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August 2, 1999

Mr. Randall B. Vance
Senior Geologist
Newmont Gold Company
861 West 6th Street
Winnemucca, Nevada 89445

RE: Field Notebook - Rosebud (Degerstrom) exploration

Dear Randy:

Sorry for the delay in sending you my fieldbook. I don't think it was desperately needed, but here it is for your files. Hope the drilling is producing results for Rosebud. Thanks for the golf sign up for the Elko gathering. Don't know whether I can make it or not.

I'll give you a call soon to touch bases on your drilling at Degerstrom. Should be interesting.

Regards,

Craig A. Stiles

MEASUREMENT CONVERSIONS

IF YOU KNOW	MULTIPLY BY	TO FIND
LENGTH		
inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
meters	1.093	yards
kilometers	0.621	miles
WEIGHT		
ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds
VOLUME		
fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
liters	0.264	gallons (U.S.)
TEMPERATURE		
°C = (°F - 32) x .555		
°F = (°C x 1.8) + 32		

Inches	Decimals of foot	Milli-meters
1/16	.0052	1.5875
1/8	.0104	3.1750
3/16	.0156	4.7625
1/4	.0208	6.3500
5/16	.0260	7.9350
3/8	.0313	9.5250
1/2	.0417	12.700
5/8	.0521	15.875
3/4	.0625	19.050
7/8	.0729	22.225
1"	.0833	25.400
2"	.1667	50.800
3"	.2500	76.200
4"	.3333	101.60
5"	.4167	127.00
6"	.5000	152.40
7"	.5833	177.80
8"	.6667	203.20
9"	.7500	228.60
10"	.8333	254.00
11"	.9167	279.40
1 foot	1.0000	304.80

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"Rite in the Rain" - a unique all-weather writing surface created to shed water and to enhance the written image. Makes it possible to write sharp, legible field data in any kind of weather.

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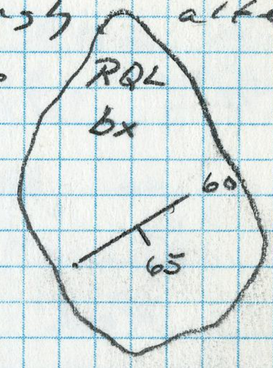
CONTENTS

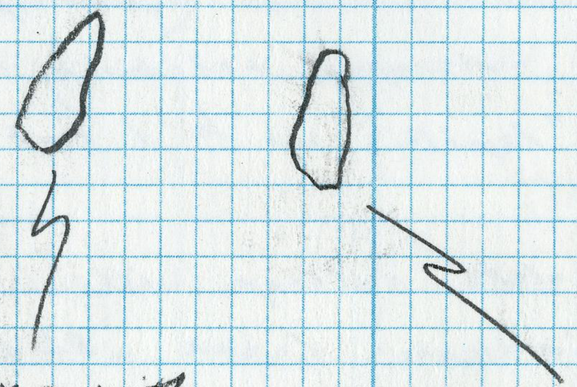
PAGE	REFERENCE	DATE

May 8, 1999 Degeneration Prospect Area

C1 - observation station "H"
3 outcrops of upper grn "H" unit.

RQL bx - monolithic? med. purple to white where strongly altered.
Frags up to 10".
Generally mod. altn. to stg. clays.





RQL bx - with ave frag size smaller than others at ave. 1/8" to 1/4" with very siliceous matrix.

RQL bx - Siner (smaller) frags ave 1/2" to 1". Clays still strong to mod.

Also clearly visible sanidine and qz.

C2 - "H" bx showing remarkable similarity to previous RQL bx, incl. presence of sanidine + qz.
Main difference is apparent green color vs purple and with frags of varying composition vs. monolithic in RQL.

(Note: Could grn "H" be "Bud")

C3 - Grn "lit" bx beds

N30°E 60° SE dip on grn "lit" bx beds.
multi-lithic tuff bx with siliceous matrix
and qz and sanidine phenos in matrix.

C4 - N40°E 50° SE Good bedding
on grn "lit" tuff. Outcrop forms
"finned" outcrops, relatively resistant.
Rock "lapilli" up to 1 foot in diam.

C5 - Chocolate outcrop within strike of
"lit" indicates local offset.
Chocolate is altered from frax
controlled to pervasive ? qz - adularia?
locally along frax or offset.
(see samples C5 A-B-C)

C6 - Large o.c. of variably altered
chocolat controlled by N60°W,
vert. fracture set. Also N20E, vert to SE
Apparent bedding in dk. brn
unaltered outcrop is E-W, 45° S.
Another joint set related to alt'n
is N40W, 80° NE.
Platey cleavage developing along N10E, vert.

C7 - RQL breccia as in C1 with 1/8" to
1" frags altered in a very siliceous
matrix. frax in frags are filled
w. silica.
Occassional sanidine in matrix.

C8 - Very strongly clay altd RQL. mottly
white, hem. red & pink, ± jarosite?
along frax.
Flow banding - N60E, 45 SE

May 8, 1999 Degeasthom Prospect (C. Stiles)

C9 - Road cut exposes green ash-flow tuff unit (Ht). moderately clay altered. Abundant glassy fragments in this 50-foot section. Frags to 1 inch size. Moderately compacted "Fiammes" (dk. grn.). Abundant biotite this section, very fresh looking. No observed qz or sanidine this section.

Bedding poor but discernable at N75°E 35 SE

C10 - Continuation of grn tuff for 68' along rd. cut. Varying from upward Grades from crystal-lithic to vitric to crystal-vitric (str-mod. welding), to clay gouge mixed grn + red tuff (crystal-vitric), to pink-red, finely flow banded crystal-vitric tuff. (Generally finer frags upward).

Bedding - N70°E, 40° SE in grn zone as above in adj. pink-red tuff.

(crystal-vitric) Pink, finely flow-banded, qz-rich, tuff

(crystal-vitric?) Clay gouge mixed red + grn tuff?

(crystal-vitric) m-d. welded with abun. qz.

(crystal-vitric) Strongly welded ash-flow tuff (abun. qz abundant

(vitric) grn, devitreous / glassy zone

(crystal-lithic) biotite rich, mod. compacted ash flow 1/4" frags

C10 - (continued)

68'-122' pink-white tuff, crystal-vitric, wk to mod. welding

N70E 40 SE mod to strong clay altd.

Crystals - biotite + qz dominant

122-172' Covered

172' C11 - transition zone - apparent siliceous matrix bx with 1/8" to 1/4" fragments generally similar in composition

mod. C/cy altered here. No qz phenos seen here.

Very similar to C1 - RQL bx w/siliceous matrix, although didn't see the qz.

C11 (continued) contact with RQL, mod. to strong clay altn. Mottly depending on degree of altn. Varies from white to purple. Visible large sanidine crystals. Bedding indescernable here. Also MMB's clearly visible.

★ PIMA Sample

(C12) - Upper rd-cut. Essentially same sequence as lower rd. Covered in places but as follows: Green sequence - -

(crystal. vitric) strong flow-banded, pink to red abun. qz-biot.

(crystal vitric) densely welded, abun.-qz., spherulitic

(crystal vitric) densely welded, mod. compacted, weaker fiamme

(crystal-vitric) densely welded, qz-rich, strong fiamme texture dk. grn. (qz-sanidine rich)

crystal-lithic + glass shards densely welded tuff, wk. compacted, grn.

(crystal-lithic) densely welded tuff w/ coarse frags in siliceous matrix

Bedding: N65°E, 40° SE
(on top unit)

★ PIMA Sample

(C13) - Transition sequence
Siliceous matrix, perhaps flow-banded rhy. or near contact with RQL. Abundant qz.

Same as C1 and C11.

Grades upward into very strongly clay altered variety which grades upward into RQL, although have only

(purple-gray)

seen sanidine w/o qz. Typical though of what is currently being called RQL. Also has abund. MMB's.

