Traverse – 23/6/69 [60]

250
A.12259 251

M^cQuesten 115 P 11

018581

Δ1 Land

Δ2 44 130

– Mica schst. with pink spotted fspar?, poss Gts.

– upst found gr-mica ~~scst~~.

– 12 30 not v good...

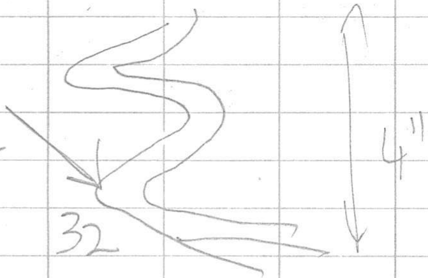
40 108 Green fspathic mica scst.

– Qu-veins

– weathers Rusty Brown.

Folded.

F/A 142 of 32



minor folds

- gives rock semi-mullion structure.

Further 60

- 38 - Sust

down

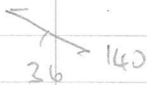
Traverse: 115P12. 24.6.69

Pique Creek. (61)

Δ hand - U. Basic Body

* - Rosettes of talc? Anthophyllite?

- amy - sheared altered U Basic
- thought was sill. guess at first.
- sheared



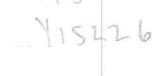
- Veins antigorite

— NB. Staked -

Claim no's Y15224 P no. 2
15225 P no 2

Y15227 P no's
Y15226 1

Shear



Δ_2

⊘ mica scst at Sr junction

looks like Bi - granite gneiss.?

Δ_3 52 152

Bi-Hb scst.

6700 pace ⊘ 23 28

~~Banded~~ arkite

Hbe in discontinuous ~~ba~~ laminae.

25.6.69 (62)

Road Traverse - Dempster Highway

ml. #6 - Creek sp 9V 223 -

Float of massive quartzite
- blueish and buff
- also med gnd Diorite.

ml #11.1 - Spec 224

Float Diorite - porphyritic
Syenite and massive
quartzite.

ml #14.4 - Spec 225

Qz Black shale (and phyllite)
- Yellow ochrous weathering
- veins of well xtallized
quartz

93
32

ml 15.1 - (Sp226)

Float - Diorite -
Gabbro - Coarse
gnd - sub tabular
Pyroxenes - poss some
opyx - so maybe
Norite

ml 17.7 - (227)
float - same Diorite and
Qtzite

ml. 23.8 - (228) Flt Qtzite.

ml 25 - (229) - Flt Qtzite,

ml 27.2 (230)

Fine Diorite and Gabbro
in Sf - float.

ml 29.1 (231) "

ml 31 - 232 - Qtzite - Di -
Gabbro - Also possible

(63) ← 2nd Thoughts more acid fspr.)

Anorthosite .. coarse grained

slightly gray fs pr phenocrysts with minor interstitial pyroxene.

M 36 - 232 " same float

M #2 - - same float

M 43.1 - Float now predominantly black shale and slate.

M 44.5 Float still black sh. and slate.

M 48.2 - Qtzite 1% pre/c

- also presence of a beautiful purple shale - stands out

Vividly in the rocks
O/c only in the Mts.

49.1 – Float ~~mode~~
volcanic –
– vesicular andesitic-basalt.

66.2 – Again Float of
green volcanics.

Summary Traverse

– No real detailed Geology
was done
– However an idea of
the various units as
mapped by G.S.C.

Sheet 116B, 116C (E ½)

Dawson – was ~~stained~~

– ie – Massive Qtzites, (17)

and intrusive Diorites

and Gabbros (20) of

units 20, + 17

Also beautiful purple
slates of unit 9 or 14??

Volcanics of unit 4

are most distinctive

and vesicular –

amygdales of calcite

(65)

T. 26.6.69.

Aland.

1 and inter 2. int of

3. fine dol-y di.

32
50

235-6.

Fa St. B. sh.

5. Dry.

6-6. Rt Bk. S.G.

7 - 5' Low Gravel.
3
8 5' - .5. 2 Fast
Sand. mid.

9. Sand Gravel
10. 6' - 22.
6' -
41. Gravel } 2.2m
42. Sand. } clr.
10'

O/C Gabbro.

(66)

43. Mid. Grad. S.

22.

15' wide.

Gals. Dense slopes

44. Grav. S. 3 BK.

Qtz Brown

45. Dry. Sand.

Gravel.

Qtz. Float.

46. Sand. Gravel
3..4 deep.
2.2.1

47. S. gravel
Rt. 15' x 1

48 Silt org
mid.
1 x. 2.
2 2.

% Qtz. 47.

49. - Sand Org

3bk.

15' x 1   2 x 2

50 7b/30 note.

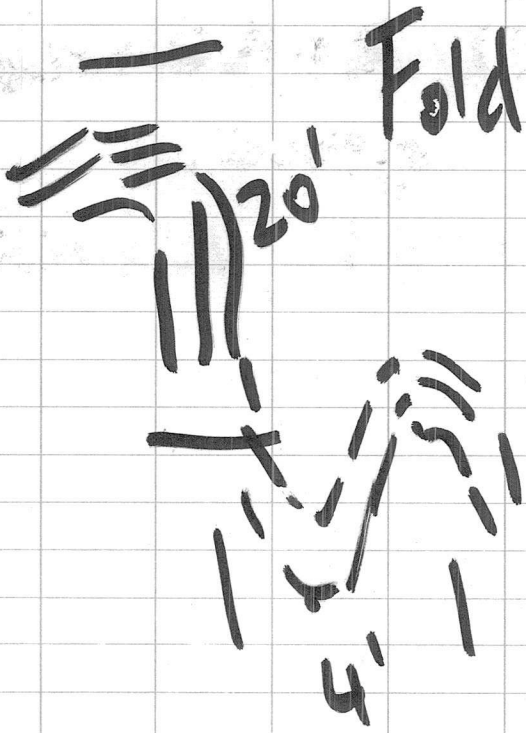
Argillite

sh. ~~[illegible] 80~~

45 80

also ⊥ 90

Rusty w Qtz vlts



Black argillite.

$ 134

179

(68)

(51) 2HBk sand grav.
15x1. 22nd

(69)

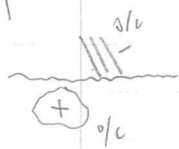
3.7.69 Gossan Study.
Wolverine Lake.

D, Land.-
Psammitic schist - minor
micaceous brings.
- pyrite cubes. (s.p.)
- ∠18 28
- mullion structures in it.

Stream sect Head - N. face.

Black graphitic scst. ∠54 146
phyllite.
- yellowish ochre - stain

poss fracture.



Spec. 9R252. - Spec A.

- swampy slit from middle
org:
- 1' - ·3' deep - 2.2. clear
Brown ppte.

Δ_2 i - Black graphitic scst.
unconformably overlain by
coarse conglom. - breccia.

- note - specs of purple coating
- also green carbonates.
- pinkish carbonates.

- Interesting phenomenon.
- lichens fluorescing in
bedding plane unconf.

- B. Scst -

40
140 n.g.

conglom. - flat. ~10° East,

N.B. - Carbonaceous layer
with assoc. green and blue Cu?
carbs - weather preferentially.

9R253 - silt. org. - 1' - 2'
2.2.

300' from conglom. o/c. on ck.

- 100' from 253' -

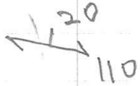
Blocks red Bog Fe-ore.
- specs taken - From S. slope of ck.

- stream - gossan spec.
- also 254 in silt. (spec)

---

o/c Chopper I

Scst. mica - fspr. flecks -
weather brown.

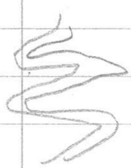


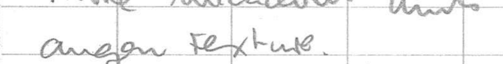
spec. cpr. 1

Chopper 2.

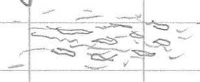
Escarpment of almost flat lying gneiss.

– Qu sweats 2-3" folded

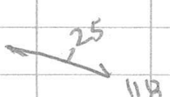




more brecciaceous unit's sub augen texture.



Brownish purple color with qu-fspr augen



9.

Traverse 4.7.69.

