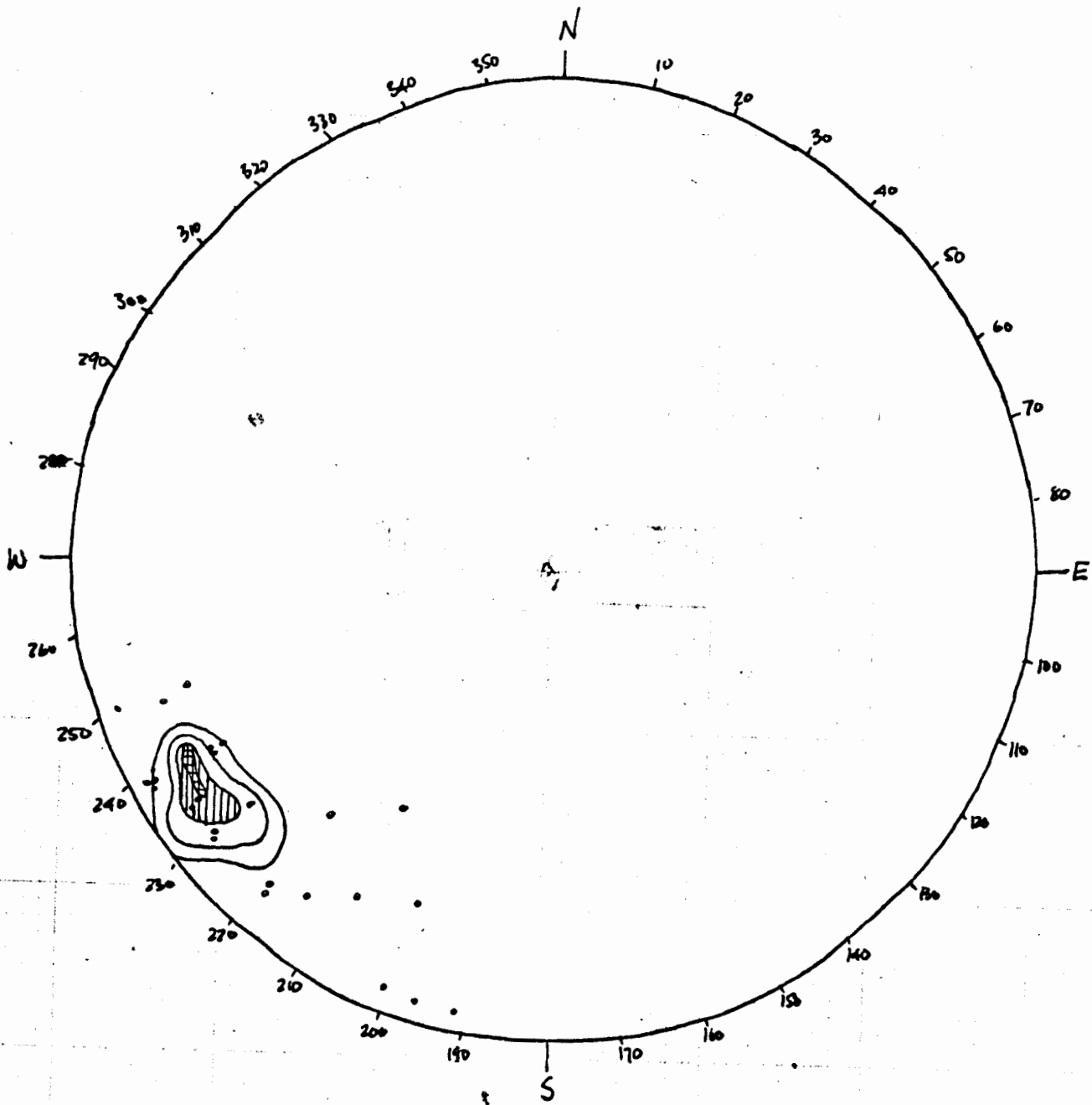


FIGURE 10. AXES OF MINOR FOLDS IN STRATIFIED ROCKS MAPPED ON TED PROPERTY. CONTOURED BY KALSBECK METHOD. SINGLE POINT MAXIMUM AT $235^{\circ}, 15^{\circ}\text{SW}$ GIVES STRIKE AND PLUNGE OF AXES OF ISOCLINAL FOLDING

axial planes having an average strike of 30° and a dip of 20° to the northwest; fold axes have an average plunge of 15° at 235° .

The following minor structures may be found in all units: rods, lenses and boudins of quartz; isoclinal, ptygmatic and chevron folds and "Gleitbrett" or "sliding board" folds. Axes of all minor structures are sub-parallel within given locales. A later wrinkle lineation is visible in some highly micaceous rocks and transgresses older lineations.

Units 2a and 2b are host rocks for mineralization on the property. Best mineralization is found between F.M. Creek and 5882 Ridge where units 2a and 2b lie within a window below unit 3a quartzites; the southwestern side of the window terminates against the Ted thrust. Dips in this area consistently average 20° northwest and parallel the slope of the ridge south of F.M. Creek. A minimum thickness for these beds in F.M. Creek is about 300 feet and a maximum predictable thickness below 5882 Ridge is about 700 feet. Unit 2b also crops out north of 5882 Ridge at the head of Shari Creek but mineralization in this area is considerably less well developed. A number of tonnage calculations may be made but all are believed academic in view of the following assay data.

METAMORPHISM, ALTERATION, MINERALIZATION

Stratified rocks in the property area are quartzofeldspathic, with minor pelitic and calcareous, varieties which have been regionally metamorphosed within the quartz-albite-muscovite-chlorite subfacies of the greenschist facies. Pervasive foliation was produced during regional

metamorphism but a later minor metamorphic event developed fine flakes of random-oriented muscovite in all units; a cross-cutting, fine wrinkle-lineation seen in highly micaceous rocks may be related to this event. It is possible that random muscovite is contact metamorphic in origin but the persistent similarity in the size and distribution of the fine flakes over the entire map area suggests a regional origin. It is notable that Green (1971 p.16) describes random-oriented biotite in Grit division rocks over a broad area in the Mayo region.

Following regional metamorphism was a mild contact metamorphic event of the albite-epidote hornfels facies which occurred within an aureole extending outward from a few hundred to over 3500 feet from the west contact of the Ted stock. Also affected was a band of rocks on either side of the Ted thrust as well as strata between the Ted and Boulder Creek stocks. Pelitic portions of units within the aureole contain fine-grained biotite, which ranges in attitude from random to sub-parallel to foliation, varying amounts of pyrrhotite and rare fine-grained andalusite. Near intrusive contacts pelitic beds have been mildly hornfelsed to more brittle types and quartzites are probably recrystallized; porphyroblastic, or spotted, textures have been noted only near contacts. All beds within the aureole have retained foliation.

Limy and argillaceous quartzites of Lower Schist division units 2a and 2b were probably converted to calc-silicate quartzites during this mild contact metamorphic event. Figure 4 is an attempt to portray some of the zonal relations between contact metamorphic biotite, percentages of calc-silicate minerals and mineralized areas. Although it is not certain whether calc-silicate mineral percentages are mainly a function of calcic and aluminous impurities in quartzites or represent intensity

of replacement, the latter is indicated by the ease with which a contoured high may be outlined. (It may be assumed that a similar stratigraphic level is represented over most of the map area because strata are sub-parallel to south-westerly sloping topography). The calc-silicate high is partly outside of the biotite line and mostly outside of the pyrrhotite-pyrite line which suggests a slightly different, possibly later, period of replacement.

Lime-silicate rocks are mildly altered by varying amounts of chlorite. Chlorite is closely related to calc-silicate minerals (indeed, the 10% chlorite line nearly outlines the calc-silicate high, Figure 4) and may be in part a member of the metamorphic assemblage. However, chlorite replacement textures may be observed cutting across calc-silicate bands, and fine chlorite veinlets, spaced $\frac{1}{4}$ -6" apart, are common in some locales; chlorite may be observed replacing outward from some veinlets. Veinlets usually strike north and dip vertically - their parallelism with the trend of the elongate Ted stock suggests a related origin.