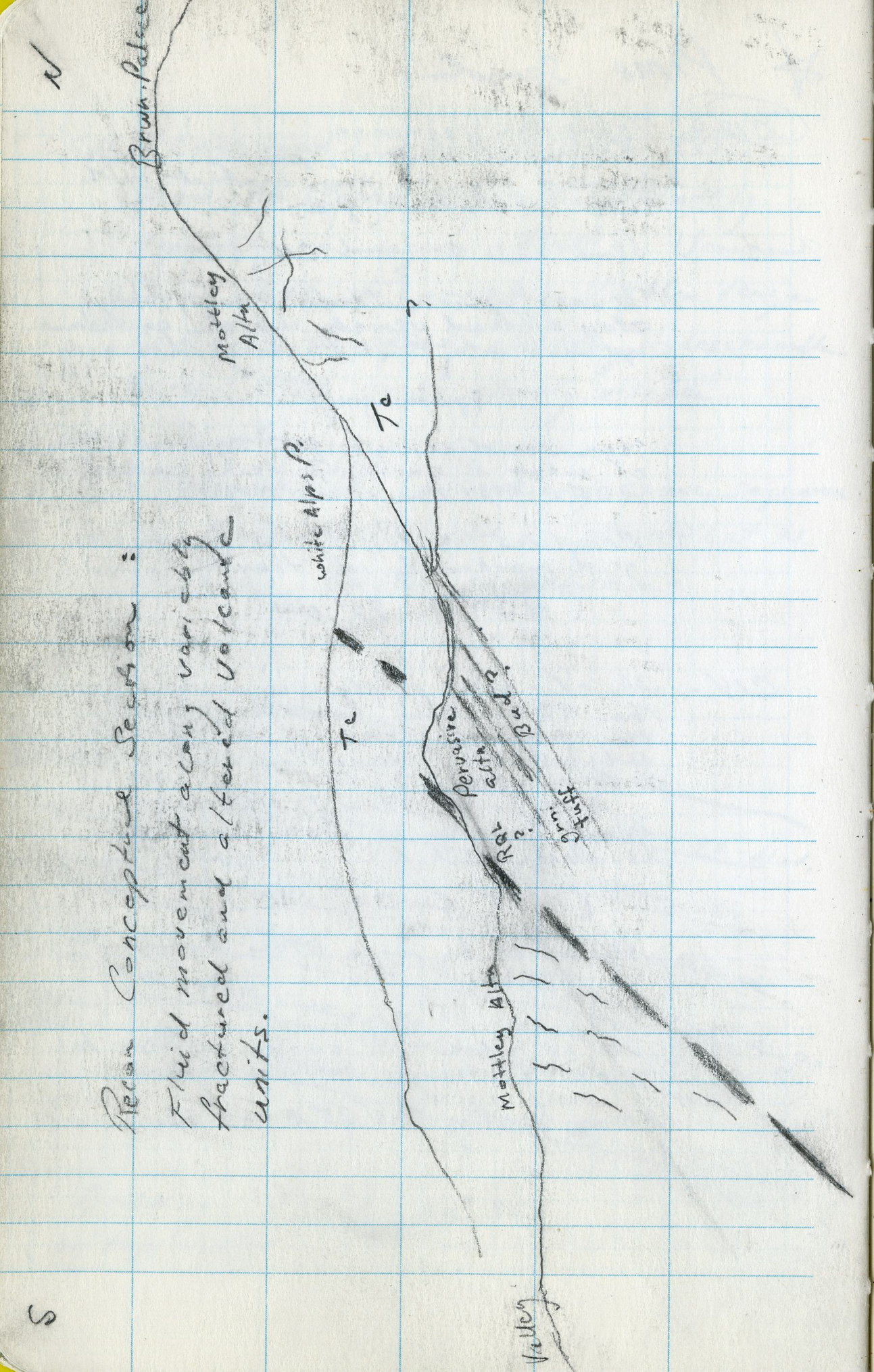
Fractures in RQL near geophysics grid marker by rd. trends:
(N30°E, 70° NW)

C14 - Dk. rd.-brn. porphyritic marker in the RQL. Abun. sanidine phenos, very rare qz phenos in an aphanitic gr'bndmass. Strong flow banding coalesces to form color.
Dike? or flow? Appears to have bedding or flow banding as follows:
(N55°E 30° SE)

Could it be mega flow banding? in RQL.

C15 - Dk. rd.-brn. as above. Also has "Popcorn" weathered surface texture.

Flow-banding: N35E 40°SE



N60W vert. N10E vert N50W vert. N50E 35 SE NISE vert. N15W vert. to SW N10E to NW

C16 - Large outcrop area directly east of main silicified fault zone. Mottly purple-gray to cream colored RQL. Sanidine and qz phenos in aphanitic groundmass. Reasonably well flow-banded. "Popcorn" weathered surfaces.

Mottling due to alt'n along major joint sets in the following measured directions:

N60W, vert. N50W, vert. N15E, vert
N10E, vert. N10E, 70 NW N15W, vert. to SW

Flow banding: N50E 35 SE

C17 - Silicified fault zone cutting RQL on east side of fault, apparently in FW.

Slickensides on silicified side & RQL on other is oriented: N20W 50 SW

General Strike of silicified rib farthest east is: N10W, steeply & variably dipping to SW.

N-S, 65° W at prospect cut 75' north of E-W geophys. line.

May 10, 1959 Rosebud Mine - Degerstrom Prop.

C18 - Tc-rich hillside. Scattered oc of Tc, variably altered to clays + qz- + pink mineral along joints + frax.

☆ PIMA

(C19) - Silicified fault breccia. Silicified fragments of ? (too far gone to tell) Mod. hem + lim. clay frax. Minor dissem. pyrite. Very strong silicification. Apparent trend to strongest silicification on lower half is N-S, 35° W. Upper half of oc appears to be offset or bent along an E-W strike dipping ± 60° south and a rake on slickensides of about 20° W. Upper half generally trends N40W dipping variably to west about 40°.

5 found numerous flow-banded qz-eye rhyolite ?

C20 - fault breccia outcrop: contains recognizable fragments of qz eye, flow-banded, rhy? pinkish, which strongly resembles the upper portion transition between the grn tuff (lft)

and the RQL above. Post silicification movement (slickensides) are oriented:

N40°W - N60°W, both dipping 35° SW

Difficult to determine rake, but would say that slicks are 45° W to dip direction

C21 - Inclined shaft (to west) along fault plane which is oriented

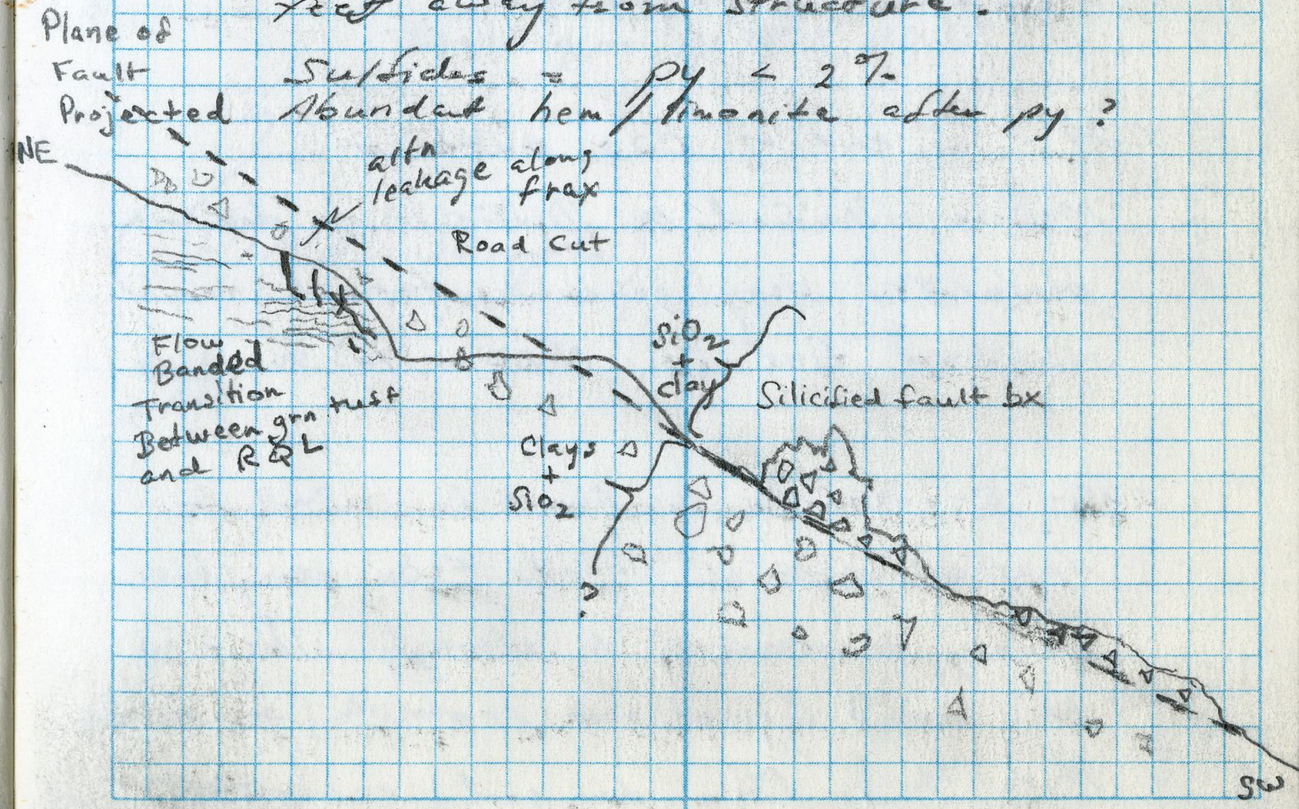
N20°W, 40 SW

Fault zone consists of a central, massive qz + qz bx, grading to FW of qz bx with mixed clays, to clay dominant deeper into FW.