Big Campbell Creek:

N Land.

9R-262 - Silt. B/C Ck.
40' x 1.5, clear water. 2.2. no
St. ppte.

Float. Ig - granite, Meta-augen
greenstone gneiss
porphyry.

Spec. grey sand. from B Bk.

- am working up left side of
Bank.

263. - 1000 p upst. from 262
Sand-silt.

264. 1000 p u st. S.L.S.

% Sheared green. phyllitic sest.

- some units more qtzitic looks
like greywacke.

- anyway pretty low grade

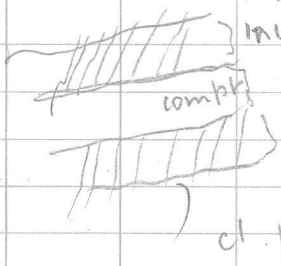
40 → 110 n.v.g.

- float of this in the river - looks like spilite when water worn.

- note - pervaded by calcite stringers and veins.

Sp. 264 - sand - silt.

345 p S.L.S. 0/c Blade shaly + shaley graphitic Beds. development of incipient slaty cleavage. more pronounced in less compt. beds.



72

clean pl. 67 N / 124

- Brittle deformation.

400' p S.L.S. other side

Brown + green - greenstone.

- looks massive in places -
- one spot green + crumbly and veined by calcite
- slickensided and shot thro' by calcite stringers.

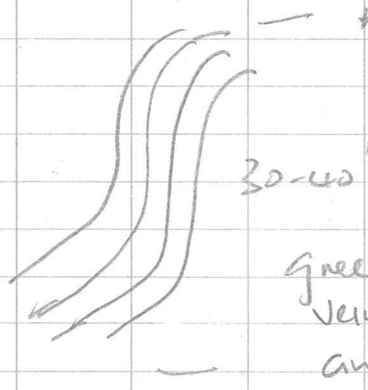
- other side of st. - escarpment of Vesicular amygdaloid nl. andesite - basalt - white vesicles calcite.
- in places sheared and gone to greenstone - sub-spheroidal weathering.
- veined by calcite
- Spec 9R265.

620 p S.L.S. pale green sest. - micaceous veined by qtzo-fspathic mat.

lit-par-lit injection
pink fspr - granitic composition

- contains flecks weathered brown pyrite. - some good cubes.

- further upst. v. ← 48 / 60



greenscst - veined by qu and calcite
- calcite weathers
- grey - (coating on it)

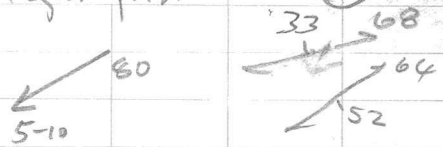
Sp 265 sand from 3bk.

630 p SCS o/c Black + grey shales

contorted + cleaved.
- weather rusty red in places.

(13)

Crumpled - tight fold



spec 266. - R.C. Rusty sh

Gossan I Big Camp. Ck.

% Brown weathering.
Green and reddish serp??
(looks like qtzite and is qte hard)
net veined by veins of well
xtallised qt ±.

- patches of this are true serpentine.
- Shear zones of Antiquite
- Blue green Crysocolla?
- qtzitic c rock flecks of pyrite
- Unit classed as U Basic poss.
- many specs!

9R267 - silk grey, below Serp'

Gossan 2:

- grey + blk sh. 33/90

- yellow lichen - sulphurous?

Gossan 3:

M. Basic - serpentine with veins asbestos 1/16" thick.

- other green - serp (qtzitic looking) which weathers brown red - predominates

- This unit forms high ridge along B.C. Ck.

- on N.W. side of it greenschist (flat lying) o/cs

Gossan 2 again — 30 / 108

- Black shale - ptygmatic veins of qu sub ∥ to bedding planes

- Qtz vein ∥ bedding 7' thick

N.B. Brown rusty rock of gossan one + three. Poss - qu-siderite alteration assoc. with the U. Basic Serpentinous intrusions - acc to E. T. Godwin.

- Thus green rock with halos of U. Basic intrusives

5.7.69. – Traverse other side of
Big Campbell ck. (75)

Spec 272. – Silt Rt Bk Bkk,
ab.
grey
Creek – 40' wide x 2'.
2,2, clear.
1
Spec 273 ab. –

Ck. directly opp greenscht facies
rock. on other side Ck.

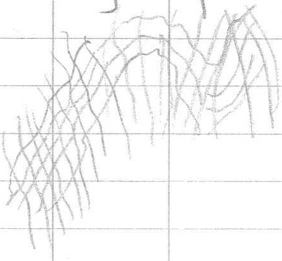
O/c of bk, grey sh. with organic
yellow sulphurous tinge.
also reddish Fe.

Ck for 273 8' x.3, 2,2,
Brown organic ppte.

Float mostly well rounded,
brown stnd granite, grey
sub porphyritic.

Spec. 274 R.C. Bk shale o/c on bank.
note peculiar little salt? xtals in cl. planes.

Sh. intensely deformed.



MR275. Sand from st ad, to contact - seep, & qtz carbonate alt zone

Specs of alt. Cu? and poss chalcocite, ~~or~~ Mn ore?

Same situation as Gossan 1. yesterday.

9R276:

Small st. coming into BCC.
1 x .2, 2, 2, clear
Sand. silt organic

277 St 1 x .2 2, 2, Sand silt a/b.
from St going into BCC

278 - from B.C.C. silt, sand.

279 B.C.C. opp. U. Basic

Gossan 1. Sand silt

280 a/b. St. into BCC.

Note very clear water -
leaves carbonate, yellow. buff
ppte on rocks.

1 x .3, fast, 2, v clear.
Silt?

QR281 - Sand
Silt
2' x 2', 1, 1, buff

Comb-ppte, on rocks, not as pronounced as the latter stream.

QR282, River.

in 281, qtz with minor Galena:

300' p above 282

% Bk, + grey shs some weathers pale white to buff.
others rusty

Rusty gossan at water level inaccessible.

500' p. above 282.

o/c low gde greenss sh.
. large cubes of pyrite

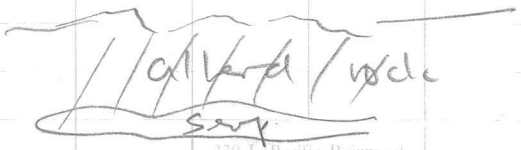
Veins of qtz, (mostly) carbonate
- carb weathers rusty.

Specs.:

Brown gossan 100-200p before
Stream -
Alt. zone of serpentine

- qtz carb. rock -
- serpentine float at
base of slope

- impression serp occupies
low area of escarp. -
alt rock above



283 small st into B.C.C.

Flowing v slow, 1' x .2'
sand, silt a, b,
organic

284, grey silt from st 84 p' from
last one.
1' x .2, 2, 2, clear,

O/C 340 p S.L.S.

Bk shales
also intriguing rock
Pebbly?, - chloritic schist (pale
greenish poss talcy)
veined by qtz .5 - 4" thick

- pebbly bits make it look
almost porphyritic -
altered ig rock ???

— N.B. Definite evidence for
igneous origin of fsprs.

- this rock sheared chloritised fspr porphyrite - net veined by qtz.
- also rusty stained

The Bk. sh and phyllites are quite contorted, and in places also weather rusty. Rock chip specs:-

9R285 - a, b, - Bk sh, phyllite graphitic, oily sheen to it.

N/B in grey sh (micaceous)

Slump + cross bedded structures in lens like silt units. 134
- intra formational conglom.

GR. 286, g,b, Small st. into B.C.C.

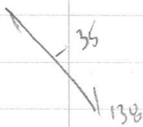
1' x .2', 2, 2, Clear, gray silt.

GR 287, g,b, 2 x .5, fast, gray water, flowing into B.C.C. silt.

GR 288, B.C.C. middle

6.7.69. Traverse Volc. Lke (78)

291. O/c Green scst.
Poss meta volc?? Survey maps as volc ?
- more likely scst.
- flat lying S plane.



n.v.a.

- further down. greenscst, small kink bands.
- quite qtzose and massive

- not veined by qtz -
- lot float. stockworks of qtz.

- more g. scst

- yellow. rusty app.

