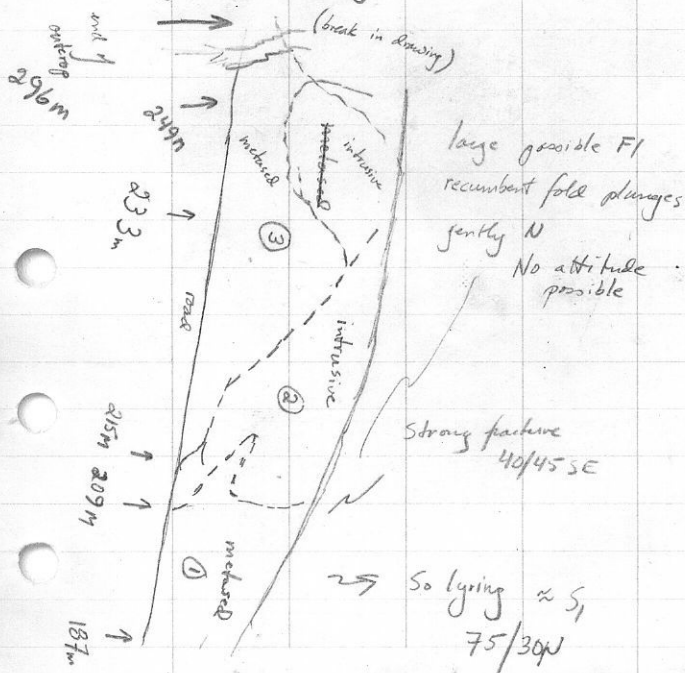


SATURDAY OCT 4th

Traverse along Wragge Creek road -
 checking for roadcrop. Misty in AM.
 Sunny & blue in PM

1000. First outcrop along road 187 m south
 of Shannon Creek crossing - elevation ~~720~~⁷²⁰ ~~720~~⁷²⁰ m

Looking compass bearing 235° at roadcut



② Massive, med-fine grained intrusive
dyke - crosscuts S_0 lying in
surrounding metasediments. Fresh color is
grey to brown-grey. Feldspar - biotite - pyrite.
Minor feldspar porphyry texture. Looks massive,
equigranular - no readily visible foliation

① Shiny dark grey to black graphitic
phyllite/schist. Locally looks slightly hornfelsed.
Contains thin bands of pale green, slightly
calcareous sandstone (??). These appear to
have some calc-silicate mineralogy (pale green color)
Phyllite is finely laminated. It contains
small chaotolite rods which appear to be
generally within S_1 fltn. Quartz/sandstone
layers commonly are cross bedded

③ Pale brown to dark grey hornfelsed
sandstone. Contains thin dark grey
glimmerite interbands that form either nice
sharp layers or more anastomosing bands.
Sandstone may be slightly calcareous. Generally
outcrop is dark grey - looks to be quite
recrystallized. Very minor white qtz veining

1003. 333M-367M post \approx 1000 end.

Good roadcut outcrop

Dark black, pyritic phyllite.

Nonalcalcaeous. Abundant disseminated pyrite - commonly forming thin bands in phyllite.

Weather to a rusty orange-brown. Contains

pyritic nodules. Minor quartz veining

S₂ cren / fracture cleage 100/60N

S₁ fltn 85/20N

1004. 415 m. Small roadcut outcrop

to subcrop. Mainly dark grey graphitic

phyllite / schist Minor thin pale brown
stuff?

S₁ fltn 110/45N

Outcrop continues to 497 m.

477 m \rightarrow 497 m consists of

Biotite - plagioclase diorite Porphyritic white
feldspars (plag?) have coarse to fine striations

on cleage surface. Crowded with phenocrysts -
about 4mm long. Appear massive -
unfoliated

Minor pyritic nodules weather
to a brown spot

S₀/S₁ at 468 M 140/45 NE

Dark grey graphitic phyllite/schist. Coarsely recrystallized porphyroblasts as a contact effect (cordierite??). Can see bedding on a scale of 6 inches down to 1/2 inch.

Phyllite is pyritic with disseminated granitic rock weathers to a rusty yellow brown.

Samples

1005. 2 possible road outcrop/subcrops

First at 31 M south of stream

2nd at 75 M south of stream

Both are dark grey phyllite/schist with possible chertolite (75 M)

(phyllite/siltstone)

1006. 110 M - 144 M south of stream

Look roadside outcrop

Dark grey pyritic phyllite. Hornfelsal-breaks with angular corners. On weathered surfaces can see that it is finely laminated.

S₀/S₁ 100/70N

TOPS NORTH?

looks to have a moderate quartz component by graded bedding?

Monday Oct 6th, '80

Drill arrives in A.M. Foggy in AM - blue clear
in P.M.

Traversing around granite contact below
Shannon Creek Rd.

No outcrop downstream to 800M

Small trail contours slope at 800M.

Soil sample (400N¹ - L 2000) in stream at 900M

~~1007~~
1007

Altitude 875M, 400M east of stream.

Small probable subcrop/outcrop in hill slope
Along the small trail marked above.

Med to coarse grained biotite gte diorite.

Biotite interstitial for gte and white feldspar.

No twinning striations noted on feldspar cleavage
surfaces.

Ridge (slight) immediately to E contains
'abundant' small intrusive float in soil

~~1008~~
1008

Small probable outcrop along stream at 870M.

Underneath uprooted & fallen tree

Same rock as last stop. Again twinning
striations not visible on cleavage surface. No apparent
foliation (i.e. massive, unfoliated)

Soil sample line L22E 350N of 830M
elevation in stream

~~1009~~ Follow stream down to 810M - no outcrop

Traverse contour to switchback - No outcrop

Switchback at 840M

1009

~~1007~~ Roadside outcrop. 70m up road from
outside middle of switchback curve (marked with X).

So bedding 147/555

Graded bedding indicates TOPS UP (to S)

Variably laminated grey, white, brown

non-ultraconglomeratic slightly micaceous sandstones.

Laminae in mm. Thicker light & dark

beds up to 1 foot. Can sometimes see

graded bedding, cross-bedding type structures

slightly more common.

White sandstone has discontinuous grey
streaks. Grey sandstone often weathers deep

rusty red-brown because of fine-grained
disseminated pyrite. Some units are

recessive weathering (more phyllitic?) white
others weather in relief.

Dominantly thinly banded brown & grey sandstone

Samples

Good roadcut outcrop uphill on road for 35 M.

At 45 M have dyke - fine-grained pyritic musc-gte-feldspar. Qtz also occurs as veins. Weathers to spotty orange because of oxidizing pyrite.

Spotty poor outcrop up to 70 m from beginning. So at 70 m 140/90

At 70 M have what appears to be heavily relictic dark green/brown/grey basaltic volcanic. Highly fractured with soft, nonaluminous white minerals along fractures. No readily visible internal fabric.

Uppermost (up road) outcrop consists of the grey & brown laminated sandstone - with vertical S₀ bedding.

~~1008~~
1010

83 M from end of last outcrop on road.

Outcrop extends to 143 M along the road

So lying 105/80S

92/36S (uphill on road)

fracture chge for late folds
65/45NW

lower 2/3 of outcrop consists of finely laminated grey to black & pale brown sandstone. Good part of interval is dominantly dk grey with thin brown streaks. Locally slightly calcareous. Contains rare very rusty brown weathering, fine-grained musc-qtz-feldspar dykes.

Upper part of sandstone is light brown with thin, discontinuous dark grey streaks (~5-10'). Upper 1/3 is dark grey phyllite. Weathers to a deep rusty brown color. Contains at least 1 thin band of dark grey to black limestone.

All rocks contorted by late brittle folding. Qtzite has abundant white minerals developed in fractures in hinge zones of these late folds. Vergence of folds appears to be down the road the folds are poorly exposed. Some breccia developed in hinge zone.

Phyllite begins 42M up road from start of the outcrop
50/S1 phyllite 98/75N

Sandstone locally contains detrital mica

1011
1955

Poor outcrop to subcrop in roadside.

Dominantly dark grey pyritic phyllite.

Minor grey pyritic sandstone. All rocks
tend to weather to rusty brown color. No
measurements because cannot tell if in
place or not (may be boulders?!)

Tuesday OCT 7th '80

Sunny with clear skies - cloud around
Slocan lake in AM.

Traverse near intrusive contact on Shannon
Creek road

1012

First outcrop - 110M up road from
switchback altimeter 893M to 895M

Series of road cut outcrops

S₁ fltn 96/605 at 110M

Shiny grey graphitic phyllite. Pyritic -
weathers to a deep rust brown. Noncalcareous

Sample

S₁ fltn at 131M 115/605

End of good outcrop at 131M

206M from switchback alt 910M

1013. Small roadside subcrop/outcrop in
bank of road.

Same silvery grey graphitic phyllite/schist.