Central massive qz zone varies from a few inches to ___ feet wide.

Clay zone grades outward into mottly RQL in FW, caused by leakage along joints + frax, up to ___ feet away from structure.

Sulfides = py < 2%. Abundant hem/limonite after py?



Strong Sil-Ox

C22 - Fault zone undulates from N15°W to N30°W and dips vary from 35° to 50° to the SW. Have to check geochem sampling in this area. Lots of places to sample.

Sil-Ox clays
Mod. silicif.

C23 - N70°E Cross-cut Adit into silicified structure. Dump is mostly argillized material and not strongly silicified portions of structure. Can't really tell the protolith, although RQL transitional contact is suspected.

Strong Silicif

C24 - S. end of C20 outcrop. Massive silicified bx. Difficult to discern protolith. Very general trend on silicified "fins" is N20W 40° SW.

C25 - Crackle bx to fault bx. Still in faulted material. Abund. FeOx along frax. Locally moderately to strongly silicified. Still haven't figured out protolith, or extrusive. Protolith is flow-banded, reminiscent of either Tc or RQL. No qz so far. A little sanidine. Definite MMB's.

Alt'n: Mod. Silicif. mod. clays

Silicified structures in outcrop are contributing to crackling texture.

One stronger silicified "feeder" structure trends N15E, vertical + trends toward prospect pit on other side of drainage to north.

Mod. Silicif. Strong clays

C26 - Prospect pit in fractured silicified structure trending N15E.

C27 - Observed ~~structure~~ ? or silicif. of rib like, elongate in N20E, vertical trend.

Strong clay alt.

C28 - Very strongly silicified bx surrounded by very strong clay-silica altn. Trending ? N15W 50 NE ? or an apparent rib like body.

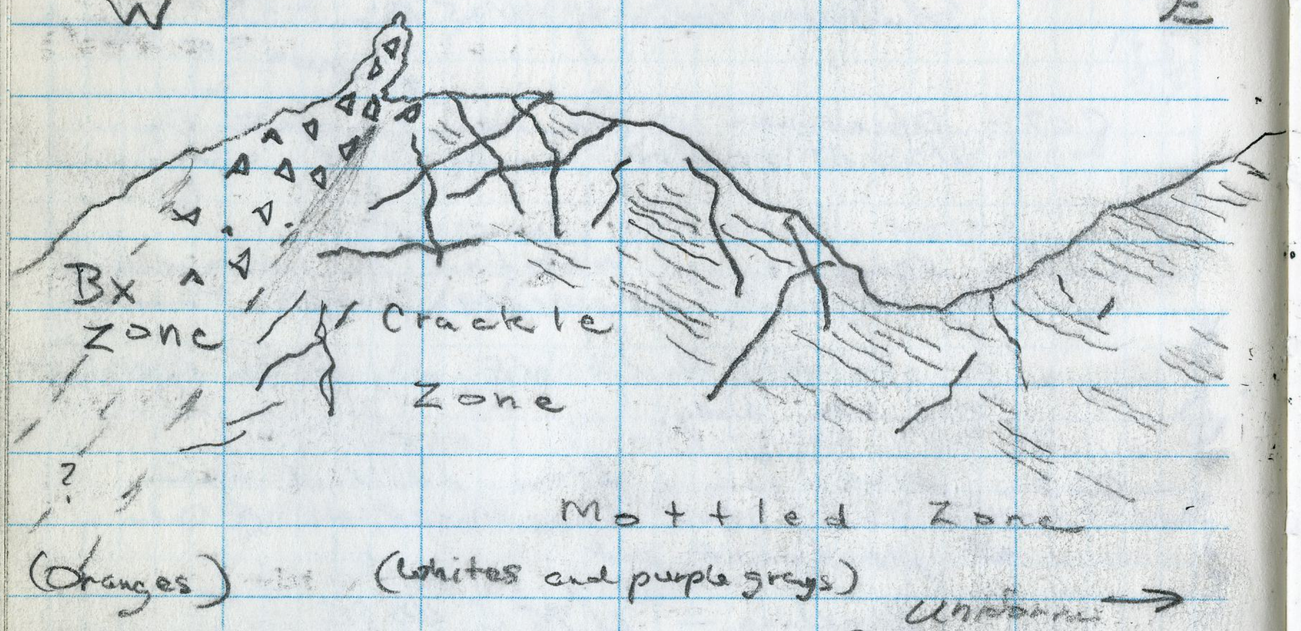
C29 - pink-grey, flow-banded tuff commonly seen transitional to RQL. at prospect pit

Banding - N75E, 40SE

(PIMA Sample)

May 11, 1993 Rosebud - Degenstrom Target

C30 - FW zoning observed:



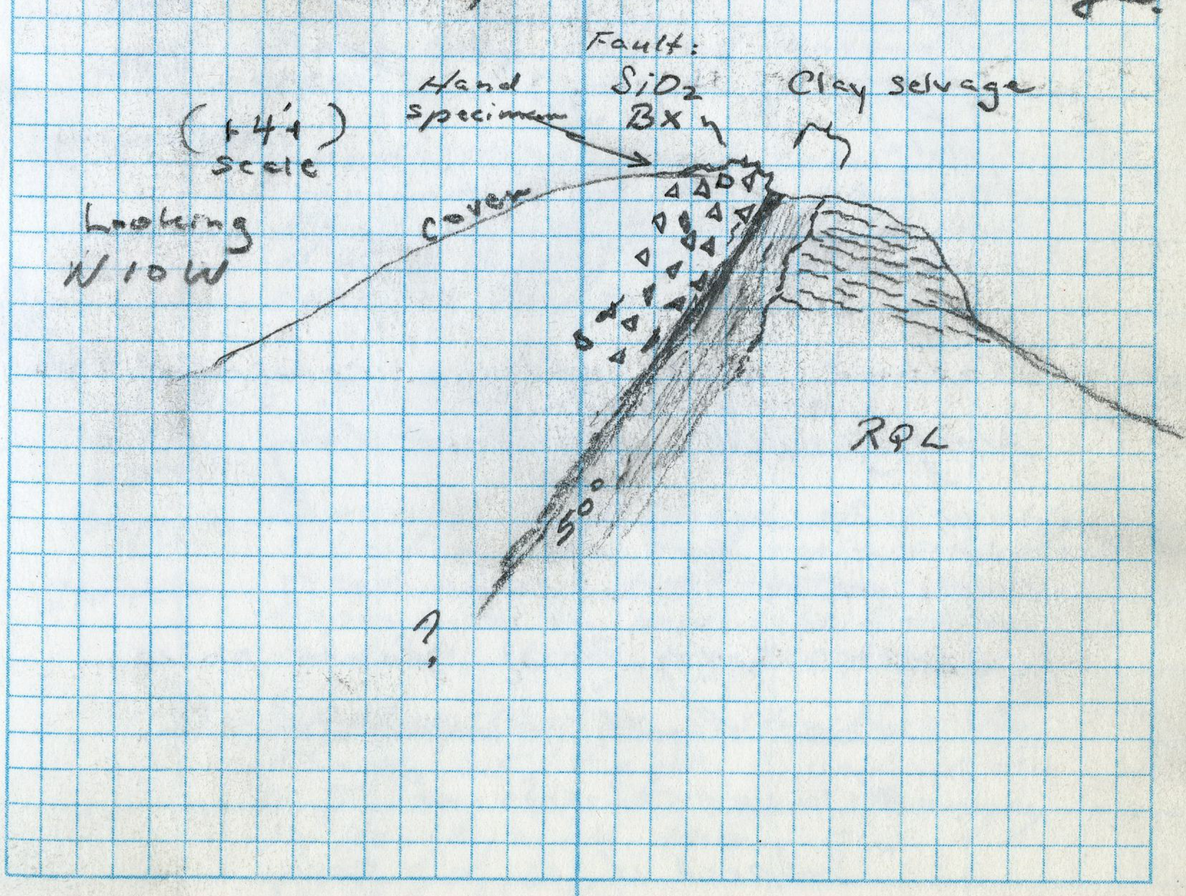
Crackle Zone veinlet orientations:

