

A/670
NF-I

821056

"Rite in the Rain"

WEATHERPROOF

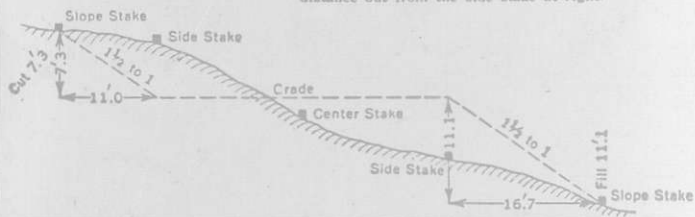
FIELD BOOK

No. 350

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes $1\frac{1}{2}$ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

"Rite in the Rain"[®]
WEATHERPROOF

a product of

J. L. DARLING CORPORATION
TACOMA, WASHINGTON 98421 U.S.A.

July 29

Plotted

- traverse S of Stolicum Pt
- climbed to near ridge top to talus slope / clearing
- now work down to truck

Photo BL 7471-203

1st sample will be NFO01

71-203-1

sample NFO01

- talus pile + cliff
- vt are mod to v. well fold, poorly to non-stratified
- where vis strat || folds
- appear to have mixed tuffs + seds
- seds \rightarrow Qtz/musc Schists, fg-vfy
- tuff, vt look mostly interbed, seem to have fs all frk, now deformed
- v. spse oval, small RE's ($\leq 1\text{mm}$) in some vt
- folts = 265-30 mod shony, lry straight down dip

(colors mostly greys, grey/gun, ceds
silvery)
- traces of py. (+po?) in vlt + smears
common

203-2 just in forest
- vx thinly interbedded
graphitic + sericitic schists
- T's (?) iseds

203-3

NF007

vx are fs- ϕ intermed T's (??)
white knots, which deform foliation
- poor exp, slumped, weathered

203-4 schistose, thin to thick-bedded
(ll foliation) silts + musc (ser)
schists

- lt grey/silver to black
(graphitic)

tr py

260 - \pm 30°

No sample

203-5

lm = 025-25

= bio
± 5.15c (?) interced

290-35 (slumped?)

siliceous str schist wfg ser +
mg-cg str of bio
mod/well lin'd
v-abund deformed (bddy //)
qv's to ~ 3mm

↑
some pass are deformed + boudinaged
chests

NF003

- some qv'd boudinaged
grainy pseudo ϕ or pt

- probably some T's, but
domin musc/bio - rich
~~pt~~ pelites / semi pelites
- some silts, + poss minor chert

E of 5 see lge (\pm lm) bull qv
= // folk =

mm

203-6

- Q - sev # bio schist
- some vidd voids, but def not vesicles
- v well fol'd
- interbed

203-7 at road

255-30

- well fol'd
- mod to well bedded
- maybe mixed voids + seeds
- color lt grey/silver to blk (= graphitic bi schist)
- some quacke - like schist
- w - poss grading
- some T-ish looking
- TNF004
- trip common

mm

203-6

Q - ser ± bio schist

- some vidd voids, but def not
vesicles

- v well fol'd

- intercal

203-7

at road

255-30

- well fol'd

- mod to well bedded

- maybe mixed voids + seeds

- color lt grey/silver

to blk (= graphitic bi schist)

- some quacke - like schist

w-poss grading

- some T-ish looking

TF004

- trip common

203-8

NFOOS

big talus pile below cliffs

- rx are schistose, v. highly flattened
Btx - matrix is bi-rich, muddy looking

- poor/v. poor str
rudy??

- matrix looks like Q-bi-ms (ifs)

frx are f.g., lighter colored

- flattened v 10-20:1

203-9

- big (~2m) white bull QV - w. minor musc
dips flat into hill

- sep's - above - mg whly sch ilm-rich
chlor/diabase

- below - well-bdd

thin bdd metabasals

bddy = \pm fault = 255-35

- argillites, some cherty

- mostly bi. schlon' sch

- often C-rich (blk)

203-10

road metal quarry
black/grey phyllite + metaseds
strongly schistose
- weather or/red

fol^l = 275-25

lin SoAs, ? = 345-20

- mostly thin to med bdd

203-11

black phyllite

some grey

- thin to med bdd

203-12

med grey b/m phyllite

well fold'd, but not fissile

- looks seddy, but fs' +
other stretched out clasts or
thls present

- rel mssv (by comparison)

fol^l = 200-45

WF-006

- py sketched

lin down d-8

- just down rd


lin = 005 - ±30

mostly bddy = foldⁿ //
but rec. 4 in bent ± isoclinal clasms
seen 275-30-32

= foldⁿ

↙
= axial planing

rt are grey ± blk phyllitic meta shales
bi/chr/ms.

lenses qv's // foldⁿ 

203-13

stopped here yest,
seds + tuffyseds(?) some silic, grey
streaky vt that 'look' tuffg,
others are silver-blk
phyllites

foldⁿ = bddy = ~40-50

North
middle of eye cut by normal
FIT
= $\pm NS$ = vertical

Adding + band may clearly vis
- gr's assoc'd w fit,
in jts \perp fit

rx are red/or weath
(w. blk Mn(?) stain)
blk + gray phyllites + chaly
phyllite

- p7, abundant, po not uncommon
- diss + in vltz

dips flatten S end of eye
275-30

lim S.A.S. = 355-20

sl. warped
↑ 350-14
↓ 355-20

July 31

Plotted

- working on NF showing rd
- starting at highest pt, almost due N of showing

- working w/o photo, Toposift
Pretty 1:5000 base map

NF-007 = 1st sample

7-31-1 - diamap = 00 m

folⁿ = 355-80

L₁ = 070-80 = v wk crystallization

L₂ = 170-10

← kinking of S₁
axis of kinks

v_x are thin-bdd (?) chert
w. v. abund ptgs of
biting schist

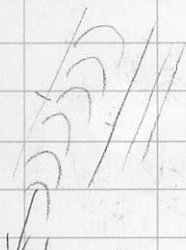
- some w. lathy trem
radiating on folⁿ plane

Partings average 8-1cm apart.