- Folded scst

Axis 120

further down.

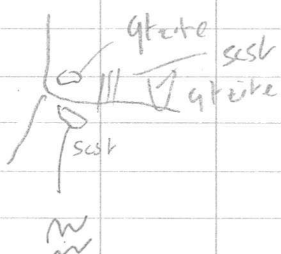
low grade - scst, qtzites, 24 120

- Just before stream.

c gnd g. gneiss (rather qtzose)

20 80

Sh Jn



folded.

note pyrite cubes in the phyllites.

folded phyllite 38 146

1.7.69 : Traverse. Mtn Ridge (79)

A 12245 288, 12189 - 435

Bland. O/c of green grey mica scst with units of gn. alk fspr-biotite augen gneiss.

- veined by qutz sweats
- Some scst has pyrite where minor
- more psammitic units also. - verging on qtzites.
- strikes shown on a.p.

S.L.S.

Uphill, massive augen gneiss v. qutzitic, definite foliation.

32 / 160 W.g See a.p.

This is marginal foliation of med-to c. gnd porphyritic granodiorite

Fspr - 60% ± 10 Grey, some pink, alkali fsprs.
Hbe - 30% ± 10
qtz - 20% ± 10
Musc - 5%

Contact mapped

S.L.S. Rock poss becomes more
granitic - more qtz,
less hbe, still med gnd.

¼ ml.

$h0 Rock more med gnd sub porphy-
hbe dominant fmag, (bi minor)
qu essential 720%
Rock granodiorite., or hbe granit.
grey green. hbe rich

8.7.69. Traverse. (80)

AP A.12228 - 264, 265.

9R.312. O/c Mica sest, qutz veins, float coarse augen gneiss also

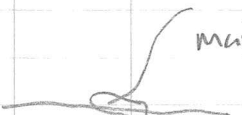
14
—+→ 90 = l.g. (kinda flat)

Spec 312: A Gneiss.

Spec 314 O/c Grey green mica Sest -

Black bi - porphyroblasts -
- weathers brown. (Fe/mags).

315 Good S.L.S.
St. Intersection

326  mainstream.

O/c of greenish mica sest.
- brown spots where bi - weathering
- 30-50/20
n.v.g.

Could even be close to vert. looks folded in brittle fashion.

O/c micascst. 78 ~~42 × 1 78~~

See a.p.

Mast no [336].

Radio sched. 8. pm

A.P. no. A12228-223-224

81

Traverse: 11.7.69.

See map No. 12228-226 for locality.

Station 1:

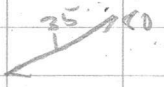
- Med. grd. granitic gneiss - tending to schist.
- platy unloading? jt. pattern ∥ to foliation

Station 2. Grey knotted gneiss
- knots of fspr qtz -
- streaks of v black biotite.
- 

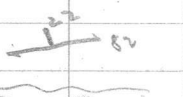

- lineation of blc bi

9R BIRa

S3 Some gneiss



S.4. Boudinaged gneiss -



small scall Boudins

along plane of dip

- much muscovite in gneiss.
note yellow brown weathering

9R8|Rb

S.5: Greenish fine to med grained bi-sest.

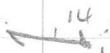
9R8|Rc

S.6. Bi-musc. sest.

note saddle on ridge where this incompt unit weathered out.

82

S.1. Flaggy, qtz-fld, micaceous scst-



- yellow brown ~~weathering~~ weathered

S8. 

- Flaggy micn, qtz fld. scst.
- flat lying

S.1. SLS - pass over - v qtzitic laminated scst, gneiss, micaceous.

- S.1. 

- micn scst.

with little red spots - weathered bi? fspr?

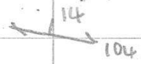
- also qtz - brown carbs - vein material with minor pyrite and brown lustrous mineral - poss just bi - but qtz spec

QR 82 R a

S.8. Top of Mtn 7000 odd feet

- muscov - scst.

and more qtzo fspathic schist gneiss

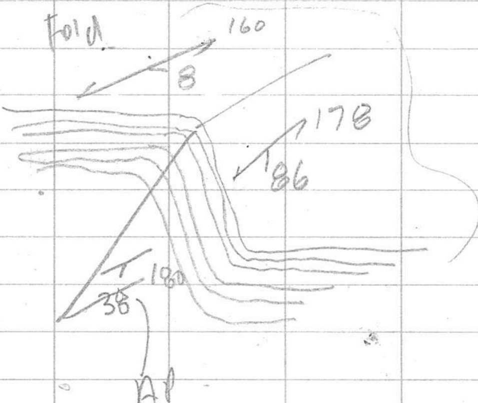


- finely laminated qtzo fspathic

9R 82Rb

S.9. Fold is

General dip 



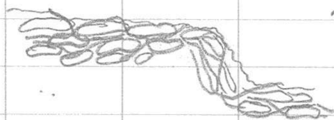
- Dark intercalated qtzite 1" thick
- qtz veins along fold AP.

`Spec chevron fold

9R 82RC

S.10 White, grey,
coarse gnd, augen gneiss,
- qtz, mica, greenish bi, ± musc,

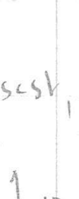
- minor crenulations of
chevron character, poss same
fold phase
and style
as scst
op above.



- Thus at this low level get idea
of lithologic succession:

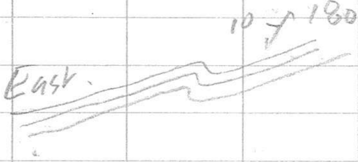
9R83Ra

S11. Green Bi scst, intercalating the
augen gneiss



- note augen gneiss minor drag style folds
-

AP, east, 60



S12 — 17, 110 — grey green qu feld scsh, green bi - note f'spars

weather yellowish

- lot white carb veins,
- also qu veins.
- caps the augen gneiss

9R83R b

S13.

Hill capped by psammitic flags.
- almost flat lying.
if anything dipping slightly N.

- V quartzose, also green mica.
- lustrous appearance.

16 / 60

S.14. Psammitic flags 90 ← 18 →

9R84Ra psammitic flagstone.

S.15. Augen gneiss 15 → 90

Pass into flaggy schist

S16 9R340.. Augen gneiss in stream practically in situ.

S17 Sub augen g. 34/20 n.v.g.

grades uphill into flaggy schist

S18. 22 70 9 mica scst.

Bi, musc. good lineation in air photo's.

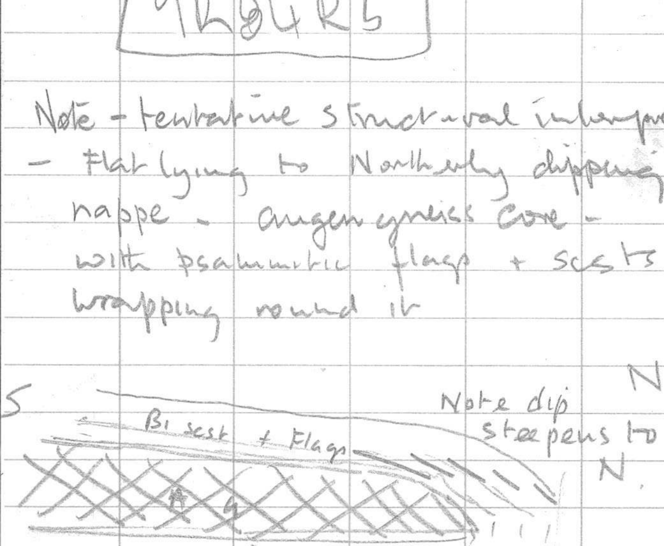
9.19. 33 60 9 Well foliated mica scst

S 20 Green Hbe? bi scst
v green

15 70 NVG

9R84R6

Note - tentative structural interpretation - Flat lying to Northerly dipping nappe - augen gneiss core - with psammitic flags + scsts wrapping round it



Fold axis possibly → 70°
to NE.ly 10-20°

- also cross flexures striking ~178° and dipping N 70° poss.
- Chevron folds atop unit

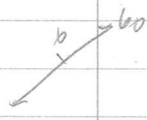
- note also the drag style folds within the ~~[illegible]~~ augen gneiss.

- pelitic units act as lubricants in the nappe formation ?

Traverse 13.7.69.

