001599

STATION BEACH DATE (1)

4135 23/6/71

1. R.T. #2 - S_2 - 118, 27 SW (165) T P
   L_2 - 152, 18 SE

2. Boudin (gt2) - 120, 5 NW (190)

3. R.T. #2 - S_2 - 110, 20 S T P
   L_2 - 150, 19 SE

4. R.T. #2 S_2 - 110, 25 S T P (250)
   L_2 - 155, 19 SE
   - interbanded sericite chlorite w/siliceous carbonate
   - lenses of #2 < 2" thickness
   - gt2 - rich layers throughout
   - boudinaged
   - oriented sample - check 2nd mm foliation

5. oriented sample
   RT #2 S_2 130, 32° SW T P
   L_2 132, 2° NW (280)

(2)

5. folded calc-silicate showing F_2 fold - drawn below.
   L_2 - 315, 0-5 NW

6. fold (F_3) 250°, 20° SW. Plunge
- folded calc-silicate
- active fold (305)

#7 gt_2 boudin in calc silicate
T P
110°, 25° NW (326)

#8 (348) calc-silicate
S_2 132°, 34° SW
T P
L_2 152, 13 SE

#9 S_2 115, 24 SW banded calc silicate
L_2
(415)

Station Bench # 4135 Date 27 June

23) RT-2; S_2 108, 25 SW
L_3 156, 21 SE

24) RT-2; S_2 102, 32 SW
L_3 156, 27 SE
Jt_1 005, 75 E

25) RT-2; S_2 100, 35 SW
L_3 162, 22 SE
S_3 ≈160, 65 SW
Jt_2 110, 65 NE
S_1 seen as crenulated foliation between S_2 surfaces. S_1 attitudes random & unmeasurable. In general, S_1 appears to dip to E L_2 lineation (S_1-S_2 intersection) not seen. Assumed sub // to L_3

26) RT-2; S_2 110, 31 SW
L_3 165, 27 SE
Jt_1 10, ⊥
Jt_2 120, 55 NE
S_1 completely crenulated by S_2 which is in turn "
S_1 & S_3 not measureable in S_3 dep

Station Bench: 4135 Date: 27, June

check black porphyroblasts w/ oxide(?) flecks. Clinoamphi? staur? Note that these porphyroblasts are growing in S_2 & in general show no preferential alignment

27) RT 2; S_2 110, 44SW; L_3 155, 43SE
L_4 70, 23 SW; S_4 ≈ 115°, 40° NW
S_4 fairly variable @ this pt.
S_1 present & heavily annulated by S_2, no readings available
Jt. set 40, ⊥. Black porphs. growing in S_2, showing no preferred orientation

28) RT 1&2 Shear zone or zone of major mylonitization. S_2 on Southern margin 135, 23 SW, L_3 nearly obliterated by ductile shear. CO_3 veining contorted & sub // S_2. Shear fault bounding zone of mylonitization Σ 138 Δ ⊥. Slickenslides in sulfides trend 138, plunge 12° NW. Direction of movement cannot be determined from "steps" on slicks.

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29) RT-1,2,4: Ocp. in what appears to be a major mylonite zone. S_2 highly contorted and folded. Several fold axes measured
① Trend 110° plunge 7° NW
② " 116° " " "

BS These folds have dissimilar geometries to F_2, F_3 & F_4 & appear to be constrained to zones of intense mylonitization ∴ implying inhomogeneous def^m localized w/in narrow zone. L_3 lineation appears obliterated by these folds ∴ folding in mylonite post-D_3
Yes! Folding may be related to D_4?? Axial planes of folds in mylonite // to S_2 outside mylonite zone are ap Σ=110° Δ 25°SW. Cren lin. // fold axes

30) Mylonitized RT-1,2,4: Mesoscopic fold axes in S_2 ① trend 117° plunge 0° ② trend 100° plunge 0° ③ trend 110° plunge 5° NW
These folds related to mylonitization of RT 1&2 between layers of graphitic schist which have acted as "lubricant" during def^m Def^m or "faulting" post-D_3 since L_3 lineation is folded. Age relative D_4 & D_5 unknown. S_2 on ave Σ 40-100°

Cren lin // fold axes

Δ 20-40° NW to SW. Attitudes of mesoscopic folds suggest high Δ reverse movement along mylonite zone i.e

Note: difficult to tell to what degree attitude of graphite schist units define original bedding. In part, they ∥ S_2

31) RT-2: Out of mylonite zone, well foliated w/ S_1. S_2 108, 10SW L_3 148, 7°SE. Jt 155, 65NE

32) RT-2: S_2 129, 28SW, L_3 150, 25SE

33) RT-1: S_2 132, 29SW, L_3 105, 24SE

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34) RT-1/2: S_2 84, 28S

Station | Bench: 4170 | Date: 28, June

1) RT-2: S_2 140, 36SW L_3 153, 16SE
Qtz. boudin line, in S_2 trend 97 plunge 15°W
S_1 seen as fine crenulations between S_2 surfaces. No measurements available. L_2 (S_1-S_2 intersection) appears to be ≈ 15° to L_3. Specimen not in place ∴ no meas.

2) RT-2: S_2 120, 40SW, L_3 150, 26SE
Rk shows some wrapping of S_2 about boudinage structures giving appearance of isoclinal folds. Unit heavily altd to clay (phyllosilicates → clays) along many fracture systems showing no offset ∴ along fault surfaces. Altered character of RT2 extends from 285' to 400' along bench. Attn in part due to recrystallizing (?) in part to intrusions between 300' & 400'

3) Meta-diorite dike: f.g., dk green, chloritic rk. carrying veinlets of PbS-ZnS-Cp. Dike bounded on N & S margins by faults striking 95, dipping 80°S. Fol^n in dike Σ 132 Δ 75 SW. This close to S_3. Since dike cuts S_2 & is meta^m, it is post-D_2 & pre-D_3 in age. Sulfides may be remobilized from

Station | Bench: 4170 | Date: 28, June

main Faro orebody. Some of alt^n in rk type 2 may be assoc. w/ this dike

4) Bio. qtz. diorite dike: Rk is f.g., dk'ic w/ bio, plag & qtz? phenos. Bio. in prismatic xls. Unit anmeta^m & bounded by faults as shown on map

5) RT-2: S_2 100, 27SW L_3 147, 20SE
Jts ① 0°, 74°W ② 83°, 53°N

6) Mylonite (RT-2): Mylonite zone ⊥ to S_2 fold axes, in S_2 in mylonite ① 100, 0° ② 130, 0° These ⊥ should be ≈ ⊥ to transport direction during mylonitization. They are same as folds in major mylonite zone @ N end of 4170 & 4135 benches. Axial planes ≈ ⊥ S_2