- chert is fg sugary
- lacks apparent color banding in the cherts

- drag fold

} all wht / lt grey



steep NE plunge

- at S end of

some grey
thinly bedded
silt

005.0m

31-7-2

at ~5m change to chlor/actin schist

dk grn to v. dk grn, strong schistosity

- plagioclase low to mod %, some segregations

- Q/ep streaks common

lt pink garnet - rare def'd + crushed

7-31-3 NF008 025m

- still in chlor/actin/fs schist
- some early (deformed) Q/ep vlt's
- garnets not seen
- still dk, v dk green, schistose

7-31-4 030m

- more mssv, still Q/ep vlt's,
 - but see vague selvages, probably PB
 - mineralogy similar, ch/actin/fs
- poss some relict plagioclase
w/ 2-3mm

foltn = 015-86

7-31-5 vx v. similar

062m

-foltn = 020-80

65m plagioclase

7-31-6 076 m

chlor/actin/fs schist

- meta fs- ϕ basalt
- defmtⁿ mod/intense (of pheno's)

folⁿ $\frac{S}{L_1} = 005-80$
 $L_1 = 060-85$

← minor warping

105-20 = jts maybe = $\int S_2$

- pheno's to 3-4mm in long axis stretched 24-5:1

731-7

100.0m

NF009

- aphyre to sl fs- ϕ , red
mssv PB

- mineralogy the same chlor/fs/actinⁿ
- mod schistose, but non-fossiliferous
- more grey green than most
- some (late) Q-carb in lensian jts

7-31-8 121m (covered 125-128)

- definite pillows
- only mod defined
- thin to ~ 1-2cm s. beds
vertical to chlor-r. sh
- aphyric
- many late carb/a
- too massive to measure

covered 125-158

7-31-9 158 m

- large boulder (?)
- p4- ϕ (?)
 - maybe fs- ϕ
- probably zillanned,
poor dc
- vel mssv
- vel eq

band @ ~ 210-220m

7-31-10

255 m

covered 140-255

→ NFO10 255

- rx are highly schistose metabasals

- bio/Q/fs schist

- no real bddy vis

- sand 'chert', sugary Q bands,
but is mostly bio/Q schist,
rather than Q w bio ptgs

S₁ 345-78

L₁ 085-75

seeds go 4i/ 302 m
(vd many || strike)

7-31-11

F₁ - 270 m - 315-70

L₂ = 115-35

L₁ = 230-55

285 m F₁ = 335-65

rx 10-11

are bio/Q schists mostly,
occ bands one chert w. bi
ptgs, but rel rare

- some 'silty', sugary Q, fs, bi, sec
- bddy // foli? where vis
- no C-rich zones

@ 7-31-11 @ 302 m = st
w. gt-bearing meta-B

ct = 328-78

= // bddy in cse, quartzitic
re-xH₂O chert, immet adjacent
to basalt

(blk, brown + whit color banding)

NF-011 @ 302, but in
meta-B

-fg, wk/mod schistose
chert / act / plagi

dk grn
- some fs bands / segregations

- a few pts right at ct

7-31-12 = 325 m

F₁ = 335-80

380 m

S₁ 335-78

L₁ 245-75 vx same

7-31-13

400 m

NFO12

SOS, vx are dk grn ch/ad/fs schist,

v. well fol'd

-starting to get fs+

fm-rich layering

S₁ -345-72

in mor early/mod carb/q vHS +shears

good, cont. o/c ends @ ~405

7-31-14

415-425

schistose cl/act/fs
poss but band
- minor folds

31-15 d/c starts 440
505

~450

445m - dike

mg/fg equigran
Ps/Q/bi/bb

- weath'd
- mod def'd but mssv
wrt Basalt

7-31-16

450 - only to dike is
fg, dark silic rock,
prob sd

- then into grey silts +
grey bi/q tms I fg schist
- some ser / q
schist

S1 = 330-84

7-31-17

455-465

bi/sr/Q schists
no bddy

(a) 465 G schist

7-31-18

470-475

have thin chlor/actin schist

475 - ~480 cherty, some banded
(11 folgs)

- some w sugary Q + thin bi
ptgs

bddy = 350-82

480 - 495

bi + ms/Q schist
- no bddy

7-31-19

495-500

small o/c

black / wht banded
chert

WF-013

-v minor bi. frags

S_1 ($\pm S_0$) = 350-74

L_1 = \pm down-dip

7-31-20

513

(no o/c 500-513)

small o/c banded fs-chlor
chlor fs
schists
w qtz's

(undeformed)

+ lt grey fgy ser/Q \pm brosch

S_1 355-85

31-21

526

small

poor o/c

chlor / acton sch

7-31-22

~~547-555~~

547-555

552 - s. = 340 - 88

- thin ser/bi/Asch

→ chlor / achin / fs sch

- wky compland

- fs-rich

chlor-

bi

- some ep

- mod fol'd

7-31-22

555-

557

chart (555 + bi/ser/Aschist)

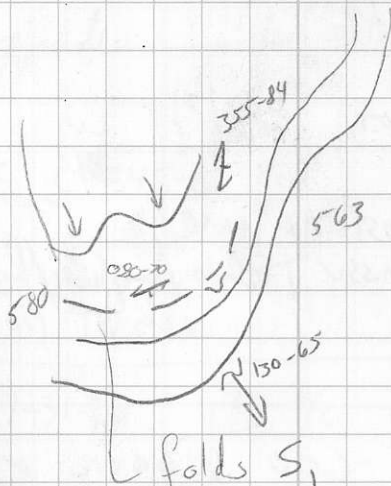
5

7-31-23

557-595

chlor/act/fs sch

-fold starts 563, til 580



585 - NF-014

starting 585 see bi-rich bands
|| fold in chlor/actin sch

amphibole high %, late, blk color

7-31-24

595-610 is sulfide bearing interval

605 = main ms

605-606 - patches cp/py/ps in bi/chlor

do 603 - 602

595 tension gash(?) w.
MS

- in zone most rx are
rel mssv chlor/amphib/ps thro
schist (to guess)

around 585-600, basic rx
are unus mssv

7-31-25

610-617 - 615 NF @ 015

- amphibolite

- plag + hb (actin?)