Mineralization has taken place within lime-silicate quartzites and micaceous quartzites of units 2a and 2b. Minor mineralization may be noted in other rocks on either side and close to the Ted fault. The following minerals occur in units 2a and 2b in descending order of abundance: pyrite and/or pyrrhotite, sphalerite, chalcopyrite, cassiterite?, arsenopyrite and galena (molybdenite and stannite have been observed by previous workers). All metallic minerals are fine-grained and occur erratically disseminated; sphalerite is an exception and may occur in banded replacements making up as much as 15% of hand specimens. Cassiterite? is extremely fine-grained and positive identification is not possible.

Pyrrhotite and pyrite occur throughout the area but pyrrhotite is more abundant than pyrite within an area which is generally related to biotite distribution (Figure 4).

Pyrrhotite is probably more metamorphic in origin than hydrothermal. Most abundant visible sphalerite lies outside of the calc-silicate high and roughly parallels the Ted thrust which suggests a possible trapping effect against the thrust. Although chalcopyrite is rare, it seems to be peripheral to sphalerite and to calc-silicates and to also show a distribution related to the thrust.

It should be mentioned that impressive mineralization may be found in some outcrops of units 2a and 2b and in some areas of talus but thorough examination of all outcrops and float indicates that the percentage of good mineralization is very limited and that well-mineralized portions of outcrops constitute only a small amount of total rock volume. Also, because of fine grain sizes, reliable visual estimates of metallic mineral content are not possible. Sample and assay data follow below.

Small skarn and vein occurrences are located near the north end of 5882 Ridge (station 155) and are described in a report by E.O. Chisholm (1970). The skarn zone appears to be confined to a narrow limy interbed in unit 3b micaceous quartzites; it is exposed in a bulldozer trench over an area of 40 x 75 feet. Selected grab samples reported by Chisholm gave values in Au, Ag, Cu, Sn. A six-foot wide quartz vein in this area has been grab sampled and gave impressive values in Ag-Pb. Other quartz veins in the map area appear to constitute a set of widely separated veins which trend northeasterly, dip steeply, range from 1-9 feet wide and carry significant Ag-Pb. Veins were not carefully studied by the writer.

GEOLOGIC HISTORY

The following is a general sequence of geologic events.

1. Regional metamorphism and deformation of stratified rocks within the lower greenschist facies. Metamorphism accompanied by development of foliation and strong isoclinal folding around gently-plunging southwesterly axes with northwesterly-dipping axial planes. Later mild folding produced a second lineation in micaceous rocks.
2. Thrusting of Precambrian strata over Jurassic(?) and Lower Cretaceous(?) units.
3. Regional thermal metamorphism causing growth of random-oriented fine-grained muscovite.
4. Intrusion of granitic rocks.
5. Mild contact metamorphism causing conversion of pelitic beds to biotite, pyrrhotite and andalusite hornfels with growth of calc-silicate minerals in limy and argillaceous quartzites (calc-silicate replacement may have reached a peak slightly later than hornfelsing).
6. Chloritization and chlorite fracture-filling of calc-silicate rocks.
7. Mineralization by hydrothermal fluids depositing pyrite, sphalerite, chalcopyrite, cassiterite?, arsenopyrite and galena.

ASSAY DATA

Grab samples taken for assay by Gray were apparently gathered from separated mineralized localities in calc-silicate quartzites. Although selected samples were not taken during the current project, it is believed possible that high assays could be obtained from any number of outcrop and talus locations within units 2a and 2b. Because mineralization is erratic and unevenly distributed stratigraphically, however, samples taken to represent strati-

graphic intervals of several feet invariably decline to extremely low values. It is unfortunate that this phenomenon is not visually apparent and that thorough sampling is required to establish grade for sizeable rock volumes.

A total of 41 samples were taken for assay from true stratigraphic thickness intervals at separate locations in calc-silicate quartzite outcrop (Figure 4). Eighteen locations were continuous chip sampled and represent a total aggregate of $130\frac{1}{2}$ stratigraphic feet, 18 locations were chip sampled at six-inch intervals and represent a total aggregate of $74\frac{1}{2}$ stratigraphic feet and five locations were random chip sampled and represent an aggregate of 300 stratigraphic feet (see accompanying tables).

An arithmetic average of the 41 assays is as follows: Au-Tr., Ag-Tr., Cu-0.01%, Pb-Tr., Zn-0.11%, Sn-0.050%, WO₃-Tr. Rock-chip geochemical values average lower than assay results.

GEOCHEMICAL SURVEYS

Geochemical samples were collected from upper B-horizon soil at stations spaced 200 feet apart on 400 foot-spaced lines on a 4000' x 7000' grid in the F.M. Creek area (Figure 5). Samples were taken by mattock, placed in Kraft soil envelopes and dried in the open air.

Analyses were made of the -80 mesh fraction with digestion in hot aqua regia by atomic absorption technique at Bondar, Clegg & Co., Whitehorse, Y.T. Values were reported in parts per million for Cu, Pb, Zn, Sn, W, Au and Ag. Thirty-one grid stations spaced 400 or more feet apart in areas lacking outcrop were sampled for rock-chip



1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE: 988-5315

TELEX: 04-54554

CERTIFICATE OF ASSAY

TO Quintana Minerals Corp.
1215 - 555 Burrard
Vancouver 1, B.C.

Report #A 42-13

July 20, 1972

NOTE: CHIP SAMPLES TAKEN AT
6' INTERVALS ACROSS TR^{SS}
STRATIGRAPHIC THICKNESS
SHOWN BELOW.
ALL SAMPLES LOCATED
ALONG F.M. CREEK.

I hereby certify that the following are the results of assays made by us upon the herein described Rock samples.

MARKED	GOLD		SILVER	Cu	Pb	Zn	Mo	Sn	W	TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	
A1.5 - 3' - 5'	NIL		NIL	0.02	LO.01	0.08	LO.003	0.04	LO.05	A1/11'
A1.5 - 5.5' -11'	NIL		NIL	0.01	LO.01	0.59	LO.003	0.06	LO.05	
A3 - 2'	Tr.		Tr.	0.02	LO.01	0.13	LO.003	0.04	LO.05	A3/4 1/2'
A3 - 2'-4.5'	Tr.		Tr.	0.01	LO.01	0.05	LO.003	0.08	LO.05	
A3-3'-2'9" P	Tr.		Tr.	0.03	LO.01	0.13	LO.003	0.02	LO.05	
A5 5'-8'	Tr.		Tr.	0.02	LO.01	0.04	LO.003	0.03	LO.05	A5/8'
A7 4-7.5	Tr.		0.10	0.02	LO.01	0.03	LO.003	0.06	LO.05	A7/14'
A7 7.5-12.5	Tr.		Tr.	0.02	LO.01	0.07	LO.003	0.06	LO.05	
A7 12.5-14	Tr.		Tr.	0.01	LO.01	0.02	LO.003	0.02	LO.05	
A8.5 - 2.5'	Tr.		Tr.	0.01	LO.01	0.04	LO.003	0.01	LO.05	A8/11'
A8.5 - 2.5 -6.5	Tr.		Tr.	0.02	LO.01	0.09	LO.003	0.06	LO.05	
A8.5 - 6.5' -11'	Tr.		Tr.	0.01	LO.01	0.05	LO.003	0.02	LO.05	
A11-5'	Tr.		Tr.	0.02	LO.01	0.56	LO.003	0.04	LO.05	A11/5'
A13-5"	Tr.		Tr.	0.02	0.01	0.14	LO.003	0.08	LO.05	A13/5'
A14-5 1/2'	Tr.		Tr.	0.01	LO.01	0.11	LO.003	0.12	LO.05	A14/16'
A14-7.5' - 14'	Tr.		0.12	0.01	LO.01	0.06	LO.003	0.09	LO.05	
A14-14' -16'	Tr.		Tr.	0.01	0.01	0.18	LO.003	0.08	LO.05	
4'	NIL		NIL	0.01	LO.01	0.02	LO.003	0.04	LO.05	
Trace = less than 0.005 oz/ton Some of the results to follow										

TABLE 1

NOTE:

Rejects retained two weeks
Pulps retained three months
unless otherwise arranged.

