



GEOLOGICAL & SAMPLING REPORT

ON THE

FF 1 - 16 MINERAL CLAIMS

YA 65927-942:



N.T.S. 105C/8

Lat: 60° 22'N

Long: 132° 05'W

WATSON LAKE MINING DISTRICT

YUKON

by

J.C. STEPHEN

Work Done: July 11 - July 19, 1981

by: J.C. STEPHEN EXPLORATIONS LTD.

Funded by: D.C. SYNDICATE

OCTOBER, 1981

090993

This report was examined by
the Geological Survey Unit
under Section 23 (1) Yukon Quartz
Act and is offered as
representation with the amount
of \$ 3,200-_____.

Atkinson

John Director, Exploration and
Geological Services for Commissioner
of Yukon Territory.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
REGISTER OF CLAIMS	2
LOCATION AND ACCESS	2
REGIONAL GEOLOGY	4
DESCRIPTIONS OF FORMATIONS AND MAP UNITS	6
PROPERTY GEOLOGY	10
ROCK UNITS	10
MINERALIZATION	14
SAMPLING PROGRAM	15
SUMMARY AND CONCLUSIONS	19
STATEMENT OF EXPENDITURES	20
APPENDIX I	SAMPLE DATA SHEETS
APPENDIX II	STATEMENT OF QUALIFICATIONS

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	LOCATION MAP 1:250,000	3
2	REGIONAL GEOLOGY 1"-4 miles	5
3	PROPERTY GEOLOGY 1"-1/2 mile	11
4	LONGITUDINAL SECTION GEOLOGY AND ASSAYS, 1:600	follows Page 16
5	GOLD ZONE GEOLOGY AND ASSAYS 1:60	17
6	TARN ZONE GEOLOGY AND ASSAYS 1"300	18

GEOLOGICAL & SAMPLING REPORT

on the

FF 1 - 46 MINERAL CLAIMS

INTRODUCTION

Investigation of the contact areas of the Seagull batholith for tin deposits was extended to include the south portion of the Hake batholith during 1981. In particular, crews were instructed to investigate a gold bearing skarn reported by the GSC in Memoir 326. This investigation led to staking the FF 1 - 16 mineral claims in June. Sampling of mineral zones was done in July and the claim group was subsequently enlarged to 46 claims in August, 1981.

Very limited geological mapping was conducted in conjunction with prospecting.

Sampling of the relatively well exposed skarn zone is described in this report. Low, but widespread values for tin and tungsten were obtained and small amounts of copper, silver and gold are indicated in a few samples.

REGISTER OF CLAIMS

<u>NAME</u>	<u>RECORD NUMBER</u>	<u>STAKER</u>	<u>DATE STAKED</u>	<u>DATE RECORDED</u>
FF 1-8	YA65927-34	David Ferguson	June 14	June 26, 1981
FF 9-16	YA65935-42	L. Fasullo	June 15-17	June 26, 1981
FF 17-24	YA67170-77	J.C. Stephen	Aug 24	Sept. 8, 1981
FF 25-32	YA67178-85	K.A. D'Arcy	Aug 24	Sept. 8, 1981
FF 33-40	YA67206-13	P. Denison	Aug 24	Sept. 8, 1981
FF 41-46	YA67186-91	J. Pautler	Aug 24	Sept. 8, 1981

LOCATION AND ACCESS

The claim group is located 27 miles northeast of Teslin at the southern headwaters of English Creek in the south portion of the Englishman's Range. See Figure 1. The claims cover part of the contact of the Hake batholith as shown on Figure 2.

Elevations on the property range from just below 4,500 feet to above 5,500 feet. Small timber occurs in the lower valleys but most of the area is above tree line and is fairly rugged. Drainage is primarily to the west into Wolf River.

Access was by helicopter from Swift River or from Teslin as circumstances dictated.

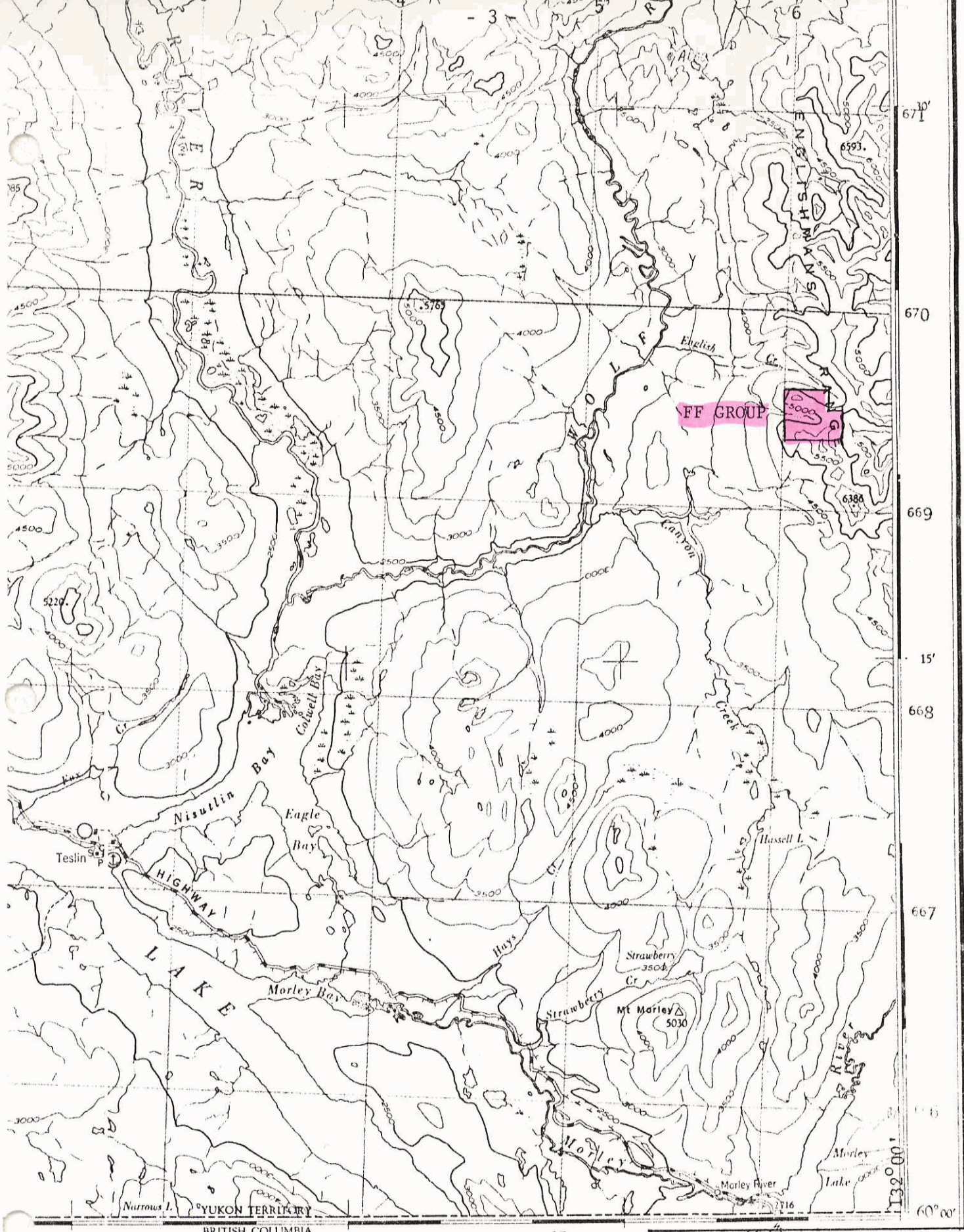


FIGURE 1

D.C. SYNDICATE
 LOCATION MAP
 FF CLAIM GROUP

1:250,000

Oct. 1981

REGIONAL GEOLOGY

Geology of the region is described in Memoir 326 by Robt. Mulligan, 1963. Figure 2 is copied from the map accompanying that memoir and illustrates the geology in the vicinity of the FF Group. Pertinent portions of rock descriptions are reproduced below.