- light col'd + darker layers

- poss fragmental

darker frx in greyish gm

- strongly fol'd

comp bndy // fol'd

grades into more normal

dk green

'Basalt'

- S₁ = 345-88

- may be BT

7-31-76

no g/c 617-622

621-622 - ~~was~~ bi/sa/a silty sed

622-623 - 625 mssv vext'd, non-

~~625~~ sugary chert, no bio

partings

- some color bndy

bddy 165-85

= // S₁

623-625

vertlzd, no ptg chert, w. color bndg,
but bottom of o/c taken up by
paddy, lgl wht
bull qty vein

625-628

BT?

banded chert + fs rich
bands

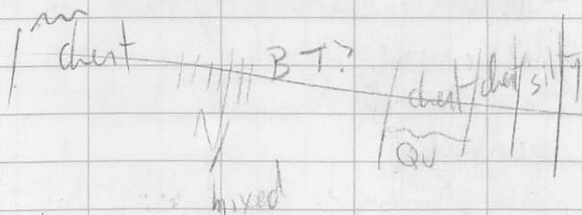
@ 628 get cherty bands

630-635

cse vertlzd bndd
chert

no partings

occ
qu's



7-31-27

642 small o/c

S₁ 335-85

rel mass chloroform
(pillows??) meta-B

7-31-28

chloroform / S₁ sch

w. ep knots to 3cm

662-668

663 - NF 016

↳ big ep knots

330 ± 90

S₁ =

- comp bdy // S₁

S₁ warps arnd ep knots

7-31-29

668 - 673

Chert, amphibolite BT(?)
mmos

- v. sparse bio ptgs

- sugary to (mostly) quartzitic

- some color banding

673-674 - chlor/act/lfs
BT?

ct = 335-80

7-31-30

696 - 726 - NF017

homo o/c of mod mssv chlor
actin etc. metabasalt

S₁ = 335-85

- some (??) pass. selvages
maybe PB

dk grey / gm fgl (-mg)

- some more schisty zones

- top (esp) of dc minor Q. Hs

7-31-31

727-732

Chert - mostly quartzitic
- with cder
bndg

- some sugary
- no bro ptgs

So = 340-75

no o/c til 762

7-31-37

762-795

UM serpitic alt

some is px pyrox

local across CV

- nodular or frag (nodul) text

- shearing?

pseudo px

thrust @ 220-20

mudballs
clay
shale frx

} all nodular,
rounded

7-31-33

795-802

fg-mg gabbro (to diabase)

little ~~of~~ textural distinct,
but many random
discrete shears

but wky schistose

- some

v. cse

sheared G

825 - road junction

Starting on Southern Spur

7-31-34

NF 018 - 76m

36m - 77m

vest is B

62-58 or 59 A Δ?

(road is ± // strike)

Basalt is fg mod-highly schistose
chlor/amph/lps

- bddy folⁿ // gv's sep
common
- bio streaks here + there

36m F₁ = 355-68

- A Brx?

- could be cgl
fix an. fg + sugary gtz
- in bi ± chlor 1) rich
matrix

- Brx vu squashed

1:10:50

F₁ = 355-73

L₁ = 085-70

at S end of L (from w65 on)

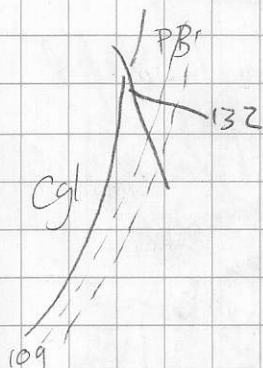
B's
much schistosity, chlor-rich

- some gtz - minor folding

7-31-35

109m- 132

110m NFB19



109-132 highly deformed cgl + pebbly wacke?

bi-chlo-Q matrix - musc??

- random bladed blk hb

in the less p-blasts pebbly sed

h₁ 355-65

h₂ 685-60

Flattening v v extreme
20:1

7-31-36

145-NF-020

132-1

PB, v. strongly to strongly def'd
 chlor-act-fs sch - fg - mg
 - some @ carb
 - in minor ep

F₁ = 005-62

genly quite schistose

7-31-37

160-188

F₀₁₁^a = F₁. 010-70

165-~~70~~⁶² axis  warp in 2

v₄ are 'greenstone'
 - fg - mg chlor / act / fs sch,
 locally w ep

- also local superfrons of pillows
- P Brx's vts.

7-31-38

188- ~~192~~ 247

~~- mg-cg s (amph G?)
includs PB's~~

start seeing cg amphibolite
pods in greenstone
often in pillow interstices
- whole lge o/c is badly def'd
PB's + P Brx's

late Q ± early in Jts 095-90

S₁ @ 230 = 335-75

236 - NF021

7-31-39

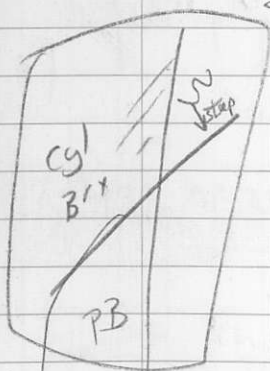
272 - 277

- still PB, PBx,
- ep/Q swirly pods common, intensius?
- highly def'd

S₁ = 040 steep

7-31-40

281 - 301

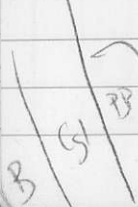


- some little def'd
fix

- in huge? @ 289



overall



rx are cgl / brx
+ bip/ser/0 sed
seds.

