

896449

J. BROATCH

NICOLA

PROJECT

1978

BOOK III

Aug 17
Map - 2f - 2

sunny, cold
Dog's Leg Lake trav.

78-2f-2-JB-21b [6a]

~~dacite~~, blue/gry, mottled from altered
qtz amyg[?]; porph-phenos < 1mm;
pyrite @ red rusty alter; non
magn;

- upslope; occ larger 2mm phenos (plag)

78-2f-2-JB-21ba [6cf]

10-20%

andes; dk gry/blue; amyg-epid, ~ 2mm;
mildly magn; vsmall phenos < 1mm

upslope - more porph & amyg, 10-20%
phenos up to 2mm; epid on surf,
some specularite (looking rusty)

78-2f-2-JB-21bb

[6cf]

andes becoming more porph; phenos up
to 4mm (5-10%); ave sz 1-2mm;
epid amyg 2-3mm; phenos euhedral
to anhedral; some pink stained (but plag);
non magn.

SEE I.B.R. for bringings.

1120 [JB-216] - gry andes
(3696') blk blebs? - v. hard. (5-10%)

1170
(3861')

1185 205 dp
(3911')

1200
(3960')

1215 290 dp
(4010')

78-2F-2-JB-217

[8c]

andes; porph; amyg same as last station; possib frag?

78-2F-2-JB-217a

[10a]

rhyodacite to rhyolite; gry (acid) to pink; porph; altered plag phenos (10%) ~ 3mm; 5% hb phenos, ~ 4mm; slightly grainy lking; epid alter
boms coarser grained - intrusive lking

78-2F-2-JB-218

[1c]?

~~micro-monoz~~ ?? c.g; felds; hb; magnetite

78-2F-2-JB-218a

[11a] to [11ax]

rhyodacite; gry/blue acid rx; v.f.g;
some epid alter as mottling in rx
- same unit above - porph (~ 0-30%)
plag phenos 1mm, looks frag in places, volc
rounded, up to 4mm, 0-10%;
looks fairly dacitic; non magn.
looks like 217a upslope

1230

JB-217 - andes bx

(4059') f.g; frags 2-4 mm, occ (5%)

1 cm frag; - acid (sodic), gry fg. matrix
smaller frags - plag & predom. acid lking

1225

(4043')

1210 @ 100 dp

JB-218 - monzanite

(3993') ~ 1/2 kspar, 1/2 plag; 5-10% hb xls ~ 2-3 mm
10% magnetite - kspar in matrix.

1165

brging 120°

(3845')

1200 m @ 135 dp

(3960')

78-2F-2-JB-218b

→ [6cf]

andes; grn, v.f.g; appears to grade
from last unit; magn.

becoming porph, amyg @ epid toward
E.

- diorite dyke

[1a]

78-2F-2-JB-218c

[11ax]

dacite; f.g. lt grn; abund epid alter
is veining; frag? drk ^{angular to} rounded volc
looking, ~ 2-4 mm; 5-30%; altered;

Looking for marble. Again!

78-2F-2-JB-218d

TRENCH

[20 bx]

coldwater sst; f.g. to c.g. @ volc
frags 2-3 mm

brg 090

1240

(4092')

@ 60 dp

1120 m

@ 200 dp

(3861')

1130

(3729')

brg 065°

1123

@ 45 dp

(3706')

158

Aug 18

overcast

Map - 2F-2

section N of Power Subst.

78-2F-2-JB-218E

6d? [6c]

andes; blue/gry; porph; 10-15% plag
phenos ~ 1 mm; 10% epid amyg;
epid alter on surf; hematite? string
5-10% pyrobole phenos ~ .5 mm
occ subhedral plag @ altering core:
- plag phenos becoming larger 1-3 mm, glomero
porph & more abund (20%); no amyg.
- phenos fewer 0-15% & smaller (1 mm)

78-2F-2-JB-219

[10a]p.

rhyolite
~~andes~~, gry; 20% pink kspar
plag phenos, anhedral.
ave sz 1 mm, occ 3 mm; 20% epid
alter, no amyg; matrix - kspar rich
little plag; some minor chlor alter.
[6c].

- gry porph andes (wht plag) possib
.5 mm augite or chloritic frags.

(895m) from corner @ 2800' ^(elev) brg 090°
(2954') for 1900' (380 dp) - took 360 dp.

@ 11 dp.

@ 42 dp.

@ 101 dp.

altimeter dropping - becoming windy
890m @ 128 dp JB-219
(2937') rx v. dark. ←

221 dp to gully.

@ 228 dp.

159

78-2F-2-JB-219a [8b.p]

andes bx; porph; 50% frags, ^{volc} angul, porph,
2-5 cm; matrix purp/gry 30-40% phenos
plag, euhedral, 1-2 mm; ~ 10% qtz eyes
in matrix, ~ .5 cm - gives matrix a c.g.
almost sedimentary appearance in places.

78-2F-2-JB-220 [8c & 9d]

sed? volc bx; graded bedding - non
porph to porph, frag, to c.g. pebble
bx @ angul frags from 3-8 cm
ave sz ~ 5 cm; frags andes & rhyolitic;
matrix variable from dk gry/grn, mass,
non porph to acid @ plag phenos or
euhedral frags.

[6E]

bcm's f.g. grn & andes; non porph; epid
alter; v. magn;

@ 248 dp

JB-220

X 020°

← interbedded

JB 220.2

rhyol/andes porph frag.