Gold & Silver values reported on these sheets
have not been adjusted to compensate losses and
gains inherent in fire assay methods.

Gold calculated at \$.....per ounce

J. German

Registered Assayer, Province of British Columbia

1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
 PHONE: 988-5315

TELEX: 04-54554

CERTIFICATE OF ASSAY

NOTE: CONTINUOUS CHIP SAMPLES
 TAKEN ACROSS TRUE
 STRATIGRAPHIC THICKNESS
 SHOWN BELOW

TO Clyde L. Smith
Quintana Base Camp
Quintana Minerals Corp.
11 Bentall Centre
Vancouver 1, B.C.

Report #A 42-27
 Date: August 5, 1972

SAMPLES LOCATED ON
 RIDGE ABOVE SPAR CR.
 AND ALONG F.M. CR.

I hereby certify that the following are the results of assays made by us upon the herein described 23 Rock samples.

MARKED	GOLD		SILVER	Cu	Pb	Zn		Sn	WO ₃		TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
5051/2'	Tr.	0.04		0.01	0.01	0.06		0.065	Tr.		
5052/12'	Tr.	0.03		0.02	0.01	0.05		0.085	Tr.		
5056/4 1/2'	Tr.	Tr.		0.03	0.01	0.13		0.080	Tr.		
5057/14'	Tr.	0.04		0.01	0.01	0.04		0.025	Tr.		
5058/5'	0.005	0.02		0.02	0.01	0.27		0.050	Tr.		
5059/16'	Tr.	0.04		0.01	0.01	0.24		0.080	Tr.		
5060/	0.005	0.03		0.01	0.01	0.09		0.040	Tr.	RANDOM CHIPSAMPLES TAKEN SO THAT EACH SAMPLE REPRESENTS ABOUT 60 TRUE STRATIGRAPHIC FEET OF THE OUTCROP IN CIRQUE WALL AT HEAD OF SPARI CR. 5060 = TOP; 5064 = BOTTOM SAMPLE TOTAL THICKNESS REPRESENTED ABOUT 300'.	
5061	Tr.	0.03		0.01	0.01	0.08		0.030	Tr.		
5062	0.005	0.02		0.01	0.01	0.02		0.010	Tr.		
5063	0.005	0.02		0.01	0.01	0.04		0.010	Tr.		
5064	Tr.	0.06		0.02	0.01	0.07		0.025	Tr.		
5076/11'	0.005	0.04		0.01	0.01	0.44		0.220	Tr.		
5081/10'	Tr.	0.02		0.01	0.01	0.09		0.040	Tr.		
5082/5 1/2'	Tr.	0.03		0.02	0.01	0.09		0.115	Tr.		
5084/7'	0.005	0.03		0.01	0.01	0.03		0.010	Tr.		
5085/15 1/2'	0.005	0.06		0.01	0.01	0.03		0.005	Tr.		
5089/6'	Tr.	0.05		0.01	0.01	0.12		0.065	Tr.		
5090/3'	Tr.	0.04		0.01	0.01	0.14		0.025	Tr.		
5091/6 1/2'	Tr.	0.02		0.01	0.01	0.02		0.010	Tr.		

TABLE II

NOTE:
 Rejects retained two weeks
 Pulp retained three months
 unless otherwise arranged.

Gold & Silver values reported on these sheets
 have not been adjusted to compensate losses and
 gains inherent in fire assay methods.

Gold calculated at \$..... per ounce

per

R. Keith Rogers
 Registered Assayer, Province of British Columbia

J. German

geochemistry. At each station five samples of calc-silicate quartzite were collected and analyzed by the above methods. Values are shown on Figure 5.

Topography over the grid area is moderately to steeply sloping and soil is generally sparse. B-horizon soil is light brown in color, clayey and lies beneath a thin A-horizon of moss, lichen and heather. Talus slopes cover a part of the grid and soil may be found only in gaps between rocks on these slopes. Run-off is rapid into steep gradient streams.

Frequency distribution plots of all grid values give two distinct populations for each metal. It is believed that the higher population reflects the extensive amount of low grade mineralization in calc-silicate quartzites. The following local threshold values were used: Cu-150ppm, Pb-100ppm, Zn-1000ppm. Highest values are as follows: Cu-350ppm, Pb-310ppm, Zn-2750ppm.

Copper and zinc values were contoured (Figure 6). Two broad and one narrow zinc anomaly indicate the broad extent of zinc mineralization in host units. One broad and six smaller copper anomalies suggest the more erratic and uneven distribution of copper. Lead highs closely correspond with Zn and Cu anomalies. In some cases, such as the smaller Cu highs to the south and east of the contoured areas, anomalies probably reflect vein mineralization.

The close correspondence of geochemical anomalies with exposed and sampled mineralization within host units of mapped distribution suggests that new near surface targets outside of known mineralized areas are probably not existent within the grid area.

GROUND MAGNETIC SURVEY

Ground magnetic readings were taken at 200 foot stations on lines spaced 400 feet apart over a 4000' x 7000' grid established in the F.M. Creek area (Figure 7). Instrument used was a Model M.F.-1, fluxgate magnetometer manufactured and rented from Scintrex Ltd., Toronto. All readings were corrected for diurnal and survey variations. Base station used was 0, 0 on the grid. All lines were looped and corrected to the east-west base line values. A range switch setting of 30K was used throughout the survey.

Magnetic values show only slight variations over the grid. A negative anomaly of low profile may be contoured. The anomaly does not show a definitive relation to geologic features: the northern portion overlies Lower Schist calc-silicate quartzites and the southern portion lies across the Ted thrust over Grit division rocks. The anomaly is not believed to have a significant relation to mineralization.

The negative anomaly corresponds closely with a mild aeromagnetic low of about 100 gammas recorded on G.S.C. Aeromagnetic Series sheet 115P.

CONCLUSIONS AND RECOMMENDATIONS

Interest in the Ted group originated with the recognition that a potentially large open-pit tonnage of calc-silicate rock carrying values in one or more of Au, Ag, Cu, Pb, Zn and Sn existed in the F.M. Creek area. Possibilities for low grade ore were indicated by assays from a number of grab samples taken over a large part of the area.

Current work was undertaken in an effort to accurately

map calc-silicate bearing host units, to map the entire Ted property in order that favourable stratigraphic units could be traced through the area, to thoroughly sample mineralized exposures and float and to conduct geochemical soil and rock-chip and ground magnetic surveys over a grid covering mineralized areas. Mineralized quartz veins were not studied.

Results indicate that although a large volume of mineralized rock may be outlined in the F.M. Creek area, careful sampling of true stratigraphic thickness intervals from 36 separate exposures taken to represent an aggregate sampled interval of 205 feet, establish that values in all metals are low and beyond economic consideration.


Calc-silicate host units were traced to the east and north of F.M. Creek where they were observed in several exposures lying west of the Ted stock. Minor mineralization was noted in these rocks in the cirque wall at the head of Shari Creek; five random chip samples taken to represent 300 true stratigraphic feet in this area also returned low values in all metals.

Calc-silicate rocks along Karen Creek carry minor Cu-Zn mineralization of inferior visual grade to those sampled in the F.M. Creek and Shari Creek areas and samples for assay were not taken. Quartzitic rocks between the Ted and Boulder Creek stocks are correlatable with calc-silicate bearing units but these beds are only mildly replaced by a calc-silicate assemblage and are generally unmineralized.

Geochemical soil and rock-chip results reflect known mineralization but do not provide new targets. Ground magnetic results show a low profile negative anomaly which corresponds to a similar low intensity aeromagnetic depression; magnetic results are not readily interpreted but suggest no favourable targets.

Perhaps it should be mentioned that a stratigraphic thickness of only about 300 feet is exposed in the F.M. Creek area and that the base of the mineralized units does not crop out. If further work were considered, the potential of lower stratigraphic levels should be tested.

It is concluded that a thorough surface evaluation of the large tonnage low-grade potential of the Ted property has been completed and that results are not sufficiently encouraging to warrant further work. If further work were to be considered it is recommended that diamond drilling be conducted from set-ups on calc-silicate unit 2b south of F.M. Creek and close to the Ted thrust.