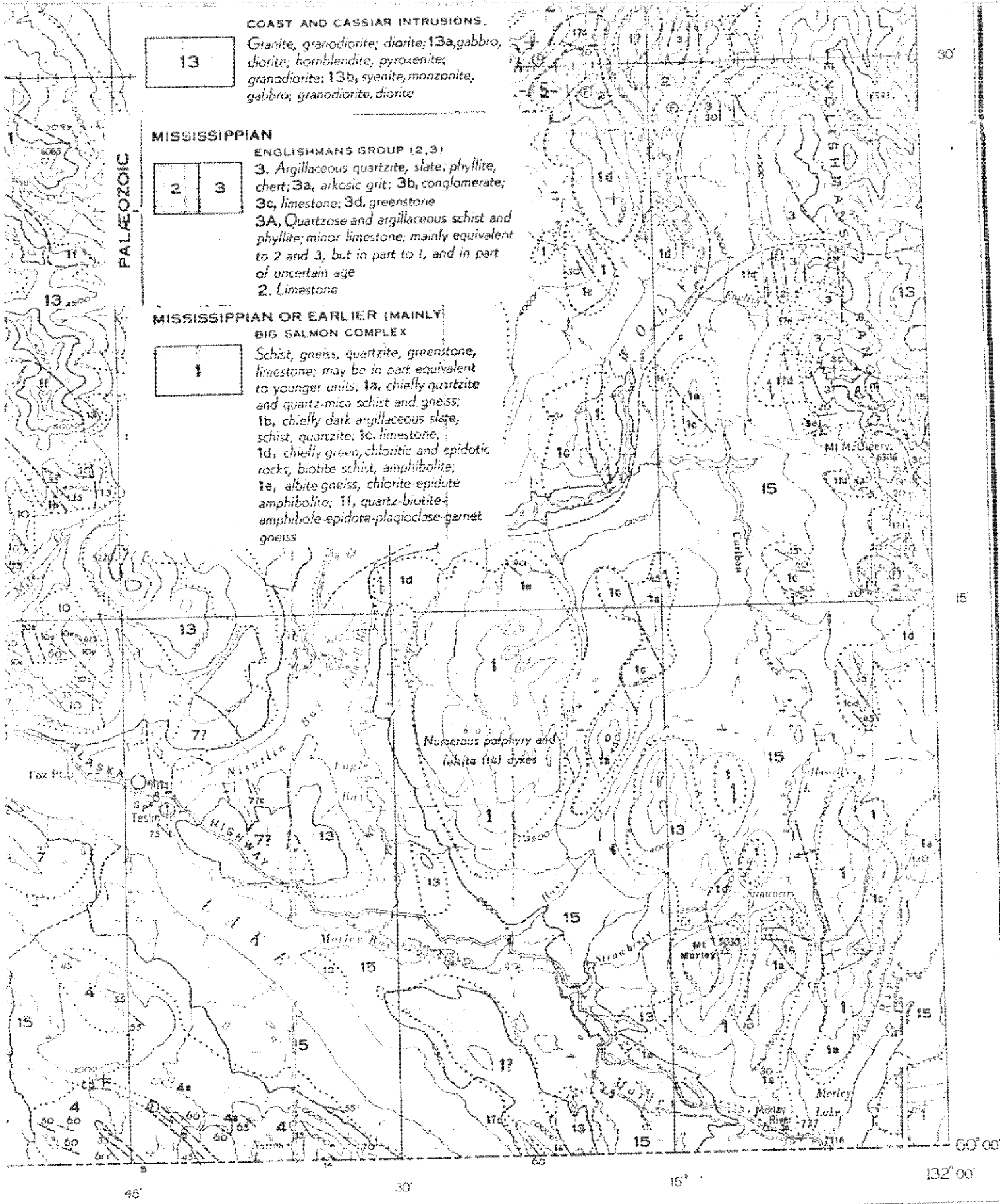


FIGURE 2

PRINTED BY THE SURVEYS AND MAPPING BRANCH

D.C. SYNDICATE
 REGIONAL GEOLOGY
 FF CLAIM GROUP

1"-4 miles

Oct. 1981

Description of Formations and Map-Units

Unit 1—Big Salmon Complex

• • • • •

General Description

The Big Salmon Complex comprises various rocks of sedimentary and volcanic origin, whose metamorphosed condition in general distinguishes them from those of other units. In this respect the unit corresponds to the Yukon Group of areas to north and west. However, it locally underlies Mississippian limestone of unit 2 with apparent conformity, and is believed to be mainly equivalent to Mississippian and earlier Palaeozoic formations in Wolf Lake and McDame areas to the southeast. The age of the metamorphism, as indicated by the potassium-argon ratio of muscovite from the schists, has been determined as 214 million years (*see p. 25*).

Part of the complex may be the metamorphosed equivalent of units 2 and 3. On the other hand, a part near the western border of the outcrop area is of apparently relatively low metamorphic grade, and is not certainly distinguishable from nearby similar rocks of unit 9. The structure is generally highly complex and reliable stratigraphic subdivision is not feasible. In some places subdivision according to predominant lithological type is possible, however, and this has been attempted on the map.

Lithology

Probably the most abundant rocks are micaceous quartzites, and quartz-mica schists and gneisses (1a) in which biotite is the characteristic if not the chief micaceous mineral. These rocks are mainly light to dark grey, occasionally shades of brown or purple, and commonly thin bedded or finely banded. Some sections consist chiefly of nearly pure quartzite; these are white, buff, or pale green, and coarsely bedded. Some very fine grained or cryptocrystalline cherty quartz is in vein-like bands closely spaced among the quartzite beds from which it is apparently derived by solution and reprecipitation. These rocks are best developed along the central ridges of Big Salmon Range. They are also prominent just east of the upper and lower parts of Nisutlin River, near Morley River, and flanking the limestone band in the southeast corner.

• • • • •

Green, generally schistose chlorite, biotite, and epidote-rich rocks and amphibolite (1d) make up a substantial part of the unit; these, and albite-rich gneiss and albite-epidote amphibolite (1e) are believed to be largely of volcanic origin. The greenstones vary from unshered, relatively unaltered rocks in which porphyritic, amygdaloidal, and fragmental structures definitely indicate a volcanic origin to banded quartzose rocks of evidently sedimentary origin. Augite, almost entirely pseudomorphed by uralitic hornblende, actinolite, and chlorite, is prominent as phenocrysts in meta-lavas and flow breccias in many places, especially north and east of Mount Morley, and on the flanks of Englishmans Range near latitude 60°22', longitude 132°08'. Accompanying original feldspar is everywhere replaced by sodic plagioclase and zoisite-epidote saussuritization assemblages. Elsewhere, more highly deformed and altered rocks of presumably similar original nature have been reduced to albite-epidote-amphibole schists and amphibolite. Rocks banded in various shades of green and containing more or less granular quartz, along with epidote, chlorite, biotite, and secondary green amphibole, are widely distributed through the outcrop area. Some of these appear to be tuffaceous quartzites or meta-greywackes derived in all probability from a volcanic terrain. Biotite spangles on the surface are a conspicuous feature of the greenstones in many places.

• • • • •

The limestone (1c) is nearly all white or light grey and moderately to strongly recrystallized. Most is massive but some is banded in shades of white or bluish grey. A thick, buff-coloured band in the northern part of Big Salmon Range was reported by Lees but no buff-coloured or apparently dolomitized limestone was seen by the writer. No fossil remains or structures of recognizably organic derivation were found in place but some obscurely fossiliferous float (*see* p. 24) was found near a unique occurrence of black limestone bands at latitude $60^{\circ}37'$, longitude $133^{\circ}14'$. Limestone is closely associated with greenstone in the valley of Sidney Creek, and thence northwestward towards the northwest map-boundary. Near the southeast corner at latitude $60^{\circ}13'$, longitude $132^{\circ}05'$ limestone and greenstone definitely interfinger in numerous bands. The major limestone band east of Mount Morley may similarly grade into volcanic rocks along strike. Limestone occurs as lenses elsewhere in thick volcanic sections and is associated with greenstone in a number of places. In some it appears to overlie, in others to underlie, greenstone and many bands are unrelated to greenstones. Skarn, composed chiefly of coarsely crystalline epidote and garnet, locally pyrite-bearing, occurs in several places along granite contacts in Big Salmon Range, notably at latitude $60^{\circ}41'$, longitude $133^{\circ}14'$; latitude $60^{\circ}30'$, longitude $132^{\circ}53'$; and latitude $60^{\circ}27'$, longitude $132^{\circ}50'$.