@ 270 - 291 dp

- both contain rounded acid frags
is abund. angular plag in finer grn
part of unit (frags 2-3 mm)

@ 298 dp

78-2f-2-JB-220a [1a]

f.g. diorite; grn; salt & pepper
appearance

78-2f-2-JB-220b [11a]

rhyodacite (or rhyolite / dacite mixture)
varies from dk grn f.g. andesitic, magh;
to acid lking rx, grn to pink mottled;
epid amyg ~10%; microcline.andes. part porph in places - up to 30%
plag phenos ~2mm

- f.g. diorite [1a] (~ 50' off line to w)

- f.g. diorite [1a]

- f.g. diorite [1a]

@ 310 dp

@ 360 dp
(% ~ 100' from road)

brg due N (00°) for 350'
(70 dp)

@ 50 dp
road - switchback lower 120°
 upper 080°

@ 80 dp new brg 285°
for 1800' (360 dp)

@ 35 dp

161

78-2f-2-JB-220c [8b-6a]

- ~~sed~~ volc bx @ lrg 6 cm andes porph
clasts
becoming grn, fg. andes.

78-2f-2-JB-221

[7b]

andes; purp; 5% blk chlorite? frags;
possib amyg. (no)

78-2f-2-JB-221a

[8b-9b]

frag; volc, @ andesitic to pink rhyolitic
matrix; frags-volc, 0-40%, 3-5 cm,
angular to round; matrix porph-0-30%
plag phenos ~ 2mm.

78-2f-2-JB-221b

[6c]

andes; blue/gry, glomero porph; subhedral
plag phenos ~ .5 cm, occ pheno up to 1 cm.
epid alter on surf & in veins

- becoming less porph, phenos smaller, (~2mm)

- float from blue/gry porph andes
@ epid amyg.

@ 43 dp to 110 dp

@ 110 dp

@ 132 dp

JB-221

purp andes

@ 15% small (1-2mm)

acid frags; subangular; some flattened?

@ 144 dp

@ 173 dp

@ 190 dp

@ 320 dp

road @ 360 dp

170 dp to truck (along road)

78-2F-2-JB-221c [6c-6cf]

andes; blue/gry; porph; 10-15% plag
phenos ~ 1 mm, subhedral, alter. @
centre of some; epid alter & veining.

- same rock; amyg epid occ seen.

[6bc]

- andes starts to look frag^{10%} @ small 1-2mm
frags, brn & altered grn; distinct euhedral
plag xls 2mm, ~5%; rx is porph 0-20%.

78-2F-2-JB-221d [8c & 9d]

acid porph frag similar to JB-220
% shows no sign of grading (surface
covered @ lichen); gtz eyes similar to
219a. seen on rusty weath surf.
frag avz sz 3cm

- f.g. dior or microdior. [1a]

[10b]

abund float over hillside - porphyryol
20-30% plag phenos 2-3mm; pink matrix

starting 250' N of switchback (2a)
1005 brg 090 for 2550' (510 dp)
(3317')

@ 69 dp

@ 105 dp

@ 150 dp

@ 217 dp

@ 243 dp road brg 110°

@ 296 dp

163

78-2f-2-B-222

[10b]

rhyolite; grn; fg; qtz in vugs, veins & small 1-2 cm lenses; some mag in vein (qtz in veins as xls); epid & chlor alter; also kspar (wht) in veins (pegmatite?)

Inst float - no % to N or S.

78-2f-2-B-222a

[9d]

acid fragmental; matrix grn, dacitic looking; ~1% pyrite, frags - ^{60%} volc, angular to rounded, porph, 1-5 cm, ave 2 cm?; epid. alter around acid frags & in matrix;

222a'

[9d]

- fg acid frag @ pyrite; dk alteration frags; ave sz 3-4 mm, volc & felds. Finer part of kst unit?

- gry andes [6a]

[9d]

- same as 222a' above - fg. acid frag.

@ 311 dp

JB-222

- myrmekitic texture;

@ 317 dp

@ 392 dp.

520 dp to last %

brg due N (00°) for 400' (80 dp)

no %

brg 270° for 2650' (530 dp)

@ 22 dp

@ 46 dp.

78-2F-2-JB-222b

[10b]a.

rhyolite; lt grn; epid amyg alter. ~30%

5-10% plag phenos ~1-2mm.

dacitic lking in places

bearing f.g. frag.

[9d]

[9d]

acid frac @ acid lking frags, pyritic
frags round to subangul, same as 222a

[10b]a

grn rhyolitic lking @ epid amyg (secondary)

78-2F-2-JB-222c

trenches? [9c]

acid ssd? frag @ 30% plag phenos or
frags, euhedral ~2mm, from 0-30%
volc, porph frags subangul to rounded,
ave sz 3-4 cm, f.g. in places
@ ave frag sz 3-4mm.

164'

@ 134 dp

@ 159 dp

@ 171 dp

@ 222 dp

road @ 396 dp brg. 145°

@ 475 dp - trench - no rock

@ 510 dp

road @ 530 dp

truck @ 144 dp.

165.

Aug 19/78
Map 2b & C

overcast/sunny
Iron Mt. - lower logging
access roads

78-2b-2-JB-223

[8b]

andes bx, purple, graded, lrg rounded
to sub rounded volc clasts from 1 cm
to 8 cm, ~60%; frags andesitic, red.

78-2b-2-JB-224

[8b]

dk purp andes frag; frags ~2cm, occ
lrg 5cm frag, volc, subround, ~10-20%
specularite on sheared surface; %
rubby; friable; rx v. porous;
vfg matrix @ few (5-10%) frags (2-4mm)

- 1st float - 2 or 3 pieces, lrg is in ground
(2-3 ft)²

1325

JB-223

(4373') matrix composed of f.g. bx (1-3mm)
(iz. polymictic)

1340

JB-224

(4422')

from edge of clearing bng 030°
for 800'

bng 300° for 2500'

from 0 - 40 dp

166

78-2b-2-JB-225

[8d]

andes bx; purp; grainy matrix to chilled,
frags 3-8 mm, ~60%;

don't know which purp frag this is

- same rx →

- think this is purp bx @ bombs - looks
almost sedimentary because of abund
frags & grains in matrix

78-2b-2-JB-226

[9b]P

acid bx; bluish; 50-60% frags sub ang,
acid; 3-5 mm; 1% pyrite; grainy
looking in places;

[9b]P

same rx - sedimentary acid frag-volc;
grading in % (but slumped), frags
from 2cm to 3-4 mm; rusty weath;
pyritic; some alter of frags (chloritic?)