7) RT-2: S_2 110, 25SW L_3 160, 23SE
Jts ① 170, ⊥ ② 82, 85N ③ 120, 85NE

8) RT-2: S_2 110, 40SW; L_3 160, 36SE
S_1 visible as crenulated older fol^n N dipping discernable planar orientation to S_1 L_2 85°, 10°NW ∴ S_1 Σ ≈ 90° Δ ≈ 50, N

9) RT-2: S_2 102, 32 SW; L_3 145, 27°SE L_4(?) 110, 10°SE S_3 & S_4 could not be found for measurement

10) Well banded, gneissose 2: S_2 108, 33 SW, L_3 165, 26 SE Jts ① NS, ⊥ ② 88, 85 N. Note how leucocratic minerals occ. along fracture surfaces & "migrate" out into bt. rich host // S_2 folia

11) RT-2: S_2 95, 26S L_3 145, 17°SE Leucocratic "calc-silicate" unit lenses in & out in irreg. "reef-like" fashion Origin of unit uncertain. Jts ① 165 77 W ② 87, 82 N, Comp. bdg. // S_2 S_3 142, 83 SW

12) RT-2: S_2 115, 26 SW L_3 165, 24 SE Jts: ① 108, 60 NE ② 8°, 84°E

Station Bench: 4170 Date: 28, June

13) RT-2: S_2 100, 21 SW L_3 152, 20 SE S_3 155, 84 SW Jt: 170, ⊥

14) RT-2: S_2 112, 30 L_3 148, 15 SE Jts: ① 88, 65 N ② 165, ⊥

15) RT-2: S_2 108, 30 SW L_3 160, 26 SE Jt: ① 120, 80 NE

16) RT-2: S_2 110, 20 SW NOTHING ELSE NFG!

17) RT-2: S_2 105, 30 SW L_3 140, 26 SE

18) RT-2: S_2 97, 25 SW L_3 146, 20 SE Axes of crenulation folds in S_2 trend 70° plunge 0-5° SE(W) Axial planes (which do not appear as a meta" fol".) Σ 70-75° Δ 75-80° SE. Nearly impossible to tell whether these folds fold or are folded by L_3 & S_3. Weak evidence ⇒ L_3 deformed by this folding. Jts ① 115, 80 NE ② 12, ⊥ Fold axes // to boudin line in more competent unit

Station: Bench: 1170 Date: 30, June

19) RT-2: Heavily foliated bio schist. Lith. similar to RT-2 (bio-hb schist w/ calc-silicate bands) but more highly folded as shear zones are approached. Does not appear to be major lithological break. S_2 E4, 45S L_3 156, 32SE. S_2 folded by folds (F_4??) w/ axes trending ≈120 plunging ≈25SE & axial planes Σ ≈115 Δ 75SW. These folds c.f. those @ 18. Age uncertain, possibly F_4. Not found in direct assoc. w/ fault or mylonite zones (see below)

20) RT-1: S_2 105, 30SW L_3 160, 20SE. Lith. becoming somewhat more sericitic & in general, more pelitic across shear zone.

19) (cont) At 1065', S_2 isoclinally folded w/ no or v. weak axial planar fol^n developed. Fold axes (Σ ≈ F_4??) trend 86° plunge 14°W axial planes Σ 90 Δ 60°S. These folds assoc. w/ fault just N of 1050'. Crenulation lineation ⊥ fold axes. L_3 could not be seen near fold hinges.

Station: Bench: 4205 Date: 1, July

1) Bio-qtz diorite dike in RT-2: banded bio-amph schist & calc-silicate hornfelsed by unfoliated, porphyritic (bio-qtz-plag) dike. S_2 in RT-2 90, 33SW, L_3 165, 30 SE. Disp. visible in sample, check for Φ assem. in contact outcrop.

2) RT-2: S_2 116, 34SW L_3 145, 30SE. Prominent banding ⊥ S_2. Jts ① 0°, ⊥ ② 120, 70NE

3) RT-2: S_2 128, 34SW L_3 154, 20SE. Jts. ① 0°, ⊥ ② 120, 70NE

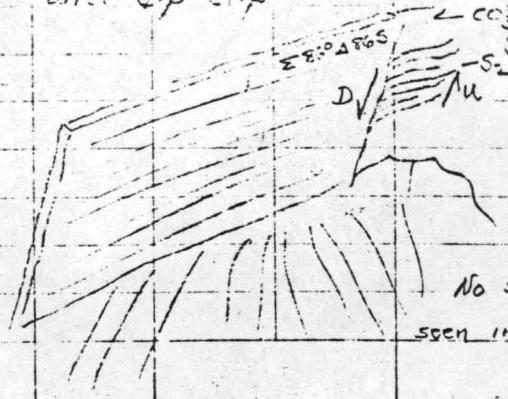
4) RT-2: S_2 118, 32SW L_3 165, 26SE. Jts ① 175, ⊥ ② 85, 65W. Excellent boudinage of bio & qtz rich lenses in RT-2.

Good for photo. No boudin line measurements available

Station: Bench: 4205 Date: 1, July

5) RT-2: S_2 107, 42SW L_3 152, 26SE Microfault Σ 82 Δ 86 S, chlorite(?) filled tension gashes trend 80°, plunge 20°E, slickenslides pitch 60°W in fault plane. Rest S_2 ⇒ NE block downthrown relative to SW block. This fault v. minor. Jt. ① 0°, ⊥

4) $CO_3^=$ filled fault gouge: 2 sets of slickenslides on fault. Fault Σ 86° Δ 86S. Predominant set of slicks pitches 0° in plane of fault, weak set pitches 85°E. S_2 foliation warped ⇒ SW block downthrown. Because of degree of development of "flat" slicks Σ slip movement seems to have occurred after d.p slip



Station: Bench: 4205 Date: 1, July

7) RT-2: S_2 115, 39SW L_3 157, 28SE
Jts ① 155, 75NE ② 130, 75NE

8) RT-2: S_2 114, 39SW, L_3 149, 28SE
Jt. ① 165, ⊥. Rk. faulted & filled w/ vuggy calcite (butterfly). Also some ZnS + Cp in $CO_3^=$ "breccia" fill (see specimens).