.

Similar limestone is interbedded with greenstone at latitude $60^{\circ}12'$, longitude $132^{\circ}04'$. It is overlain by biotite-muscovite quartzite and gneiss, greenish chlorite-mica schist and feldspathic gneiss which in turn apparently underlie the limestone of unit 3 near the point where it crosses the eastern map-boundary at latitude $60^{\circ}15'$.

Farther north along the flank of Englishmans Range, at latitude $60^{\circ}25'$, longitude $132^{\circ}08'$, chloritic schist and green augen gneiss outcrop near limestone of unit 3, which there carries diagnostic Mississippian fossils. These rocks and the slate, quartzite, and chert to the east dip westward and are assumed to be overturned, but the contacts are covered and this assumed simple relationship is open to question for reasons discussed in connection with units 2 and 3.

.

Englishmans Group (Units 2, 3)

This group comprises fossiliferous limestone (unit 2) and associated sedimentary rocks (unit 3) including apparently unfossiliferous limestone that form a geographically continuous assemblage believed to be wholly of Mississippian age.

Unit 2

Unit 2 consists essentially of intermittent bands of fossiliferous limestone lying in a northwesterly trending belt between rocks of unit 1 on the west and those of unit 3 on the east. The belt crosses the eastern map-boundary at latitude 60°15', and extends almost to the northern map-boundary east of Nisutlin River.

Lithology

The unit consists essentially of limestone, chiefly white but in part dark grey. Some is buff weathering but none appears to be dolomitic. The white limestone contains abundant chert, in nodules and irregular masses in certain bands, and fossils are commonly replaced by silica. The dark grey limestone is generally banded, is distinctly sulphurous, and carries the best and most abundant fossils. Locally the limestone is somewhat recrystallized but in the main it is characteristically less altered than the recrystallized limestone of unit 1. The northern bodies west of Thirtymile Creek, however, are locally strongly corrugated like the associated, probably underlying schist.

Limestone breccia generally occurs within narrow belts and may be tectonic features but here and there rounded fragments of foreign material are also present and the rocks may be true conglomerates. Beds of massive and banded chert a few tens of feet thick are present in several such localities. Some are partly crushed and mashed with limestone to form a pseudoconglomerate.

.

Unit 3

This unit consists typically of unmetamorphosed, dark weathering sedimentary rocks that make up the main mass of Englishmans Range and Thirtymile Range. They are for the most part separated by the fossiliferous limestone of unit 2 from the typically metamorphosed rocks of unit 1.

The part mapped as unit 3A consists chiefly of phyllite and quartzite northwest of Thirtymile Lake and north of Fish Lake in the northeastern part of the map-area.

Lithology

The typical rocks are dark argillaceous slates and quartzites, with locally abundant chert. Arkose (3a), conglomerate (3b), greywacke, and brownish grits and sandstones are minor but distinctive components. Limestone mapped as 3c is doubtfully correlative with unit 2. Definitely volcanic rocks are in very minor amount, but some fine green-and-purplish mottled rocks of uncertain origin are locally prominent and distinctive. A little very fine rather soft pinkish phyllite has dubious value as a horizon marker in some places. Unit 3A consists of graphitic slate, sericitic phyllite and quartzite, and sheared and silicified equivalents.

.

Coast and Cassiar Intrusions (Unit 13)

Granite, granodiorite, and minor dioritic facies form masses of various sizes distributed throughout the map-area. That along the north boundary west of Quiet Lake is part of a batholith that extends at least 10 miles north into Quiet Lake area, and the disconnected series of stocks extending southeast through Big Salmon Range to Morley River are probably connected with it. The large mass along the east boundary in Englishmans Range is part of a small batholith that is probably an offshoot or satellite of the Cassiar batholith. The mass bordering Atlin Lake in the southwest corner extends southward for 25 miles in Atlin map-area.

Typical specimens from the various bodies differ somewhat in appearance and composition, but except for those bodies separately designated (units 13a, b), the differences are not outstanding.

.

The Englishmans Range intrusion is a pink, buff weathering, coarse-grained and commonly porphyritic biotite granite with abundant rather smoky grey quartz. It consists of about equal parts potassic feldspar, plagioclase, and quartz, with minor biotite and black opaque-mineral. The potassic feldspar is a patchy perthitic type and is cloudy. The plagioclase is fresh, occurs as inclusions in the potassic feldspar and as cores rimmed by the latter.

Some rusty garnet-amphibole-epidote skarn, found near contacts with limestone at latitude $60^{\circ}21\frac{1}{2}'$, longitude $132^{\circ}05'$, contains pyrite, and a little gold, silver, and base-metals. Tourmaline-quartz concentrations noted by Poole farther east (pers. comm.) were not encountered within the map-area. Contact facies are normal in granularity and not gneissic. The contacts are sharp and generally show little metamorphic effect on the invaded rocks, although sill-like sheets emanate from the main granite body in some places. About latitude $60^{\circ}31'$, longitude $132^{\circ}08'$, however, inclusions of a roof-pendant type are abundant and are considerably metamorphosed.

.

Internal and External Structure

The granitic plutons of the area, excepting possibly the series extending through Big Salmon Range, are definitely intrusive types without gneissic or migmatitic phases, and cut discordantly across fold structure. Contact metamorphic effects are generally very limited in intensity and range.

PROPERTY GEOLOGY

The property has not been mapped in detail and the following descriptions are as a result of prospecting and sampling procedures. Data is plotted on a copy of air photo A 11446-435 at a scale of 1" - 1/2 mile (Figure 3). No 1:50,000 topographic maps are available for this area to serve to prepare a contoured base map. The available 1" - 1/2 mile claim maps are useless.

ROCK UNITS

1. Quartzite, Argillaceous Quartzite, Tuff?

Massive outcrops of sediments with possible tuffaceous phases underlie the skarn horizon conformably. These rocks are well bedded in places with small ellipsoidal fragments which may have been lapilli fragments in some thin beds. The formation is generally an impure quartzitic to greywacke type of sediment. Fractures and joints are commonly coated with fine black to fairly coarse radiating tourmaline.

2. Garnet, Magnetite Skarns

The main skarn horizon is generally flat lying and conformable along its lower sharp contact with Unit 1. The lower portion of the horizon is generally a dark red garnet skarn which is separated from an upper green garnet skarn by a discontinuous bed of limestone. From about 13+00E to 22+00E relatively large amounts of magnetite occur primarily in the brown garnet skarn horizon.

Figure 4 depicts the geology of the main skarn horizon at a scale of 1:6000.



LEGEND

- 5 Granite (Hake Batholith)
- 4 Argillaceous Quartzite 4a Chert
- 3 Limestone
- 2 Magnetite, Garnet Skarn
- 1 Quartzite, Argillaceous Qtzite, Tuff?

J.C. STEPHEN EXPLORATIONS LTD
 D.C. SYNDICATE
 FF CLAIM GROUP
 PROPERTY GEOLOGY
 Scale 1"=1/2 mile Oct. 1981

FIGURE 3

Two branches of the skarn horizon project upward along apparent fault zones. The zoning and mineralogy of these branches are generally similar to that of the main horizon.

Several local pods or zones of sulphide mineralization occur. These consist essentially of pyrrhotite with small amounts of chalcopyrite, pyrite, arsenopyrite in some sections.

Smaller zones of skarn occur in the "Tarn Cirque". One of these was sampled in some detail as shown in Figure 5 at 1:300 scale. Tin and tungsten mineralization exists in others of these small zones. They consist primarily of brown and green garnets with some tourmaline.

