UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOOSE-LEAF FIELD NOTEBOOK

9-137

MC-5 (Bigfork - Wamble

SENE Sec 12, 4S, 25W

TD 535 ft

angle from Vert 30°

Azimuth 020°

75 —

MC-5 samp

80 —

Dkgy sh c sh/lmy +
Mgy lmy siltstone +
Mod-dkgy lmy chty sHs
1/2" to calcite veins
Bedding 45° to core
faulted

samp 85 —

dkgy sh s/lmy and mgy lmy sHs
1/4" calcite veins ⊥ to bedding
vertical bedding & parallel to bedding
slickensides

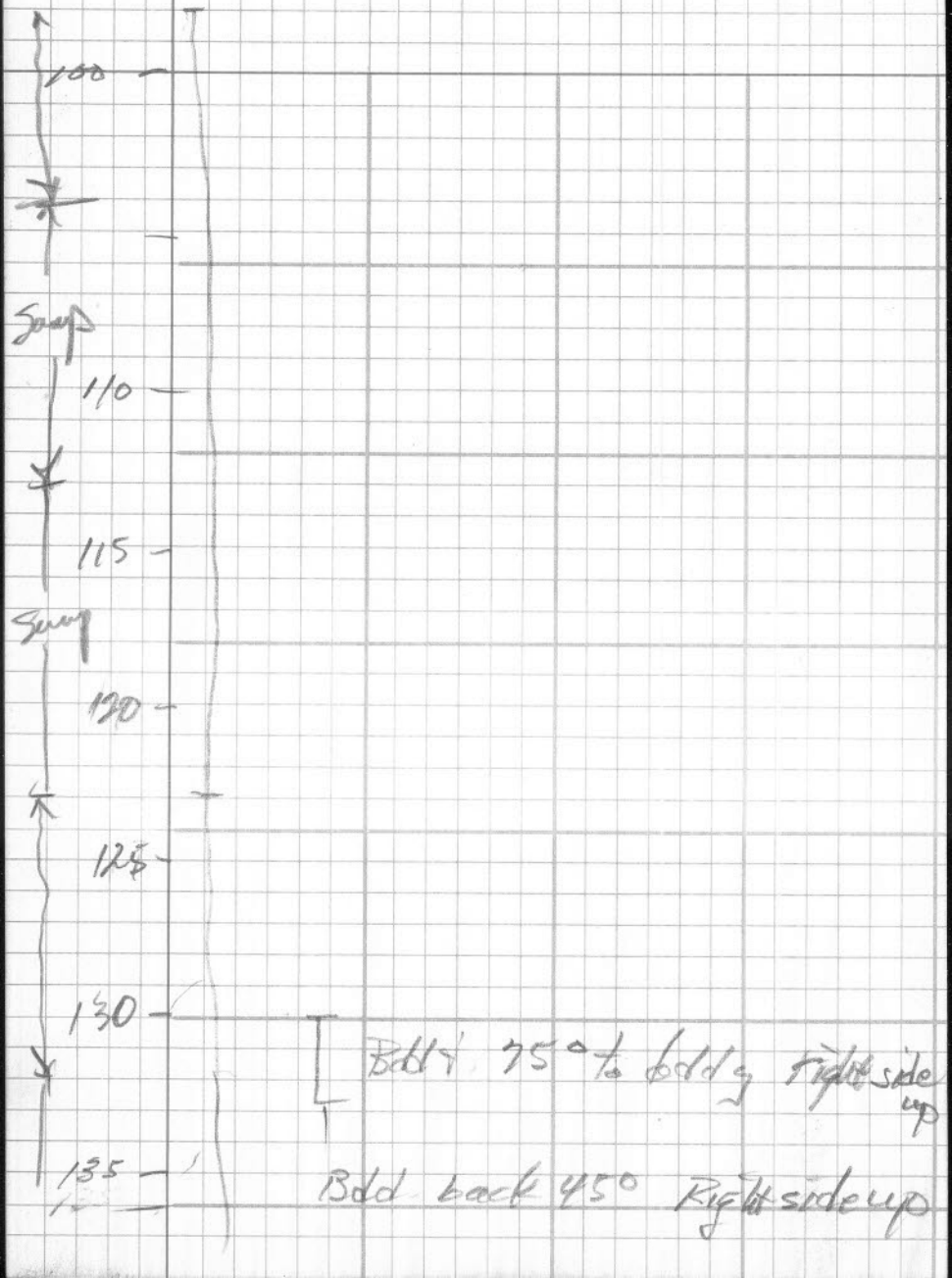
90 —

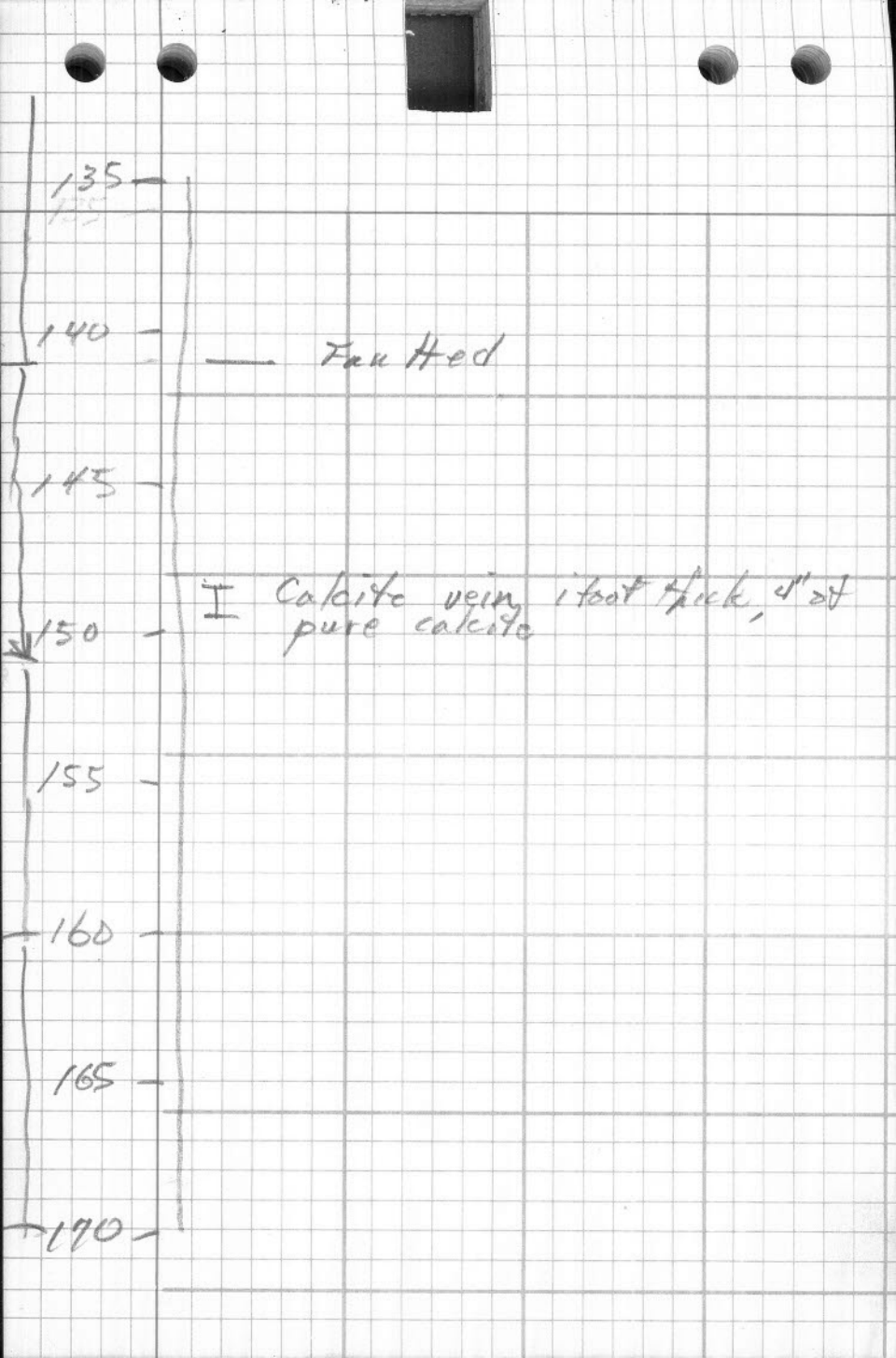
beds are right side up
according to grading in sHs