N 15° W vert. to 80° SW
N 35° W vert. to 80° NE
N 65° W vert. to steeply northeast

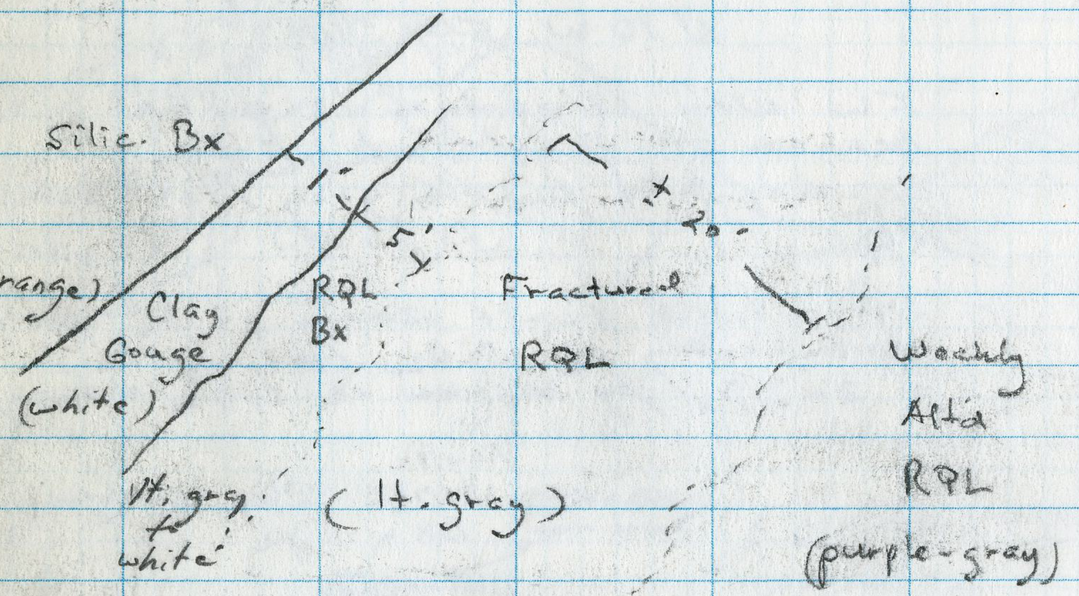
C31 - Very good exposure of contact between RQL and the west dipping silicified structure
Flow banding in RQL is:
N 70° W 35° NE
Silicified structure is oriented:
N 10 W 50° SW

FW alt'n selvedge is quite narrow at 3-4 feet wide, grading into purple grey flow banded RQL.

Silicified fault zone is comprised dominantly of SiO_2 bx. with ± 2-3% py disseminated in SiO_2 matrix.



C31 - at drainage level - two adits one at N10°W drifting along fault contact which trends N10W, 50° SW. Only 30' long.



Second adit oblique cross-cut into Hanging wall. 12 feet long.

C32 - Splay? or fault or is main fault turning to N30W 50° SW
Suspect it is a splay.

C33 - Strongly fractured and locally very strongly clay altd with strong structure appears to trend: 2 veinlets N50°E 45°SE ? but could be minor.

Appears to be RQL but could be Tc. Has more large sericite and much smaller if any FeMgs.

C34 - outcrop area above road cut + drill site RB48.

C34A PIMA Sample - Brecciated and silicified RQL? Trend on slickensided nea 6x section is N5W 55°SW.
Sulfides are dissem (py) in fault 6x (silicified) near drill site.
Strong clay altn all around this area.

C35 - undulating fault zone, silicified, surrounded by strong clay altn. Fault plane generally trends N25W dipping 55° SW with a rake of 75° to SE.

C36 - In clay zone PIMA SAMPLE - Silicified fault zone. Slickensides - N-S, 55°W
Exposure in drainage of variably silicified frax and main silicified trend above. Adit further south. Appears to be mod. silicified & mod. to strong argillization.

C37 - Adit drifting along structure for about 25 feet. Silicified for ~3' argillized more strongly in Hanging wall than FW. 77 N10°E 65°NW.

N70W
75 SW

N15E
35 SE

May 12, 1999 Rosebud - Degerstrom Prospect

(West of Degerstrom Silicified Core)

C38 - Strongly clay altd, flow-banded plag? porphyritic, aphanitic groundmass volcanic. Difficult to tell protolith, but may be RQL. Abun. MMB's.
Flow banding - N15E 35 SE
Small structure filled with clay - silica - limonite at N70W, 75 SW.

C39 - NW of C33. Strongly frax to bx texture. Mod. to strong silicification of RQL? or Tc?.
Local slickensides at this site trend:
N15E, 70° SE Rake: 70° NE

C40 Very strongly frax to brecciated, locally strong hematite, strong silicification & strong clay altn adj. to silicif.
Difficult to determine original rock type and bedding.
Have a sense of NE trend to some of silicification.

N10E
25 SE

C41 - Lava flows? standing on dip slope. Looks like rudimentary bedding: N10E 25 SE
Similar across drainage and up slope.
Altn is weak to mod. silicif. and mod. to strong clay altn.
Still can't be sure of rock type
No obvious sanidine MMB's obsvn.
No obvious qz.
Flow banding, appears to be very small Fe mags in groundmass and may indicate that this unit is Chocolet?

C42 - Very good bedding to "flows" at this large exposure.
- Sanidine visible
- No qz as yet.
- fine groundmass with fine Fe mags.
Much less frax & brecciated and silicified than down slope.
Mottley appearance due to variable altn in frax exposed in dip slope:
Bedding: N10E 30° SE (Good)

C43 - Apparent contact bx between RQL (saw qz phenos in bx frag) and Tc on next spur north?
(May just faulted RQL here)

Late slip - N50°E 50°SE

C44- Siliceous, fine flow laminae, pink in color, very similar to grn tuff upper transition to RQL, but haven't seen any gz phenos. (Hand Sample)

C45 - Flow banded, bedded? Lava? Flow-banding perpendicular to apparent bedding (cooling unit?) Apparent bedding N30E, 30 SE RQL?

Joints N70 W 45 E

C46 - Purple-gray (mottled or "striped") RQL? along joints and/or frax. Dominant joints = N70W 40 NE

F Ds. N70W 20 NE

C47 - Point where flow banding and apparent bedding are the same: N 15 E 35 SE

Bedding N15E 35 SE

C48 - Joints N45°E vert. to 80° NW
N50 E vert.
N60 E vert.

4K
5°
60

C49 - Prospect cut in fault zone, strongly silicified for ≈ 12 width
Brecciated, everything gone except silica + silica clay combo.
Fault trend in OC and on slickensides: 2/10 - N20E 70°SE (ave.)
Rake 65 N

Relatively major structure this far west of Degerstrom fault.

1:240

May 13, 1989 Rosebud - Degarstrom Sheet

C50 - Well jointed, locally faulted RQL(?) per May 12 traverse. Qz very rare. Sanidine common. Mottled, bleached from typical red-purple-grey to cream white to white (clays ± silica). Common joint-fracture trends in this area: N50-55°E, vert.
N40-N45E, vert.

1'- wide smear structure, mod. silicified trending: N15E 85°SE

C51 - white to purple-red either totally leached RQL bx with only silica remaining or a scoriaceous/pumiceous bed in RQL? (Hand sample)
Approx. bedding estimated at N45°E, 35°SE

N55°E 75°NW

Slickensides N10E 52 NW

Slick N10E 52 NW

rake

C52 - Strongly frax, faulted, silicified RQL?
Trend of main siliceous portion of fault is apparently:
N55°E 75°NW
Slickensides: N10E, 52 NW
rake = perp. to strike to NW.

C53 Mod. SiO_2, mod. clay altn in frax bx, RQL?
Slickensides N45°E 40°NW Rake 35°SW

Saddle on SW side of Brown Palace Knob:

C54 - Contact between white Alps Rhyo. and Tc.
Intensly silicified fault plane or slip surface in Tc side:
N70W 35 SW
Peak just south of above -
Slickensides: N55W 60°SW
rake = 35° NW
25' west of GP grid post:
Slickensides:
N60W, 35 SW, 40° rake to SW

Cleavage on Tc on ridgeline
N5-10°E, vert. to 80 SE

PUMA C54M

In clay altd Tc on rd. cut.