Last no 341 ;

S.1. Psammitic musc. schist
v. flat lying.

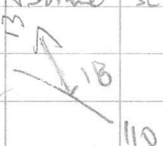


S.2. Rusty grey mica schist, with Bi
porphyroblasts.

note float qu vein in sub augen gneiss
with tabular hematite, or rutile

Spec 9R 85 a.

S.3. same schist, poss more psammitic,



lineation 132

86

S.4; Pass into psammitic flags. - grey coloured.

24 / 110

- upwards swing in strike 140 / 18

S.5. Grey psammitic flags, - fine bi porphyroblasts

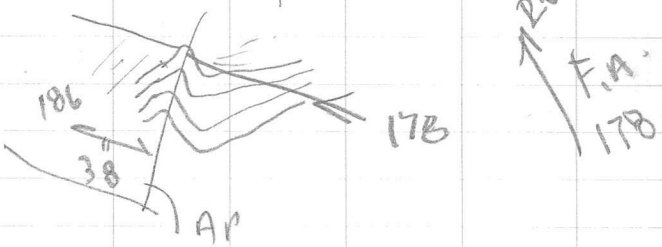
18 / 20 - more complete swing in strike.

Spec 9R06a

S.6. Flaggy schists bi porphyroblasts.

15. / 102

more. cross folds chevron

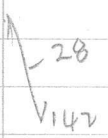


S7.

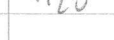
S.L.S pass round base of hill -

- mostly flaggy psammitic flk.
- odd. augen textured gneiss

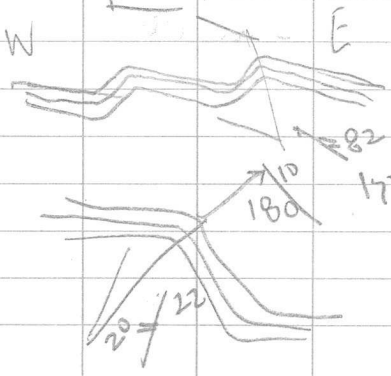
- ab S7. flaggy psammite

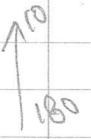


- very gtzose, quite sweats and veins

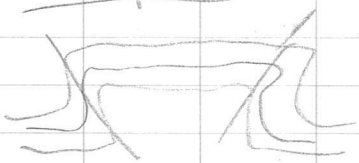
S8 f.f 

hole folds, minor



F/A 

Note possible conjugate axial planes



S.9, psammitic flags 120/70

with interbedded qtzites.

S.10 Float block qtzite

Spec GR87a

from geochem sample GR346

S.11. S.L.S. contoured the hillside.

Float heaved - psammites,
- and white, yellow
weathering flaggy qtzite
- Note large boulders of
augen gneiss (erratic?) or
from above?

Now on Beg Fe Ore.

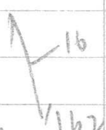
Spec 9Rp 87 b

S12:

Float serpentinite with magnetite.

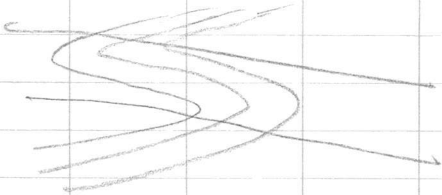
Spec 9Rp 87 c

S13 Corrie – bordered by psammites



Dip steepen towards stream.

N. Lakes Showing Mon. 14.7.69. (88)



Fold axes 50° - horizontal.

Ax. plane 18 / 50

Bi schist, Qtzite,
- granitic gneiss units, overfolded

photographs

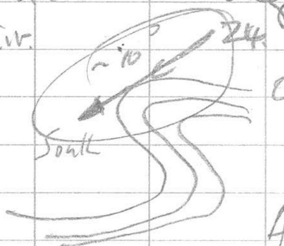
- massive pyrr + chalco + pyrite

14.7.69. AP.no. A13518-267.

Traverse band:

Psammite, bi schist. 8 20

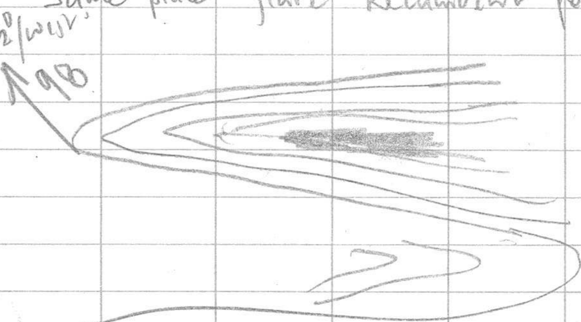
Fold in more augen Struktur unit.



Axis from pebble unit 5° 120

AP 24 54

Same place flat Recumbent folds.



(89)

S.2. Massive jtnd. — 90 / 56

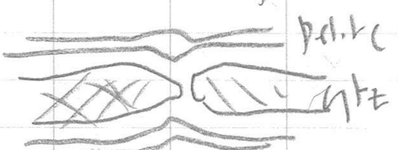
v. qtzose gneiss poss sub granitic gneiss

- call impure laminated qtzite?
- 26 / 14 of foliation.

Spec. 9R$_p$89 a

• S.3. Alt sequence of finely laminated qutzo feld gneiss + sc
- pelitic bi sist "
- qtz veins "boudinaged"

// to axes of minor folds



minor folds. some almost ptygmatic

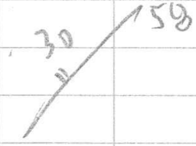
Spec

9R p89 b

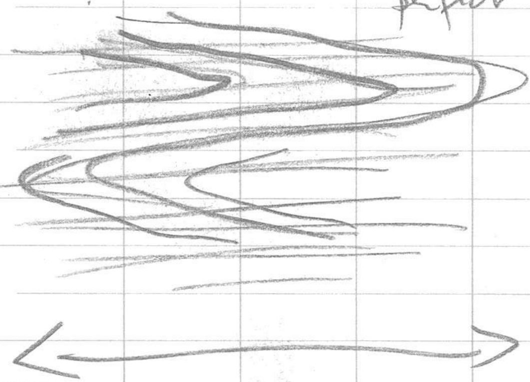
general foliation

note dip variable

AP



Note also recumbent folds
perfect AP. cl.



Scs/Sosily

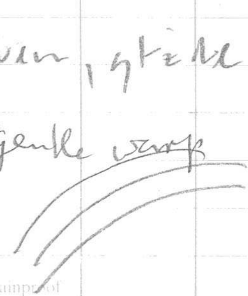
APs 18 / 64

Axis 20 / 15

Qtz-o fold. gneiss sub augen
texture

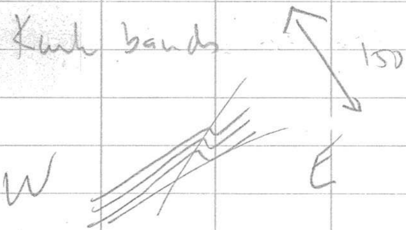
S(4)
Gossan - Rusty gneiss, qtz-ite.

Sesl 28 / 150   gentle warp

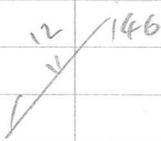


Kink bands

horizontal



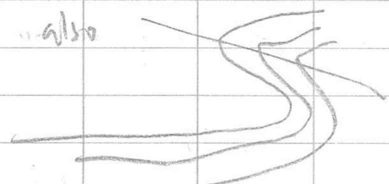
Scst

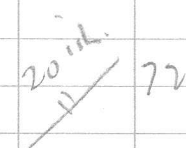


Corrie: laminated bi scst, qtz
competent

note fine isoclinal folds.

also





15.7.69 : Start.

No 3511

Traverse :

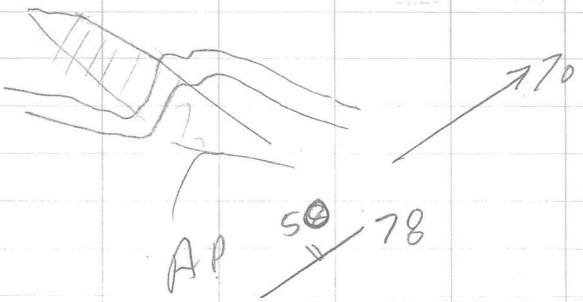
S.1.