No structural measurement because may not
be in place.

1014. Grey phyllite subcrop in road bank
at 240M, 255M,

294 M from switchback alt 910 M

1015. Small roadside outcrop of grey graphitic phyllite. Pyritic with pyrite streaks. Small dyke of feldspar - qtz - pyrite intrusive.

Fine-grained, folitic texture, microlitic cavities. No structural measurement - material may not be quite in place.

1016. 335 up road from switchback, to 366 M
altimeter 915 M

S, fltn 112/235 (may be slumped)

Steel grey graphitic schist. Contains rounded porphyroblast. Currently soft (micaceous) may formerly have been a different mineral.

Sample

S, fltn at south end 100/45 N

Wide spot in road 350 M - 376 M

South end of outcrop contains minor dark grey, noncalcareous siltstone

1017. Subcrop in road bank starts at 436 M from switchback. Good road outcrop starts at 453 M →

Sequence of rock types as go uphill on road.

- ① Very rusty-weathering pyritic dark grey phyllite / schist. locally contains thin light grey siltstone laminae. Weathering color changes from grey to rust brown as go uphill on road - indicating increased pyrite content.

S₁ fltn 110/85N
late brittle kink

AP 135/40S

FA 293/35

- ② 466M → 496M

Dark & light grey finely laminated sandstone. Slightly calcareous. Laminae on order of mm.

Rock abundantly contorted - minor breccia, abundant dark green slickensides. White minerals fill fractures - some filled by g₁

S₀ at 472M 115/85S

Rock strongly fractured

- ③ 496M → 522M

Dark grey graphitic phyllite Fltn S₁ - much broken and contorted.

(4) 522M → 536M

Uncertain rock type.

looks like fine-grained, dk green to grey
massive metavolcanic Abundantly fractured

& broken - white minerals fill fractures.

Extensive slickensides on different surfaces.

Minor calcite in some of the fractures

536M end of outcrop.

Sequence of rocks reminds me very much
of 1009. Probable extension of that
lower elevation outcrop.

1018. 587M - start of outcrop

extending uphill further.

So lying 110/70S.

Dark grey, fine-grained sandstone (very
impure). Thinly laminated - dark grey
with gte laminae - these are discontinuous.

Noncalcareous

At 594M - 2-3' wide gte vein.

Pyritic gte with thin phyllitic screens.

Vein essentially subparallel So lying -
very steeply dipping

At 612M - laminated dk grey ss
forms breccia. Very angular clasts in
dk grey matrix.

At 625M - finely laminated light
grey gtaite with aplitic gta-fldopr-
musc-pyrite dyke. Country rock
extremely fractured & etched - abundant
white minerals filling fractures.

1019

At 653M - strongly laminated dk grey
sandstone with light-colored bands

So lying 122/855
Sample

At 675M. Thinly laminated light grey
sandstone. Laminae very thin & discontinuous -
almost a streaky appearance. Greenish here to
dark laminae. Laminae have a very streaky
appearance. Overall this rock is lighter
grey than laminated sandstones further
down the road

Rapid transition to very rusty -

weathering light grey sandy phyllite. Biotite disseminated as tiny flakes. Weather to very orange brown. Fresh surface has pale grey color. Then rapidly back into pyritic, grey, finely laminated sandstones. In zones rocks tremendously fractured & altered - difficult to tell parent rock type.

1020. Up road at 720 M

S₁ ftn 110/90

Medium-green qtz-feldspathic schist to downhill side. Faint purplish hue from disseminated biotite.

Uphill side of road - white aplitic, fine-grained, sericitic qtz-feldspar intrusive. Abundant coarse pegmatitic qtz veining present in the intrusive. Not the good granodiorite phase.

Locally rocks very shattered - broken - weathered. White minerals locally filling fractures.

At 744 M — start to get the
biotite-gtz-feldspar gte divide.
Locally pyritic — brown weathering spots.
On margins is crudely foliated.

Fldn & lyring 37/25 W

More siliceous & gte-rich than usually
encountered for this rock type.

End of good outcrop until just
below (on road) the stream —

58 M from stream down to this
point.

1021. On Shannon Creek Rd. 303 M
up road from intersection of Shannon
Ck road with Silver Project road.

Sops, 125/655

Dark grey, finely laminated, noncalcareous,
impure (i.e. micaceous) siltstone to fine
sandstone. Contains disseminated fine-grained
pyrite. Some layers are very soft/micaceous.

Dyke of pale tan-weathering pyritic
musc-gte-feldspar aplite, looks like dykes
further up Shannon Creek Road. Minor gte
veining in the dyke.

1022. On Shannon Creek Rd. 315
 M down road (towards highway) from
 intersection of Shannon Creek & Wragge Creek
 roads

Claims Posts

Posts #1 fr

Claims GRINCO BEE #1 & #2

N40E to #2 posts #2

(1500' ^{#1} to right) & (1500' to left)

agent for Harold Budge

Small cat scuffing - probable subcrop -
 No structural measurements possible

Dark grey to black noncalcareous phyllite
 to fine siltstone. Minor fine-grained
 pyrite. Weathers to a dark brown. Can
 see occasional thin laminae.

1023 36M further down Shannon Creek Rd
 Good roadside outcrop Outcrop continues
 down road to 103M from claim
 posts & last subcrop —

5, f/ln 90/80N

Dark grey, slightly pyritic, noncalcareous
 phyllite. Locally can see a few thin
 laminae. Interbedded with it have
 minor units of dark grey sandstone and
 limestone. Both ss & ls are often
 finely laminated.

Thursday Oct 9, '80

Clear sunny day - chilly in shade.
 Mgt Hson visits

1024.

S₀/S₁,

120/70 SW

Fine-grained, biotite-musc-schist.

In places g₂-feldspathic. Locally thinly laminated. Biotite gives purplish tint to rocks.

S₀/S₁ crosscut by later pegmatitic musc-g₂-feldspar-pyrite dykes. Dykes trend 200°. Dye strikes folded and parallel to axial plane of steep folds which wrap

S₀/S₁. " appear to be at same time as this later deformation. Pegmatite to aplite. locally it contains minor chlorite.

One larger dyke is > 15 feet wide

1025.

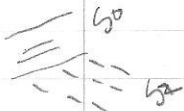
Outcrop begins at break in road -
 elevations 1375M - goes up to 1400M etc.

S₀ lying 54/52 NW

S₂ fltn 75/75 N

looking West

vergence to South



Fine-grained med-dark grey phyllite. Locally
 can see fine laminations - but generally grey.
 Pyritic (minor) Weathers to a red brown or
 grey.

Contains minor bands of light grey sandstone -
 these are up to 6 inches thick Very straight
 pattern across outcrop.

The Tight inclined S₁ folds.

Locally pegmatitic gte veins. These are
 boudinaged

S₀ 70/50 N

S₂ 85/75 N

S₃ 100/18 N

Minor graded bedding indicates Tops up to
 North

S₀ & S₁ subparallel

1026. Roadside outcrop

Dark grey pyritic schist. Carbonaceous.

Weathers to very orange-rust brown. Pyrite occurs
as streaks & nodules - all elongate in S₁ direction.

Up to 2mm across & 4-5mm long

1027.

S₀/S₁ 80/75 N

Small roadside outcrop. Altitude 1570m

Dark grey, fine-grained schist (carbonaceous)
with minor interbeds of med-grained medium
grey sandstone. Sandstone contains
white quartz stringers that crosscut S₀/S₁.

1028.

S₀/S₁ 80/65 NS₂ trend

89/50 N

Dark grey phyllite/schist interbedded
with finely laminated med. to light grey
sandstonePhyllite/schist contains fine
disseminated pyrite grains

1029.

S₀/S₁ 65/55 NWDark grey phyllite/schist locally variably
laminated with light & dark bands. Higher

bands are more like siltstone/sandstone -
 although still micaceous. Minor quartz -
 pegmatitic stringers & pods.

Contains thin sill/dyke of biotite -
 quartz-feldspar. Minor pyrite weathers as
 dark brown spots. Poorly foliated -
 in detail crosscuts the S₀/S₁, fltn &
 bedding. Dyke is only 1-2 feet thick.

1030. Fine-grained tan sandstone (white).
 6-8" dyke of cream gplite.
 Biotite - qtz - feldspar - minor garnet -
 minor pyrite

Friday Oct 10th '80

Clear sunny day

Traverse from Wrayge Creek Rd down
to Slocan Lake160 m - insect orange flagging
(soil sample line?)Claim post DIGNIT #1 Final Post
(#2)

Robert McKay

Oct 11, 1969

1031.S₁ 101/77NDark grey carbonaceous schist to fine
sandstone. Contains dark biotite - appears to
be growing across S₁ folia.Mylon disseminated ~~red~~ pyrite weathers
as brown spots looks like dirty
sandstone with detrital micaSample

1032.