535 W N5W

C55 - Chocolat Lawn

Mod. bleached, clay altered, FeOx coating joint surfaces. No silicif.

Joints: N30W 65 SW
N60E Vert.

C56 - Rubbly outcrop -- possibly near fault. Still in Tc
as before

C57 - Strongly Silicified fault bx. in Tc.
Local white qz.
Check geophysics to help with interp. on orientations.
Joints - N30E, vert. to 85°NW

C58 - Silicified fault bx as above.

Slickensides N65°W, 50° SW Rake - 35 SW

C59 Silicified Bx
N45W 50° SW rake = 65°

N35W 35 SW rake 65°

N55E
58NW

N75E
55NW

May 14, 1998 Rosebud - Degerstrom Target

C60 - Massive silicified fault ? 6x in Tc.

Slickensides - N50°W 25° SW rake = 45°

C61 - Margin of silicification where joints / frax in Tc are silicified particularly along N55E, 55NW and lesser but significant along N75E, 55NW. Chocolat is clearly identifiable here, however flow banding is still chaotic & disrupted.

C62 Stronger silicification, more intensely brecciated

Slickensides - N65W 60° SW rake - 45° to SW

C63 Strong bx - mod to strong silicified forming tabular, bed-like bodies along which movement & strongest silicification have taken place.
They are oriented N10W 40 SW
At least 2 to 3 "beds" visible here.
Still in Tc.

C64 - Tc, very strongly fractured and locally brecciated, but silicification is now more confined to the bx trends. N10E 40 SE on Flow banding in Tc

C65 - back into intensly silicified & brecciated zone, presumably the main portion of the structure

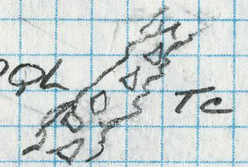
C66 - Brecciated, faulted, silicified contact between Tc and RQL. Fragments of both rock types in outcrop. Also is silicified. Dont exactly know nature of contact, whether intrusive (suspected that it is intrusive breccia here) or depositional, or faulted contact.

N50W 50 SW tabular, slickensided weakly to mod. silicified bx contact zone

rake on slicks - 40° to SW

C67 - RQL + fault bx (silic.) Contact. Tc above on slope

C68 - Contact



N35W 45° SW rake 25° on slicks

May 15, 1999 Rosebud - Degenstrom Target

Holes to be quick-logged for shot/structure info

RL 234 (700' vertical) SW of RL 47

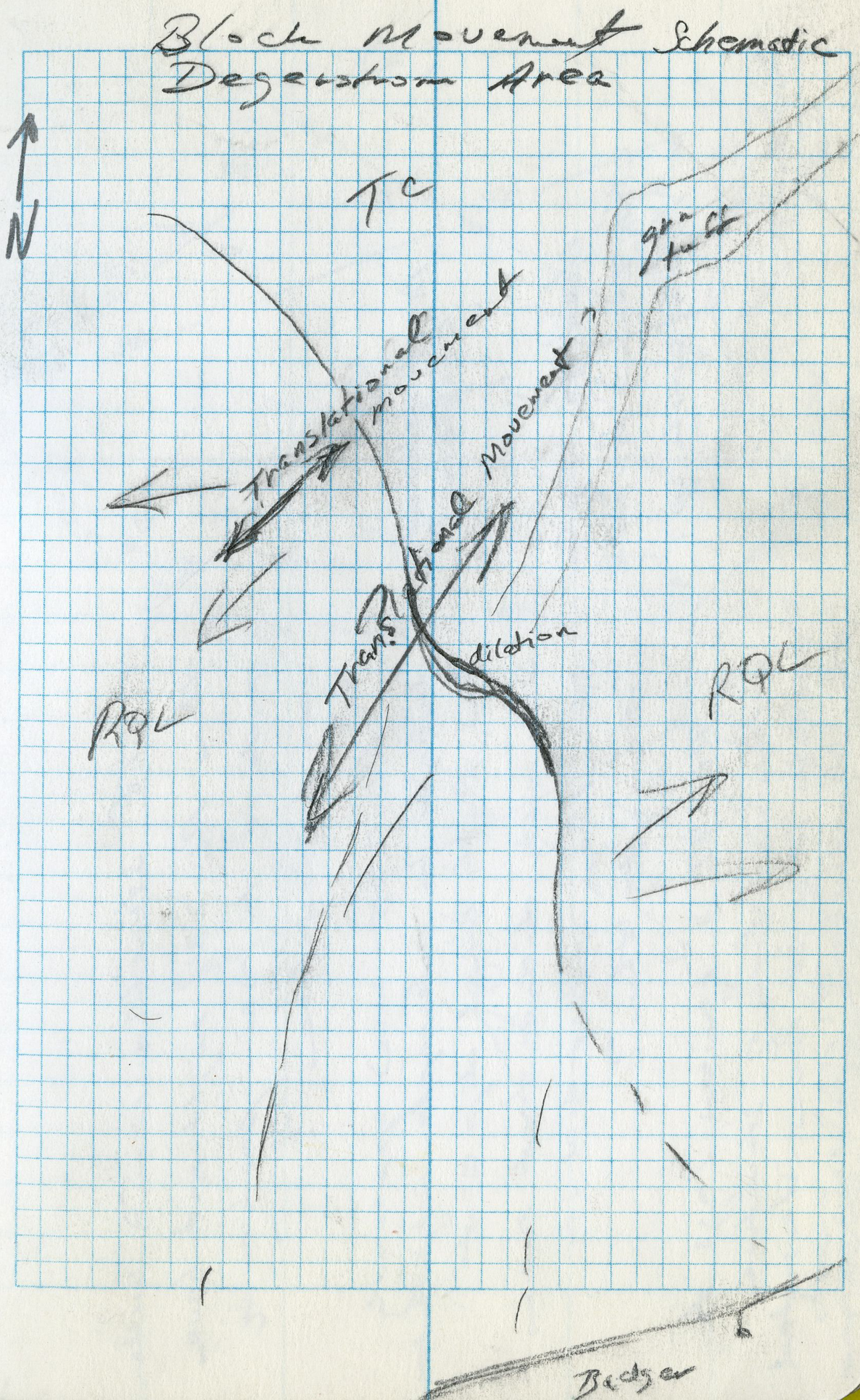
RL 235 (525' to west __°) south of 234.

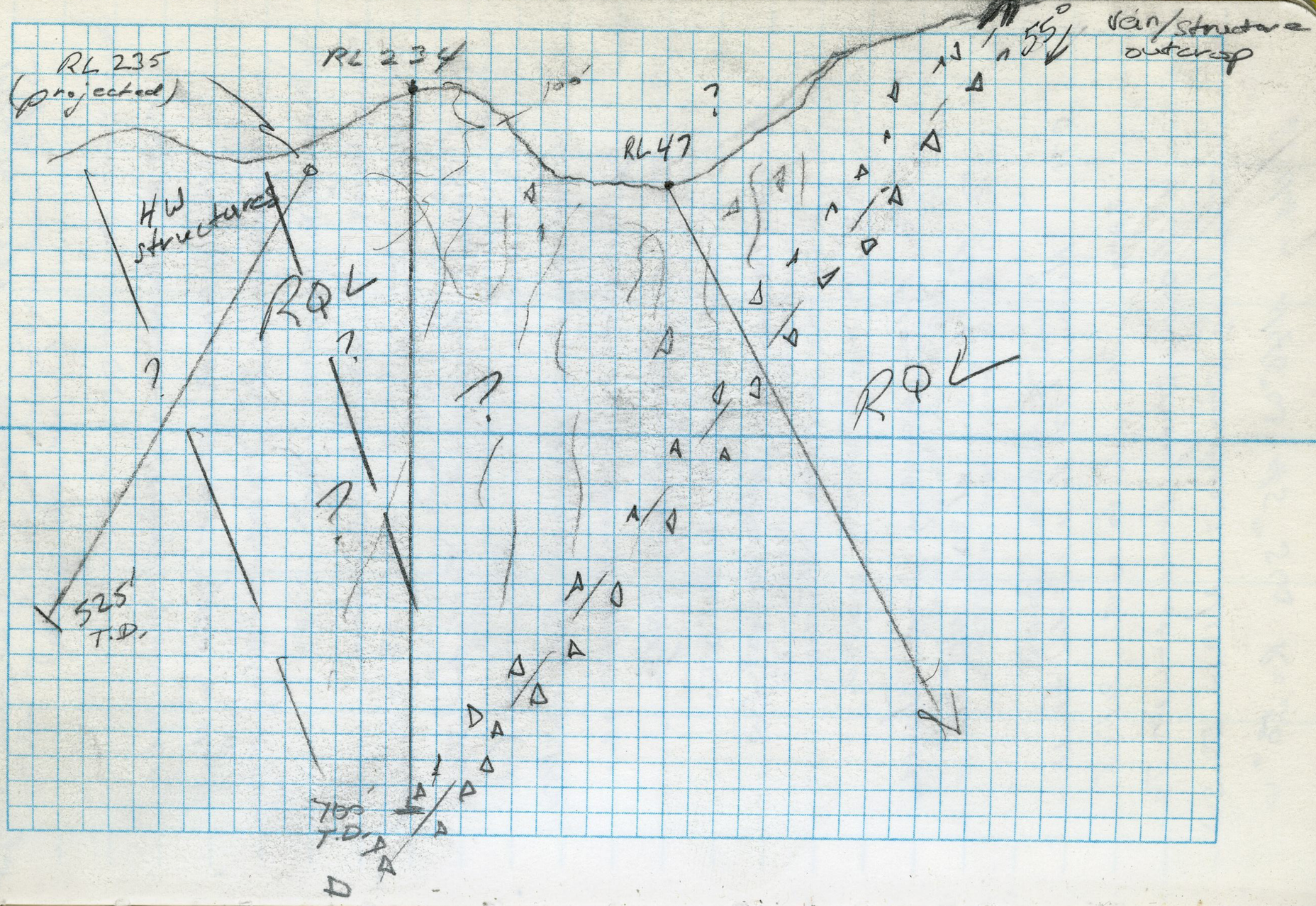
RL 236 (365' vertical) between RL 47 and RBW. 17 5'/0.01 @ 40-45'