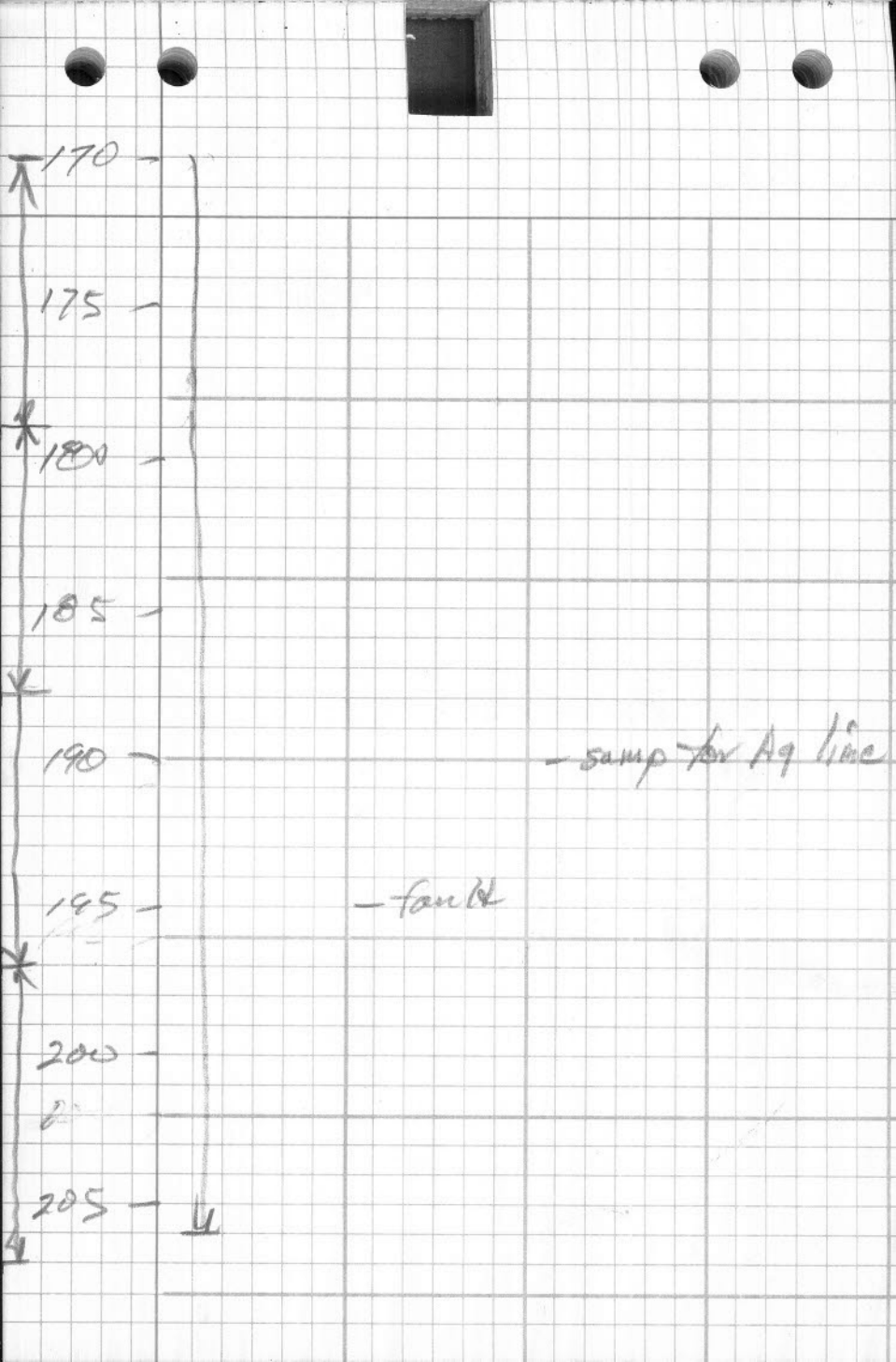
samp 95 —

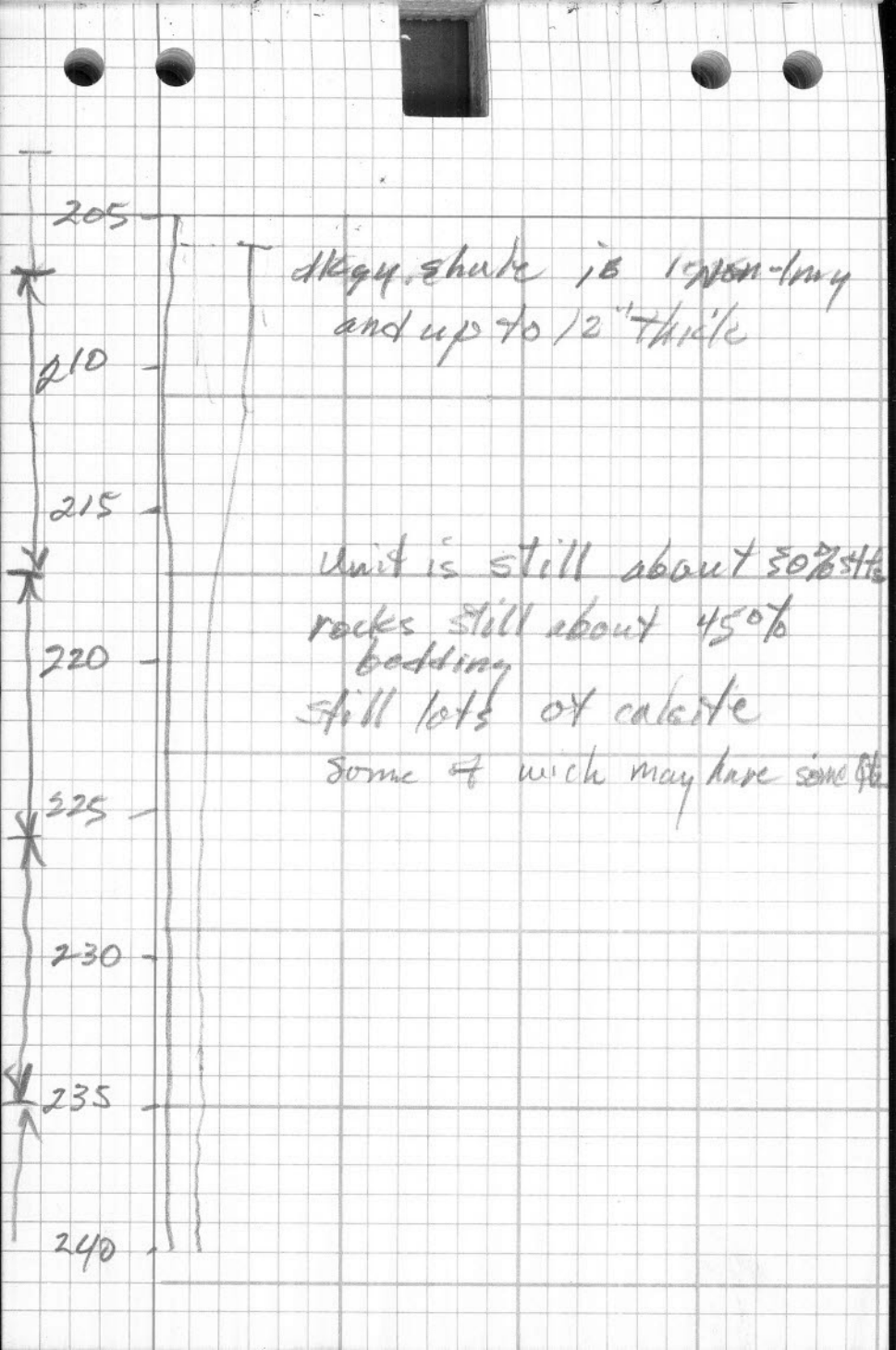
whole unit is about 30% limy sHs

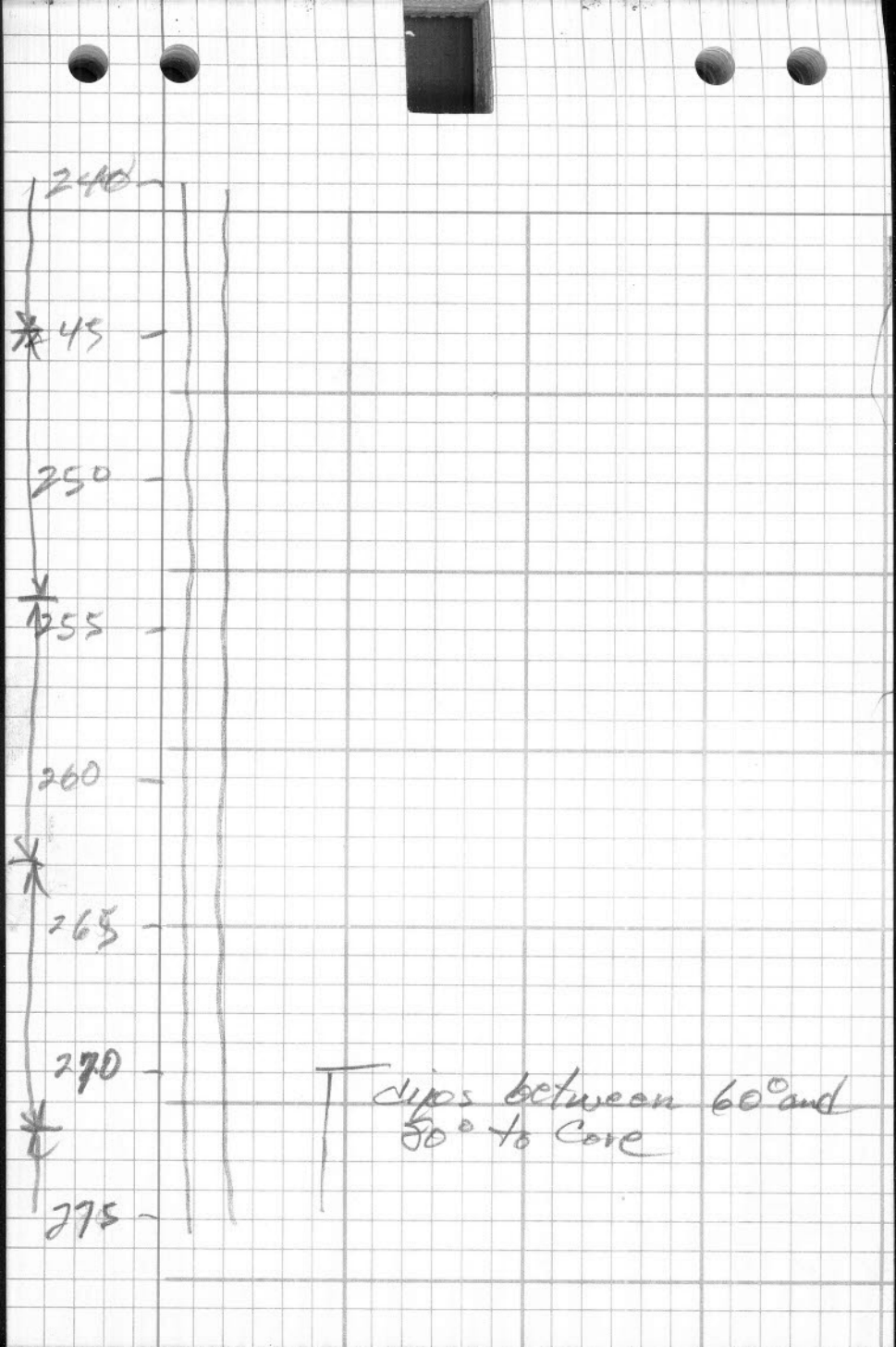
100 —

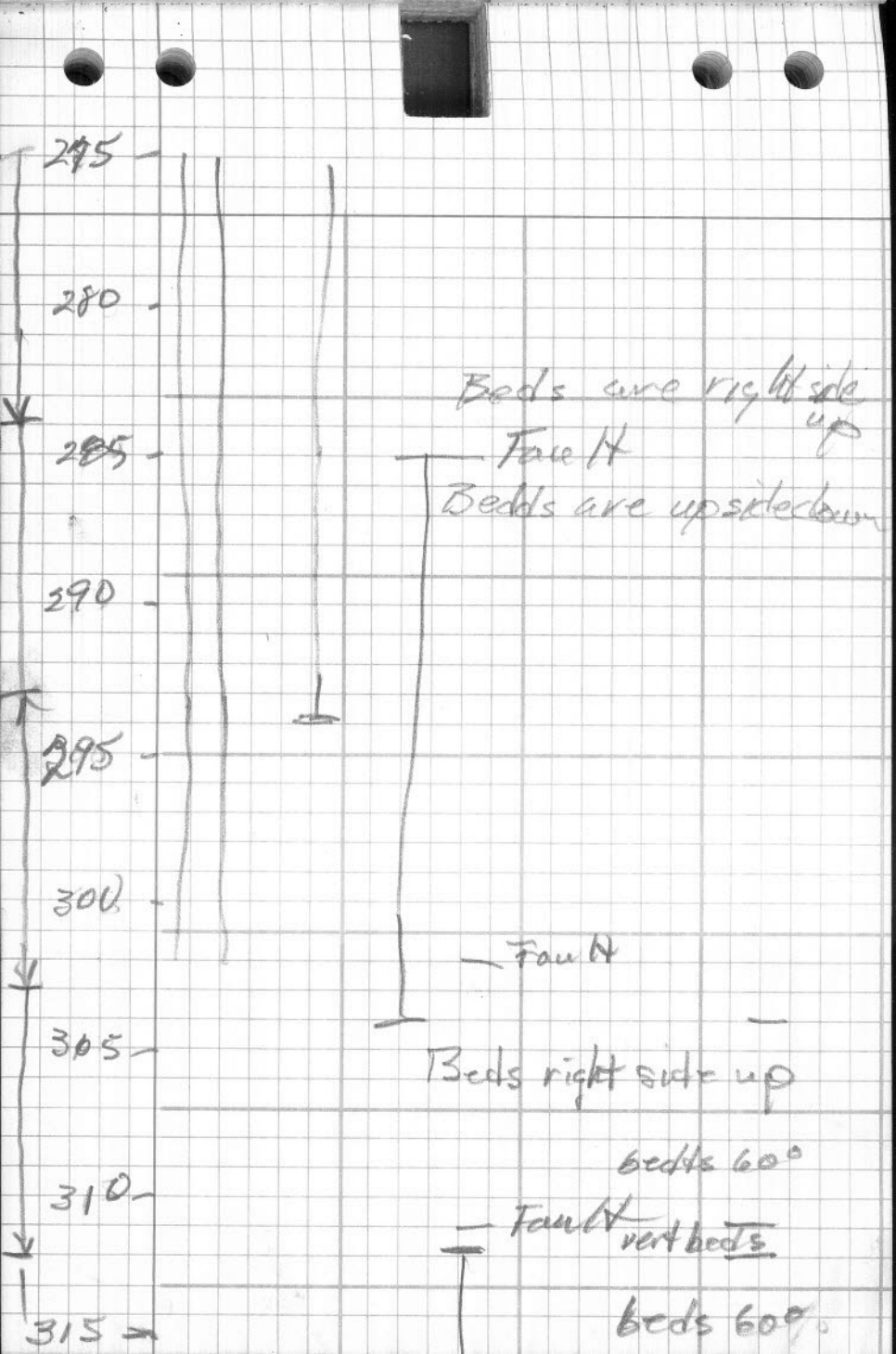

100
Soup
110
115
Soup
120
125
130
Bdd 75° to bdy Right side up
135
Bdd back 45° Right side up

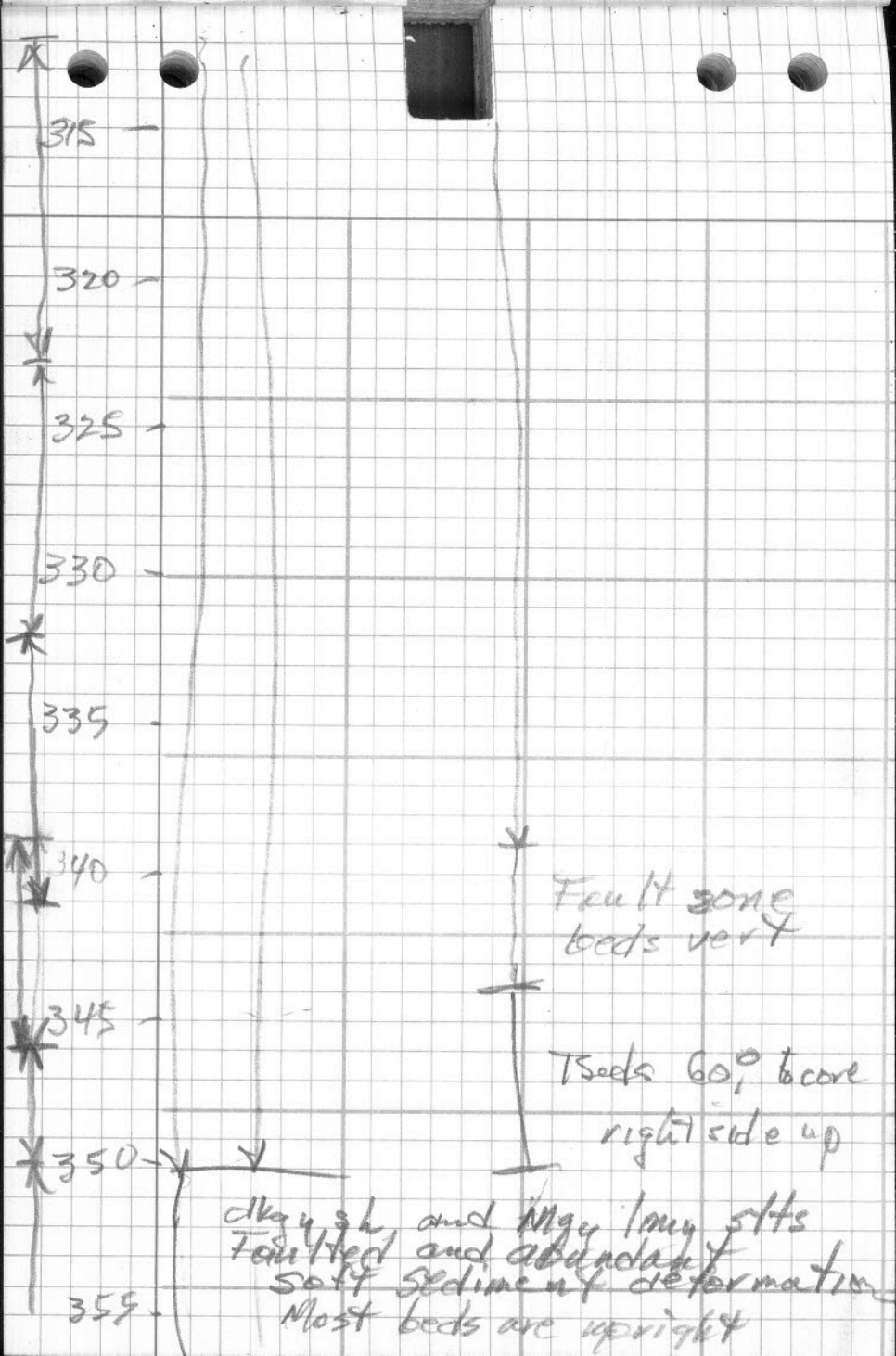

135
140
145
150
155
160
165
190
Fan Hed
I Calcite vein, 1 foot thick, 4" of pure calcite


170
175
180
185
190
195
200
205
- samp for Ag line
- fault


205
210
215
220
225
230
235
240
dk gy. shale, is non-lmy and up to 12" thick
Unit is still about 50% sltst
rocks still about 45° to bedding
Still lots of calcite
some of which may have some qtz


240
245
250
255
260
265
270
275
dips between 60° and 50° to Core


275
280
285
290
295
300
305
310
315
Beds are right side up
Fault
Beds are upside down
Fault
Beds right side up
Beds 60°
Fault
vert beds
Beds 60°


315
320
325
330
335
340
345
350
355
Fault zone
beds very
Tbeds 60° to core
right side up
clay sh and Mgy lmy slts
Faulted and abundant
soft sediment deformation
Most beds are upright

but all degrees of bedded
are present
Ims intervals have pyrite
from 5 - 80%

355

360 — blebs of sphalerite ≥
Ims breccia

365 — Sphalerite?