% looks less sed but possibly bedded

- still acid frag @ pyrite
(matrix more consolidated)

1400m @ 54dp

(4620') JB 225

polymictic; frags red andes & acid-
sodic (10-20%); ~80% frags in sample

@ 72dp

@ 100dp

@ 175dp

1395m

(4609')

JB-226

acid bx - sodic

occ lrg 2cm frag

@ 240 dp

@ 289

?

310 / 30

78-2b-2-JB-227

[9b]P

rhyolite/dacite bx; 20-30% ^{rounded} subangular
acid frags in vfg. pink to grn dirty matrix;
some pyrite in frags; qtz veining in frag
~ .5cm; chlori alter in matrix & frags

- accretionary lapilli tuff, purp. [12a]

- Lst.

[14a]

- acid frag - same as JB-227 [9b]P
- starts to look sed acid frag

purp volc bx, v. frag (60%); frags [8b]
variable szes; poorly sorted;
ave small sz - 2-3mm, larger sz 8mm.

Sampled rx on Selish Mt
& Iron Mt - logged area

167'

435m
(4736')

@ 375 dp

JB-227 acid flow bx
(rhyolitic)

1450 m
(4785')

@ 520 dp

brg. 140° for 2000'

@ 120 dp

@ 240 dp

@ 260 dp

@ 345

JB-165d

JB 58

168

aug 20

overcast, cold

map. 2f-3

Jessie Crk Rally

Madeline taking notes

andes; gry blue; porph, magn

(%? in tree roots, under mass)

andes; grn, porph, magn, qtz rugs?

granite @ qtz eyes

v.c.g andes or fg microdior, grn/gry
salt & pepper

JB & MS

Brg 168° for 12'50'
(250 dp)

@ 195 dp - road brg 695°

Brg 268° for 5950'
(1190 dp)

actual brg 270° for 6500' (1300)

@ 15 dp

@ 265 dp road brg 165°

1015 @ 480 - crk bed
(3350')

1030 @ 615 dp
(3399')

MS-293

@ 630 dp

1050
(3465')

@ 790 dp

MS-294

andes, grn, fg; porph @ rhyolite interbeds
 < 1% pyrite

banded rhyolite, lt grn

looks dacitic

same dacite

andes, dk grn, magn; fg.

upslope looks lk cg andes or microdior

grn porp andes, 10-40% plag phenos

marble - fg to granular

gel/grn rhyolite bx

grn porph andes 40% phenos (plag)

70 / 155

1060 m @ 949 dp
(3498')

1080 m @ 985 dp
(3564')

ms 295

@ 1002 dp

@ 1020 dp

1070 m @ 1031 dp
(3531')

@ 1037 dp

ms 296

1050 @ 1074 dp
(3465')

1025 @ 1190 dp
(3383')

@ 1200 dp

@ 1254 dp road bvg 010°

Brg 305° For 1650" (330 dp)

935 @ 146 dp
(3086')

@ 550 dp creek

170'

Brg 017° for 1300' (260 dp)

890 m @ 153 dp road brg 081°
(2937) actual elev. 2900'

Brg 00° for 1100' (220 dp)
3360 @ 230 dp. new brg.

Brg 090° for 2150' (430 dp)
@ 450 dp road brg 055°

Brg 105° for 4750' (950 dp)
@ 182 dp - gully
@ 295 dp - gully

@ 407 dp road brg 160°
@ 483 dp road brg 120°

@ 950 dp new brg
Brg 168° for 850' (170 dp)
185 dp to upper rd
40 dp along upper rd to trk

171

Aug 23

overcast.

Map 2g-1

outlining Chert Peb. Congl.

- ridge of chert peb. congl. [19]

- chert congl. [19]

78-2g-1-JB-228

chert peb congl. [19]

polymictic - matrix fg (2-5 mm) subround
chert & argillite frags; larger clasts (pebbles,
chert & argil, stressed & veined, round-subr.

chert pebble float.

78-2g-1-JB-229

[10b]p

acid rx; (rhyolite) grn/blue, porph;

50-60% plag phenos, anhedral-subhedral ~ 2mm.

poss. Frag? 5% magnetite; occ. 5mm qtz

Brg 024° for 2500'
(500 dp)

@ 83 dp

865m @ 148 dp

(2855') @ 182 dp, 218, 271, 345

Brg 311° for 1550' (310 dp)
@ 274 dp

Brg 326° for 3350' (670 dp)

@ 213 dp road brg 025° (bike?)

@ 420 dp to >670 dp +

1200 m
(3960')

JB 228 -

Brg 257° for 1200' (240 dp)

@ 40 dp % ends

@ 180 dp

Brg 162° for 3700' (740 dp)

1185m @ 130 dp

(3911')

JB-229 rhyolite porph

172

[20b]...

sst - cg - Coldwater (feldspathic wacke?)
 primarily felds & volc frags, monomictic
 grn sz ~ .3mm

cg, sst

[20a]

Coldwater conglom w/ sandy matrix
 & 20% lrg 30 cm porph clasts - rounded
 & 10-20% round to subangul clasts
 ~ 5 cm. (+ sizes grading btwn)

cg sst - coldwater

[20b]

no %

(172')

@ 215 dp & 235 dp

@ 346 dp road brg 100°

@ 384 dp

1095 m

@ 416 dp to 520 dp

(3614')

800 dp hit rd at corner
walking along rd to bike



@ 594 dp

630 dp to bike

left main rd @

34.45

checking road system from ms 195?

lower road not visible

upper road @

36.55 mi

top of road @

37.6

possib rd @

37.9 ?