S₀ 87/74 NS₄ 105/78 N

Vergence is to S

Fractures 125/85 N

Medium to pale gray calcareous sandstone
to sandy limestone. Weathers to smooth
surface. Finely laminated. Locally can
see cross-bedding. Some layers argillaceous-
pelitic - these show a cleavage. Individual
laminae are max thick. Individual beds
are up to 1½ - 2 feet thick.

All units are pyritic with disseminated,
recrystallized pyrite cubes.

No fossils readily visible

Cross bedding indicates Tops to North

Minor gte veining - fill fractures

Samples

1032.

S₀ 90/50 NS₁ 102/85 N

South vergence

Rock type changes to interbedded dark gray phyllitic,
limestone, sandstone. All shades of grays. Sandstone

is commonly calcareous. Limestone sometimes forms
beds in sandstone layers. Phyllite contains
pyritic nodules elongate in S_1 ,
 $S_1 \neq S_0$

Individual beds up to 2' thick

Sandstone may show fine laminae — as
does phyllite

1034.

S_0

85/60N

S_1

97/84N

Last outcrop 440 ft beyond the point
sticking into the lake.

Slightly calcareous, medium grey, pyritic
sandstone interbedded with dark grey, rusty weathering,
pyritic phyllite.

S_1 vergence South

Dominantly phyllite between 1035 & 1034

1035. Interbedded phyllite & sandstone with minor
limestone. Similar to # 1033. S_0 lying
locally at high angle to S_1 in this interval —
never see good fold limb for any distance

S₀ lying 65/45 NW

S₁ flm 105/85 N

L₁ S₀ on S₁, 282/30

Just N of this measurement above

S₀ 150/65 NE

S₁ 90/90

this only occurs for a very short interval

this interval appears to be hinge zone of a small S₁ parasitic fold. Have poorly developed short limb & then quickly back to S₀/S₁ intersection denoting South vergence. Can see S₀/S₁ become more divergent as approach this zone from the south.

Dominantly thicker phyllite beds with thinner beds of sandstone. Only minor limestone.

Sandstone generally from 6" to 2' thick

Phyllite rusty weathering because of pyrite

Commonly can see S₀ bedding laminations.

Beds from mm up to 1' thick

1036

Interbanded dark grey to black phyllite
and medium grey sandstone.

S₁ fltn 117/90

Sandstone is very calcareous

This may be boundary noted on beach -

SS occurs on S side of dk grey phyllite.

1037

S₀ 110/65N

S₁ fltn 120/90 (?)

Interbanded dark grey noncalcareous phyllite
and medium grey calcareous sandstone. Same as
units just below on the lake shore.

1038

S₁ 110/77S

Dominant outcropping rock type is greywacke -
immature sandstone. Dark grey. Commonly
calcareous. Contains dark grey shale clasts + light
cream clasts. Clasts look to be matrix supported.

Interbanded have dark grey phyllite. Commonly
does not form outcrops - rather see it as scattered
chips in soil.

1039, Dominantly dark gray immature
graywacke. Noncalcareous. Massive -
bedding not readily visible. Abundant white
clasts weather slightly in relief. Fractures
in different directions.

Only minor dark gray phyllite & black to
dark gray limestone. These are generally noted
as float rather than being in place.

Graywacke contains abundant disseminated
pyrite grains. Rock commonly weathers to a
very dark rusty brown surface.

Sample

1040

S. 1/4 Sec 110/85 N

Dominantly dark gray to black, noncalcareous,
phyllitic. Minor interbeds of immature gray
sandstones with white clasts.

Rock type down to this spot consisted
dominantly of sandstones described in 1039.

No major quartz veining noted.

Bedding So not readily visible.

Sample

1041.

S₀ lying 142/44NE

Dark to medium grey sandstone. Locally
pelitic. Both calcareous and noncalcareous.

Can see fine laminations indicating S₀
bedding

Lower $\frac{1}{2}$ of slope consists largely
of sandstone. Upper part consists
largely of phyllite.

Saturday Oct 11, 1980 cyp

Sunny day

Traverse up rocky ridge on soil sample lines

Start Shannon Creek Rd to drill road on L4W

Proceed above drill rd on 2W

Drill road 4W +1310M No outcrop

Line 2W only 131 M up drill road
 from line 4W 2W / 225M

Rose line 2W at 400 station -

Continue on straight up slope

Intersect ridge top at 1600M

No outcrop on way up

line 200 is W of the way I went up -

(NW up ridge)

 1042 Alt. 1620M line 200W 750M

just down slope to SW

 reasonable hillside outcrop at top
 of ridge

Rock very much like # 1025

 Dark grey, non-calcareous phyllite with interbands
 of light grey sandstone
S₀/S₁

85/56N

Graded bed shows Tops upright to North

1043 Dark grey finely laminated phyllite.
Graphitic laminations are light grey
silty bands.

50/5, 100/35N, 90/64N

Follow h 200 to N up to end of line
1000 N No outcrop

Altitudes at 1000 N - 1550M

Float - when visible - is dk grey phyllite
+ some sandstone?

1044. Probable outcrop

Alt 1480M 120M beyond clearing

5, 110/90

Dark grey to black phyllite. Noncalcareous.
Contains thin nod to light grey siltystone
bands. Very much like last outcrops

1043, 1042

Only very minor, thin gte veining noted.

1045 Subcrop to poor outcrop. Black phyllite
with well developed pink chistalite.

1046 Line OE 4+00N at alt 1515M
 Yellow flagging

Small dark grey to black schist outcrop.

S₁ (may be slightly slumped)

75/40N

85/50N (preferred)

1047 Alt 1500M. On L OE

Dark grey graphite schist. Some
 former porphyroblasts present.

S₁ flk 90/55N

LOE 3+00N at 1420M elevation

LOE at drill road alt 1360M

LOE meets road right at turnaround
 spot - also where outcrop starts on
 the road.

349M from drill road intersect to
 3W 0+00N

Sunday Oct 12th, 1980

High cloud with low cloud fragments & wisps.
Scattered drizzle & showers.

Traverse on west shore of Slovan Lake
south of Shannon Creek.

Outcrop located immediately south of
L4HE 1150N

104B.

S₀/S₁, 110/55N

Finely laminated, fine-grained, dark to
med grey, calcareous sandstone (?)

Laminations on order of mm. Individual
beds 2" - 10" thick. All rock recrystallized
as hornfels. Faint purplish hue from
fine-grained biotite.

Considered S5 because of fine
laminations

Some beds definitely more calcareous
than others. All contain disseminated
pyrite grains.

Outcrop located on small promontory S
of Shannon Crk.

Sample

1049 514 M S of last outcrop
 Start of a sequence of outcrops along the
 beach. Will note changes in rock
 type as proceed south

Grey, poorly laminated phyllite.
 Non-aluminous. Minor cross-cutting
 Qtz veins shales abundant open spaces.

50/5, 115/47N

Qtz veins 145/25S

Cren dugs 52? 135/82NE

L2 lin 52 on 51 308/10


At 85 M - Massive, fine-grained
 equigranular intrusive dyke/sill

Definite-biotite-feldspar-pyrite. Pyrite
 as disseminated grains weathering brown.

No readily visible foliation.

Strongly fractured - locally chloritic
 along fractures. Fractures 100/75S

Sample

99M - phyllite + dyke rock


E
~~S~~ <

> E W

phyllite / dyke

Contact appears to be roughly parallel
 to the track.

105M - no dyke only phyllite.

117M. Med. to dark grey phyllite laminated.
 Contains small boudins of med to light
 grey sandstone.

S₀/S₁ 92/30N

S₂ even cluge 126/68S

L₂ S₂ on S₀/S₁ 307/07

148M - end of outcrop

1050

243 M south of 1048.

Small promontory Road takes off
from shore with bearing 280°

Small wharf, old mooring barker -
minor plankton - probably an old
steam-powered ship of some sort

Outcrop extends to S for 136 M

Dark black shiny graphitic phyllite.
Weathers to a dark rusty brown because of
pyrite. Breaks with slight flinty pattern -
hornfelsed?

Contains thin sill (6-10") of
pale cream aplite - feldspar - Qtz - pyrite.
This is 1st noted indication of aplite like
that hosting the moly on this lake traverse.

S0/S1 87/42 N

Fracture 20/90

S2 crenulation clog 95/65 N

115/75 N

Sill enclosed by fine-grained musc 77 biotite
white micaceous schist. Filter marginal
zone or alteration halo. Sample

About $\frac{2}{3}$ toward South part of outcrop
 thin sill of fine-grained equigranular
 intrusive as noted in #1049.

Also claim post signs

Post #2 for

Leora #1 and 2

P. Leontown Hills

May 23, 1969

At south end of outcrop - encounter
 a slightly thicker aplite sill - 1'-2'.