9) RT-2: S_2 121, 33°SW L_3 155, 18°SE
Jts: ① 118°, 70NE ② 173, 85E
Many boudins ⊥ S_2. $CO_3^=$ filled fault gouge shows two sets of slickenslides. Most prominent pitches 20°W in fault plane, second " 42°E " "
" . Fault plane Σ 86 Δ 73S
Warped S_2 (slightly) ⇒ SW block is down dropped
Fault immed. to S of this station Σ 68 Δ 85SE. Slicks pitch 18°E in fault plane. $CO_3^=$ partially heals gouge which gets up to 1' in thickness

Station Bench: 4205 Date: 1, July

10) Crinkled chlor. schist in RT-2: S_2 120, 35°SW, L_3 152, 14°SE, L_3 very strong here. S_3 ≈ 155, 78°NE. F_4 folds also crenulate S_2 w/ axes trending 80° plunging 23°W. Axial plane of this fold Σ 84° Δ 88°S Axes of fds ∥ boudin line in unit. Since boudinage structure destroys F_3 folds, F_4 folds w/ attitudes listed above must be later than D_3. Thus D_4 appears to represent renewed extension ∥ the parallel to S_2 generating some boudinage structures & F_4 folds which cut, fold and/or obliterate D_3 structures

Jts ① 0°, ⊥.

F_4? AH 505', F_4 folds axial plane Σ 53 Δ 50°S Fold axes trend 40 plunge 35°

Note: No axial planar fol'n to F_4 folds. Axial planar fol'n beginning to devel. in F_3 folds

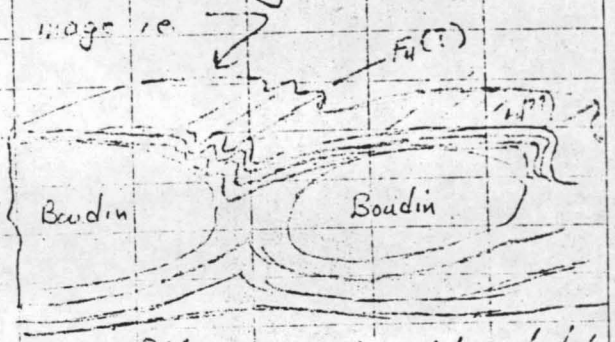
11) Crinkled chlor. schist in RT-2: S_2 90, 3°S L_3 0°, 31S. L_3 very strongly devel S_3 ≈ 180, 85°W) & well devel as incipient crenulation fol'n to F_4 folds

Station Bench: 4205 Date: 1, July

12) RT-2: S_2 102, 34SW L_3 162, 30SE

Jts: ① 10, 80°E

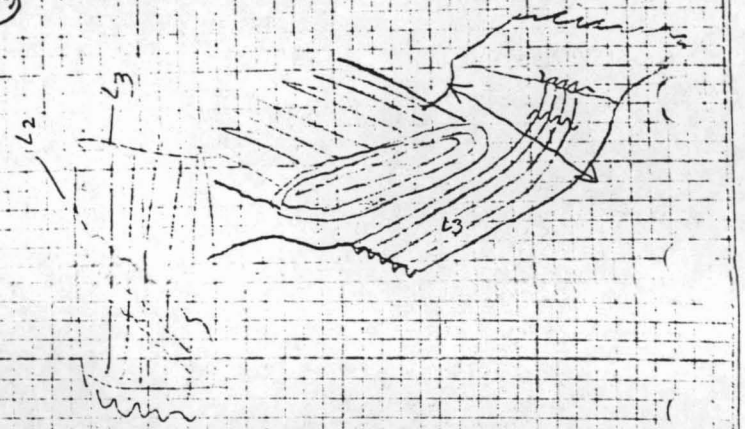
13) RT-2: S_2 108, 30SW L_3 165, 25SE Some F_4(?) folds present, axes trend 112 plunge ≈ 0° Axial planes Σ ≈ 112 Δ 75°S. Axes ∥ L_4 lineation (?). When specimen dug out, folds (F_4) are formed only in areas of boudinage ie



These folds may ∴ be solely related to boudinage which is either D_2 or D_4 in age.

14) RT-2: Boudin line 105, horiz.

15) RT-1/2: S_2 112, 34SW L_3 154, 24SE



S1 142, 63°W
F2 083, 11° SW
L3 144, 35° SE
L4 91, 0°

[illegible] 107, 7°NW L3 [illegible]
L3 175, 30°S
S2 115, 39°SW
S3 175, 60°W to ⊥

L3 163, 25°SE
[illegible] 108, 10°NW
S2 119, 42°SW
S3 147, 80°NE

Station [illegible] Bench : 11240 Date : 2 July

1) RT-2 : S_2 138, 35°SW L_3 152, 18°SE
Jts : ① 45, ⊥ ② 145, 60NE
Rk typical bio.-amph. schist/gneiss ξ banded calc silicate rk. showing typical boudinage of competant bio. rich layers (see specimen)

2) RT-2 : S_2 108, 42SW, L_3 163, 35SE
Jts : ① 108, 85N ② 55, ⊥

3) RT-2 : Unit shows boudinaging of more competant horizons in more phyllitic bands. Series of readings taken as occ. important

S_1 142, 63SW, cut by S_2 103, 40SW
S_1 shows variety of attitudes as it is cut by S_2 ξ folded by F_3 folds. L_3 144, 35SE, L_4 (bio. kink bands) 56, 0°

Data around boudins shows L_3 to be warped around boudin lines implying post-D_3 boudinage along S_2

First boudin : Boudin line 107, 7°W, L_3 175, 30S, S_2 115, 39SW, S_3 175, 60W to ⊥
L_3 strongly wrapped around boudin line

Second boudin : Boudin line 108, 10NW
L_3 163, 25SE, S_2 119, 42SW, S_3 147, 80NE
L_3 weakly wrapped around boudin line

(21)