CLYDE L. SMITH

September, 1972




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Green, L.H.

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Templeman-Kluit, D.J.

- 1970: The stratigraphy and structure of The
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Upper Klondike River map - areas, Yukon
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APPENDIX I

PERSONNEL

Clyde L. Smith, project manager, employed

July 1 - August 21, 1972; salary

\$100.00 per day

Jay Fairbank, magnetometer operator, employed

July 1 - August 12, 1972; salary

\$700.00/month

Robert W. Smith, geochemical sampler, employed

July 1 - August 12, 1972; salary

\$600.00/month.

APPENDIX II

COSTS

SALARIES

Clyde L. Smith	\$5,200.00
Jay Fairbanks	1,050.00
Robert W. Smith	900.00
	<hr/>
	\$7,150.00
	<hr/> <hr/>

APPENDIX III

QUALIFICATIONS

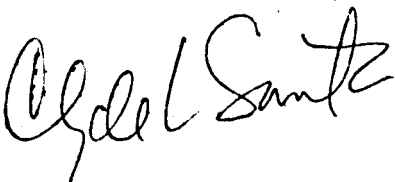
I, Clyde L. Smith of Galiano Island in the Province of British Columbia hereby certify that:

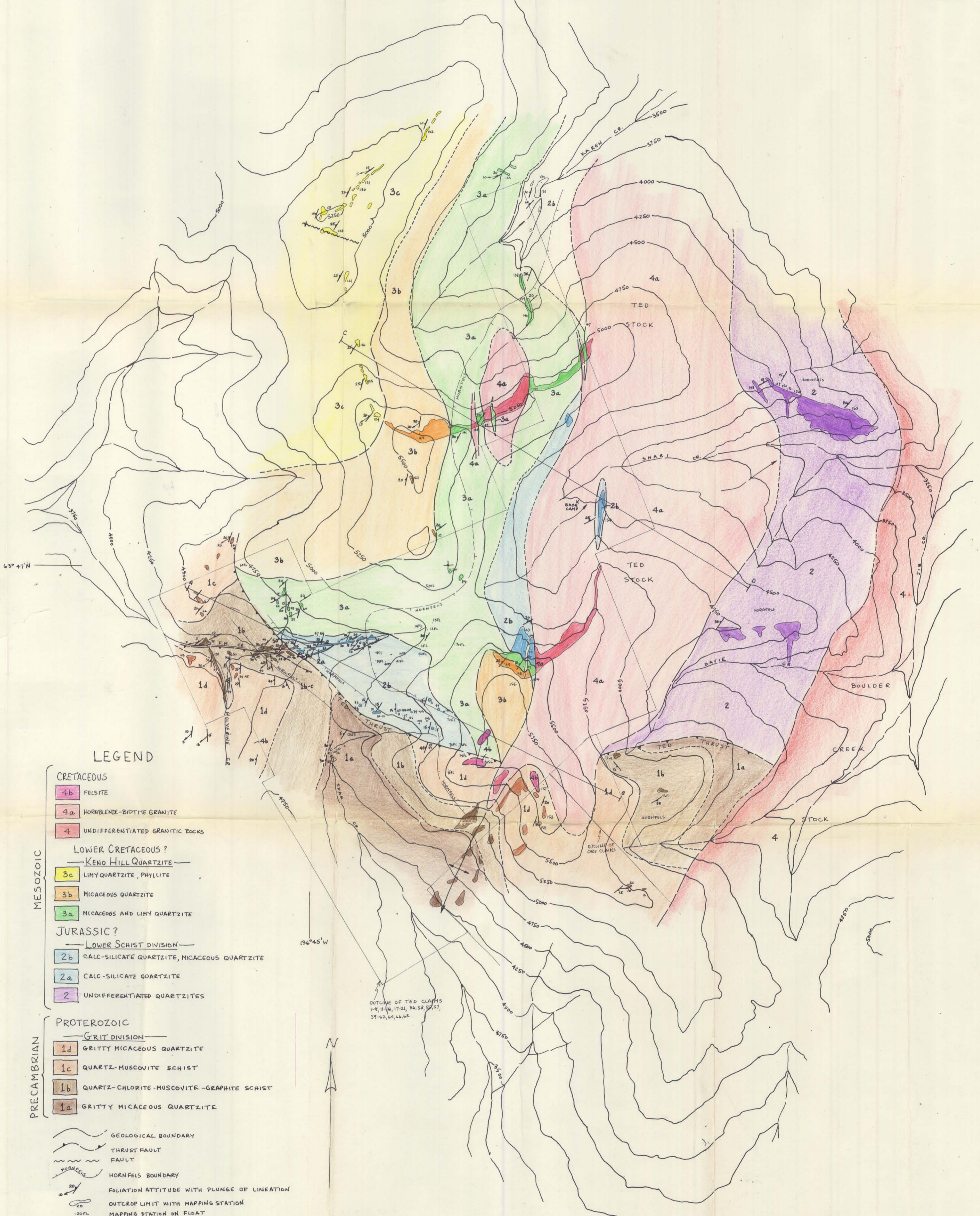
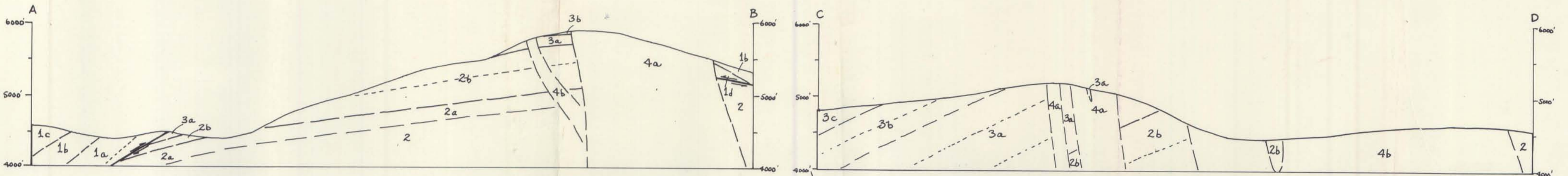
1. I am a geologist with offices at R.R. #1 Bluff Road, Galiano Island, B.C.
2. I am a graduate of the University of Idaho, Ph.D., 1966; the University of British Columbia, M.Sc., 1962; Carleton College, B.A., 1959.
3. I am a member of the Professional Engineers of British Columbia.
4. I have no direct interest or indirect interest in either the property or securities of the owners of the property, nor do I expect to receive any such interest.
5. This report is based on field examinations by the writer during the period July 1 - August 5, 1972.

Dated at Vancouver, British Columbia

August 18, 1972

Clyde L. Smith, Ph.D., P.Eng.





LEGEND

- CRETACEOUS**
 - 4b FELSITE
 - 4a HORNBLende-BIOTITE GRANITE
 - 4 UNDIFFERENTIATED GRANITIC ROCKS
 - LOWER CRETACEOUS ?**
 - KEND HILL QUARTZITE —
 - 3c LIMY QUARTZITE, PHYLITE
 - 3b MICACEOUS QUARTZITE
 - 3a MICACEOUS AND LIMY QUARTZITE
 - JURASSIC ?**
 - LOWER SCHIST DIVISION —
 - 2b CALC-SILICATE QUARTZITE, MICACEOUS QUARTZITE
 - 2a CALC-SILICATE QUARTZITE
 - 2 UNDIFFERENTIATED QUARTZITES
 - PROTEROZOIC**
 - GRIT DIVISION —
 - 1d GRITTY MICACEOUS QUARTZITE
 - 1c QUARTZ-MUSCOVITE SCHIST
 - 1b QUARTZ-CHLORITE-MUSCOVITE-GRAPHITE SCHIST
 - 1a GRITTY MICACEOUS QUARTZITE
- GEOLGICAL BOUNDARY
 THRUST FAULT
 FAULT
 HORNBELS BOUNDARY
 FOLIATION ATTITUDE WITH PLUNGE OF LINEATION
 OUTCROP LIMIT WITH MAPPING STATION
 MAPPING STATION ON FLAT
 ANTIFORM AXIS