S₁ = 040-70

L₁ = 070-64

→ lt grey - silver
mg to fg
- occ hb

- soft, maybe ser

- frx angular, hb φ?

looks more volc
than 1st c/c

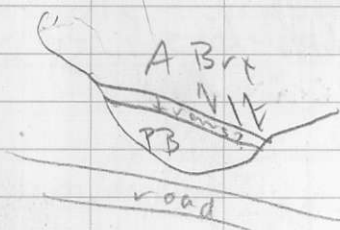
NF-027 286 m

301-302 Brx, transitional

7-31-41 367-~~315~~³¹⁰ m

mg amphibolitic
RB, Brx

S₁ 050-70



312-313 back into acid Bx
def'd

7-31-42

350-376

@ 375 NF023

strongly to v strongly def'd PB

- fg chl/act/fs

- selveffes dker, morefg
- some mssv, featureless rx
MB?

at ~365 thin lt-grey hb-mica
a schist

- sed?

- or looks like fix in ABx

S₁ = 030-88

no more of

491 m = creek x'g

Starting down from
3rd junction

no. of 'fil' 147 m

7-31-43 NFO24 @ 148 m

147-160 m
mod-strong fol² in chlon/act/lfs schis⁴
- meta basalt

Si = 350-40

- thin, folded q's
- w/mn ep

7-31-44 160-164

Chert, thin - 'bdd'
- abundant bi ptgs
- some visible remal
of sio₂

$S_1 (=S_0?) = \cos^{-1} 90$

sugary fg

lack banding in qtz
layers

164- 182

- back into B's
schistose, dk green fg
chlor/ls/actn rock

- abundant folded + boudin'd Q, Q/ly

- some poss vague pillows^{verts}

7-31-45

184-204

- chert, big o/c

'thin-bedded'

- sugary fg white
Q layers

about 1-2cm

sep'd by bi and bitms partings

- no

color in qtz layers

some fine
ms

- some fairly lg bull gtz on
grey glassy
9th

- paddy

mmol F₁ fold
L. 355-88

- 'm' fold

- folds foldⁿ,
comp layering (S₀?)

S₁ = (=S₀?) = 350 ± 90

Color in chert!

S₀ to F₁

L₂ vs shang
180-12

205-216

mixed chert fact sch
+ br / @ sch

- mixed sed + B T ?

7-31-46

215-220

dk gm fg(-mg) chloract/Ps
metabasalt

mod to strong folⁿ

- mmol ep,
α on fract surfaces

- featureless, mssv

S_i = 360-85

7-31-47

208-285

} Start next traverse
beds (1's?)

NF 025

Aug 1/83

↳ starting where left off

- 00m = 285 m from 3p6 junction

- no photo

Plotted

NF 0254 = 1st Sample

8-1-1

-10m = NF025

-17m to -3m

= chlor/act and chlor/bi-bi/chlor schists

fg-mg, occ mg-cg (bi-rich) well fol'd

- some Q/bi/chlor layers

- BT(?) ± mixed sed.

8-1-2

-3 to -1m

α

Chert

S₀ (ct) = S₁ (bi ptgs) = 345-85

to 065-80

S
- -

part of band is: mass, color buff
whit/grey/brn

w/o ptgs

- most is fg sugary, whit Q, w
abund
bio ptgs

8-1-3

- 1 to 0 = back to normal
chlor/act/lfs schist,
strong foliatⁿ
- meta-B (or BT?)
- featureless

8-1-4

- 0 to 3m
- chert, some blk, siliceous
Q(?) bio schist
- most chert has abundant ptgs
- whit fg sugary
- weathers yellow
- some sericit/Q = br schist
+ sericit ptgs

3-6m

- chlor/act

+ chlor/bi schists

- BT + seds?

6-18 = covered

8-1-5

18m - 23m

Chert

1st 1-2m = msu, no ptys, some color banding (not 11S₁)

- remain Q into wht pads

- then goes into bi ptys + thin

Q (granular)

- some Q/bi 'silty' interbeds, esp near end

- band (15cm) of graphitic bi sch

S₀ = S₁ = 005-85

(some warping)

8-1-6

23-31

- mixed chert + bi-rich
schists

- lam chert w. ptgs

- some G-bearing bio (+ms?) schists

S₁ (S₀?) 345-015

90 to 75 dy

8-1-7

31-34m

33m NF026

Black, v. hard, amphib-bearing?
rock

siltaceous, G-tic?

- mod amt fg py, to sp?

* equiv to min lg $\frac{2}{3}$? above *

- in places v. finely banded

at -180-75 (slumped?)

34-42 fissile chlor schist
w. act + pl
- minor gv's
- schistose meta-B

42-43 dk banded chert
w. inter bi/q/chl schists +
bi/q schists
(cht w. BT + scls?)

43-51
mg, well fol'd chlor/fs/bio
schist
-vv minor py

51-56
355-65 = S₁
back to fissile chlor/act/fs
meta-B

8-18

56 - 94

long etc of seds

- dom bi/a - rich, locally
cherty

- dom. mg, dk grey,
, late, black lathy shiny hb, random,
fowky - o'ld, in some of the
lighter grey

- some units of well bedd, thin bedd
q-rich, silty looking
Q-fs - see this schists

- fg chlor and/or actin in some

63m 005-80 = S. (S₀)

- chert at lower (94m) of
(and at upper)

- some vt (grey ones)
meta-greywackes

8-1-9

94-1~~23~~24

well fol'd chlor/act -fs
↑ greenstone
late needles

S₁ = 355-84

- ~~early~~ moderate (ap)
with def'd
qu's near top

114 = NF 027

124 132 covered

132 small o/c 285-132
quid + folded 417
schistose
chlor/act

no o/c fil 172

285
172
457

8-1-10

165-180

NF028

- rx are dk grey to dk brown/grey
siliceous - meta-seds (?)
- some finely bndd, others massv
 - some pseudo-cgl, w v. weak
+ disrupted layering
 - looks almost gneissic,
K-fs present?
 - maybe met grade ↑
 - sulfide locally as fg diss's
 - some v. strongly v. etched
+ brown cherty layers
- locally vfg etched or/red qtz

$S_1 = 355-45$ (= S_0 ?)
slumped ↓

8-1-11

195-225

285
195
80

±B

- rel less foliated
- sedwedges = km

rock is dk grey grn

looks aphyvic
possibly interpillow hyalo
I also maybe amyg
- normal amyg

200m = NF029

- pillows weather out
quite well

$S_r = \pm 0.8-80$

- end of o/c has gts + bi
in streaks

8-1-12

246 small o/c
B, red mass
prob' PB

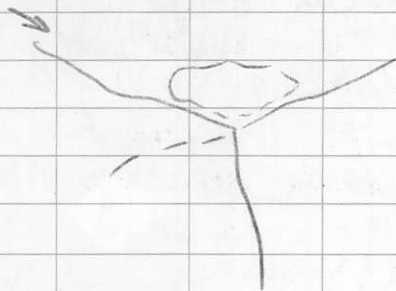
200 ~~ft~~? float?