Massive grey augen gneiss (8-10') bands, with intercalated black bi-schl.

25 ↗ 70 / 78

F axis minor folds

note minor folds in pelitic layers.



note the closure of drag fl. folds in pelites reflected in the augen of the gneiss

this reflected as axial fl. s.l.p cl. in pelitic layers same

orientation as a.p. of minor folds.

spec. [9R91a / p]

note strain slip ax. pl. cleavage

S2 A. gneiss 20 → 90

S.3. A.g. 18 → 90

S.4. A.g. more laminated 24 → 82

S5 Have now passed uphill into flaggy psammitic sch. — note how gradational contact between two units were - a.g. becomes quite laminated.

35 / 84

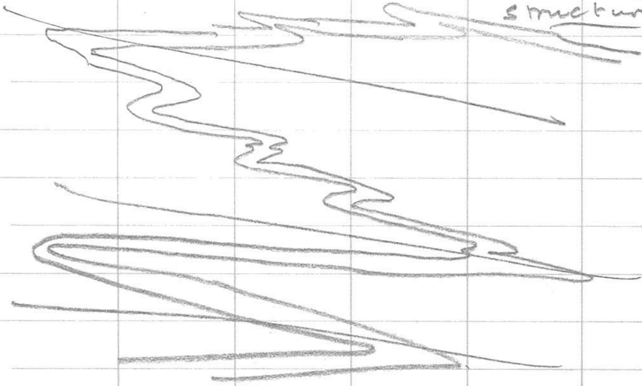
minor folds, qtz veins,

A.P.

36 / 82

development of A.P. cleavage

also Z-3' Flat Recumbent structure (92)



axis 70 ↗

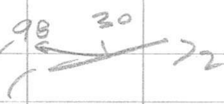
S.6 pass into massive hbe scst [unit 4]

- calcite veins - well xtallised hbe
  + epidote
- some of rock looks epidotised
  with pink and buff mineral
  check - could be Ba silicates

[9R p 92 a]

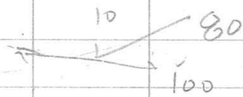
other Spec [Rp 92 b]

100' pass into bi scst



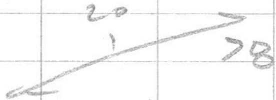
Kink band in bi tile

S7 Into unit 3

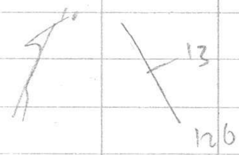


Bi scst, pss more psammitic

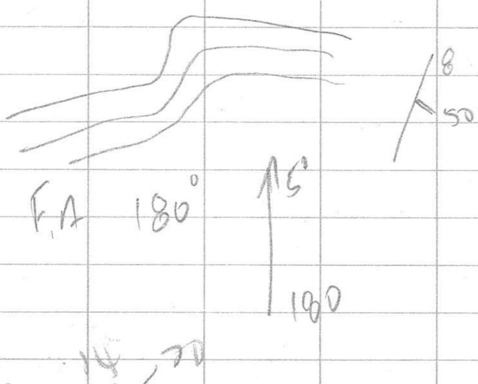
S8. Still unit 3. Bi scst. some
unit 2, more psammitic



S9 mica scst. 3.



AP.



F.A 180°

S10 Grg

Traverse 11a.7.69. A.P. no. A12228
-225

1. A.g. 40. 25. s
l. 60

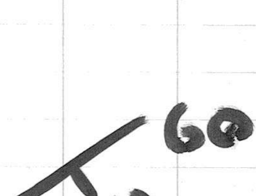
2. Float. Spec.

9R.p 93a

Rock. laminated.
gran. gn.

9R.352.

Bi gneiss.

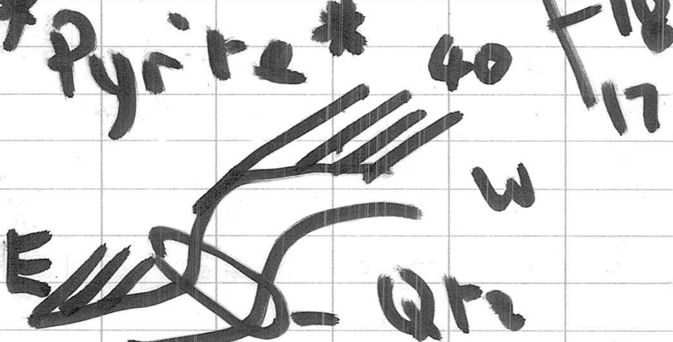


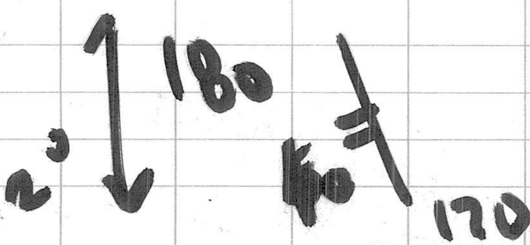
3. lam. g. gneiss

9R p 93b.

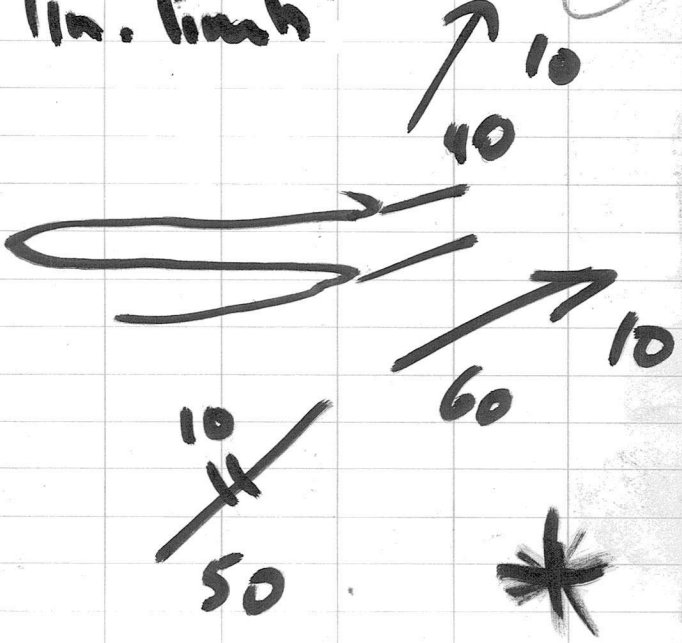
4. Gr. B: Sesb.

Pyrite 40





lin. limb



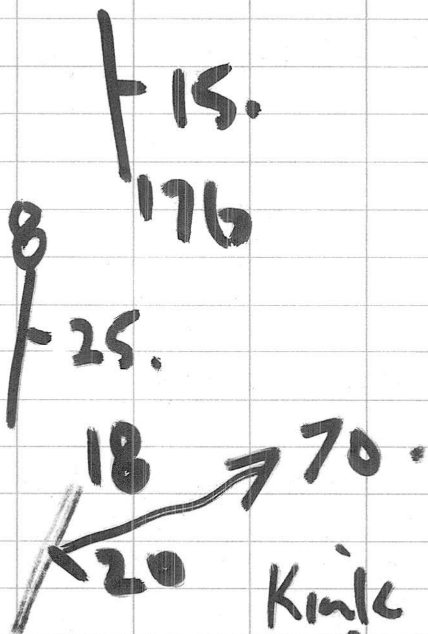
Incaution on limbs // to it.

Recumbent.

This by bent round

other po limbs A

4. G.S.d. (General strike + dip).



5

6

Kink.
Crinkle

Sym. Bisect.

int. sc. ac & gneiss

7. lam. qtz. f. musc. scsl.

15

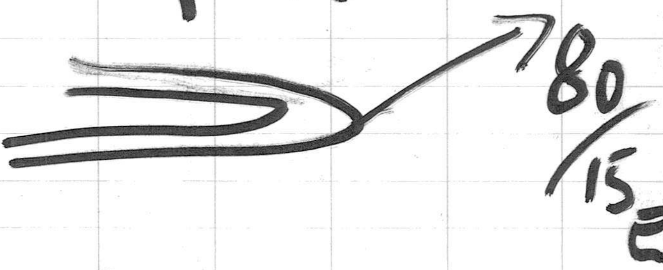
110

8. lam. g. gneiss

20

172

Rec. folds.