Very pyritic Musc-qtz-feldspar

Also a thin 6"-8" dark grey
 limestone in phyllite

Minor fine-grained, massive sandstone
 noted in traverse

At S end

S0/S1, 90/45N

S2 cross cleve 103/75N

At S end - still very dark phyllite
 which weathers to deep rust brown
 because of pyrite

1051. Fracture with rusty alteration 13/86E
Weak orientations of phenocrysts 110/90

Feldspar porphyry. White euhedral to subhedral feldspars in a dark, fine-grained, biotitic matrix. Minor disseminated pyrite.

Locally highly fractured. Fractures with N50E orientations contain pegmatitic white quartz with pyrite. Pyrite weathers rusty orange brown - staining the enclosing intrusive.

Weak planar orientations to feldspar phenocrysts noted.

Outcrop extends N for 110m

103m is intrusive

Right next to porphyry - gneissite is schist. Coarse micas developed as porphyroblasts. Some layers also contain good coarse chloritoid.

1052.

195' beyond curve in shoreline
Homfelsed dark grey phyllite. Definitely
pyritic.

Dominant ftn (52?) 113/90

Minor thin veins filled with pegmatitic
quartz + coarse muscovite. Muscovite
randomly oriented. Changes to S
to aplite - some pegmatitic. Some
pieces on beach very rusty and contain
MoS₂ - randomly oriented.

1053. Wragge Creek stock.

First outcrop South of Wragge Creek.

Biotite quartz diorite.

Dominant joint sets 110/70S

2/38E - these have fine grained pale green phase in them - also locally appear to have pink K-feldspar alteration along them. - some chlorite locally developed

North end of outcrop is 383M south of Wragge Creek.

Sample

1054. 1st outcrop N of Wragge Creek
240M.

fracture 28/70W.

Pale cream biotite-quartz-feldspar-pyrite intrusive. Med to fine-grained.

No readily visible fth. Looks like aplitic phase which may contain Md_{52} .

Minor pegmatitic gte veins - Pyrite & biotite only as minor disseminated spots.

Sample

At 247m - encounter 1st
 phyllite outcrop on beach Contact
 between the 2 rock types is sharp.
 Contact orientation 110/90

Phyllite - dark grey hornfelsed
 phyllite. Pyrite occurs as streaky blebs.
 Sample

Dominant fltn 133/90
 Which phase ??

Phyllite has purplish biotite hue.

270M

Dark grey phyllite with thin pegmatitic to
 fine-grained aplitic veins.

Orientation of 2 veins

115/725

98/96

In place aplitic contains only minor
 pyrite spots

Dominant fltn in phyllite 110/35N

287M - Thin aplitic/gte vein in phyllite -
 in place & contains MoS_2 + pyrite. Weathers
 to a very rusty orange.

Sample is from beach nearby

307 M N last substantial ophite
dyke. Very few had any moly. All
were less than 3' wide

330 M - last outcrop of phyllite towards
the North

flows phyllite 118/70 N

Monday, Oct 13, 1980 KCP

Thanksgiving day. Raining, foggy, wet.
Slightly cool.

Traverse off Wragge Ck road.

1055. 115 m - 177M from switchback at
1175M altitude.

First good definite outcrop in Wragge
Creek Rd. Some below may be outcrop -
but also could well be large boulders.

Wragge Creek stock

Medium to coarse grained equigranular
biotite quartz diorite. Note 1 small
inclusion of fine-grained dark green mafic.

Dtz diorite has pink K-feldspar
developed along fractures -

fracture orient with 162/30W

One small granite dyke - sharp contact.
consists of K-spar (pink), quartz-microcline biotite
No readily visible foliation

1056 Outcrop starts 78M uproad from
switch back. Ends at 141 M

Wragge Creek Stck. Unfoliated

Just like #1055.

1057 Stream outcrop just barely south of
the baseline. Altimeter reads 800M

Dark grey, noncalcareous schist.

Contains granoblastic porphyroblasts (chloritoid?)

Also has pyritic pegmatitic Qtz veins

Sl fthn. 112/35N

Outcrop extends for ~25M upstream

1058. 123M to W along B/L from stream

Outcrop extends 17M - 34M N of B/L.

Go on back to NE (bearing 75°) for 60M.

Good hillside outcrop

Medium to dark grey hornfelsed phyllite

Contains fine - but visible - randomly oriented

mica flakes (biotite?)

Dominant fthn 125/57NE (S2?)

Sl fthn? 172/30E

Strong fracture + fthn 102/82N

L 30E 165 00S
~~165~~ M W

These don't correspond
 with position on map -
 Map position agrees with topography
 from stream on B/L

L 30E 181 00N
~~181~~ M W from stream.

1059. Dark grey, hornfelsed phyllite -
 with metamorphic mica like last stop.
 Strong fltn (green cluge) 125/57NE
 Sample
 S₁ 140/30NE

1060. Dark grey graphitic schist. Porphyroblasts
 of garnet or chloritoid. Large stream outcrop.
 Dominant fltn (S?) - 120/60NE ^{South side}
 S₁ ? 130/40NE
 (north side of stream)

1061. S₁ 110/50N

Dark grey graphitic schist. Numerous
 small outcrops on ridge top.

1062.

At 480 & 490 m - small

dark gray schist subcrop/outcrop sticking
out of hillside.

No outcrop proceeding N to where line
intersect Wragge Ck road.

Tuesday Oct 14, '80 LCP

Very high haze. Dusting of snow on high peaks. Bush quite wet from yesterday.

Walking N from B/L on L28E

1063. Probable subcrop to outcrop. 2 large

blocks of schist with consistent orientation.

Dark grey, graphitic. Garnet + chloritoid (elongate prisms.)

S₁ fltn 135/32 NE

Flot with schist is pegmatitic, slightly pyritic quartz

1064. Small stream outcrop. Same as #1063.

Attitudes look similar. No coarse quartz visible in outcrop

S₁ fltn 130/35 NE

1065. Same dark grey, porphyroblastic schist.

In this outcrop can see occasional thin sandstone bands (pale grey)

S₀/S₁ fltn 134/55 NE

Also very minor thin pegmatitic etc veins.

1066 Large outcrop on edge of Knob.
S/S, 111/55 N

Dark to med grey, noncalcareous siltstone
(hornfelsed phyllite) interbedded with thin
dark grey schist layers. Layers range up to
10 inches thick. Siltstone is extremely
tough & resistant to hammer - locally
very pyritic - locally contains disseminated
biotite flakes.

Sample

Pegmatitic qtz veins present in minor amt -
there are thin

Unit looks very similar to rocks noted
going N of baseline on L 30E

1067. Dark grey schist/phyllite with thin interbeds
of medium to light grey finely laminated
sandstone. Looks like # 1025.

Outcrops marked by transition from S to N
of gentle N dip fltr to very steep fltr.

Pegmatitic qtz pods present

Steep over ledge 126/85 NE

1068.

S₀/S, 102/85 N

Rock type similar to last station.

Dark grey schist with interbedded dark grey siltstone & med gray thinly laminated sandstone.

Rock looks homfelsed.

Dominant structure is steeply dipping to the North (see above) In one reasonable spot for trying it looks like S₀ is subparallel to the dominant f₁th.

1069

S, 140/45 NE

S₂ cross cleve 135/65 NE

Fine-grained, dark grey phyllite/siltstone. Locally contains thin bands of dark gray phyllite. Appears homfelsed because very hard and flinty.

What is this rock?

Wednesday Oct 15th '80

Sunny, cool, windy.

Spent most of day changing core to metric & labelling boxes. Start on logging core.

227 Metres from survey point to bend in Wragge Ck road as it heads for Shannon Ck.

Friday Oct 17, 1960

Clear blue sky - no clouds. very foggy in shade.

Traverse up to Shannon lake.

1670

S₀/S₁

84/70N

Dominantly dark grey slate phyllite/schist with small biotite grains. Contains thin interbeds of finely laminated grey sandstone. (like # 1025)

Very rusty orange-brown-yellow layer consists of

① pegmatitic pyritic & hook like metamorphic sweat

② Fine grained sericite-quartz ± biotite schist. Biotite occurs as thin streaks & layers. Either felsic tuff or very bleached schist.

Lower part of outcrop is grey biotitic fine-grained sandstone. No structure & bedding visible. Disseminated biotite gives purplish brown color to fresh surface.

Also sill / type of biotite-*st*-feldspar-pyrite. Medium to fine-grained with a few feldspar & biotite coarse grains. Not like Wragge Creek stock

Dyke/sill at least 2 ft thick

Rusty-weathering lye is very pyritic

Overall it is only about 2' thick on outcrop

1071. S₁ 65/33N

Dark grey, pyritic, brittle, carbonaceous schist. Noncalcareous. Contains thin light grey sandstone bands. locally tough with conchoidal break like hornfels.