- B, red, v. schistose, band,
fs-rich
fm-rich

BTT?

junction @ 327m

o/c at jctn distorted by
meta-B



- now - continuing SLH's
fraverse

- the 00m pt is the NF124
site of S's

1st o/c @ 17m

8-1-13

sheared, serp'd, ti'y UM
some +rem /tc

S? = 315-325 ± 90

poss some G sheared
into it

23-36 pods of G in sheared
UM (serp /tc)
makiy

350 ± 90

8-1-14 = end of rd
36-71 = Tor's claim
- mixed seds post

- gneissic hard, mostly fq
same as 8-1-10 o/c
- dk col'd, even most of the
siliceous ones

- some chert
- most x bi-bearing

Si (So?) 005-80 @ ~58m

py in some bands
- some BT'ish, chlor-rich bands

bi/gt/chlor/sch seems to x-it

f? = slumped

- some pseudo-gt, chert w. bioplys
getting from
Cypert

in flt, some bddy seen at hi/L
to schist

- gossamy - weathering bands which
lack obvious

↑ also non mag
→ hi-S content

correction, several % $po \pm \infty$

start new change 8-1-15

00m = bend in switchback

32-62m, UM

at top, rel mssv, serp
and/or al-rich
bottom 'tcl/kren

- p-blastic amphib on px,
retrograded to tcl/kren

- strongly foliated

7 = 345-60

8-1-16

72-77

cruddy o/c of chlor/ad/fs
sch

- highly steamed

- some rusty - weak gv's

§ = 355-86

83^m

- small o/c, same B

8-1-17

92-119

- NFO30

fg - mg, often w/ mssv chl/ad/fs B
some is enough eg, + mssv to
maybe be BT

AV 104-Bi-Q-Chl sch zone

@ 110 gets much more schistose
- stays chl/fs sch 'til
end of o/c

124 small $\text{O} \text{ c/c}$

B, maybe PB

8-1-18

126-132m

rusty-weather, go-bearing zone

126m = NFO31

chlon/bi/amphib sch w.
streaks of go

some small p-blastic hb(?)

132-156

- chlon fact (occ hb) sch
- well to med fol'd
- no features, maybe some
flag plene's
- verm. lts of O common,
small, deformed

8-1-19

162 m S₁ = 350-88

lx chlos / bi / Q? / fs schist

- fragmental, volc. ? on top
 - mod / hi flattening > 5:1
 - soft, some sugary Q
 - 1 km towards sd
-

166 m

340-80 ⇒ 1/2 m wide dike (?)

curves

fg fs-bi-hb(?) - Q

rock sugary

somewhat defl

- rocks v. schisty either side

- up hill side ch/bi/Qsch

- down, chl/hb/fs B(?)

350-86

chlor / fs schist to 190m
- @ ~ 180-185
rel mssv

fs- ϕ B
maybe PB

8-1-20

200-208 rel mssv
chlor/fs/act B

minor gv'g : poss P'd
(uv. poor)

⚡ 345-90 NF032

8-1-21

217-245
chlor/act/fs B

010-90 ⚡

- some retro'd gts (~min)

8-1-22

250 -

252 well vextlzd brown/grey
finely bndd chert
< 1m

ct = 340-90

250-252 greenstone

252-261 - sgs, B, chlor/act

261 - vlm - recessive weath,
v fissile
rusty - weath

bi/q/ch sch

262-264 chlor/act greenstone

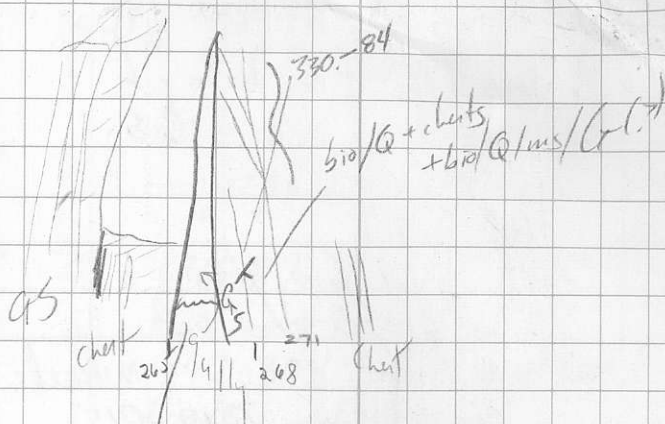
264-265

Chert w. abund bio
pts

- some finer bndd Bio/q sch

S₁ = comp layering = 390-80

265 - fit ?



bio/Q seds, Q sweets

271 - chlor/act/fs B
S? ?? 020-90

271-300 - B, mod sch

310-317 NF033

fg - chlor - act - fs, trans
to mg hb(?) / fs

greenstone

S
350-80

- rd mssv
to v. schist

8-1-23

330-337
chlor/act/fs + occ bi sch
G-S

337-348
Chert w. bio frags
+ bio/act sch
melasels
So = S₁ = 010-015
190

348-358
schistose chlor/act/fs B

363-390
schist, chlor/act(hb)/fs
some bio/Q
bearing layers
- chl/bi/fs/gt sch

8-1-24

391m

chert ^{lyk rwh}

color banded, cse rext/3d

- ptgs (brd) rare

S₀ = 015-87

392-398 bio metaseds

br/α schist

398 - lt col'd

to Q-rich meta-sed

401 poss cgl or brx

- maybe equiv to
yesterday's cgl/brx

S₁ = 010-90

bi (or G?) streaks

401-412 - chlor/act/fts B

422 PB?

or BBx

getting amphibolitic

8-1-78

427-433

bi/chl/Qsch
BT?