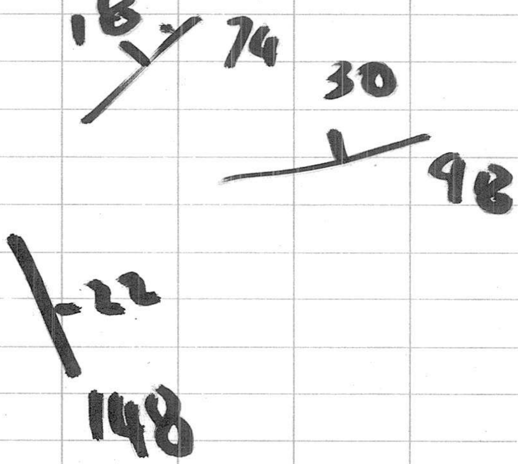
A

5

160

9. 9Rp 9S.
P. cph. b. bi Scst.

10. Bi Scst.

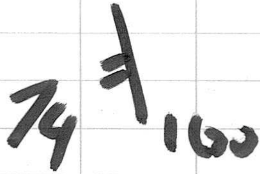


folded.

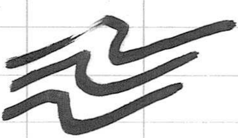
Wraps round.
top Mtn.

Axi 80 ish to N. ?

St. slip ch. - crinkle



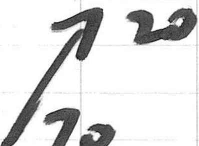
W



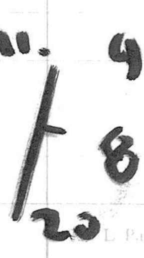
E.

11. Down. mullion?

F. 17.



12. lami. gn. + B. Scst



13.
Stream I. Bi Scst.

29 / 56

note a.g. infl at
Scst. poss. wrapped
around or interrcal
w. gn'eiss.

Spec 9R353.

14. D. stream.

a.g. with int. bi
Sct. 32 / 62

97

14.

Massive a.g.

also sub. | 14

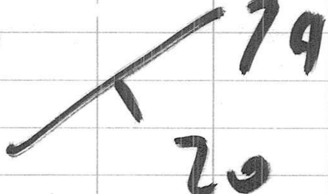
aug. 180.

15. Qrzo-fel. gn.

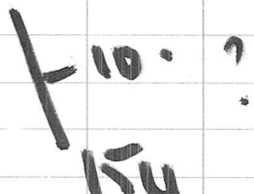
15.

16. Sh.

17. 100' downst.
a.g.



18. Massive a.g.



19. A.g. 14/20

Flat undulating

Summary. Traverse 16.7.69.

Unit 1. Augen gneiss mapped as shown in A.P. No A12228-225. quite distinct homogeneous unit.

Units 2, 3, with minor 4. form most of Mtn. examined. Note.

fold relationships, F_1

flat recumbent, F_2 

– note how F_2 folds F_1 lineation

– Rather heterogeneous but interesting unit, pelitic layers have wealth of structural data.

note *pyrite*, also some hbe

veins in bi sst.

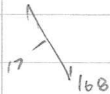
also note porphyroblastic bi sst.

Memo: Don't go out with one
f..... pencil again !!
They're too easily lost. !!!

Traverse

Traverse. 17.7.69. AP. no A12228-225. (99)

S.1. stream. rusty micaschist with as py ? py

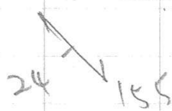


9R p 99 a

S.2 100' upstream. o/c limey, hbe, bi schist, + gneiss, with pyritiferous, marcasite veins, rusty weathering.

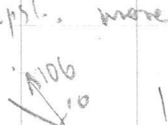
9R p 99b

also geochem. 9R35b



v. striped gneiss.

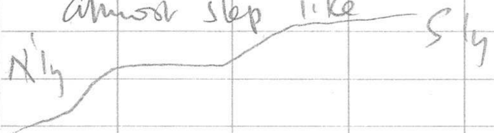
S3 100' upst. more psammitic gneiss.



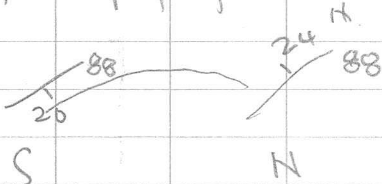
lineation

going upstream series of gentle warps on v flat axis 80°,

almost step like



upstr gn. fel. gn.

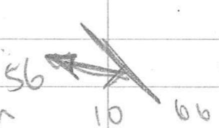


transition, a.g. + psammite.

Spec 9R p 99c

Bi, gr, gneiss

Mtn S 4



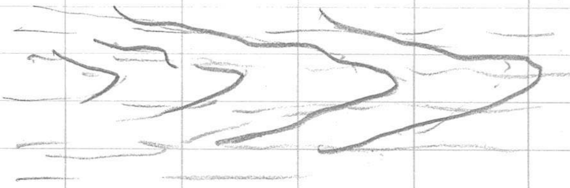
lineation.

pyrite

Scst

Spec 9R p 99 d

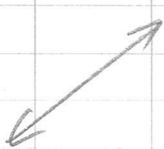
note Recumbent fold.



? n.u.g.

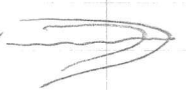
5 120

V. flat ax. plane - !



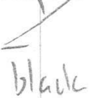
60 F/A. flat?

n.u.g.

* even better  axis 60? *

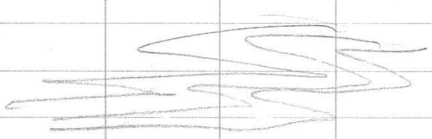
ax plane * 120 NW *

Scst. 15  46

Scst 34  50

note black qtzite.

Flat folds | 180-185 F/A



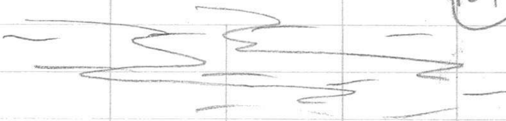
g. d.s. 12/22 n.v.g. v flat.

8/50 flat Biscsk. pomph. lsi

10/60 v flat

Topmtn. 10/2 v. flat lying flaggy psammites

evidence of flat folds



In rock a.p. cl. thro' These

These run off round mtn to
South

Downhill, ~~p~~ more pelitic, still
psammite

4 136

Below yellow qtzitic rock
psam.

13
126

Yellow py. scst, musc – base of

mtn. Spec 358 G.
359 R

11
152

Summary. Mtn.

lower down. Pelitic sst. pass upwards through black laminated gneiss - qtzose ± bi ± fsp pr. V. laminated any way. Note how pyrite from the mica scsts are. Upwards rocks more psammitic till at top are so.

Down again mostly psammites - two yellow weathering qtzite, and qtzitic mica scst. lot pyrite cubes in the latter. Gossan 9R358. Rock chip 9R359.

Folds. - evidence once more of isoclinal recumbent fold style, and also more open monoclinal style.

note interesting close association of two fold styles.

Fold axes same apparently, while Ax. plns. differ.

Overall v. flat lying psammites, and bi (quite porphyroblastic) scsts.

Note pyr, pyrite in lmy striped bi hbe gneiss down stream. – tspr – pale striped units in greener bi hbe, + lime rocks.

Rather interesting low mag mica assoc. with calcite – lime weather out leaving green, brown micaceous rock. common in float.

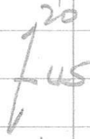
Memo: Don't walk about bush on way home with eyes closed.

That grizzly was f.... close!!

Look Dick

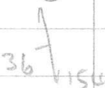
"See how he ran" ♫♫.

Traverse: 18.7.69. Chopper Shift Day.



Contact granite + meta
laminated qu-feld-gneiss,
micaceous areas bi - also limy
horizons with pale granitic (porph)
intrusions (sill like) Kspar - 1"
subhedral - sericite mica, qtz clots.
tourmaline.

S.? laminated lbe. gt. limy
unit with pyx.



South nose

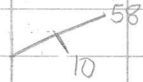
looks as if dips under augen gneiss
on hill top. Shoved aside by granite?
fault.?