3. Limestone

The limestone horizon is presumed to be part of the GSC Unit 2 of the Englishman's Group. On the claim group it is generally white, fairly well bedded and conformable in general with the skarn horizon and the underlying sediments. There is some local disruption in the vicinity of the faults above the skarn horizon but along that cliff face the formation appears generally flat lying.

4. Argillaceous Quartzite

This formation lies conformably above the limestone. Composition varies but the rock generally appears dark grey, very siliceous and fine grained. Weathered surfaces show outlines of fine clasts and marks of fine bedding. Shale and argillite are interbedded in the unit. Chert was common

in fine bands in the argillaceous quartzite and occurs as thick beds in the purer quartzites.

4a. Chert

The chert unit was found both interbedded in all other units and in thick individual beds. The rock was very siliceous, light to dark grey, white, green or buff in color. In several locations between the limestone and argillaceous quartzite a thick bed (10'-50') of banded (2" bands) chert with numerous colors was present.

5. Granite

The granite unit was pink to buff, medium to coarse grained with prominent grey quartz eyes. It is generally massive with well developed jointing.

A specimen from the "Tarn Cirque" was supplied to Dr. Spooner, University of Toronto, for research purposes. It is relatively difficult to get a fresh specimen from surface exposures.

MINERALIZATION

The main garnet skarn horizon, from the west end, consists principally of garnet skarn with calcite and occasional magnetite lenses. Going east the magnetite becomes more prominent and eventually becomes about 15 feet thick with brown and then green garnet zones above. Zones of sulphides occur sporadically with pyrrhotite the predominant mineral, chalcopyrite, pyrite and arsenopyrite occurring in smaller quantity. A few small lenses of nearly massive arsenopyrite were found.

Examination of specimens shows scattered scheelite mineralization. No tin minerals have been identified in hand specimen.

Quartz veining occurs as flat lying lenses in an outcrop of siltstone and pebble conglomerate 700 feet west of the 0+00E point on the skarn horizon. A specimen of quartz run geochemically returned 980 ppb Au. Some magnetite and malachite was present. Later sampling returned only < 0.003 and 0.004 oz Au/ton. See Figure 5

Within the "Tarn Cirque" several small skarn zones were located. The apparently largest of these, in the west wall, was sampled as the Tarn Zone. Figure 6. This zone is primarily a garnetiferous skarn as are the other smaller zones. Tourmaline is common in these zones.

SAMPLING PROGRAM

At the start of exploration on this property, three silt samples of ordinary finest available silt were collected from the stream draining Tarn Cirque. Sheet 1, Appendix I

These samples gave the following results:

<u>Sample Number</u>	<u>Distance Downstream from Tarn</u>	<u>Sn ppm</u>	<u>W ppm</u>	<u>Zn ppm</u>	<u>Cu ppm</u>
81DCY-1	1,200 feet	3	15	108	78
Y-2	2,700 feet	3	20	74	36
Y-3	4,500	2	8	95	40

The third sample was located in the broad valley directly below the central portion of the main skarn zone. The tungsten results are anomalous and should have instigated check prospecting if taken during a regional survey.

A series of 15 character samples were taken along the trend of the main skarn zone (Sheet 2, Appendix I) in an attempt to determine which skarn type might carry the best tin and tungsten values. Results ranged between 1 - 740 ppm Sn; 1 - >800 ppm W , 24 - 335 ppm Zn; 1 - 6 ppm Pb; <10 -980 ppb Au; 0.1 and 0.2 ppm Ag and one value of 875 ppm Cu. High geochem values for Sn and W were checked by assay giving values between 0.11% and 0.39% Sn; 0.01% and 0.15% WO₃. Values do not appear to be confined to any one particular type or zone of the skarn horizon.

A program of chip sampling on sample lines at 100 foot intervals along the main skarn zone was instituted. Results are shown on Figure 4 and are listed on sheets 3 - 9, Appendix I. Results are summarized on sheets 11 - 13 and averaged on sheets 14 - 16.

The main skarn zone is broken down into several sections on the basis of sample density and variation in grade and thickness. Results are as follows from west to east:

Zone	Interval		Length	Thickness	Sn %	WO ₃ %
	From	To				
A	1+00E	4+50E	350 Ft	6.9 Ft	0.168	0.06
No Outcrop	4+50E	6+50E	200 Ft	-	-	-
B	6+50E	8+50E	200 Ft	10.0 Ft	0.137	0.097
C	8+50E	10+50E	200 Ft	12.5 Ft	0.078	0.062
D	10+50E	18+50E	800 Ft	14.8 Ft	0.181	0.059
E	18+50E	22+00E	350 Ft	23.6 Ft	0.127	0.046

Main Fault Skarn

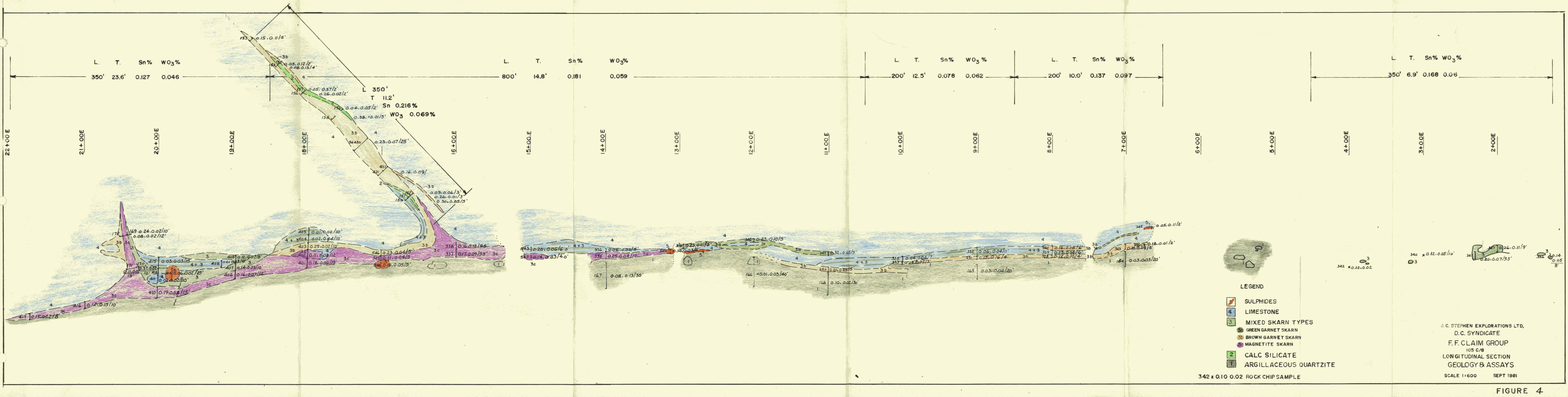
	0+50	4+00	350 Ft	11.2 Ft	0.216	0.069
--	------	------	--------	---------	-------	-------

Tarn Zone - Figure 6

	0+00N	1+15N	115 Ft	23.6 Ft	0.265	0.024
--	-------	-------	--------	---------	-------	-------

Isolated samples from other small skarn zones in the Tarn Cirque are listed on Sheet 10, Appendix I. These assays vary from 0.01 to 0.32% Sn, 0.01 to 0.97% WO₃.

Some samples have been assayed for additional elements and indicate the following ranges of values: 0.01 - 0.24% Cu, 0.01 - 0.30 oz Ag, 0.003 - 0.018 oz Au.