Small disseminated pyrite grains. Very minor quartz veining

Small scattered schist outcrops continue in stream up to where road on W turns uphill (i.e. where road comes closest to stream).

1072. Altimeter - 1755M First set of outcrops as proceed N → S along sidehill.

Upper part of outcrop not well tied in

S₀/S₁ 65/50N

S₂ cren. clog. 82/70N

Dark grey, carbonaceous, noncalcareous schist with thin med. to light grey sandstone bands. Minor vein gte swests. locally has very well developed, randomly oriented pink chistolite

Graded bedding shows Tops up to North - beds are upright

1073. Continuous outcrop from last spot to here.

All dark grey carbonaceous schist with thin med. to light grey sandstone (laminated) interbands

Schist locally porphyroblastic. The schist is loaded with small garnets.

Quartz - pegmatitic or boudinaged swests locally common - tend to align subparallel to S₁

S₀ 75/53N

S₂ cren. clog. 90/80N

85/65N

As well as garnet have porphyroblastic biotite

1074. Dark grey porphyroblastic schist.
Continuous schist outcrop up to this location.

Dominant ftn (sl?) 73/80N

1075. Northern contact between schist (North)
and igneous (south)

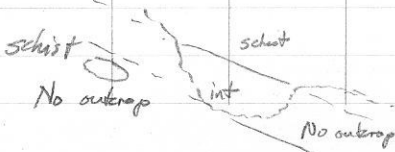
Intrusive (?) is unfoliated,
dark green hbl-biotite-plagioclase gabbro
~~hbl~~ hbl & biotite euhedral to subhedral
Most plag is interstitial - get the
occasional plag phenocryst. Rock very
massive in appearance

Medium grained, noncalcaneous

Intrusive ~ 10' thick exposure

Contact between 2 units appears to
be shallowly dipping N

looking upslope (to W)



Schist in this region is fine-grained.
 Can see mica. Looks like area between
 hornfels & schist. Still dark gray carbonaceous
 with thin sandstone bands.

locally contains large pink chlorite
 porphyroblasts.

1076. Dark grey schist locally contains large
 pink chlorite porphyroblasts - these are not
 aligned. Commonly contains abundant small
 biotite porphyroblasts.

Schist has thin interbands of a medium
 grey, laminated sandstone.

S₀/S₁, 38/38W

1077. Dark grey schist. Very carbonaceous.

Abundant biotite porphyroblasts.

Outcrop is very lichen covered.

S₁, 72/50N

1078. On Shannon Lake to look
at rock type for Shannon Lake Stuct.

Med. to fine grained white feldspar
(K-spar - no twinning striations) - quartz -
dark green hornblende - epidote Epidote

Typically associated with the hbl. No
reality visible f.lite.

Contains some small mafic inclusions
in places.

This is definitely NOT the gplitic
material - mineralogy and textures are
way too different.

S₀/S₁ schist 85/80 N

Fine-grained grey carbonaceous schist. Some
lyres have biotite + garnet. Looks
somewhat hornfelsed

Intrusive dics contain some small
gplitic dykes

Saturday Oct 1966

Clear, sunny blue day.

Traverse on soil grid

1079.

S₁

105/655

line 00E

Outcrop extends from baseline to 1230M
elevation

Baseline → 1240 M

Wragge Creek intrusive - good

biotite - looks unaltered

1240 → 1260

Aplite & pegmatite. - thin slice of
metasediments. Grey sandstone with thin
micaceous bands. Minor biotite - musc.

1260 → 1285

Metasediments with
aplite & pegmatite zones.No MoS₂ visible in aplite & pegmatites.

Aplites contain biotite

Wragge Ck Stock contains abundant
disseminated pyrite which weathers to a
series of brown spots

Wragge Ck contains pegmatitic gtz-feldspar
(epilitic) dykes (a few)

1080 S₁ flon 145/48NE

Wragge Ck biotite stock. Biotite
is fresh. Contains pegmatitic white
gtz veins

Weathered surface shows foliation —

Not readily visible on fresh broken surface.
Disseminated pyrite weathers as brown spots
Strong fracture 160/75 E

2SE/150NE at cl. 1310M

Have had continuous outcrop of Wragge Ck
stock with pegmatitic & epilitic dykes

Run out of outcrop at 1350M elevation —
again still in Wragge Ck stock.

1081. Small possible outcrop on L2E at
1390M elevation. May be subcrop

Biotite-gtz-feldspar gplitic. With pyrite

L 2E/300 N at elevation 1415M

1082 S₀/S₁ 90/53N 95/58N
 Outcrop on L 2E -el 1440 → ↑

L 2E/350 N at elev. 1455M

Medium to light grey g₂o-feldspathic
 schist & micaceous quartzite (sandstone)
 Biotite definitely present as small porphyroblasts.
 SS is finely laminated. Interbeds of
 ss & phyllite are 2-10 inches thick.
 Overall rock weathers to a dark rusty red
 color.

This is not the good grey phyllite -
 more like material at # 1009

1083 L 2E / el. 1465M

Outcrop continues in scatterings from
 last station. Dark grey schist with
 thin sandstone interbeds

S₀/S₁ 95/40N

last outcrop uphill & just E of line at 1470M

L2E / 600N on ridge top at 1560M

L2E / 650N on N ridge top at 1560M

1024 L2E / 700N on ridge at 1540M

750N 1510M

800N 1485M

850N 1460M

900N 1440M

950N 1415M

1000N 1400M

Right [↙] at break in slope - slope
steepens considerably

No outcrop in this interval

Topofil does not continue downslope but
heads off on bearing N 120° E

1034. Small hillside outcrop -
essentially at L2E/10N

Dark grey carbonaceous schist with
thin med to light grey sandstone interbands.
looks like # 1025

S0/S1 117/605

Sample

Schist contains chertolite porphyroblasts
20-30M extent of outcrop

L 4 E / 1000 N 1340 M

L 400 E / 950 N 1370 M

L 400 E / 900 N 1390 M

1085.

S, 136 / 425

Outcrop in hill slope between 900 N & 850 N

Att. 1400 - 1415 M Extends along
strike (hillside contains) for 40 M

Looks like foliated biotite-plagioclase
dyke/sill with thin screens of fine grained
med to dark grey sandstone. Dykes are now
a very coarse schist. Slightly bothersome
to see sandstone bands ~ 2 inch - 6 inches
thick so coherent & interbedded with
probable igneous material.

Some pelitic schist (dk grey) in
very upper part of outcrop

L 400 E / 850 N 1420 M

L 400 E / 800 N 1430 M

400 E / 750 N 1465 M

700 N 1480 M

root flays - ridge top at 1538 M

L400 S / 5+50 N S side of ridge
top at 1530M elevation

Traverse 200M W to L200E -
No outcrop Alt at 1550M

Chopper pad at 725^{SE} NE / 600 NE

Traverse ~~NE~~ SE down ridge top
to 875 SE No outcrop
Now traversing down slope to SW

Altitude read from 1440M to 1460M

Have a soil sample line 800/400N
at same time have a marker with
875/600 NE What gives with
these 2 results.

900/350 1430M

800/300W 1415M

1086. L800/250N alt 1380M

Small outcrop of biotite
Wragge Creek stock with aplite &
pegmatitic vein.

L800/200N 1350M

L800/150N 1320M

L800/100N 1300M

L800/50N 1260M

L800/00N 1240M

1087. L500E / B/L0

Small probable outcrop of aplite
Fine-grained.

1088. L4+20E / B/L0

Start of outcrop of Wragge Ck Stock
along baseline
Fresh biotite gtr & diorite

Outcrop continues to 3+00E - then
abundant talus blocks

Outcrop just above B/h 0 at
3+30E - large slabs of
outcrop

1089. L 300E B/h 0
Biotite Wrayge Ct Stock

Next B/h 0 outcrop at
2+40.

However have bits of outcrop all
along uphill from B/h 0

End of traverse alt 1235M
(should read 1215M)

Sunday, Oct 19th, 80 WCR

Low cloud - haze. Sunny on upper reaches of mtn.

Traversing up Shannon Creek -
lines 24 and 26.

1090 L 2600 / 450N -cl 740M
located just above Shannon CK (to S)

No outcrop along Shannon CK from
Wragge CK road to here.

340M along Shannon CK from
Wragge CK road

L 2600 / 400N cl 755M

L 2600 / 350N cl 780M

L 2600 / 300N cl 810M

1090. Straight uphill from L 2600 / 300N to
elevation 820M

S₁ 160 / 43 E

Coarse biotite schist with thin light
grey, laminated sandstone layers.

Schist is dark grey. Pyritic - weathers with dark red brown color.

Outcrop spotty on hillside. Continues in narrow strip as go straight uphill.