FIGURE 2
GEOLOGY OF TED GROUP, EAST RIDGE - BOULDER CREEK AREA,
CENTRAL YUKON TERRITORY

SCALE 1:12,000
 0 1000 2000 3000

TO ACCOMPANY GEOLOGICAL REPORT BY CLYDE L. SMITH, P. ENG.,
 ON THE TED GROUP, BOULDER CR. AREA, HAYDING DISTRICT,
 DATED AUGUST 12, 1972

GEOLOGIC MAPPING BY CLYDE L. SMITH, Ph.D., P. ENG.,
 JULY - AUGUST, 1972.
 5000' CONTOURS (INTERVAL 250 FEET)
 BASE MAP CARTOGRAPHY BY LOCKWOOD SURVEY CORP. LTD
 FROM CANADIAN GOVERNMENT AIR PHOTOGRAPHS A14131 68-69
 N.T.S. SHEET 115P-15



- LEGEND**
- CRETACEOUS**
- 4b FELSITE
 - 4a HORNBLende-BIOTITE GRANITE
- LOWER CRETACEOUS?**
- KEND HILL QUARTZITE
 - 3b MICACEOUS QUARTZITE
 - 3a MICACEOUS AND LIMY QUARTZITE
- JURASSIC?**
- LOWER SCHIST DIVISION
 - 2b CALC-SILICATE QUARTZITE, MICACEOUS QUARTZITE
 - 2a CALC-SILICATE QUARTZITE
- PROTEROZOIC**
- GRIT DIVISION
 - 1d GRITTY MICACEOUS QUARTZITE
 - 1c QUARTZ-MUSCOVITE SCHIST
 - 1b QUARTZ-CHLORITE-MUSCOVITE-GRAPHITE SCHIST
 - 1a GRITTY MICACEOUS QUARTZITE
- GEOLOGICAL BOUNDARY
 THRUST FAULT
 FOLIATION ATTITUDE WITH PLUNGE OF LINEATION
 OUTCROP LIMIT WITH MAPPING STATION
 MAPPING STATION ON FLOAT
- GEOLOGIC MAPPING BY CLYDE L. SMITH, PH.D., P. ENG.,
 JULY-AUGUST, 1972
- 5000' CONTOURS (INTERVAL 250 FEET)
 BASE MAP CARTOGRAPHY BY LOCKWOOD SURVEY CORP., LTD.
 FROM CANADIAN GOVERNMENT AIR PHOTOGRAPHS A 4131 68-69
 N.T.S. SHEET 11P-15

TO ACCOMPANY GEOLOGICAL REPORT BY CLYDE L. SMITH, P. ENG.,
 ON THE TED GROUP, BOULDER CREEK AREA, MANDALAY MINING DISTRICT,
 DATED AUGUST 12, 1972.

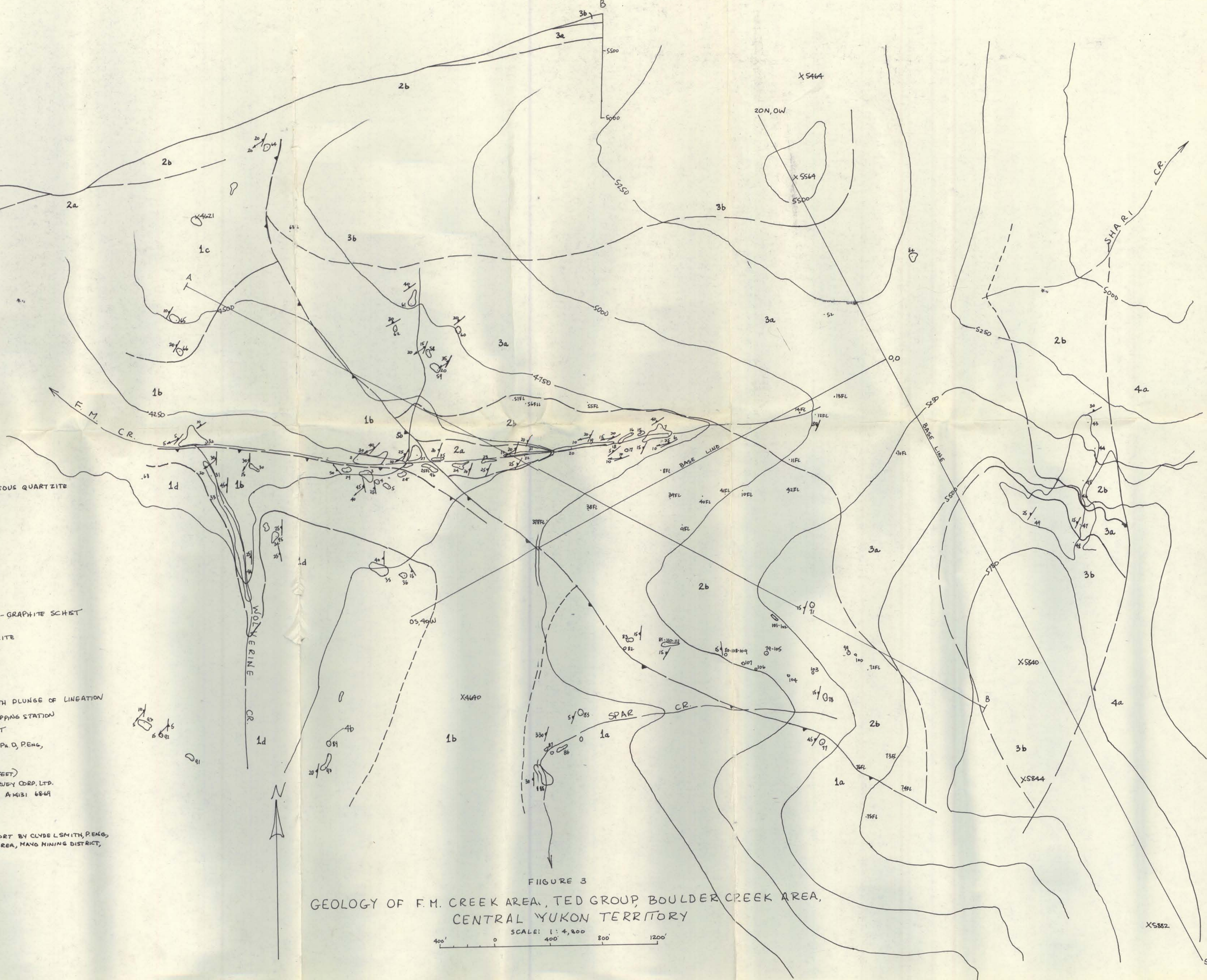
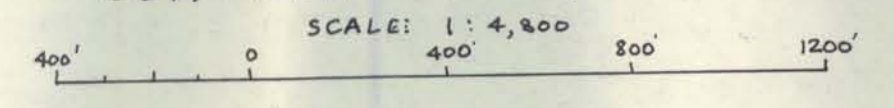
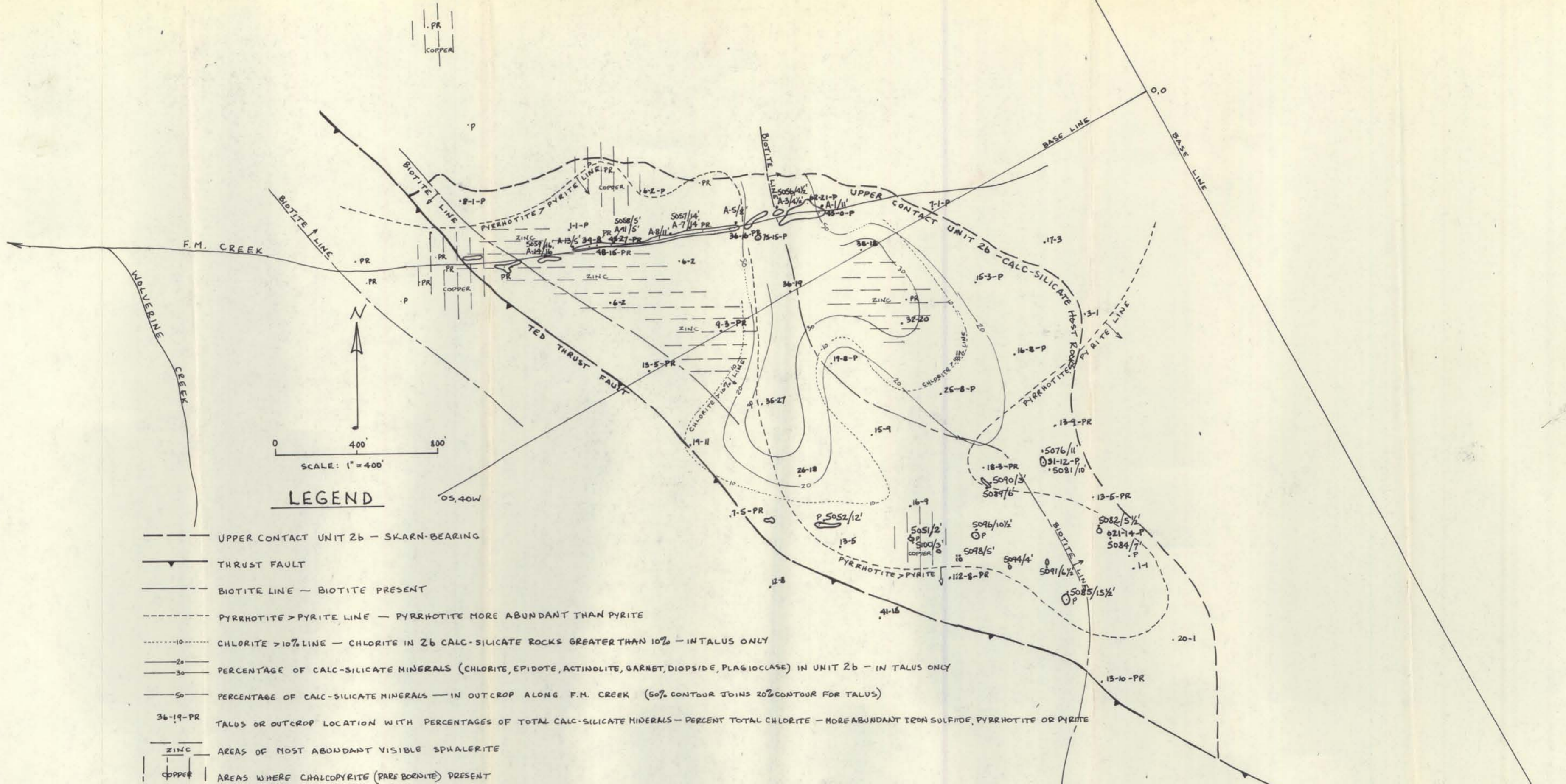