J.C. STEPHEN EXPLORATIONS LTD.
 D.C. SYNDICATE
 F.F. CLAIM GROUP
 105 C/B
 LONGITUDINAL SECTION
 GEOLOGY & ASSAYS
 SCALE 1:600 SEPT 1981

342 x 0.10 0.02 ROCK CHIP SAMPLE

FIGURE 4

QUARTZ VEIN
WITH MAGNETITE

.1462 0.004 Au, 0.01% Sn, 0.24% Cu / 1.5'

SILTSTONE AND

.1163

0.003 Au, 0.01% Sn / 15'
QUARTZ VEIN

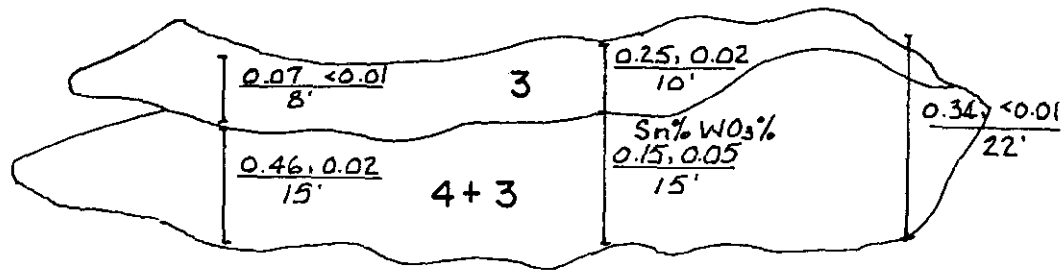
SILTSTONE PEBBLE CONGLOMERATE

.161 0.003 Au, 0.01% Sn / 20'

OUTCROP AREA
7+00 WEST

D.C. SYNDICATE
F.F. CLAIM GROUP
GOLD ZONE
GEOLOGY & ASSAYS
Scale 1:60 Sept 1981

FIGURE 5



VERTICAL SECTION

D.C. SYNDICATE
 F.F. CLAIM GROUP
 TARN ZONE
 GEOLOGY & ASSAYS
 Scale 1:300 Sept 1981

FIGURE 6

SUMMARY AND CONCLUSIONS

The FF claim group has received only very preliminary exploration which has concentrated on chip sampling of extensive skarn exposures. Grades of mineralization are relatively low and are probably sub-economic at this time. Potential for possible ore grade zones is relatively good however.

Exposure of the skarn is by accident of present topography and the total extent of the formation is unknown. No systematic geological mapping has been conducted and correlation of skarn zones of the main zone and in the Tarn Cirque is in doubt. Depth from surface to the skarn horizon in the plateau area above and south of the main zone is unknown for diamond drill estimation purposes.

It is recommended that:

- (a) a base map be prepared at a scale of 1:5000, or preferably larger (1:2500), from air photos with contours at 20 metre intervals
- (b) that the property be mapped geologically in 1982 and at the same time talus and soil sampling should be done on the north slope of the main valley in search of skarn horizons below the limestone outcrops on that side
- (c) a magnetometer survey of the plateau area above and south of the main skarn should be conducted in conjunction with mapping.

Respectfully submitted,

J.C. STEPHEN EXPLORATIONS LTD.


J.C. Stephen

STATEMENT OF EXPENDITURES

SALARIES AND BENEFITS

<u>Name</u>	<u>Rate</u>	<u>Dates</u>	<u>Amount</u>	<u>Total</u>
D. Ferguson	1,750 + 15%	July 11-19	\$584	
L. Fasullo	1,000 + 15%	July 11-19	334	
J. Lawton	1,000 + 15%	July 11-19	334	
N. Silins	1,000 + 15%	July 11-19	334	\$1,586

FOOD AND CAMP SUPPLIES

36 man days @ \$14.00 504

HELICOPTER SUPPORT

July 11 - Mobilization 1:40

July 19 - Demobilization 1:35

3:15 @ \$400/HR = \$1,300

Fuel: 3:15 X 22 gal. @ \$2.10 = \$150 1,450

ASSAY COSTS

Inv. 11528	12 Geochem	Sn W Zn Pb Cu Au	\$168.94	
11797	3 Geochem	Sn W Zn Cu	29.33	
11798	7 Geochem	Sn W Cu Au Ag	94.35	
12182	6 Assays	Sn WO ₃	81.60	
12672	47 Assays	Sn WO ₃ Cu Au Ag	878.48	
12673	21 Assays	Sn WO ₃	359.13	
12688	13 Assays	Sn WO ₃	<u>209.95</u>	<u>1,822</u>
				<u>\$5,362</u>

APPENDIX I

SAMPLE DATA SHEETS

SAMPLER P. FERGUSON

PROJECT J.C. SYNDICATE (AREA FFI)
(60° 21' 132° 05')

NTS 105C

LINE

AIR PHOTO No. A11435

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE DIP	ADDITIONAL REMARKS	GEOCHEM		Au.	Pb	Sn	W
							APPARENT WIDTH	TRUE WIDTH				
(1) 27504C	o/c 1	QUARTZ VEIN IN BEEHIVES SPECIFIC MINERAL BROWN GARNET SCARN		MAGNETITE PYRITE MAGNETITE STAIN?					980 ppa	4	0.11% 700	0.02% 150
(2) 27505C	o/c 5	BROWN GARNET SCARN							40	1	94	350
(3) 27506C	o/c 5	BROWN GARNET MAGNETITE SCARN		MAGNETITE					20	1	100	7800
(4) 27507C	FROM PT 5 TO 60FT EAST	MAGNETITE MAGNETITE BROWN GARNET SCARN		"		THIN MAGNETITE VEINS (2-6")			20	6	80	7800
(5) 27508C		MARBLE (CALC SILICATE, GREEN BROWN GARNET SCARN				20' THICK			<10	4	15	225
(6) 27509C		MAGNETITE SCARN		"		5' THICK, GREEN & BROWN GARNETS ABOVE			30	1	340	350
(7) 27510C		RUSTY ZONE BROWN GARNETS SCARN		PYRITE MAGNETITE CALCIFIED SITE?		4' THICK			10	875	110	20
(8) 27511C		MAGNETITE SCARN		MAGNETITE		SOME CALC SILICATE VEINS, GREEN GARNETS ABOVE 15' THICK OF MAGNETITE			<10	1	200	7800
(9) 27512C		MARBLE (GREEN GARNET SCARN				SOME BLACK TUFFMANN			<10	1	215	125
(10) 27513C		MAGNETITE SCARN		"					70	2	185	300
(11) 27514C		MAGNETITE SCARN		"		SOME GREEN GARNET SCARN, 15' THICK			60	3	360	7800
(12) 27515C		BROWN GARNET SCARN				SOME GREEN ACTINOLITE 125' THICK			10	6	740	35
(13) 27516C		ACTINOLITE IN MARBLE							A ₉ 0.1	70	1	1
(14) 27517C		CHERTY CALC SILICATE							0.2	<10	7	12
(15) 27518C		GREEN & GRAY CHERTY CALC SILICATE							0.2	<10	19	50
(16)												
(17)												
(18)												
(19)												
(20)												

SAMPLER DAVE FERGUSON

PROJECT D.C. SYNDICATE - FF CLAIMS

LINE

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS		
									Sn	W.D.	Sb
(1) 56326 A	1+25E 0'-2'	Gn+Bn Gts				Gts disseminated as well as crystals	8'		0.14	0.05	✓
(2) 56327 A	2+00E 0'-9'	Gn+Bn Gts				Gts disseminated as well as crystals	9'		0.26	0.11	
(3) 56328 A	2+00E 0'-4'	Gn+Bn Gts				Gts disseminated	4'		0.12	0.10	
(4) 56329 A	2+00E 4'-9'	Marble with Gn+Bn Gts				Gts crystals	5'		0.13	0.04	
(5) 56330 A	2+00E 9'-15'	Gn Gt with Bn Gt				marble bands. Gts crystals and disseminated	6'		0.16	0.08	
(6)											
(7)											
(8)											
(9)											
(10)											
(11)											
(12)											
(13)											
(14)											
(15)											
(16)											
(17)											
(18)											
(19)											
(20)											