At 830M - outcrop consists of the feldspar porphyry in the fine-grained mafic matrix. Scattered feldspar porphyry outcrop continues up to break in slope at ~ 840M - then runs out of outcrop as continue uphill. Schist & gneiss

(850M) outcrop right at break in slope to gentler ground

1091.

S₁ (??) (south end) 125/50NE

S₁ (?? - north end) 145/54NE

Dark black phyllite/schist Pyritic because surfaces weather with a very rusty red or orange-brown. Fln very difficult to see - looks like could be hornfelsed but not hard & compact like typical hornfels.

Noncalcaneous.

Contains scattered mica porphyroblasts.

bottom top
 1092 S₀/S₁ (?) 122/58 NE 125/80 NE

Dark grey carbonaceous phyllite/schist
 with interbands of medium grey finely
 laminated sandstone. Not black like
 material further up hill to SE

Rock dipping very steeply to NE

L 2600 / 200 N 830 M
 Just barely E of valley V

1093. Small knob outcrop right near
 L 2600 / 150 N el 850 M

Dark grey carbonaceous, noncalcareous
 schist with large pink chistolite porphyroblasts.

S₁ flm 142/25 NE, 90/20 N^{*}
 S₂ cren dge 115/45 N

L 2600 / 100 N 855 to 860 M

L 2600 / 50 N 860 M

L 2600 / 8/20 830 M

marked as 2700 E

1094. 46M west of L2800/B10

Small screeffy outcrop/subcrop of porphyroblastic schist. Contains large chert - some forming rosettes. Dark grey, carbonaceous schist.

No structure because exposure

probably not in place.

L24E/00N 860M -

Float all intrusive - just no outcrop to prove it

L24E/50N 832M

L24E/100N 820M

L24E/150N 790M

L24E/200N 770M

Just over lip of gravel terrace on S side

Shannon Ck 770M

Baseline hits Shannon Ck ~ 280M

Beyond where L24E hits Creek

No outcrop in this interval.

L 2 1/2 E / 1005	just off baseline
alt	850m

1095 Subcrop on float - Wragge Ck
 stock. No outcrop on these extremely
 steep slopes. Float is all intensive.

Tuesday Oct 21st, 1960

Cloudy & cool - spitting snow in AM.
Traversing on logging roads just N of Shannan
Lake.

1096 89 M N on road from switchback -

Outcrop extends to 107 M

S₀/S₁ 85/50N

Dark grey carbonaceous biotite-muscovite
schist. Contains thin interbeds of med to
light grey sandstone. Locally rusty-
weathering because pyritic

Locally porphyroblastic. Contains irregular
sweats of quartz.

2 examples of graded bedding shows

Tops Down to South - in between there
1 example looks like tops up to North

1097. 137M - 150M

S₀/S₁ 90/48N

Dark grey to black very pyritic schist / phyllite
interbedded with micaceous dark grey sandstone.

Bedding < 1" to 10" thick Pyrite as small
disseminated streaks

1098

186M

Very small roadside outcrop. Dark grey
quartzite ~~foliated~~, carbonaceous, schist. Surface
weathers to a dark rusty brown — i.e. pyritic

S₁ 83/70N

1099.

227M

Small roadside outcrop

Dark grey to black carbonaceous schist.

S₁ 75/85N

Pyritic so weathers to rusty brown on
surfaces.

Thin interbands of more gr-rich
lycos. locally these are banded in S₁,

1100.

553M

Small roadside outcrop

(just beyond road going uphill)

Five-grained, purplish grey, massive, biotitic
sandstone / quartzite. Contains thin

carbonaceous dk grey phyllite partings

S₁ / S₀ 75/80N

Outcrop spotty to 572m — last part is phyllite

1101

639 M - Small roadside outcrop

Med-dk gray, "quartz-feldspathic"
biotite-muscovite schist. Minor pyrite
weathers with orange-brown color.

S₁ 75/80N

At 655 M - small outcrop in road -
going uphill intersects this road. Same
as #1101 - but also contains small
ant of feldspar porphyry dyke. Dyke
exposed for 10 feet on uphill side of
main road.

1102.

703 M - Small roadside outcrop

Dk gray, carbonaceous, fine-grained
glauc schist or Micaceous igneous gneiss.

Purplish tint from fine biotite

Similar to last few stops.

S₁ 60/80NW

Like gneiss in core from 80-511-01

1103. 795M - subcrop to outcrop in roadcut

Dark grey carbonaceous schist. Extremely
pyritic with abundant fine pyrite
streaks. Weathers to a dk rusty brown

looks almost flat-lying to gently
dipping N - may be stamped

S₁ at 817M 15/40E

1104. 832M - Discontinuous outcrop to here.

Grey carbonaceous schist / phyllite with interbeds
of grey finely laminated sandstone

S₀/S₁ 65/15 SE

Outcrop continues to 876M

S₀/S₁ not measured because
slightly stamped. Dips gently in towards
hillside

No further outcrop to end of road.

1105. Dark grey carbonaceous schist. Contains
a few scattered chert-like porphyroblasts. Very
pyritic with numerous small pyrite aggregate
streaks elongate in S₁

S₁ 2/37W
↓
Probable slump

1106. No outcrop along road to here - abundant
float - schist and feldspar porphyry intrusions.
Small roadcrop here - at 62014 at stream
where road ends

Outcrop is feldspar porphyry dyke material.
Float of the porphyry contains thin dykes/
veins of pegmatitic gts and aplite. Aplite &
gts are pyritic and one piece of float here
contains minor MoS₂

Friday Oct 24, '80

Clear - turning hazy in PM. Cool.

Traverse on B/h east of Wrayge Ck
Rd

48 M east of road on B/h to
L 3400 E

146 M east of road on B/h to L 3500 E
No outcrop - intrusive float

245 M east of road on B/h to L 3600 E
3600 E / 000 takes off from here

331 M east of road on B/h - cross stream
No outcrop

341 M east of road on B/h L 3700 E

1107. 442 M east of road on B/h / 3800 E

Sampling line right on NW side of
outcrop. Altimeter 772 M elevation

Outcrop extends along B/h for
15 M - up to elevation 775 M

Outcrop extends 60 M south of B/h

S ₂ cross cleave	94/35N
S ₃ cross cleave	56/35NW
S ₁ foliation	75/20N

S₀ at B/L 148/40E

29M N of B/L outcrop - 6 inch
 white like has orientation 90/90

Lower part of outcrop S of B/L consists of
 porphyroblastic carbonaceous, dark grey schist. Minor
 fine disseminated pyrite.

Upper part is dark gray to black fine-grained
 siltstone. Tough & cohesive looks similar to
 hornfelsed phyllite. Thin pyrite streaks. Contains
 thin bands of lighter siltstone/sandstone.
 Very difficult to see any kind of foliation
 in the material.

S₀ lying disrupted by later deformation
 locally. In places get abundant fractures.
 Minor white quartz veining present.

1108.

80 M N of B/KO el 780M

50 ~~ft~~ 102/60N

late fracture clog 5/72E

5, 134/27NE

Fine-grained, med to dark grey
siltstone / phyllite. looks somewhat like
a cohesive hornfelsed phyllite. Noncalcareous
Contains thin bands of lighter grey, perhaps
slightly coarser grained sandstone.

Foliation difficult to see because of the
fine grain size.

Sample

Pyritic with fine-grained pyrite streaks

Outcrop continues to 90M North
of B/K

35M on bearing 135° from upper
outcrop of 4107.

Claims not marked

BOBBIE 1 DE 35 46880

June 12, 1980

1169. S0 90/77N

Fine-grained mid-grey to black siltstone.
 looks very similar to hornfelsed phyllite. Can
 locally see finally finely laminated S0
 Fine disseminated pyrite grains. Noncalcareous
 Bedding S0 very steep in this location

3900 E — 51 M east of #1109
 on B/h
 ~100 M across very (almost level)
 portion of B/h

129 M east of #1109 to
 L40E ↓

also claim post at this spot
 Corner Post # 47258

ANTON 3

2E 45

W P Armstrong

161040

COMINCO LTD

16164

Sept 2, 1978

1110

Skarn

~~light grey~~ orient

48/80NW

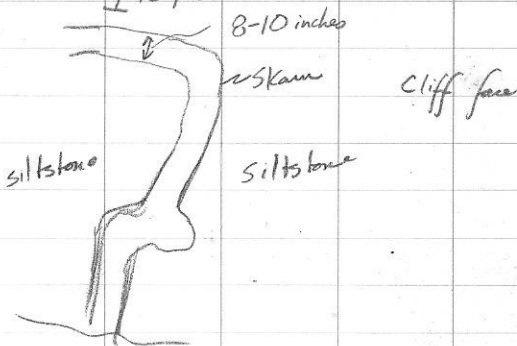
S.D.