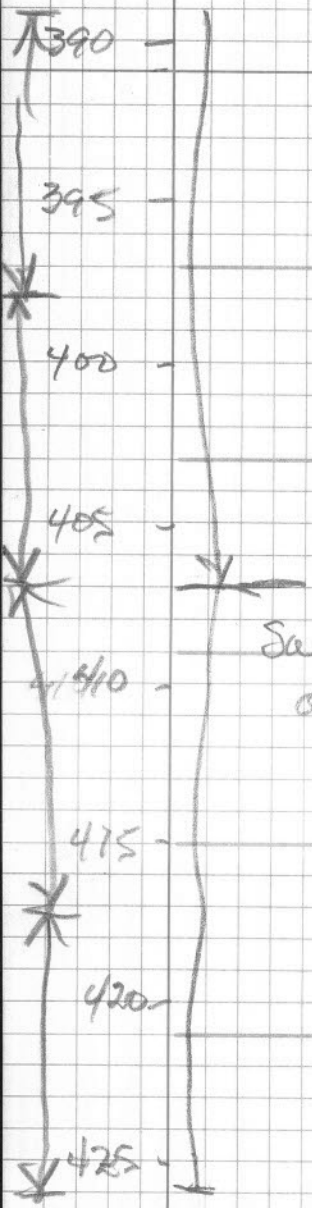
370

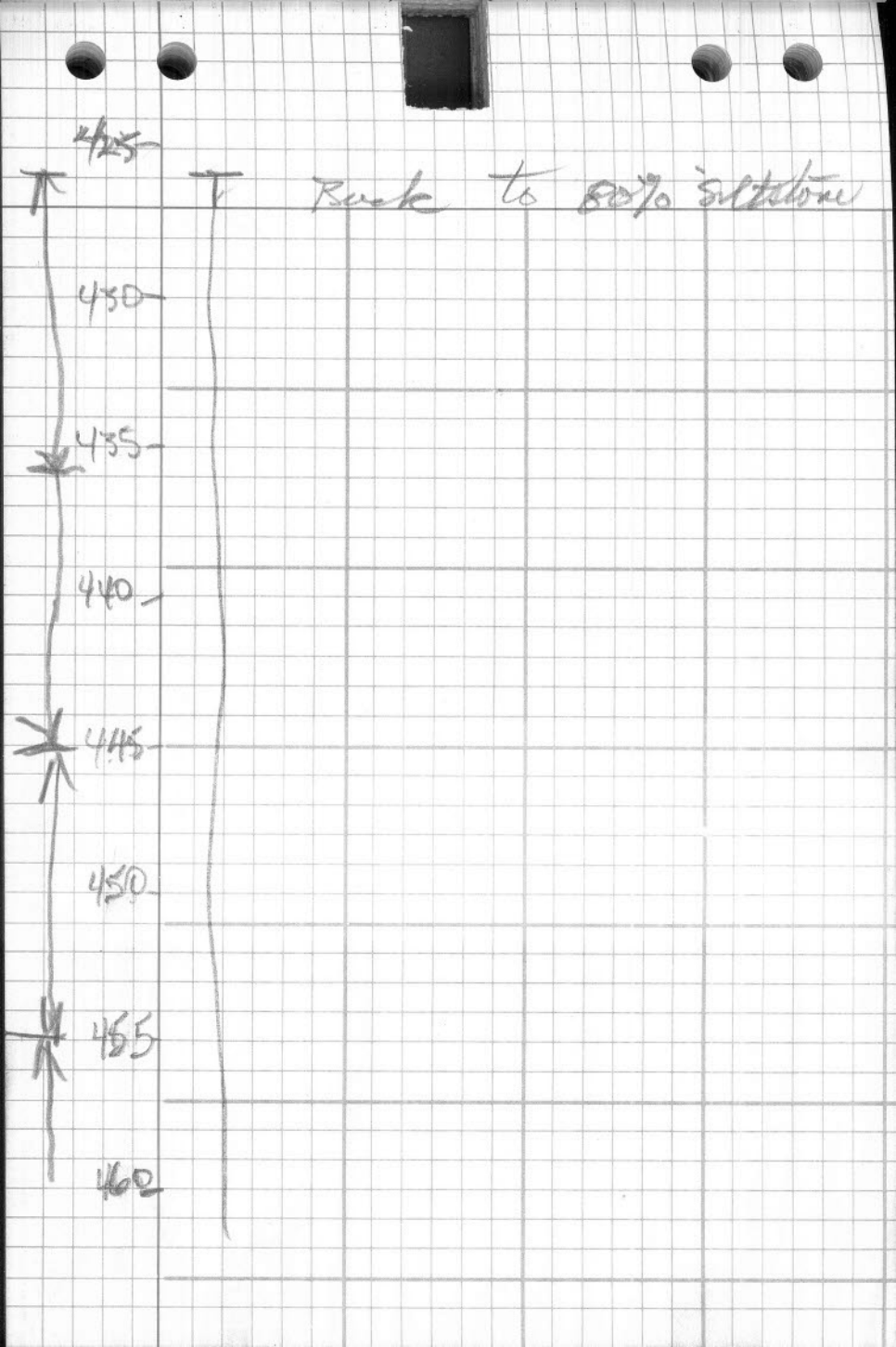
375

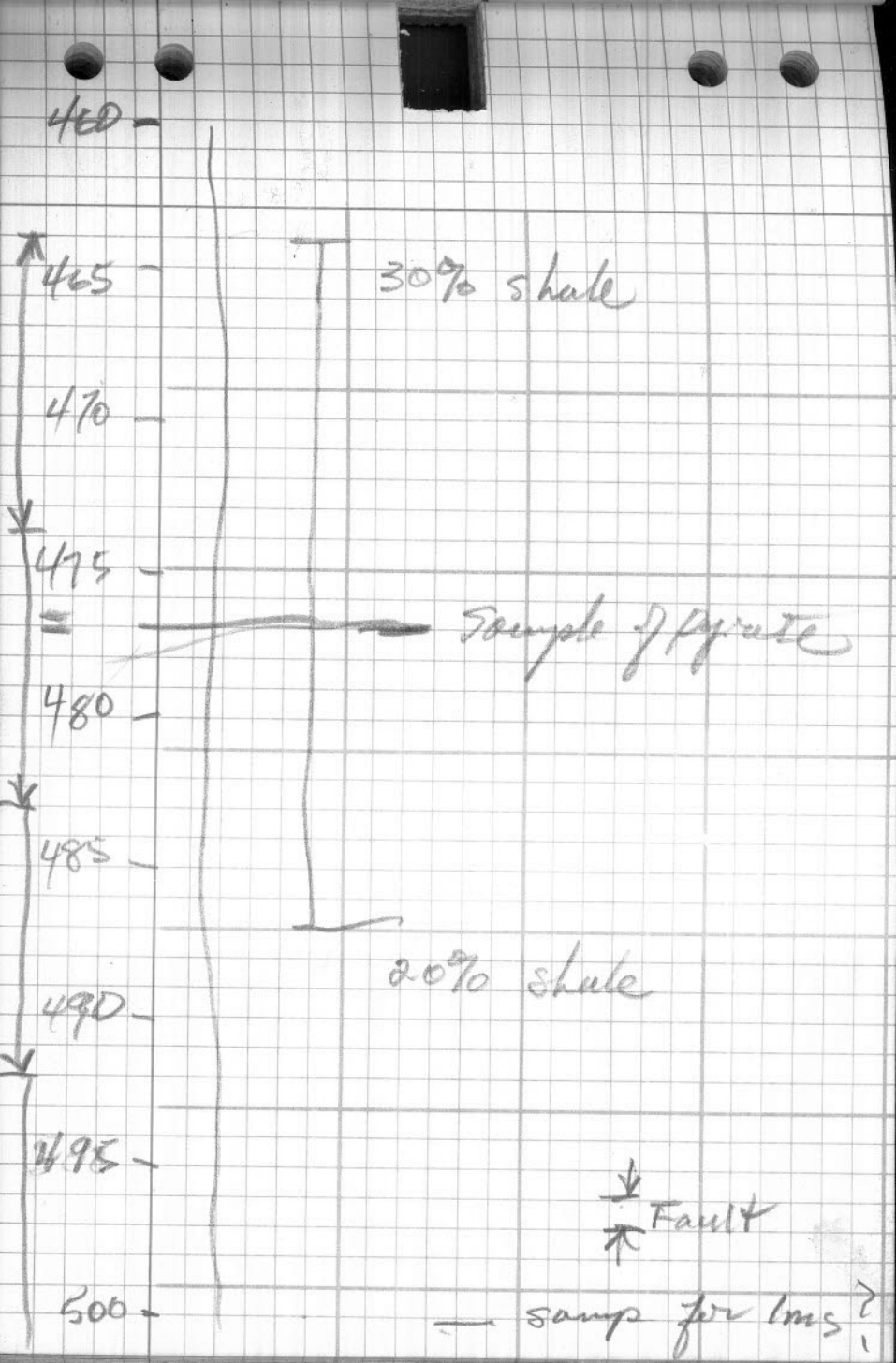
380 — Black stuff carbon?

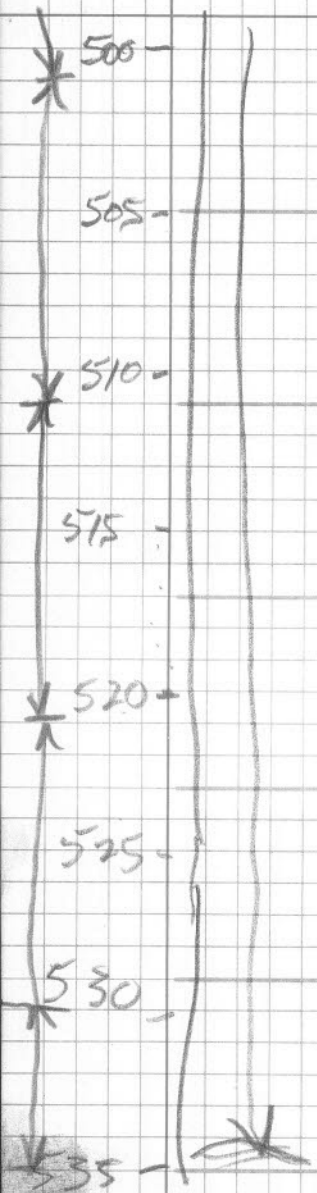
385

390


390
395
400
405
410
415
420
425
Same as above but
only 20% is siltstone


425
Rock to 80% saturation
430
435
440
445
450
455
460


460
465
470
475
480
485
490
495
500
30% shale
Sample of Pyrite
20% shale
Fault
— samp for lms ?