SAMPLER Frs. 110

PROJECT DC SYNICATE
FF. CLAIMS

LINE _____

AIR PHOTO No. _____

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAYS					
								TRUE WIDTH		Sn	WO ₃	Ag	Au		
(1)	150F	1+00F	GREEN GARNET SKARN				5' THICK			0.30	0.05				
(2)	151F	1+00F-10'	CALC - SILICATE				3' THICK.			0.26	0.01				
(3)	152F	1+00F +28'	GREEN GARNET SKARN				3' THICK.			0.09	0.06				
(4)	153F	4+00F	BROWN + GREEN GARNET SKARN.				5' THICK, END OF FAULT			0.15	0.11				
(5)	154F	3+50F	"				4' THICK.,			0.08	0.13				
(6)	155F	3+50F	CALC SILICATE				2' THICK.			0.05	0.12				
(7)	156F	3+00 F	BROWN + GREEN GARNET				2' THICK.			0.26	0.02		-		
(8)	157F	3+00F	CALC - SILICATE				2' THICK.			0.05	0.37		-25-		
(9)	158F	2+50F	BROWN + GREEN GARNET				5' THICK ABOVE BASE LINE.			0.38	0.01				
(10)	159F	2+50F	CALC - SILICATE				2' THICK			0.04	0.05				
(11)	161FG	0+00G	QUARTZ VEINS	Au zone			1 1/2' THICK WITH MAGNETITE POWDS			0.24	0.01	0.01	0.30	0.004	
(12)	162FG	0+00G	QUARTZ VEINS				6' THICK " "				0.01	0.01	0.01	0.02	<0.003
(13)	163G	0+00G	MUDSTONE				15' THICK				<0.01	<0.01	0.02	0.01	<0.003
(14)	164	7+00E	QUARTZITE WITH TOURMALINE				TOURMALINE IN FRACTURES (20' THICK)			0.03	0.03				
(15)	165	9+00E	"				"			0.03	0.04				
(16)	166	12+00E	"				" (45' THICK)			<0.01	0.03				
(17)	167	14+00E	"				" "			0.08	0.13				
(18)	168	11+00E	"				" 30' THICK			0.10	0.02				
(19)	169F2	1+00F2	BROWN + GREEN GARNET				10' THICK			0.24	0.02				
(20)	170F2	0+50F2	"				10' THICK			0.37	0.02				

NTS

105 C/8

SAMPLER Fasulla

PROJECT DC SYNDICATE

LINE

FF CLAIMS

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAYS	
							TRUE WIDTH		Sn	WO ₃
(1) 170FZ	0+50	BROWN + GREEN GARNET				10' THICK. ABOVE BASELINE				See Forest sheet
(2) 171FZ	0+50	MAGNETITE WITH BEET				15' THICK			0.11	0.07
(3) 172FZ	1+00	"				12' THICK 0-12' BASELINE			0.08	0.02
(4)										
(5)										
(6)										
(7)										
(8)										
(9)										
(10)										
(11)										
(12)										
(13)										
(14)										
(15)										
(16)										
(17)										
(18)										
(19)										
(20)										

NTS 105 C/4

SAMPLER JAMES CARTER

PROJECT D.C. SYNDICATE - EE CLAIMS

LINE

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS	
									Sn	WO ₃
(1) 56 331 A	9+00E 0'-4'	Bn Gt with magnetite				Gts disseminated	4'		0.15	0.16
(2) 56 332 A	9+00E 4'-15'	Bn + Gn Gts in marble				Gts crystals and some dissemination	11'		0.06	0.04
(3) 56 333 A	10+00E 0'-3'	Bn + Gn Gts with bands of magnetite				Gts disseminated	3'		0.14	0.07
(4) 56 334 A	10+00E 3'-10'	Bn + Gn Gts in marble				Gts crystals in marble Band of disseminated Gn Gt	7'		0.04	0.04
(5) 56 335 A	14+00E 0'-10'	Bn + Gn Gts with magnetite				Gts disseminated	10'		0.25	0.04
(6) 56 336 A	14+00E 10'-15'	Bn + Gn Gts in marble				Gts crystals	5'		0.06	0.04
(7) 56 337 A	16+00E 0'-12'	magnetite skarn				a few brown garnets near top	19' 9.5'		0.17	0.09
(8) 56 338 A	"	"				"	19' 9.5'		0.16	0.12
(9)	JULY 16 1981									
(10) 56 401 X	18+00E 0'-13'	Gn + Bn Gts with magnetite				Gts disseminated magnetite in layers	13'		0.18	0.06
(11) 56 402 X	18+00E 13'-25'	magnetite skarn				a few Gn Gts disseminated	12'		0.11	0.02
(12) 56 403 X	18+00E 25'-35'	Bn Gts and some Gn Gts				Gts both crystals and disseminated	10'		0.25	0.02
(13) 56 404 X	18+00E 35'-55'	marble with Gn + Bn Gts				Gts crystals	? 20'	10'?	0.02	0.04
(14) 56 405 X	18+00E 35'-55'	"				"	? 20'	10'?	0.01	0.02
(15) 56 406 X	19+00E 0'-12'	magnetite skarn				some Gn + Bn Gts disseminated	13'		0.16	0.07
(16) 56 407 X	19+00E 12'-22'	Bn + Gn Gts with some magnetite				Gts disseminated	10'		0.14	0.03
(17) 56 408 X	19+00E 16'-24'	marble with Bn + Gn Gts				Gts crystals	8'		0.01	0.03
(18) 56 409 X	19+00E 23'-31'	Bn + Gn Gts				Gts disseminated	8'		0.12	0.02
(19)										
(20)										

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAYS			
							TRUE WIDTH	Sn	WO ₃	Au	Ag	
(1) 56410 X	20+00E 0' - 15'	magnetite steam				Some Grt+Bn garnets in bands, disseminated.			0.19	0.04		
(2) 56411 X	20+00E 15' - 30'	Marble with Grt+Bn Gts				Gts are both crystals and disseminated			0.02	0.02		
(3) 56412 X	20+00E 30' - 38'	Grt+Bn Gts with magnetite				Magnetite in bands garnet disseminated			0.17	0.04		
(4) 56413 X	20+00E 16' - 25'	"				"			0.09	0.04		
(5) 56414 X	20+00E 22' - 37'	Sulphide zone				rusty colour	Cu 0.04		0.06	0.02	0.018	0.03
(6) 56415 V	20+00E 38' - 53'	Marble with Grt+Bn Gts				Gts are crystals			0.03	0.03		
(7) 56416 X	21+00E 0' - 10'	Bn+Grt Gts with magnetite				Gts are crystals and disseminated			0.12	0.15		
(8) 56417 X	21+75E 0' - 8'	Grt+Bn Gts				Gts disseminated some marble near top			0.15	0.02		28
(9)												
(10) 56433 X	0+50N 0' - 15'	Marble with Bn+Grt Gts				Gts crystals			0.15	0.05		
(11) 56434 X	0+50N 15' - 25'	Bn+Grt Gts				Gts crystals and disseminated			0.25	0.02		
(12)												
(13)												
(14)												
(15)												
(16)												
(17)												
(18)												
(19)												
(20)												

NTS 105 C/8

SAMPLER LOUIE FASULO

PROJECT D.C. SINDICATED FE^{II}-TiO₂ CLAIMS

LINE

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAYS				
							TRUE WIDTH		Sn	WO ₃	Ag	Au	
(1) 27543 ^C	15+00E	DRGT+GRGT WITH MAGNETITE SULPHIDES			273/ 03 NE?				0.20	0.06			
(2) 27544 ^C	17+00E	SOME MAGNETITE				RUSTY ROCK, NO CLEAR MINERALS VISIBLE			0.10	0.05	0.07	<.003	
(3) 27545 ^C	17+00E	MAGNETITE WITH DRGT				70' ABOVE BASELINE 10' THICK.			0.11	0.04			
(4) 27546 ^C	17+00E	BRGT+GRGT SOME SULPHIDES				20' ABOVE BASELINE RUSTY ROCK.			0.23	0.04	0.04	<.003	
(5) 27547 ^C	15+00E	MAGNETITE WITH BRGT.							0.14	0.03			
(6) 27548	0+00 SKARN INTACT	GRGT+BRGT SKARN				22' THICK SOME MARBLE LAYERS			0.34	<0.01			
(7) 27549	1+00 SKARN INTACT	GREEN GRANITE SKARN				0-15' THICK			0.46	0.02			
(8) 27550	1+00 SKARN INTACT	BROWN GRANITE SKARN				15-23' THICK.			0.07	<0.01			29
(9)													
(10)													
(11)													
(12)													
(13)													
(14)													
(15)													
(16)													
(17)													
(18)													
(19)													
(20)													