173

Aug 24/78

Map 2g-3 (1,2,4)

overcast

road system

Swakum Mt. Rd.

78-2g-3-JB-229a

[11ax]

andesite / dacite @ frag zones; matrix grn,
porph; felds phenos 0-20% ~ 1mm,
0-30% frags., volc (andes), subangul
to rounded, polymictic, .5cm-10cm
ave sz 3-4 cm, epid alter on surf,
frags porph & occ vesic. looking (but
not basaltic)

[11a]

-same rx, fewer frags.

[6a]

-chilled lking grn andes, non frag mental.

78-2g-3?-JB-230

[11ax]

unit fg. frag., looks almost sed; fairly acid

78-2g-3-JB-231

[10a]

~~andes~~? dk grn, possib pyroclastic phenos ^{10%}
or volc frags, blk, 1-2mm, anhedral?
(angul); epid, calcite & zeolites (pink)
in amyg. <5% magn

@ 77.1

(junct @ 77.3 → left rd)

1330m

@ 77.4

(4389')

@ 77.45

@ 77.7

JB 230

long basalt

@ 78.0

JB 231

- rhyolite

dk gry; calcite amyg replaced by?
magnetite (10%)

78-2g-3-JB-231a

[10bx]

rhyolite, lt grn, frag zones (20%, ~.5cm)
 possib. amyg @ calcite, flow banding
 in float; v. rusty weath (brn/yellow)
 granular to microcline

78-2g-3-JB-232

[9b]

acid frag; 60% frags (acid) ~ 3-4mm
 in grn matrix; some rusty weath; see
 lrg angul (4cm) argillite frag (also acid);
 matrix pale, microcline;

78-2g-3-JB-232a

[11ax]

dacitic/andes bx; polymictic, 2-3mm
 frag; 1-7 cm frags, some acid; some porph
 round to subangul; v. rusty weath;

same rx as 229a

[11ax]

andes/dacite porph @ frag zones [11a]

1350m @ 78.1

(4455')

@ 78.2

1362

JB-232 rhyolite bx

(4495')

± @ 78.33

@ 78.4 ± 78.45

@ 78.6

inct @ 82.7

@ 83.0 on rt. fork

78-2g-3-JB-232b [11ax]
andes/dacite bx @ 50% frags
(same as 229a); may have vesicular
basalt or vesic andes frags

78-2g-3-JB-233 [10a]p
eg andes or microdior; grn,
rhyolite; gry; porph; matrix kspar;
20% plag phenos, 1-2 mm, subhedral;
5% chtr alter.

175'

inct 90.6

@ 90.8 along

1100m road heading west from

(3630') washing machines

ε @ 90.85

@ 91.2

IB - 233 - porph rhyolite

176

Aug 25/78

sunny → overcast.

Map - 92i-2g-4

Traw through logged area

Photo - 8728-088

N of Upper Nicola

no %

78-2g-4-JB-234

looks andesitic but possib dk dacite

non-magn; dk grn; phenos > 1mm

small dk (blk) phenos or frags ~ .5mm

rx is fg.

- same rx, muddy magn.

78-2g-4-JB-234a

[14a]

lst, wht, mass, calate veining;

pace - 1 dp = 5'

altimeter ~ 20 m too high?

Set odometer to 0 @ Coyote Vly Rd.
along pipeline to 2.2 (subtract .2)

1170 m. crk @ water in it @ 5.35 mi
(3861')

Brg. 258° for 4000' (800 dp)
road @ 119 dp brg. 140°

Brg 321° for 4400' (880 dp)
1385 m @ 385 dp
(4871') JB 1234 - dacite?

@ 520 dp

1435 m @ 880 dp (altim now rding low?)
(4736') Brg 096° for 1750' (950 dp)
@ 420 dp - gully bottom

1370 m @ 465 dp to 520 dp
(4521')

177

78-2g-4-JB-235

[8c] purp

breccia, looks andesitic to muddy?;
 drk dull gry; occ pheno, plag ~1 mm
 (2 %); volc frags, angular to round,
 polyimictic ave sz ~1 cm bent up to
 3 or 4 cm;

[7b]

- same rock, purple looking, fewer frags
 (ie frag zones)

78-2g-4-JB-236

[6b]

andes; grn, fg porph?; looks slightly
 frag in places 2-3 mm; altered amyg
 (epid) in patches, amyg ~ 2-3 mm;
 black phenos or frags 10-20%, 1 mm

[7c]

- purp porph andes, 15% plag phenos
 euhedral to subhedral, ~2 mm

- grn andes similar to 236 [6b]

@ 644 dp JB-235 andes bx
purp matrix;
frags look speckled (altering?)
acid & basic;

@ 743 dp
road brg ~ N/S (not driveable)

@ 772 dp - crk bed.
(along brg 096 - 1 dp = 4.5 ft.)

@ 853 dp JB 236
ε @ 940 dp

@ 960 dp (top)

Brg 090° for 1900' (380 dp)
@ 17 dp

178

79-2g-4-B-237

[7bc]

andes, purp, porph, occ 2-3 cm
frag; some red rust weath on surf,
8% phenos, sub-to anhedral, plag, 1mm.
- matrix gry & purp intermixed;
plag also as uneven frags in matrix

178'

@ 12 dp

JB 237

purp
Andes.

@ 207 dp rd brg 140°

road @ 390 dp

along road to bike 432 dp.