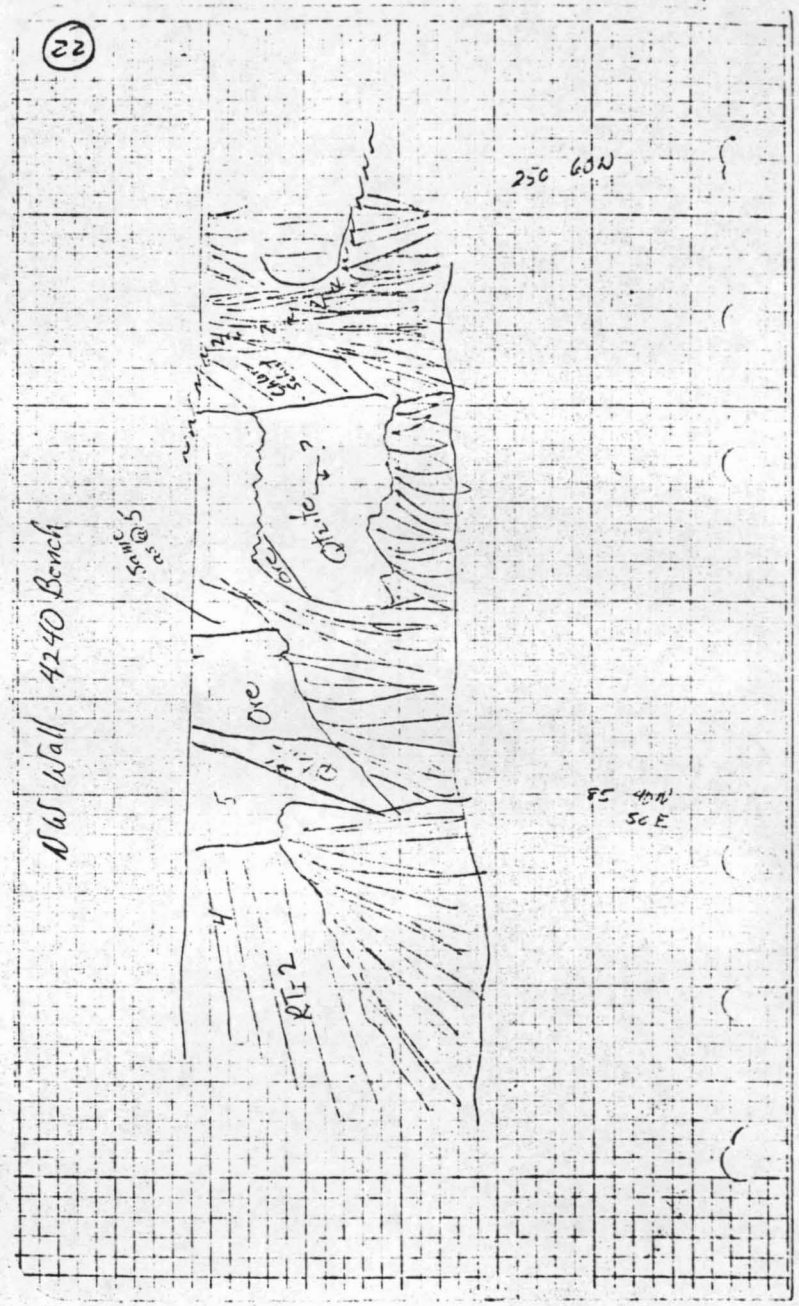
Station Bench: 4240 Date: 2, July

4) RT-2: S_2 110, 33 SW, L_3 152, 24SE
Rk. is f.g., banded bio.-rich phyllite
probably best grouped under RT-2
Fold axes (F_5) assoc. w/ fault trend
145° plunge 10°SW. Axial plane Σ 45° Δ 80NW

Jts: ① 33, ⊥ ② 150, 85 NE

5) RT-2: S_2 65, 38SE L_3 145, 38SE
S_2 folded by several sm. F_4/F_5 folds
whose axes trend 40 plunge 42 SW
Axial planes Σ 57 Δ 57°SE
Jts ① 104, 65 N ② 10, ⊥ ③ 145, 7 NE
These folds c.f. those ②#10 on 4205
bench & not similar to those in & about
"mylonite" zones i.e. this may be F_5
fold. A crenulation lineation in S_2
IIs fold axes

(22)



Station — Bench : 4240 — Date : 2. July

6) RT-1 : S_2, 255, 23SW. Rk heavily weathered

7) RT-1 : F_4 (?) axis 255°, 25° NW

Check RT across this outcrop

8) RT-1 : Lts ① 250, 60 N ② 355, 55E

9) RT-1 : S_2 250, 55SW L_3 305, 53 SE

13) RT-1 : S_2 250, 25SW L_3 305, 25SE

11) RT-1 : S_2 85, 38S

Rk shows strong hematitic staining from 135°

7, July

J. Heslop ↓

3) RT-2 w/ chlor. schist lenses : F_4 (?) fold axes trend 102 plunge 5°NW Axial planes Σ 104 Δ 78°SW. Possibly metam fol^n axial planar

9) RT 3 overlying chlor schist in fault contact w/ f.g. bio-ser. schist. S_2 in qtzite & chlor. schist subhoriz. S_2 in schists W of fault Σ 145 Δ 80SW. Fault Σ 105 Δ 85°S Slicks on fault pitch 0° in plane of fault

10) RT-3 in fault contact w/ chlor-ser schist S_2 in chlor. ser schist Σ 110 Δ 47SW Fault Σ 63° Δ 62°N Slicks poorly in fault plane Banding in qtzite horizontal

Station — Benches : 4135/4240 — Date : 8. July

1) RT-3 : Fault 275, 67S Two sets of slickenslides ① pitches 10° SE ② pitches 14° W in plane of fault. ② appears younger

2) RT-3 : Fault Σ 75° Δ ⊥ Slicks pitch 10° E in 1st plane of fault

3) RT-3 : Fault, Σ 52° Δ 71°SE, slicks pitch ⊥ in fault plane. Second more strongly devel. fault, 1st Σ 65° Δ 80°S, slicks pitch 10° E in plane of fault Slicks pitching to E are cut by 3rd set of slicks pitching 20° W. Both these obliterated by fault set striking 52° showing dip slip. Sequence then

① E pitching oblique slip

② W " " "

③ Dip slip

Station Bench : 4100 Date : 19, July

1) RT-2 : Fault 6" gouge Σ 155 Δ 86°NE
S_2 102, 28 SW L_3 165, 24 S

2) RT-2 : S_2 105, 24 SW L_3 158, 17 SE
Jts ① 160, 85 E ② 10, 80 E

3) RT-2 : S_2 103, 23 SW L_3 163, 21 SE
Jts : ① 175, 85 E ② 20, ⊥

4) RT-2 : Well banded calc-silicate gneiss & bio. schist. Well devel. boudinage structure of more competant bio. schist in calc-silicate matrix. Boudin line trends 68° plunges 25° SW
S_2 107, 24 SW L_3 165, 22 SE
Jt 165, ⊥. Check Φ assem. in specimens (one of calc. silicate, one of bio schist

5) RT-2 : S_2 110, 17 SW no L_3
Fault w/ 1' gouge Σ 170 Δ ⊥
& links up w/ 40-60° dipping fault to S
Jts ① 170, ⊥ ② 102, 75 NE

6) RT-2 : S_2 117, 28 SW L_3 163, 24 SE

7) RT-2 : S_2 120, 20 SW L_3 160, 19 SE

8) RT-2 : S_2 105, 39 SW L_3 140, 28 SE
S_3 ≈ 140, 70 NE
Jt. ① 65, 65 NE

9) RT-2 : S_2 85, 37 S L_3 165, 37 SE
Rdg. taken in gently warped strata
Qtz. filled tension gashes Σ 85
Δ 55° NS. These should be normal to D_4 movement direction