NTS 105 C18

SAMPLER DAVE FERREYSON

PROJECT D.C. ~~8110~~ SYNDICATE FE CLAIMS

LINE

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	WIDTH		ASSAYS	
							APPARENT	TRUE	Sn	WO ₃
(1) 56435 X		Gn+Bn Gt with Tourmaline				skarn 40 feet long	8'		0.32	0.02
(2) 56436 X	East Tam cirque	Bn Gts 40 feet long				fairly fine disseminated with copper stains	8'		0.09	0.97
(3) 56437 X	west Tam cirque	Gn Tourmaline skarn				in patches across hill 3/4 elevation	8'		0.01	0.05
(4) 56438 X	"	Bn+Gn Gt skarn				medium grained found with above	8'		0.06	0.01
(5) 56439 X	"	Bn+Gn Gts				with purple fluorite	8'		0.05	0.01
(6) 56440 X	East tam cirque	Bn+Gn Gts skarn				fine grained 30 feet long	7'		0.12	0.01
(7)										
(8)										
(9)										
(10)										
(11)										
(12)										
(13)										
(14)										
(15)										
(16)										
(17)										
(18)										
(19)										
(20)										

NTS 105C/8

SAMPLER _____

PROJECT D.C. SYNDICATE FF. GROUP

LINE _____

SUMMARY OF CHIP SAMPLE RESULTS

AIR PHOTO No. _____

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	ASSAYS			
								TRUE WIDTH	Si	WO ₃	
(1) 56333A	0+00E	BROWN+GREEN GARNET SKARN					4.5'				
(2) 56326A	1+25E	" "					8.0		0.14	0.05	
(3) 56327A	2+00E	" "					9.0		0.26	0.11	
(4) 56341A	2+50E	" "					9.5		0.20	0.07	
(5) 56340A	3+00E	" "				Assume	5.0		0.12	0.05	
(6) 56342A	4+00E	SULPHIDE SK				Assume	5.0		0.10	0.02	
(7)											
(8) 56344A	6+85E	SULPHIDE SK				Assume	5.0		0.18	0.01	
(9) 56343A	7+00E	GARNET & MAG. SKARN					5.0		0.10	0.23	
(10) 56328A	8+00E	BROWN+GREEN GARNET SKARN	4.0'	0.12	0.10		} 15.0				
(11) 329		GARNET SKARN + MARBLE	5.0'	0.13	0.04				0.139	0.072	
(12) 330		GARNET SKARN	6.0'	0.16	0.02						
(13) 56331	9+00E	GARNET + MAG. SK	4.0'	0.15	0.16				0.084	0.072	
(14) 332		GARNETS IN MARBLE	11.0'	0.06	0.04		} 10.0'				
(15) 56333	10+00E	GARNET + MAG. SKARN	3.0'	0.14	0.07				0.070	0.049	
(16) 334		GARNETS IN MARBLE	7.0'	0.04	0.04		} 10'				
(17) 56346	11+00E	GARNET + MAG. SKARN	5.0'	0.20	0.25				0.26	0.15	
(18) 347		GREEN GARNET SKARN	5.0'	0.32	0.05						
(19) 56348	12+00E	GREEN GARNET SKARN					5.0		0.23	0.10	
(20)											

NTS _____

SAMPLER _____

PROJECT _____

LINE _____

SUMMARY OF CHIP SAMPLE RESULTS

AIR PHOTO No. _____

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAYS					
							TRUE WIDTH							
(1) 56349 A	13+00E	GARNET SKARN	5' 0.14 0.03				10'		0.185	0.02				
(2) 350 A		SULPHIDE SKARN	5' 0.23 0.01											
(3) 56335 A	14+00E	GARNET & MAG SKARN	10' 0.25 0.04				15'		0.186	0.04				
(4) 336 A		GARNETS IN MARBLE	5' 0.06 0.04											
(5) 27543 C	15+00E	GARNETS & MAG SK IN MARBLE	6' 0.20 0.06				10'		0.176	0.048				
(6) 547 C		GARNET & MAG SKARN	4' 0.14 0.03											
(7) 27337	16+00E	MAG SKARN	9.5 0.17, 0.07				19'		0.165	0.105				
(8) 338		" "	9.5 0.16, 0.12											
(9) 27544 C	17+00E	SULPHIDES+MAG	5.0 0.10, 0.05				15'		0.146	0.043				
(10) 545		MAG SKARN	5.0 0.11, 0.04											
(11) 546		GARNET SKARN	5.0 0.23, 0.04											
(12) 56401	18+00E	GARNET SKARN +MAG	13.0 0.18, 0.06				35'		0.176	0.034				
(13) 56402		MAG SKARN	12.0 0.11, 0.02											
(14) 56403		GARNET SKARN	10.0 0.25, 0.02											
(15) 56406	19+00E	MAG SKARN	12.0 0.16 0.07				31'		0.138	0.042				
(16) 407		GARNET SKARN + MAG	10.0 0.14 0.03											
(17) WASTE		MARBLE	1.0 - -											
(18) 408		GARNET SKARN	8.0 0.12 0.02											
(19)														
(20)														

NTS _____

SAMPLER _____

PROJECT FF GROUP

LINE _____

SUMMARY OF CHIP SAMPLE RESULTS

AIR PHOTO No. _____

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAYS					
								WIDTH	TRUE WIDTH	Sm	WO ₃				
(1)	56410 X	20+00E	MAG SKARN	15' 0.19 0.04											
(2)	No SAMPLE			3' - -				32'							
(3)	411 X		GARNETS IN MARBLE	12' 0.02 0.02											
(4)	412 X		GARNET MAG SKARN	8' 0.17 0.04											
(5)	56416 X	21+00E	GARNET & MAG SKARN	10' 0.12 0.15				10'			0.12	0.15			
(6)															
(7)	56417 X	21+75E	GARNET SKARN					8'			0.15	0.02		- 33 -	
(8)															
(9)															
(10)															
(11)															
(12)															
(13)															
(14)															
(15)															
(16)															
(17)															
(18)															
(19)															
(20)															

NTS _____

SAMPLER _____

PROJECT FF - MAIN ZONE

LINE _____

DATE _____

AIR PHOTO No. _____

SECTION	INTERVAL		WIDTH	GRADES		LENGTH	ADDITIONAL REMARKS			APPARENT WIDTH	TRUE WIDTH	ASSAYS		
	FROM	TO		Sn	WO ₃		WxL	x Sn	x WO ₃			Sn	WO ₃	SP
(1) 1+25E	1+00E	1+62E	8.0'	0.14	0.05	62'	496	69.44	24.80					
(2) 2+00E	1+62E	2+25E	9.0'	0.26	0.11	63'	567	147.42	62.37					
(3) 2+50E	2+25E	2+75E	9.5'	0.20	0.07	50'	475	95.00	33.25		A			
(4) 3+00E	2+75E	3+50E	Assumed 5.0'	0.12	0.05	75'	375	45.00	18.75					
(5) 4+00E	3+50E	4+50E	Assumed 5.0	0.10	0.02	100'	500	50.00	10.00					
(6)			36.5' ^{ARITH}	7.3'	6.89' ^{WEIGHTED}	350'	2413	406.86	149.17		6.9'	0.168	0.06	
(7)														
(8) 6+85E	6+50E	6+92E	5.0'	0.18	0.01	42'	210	37.8	2.1					
(9) 7+00E	6+92E	7+50E	5.0	0.10	0.29	58'	290	29.0	84.1		B			
(10) 8+00E	7+50E	8+50E	15.0	0.139	0.072	100'	1500	208.5	108.0					
(11) 9+00E	8+50E	9+50E	15.0 ^{25.0}	0.084	0.072	100' ^{200'}	1500	126.0	108.0		10.0'	0.137	0.097	
(12) 10+00E	9+50E	10+50E	10.0	0.070	0.049	100'	1000	70.0	49.0					
(13) 11+00E	10+50E	11+50E	10.0 ^{25.0}	0.260	0.150	100' ^{200'}	1000	260.0	150.0		12.5'	0.078	0.062	
(14) 12+00E	11+50E	12+50E	5.0	0.230	0.10	100'	500	115.0	50.0					
(15) 13+00E	12+50E	13+50E	10.0	0.185	0.02	100'	1000	185.0	20.0					
(16) 14+00E	13+50E	14+50E	15.0	0.186	0.04	100'	1500	279.0	60.0		D			
(17) 15+00E	14+50E	15+50E	10.0	0.176	0.048	100'	1000	176.0	48.0					
(18) 16+00E	15+50E	16+50E	19.0	0.165	0.105	100'	1900	313.5	199.5					
(19) 17+00E	16+50E	17+50E	15.0	0.146	0.043	100'	1500	219.0	64.5					
(20) 18+00E	17+50E	18+50E	35.0	0.176	0.034	100'	3500	616.0	119.0					
			119.0			800'	11900	2163.5	711.0		14.8'	0.181	0.059	SHEET 14