125/33N

62/80NW

looking NE

L 125/33N



Dominant rock type is fine-grained, dark grey, noncalcareous ~~ply~~ siltstone / schist. Contains thin pyrite streaks & fine grained disseminated pyrite. Minor thin bands of lighter grey siltstone / sandstone — these are finely laminated. Rock overall has a hornfelsed appearance.

One thin carbonate band which is coarsely recrystallized with calc-silicate skarn mineralogy — calcite, garnet for sure.

Both siltstone and the skarn feel abnormally heavy.

Minor pegmatitic white quartz veining noted.

Skarn layer delineates what looks to be a late stage fold.

Samples

So at top of cliff 133/30NE

L41E - 107 M east of L40E

Road along slope at 126 M east of L40E

Sharp gully bottom 170 M east of L40E

L4200E 208 M east of L40E

Small gully bottom 255 M east of L40E

L43E 309 M east of L40E

L44E 408 M east of L40E

1111. 30 M south of L4400E

Small outcrop of Wragge Creek intrusive.

Biotite-white feldspar-quartz Quartz

diorite. Noted very minor pink feldspar

only locally developed. Also noted 1

hornblende grains on weathered, exposed surface.

Sample

L45E 508 M east of L40E

547 M east of L40E - Claim Posts

Post #1 for VICTIM 14

VICTIM 15

April 2, 1970

#2 post 1500' easterly

1112. Outcrop of Wragge Ck stock from
#61 M to 560 M east of L40E

Ribs of outcrop going roughly uphill.

Qtz-feldspar-biotite quartz diorite.

Jointing 20/60W

Minor dark green hbl also present

1113.

Small roadcrop on old road

S, 125/40 NE

Hornfelsed, massive biotite psammite.

on Stee-schiefer Dark gray color. Abundant
pyrite streaks

Sample

1250 - biotite gneiss

1260 ~ 8' sericitic gtz veins

Small gtz veins with

the gneiss

often biotite → chlorite along
fractures

in places get enough dark biotite
to look like schist rather than gneiss

finish day shift

No new bit late

night shift to tear down.

Saturday Oct 25th

Cloudy & snowing in AM - raining in PM

173 M from B/h on Wragge Creek Rd
to where road takes off to east
Essentially takes off right after turn
completed.

25° for 18M
 0° for 17M
 160° for 20M
 10° for 13M
 155° for 43M
 130° for 16M
 110° for 37M
 150° for 32M
 95° for 12M

1114

Probable outcrop on road to cabin
 Dark grey gte-rich schist. Hornfelsed
 appearance. Contains small aplite
 dykes.

S₀/S₁ 125/60NE

Starting at O/L

N 50°E for 47 M

N 55°E for 37 M

1115. Small roadcrop 32-37M
 alt 735M

Dark grey to black, fine-grained,
 noncalcareous siltstone / phyllite. Looks
 like hornfelsed phyllite. Small disseminated
 pyrite grains. Thin quartz streaks.

No structure because could not
 see fltn & could not determine any S₀

N 65E for 23M

↓

1116.

Outcrop (roadcrop) at 20M

S₀ 88/25N

S₂ cren cluge 72/70N

Similar to last outcrop (#1115) only
medium grey in color. Feels slightly
heavy.

Sample

N 55 E for 26 M

N 40 E for 30 M

1117. Small roadcrop at 8M

So 60/30 NW

Medium grey, noncalcareous, fine-grained
sandstone. Similar to last station very
slightly coarser grained. Pyrite along
small fractures. Can see thin more
phyllitic layers in sandstone

Outcrop extends for 8M

N 85 E for 22 M

N 30 E for 30 M

N 20 E for 45 M

N 50 E for 32 M

N 65 E for 44 M

N 40 E for 24 M

N 10 W for 115 M alt 705 M

N30W for 110m

N15W for 90m

N20W for 50m alt 685m

End of Day — still on road —

No outcrop through this last interval

cl. 740m on road at B/h

Monday Oct 27th

High cloud - sun trying to break through
 No drizzle yet

Traverse east of Wragge Ck road.

Start by mapping road down to Stearn Lk

N 15W for 25M

N 20E for 27M

N 10E for 16M

N 35W for 50M

16M road takes off with orient
 N5E

N 30W for 19M

N 60W for 40M

round curve for 13M

N 60E for 66M el. 660M (stone)

Cross line N40E / 750W at
 57M

coming down small draw

N 95E for 35M

large boulders of Wragge Ck stick

~~N 10W~~
 N 170E for 27M

N 110E for 51M

N 65E for 17M

N 85E for 35M

N 105E for 64M

N 95E for 24M

12 N - claim posts

Post #1 for Leora #1 & Leora #2

P Leontowicz

May 23, 1969

easterly 1500' to #2 post

N 110E for 38M

at end road take off with orient N 105E

N 10W for 98M

N 115E for 55M

N 130E for 24M

N 125E for 60M

N 140E for 73M

R 44E / 900N at 36M

N 160E for 28M

N 145E for 40M

N 130E for 52M

N 115E for 56M

N 55E for 39M

at 15M have trench-orient N 55E

1118. Small outcrop in trench

130 ft () to N of road
traversing down.

Small roadcrop.

Dark grey phyllite/schist. Noncalcareous
Very pyritic - weathers with orange/brown color
Minor quartz veins

S, 60/40NW $\frac{1}{8}$

N 10W for 360m

1119. Small roadcrop at start of above leg

Dark grey to black schist/phyllite

S, 72/48N

Contains thin bands of med to dark grey
pelitic sandstone (like psammite)

N 10E for 87m to lake edge

Next follow line 44E back south/
L 44E/1150N just in from lakeshore

44E/1100N 540m

Old flume runs just N of # 1050N

44E/1050N 540m

flume heads uphill at 265°

44E/1000 N 560M

950N 565M

900N 570M

road just barely to S 110M

850N 580M

Cute flagged lens just to S orient 125°

800N 590M

750N 600M

700N 620M

1120.

On line 44E just barely N of 700N

615-620M alt.

Subcrop to possible poor outcrop / scattered
boulders in slopeBoulders consistently feldspar porphyry
Fine to med. grained feldspar phenocrysts
in med-grained black biotite matrix

L44E/ 650N 640M

600N 640M

Small ridge between 600 & 650N

550N 640M

Starting uphill right here

500N 660M

L44E/450N 670M

on a plateau

400N 670M

Still on plateau

at this point come upon flume -

orientation 75° Just some

support logs & spikes are left.

Flume itself all decayed away.

Take one of spikes for sample

L44E 350N 690M

Small road just N of 300N cl. 700M

orient N 140° E

L44E 250N 710M

On plateau Open woods - very
pleasant walking - no underbush - just
moss

200N 725M

slow climb up gentle slope

150N 730M

100N 730M

 1121. Wragge Ck intrusions

Outcrop barely makes it to the top of the hill. - dies out rapidly to the North

Biotite quartz diorite. No

readily observed foltn. Have occasional large feldspar phenocryst. Minor pyrite weathers as brown spots.

Minor amt of coarse pegmatite as dykes & sills in gts diorite (like veins)

L 42E	505	705M
	1005	700M
	1505	690M
	2005	700M

ribbon 277M upstream for L42E
at Wragge Ck el. 720M

 1122. Extremely small stream side outcrop

Elevation just over 730M Hip chain

says ⁶³377M along stream from L 42E

(lots of around with chain? difficulty of traverse)

1122 (cont.)

Wragge Crk biotite-gte-feldspar
quartz diorite. Have a more leucocratic
phase with less biotite as well as a
regular type gte diorite. Med grained.
No foliation.

Sample of more leucocratic phase taken.

Hillside at stream starts to dramatically
steepen at this point.

1123.

420 m on hipchain. el. 740m

Continuous cliff outcrop of Wragge Crk
Intrusive from last stop. Biotite with
minor hbl as mafic phases

Dominant jointing 165/40E

Also pegmatitic gte-feldspar (minor
biotite veins present)

At ~ 450m - ^S East side begins to
form cliffs on stream - Still have
cliffs on ^N side as well.

H67M - L38E crosses at this point. Start of cliffs on S side.
Also good cliffs on N side.

564 m. continuous outcrop of Wragge
Creek Stock. Minor pegmatitic
qtz-feldspar veins. Pretty waterfall
here. Must go up & over cliffs
el. 765m

1124 = Traversing N on L38E from
Cabin road.

Probable subcrop of Wragge Ck
right where the line crosses the road.
Biotite qtz diorite with veins of
qtz-feldspar pegmatite. Locally graphic
intergrowth of qtz & feldspar.