NF034

435 chl/fs/gt ± bi ± fs sch
to 463

S₁ = 015-70

Bi/Q/chl/gt sch

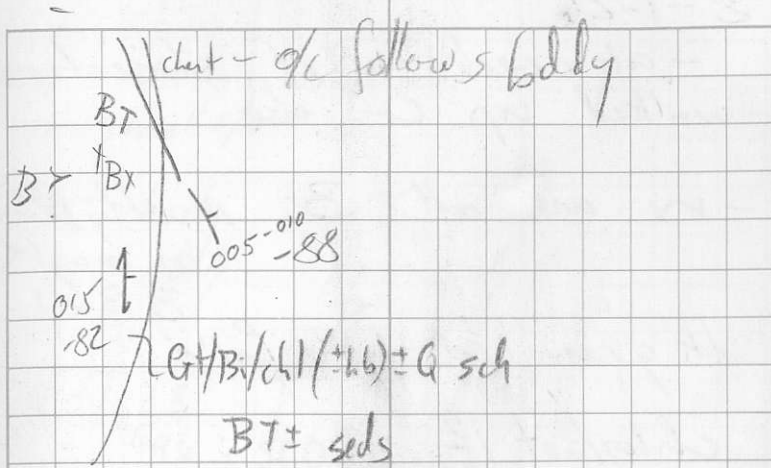
swarby QU's

BT ? or mixed B'+sel

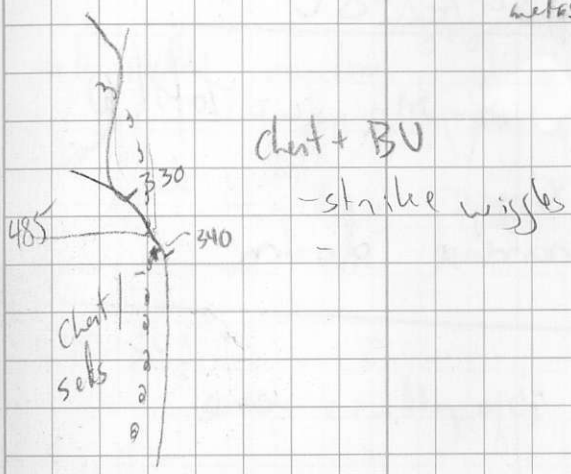
gts to 1/2 cm, pretty much
embedded

-445 -460 o/c along strike,
bi-rich zones (w/a)

BV frx in bi-bearing matrix
mixed BT, B Bts minor seeds



463- chert w. ab br ptgs
 485 + bi/Q/ms sch fs
 metaseds



rd @ 530m

last o/c @ 475 = chert

8-1-26

- at creek, old rd intersection
- walked up Cr also

- rx are all B, mostly PB's
or maybe
BB's

dk green, rel little fol'd

chlorast 1B

- some ~~eg~~ mg salt-pepper,
poss G, or
CG B

NFO35

S_i = 010-80

now, trying up to fill @

stream X'g,
franchise down

8-1-27

2441m

small o/c

- schisty 350-75
ch/act/fs sdy
B

8-1-28

496 - 520

NF 036

same rx, schistose B
ch/act/fs

000-65

- starting to
segregate fs & fms

hb needles random

or dk. on clay plane

adm - pillows, FBx

530-540

same crumbly o/c's

565-580 small o/c's B

@580

some Bi/AlPs sed schist,
mixed in

f = 005-80

600-605 small ds
B sch

road
@685 m

August 2/83

Plotted

- working N of Bear Cr,
in Eastern clear cuts
- starting W end of Boundary
+ going E at top

photo BC 78017-112

1ST sample NFO37

8-2-1 (= 017-112-1)

long o/c

- seds, mostly bi/Q/fs ± ms
- bedded, seams ^{highly fissile} phyllite/sch
- G-rich units common,
pyritic, as is much of
biotite sch
- at E end (8-2-1 to 8-2-7 = arbitrary)
have dko (ven? of alt'l
gd φ (?) w abnd clispy,
also thin ser (clor?) / Q
NFO37 sch

8-22

- cont. of 8-2-1 o/c
is Gr bio sch, w. 1 dia dike
+ 1 v. early late
hb- ϕ dacite dike

- also 1 band \approx 75cm of ser/a
A-I T? sch

- seds similar comp, genlly less
frssite

- py bearing, goss weath \uparrow
baked

- lge dike (10m) of spheroidal weath,
highly amyg andesite

- equigran

- VV LATE

8-23

- Gr, sl sheared, some more leuco v/lts

- wkly ϕ , 2px, opx ϕ

- sheared, w. serp slicks

- assume is UM-related Gr, fitted in

G-2-4

baked seds

- G/bio sch
- 280-55

dramatic strk & lang
past G (FIT)

G-2-5

FIT at, sheared G +
bio, graph phyllite

-G v.v weather'd fol'd

↳ some Fe-stun

fol'd ⇒ = FIT = 350-40

bddy in seds 00-35

-seds also med

grey + blk chert
v.v little weather'd

8-2-6

- more G, very minor seds
at W end of, sheared

ct of seds w G = $\pm 300-50$

seds are usual blk
bio/Q/G phyl/lite
w-py/ps

weather. or/red

G - mod to severely sheared,
chloritic

shear in G midway in of L =
010-40

8-2-7¹⁸⁻²⁻⁸ (E) at top of E clear-cut
| - going down to W
↳ ore just past road's end
+ up gully 20m or so