RL 237 (445' vertical) between RBW-17 + RL 48
15'/0.017 @ 5-20'
15'/0.010 @ 30-45'
45'/0.012 @ 90-115'
20'/0.015 @ 225-245'

RL 151 (500' medial NE) SE of RL 237.

Block Movement Schematic
Degenstrom Area





?

Multi-element geochem?

Need to sample altn zones for altn + PIMA work-up.

If structure is ≤50' wide then RL 234 might not have made it to main portion of vein / structure?

RL 235 was apparently drilled to intercept adjacent HW faults which dip east obviously didn't test main structure. What did it intercept then?

RL 47 - review logs to determine nature of structure because it must have intersected the structure? Geochem?

May 16, 1999 Rosebud - Degerstrom Target
(west side spur)

C69 - Chocolat outcrops, variably clay altered down spur ridge. Purple - white - red mottling down ridge.

C70 - Fault zone in Tc. Silicified (strongly) brecciated. Includes Tc frags and a few RQL frags (at least 2 eye-bearing) but no RQL apparent around fault oc. Tc down slope on ridge.
Trend: N40W 50°SW
Slickensides: N50W 60° SW
rake: 45° W

Tc flow banding just North of fault is N30E 45° SE.

C71 Narrow ±10 foot wide fault zone with wk to mod. silicif. + locally strong brecciation in Tc.
Trend of structure: N10W 50 SW.
Slides - N40°W 45° SW R=50° W

(Definite 2 eyes identified)

C72 - Contact bx between RQL and Tc
Structure appears to cross-cut Contact from NW to SE, continuing on into RQL.
Alternatively the structure may take the course of the contact which would dip to southwest.
Bx ledge with silicif mod, strong clays, + leaching trends N10E 30 NW generally.
RQL underneath - chocolat above.

C73 - 10-foot prospect adit driven along structure which trends N10E 70° NW. Strongly argillized weakly to locally moderately silicified.
Across drainage to west about 25-feet is a curvelinear structure appears to be late feature. Not following district trend of NE here.

C74 - Small fault in RQL with mod brecciation and mod. silicification
Trends N10W 55 SW?

May 17, 1999 Rosebud - Degenstrom

Compilation of outcrop data onto mylar master.

Planning --

1) Select holes for compositing for multi-element geochem (see May 15) (1 day)
2) Review Logs & Chips
3) Alteration maps (2 days)

May 18, 1999 Rosebud - Degenstrom

C75 - Adit into brecciated Tc.
Breccia looks like fault Bx or an epiclastic (talus slope).
Some silicification (wk to mod)
Adit trends N25W.
Bx body trend N50°E dipping Northwest.

100' west of GP station
Flow banding N10°W, vert. just below fresh - looking dk. brn outcrop of Chocolet.

C76 - Chaotic Tc - very strongly fractured Sandberg on Bx and in places it is Bx.
In footwall of Degenstrom fault. In fact the whole hillside exposure is immediately under the sole of the fault plane and you would expect such disruption, immediately FW.

C77 Mottled zone Tc, where frax and joints are altered with minor qz-sad bleaching. Little Bx stringers (occur throughout). Not as altered. Flow banding still somewhat chaotic.

C78 N 60° E 35 SE flow banding / in RQL, strongly clay altered.
Get alt samples.
(Sample for PIMA)

C79 Prospect pit in bleached, locally pod like brecciation and silicification. Silica is grey in places, suggesting fg sulfides.
Check for sampling.

C80 - Tc, strongly fractured with several to numerous scattered hydrothermal (?) bx veinlets cutting bleached Tc in stockwork-like fashion (?). Dominant frax / joint trend at this oc is:
N 85° E 70° NW
(Bx fills these trends)

C81 - Prospect pit dug up relatively fresh grey Chocolat.

C82 - Prospect pit dug on podlike hydrothermal (?) bx body in strongly to moderately clay altered Tc.
(Samples for PIMA)

C83 - top of Brown Palace.
(Mottly) Variably bleached and/or clay altd Tc. Flow banding / bedding plane platy cleavage trends: ave. of several readings - N 40 E 40° SE on flow banding / partings

(Began Alt'n sampling second half of day)

May 19, 1999 Degenstrom Target

(Alteration Mapping / Sampling)

C84 - Silicified structure trending N10E 70 NW a few feet wide, but similar trend to others in the southern part of the area.

C85 - mod. clay altd RQL.

* PIMA Sample

C86 - RQL Joint N50E vert.