10) RT-2 : S_2 125, 22 SW L_3 180, 18 S
Jts ① 138, 75 NE ② 25, 85 SE

11) RT-2 : S_2 107, 24 SW L_3 155, 22 SE
Jt. 160, 80 NE

12) RT-2 : S_2 110, 50 SW No L_3
Jt. ① 145, 65 NE

13) RT-2 : S_2 110, 35° SW L_3 170, 28 SE
Boudin line in S_2 trend 57° plunge 21 SW

Station: Bench: 4100 Date: 20 July

14) RT-2 : S_2 105, 40SW L_3 145, 32SE

15) RT-2 : S_2 104, 36SW L_3 163, 31SE
Rk. very f.g. bio. schist band in RT-2 sequence. Check spec. for ϕ assem. St. ① 155, 60NE. S_1 present, but not measureable. ϕ assem in hand spec. : and-bio-chlor-py

16) RT-2 : S_2 105, 15SW No L_3 in place
Check ϕ assem. for feathery mineral staur/clinoamph ??

17) RT-2 : (Bio-staur.-musc. schist)
S_2 110, 25°SW

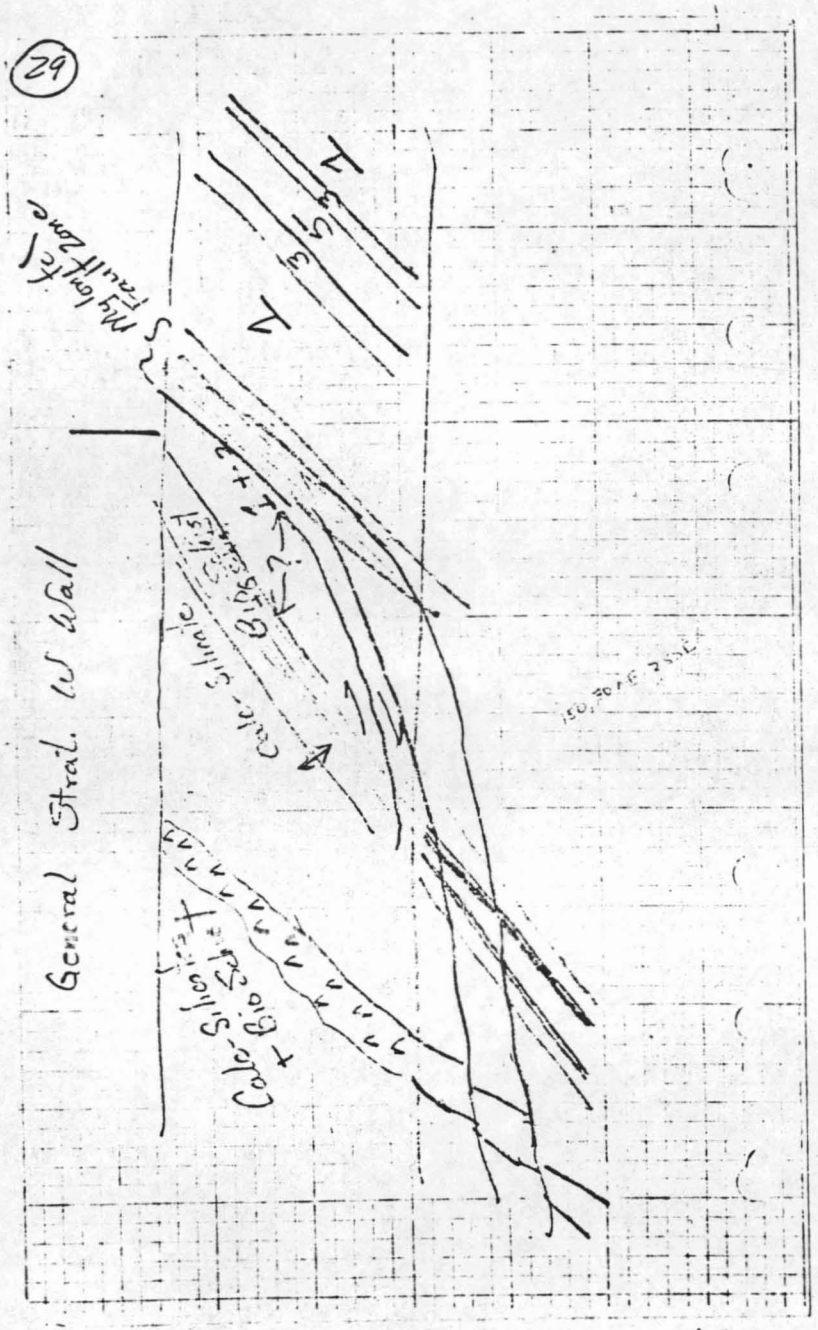
18) RT-2 : (Bio-staur schist + graph. schist)
S_2 100, 15SW
Jts ① 170, ⊥ ② 78, 68NW

19) RT-2 : (Bio-staur schist) S_2 100, 38SW
L_3 170, 32SE Jt. 165, 85NE

20) RT-2 : (Bio schist) Fold axes (F_4/F_5) Trend 68 plunge 20SW Axial plane Σ = 70 Δ 65SE

21) RT-2 : S_2 100, 10SW Jt 141, 70NE
No other info due to inavailability of S_2 surface exposure

22) RT-1 : S_2 90, 32S L_3 155, 20SE



Station Bench : 4065 Date : 20 July

1) RT-2 : S_2 135, 24SW L_3 195, 15S
Vts ① 100, ⊥ ② 170, 75E

2) RT-2 : S_2 121, 29SW L_3 153, 24SE
Vts ① 185, 62E ② 75, 75NW
Boudin line trend 53, plunge 28SW
in S_2 Uncertain whether this formed during D_2 or D_4 Probably the latter

3) RT-2 : S_2 106, 26SW L_3 poorly devel
Fault to N of station Σ150 Δ 70NE
Sticks in CO_3 gouge pitch 28°SE in plane of fault

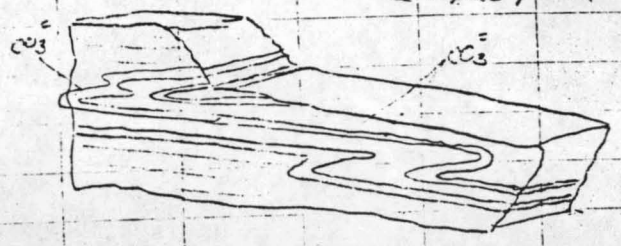
4) RT-2 : S_2 128, 18°SW L_3 not devel
CO_3 laminae show tight recliinal folds