(442 dp to crk)

reset odom. to 0

@ 2.6 - swamp

Hwy @ 5.1

180

Aug 26
Map 2g-2

overcast / rain
Mill Crk Rd.

78-2g-2-JB-237a [6b]
andes; grn/blue; 0-10% chloritic
frags, 1-3mm, angular; hematite
staining; epid alter on surf; magn.

78-2g-2-JB-238 [11a]
grn chloritic ^{dacite} andes @ brecciated
zones, frags ~ 3mm, 40-50% in
patches occ larger 1cm frag, angl.

Toluca mine Rd

78-2g-3-JB-239 - SHOWING
granodior?, abund qtz & qtz vein,
@ malachite, azurite, tarnished pyr
or chalcopyr; v. chloritic (altered mafics)

675m

mileage coming out
@ 43.8

@ 44.15

JB 238 - dacite

@ Hwy 45.1

left fork @ 66.35 no %

— Right fork @ 69.1

claim post @ 69.45

990m.

@ 70.4

JB 239

Monk Park Rd.

78-2g-2-JB-239a [11a]

dacite, lt-dk grn to gry; nonmagn;
 microcline to v.fg; acc chloritic frag ~2mm;
 pyritic; calcite on frac. surf; rusty weath.
 - downslope - good flow banding; gry, rust,
 & yellow; may tend toward rhyolite

78-2g-2-JB-240 [11a?]

andesite; dk grn; fg; chloritic frags, 10%
 ~ 1-2 mm; v. epidotized - surf & veins;
non-magn; calcite veining;
 - float indicates unit may be v. porph
 upslope - same grn matrix w/ plag phenos
 20%, up to 1 cm, (ave sz. 6 mm)

@ 71.3 stopped
(edge of map sheet)

@ gravel pit

725 m @ 79.45

flowband 045°

jnct @ 79.7 $\rightarrow$ right fork

850 m

@ 80.1

JB-240

dacitic? (sodic); texture almost
looks like microdior or v. cracked

jnct @ 80.7

missed left fork??

jnct @ 81.9 (beyond clearing)
rd running 340°

78-2g-3-JB-241

phyllite? blue; mica sheen on surf;
calcite veins. (thin 2-3mm)

- grn chloritic andes? (JB-340) [6b]

road entering from NE @ 82.1

fork @ 82.55

890 m

@ 83.35

JB-29

@ 83.4

@ clearing @ truck-eating puddle

86.1 - S. fork

stopped @ 86.55 - no rx

183

Aug 27

sunny, cold

map 2g-4

traverse @ N end of 2g-4

78-2g-4-JB-241a

[11ax]

dacite; blue/grn; Fg; occ frags zones
; veins, frags ~ 1 cm, sub angular;
pyritic; v. rusty weather; vesicular
looking in places; frags look ok but
indistinct.

78-2g-4-JB-242

[11ax]

dacite @ bx zones; lt-dk grn matrix,
mg; frag zones @ 50% small 2-4 mm
acid frags, subrounded; may become
andesitic in places; occ 1 lg 1 cm angul frag.

acid bx (dacitic) @ trace pyrite. [11ax]

forgot to set altimeter

mill Crk Rd turnoff

rd parallel to Crk - going N
turnoff @ 24.1

1280 m @ 27.7
(4224')

@ 28.0 joins main rd

@ 28.05 - crk

@ 28.85 parked truck

Brg 270° for 7950' (1590 dp)

@ 250 dp - crk

1405 m
(4637')

@ 375 dp

IB 242

- v. round acid frags? (spots) 10%
angul clastic? frags @ pyrite - 5%
v. f.g. porph - phenos < .5 mm

1420 m @ 450 dp
(4660')

184

78-2g-4-JB-242a

[11ax]

dacitic bx @ fg bx matrix (frags 2-3 mm)
± occ patches of cg bx @ frags (40%?)
~ 3-4 cm, angul to subangul, volc,
porph;

78-2g-4-JB-243

[11ax] or [11bx]

dacitic bx, fg, grn; mang. staining

- fresh biotite in rx (1-2%)

78-2g-4-JB-243a

[11ax]

dacite bx @ cg zones, subangul.
frags up to 4 cm, ave sz 3 cm, ~ 30-40%;
epidote alter ± veining; calcite Xl on
surfaces; some rounded or amyg.
qtz in places, 20%, 3-5 mm;

1440m

@ 548dp

(4752')

1445m

@ 575dp

JB-243

(4769')

@ 605dp

spherulitic?qtz

@ 705dp

chlor. alter;

@ 730dp

@ 785dp - swamp.

@ 860dp clearing

@ 970 - top of knob - clearing

1490m

@ 1017dp

(4917')

185

78-2g-4-JB-244

[6c]

andes; dk grn, fg; mildly magn;
calcite veining, 30%? plag phenos < 1mm -
- some epid alter; hematite? blebs - 5%

78-2g-4-JB-245

[11ax]

volc bx; possib dacitic matrix, fg, grn,
non magn; 50% frags, sub-rounded
~ 2-4 mm; some acid lking, some blk -
chloritic; pink phenos - qtz or ~~kspar~~,
look euhedral, ~ 2mm. stained plag
- becoming less frag, occ larger 1cm frag
looks dacitic

78-2g-4-JB-246

[11ax]

same volc bx; dacitic lking (JB 245)
- rx bems porph andes; qtz-eye dacite
mixed @ bx. larger frags 1-2cm - potassic

1495m.
(4934')

@ 1093 dp.

JB-244

ε @ 1106 dp

rounded 3-4mm

ε 1122 dp

frags altered,

ε 1139 dp

(dissolving?)

1470m.

@ 1260 dp

JB-245

(4851')

acid bx - polymictic

acid ε choritic frags -

matrix - angel. choritic ε basic frags.

- others subround, acid, porph - frag.