L38E / 2505 just N of road 770m el
38E / 2005 770M

Not in good intrusive float
38E / 1505 750M

L 38E / 1005 740 M

bottom of small draw

1125. 85' N of 1005 on L 38E

Small outcrop forms the ridge
looks to be just about opposite
the cliffs of # 1109 & # 1110

Dark grey, graphitic schist Abundant
prismatic porphyroblasts (andalusite?) cut
across the dominant schistosity. Minor
qtz veins.

Dominant fltn (S1?) 115/70N

L 38E / 505

sample taken right next to
stream - on N side

Bridge || stream on N side right
here Small outcrop of same
porphyroblastic schist in stream

home D.S. Jennings

922-7965

DDH 80-54-04

elevation 950 M

N46-47E

-60°

Cool and high clouds with low fog.
Snowline quite far down from earlier.

Traverses along white bluffs of
Shannon Creek road - looking at alteration
pattern. Distances are metres measured
from where small stream meets the road -

Just immediately N of stream - a right
at stream.

Fresh Wragge Ck quartz diorite. Plag
altered to pink K-spar in narrow zones along
fractures. Total zone only 2cm wide.

Thin zones of pale green chloritic, somewhat
consolidated fault gouge. Widely
spread fractures - ~ 5" except for narrow
zones with abundant fractures. K-spar
more prevalent in these areas.

fault zones 61/30NW

K-spar joints 26/72W

Minor thin quartz ± plagioclase veins.

37MS

Fresh qtz druse with pink K-spar
enveloping some fractures. K-spar rim up
to 1" away from fracture.

K-spar fracture 59/83NW o/80W

Fractures spaced widely - 2 - 3" apart.

Minor chlorite developed along slickensided
fracture surfaces. Slickensides do not
plunge steeply 90/25

Qtz - plag / K-spar pegmatite veins present

Sample

71M K-spar zones now wider. Get general

pink K-spar in regular quartz druse.

Again chlorite zones associated with
joints containing some fault gouge.

Calcite fills fractures. Jointing &
fracturing in several directions - spaced
 $\frac{1}{2}$ " - 5" apart

chlorite joint 66/60NW

81M extensively fractured interval
with abundant chlorite replacing
biotite. K-spar not well developed —
feldspars are pale pink to white. Outcrop
very crumbly. Fractures $\approx \frac{1}{4}$ " or so

96M Strongly fractured. often several to 1".
K-spar well developed in highly fractured
areas. White plagioclase further away in zones of
less extensive fractures. Only minor
chlorite replacing biotite.
fractures 1/8" to 7/16"
Calcite fills fractures.

1166M Corner where road takes 1st
major turn.

Up to here mainly fresh with K-spar
developed along fractures to greater or
lesser extent. Chlorite locally developed
Zones of fault gouge very poorly weathering —
highly fractured.
locally calcite in fractures.

179M Fresh with K-spar along joints.
 Minimal chlorite. Several round
 fine-grained mafic inclusions in matrix
 at this location. Joints fairly widely
 spaced. Mafic inclusions contain
 biotite + hornblende

191M Start zone of much more intense
 fracturing. Rock much more extensively
 weathered. Biotite locally \rightarrow chlorite.
 More pervasive K-spar. Abundant calcite
 coating fracture surfaces. Away from
 fractures broken rock does not fizz.

Extensive fractures 30/44W

Also soft white mineral which doesn't fizz
 Chlorite not pervasive - only
 locally developed

233M Fresh gts diorite with K-spar
 developed to greater or lesser extent along
 fractures. Chlorite only locally developed
 along some fractures. Dusty color caused
 by calcite + soft white mineral along fractures.
 Appears to be largely a weathering problem

with intense fracturing zones appearing
to be more weathered than fresh zones.
But still mainly K-spar - plagioclase - biotite

271 M Road curves to S

Extensive pink K-feldspar + chlorite
developed in this set of outcrops. Calcite
coatings abundant on fracture surfaces.
This is spot where Alex Stebbins noted
minor MoS_2 disseminated in K-spar
Can see disseminated pyrite in strongly
altered area. Chlorite smeared along
fracture slicks.

Pervasive pink feldspar - only small
areas of white feldspar

302 M Start of section without extensive
chlorite & K-spar. Now fresh gte-diorite
with pink K-spar along fractures -
Similar to earlier assemblages.

366m Have come along interval of strong K-spar with chlorite. Looks to be roughly following same zone so it appears extensive. Minor epidote with chlorite. Some stretches of fresh quartz borite away from fractures.

Chlorite most extensively developed near the pale green fault zone regions.
Calcite + soft white mineral fills fractures.

410m - road turns to W

419m - K-spar along fractures. Locally chlorite with K-spar. Note epidote in samples. Fresh away from fractures. Some mafic hbll + biotite rich inclusions. Often seem to have partial alteration of biotite to chlorite.
Strong fractures 65/85s
Chlorite most extensively developed with the pale green shear zones.

453M

L 18 E / 0+50 N

K-spar along fractures.

Epidote. Mainly biotite —
only minor chlorite.

468M

K-spar along fractures.

locally very chloritic. Most of rock
biotite.

478M

K-spar along fractures. Zone
of intense chlorite. chlorite associated
with strongly developed fracture surface
with pale green fault gouge
fracture 17/53 EUpper surface of gouge sharp —
lower surface gradational.Chloritic zone is ~5' thick at
most.

489M

— road turns to N

496M Pink K-spar along fractures
 Chlorite replacing biotite. Again
 generally associated with pale green
 gouge zone
 Fault zone 44/47NW

557M Road curves to W
 Widely spaced fractures. Thin
 K-feldspar envelopes along the fractures.
 Pegmatite dyke at this location.
 K-spar envelope about 1-2" wide
 at maximum.
 Epidote disseminated
 Mainly fresh rock right here.

566M Intensely fractured chloritic
 zone Calcite druse on surface -
 Calcite fills fractures
 fractures 25/70W

622M locally gneissitic with a few scattered large feldspar phenocrysts. Dominantly fresh with thin K-spar selvages along fractures. Epidote ubiquitous.

Only locally slightly chloritic.

At 631M Chloritic - again associated with pale green zones of fault gouge. K-spar more prevalent. Rock more closely fractured. Calcite fills fractures.

fractures 23/46W

gouge zone 12/40W

726M - road turns to S

Dominantly fresh with thin K-spar selvages. Locally highly fractured with some shearing. In these regions rock is extremely weathered - also chloritic.

Epidote ubiquitous - disseminated through intrusives

769 m

Fresh with thin K-spar selvages.
Intense K-spar chlorite zone associated
with slickensided fracture - orient 30/90

826 m have walked along region of
strongly slickensided joint surfaces.

850 m fresh qtz barite with thin
K-spar selvages. Rock fairly well
weathered. Epidote disseminated
Some pyrite nodules.

896 m Fresh - very thin K-spar
strages along fractures. Fractures widely
spread - rock looks quite coherent.
Some slickenside zones

Road turns to West.

Minor fine-grained hb1-biotite mafic
inclusions

Thin chlorite + K-spar zone along
slickenside fracture orient - 30/70SE

956M Fresh gte-diorite Widely spaced fractures. A few thin K-spar selvages.

985M Essentially end of outcrop. Fresh gte diorite - a few K-spar selvages. Rock not extensively fractured. Fractures may be spaced as widely as 2-3 feet.

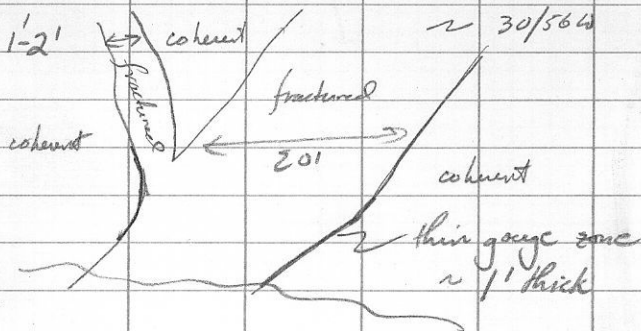
As descend back down - general impression -

Note in one area a 20' interval of extremely fractured & broken zone. Abundant calcite filling fractures, etc. lying on both sides are much more coherent rock with fewer fractures.

(this is at first W curve (or go S) to N of B/L)



looking at roadcut



looks like a conjugate set of highly fractured zones

Switchback heading N on Shannon
Ck Road Switchback just W of
Sandstone Ridge

1126. Small roadcut stop 69 M north
of switchback

Fine-grained black phyllite
S₁ foltr 115/70S

At 130m N of switchback

Outcrop off road to S. Up the
hill about 75 feet ~ 50 feet long

1127 147m — 179m

Black phyllite
S₁ foltr 110/85S

1128. 272m — Small roadcut outcrop

Black phyllite
S₁ foltr 120/70S

1129. Dark gray to black phyllite (minor)
interbedded with medium gray, fine-grained,
moderately calcareous sandstone.

ND structure - looks like subcrop