FIGURE 3
 GEOLOGY OF F.M. CREEK AREA, TED GROUP, BOULDER CREEK AREA,
 CENTRAL YUKON TERRITORY





SCALE: 1" = 400'

LEGEND

- UPPER CONTACT UNIT 2b - SKARN-BEARING
- ▼ THRUST FAULT
- - - BIOTITE LINE - BIOTITE PRESENT
- - - PYRRHOTITE > PYRITE LINE - PYRRHOTITE MORE ABUNDANT THAN PYRITE
- · - · - · CHLORITE > 10% LINE - CHLORITE IN 2b CALC-SILICATE ROCKS GREATER THAN 10% - INTALUS ONLY
- 20 — PERCENTAGE OF CALC-SILICATE MINERALS (CHLORITE, EPIDOTE, ACTINOLITE, GARNET, DIOPSIDE, PLAGIOCLASE) IN UNIT 2b - IN TALUS ONLY
- 30 — PERCENTAGE OF CALC-SILICATE MINERALS - IN OUTCROP ALONG F.M. CREEK (50% CONTOUR JOINS 20% CONTOUR FOR TALUS)
- 36-19-PR TALUS OR OUTCROP LOCATION WITH PERCENTAGES OF TOTAL CALC-SILICATE MINERALS - PERCENT TOTAL CHLORITE - MORE ABUNDANT IRON SULFIDE, PYRRHOTITE OR PYRITE
- ZINC AREAS OF MOST ABUNDANT VISIBLE SPHALERITE
- COPPER AREAS WHERE CHALCOPYRITE (RARE BORNITE) PRESENT
- OUTCROP
- 5059/16' A-14/16' ASSAY SAMPLE LOCATION

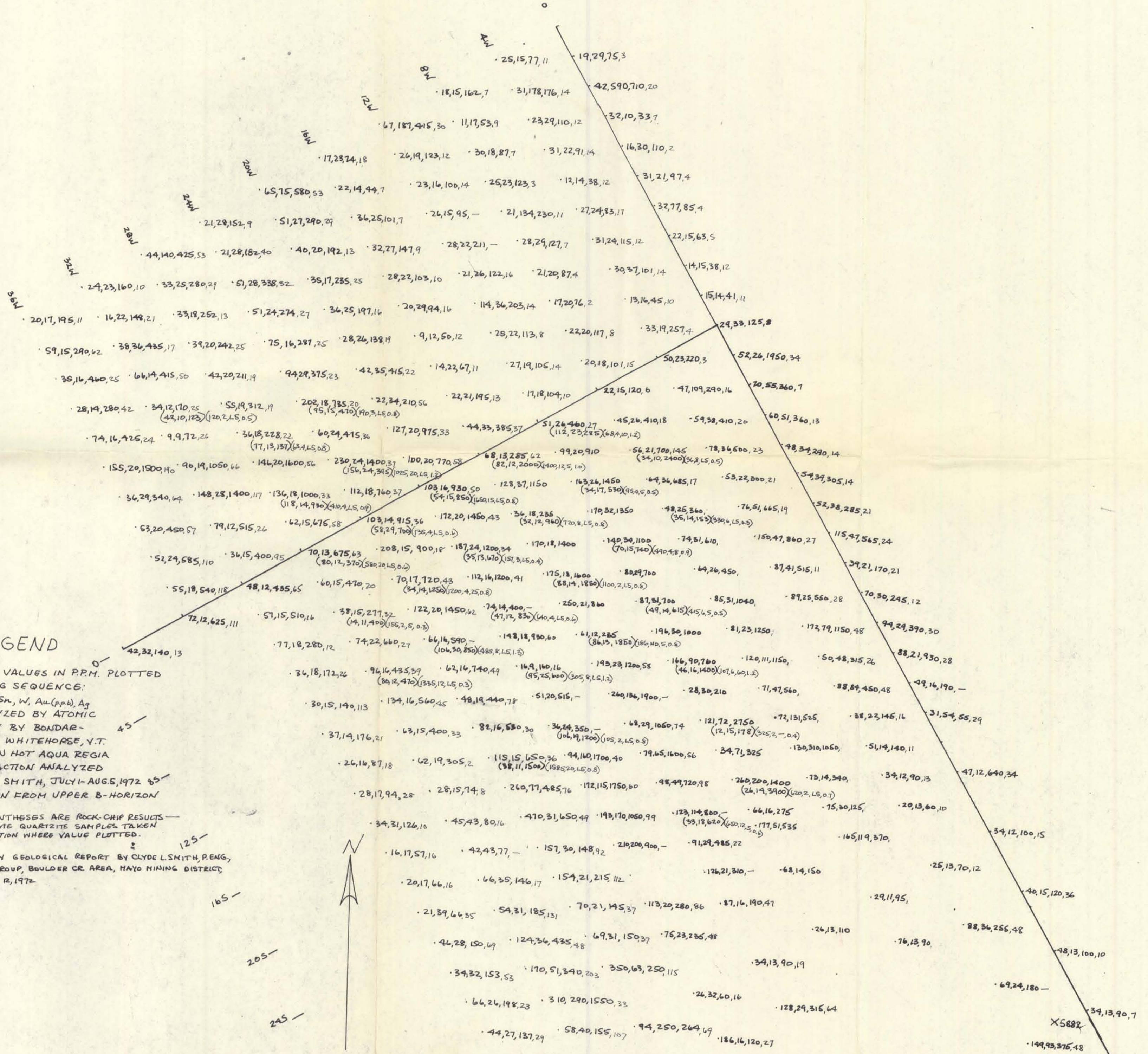
FIGURE 4

METAMORPHIC, ALTERATION AND MINERALIZATION FEATURES IN UNITS 2a, 2b
F.M. CREEK AREA, TED GROUP, BOULDER CR. AREA, CENTRAL YUKON TERRITORY