No attitudes measurable Vt 170, 85E

5) RT-2 : S_2 105, 35SW L_3 not devel
Vts ① 185, ⊥ ② 90, 75N

6) RT-2 : S_2 107, 40SW L_3 153, 34SE
Vt : 155, 80E S_3 153, 78SW
Check spec for S_3 meta^m fol^n

Isoclinal folds of unknown generation (F_2??) seen in float but not in place. Spec. taken. Excellent example shown below



7) RT-2: S_2 Sub horizontal No L_3
Hs: ① 100, 80N ② 0° ⊥

8) RT-2: S_2 114, 28SW
Hs ① 90, 75S ② 170, 80E
L_3 not seen because bench steep & few S_2 surfaces exposed. Those exposed are in calc-silicate where L_3 does not develop

9) RT-2 showing $CO_3^=$+Cp fracture fillings These fracs. Σ 85° Δ 68°N & are ≈⊥ to S_2 & plane of thrusting i.e. these are en-echelon CO_3 filled tension fractures into which Cp has been re-mobilized. S_2 125, 28SW L_3 165, 24SE

10) RT-2: S_2 125, 22SW L_3 170, 10SE
St. 145, 62 NE

11) RT-2 to amphibolite (may be $CO_3^=$-pelite mixture) S_2 125, 22SW
Nothing else. Check Φ assem. & bulk comp
10°N: S_2 110, 14SW L_3 165, 10SE

12) RT-2: S_2 125, 28SW L_3 unobtainable

13) RT-2 (Bio-staurschist) S_2 113, 22SW
L_3 142, 12SE Hs ① 165, 77NE
F_3 fold axes trend 142 plunge 12SE
F_3 axial planes Σ 142 Δ ⊥

14) RT-2 (Bio schist) S_2 125, 30SW
L_3 170, 24S Boudin lines in S_2 trend 95 plunge 17°W S_2 folded about this axis

Age of boudinage either D_2 or D_3?
Check Φ assem. in spec.

15) RT-2 (Bio schist) S_2 95 Δ 26S
L_3 143, 24SE
Jts ① 0° 80E ② 150, 70NE

16) RT-2, bio schist w/ graphitic interbands
S_2 113, 38SW S_2 // graphitic bands L_3 not available

17) RT-2, bio schist: S_2 125, 26SW
F_2/F_4 folds trend 75 plunge 14°W
Exposure does not allow determination of relations of these folds to L_3 & D_3 structures

18) RT-2, bio & graph. schist: S_2 117, 35SW
L_3 142, 24SE Jts ① 0, ⊥
② 125, 75NE Check Φ assem. in spec!

19) RT-2 bio schist: S_2 90, 25S
Jt. 130, ⊥ Poor oep

20) RT-1 (Qtz-musc schist): S_2 107, 40SW
L_3 not available Oep in rough shape! Check spec for Φ assem.

Station Ranch ≈ 4080 Date: 27 July

1) RT-2: S_2 117, 31SW L_3 160, 32SE
Jts: ① 160, 20NE ② 90, 77N
At 25' from this station L_3 170, 20S
S_3 170, 70W

2) RT-2: S_2 128, 38 F_4/F_5 fold axis 70, 26SW axial plane 70, ⊥

3) RT-2: S_2 135, 30SW L_3 170, 19SE
Jts: ① 84, 75N ② 135, 73NE
RT-2: S_2 100, 30SW No L_3
Jts ① 110, 80NE ② 175, 75E

4) RT-2: S_2 115, 30SW
Jt ① 125, 57NE

5) RT-2: (Bio schist) S_2 117, 18SW
L_3 170, 15SE Jt 170, 80E

6) RT-2: Bio schist S_2 95, 25SW

7) RT-2 / w/ RT-4: S_2 95, 17S
F_2/F_4 folds: axis 95, 10W; axial plane 95, 70S L_3 lineation not seen

8) RT-2: Calcific bio schist + graphitic schist
S_2 95, 37SW Jts ① 97, 62E

9) RT-2: Calcitic phyllite (meta? andesitic tuff??) S_2 100, 27SW
Jts ① 100, 80N ② 175, 80E L_3 not devel.

Station | Bench: 4030 | Date: 27, July

10) RT-1: S_2 100, 48SW. Muscovite schist heavily folded by F_2/F_3 folds axis 100, 5°W axial plane 100, 70S. Vts ① 143, 52NE ② 75, 85NW

11) RT-1: Folded into broad F_2/F_3 fold w/ 5' amplitude, 10' λ. Many parasitic (fairly open, concentric) folds on limbs & crest. Axes trend ≈100, plunge 5-10°W. Axial planes Σ = 100 Δ 70-80 S. These folds define geom. of lger. struct.

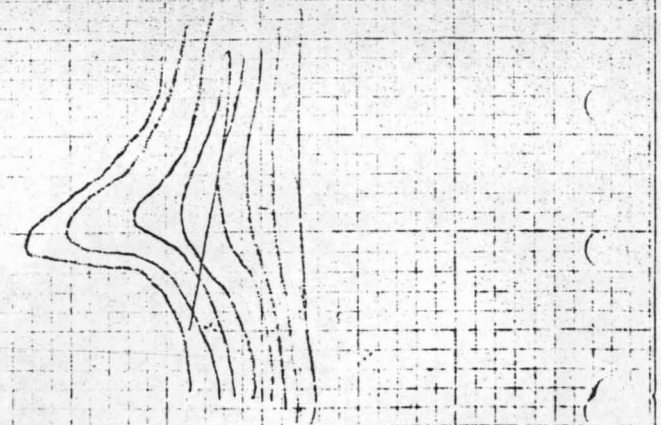
D_5 - Faulting & associated folding (open)