S₁ (appears || S₀) = 015-50
- bottom 030-54

rx are seds, fg alb ± Gr
phyllite

- some ms-bearing
- minor light grey wht
± sulf rock
- silty sed or AT
sample - prob bleached
~~NF038~~ sed (or diabase)

rx v fissile to mod mssu

- bddy rarely vis
- py common in dker (Gr?)
phyllites

most rx weather rusty

- mt-py bearing dia dike
- maybe fg diorite

- dike not seen, but

8-2-9

045-55 = S, (S₀?)

m id pt of is Gr dike

rest is S₀ seds

8-2-10
seds

S₀-S₁ = 035-70

8-2-11 seds

S₀ = S₁ = 020-28

fissile
mostly

schistose,
bi/Q/ch sch
some ms-bearing

-some chloritic bands

BT?
schisty WF-038

rusty weath

8-2-12

NF039 - E end of C

-rx are @ E end chlor/act/ffs sch
w. minor bi

-some 'knobby' weath surf,
poss is BBK

-rx BT+BBK }
-NF039 (+whole E end)

has few 90 to +rpo, streaky

- W end of more mass
- vague selvages? YES
- mostly lacks sulfide

$S_1 = 345-30$

8-2-13

PB's !!

good pillows, range from
little deformed
to v badly (50:1?)
stretched

$S_1 = 005-50$

upto 1cm?
w/lat'd out

NFO40

- some amyg, some MB
bases, rather cg
- selvages .5-1cm

- now quite chloritic
chl/act/fs ± bio sch

or epidote selvages

near intersection a ~~thin~~ 40cm
'qtzite' - chert band
white to buff

$S_0 = 010-50$

- also some bands (up to 1m)
of chert / act / br / fs
sch
BT?
- highly sheared

34
26 $\sqrt{90}$
120
160

Aug 4

- up near Lookout Pk

- 1st o/c in rd

Plotted



hpl Bx, d, gvd

seeds

some thing

relict bddy

intr. stringers

bi-hb-Q-gt hfs

8-4-1

high near ridge top

med - dk grey to blk hfs d
seeds

- relict bddy

- gts asp - blasts

- appear steep dipping E-W str

- minor diss pos streaks

Aug 5/83

Plotted
except samples

- stream traverse
- creek N of showing

NF043 = 1st sample today

- starting @ top, work down
- set bridge = ~~820m~~ 820m
- highest pt reached just ~1000m

- 8-5-1

at top end are
B's mod- of some by def'd
dk grey / grn pg, wtk folt^u
dom' chert / clay ±
fg brecciated actin

- occ fs-φ

- rx are MB's (?)
some TB PBx

- down tower noted some

BT's, wtk by brecc

(11 folt^u)

- NF043 elev = 975m ³¹⁹⁸

folt = @ 975 = 010-70 to

8-5-2

elev @ 950 to ~890-900

mixed sequence of
B, B ϕ , (fs- ϕ) some PB and/or PB_x
w. lots of chert (w. or w/o
bio pty) and some mica-rich
meta-seds

@ 950m S₀ (=S₁)
O15-85

- lower (near 900)

draw come in at L, and
abund Q'sweats near chert
layers

- some isoclinal minor folds in
chert

- pre S₁ (S₁ axial - planar)

F₁ = 1m ~

8-5-3 traverse down

tributary Cr

- good o/c all along

- miter w.
Mons W
= 890m

- mega-br, Deformell

Cv is sh zone, and have blocks up to +1.5m of G



C
BV
etc

in a mostly
micaceous \pm chl
+ Q

matrix,

- wraps arnd frx
- frx \leq 1cm - 1.5m

- foll² 350-005 \pm 90

- occ rusty patches
but v. little sulf
(mostly po) seen.

NF044
7

where Cv joins main
get around Q 'sweats',
paddy,
assoc'd w chert
beds

100m
lptv
20m
NF045

bddy in cherts = 015-85
still somewhat
disrupted
bound'd

8-5-4

just past where trip Cr
enters

-B's, v.v. sheared
falt = 340-80

- some app B's or P's, but v.
sheared out
 - develop chert (+ls) + fs
bands
-

30m below junction

B v.v. still sheared,
have lenses of chert
-beds/bandings

50m(?) @ 870m ²⁸⁵⁴

NF046

- biotite ↗ maybe some ses

BT?

BT + sed?

8-5-5

from 870' til road
820m

= all PB's, PBx',
occ fs-φ
- mostly mod def'd

@ 855m NFO47²⁸⁰⁴

folⁿ = 005-70

L₁ = — ~ 150-70

minor planar, late Q's
bill Q

2755

— NFO48 @ 840m
same B, BB,
mod def'd

8-54- just below old

bridge

- chert / wet / fs sch

folⁿ = —

625-70

below 810 m

100% again 7.1 | 785 m

@ 785-780 banded chert
w. bio ptgs (some w/d.)

- contorted, but are So
= 330-20

white sugary fg

starting @ 780 slide to basics

blue/act/ls greenstone

mod-quite schistose

altⁿ = 0.15 0.5

lineation 110-67

some vague frx or pillow
outlines

NF049 2560

@ ~780s beam flattens
markedly

@ 775 m x

EW dam line
(our new ones)

770 m (lev)

starts

to dip
faster again

- g/c of bi/q/fs mts

- not real schist

- almost 'gneissic'

- also dent (1ge boulder??)

$S_0(S_1) = 005-90$

755 m - (below where rd right
along edge of valley)
slides from rd to creek)

bi-q

- stt-gt - Settler schist

at stt of ^{right} _{hand} bend

folⁿ = 355-70

720 m (100-150 m) from rd
o/c of st-heavy
(E side of cr) settler Sch
So was last S.S. o/c

(possibly 1st seeds were SS
W side cr

right at rd

severe shearing of SS
050 ± 98

So = 005-80

1875 W 7th (Cypress + Burrard)

731-0784

stone

Cdg

2865 W 31st

206-9279

How

-Blue Horizon

Rm 1603

Phone Alex ✓
Talk to Koesters
Shop
Laundry? ✓

Plot 1) Geology
2) Sample loc's

Blueprinting - 1:20000 rd maps:

Sample sheets, up to date

Establish legend

Post office ✓

fill trucks

Propane ✓

*Bank *

Beer bottles ✓

V19 tarp

~3 days everybody

@ Hope

Peers
Dewdney
8-mile

2 days everybody

W side

Hamilton

1 day 2 people Agassiz

Total walk for everybody (lost)

Who knows
Blasting Tale Cr ? not Pretty's

Engineering 1:5000 maps ?