@ 1295

ε @ 1406 ?

@ 1600 dp - knob - clearing

Brg 045° for 3150' (630 dp)

@ 282 dp crk.

640 dp to knob (clearing)

walked 500' further

Brg 090 for 5800' (1160 dp)

1495.

@ 33 dp

(4934')

@ 70 dp - 109 dp

JB 246

dacite bx

same bx (dacitic) [11ax]

dacite @ qtz eyes, frag zones, &
porph zones; qtz eyes round ~3 mm;
phenos - plag, subhedral, ~2 mm.
rusty weath in places.

1mst - float & in bank (%?) [14a]
massive; gry; extensive calcite veining

@ 150 dp

@ 340 dp - clrg.

@ 370 dp

@ 564 dp - clrg

@ 670 dp - bottom of gully
(pacing 300' short (60 dp))

rd @ $1080 \text{ dp} + 60 \text{ dp} = 1140 \text{ dp}$
along road (South) to truck 500 dp
(60 dp S of starting pt)

@ 131 dp along road

@ motel - altimeter rdng 635 m
(16' high)

Aug 30 sunny to thin cloud cover
 map - 92i/2f-2 tracing acid bx South.
 Photos 7103-1165 & 200

- rhyolite & rhyolite bx (fg)
- @ w. contact - andesite[?]; dk gry;
 v.f.g, mass, to porph @ possib banding?
 dk gry & rusty layers @ phenoscausing
 lighter layers - this only seen in
 few places over small 1' x .5' area.
 rusty weath.

78-2F-2-JB-149 Trench.

acid rx; malachite, trace pyrite,
 hematite (v. red); qtz veining @ magnet;
 v. rusty surf. on o/c

78-2F-2-JB-148

Andes[?] grn; f.g; @ chloritic frags -

10-30%; ~1mm

altered phenos

5% plag phenos in places ~1-2mm; anhedral

JB-149 ↑

starting west of rd @ 1150 m elev.

750' W of road - MS-338

MS looking for E. contact

JB looking for W. contact

1190 m.

JB-247

Hybridized volc or microdiorite CR

1195

NE corner of Lk

JB-248

microdiorite

SE corner of Lk

JB-249

mg. veined plg basalt

walking over float to acid box

rhyolite

pnk; porph to non-porph

pnk rhyolite; some flt from acid box

188'

from intersection @ top

Brg $\sim 170^\circ \pm 10^\circ$

@ 182 dp - rd brg. 675°

Pacer does work - picks up
extra 100's - I am not pleased!

1070 m

reset to 0 @ 359

(reading 459)

↙
@ 359 - road brg 125°

985 m

@ 226 - 340 dp

900 m

445' dp

1176 dp to rd intersect @ reserv.

Aug 31

overcast

Map Rg 1 E 2F-Z

[9b]

- JB to N - ^{grn.} rhyolite Bx - 50-60% frags
- MS to S - rhyolite - 3-5% frags

- rhyolite, ^{brn} purp, no frags. [10a]

- coldwater conglom [20a]

[7af]-[7c]

- andes[?]; purp; friable; amyg @ calcite - 30%
minor epid alter of amyg
- andes, fg; purp; hematized phenos
~ 10-30%

[10b]

- rhyolite; porph; frag; grn; 20-30% plag
phenos altered to epid, ~ 2mm; 0-5%
frags, mixed acid & basic, ~ 1cm; subround;
- flow in float
- more frags upslope [11d]

MS & JB

Brg due W From cattle guard
on Fhume Rd. (290°)

685 m 2260.5 @ 86 dp

~ 685 m @ 95 dp

720 m 2375 @ 157 dp
& 168 dp,

740 m 2442 @ 200 dp

743 m 2452 @ 207 dp

835 m 2756 @ 375 & 380 dp

(pacing ~ 50 dp to many)

(870 m @ 412 dp)

2871

- rhyolite; grn; few phenos, altered to epid; mixed @ andes? or v. dk dacite [10a]

- grn sandy looking rhyolite @ some pink flow banding

- Andes; gry; f.g; magn; v. hard [6a]

dacitic bed in andes, dacite-grn, epid altered phenos, 5-10%, ~1mm; epid amyg in layers, ~3mm, bed folding downward to N

[11a] px

- dacite/andes; gry; porph; 0-10% plag phenos, subhedral, ~2mm; 5% frags in places, angular, .5-1 cm, blk; magn but acid looking; minor epid alter on surf & in phenos

- gry dacite @ chloritized phenos, 0-30%, ~1mm; 1% pyrite; amyg. in places.

becoming windy.

900m 3270 @ 448 dp

(970 @ 483 dp)

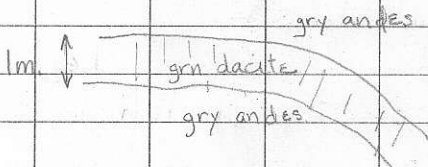
3201

978m 3227 @ 510 dp

980m 3234 @ 530

@ 541

29
250



(3420' @ 551 dp) -

1070m 3531 @ 578

1080m 3564 @ 620

- rhyolite bx @ lrg 2-4 cm porph clasts, possib dacitic or andes, subangular; matrix grn to bleached; vfg to microcline.

TRENCH - rhyolite porph bx

Diorite

- rhyodacite, gry/grn, porph; 10-20% plag phenos, pink, sub to euhedral ~2 mm, minor epid alter.

[6a]

- And; gry, 0-5% porph, 1 mm plag phenos, trace pyrite; v. hard.
- % is mixed rhyolite, grn; porph (epidiotized phenos) & dk gry andes.
- possib contact? running E/W?? andes to N no probably acid bed running through andes
- same gry andes downslope
- 0-15% frags up to 1 cm; angular; altered to epidote

1082 m 3571 @ 665 dp

Very windy!