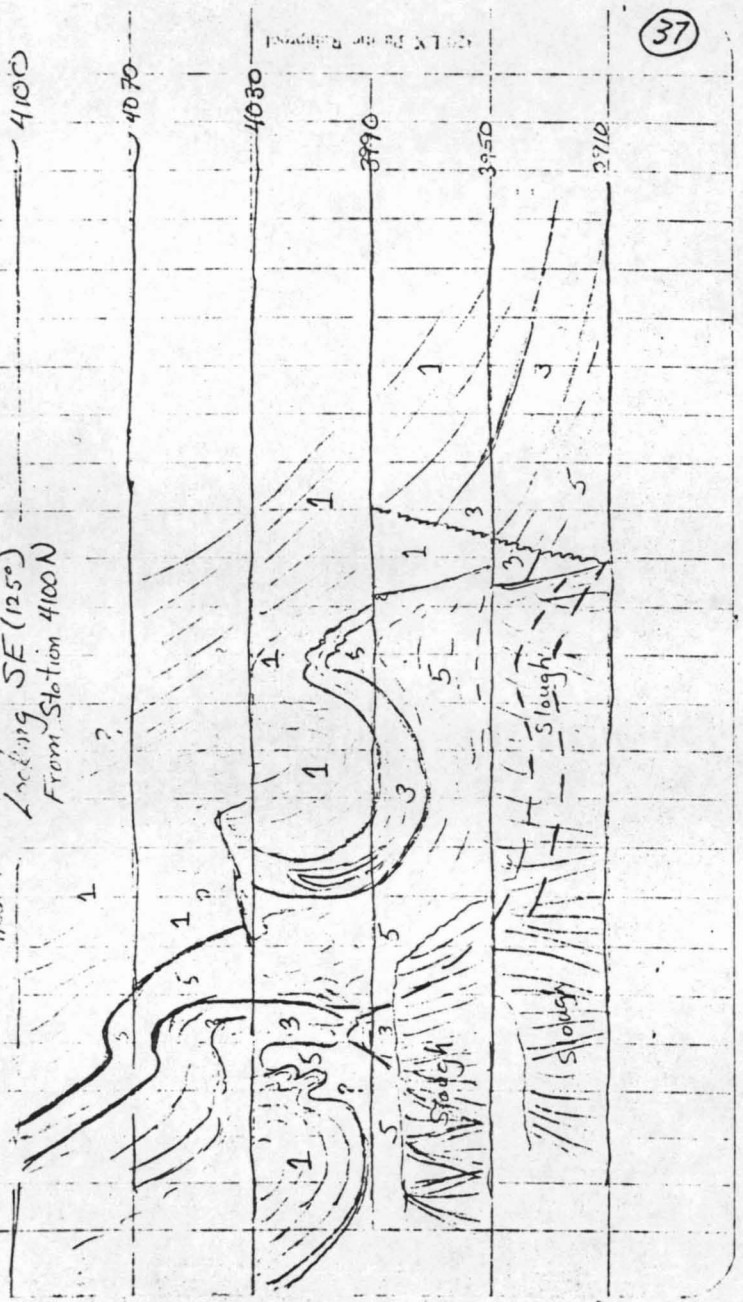
D_4 - Movement along S_2 folding or warping L_3 (crest. of kink folds)

D_3 - Development of crenulation folds trending 150± plunging 20°±SE in S_2

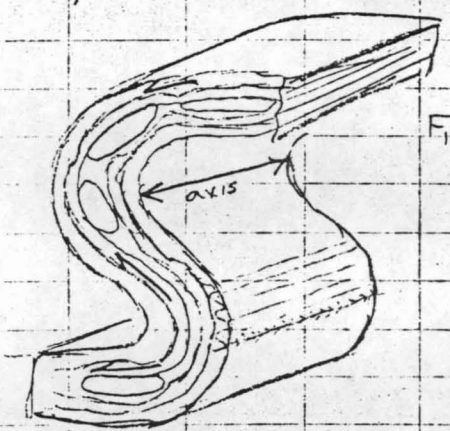
D_2 - Development of S_2 either as axial planar foln in F_1 folds during waning of D_1 event or as distinct later event. Folds in S_2 due either to contemporaneous folding during D_2 or later folding during D_4

D_1 - Development of S_1 & F_1 folds





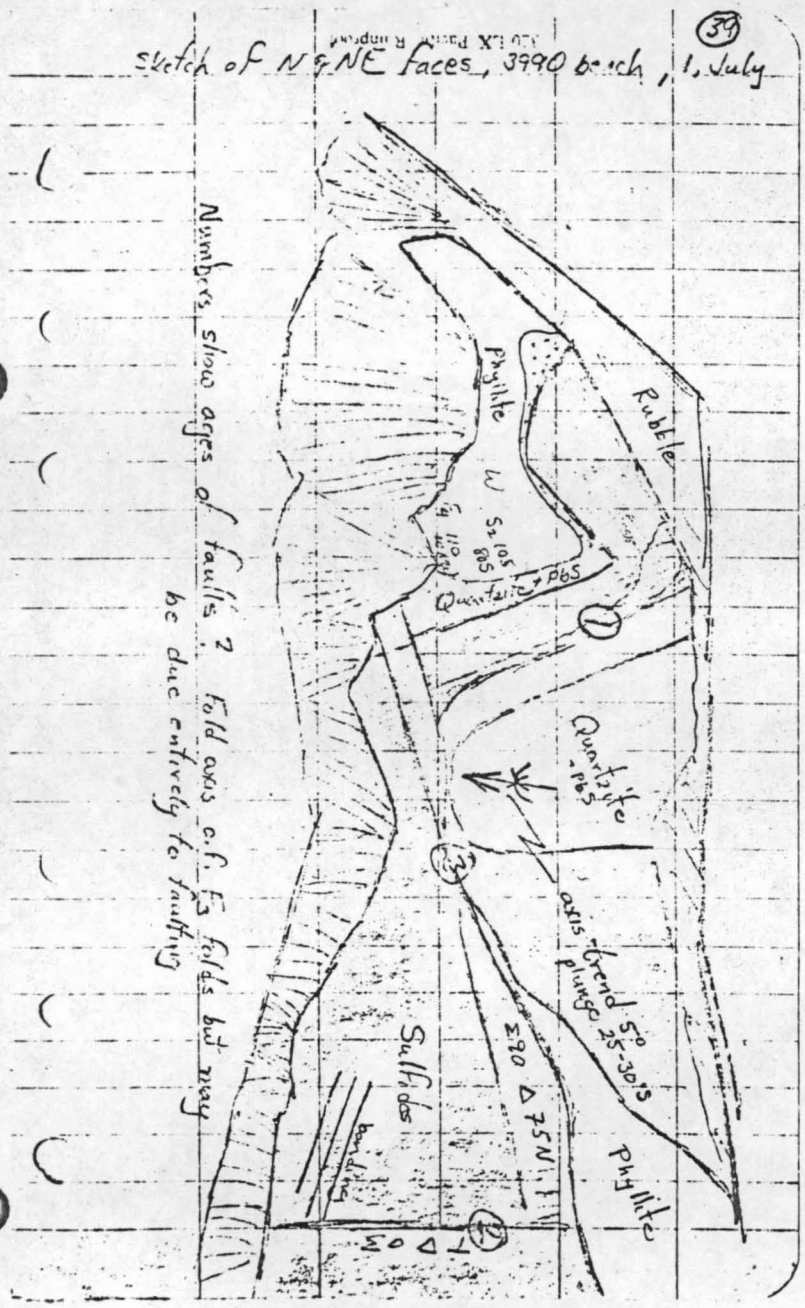
D_1: First foliation, S_1, develops // to S_0 either by orientation of D_1 stress field or by transposition of S_0 // to S_1 S_0 folded actively along developing S_1 surfaces as indicated by boudinaging of competant units