F. Banding N45E 45SE

C87 - RQL

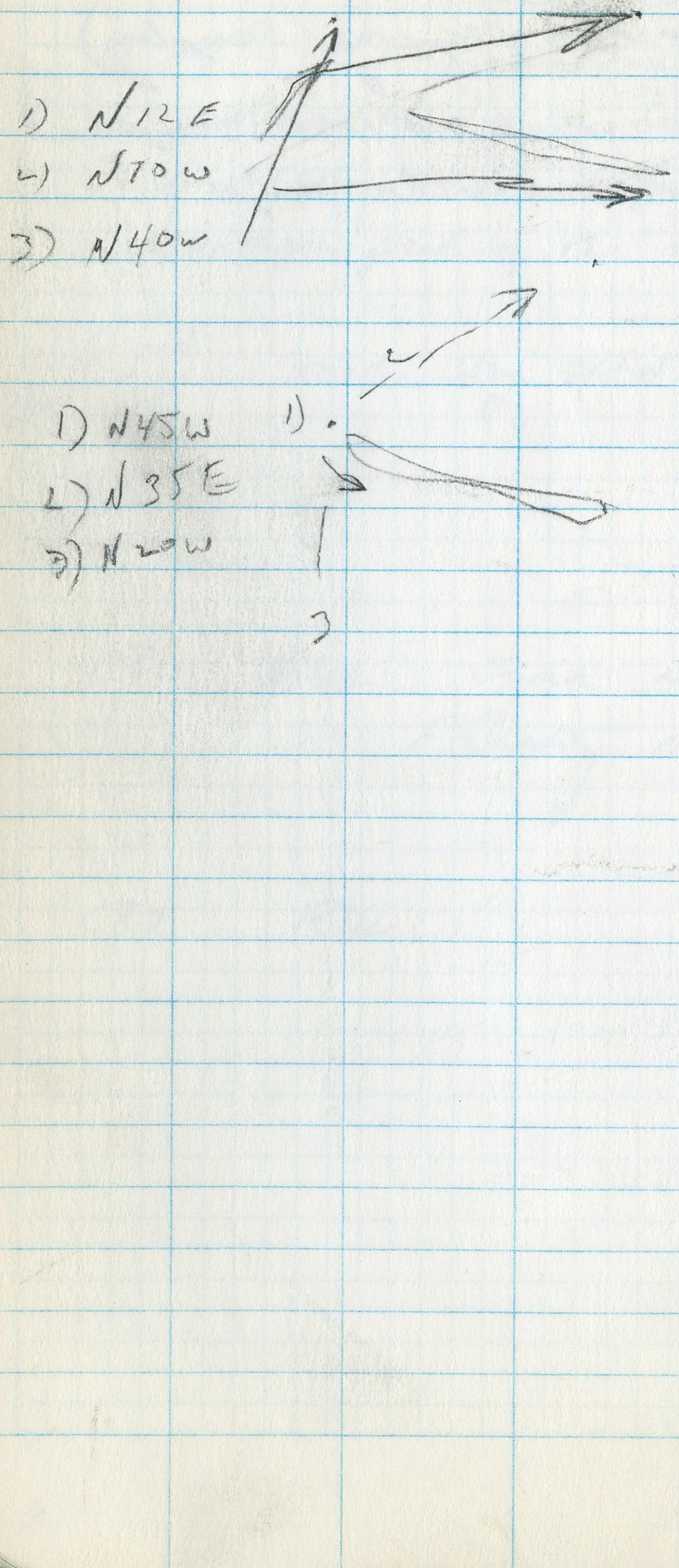
May 20, 1999 Degenstrom Target Area

(Alteration Mapping / Sampling)

Organize & compile PIMA samples

Finish preliminary alt'n map

May 22, 1999 Rosebud - Degersholm



Rosebud. GC samples by day.

May 23, 555 (PIMA Samples)
+24

C78 Strong kaolinite

5616 - wk. kaolinite

C13 strong kaolinite

C44 - kaolinite

C29 - kaolinite

C45 - kaolinite

C34 - Smectite

C82 - kaolinite

C85 - kaolinite

C54A - kaolinite

C36 - illite/smectite

C38 - kaolinite

May 24, 1999 Mine Town

2 Zones —

1) Shrub + dissem

2) ZZ-py-ma-cpy —

2) Sh. + dissem

Cam 25-30° dip NW

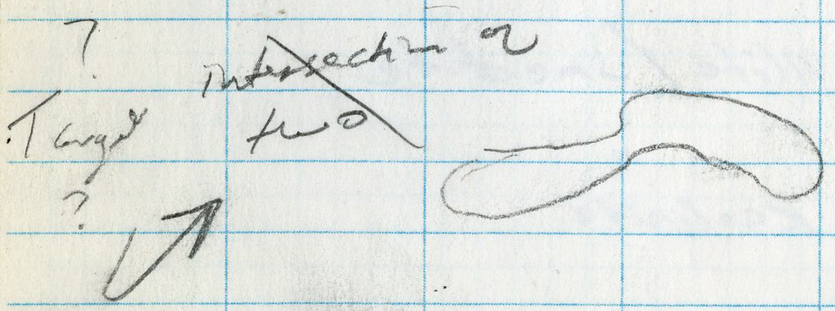
± 1000' high

Nar S. Ridge —

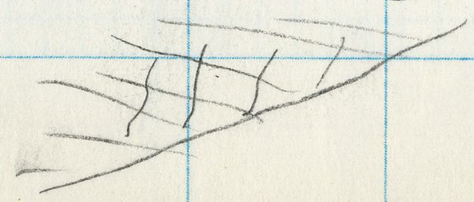
- N40E Cam — 25-30° NW

- E-W S. Ridge — 25-30° N. 60° at surface

Line of intersection of two



High angle NE trending extension fract (N45°E) ≈60-70° NW



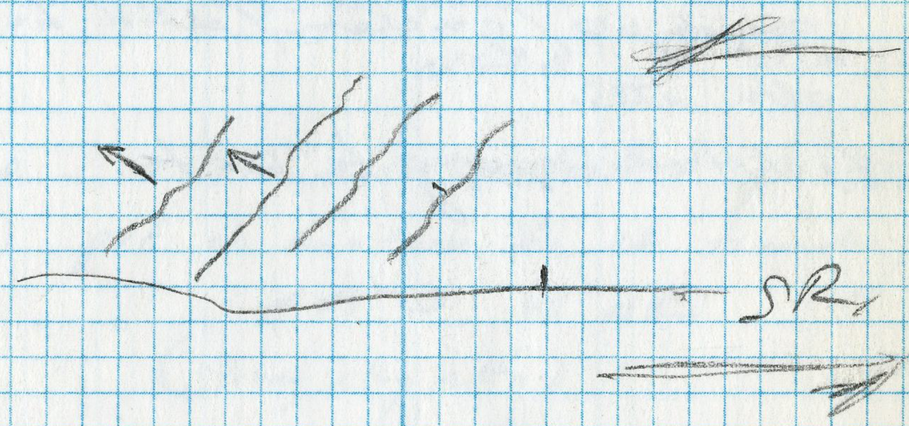
Stage 25 — Structural control

South high angle sch. + strat. control.

10 - 15° dip to NW Auld Bay Fm

* Sitting on rhyo. obsidian basement high.

will get anticlinal and synclinal fm hanging wall.



(Cross sections) --

To basement in all cases
Good marker.

1) Check Geodam assay status
2) Check with Charlie on status of logging - use his info as much as possible but should probably log key holes
3) select cross sections with geophysics / geodam / drill holes alta etc.
4) Extend mapping to west

June 5, 1999 Rosebud - Dogwestern

★
C88 - Prospect pit on fault zone with wk. - hbd SiO2 (remobed?)
(PIMA) trending: N15E, vert.
cutting Rgl bx. Sericite + minor gz phases evident in Dc.

C89 Fault zone - weakly silicified, moderately clay altd in RQL bx.
trending N40E, 65°NW
smeared structure 35'-40' north of above trends:
N40E, 75°NW

★
C89A - ± 75 north of fault - prospect
(PIMA) pit on another fault trending:
N45°W, 45°NE
(strong clay alta)

C90 - Silicified structure - locally chalcedonic, dense pink-white.
Trends: N-S, 45° west dip rake = 80° W
Probably not more than a few feet wide. Local clay altn. pervasive.

Small imbrication or splay structure in FW. = N20E, 35NW
Rake = 80°SW

* C91 - Prospect edit in fault zone in RQL
(PIMA) weak SiO_2, strong clays
Fault N10W, 75°SW

June 6

C92 Fault Zone
5680
Gc Sample
(Rain)
N20W 80° SW Bx contact
N25W 55° SW Rake 55 West

June 7, 1999 Rosebud - Degenstrom

C93 - Grn - "LLt" member ?
Glassy - spherulitic, wedge like
subcrop in RQL.

C94 - Chaotic RQL flow-like, massive
outcrop. Autobreccia, chaotic flow
banding, strongly jointed & fractured.
Could be a portion of flow-
dome complex on a portion of
intrusive/extrusive interface??

Joints & frax { N75°E vert.
N45°E steeply NW

Good F.B. N85°E 20° NW

C95 (Across valley to east)

Structure cutting RQL
Strongly silicified, locally.
N5E, vertical
Check for previous sampling
Extends for 100 feet

June 8, 1999 Rosebud - Degenstrom

C96 - Dz vein in School Bud
Canyon on east side of canyon.
Topographically below Chocolate
outcrop and surrounded by
Bud float.

Good SiO2, open space fillings,
vuggy, <1% py dissem,
weak banding.

GC Sample 5699

Trend is difficult -- more
pod-like but generally:
long dimensions of outcrops
generally direction:
N55W 50°SW
Major frax set - N65E 75°NW
Possible later movement along:
N10W° 40°NE

June 8, 1988 Meeting

Craig Byington -

'95' Structure / Geochem analysis

9 deformation events

(2) assoc. with metals

* 2 x 6 dominant

(92)

a) - poles (schmidt) Fisher contours

b) - 147 frax samples for geochem + 32

c) - threshold (Alt. Sinclair frequency plot)

of anomalies

d) * 3 for d2 & d4

e) friction cone 35° based on com

(separated u/G and surface)

f) differing iterations

(Spearm Rank C. Coeff.)

g)

North x east zoned correlate

Fe2a used w/ frax & geochem

1993 - SRF x strat interaction

flexure in fault to explain ore deposit

→ gangue, alter, timing, orientation

(fracture size doesn't matter as long as you don't dilute)

Ba (barite) gold somewhere away

Geol ↓ this subset away

Va - inverse correlation

Au, Hg, Sa, As, Sb

Cu immobile

Au/Cu ratios in soils

Connelly method of contouring
strike orientations.