500
505
510
515
520
525
530
535

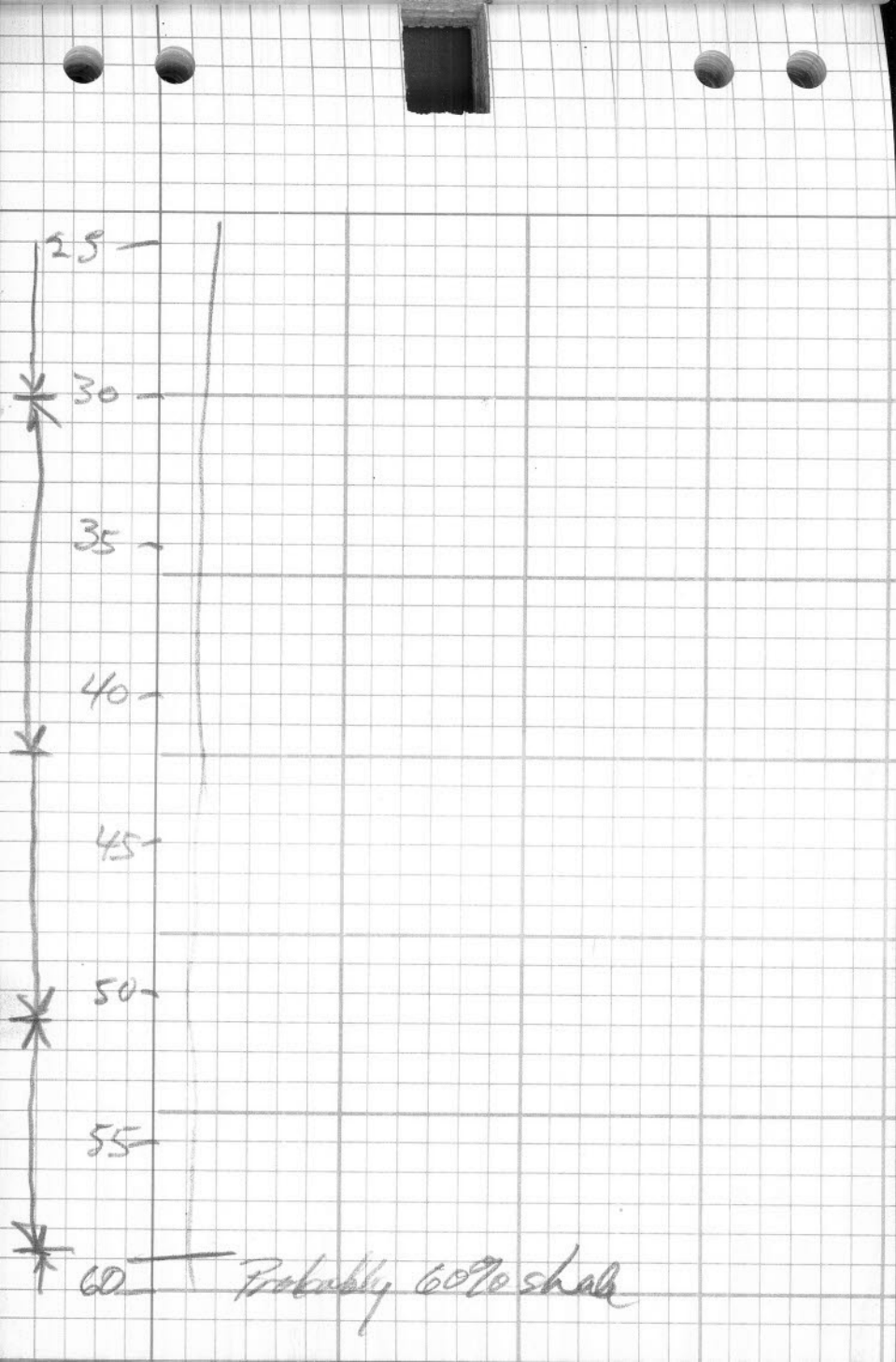
M-1

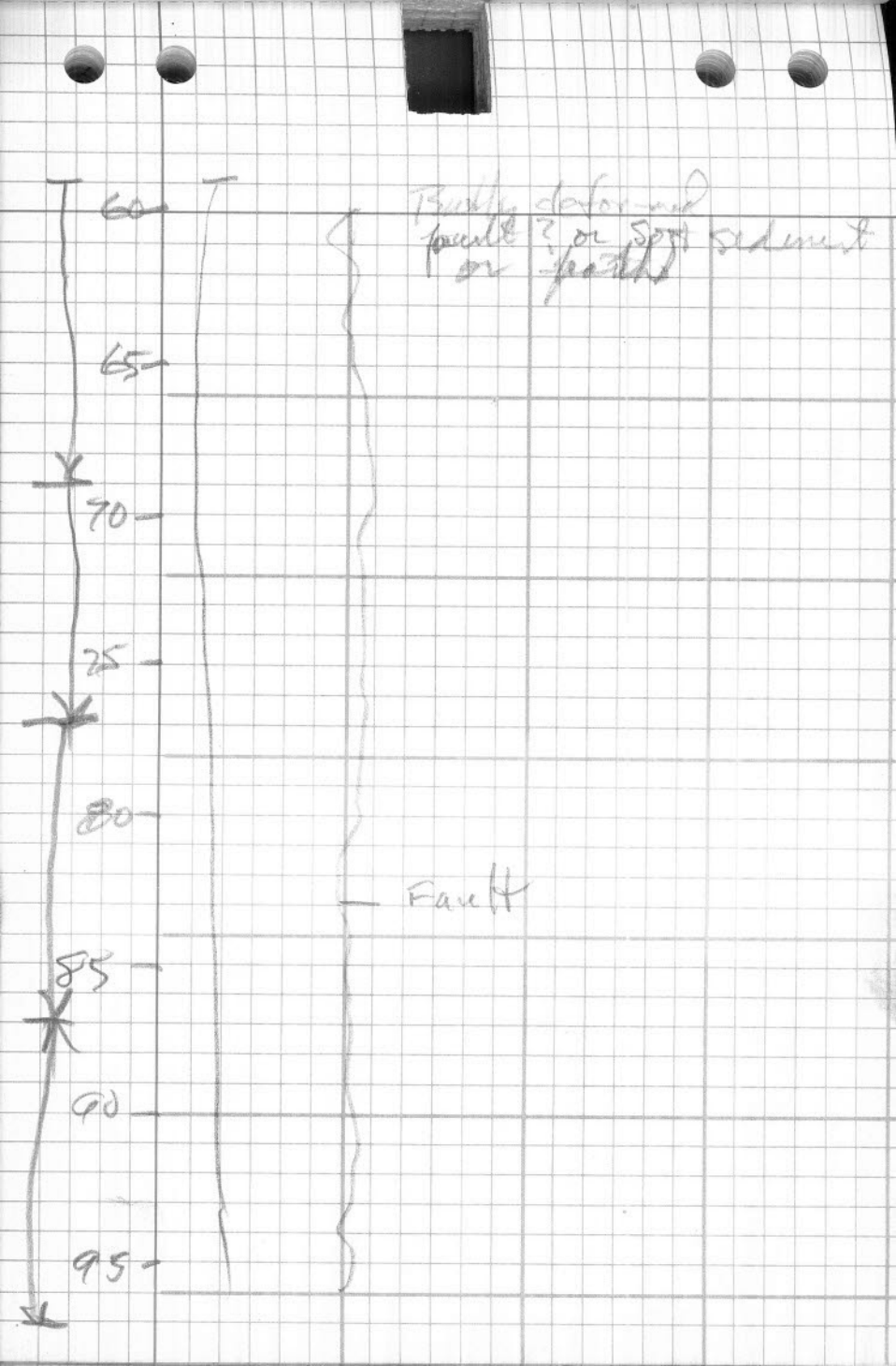
NE NE SW 18 4S 25W

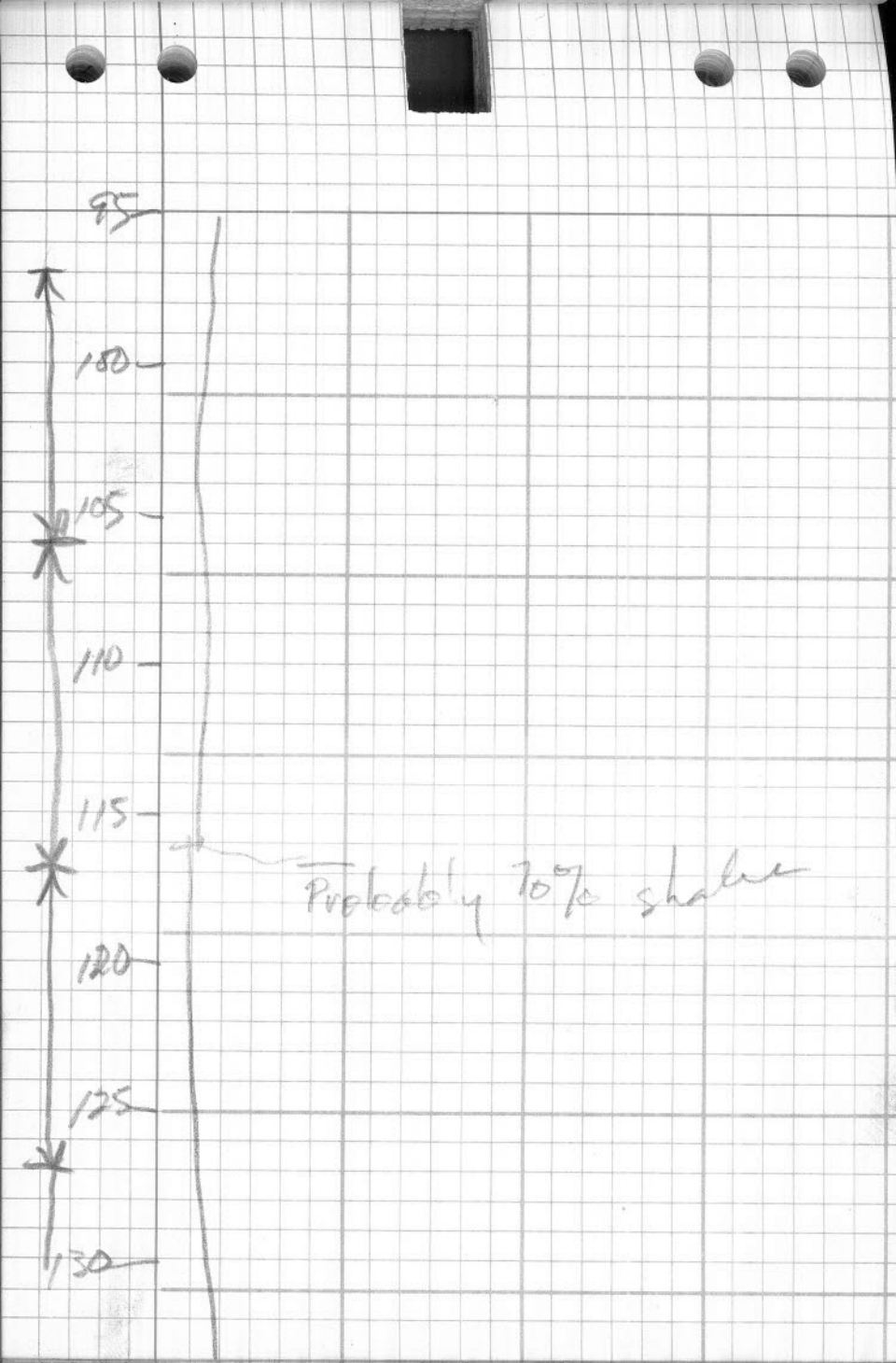
T.D. 365 ft

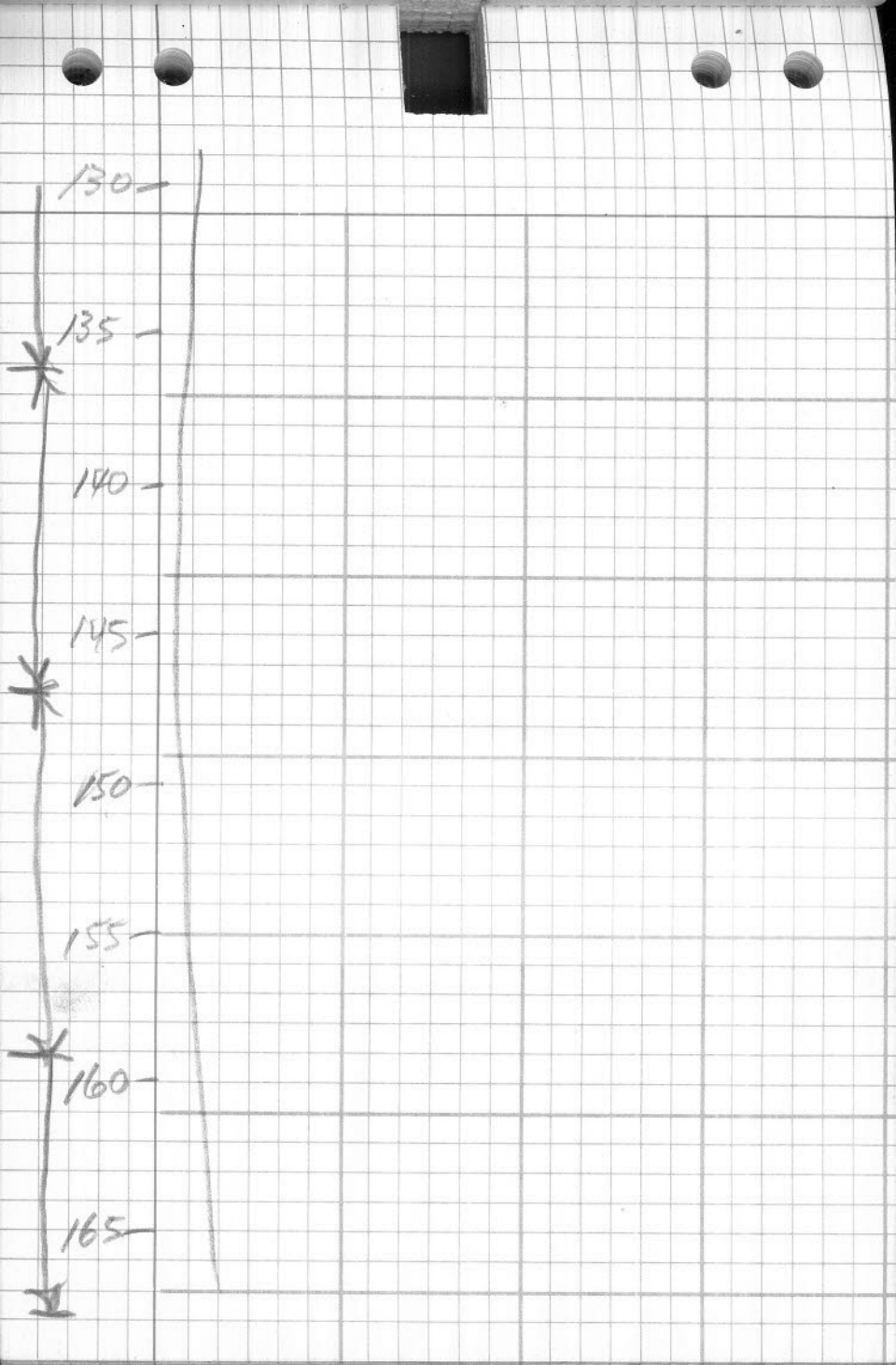
Angle from Vert 30°

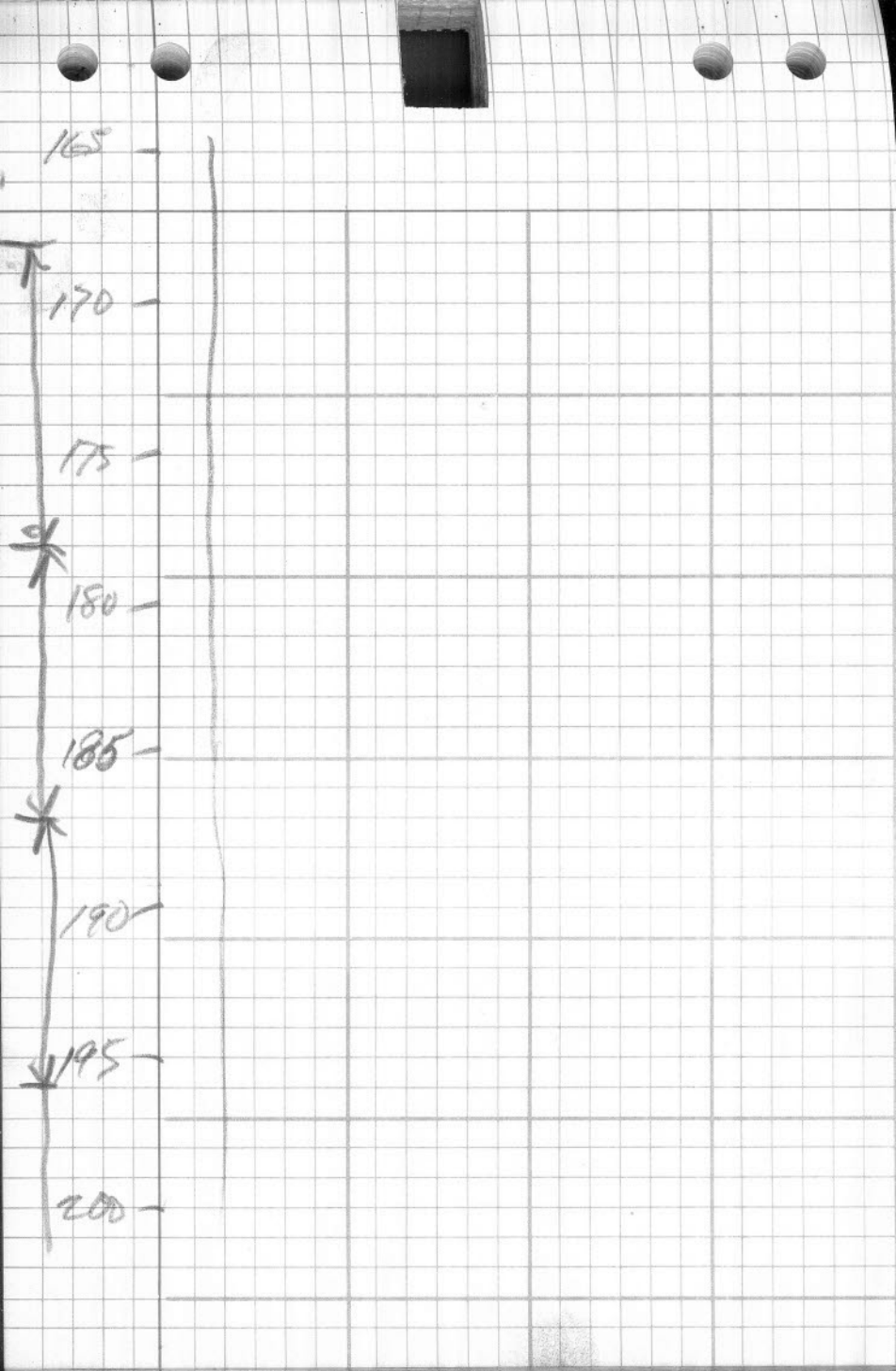
Azimuth 184°

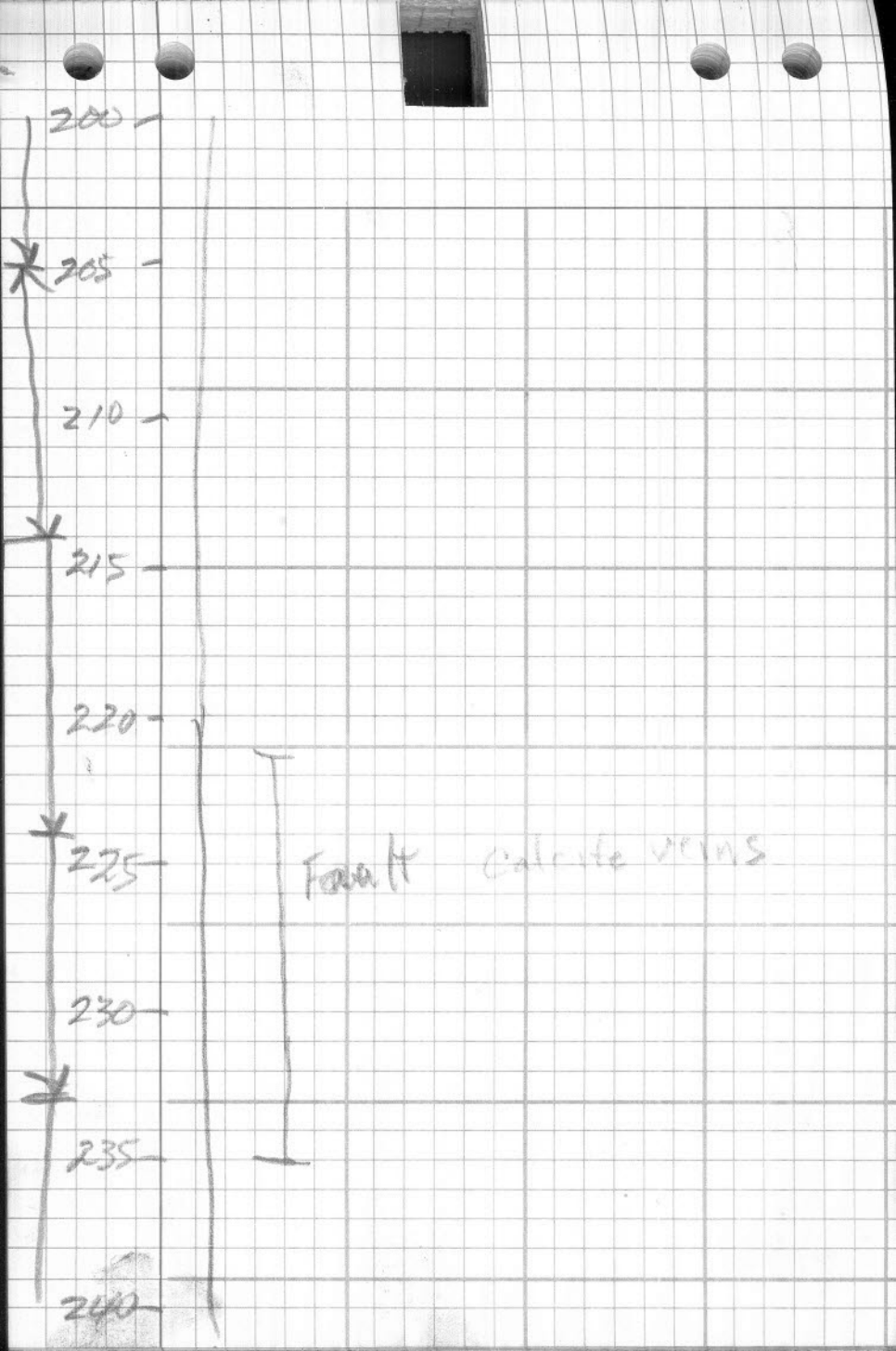

25
30
35
40
45
50