(note similar skarn rock on E. side
of granite.)x

Traverse 19.9.69, AP.No.A12255 (103)

280

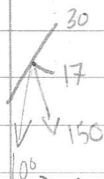
S1

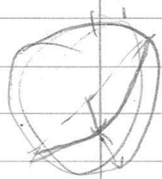


- laminated mica scst
- also v laminated scst, qu. feld.
  fine laminae v. qtzose.

- just below serp. contact
- specks of pyrite.

S2





good one

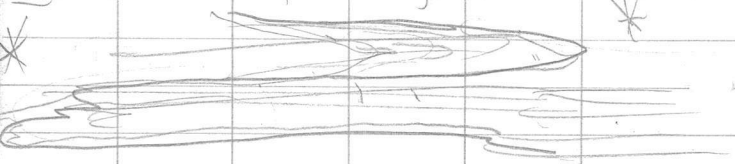
Fine mica
- mineral float vein pyrite.
  marcasite?

- up 34 18 → 90° l_1 pretty good.
  180 l_2 v fine lineation in
  muscovite scst.

Spec 9R p103 a

also note development of augen.

S4' Recumbent folds - v good



Fine A.P. foliation - Photograph

AP. 70 / 5 Axis 60 \ 5

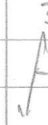
Rock qtz qtzite laminated sest.
- qtz sweats have been rolled, folded etc

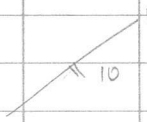
little drag style folds on limbs.

S5. 34 / 13 note yellow mica sest.

S.S. Spec 9R p104a

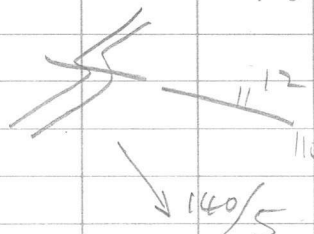
Recumbent fold



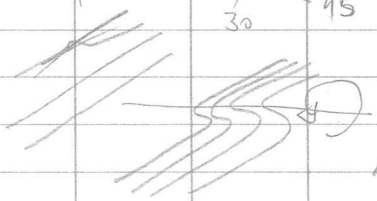


Contact.

Green mica schist
no obvious
Temp. (Contact Metg.)



S.6 Lam. strike



little kinks.

S.7. South Lowrie

Psammite mica schist

35 147

S.8. Road

30 150

S.9. Spar. nr camp

20 8 90

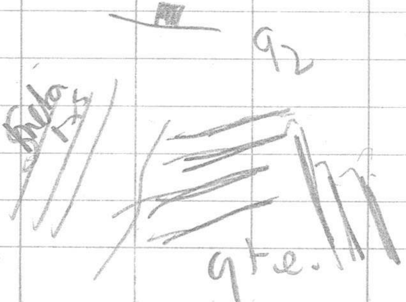
psammitic mica scst. lin bis

Note Jt System granite

62 48 + unloading.

v flat dipping

5 92



Traverse 20.7.69. AP. No 12189. 249.

S1. Contact Granite with Augen gneiss. — 35 / 35 gneiss good.

S.2. Top. Mtn. 35 / 20

White qtzo feld. a. gneiss.

S.3 Pillar corrie.

laminated qtz feld. gneiss

16 / 142

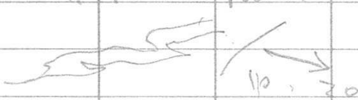
more heterogeneous series

lam. gneiss

Bi scst.

Augen gneiss above.

S.4. Further round



23 / 158

laminated Bi qtz feld gn. more pelitic than other bois lobe ?

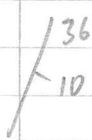
Long fizzes Hel.

Traverse 21/7/69. Chopper Day.
A.P. no. A 12 189 - 247.

Δ Land. Red Gossan.

- V. Red weathering musc. scst.
- weathers red & clay gd

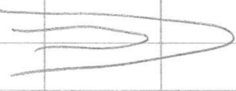
Sp [9R 3619]

- 

[Spec 9R p1105a]

- underlaid by more massive qtz-o - feld gneiss.
- Gossan - la pyrite in scst also in gneiss. Disseminated.

S2. Along + down sect from Gossan.
comp. qu. feld. gneiss

perfect 

rec fold.

Axis → 10
90

A.P. 58  10

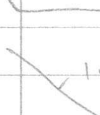
This unit qtz q'tzose.

note veins of qtz feld mat. from granite.

- Rocks are extensively veined with this stuff.
- Bi schist layers
- also note massive gneiss lumy

in this coarse gneiss - dissem pyr.

Specs : GR p106 a

 10
120

Shallow.

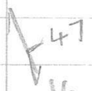
Note spec with develop. of Gts.
Bi. Gt-gneiss, Gt veins

9R p106 b

Note: is develop. of py. pyrr, in any way assoc. with aureole of granite ??

S.3, contact- granite, meta. xs

S.4 Inclusion, Xenolith in Granite bi scst block.



bodily included in roof?
of med. musc bi granite.

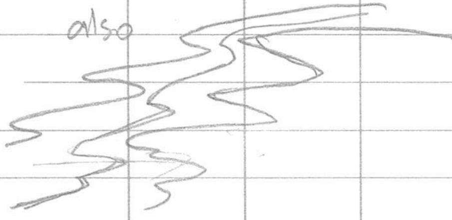
Scratch last O/C def

Augen gneiss, + bi scst,

laminated.

Rec folds in scst.

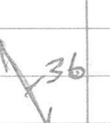
also



Further along, pass through peg.
Veins granite, + tourmaline

GRp107a

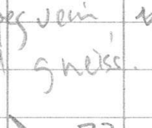
alt. c. a g, + bi scst



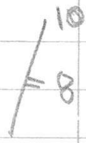
Complex 200'

S.J. intr peg vein in bi scst,
+ c. grnd gneiss.

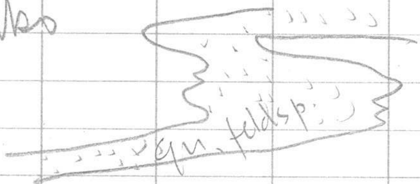
g. foliation



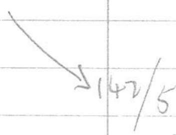
Folds  rec.



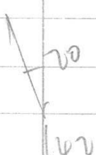
also



F. A from Mullion like struct



S6. Large unit of bi scst, some qt.



note folded.
mullion = axis

S.6 Granit. fine aplitic vn

S.7. just beyond — 22, 102

lam. gt/bio fel gneiss.

S.8. Bothwomie granite capped by bi schist — 22, 158

S.9 Top. 2nd Hill, Gm. capped by metam. rxs. - again sill like nature is evident.

12, 126 — 25, 164 → 130 lineation on limbs

S.edge. gossan. - c. gnd gneiss with minor dissem. pyrrhotite.

(S.10)

9R p108. a — Calc silicate float.

Gt, epidote, calcite. [illegible]

S.11. Cont. Granite chilled

- lam. qu feld. gneiss

22
166

S.12. Bi scst -

10
18
110 l

S.13. Rec folds

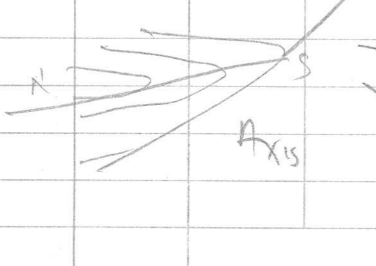
AP 11
110

axis
110/5

S.14. qu feld. gneiss + bi scst

23
140

late gt vein with tourmaline,
also gt. developed in Bi scst
In nose (centre) of rec. fold
also hbe + bi.



13
94

114/5 South.

Traverse 22.7.69. AP. no 12255-278

S.1 Gorge in Ck. med gnd musc-bi granite lineated,

7
158

S.2: St. up hill.

22
150
178

Fine lineation of Bi porphyroblasts. (spec

Spec | 9R p 104 a |

Bi scst
note that is more gn feld. units
Bi + Gt Poss inc. in metam
gde.