When finished up at sketching ?
- couple months Zt

fall adjacent
grid next spring.
Burn it ? NO

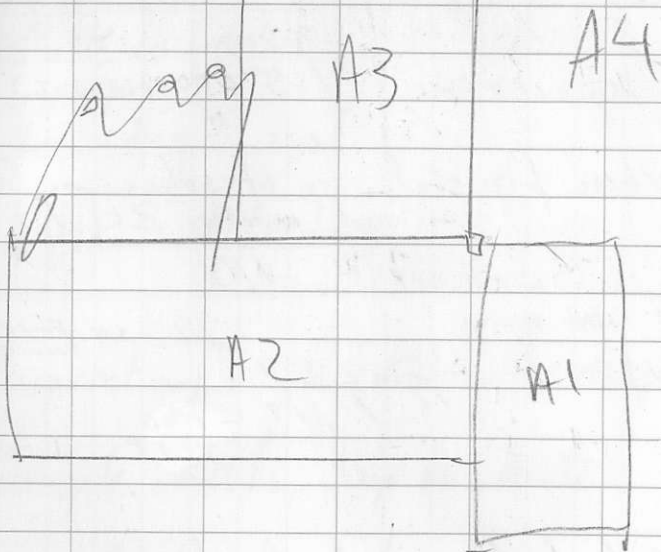
Who is logging S ? - old - see Forest Service
N ? - Pac
BLPP

Schedule - what time are
last trucks down 4:00

- Any locked Gates

what time do 1st truck
come down

The landing right @ showing
3 wks



$$43 + \left(B_1 / \text{chlor} \right) \left(\text{chlor} / B_1 \right)$$

34-43

31-34

Clam Post

LCP 76059 Cog 1
76060 Cog 2

Locator for Brulam
Agent for Orkney mm'l,

Oct-15/82

Start 10 am

Cog 1 4N 3W

Cog 2 4N 3E

Lemmanis up Silver R

A1 A2 A3 A4

452E 356W 6N3W 5N4E

E Lemmanis

Dec 30 82

86383, 4, 5, 6

all tags on LCP

2425 W 13th — near Grey

AJD

home

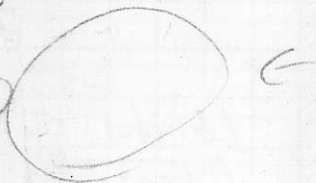
222-6181

Pretty

C/O Pretty's

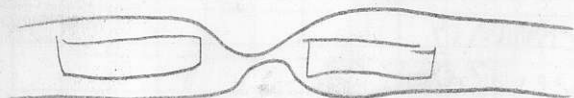
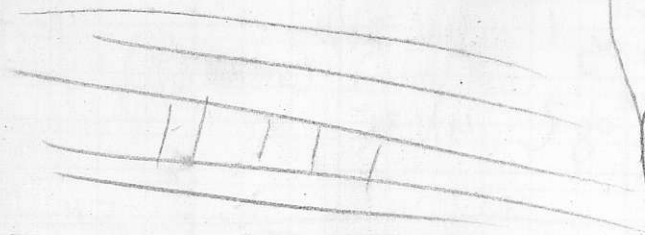
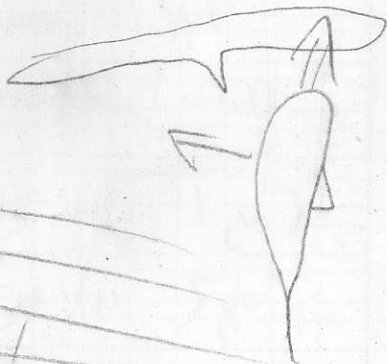
Box 37

H. H. S.

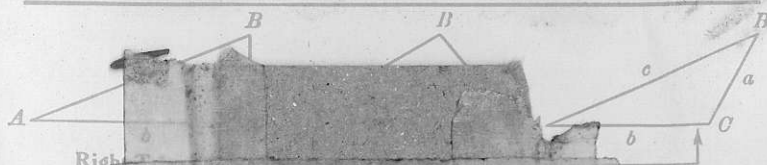


73
2400
2296
1040

378



TRIGONOMETRIC FORMULÆ



Right

For Angl

Given
a, b

a, c

A, a

A, b

A, c

Given

A, B, a

A, a, b

a, b, C

a, b, c

a, b, c

A, b, c

A, B, C, a

A, B

B, b

B, a

B, a

A, B, a

B, a, b

A, a, b

A, B, C

Area

Area

Area

$$\frac{a}{b}, \operatorname{cosec} = \frac{c}{a}$$

$$a \sqrt{1 + \frac{b^2}{a^2}}$$

$$(c-a) = c \sqrt{1 - \frac{a^2}{c^2}}$$

$$\frac{a \sin C}{\sin A}$$

$$c = \frac{a \sin C}{\sin A}$$

$$\tan \frac{1}{2}(A+B)$$

$$C = 180^\circ - (A+B)$$

$$\frac{1}{2}(s-c)$$

... multiplied by the
... distance = 319.4 ft.
... IX. $\cos 5^\circ 10' =$
... 318.09 ft.
... minus slope
... (angle). With the
... the follow-
... 1 - .9959 = .0041.

... the slope dist-
... Thus: rise = 14 ft.,
... 32 = 302.28 ft.

... horizontal distance = 302.6 ft. Horizontal distance = 302.6

$$\frac{14 \times 302.6}{32} = 302.28$$