Brg due N for 700' (140 dp)

1060 m 3498 @ 50 dp

3498

Brg due E (090°)

1060 m @ 80 dp

1052 m 3472 @ 118 dp

1050 m 3465 @ 140 dp

1035 3416 @ 165 dp

@ 175 dp

192

- dacite; gry; grn epid. pheros (secondary)
- lks more rhyolitic; more epid alter.
- andes @ hematized pheros.
some epid alter in fg matrix.
- gry andes [loc]
- andes, grn to purp, amyg @ caliche [7af]

1005 m 3317 @ 203 dp

1000 m 3300 @ 217 dp.

972 m 3208 @ 243 @ 360 dp (903m)

992 m. 2614 @ 545 dp

760 m 2508 @ 585 dp

750 2475 596 dp

660 m ²¹⁷⁸ Road @ 795 dp

Truck to w 180 dp.

193

Sept 1/78

pouring rain!

map 2g 3 & 4

Traverse off steep rd.
to trace rhyolite

- dacitic bx?

78-2g-4-1B-1A9a

rhyolite bx; grn/blue; f.g; frags round,
acid, ~ 2-3mm (monomictic)

- rhyolite; grn; porph; 5-20% plag phenos
~ 2-4mm (ave. sz 2mm)

- same porph rhyolite mixed @ v.c.g.
bx @ lrg 3-6cm porph clasts (basic)

- porph rhyo; lt grn; occ rnded frag-2-4mm

1 dp = 5'

From top of steep road - S along
rd for 2800' (560 dp)

1/2 @ 65 dp & 540 dp

Brg 090 for 5300' (1060 dp)

1235 m @ 70 dp

1265 m & 92 dp

@ 133 dp

1310 m @ 157 dp to 215 dp

1360 m @ 280 dp

1360 m @ 348 dp - corner of main rd! (JB-231)

I have been on course - suspect road is
out. Change trav. to pace & comp of rd
to jct to E then S to field

78-2g-3-1B-249b

acid rx @ bx zones; gm matrix
(possib dacitic); 0-20% frags, ave sz
.5-1 cm, possib finer gn in places
(2-4mm), ϵ porph, phenos $\sim$ 1-2 mm
qtz veining fairly evident, @ trace pyrite
in qtz; frags no distinguishable

Elev (@ strt of brg)	(dp)	Brg.	
	65	085°	
	100	100° curving to	050°
1360 m	60	0100° to	040°
	40	050°	
	120	040°	
1355	70	095° crosses	crk @ 70 dp.
	45	040°	} crk @ corner
1350	40	165°	
	145	050° to 100° @	100 dp. starts turning E 70 dp.
1335 m		↓	

↑
jnct

South along rd for 2600' (520 dp)

@ 500 dp Brg 270° to rhy bx

1260

@ 120 dp

195

- rhyolite to dacite; lt grn to dk gry; frag zones @ 60% frags (some porph @ phenos weath out); ave size 1-2 cm.
- v. frag %
- rhyolite; pnk; 0-20% porph, phenos 1-2 mm occ altered to chlor
- grn rhyolite @ rusty alter & phenos?
- immediately N - andes; dk grn; porph; 20-30% plag phenos in fg matrix; 20% darker phenos (biot or hb?), ~ 2 mm; magn.

lt grn microcrystalline rhyolite. [10b]

- basing porph & v. frag. @ lrg 3-6 cm porph clasts. [9b]

- dacite bx; dk grn, 30% volc clasts, some red; angul, occ porph; ave sz 3-4 cm.

- fg. diatic bx; grn; frags 2-3 mm; porph.

@ 250 dp

@ 275 dp

1263 m

@ 325 dp

1280 m

@ 391 dp

1305

@ 485 dp

1310 m

@ 500 dp

1315 m

@ 575 dp

1340 m

@ 640 dp

@ 640 dp change Brg to 165° (to Lk)

1320

@ 50 dp

196

78-2g-3-1B-250

cg Andes or microdior; grn; Xlins;
- lrg 2-3mm fresh biot.

- andesitic to dacitic rx @ bx zones
matrix dk grn; m.-fg.

- andes; dk grn; fg. porph ~10%, ~3-5mm.

- dacite bx [max] @ red frags.

- porph grn rhyolite; m-cg; [10a]p.

- rhyodacite; looks a little dk for rhyolite
but same unit as 233.

bearing vt porph; plag phenos ~1mm, 40%

- rhyolite bx @ lrg porph clasts [9b]

@ 90 dp
JB 250

^{fg}
avgite diorite
or microdiorite
could be a flow

1310m

to 144 dp

Brg due E (090°)

@ 40 dp

@ 65 dp

1310m

Brg

165°

1175m

480 dp to rd above Lake

85 dp W along rd to JB-233

Brg 190° from 233 to Field
for 4500' (900 dp)

1165

@ 116 dp

@ 152 dp

1125m

@ 630 dp

197

- rhyol/dacite porph; mg; grn.

78-29-3-JB-251

Y acid rx; mg; grn; @ 5% obsidian frags ~ 2mm
30% plag phenos ~ 1mm seen on surf.
augite + plag phenos

- dacite bx @ red clasts.

1120

@ 709 dp

argente basalt

(in field) @ 750 dp

JB-251

(this field is bigger than map indicates)

@ 900 dp $\rightarrow$ due W to rd

1050m

57 dp to first rd.

@ 107 dp.

Rd @ 124 dp ?? $\hat{=}$ one below

1005

@ 165 dp

395 dp to bike

(Bike 1 mile from jct @ main rd)

198

Sept 2

afternoon - sunny.

Map 2g-4

pacing road to W from
corner that was misplotted.

rhyolite; lt grn gry to blk, bedding but o/c
lying in rd; rusty weath, rubbly.
(looks lk mdst); microcline to m.g.