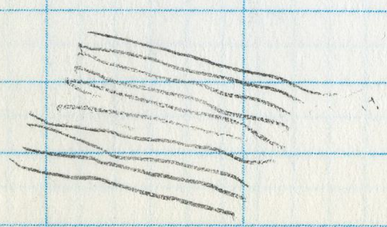
Inflection in strike
ave orientation
Shark fin + plane of fault
strike is NE.

N61W rake of intersection

Assumption: close to horizontal
event 6 & 7 tilted --

Stereonet - 1st. day.
N10E 40SE ave.
bedding orientation

Rotations of blocks along faults



Cave
N43E 24 NW

Cave 2
N10E 27 NW

Ave. South Ridge -
N75°E 34°

June 8, 1999 Rockland - Dayton

(Thor)

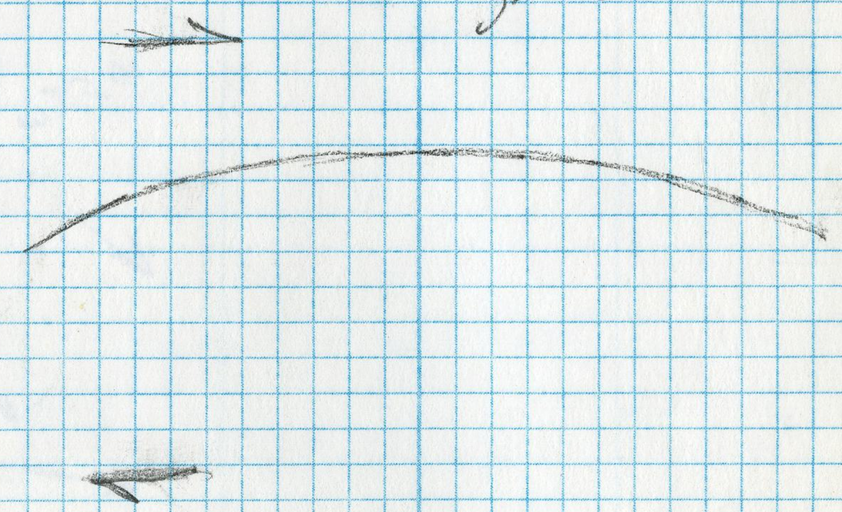
June 10, 1999

(Hydrothermal Indicator)

C-B.

Extensive frax - maintained width thru differing rocks

rough appearance



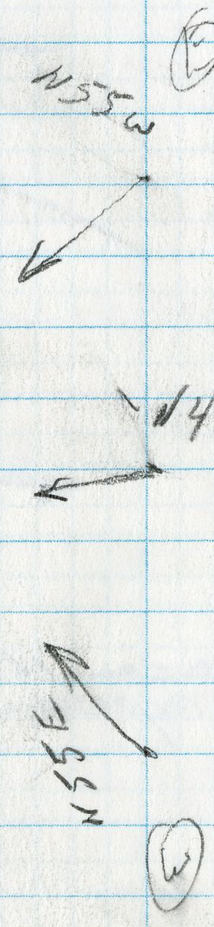
Dozer Hill: exposures

Tc - f.g. plates
Feldsp - hornblende
Upper Bud
Porphyry Andes Dx
mid Bud

C2347 GC sample (Randy)

June 12, 1999 Roadcut - Degenstrom

Contact between Wild Rose & resistant tuff (grn) member of Bed. in head of Schoolbus Canyon



C97 - Fault zone in Tc
N80W nearly vert.
Note: Dynamic E-W "productive" faults in Dreamland.
(Strong white clays)
≈ 10' wide fault gouge.

C98 - Bed marker bed (Tuff)
N55°E 35°SE

June 13, 1998 Rosebud - Degenstein

E. side of ridge in schoolbus canyon

C99 - Contact zone between Tc and underlying coarse lapilli tuff (Sm) or Bud unit (upper?) N45E, 55° SE on Bud beds

C100 - fault zone (N35W, 40 SW) cutting Porph. Auto Bx (WAP?) Silicified / strong clays open space bx later slicks along fault plane.

C101 - Contact between Upper Bud Tuff (c.g. lap. tuff (welded) and Lower Tc (Fenneys lava)
Bud Tuff N50-45 E 35° SE
Tc N45E, 55° SE F. Banding.

June 14, 1998 Rosebud - Degenstrom
(Schoolbus Canyon)

C102 - Looks like Rgl in bottom of Canyon

C103 - Rgl in contact with Bud tuff (no Tc here)
Tc pinches out just about 300' to the north on the west-facing side slope.
Dk. green vitrophyre is common occurrence near or at the contact between Rgl (?) and Bud T.
Also to north of C103 is the "Porphyry Autobreccia" in the Bud

C104 - Appears to be W.A.P. / "Porphyry Autobx" cutting Bud, coarse welded tuff (clast supported) lapilli ?

C105 - into red - pink colored terrane. Similar to some forms of Rgl, but not characteristically mm B / sanidine rich here.
May need thin section of these samples.

June 15, 1999

Wild Rose Prospect Orientation:
(C.B., Knd, Randy)

(Rowland / Juniper Canyon section)

Listric Fault / Viterbyne / Listric fault ?
altid fault

Rotated steep fault to NW
/ SW tilt orientation.

June 16 - 17 - 18 - 19

Building X-sections + quick logs
X-sections
w/ altn + soil BC / rk. BC

June 19, 1999 Rowland
PIMA runs

C 88 - Kaol. / Illite

C 89A - " / "

C 99 - Kaol. / Illite

Purple Auto Ex from Dozer Hill:
Illite / smectite

June 20, 1999 Rosebud - Degarstrom

(Schoolbus Canyon) (west side)

C104 - Med. grey-purple outcrop
Flow banding locally strong.
Porphyritic - strongly
Sericitized - fresh
Amphibolized - weakly altd
Plag - clays
Occ qz eye in porphyritic
varied, non-flow banded
Think now that it is RQL
Definitely not W.R. but does
abut W.R. to north, perhaps
along a fault contact
trending westerly.

C107 - Similar oc to above.
Could be called Porph Auto bx

or pink matrix bx at mine
(reference Charlie)

Variably flow banded +
autobrecciated.

Comparisons w/ 104, except
haven't seen any qz in this oc.

June 21, 1999 Dayton

Geophysics with Nigel
- 200 foot dipoles -
Line 7 - unit sized shearing to NE
Line 8 - maybe resistive
unit sized body
SE dipping (may be
Tet relative to others)

Line 9 - Shearing +
thinning to NE ??

Lines 6 thru 5

(2) lows passing NE

Resistivity highs passing to
NE seemingly along
RQL / TDD contact
into Brown Palace or
underneath

Chargeabilities -
≥ 20 milliseconds

Line 9 - charg. underneath
resistivity > 30
Line 10 " " > 40
Line 11 not " strong to NE

Ford Owens Ford - Mercury

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(114)

92

120
13
360
120
1560
45
7800
624
1020

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.45
4000
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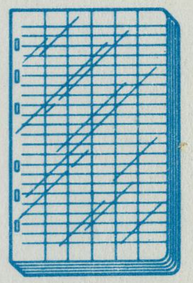
LOOSE LEAF SHEETS

SPIRALS

MEMO BOOKS

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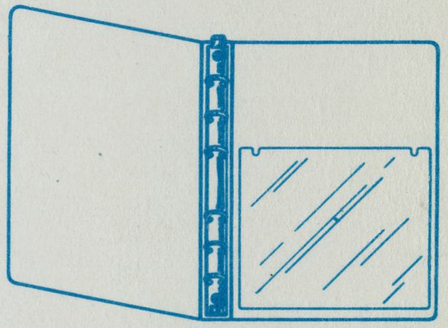
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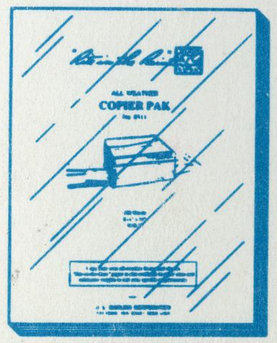
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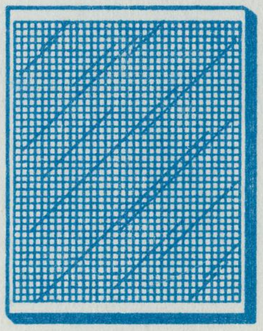
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