S.3. 100 p upst float. gneiss with pyrr, py,
± chalco (poss py stain)
Spec

| Spec. 9R p 104 b |

S.4 138 20 med lam. scst | note -
Bi + gn feld. | massive

S.5. Glacial Corrie, with Tarn.

1) Pink weathering scst porphyroblasts. bi? Spec 9Rp109c

2) Anticline: Green flaggy mica scst 47/44 steep limb

3) Serpentinite. S.W limb 77/22

— note how serp. occurs on both limbs of ant. Thus deformed at same time as meta rks

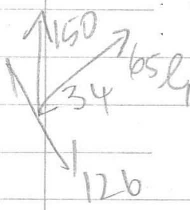
These poss later folds (F_3)?

note black + grey banded qtzites.

19Rp109d

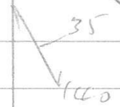
S.6 Campsie of nBasw

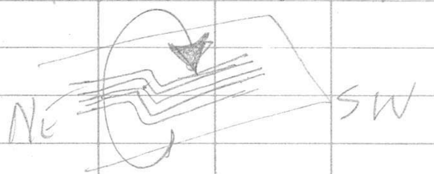
lam. qtzose bi scst.



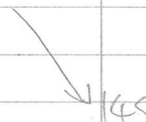
Spec 9Rp109e

S.7. 2nd shear patch
Psammitic bi scst





axis



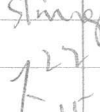
Traverse: same A.P. 22.07.69

S.1. Hill qutz. towards top. psammites

Spec Rec F. fold. 9Rp 110 a

S.3
Ps. scst.

S.4. Yellow pyritiferous scst bi
next to stringers of qutz



9Rp 110 b

S.5. Pop. Hill ps. scst. Bi scst. 4 27

Recum. folds. 15 18 AP. FA = 10 17 135 (128) nvg.

110/26 Good

9Rp110 c

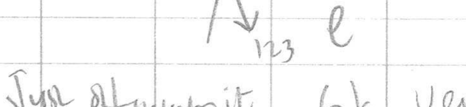
S6 Bi scst 18 23 123 e

Just off summit Gt. vein

Rec folds in gn feld. Vam. apparent

30 10 84/2 ? 70/0

Good.



18 20 also 20 NB 160

S/d. limbs — ← 117
118 AP close to
this attitude !!

S.7. End 1st Corrie 18 / 160

Buff. coloured qtzite 160 lam.
gness.

* C. like gneiss ±gr.
with dissem. pyr + chalco?
this thin unit 1', poss
in core of fold?
anyway big diff in compos
between almost same qtzite
+ like gneiss.

Spec 9Rp111a

S.8. 2nd Corrie. 18 / 150 qtzite

Gneiss,
note rec. fold. on wall

~ 20' big un!

Forwards base 8 flat
180

qu. fel bi gneiss
vn of py cubes.

Series consists lam qu fel gneiss
interbedded with bi schist
Veined by granite.

S.A. Above snow in corrie 15.
156

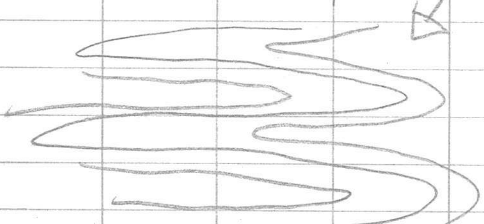
qtz o feld lam. gneiss
has qtz. bi.

* Small scale rec. folds *

PHOTO

AP 22
15.

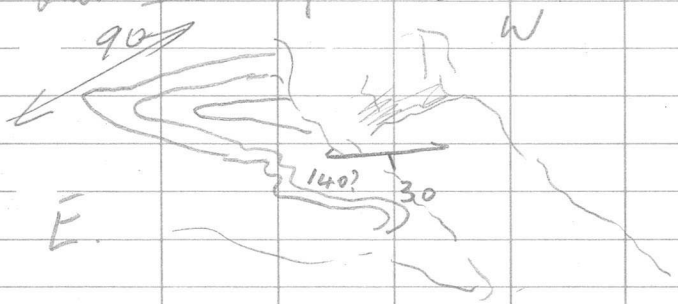
Axis



90/2 E.

APs 10.
156

Other Side large sill. 30-40



note float of Fsm Bi Porphyrite from sill above.

9R p112a

Also. Hbe Bi gl- Gneiss w Pyrr, Py.

9R112b

320 L Pacific Rainproof

N. 1/2.

22, 70	6 60	20 110
33, 60		
15, 70	18 110 (312)	13 126
34, 20	24 110	20 78
10, 78	18S 20	20 75
51, 120	15 102	10 100 (80)
18, 90	30, 40	30 72
18 90	18 120	15 84
16, 80	28 102	24 83
12, 110	20 70	18 90
10, E 130	45 90	20 90
20, 40	16, E 162	14 70
12, 120	10, 158	25 78 (70)
14 104	13 E 10	
18 90	5E 166	
8, 96	20 100	
14 100	20 110	
18 100	45 90	
30 90	40 90	
22 82	38 110	
36 96	29, 56	
35 80	32, 62	
30 90 (70)	30, 60	
63, 62		

A.P

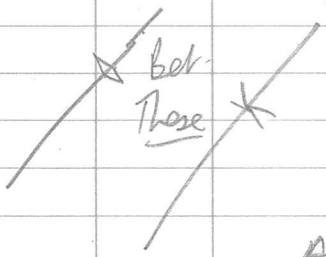
8, 50E

78, 80,
36, 82

Bd See
Others
NoteBk

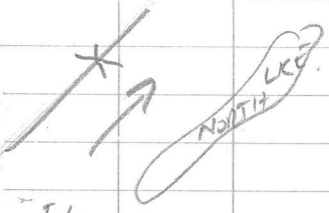
Axes
385, 10 ?
2364, 20 ?
000, 10
20, 10
000, 5
70, 2

Need.



	Axes.	AP.
20, 85	70, 20	100, 70S (E)
74, 18N	80, 15	160, 5E (N)
98, 30N	180, 2	50, 10N (N)
166, 22	40, 10	120, 40W (W)
~~[illegible]~~	60, 10.	
172, 20		
110, 15.	blue:	Brown
18, 20E. → 70l.		
8 25E		
176, 15E		
170, 18		
180, 20		
60, 12S		
40, 25S → 60l.		

Mauve.



Tel:

46, 15 W	79, 20 S	AP.
50, 34 W	154 10 E	120 5 N.
22, 12 W	20 14 W	165 45 (0) W
50, 8 S	72 12 N	170, 18 (N) W
60, 10 N	68 28 N	54 24 W (0)
180, 10 W.	46, 12 W	64 18 N
136, 4 W	150, 58 S	58 30 N
126, 13 N	110, 15 N	72 20 N (H)
152, 11 N	20, 8 W	
	74 14 N.	F.A.: 1805
66, 10, l 236.		250, 15
		1782
88 20 S		230 5
88 24 N		300 5
102, 10 N. 286		
155, 4 W		
178, 15 W		
140, 15 W		

S. E. Portion: Exclude around.

Fol.

4 Basic:

158 13E

142 16E

~~35~~, ~~35~~ 20E

35 35E

136 10E

120 10E

160 4E

150 34E

174. 22. E

~~142 E~~

142 22E

158 22E

124 12E

166 25E 130l, 126 34E 65l, 330l

166 22E

10, 28, 110 E

140 23E

22 15E

165 15E 145l,

4 27E, 128l

30 10E

15 23 123

118, 17 E

20 20E

160 18E

156 22E

150 18E

150 8E

156 15

160 28E

138 20 E

178 22E 150l

122 42E

140 35 E 325l

44 47W.

77 22 E.

320 L Pacific Rainproof

A.P.	Axis
58 10 E ✓	90 10
140 24 E ✓	
10 8 E r	142 5
110 11 N	110 5
94 13	114, 5
15 18 E	
70 18 N	
160 20 N	
150 10 N	100 5
22 15 E	
150 10 E	80, 2

<u>U. Basic</u>

91 20, 8 E, 90 l.
58 10 S
95 30 S
147 35 W
150 30 W
34 18 E 90 l, 180 l

Ap	Axis
70 5,5 (r)	240,5
66 10,5 (r)	
110, 12 (N)(C)	140,5
34 8 (w)	