NTS _____

SAMPLER _____

PROJECT FF MAIN HORIZON

LINE _____

DATE _____

AIR PHOTO No. _____

SECTION	INTERVAL		WIDTH	GRADES		LENGTH	ADDITIONAL REMARKS			APPEARANT WIDTH	ASSAYS			
	FROM	TO		Sn	WO ₃		WXL	x Sn	k WO ₃		TRUE WIDTH	Sn	WO ₃	
(1)	19+00E	18+50E	19+50E	31'	0.138	0.042	100'	3100	427.8	130.2				
(2)	20+00E	19+50E	20+50E	38'	0.117	0.03	100'	3500	444.6	114.0				
(3)	21+00E	20+50E	21+38E	10'	0.12	0.15	88'	880	105.6	132.0				
(4)	21+75E	20+38E	22+00E	6'	0.15	0.02	62'	496	74.4	9.9				
(5)				87'			350	5276	1052.4	336.1	23.6	0.127	0.046	
(6)														
(7)	SUMMARY OF BLOCK'S													
(8)	A	1+00E	4+50E				350'				6.9	0.168	0.06	35
(9)	NO OUTCROP	4+50E	6+50E				200'				-	-	-	
(10)	B	6+50E	8+50E				200'				10.0	0.137	0.097	
(11)	C	8+50E	10+50E				200'				12.5	0.078	0.062	
(12)	D	10+50E	18+50E				800'				14.8	0.181	0.059	
(13)	E	18+50E	22+00E				350'				23.6	0.127	0.046	
(14)														
(15)														
(16)														
(17)														
(18)														
(19)														
(20)														

SAMPLER _____

PROJECT FF GROUP MAIN ZONE

NTS _____

DATE _____

SUMMARY OF CHIP SAMPLE RESULTS

AIR PHOTO No. _____

MAIN FAULT ABOVE

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS				
									Sn	WO ₃			
(1) 150 F	1+00 F	GREEN GARNET SKARN	5' 0.30 0.05				11'						
(2) 151 F		Calc Silic	3' 0.26 0.01						0.231	0.041			
(3) 152 F		GREEN GARNET SKARN	3' 0.09 0.06										
(4)													
(5)													
(6) 56430	2+00 F	GARNET & MAG SKARN					25'		0.23	0.07			
(7) 158 F	2+50 F		5' 0.38 <0.01				7'		0.282	0.021			
(8) 159 F			2' 0.04 0.05										
(9) 156 F	3+00 F		2' 0.26 0.02				4'		0.155	0.195			
(10) 157 F			2' 0.05 0.37										
(11) 154 F	3+50 F		4' 0.08 0.13				6'		0.076	0.126			
(12) 155 F			2' 0.05 0.12										
(13) 153 F	4+00 F						5'		0.15	0.11			
(14)	SECTION FROM	To	W WIDTH	GRADES Sn WO ₃	L LENGTH	W x L			x Sn	x WO ₃			
(15)	1+00	0+50	1+50	11'		100	1100		254.1	45.1			
(16)	2+00	1+50	2+25	25'		75	1875		431.25	131.25			
(17)	2+50	2+25	2+75	7'		50	350		98.7	7.35			
(18)	3+00	2+75	3+25	4'		50	200		31.0	39.0			
(19)	3+50	3+25	3+75	6'		50	300		21.0	27.8			
(20)	4+00	3+75	4+00	5'		25	125		18.75	13.75			

- 36 -

NTS _____

SAMPLER _____

PROJECT FF GROUP TARN ZONE

LINE _____

DATE _____

AIR PHOTO No. _____

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS	
									Sn	WO ₃
(1) 27548C	0+00N	GARNET SKARN					22'		0.34	<0.01
(2) 56433X	0+50N	GARNETS IN MARBLE	15' 0.15 0.05				} 25'		0.19	0.028
(3) 56434X		GARNET SKARN	10' 0.25 0.02							
(4) 27549C	1+00N	GREEN GARNET SKARN	15' 0.46 0.02				} 23'		0.324	0.016
(5) 27550C		BROWN GARNET SKARN	8' 0.07 0.01							
(6)										
(7)										
(8)										
(9)	SECTION	From To	W WIDTH	GRADES Sn WO ₃	L LENGTH	W x L	x Sn	x WO ₃	Sn	WO ₃
(10)	0+00N	0 0+25N	22'	0.34 <0.01	25'	550	187.	5.5		
(11)	0+50N	0+25N 0+75N	25	0.19 0.038	50'	1250	237.5	47.5		
(12)	1+00N	0+75N 1+15N	23	0.324 0.016	40'	920	298.1	14.72		
(13)			70		115	2720	722.6	67.72	23.6	0.265 0.024
(14)										
(15)										
(16)										
(17)										
(18)										
(19)										
(20)										

- 37 -

A P P E N D I X I I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

DAVID J. FERGUSON

<u>Education</u>	B.Sc. Geological Engineering expected 1982 Queen's University
<u>Experience</u>	1980 J.C. Stephen Explorations Ltd. Geological Assistant
	1981 J.C. Stephen Explorations Ltd. Junior Geologist

STATEMENT OF QUALIFICATIONS

J.C. STEPHEN

Academic

1950 Associate Member British Institute Engineering Technology
1950-1951 One year Geology University of Alberta

Experience Summary

1947-1955 Development and production experience in engineering and geology at Central Patricia Gold Mines, Eldorado Mining and Refining, Madsen Gold Mines, Hasaga Gold Mines, Pickle Crow Gold Mines as Surveyor, Assistant to the Engineer, Geologist.

1955-1959 Regional exploration experience with Pickle Crow Gold Mines, Combined Developments Ltd., R.G. Crosby and Associates, Jay-Kay Syndicate as Field Geologist.

1959-1961 Municipal construction including monolithic concrete tunnels as Senior Inspector.

1962-1968 Regional exploration with Mastodon Highland Bell Mines as field geologist.

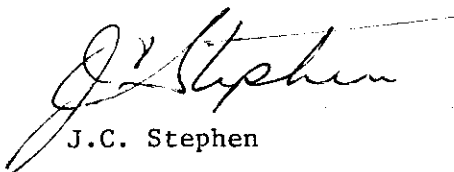
1968-1976 Regional exploration with Bacon and Crowhurst Ltd., as supervisor of exploration syndicates.

1977-Present President J.C. Stephen Explorations Ltd.

Manager	D.C. Syndicate	(Dome, Cominco)
Manager	Target Project	(Dome Exploration)
Manager	B.C. Gold Syndicate	(Newmont, McIntyre, Canada Tungsten)
Manager	Newex Syndicate	(Newmont, Lornex)

During July 1981 I supervised mapping and extensive chip sampling on the FF 1 - 16 mineral claims and, in October, prepared the attached report based on data collected.

J.C. Stephen Explorations Ltd.


J.C. Stephen