TO ACCOMPANY GEOLOGICAL REPORT BY CLYDE L. SMITH, P. ENG.,
ON THE TED GROUP, BOULDER CR. AREA, MAYO MINING DISTRICT,
DATED AUGUST 12, 1972

X
4621

X
5464



LEGEND

GEOCHEMICAL VALUES IN P.P.M. PLOTTED
IN FOLLOWING SEQUENCE:
Cu, Pb, Zn, Sn, W, Au (ppb), Ag
SAMPLES ANALYZED BY ATOMIC
ABSORPTION BY BONDAR-
CLEGG & CO., WHITEHORSE, Y.T.
EXTRACTION IN HOT AQUA REGIA
-80 MESH FRACTION ANALYZED
SAMPLER: R.W. SMITH, JULY-1-AUG. 1972
SAMPLES TAKEN FROM UPPER B-HORIZON
SOIL.
VALUES IN PARENTHESES ARE ROCK CHIP RESULTS -
5 CALCO-SILICATE QUARTZITE SAMPLES TAKEN
AT EACH STATION WHERE VALUE PLOTTED.

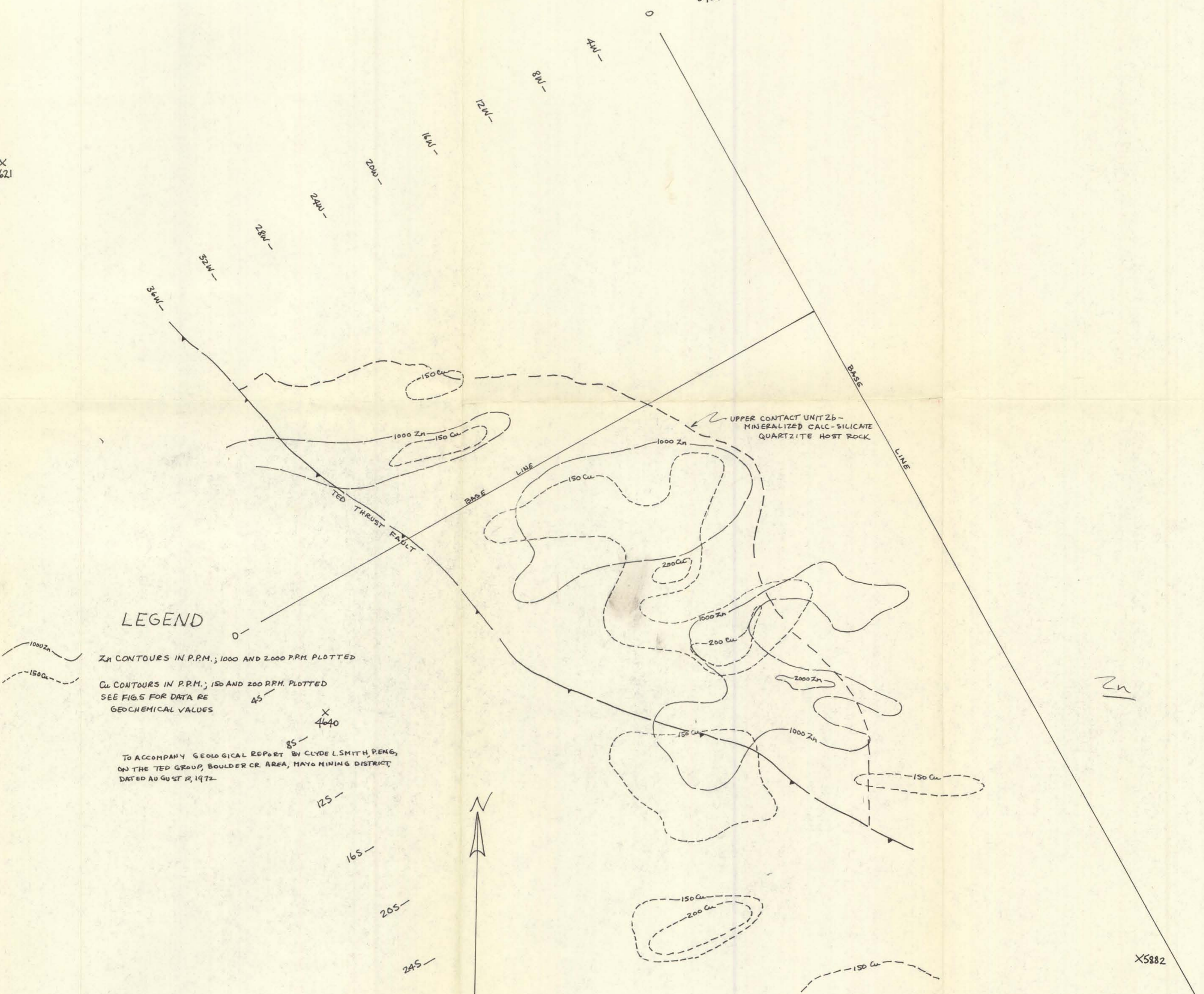
TO ACCOMPANY GEOLOGICAL REPORT BY CLYDE L. SMITH, P. ENG.,
ON THE TED GROUP, BOULDER CR. AREA, MAYO MINING DISTRICT,
DATED AUGUST 12, 1972.

FIGURE 5
GEOCHEMICAL VALUES ON GRID, F.M. CR. AREA, TED GROUP,
BOULDER CR. AREA, CENTRAL YUKON TERRITORY

SCALE 1:4,800
400 0 400 800 1200

X
4621

X
5464



LEGEND

Zn CONTOURS IN P.P.M.; 1000 AND 2000 P.P.M. PLOTTED

Cu CONTOURS IN P.P.M.; 150 AND 200 P.P.M. PLOTTED
SEE FIG. 5 FOR DATA RE
GEOCHEMICAL VALUES

TO ACCOMPANY GEOLOGICAL REPORT BY CLYDE L. SMITH, P. ENG.,
ON THE TED GROUP, BOULDER CR. AREA, MAYO MINING DISTRICT,
DATED AUGUST 12, 1972.