ELEV. (@ bgnng of brg)	dp	Brging	
1330m (4389')	125dp	320°	(jog to 270° @ 70dp for 20 dp)
1340m (4422')	95	330°	(B 232 @ 75dp)
	15	300°	
	87	345°	
1360m (4488')	30	310°	
	60	010°	
1352m (4462')	80	325°	(slight winding)
	60	330°	
1335m (4406')	100	000°	jnct @ 60 dp
	curving to 230°	beyond crk (113dp)	
	25	230°	
1335 (4462')	30	310°	
	90	250°	(slight winding)
	gentle curve (90-135dp)	to	
		320°	
	altim. rdg. 60' low @ motel.		

199

Sept 3/78

overcast

Map 2h-1

tracing sed unit (tuff)

Bill taking notes

- avg ppv; grn; 10% avg phenos
v. pyritic 3% or greater.

- % @ rhyolite & sed tuff; microcline,
banded to v.c.g. @ occ lrg 3mm frag;
frag zones (more like pods) @ 1-2cm
angul frags; ^(40%) grn matrix becoming
quite drk in places; mixed @ frag wacks?
qt rich (frags); pyritic

400 dp to %

(my pacer reads 500 dp - picked up 100)
(reset @ 585 to 485)

@ ~ 600 dp
(in gully)

wm 146-1

1305

@ 870 dp

032 / 75

wm - 147

wacke?

- augite porph; 20-30% chloritized phenos, 2-3 mm; matrix looks acid due to epid alter; calcite veining (contorted) & Qtz v.h.
- sed. tuff; v. cg @ frag layer; grading (not distinct); frags angular, 2-5 cm size $\sim$ 2.5 cm.

zone of v. cg frag material in finer grn.

- augite porph
- back into fragmental (bomb bx)
- aug porph
- fragmental
- contact frag to N; aug porph to S

[070°]

Brg downslope $\sim 005^\circ$

1235'

@ ~ 975 dp

Brg. $\sim 020^\circ$

1195m

@ ~ 1080 dp

dipping steeply to SE but not measurable $\swarrow 040^\circ$

@ 1115 dp $\rightarrow$ following contour to E
($\sim 3800'$ contour)

@ 1180 dp

070 $\nearrow$ steep

1180m

@ 1230 $\searrow$ (lunch)

Brg. $\sim 090^\circ$

@ 1250 dp

@ 1272 dp

@ 1288

1150m

@ 1350 dp

@ 1370 dp

- frag. @ sandy beds
- rhyolitic frag. (same unit @ cm-149)
- bx; purp & grn matrix; lng 3-15 cm rounded to subrounded clasts, many vesicular, some red stained; some phenos in matrix in patches

1125

@ 1410 dp

070 T56

WM
1148

@ 1591 Brg ~ 215° (reset pacer)

@ 90 dp changing to ~ 190

@ 190 dp

Brg ~ 110° to knob @

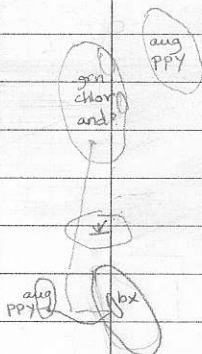
aug ppy

Brg ~ N 190 dp.

Brg ~ 190° for 200 dp -

1320m

@ 50 dp to E



Brg 250°

202

- sed volc unit @ lg bomblike clasts
fg sandy layers to v. fg; graded??

1396

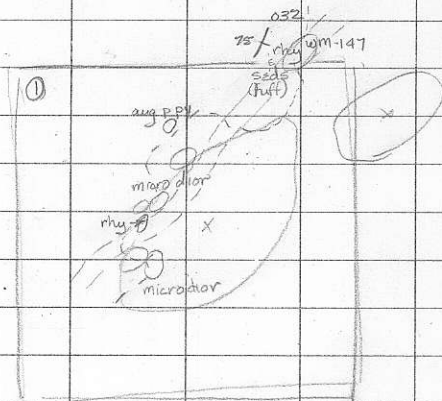
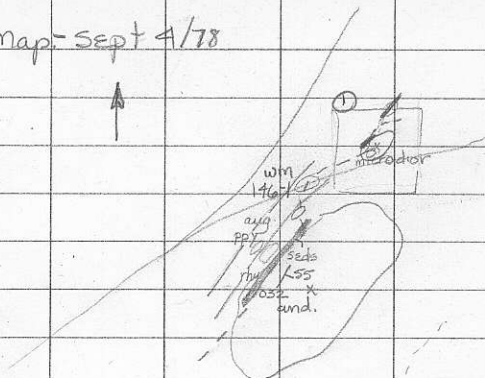
@ 155dp

017-077?

WOM 151

203

Map - Sept 4/78



204

Sept 4/78

Map 2F-4

overcast; rain

walking blocked rd (loop)
off Logans Lk Rd.

no %c

- andes; dk grn; porph; 10% plag phenos

~1mm; minor qtz inclusions (amyg?)

pervasive epid alter ϵ in frac ϵ amyg- (30%)

(weak); rusty weath; magn; minor chlor alter
minor calc. in frac.

odometer @ 0 @ main lights
in Merritt

o/c on Hwy @ 1.2 mi

access to loop at 11.1

blocked @ 12.7

@ 50 dp jct ? → keep left

@ 330 dp jct left - 060°

keep right 145°

1275m @ 675 dp - fence (gate)

1270m @ 830 dp - another gate

(1248 @ 1145 dp)

@ 1160 jct left - 110°

right - 140°

turning back to find lower rd.

back @ hike @ 1120 dp

lower road does not exist

both jcts go nowhere.

o/c on Hwy.

END OF SEASON