55
60
Probably 60% shale

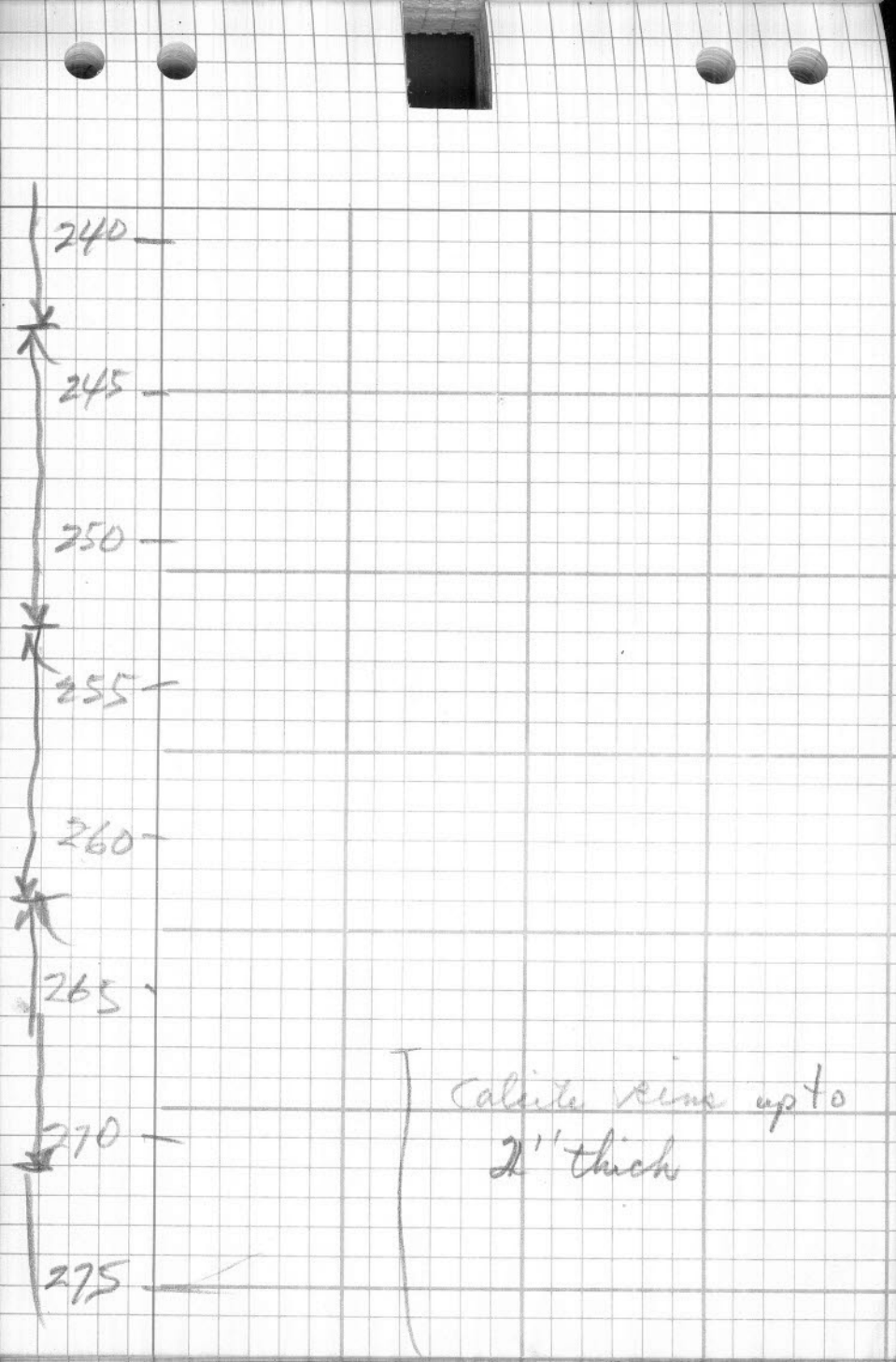

60
65
70
75
80
85
90
95
Fault

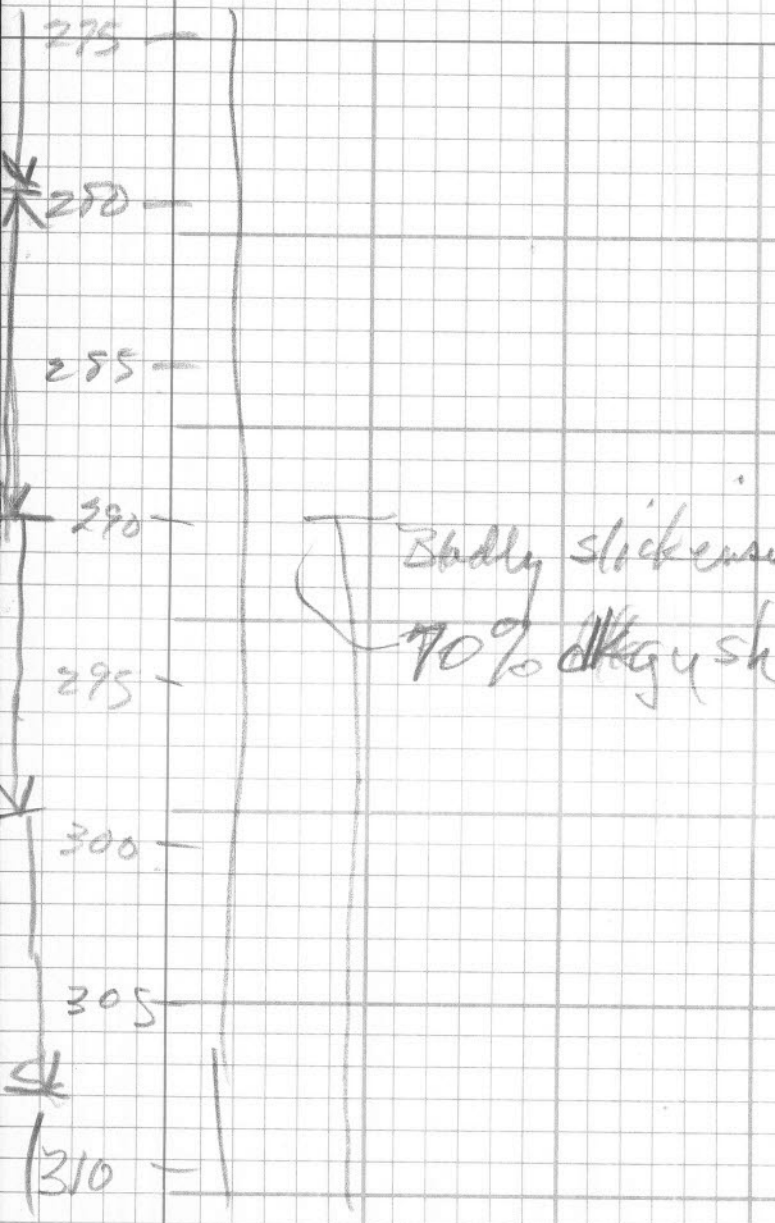

95
100
105
110
115
120
125
130
Probably 70% shale

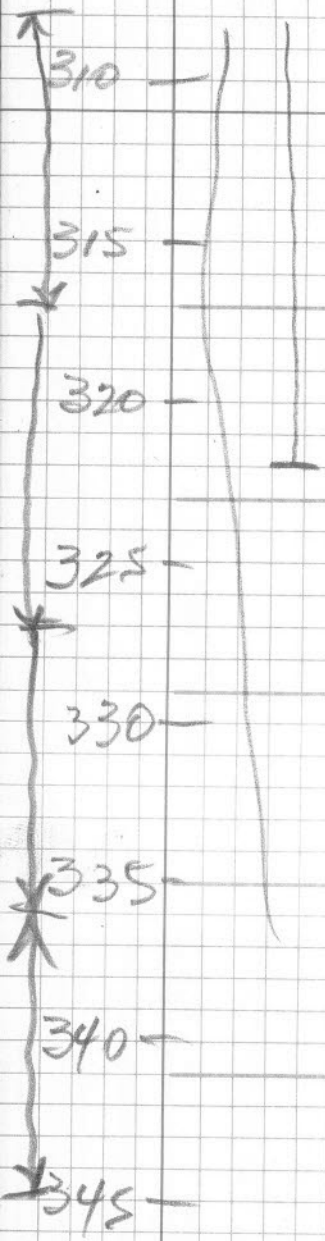

130
135
140
145
150
155
160
165

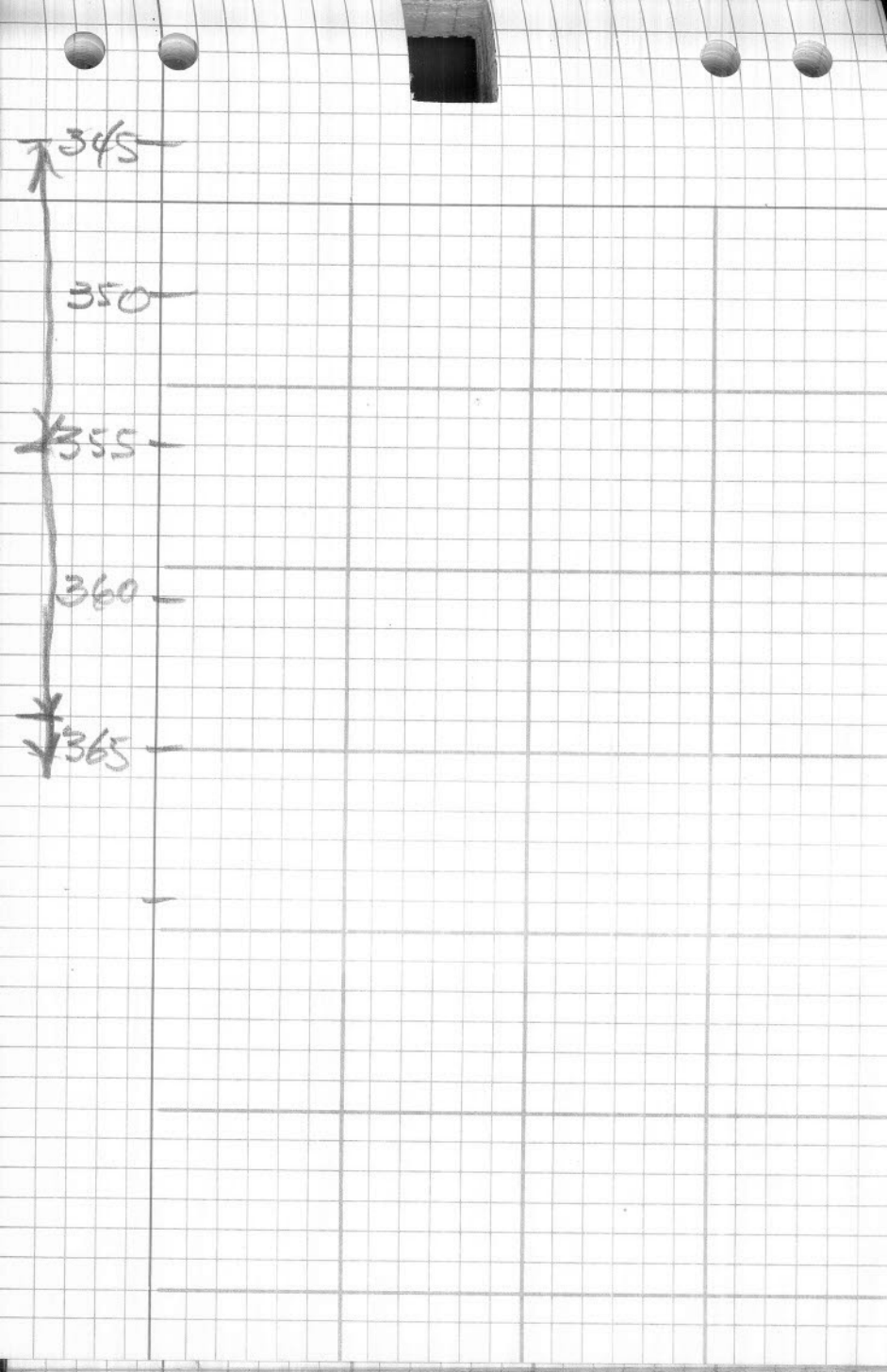

165
170
175
180
185
190
195
200


200
205
210
215
220
225
230
235