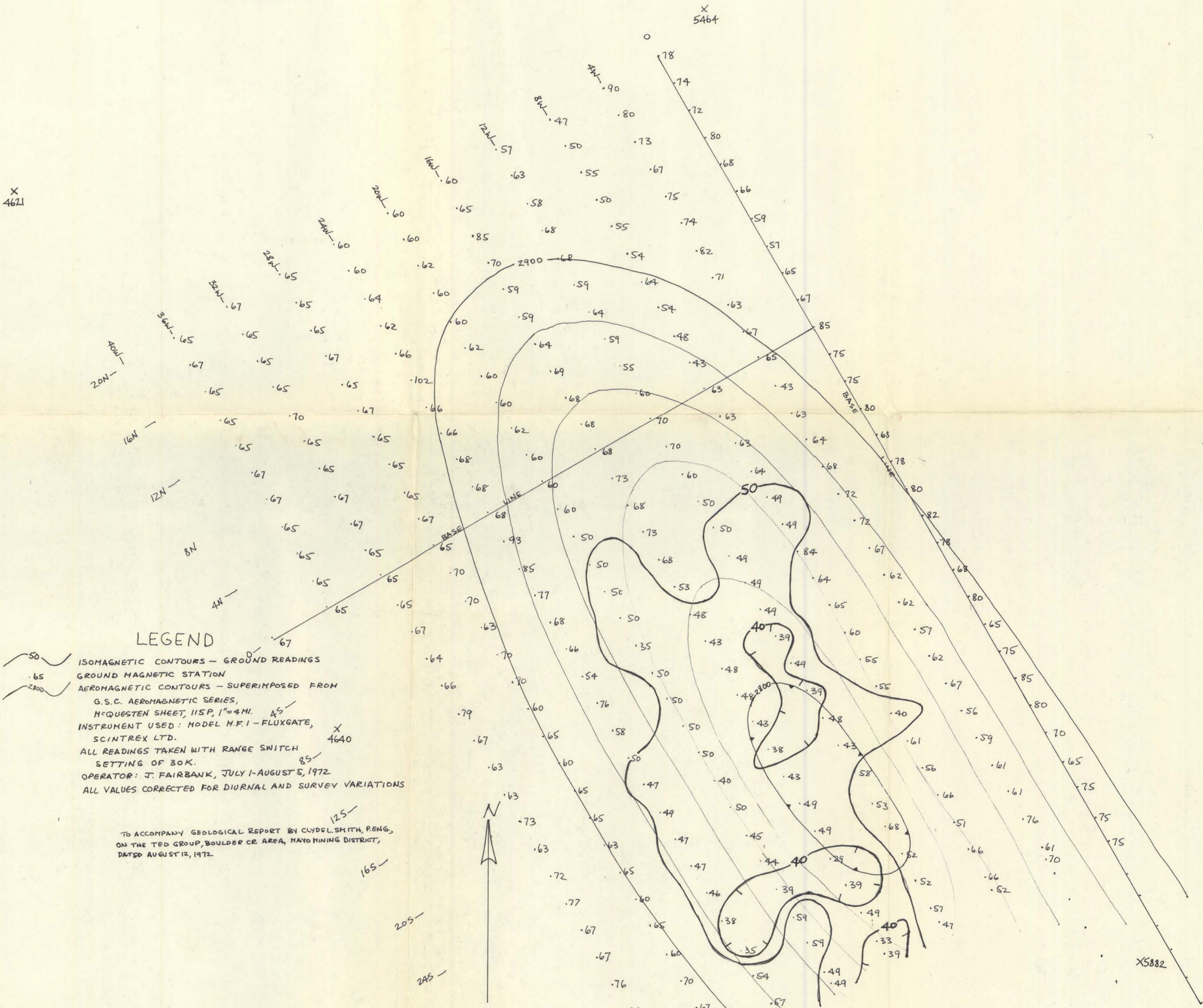
FIGURE 6
GEOCHEMICAL CONTOURS ON GRID, F.M. CR. AREA, TED GROUP,
BOULDER CR. AREA, CENTRAL YUKON TERRITORY

SCALE 1: 4,800
400 0 400 800 1200

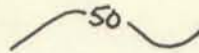
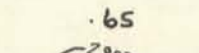

X5882

X
4621

X
5464



LEGEND

 ISOMAGNETIC CONTOURS - GROUND READINGS
 GROUND MAGNETIC STATION
 AEROMAGNETIC CONTOURS - SUPERIMPOSED FROM
 G.S.C. AEROMAGNETIC SERIES,
 McQUESTEN SHEET, 11SP, 1"=4MI. AS
 INSTRUMENT USED: MODEL M.F.1 - FLUXGATE,
 SCINTREX LTD. X
 4640
 ALL READINGS TAKEN WITH RANGE SWITCH
 SETTING OF 30K. 85
 OPERATOR: J. FAIRBANK, JULY 1-AUGUST 5, 1972
 ALL VALUES CORRECTED FOR DIURNAL AND SURVEY VARIATIONS

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285-
 205-
 245-
 325-
 FIGURE 7
 MAGNETIC VALUES AND CONTOURS, TED GROUP, BOULDER CR. AREA,
 CENTRAL YUKON TERRITORY

SCALE 1: 4,800
 400' 800' 1200'

X5882

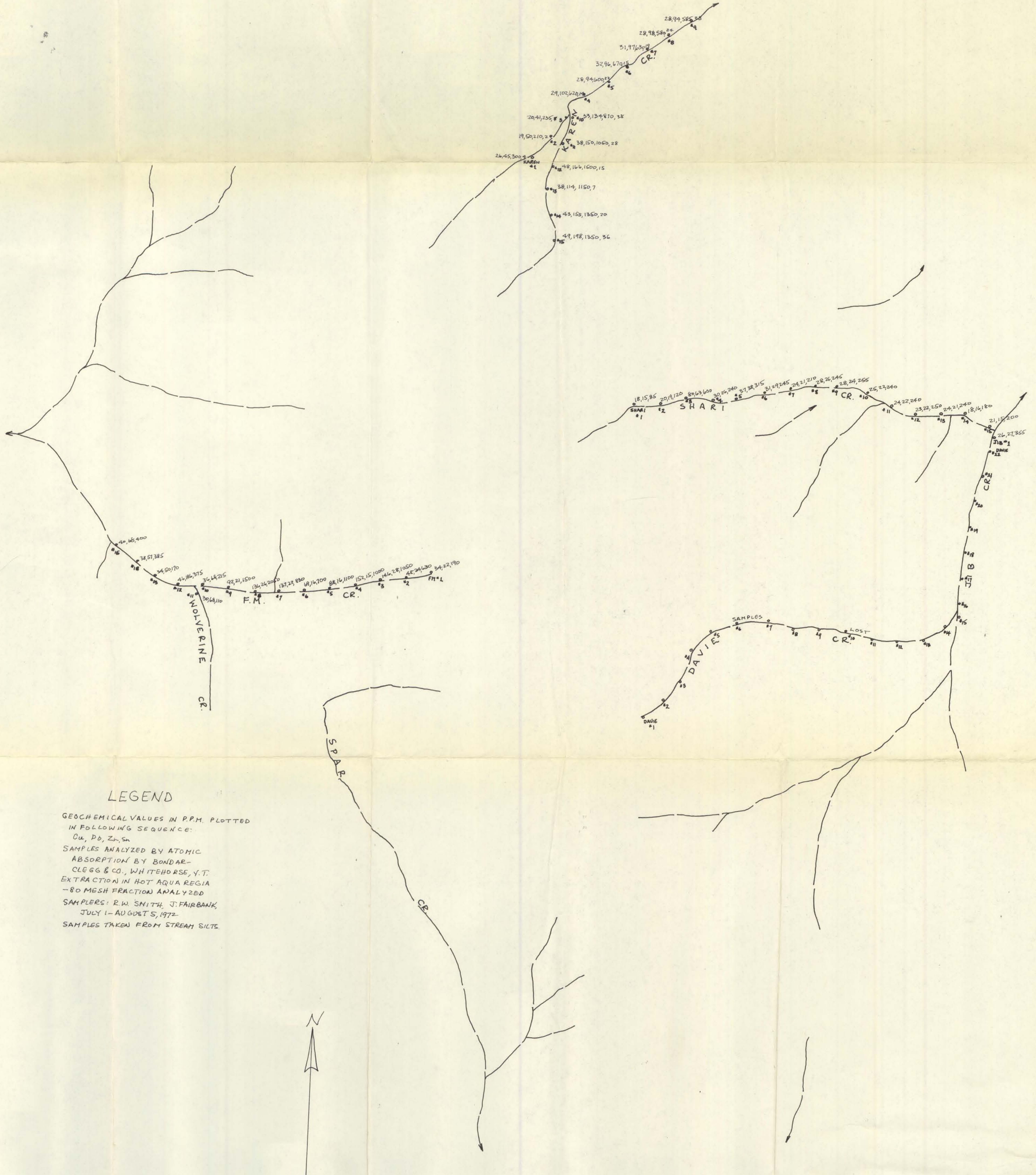
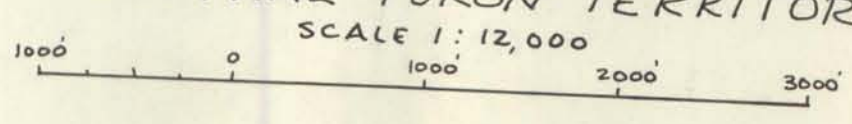


FIGURE 8.
 GEOCHEMICAL SILT VALUES, TED GROUP, BOULDER CREEK AREA,
 CENTRAL YUKON TERRITORY



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 DATED AUGUST 12, 1972.