Since some active transport on S_1 (which for either of above alternatives is // S_0) crenulation lineations or crinkle folds may develop // to F_1 fold axes. As deformation

(39)

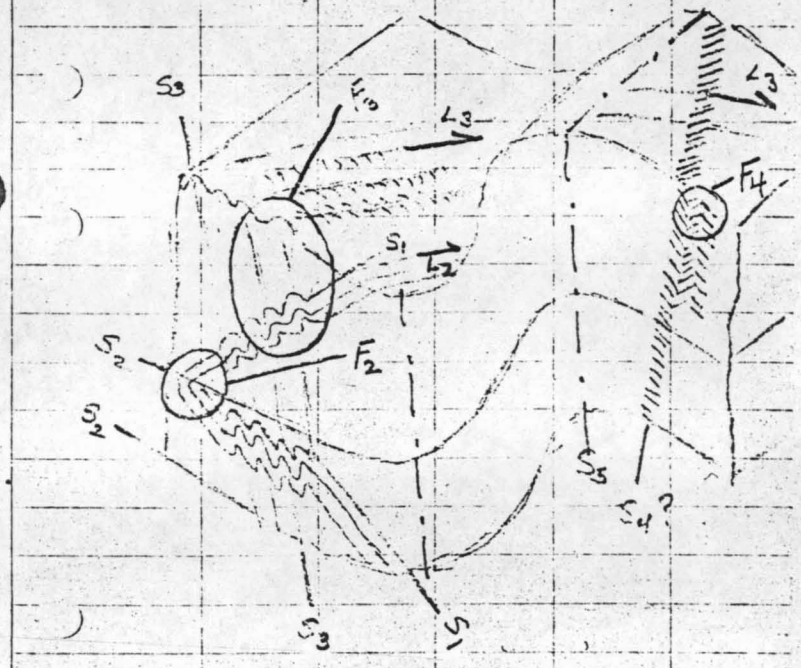
Sketch of N & NE faces, 3990 bench, 1, July



Numbers, slope angles of faults. 2 fold axes c.f. F3 folds but may be due entirely to faulting

(40)

Rock Geometry 25, June, 1971



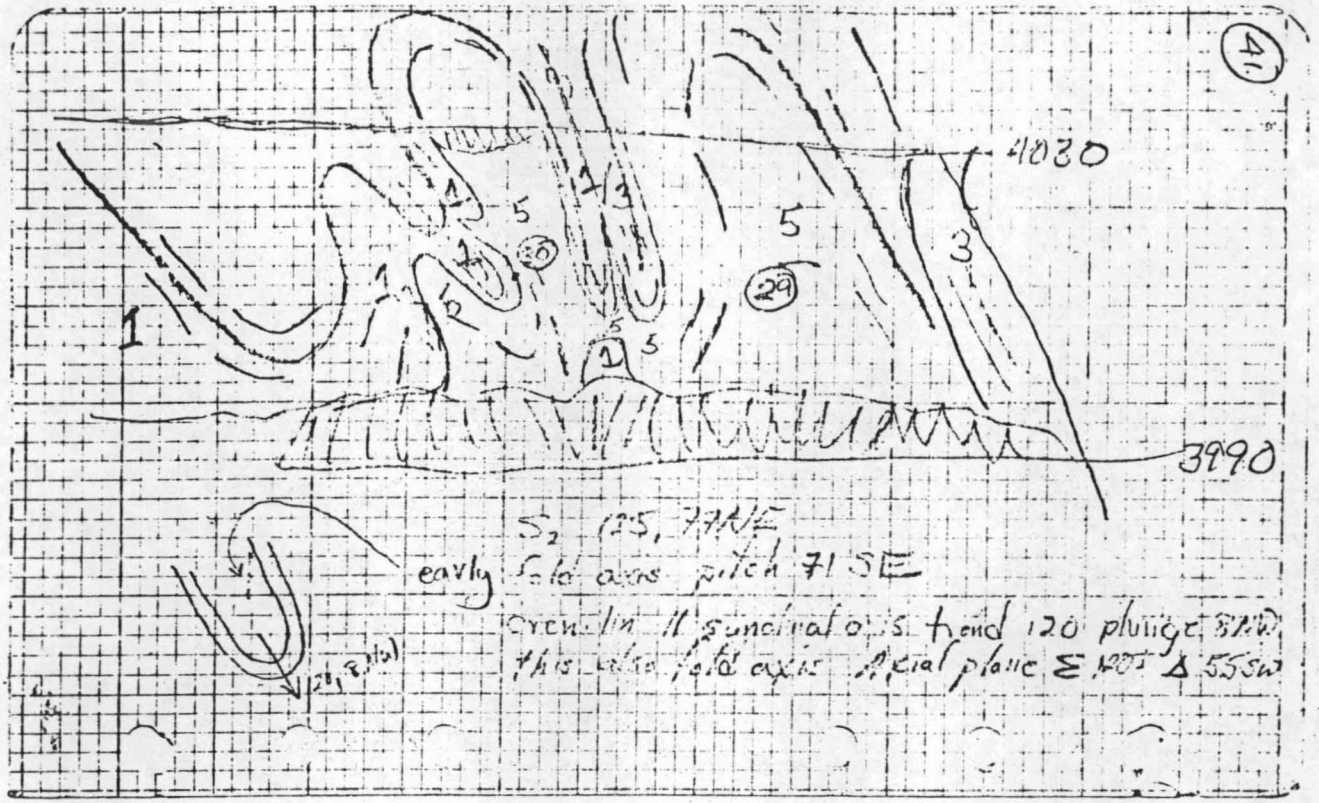
D_1 - S_1 - F_1 (folded S_0) - L_0 - L_1 (transport)

D_2 - S_2 - F_2 (folded S_1) - L_2 (S_1-S_2)

D_3 - S_3 - F_3 (folded S_2) - L_3 (S_2-S_3)

D_4 - S_4 - F_4 (folded S_2-S_3)

D_5 - S_5 - F_5 (folded S_2 etc)


41
4030
3990
1
5
3
29
S2 125, 77NE
early fold axes pitch 71 SE
crenulin II sundial 015 trend 120 plunge 57NW
this later fold axis Axial plane E 120° Δ 55SW