240
Fault
Calcite veins


240
245
250
255
260
265
270
275
Calcite veins upto
2" thick


275
250
255
290
295
300
305
310
Bloody slick encircled
70% darkish


310
315
320
325
330
335
340
345


345
350
355
360
365

MC 4

NW SE NW Sec 8 4S 25W

TD 575 ft

Angle from vert 35

Azimuth 040°

Base of Big Fork 149 ft

upper 149' of well is incomplete and was not sampled rock as dkgy decalcified siliceous shale quartz veins up to 1/4" no gold found

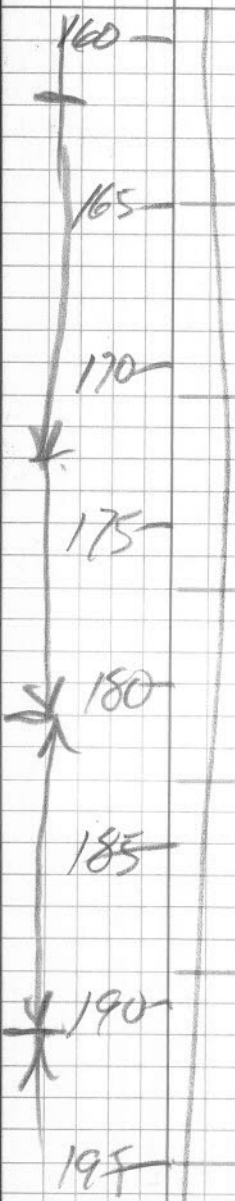
Big Fork

Womble

150 M-dkgy lms some with v coarse grained ~~lms.~~ calcite veins, ~~bedding~~

155 at 45° to core and is right side up.

160


160
165
170
175
180
185
190
195

195

200

205

210

215

220

225

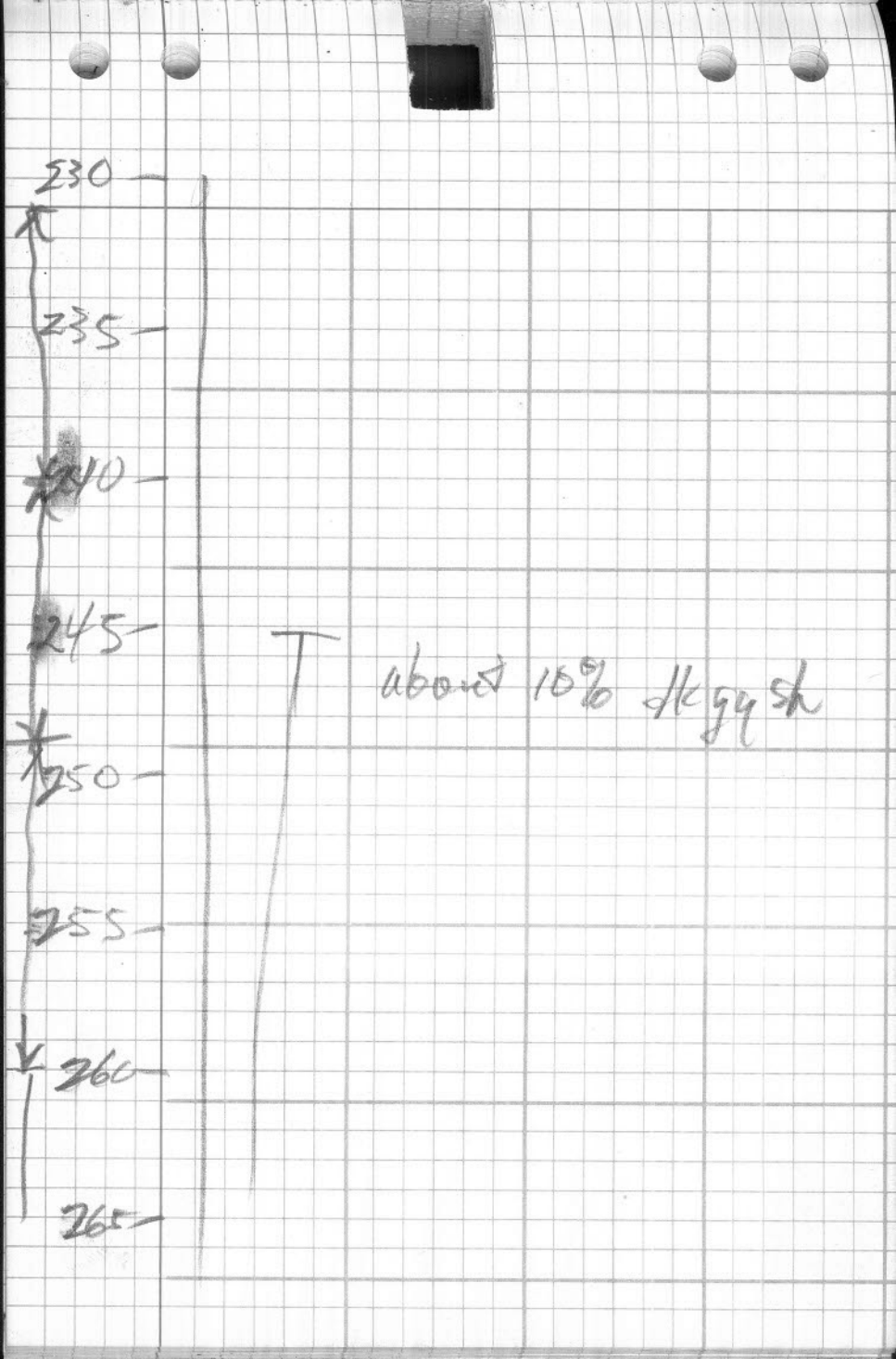
230

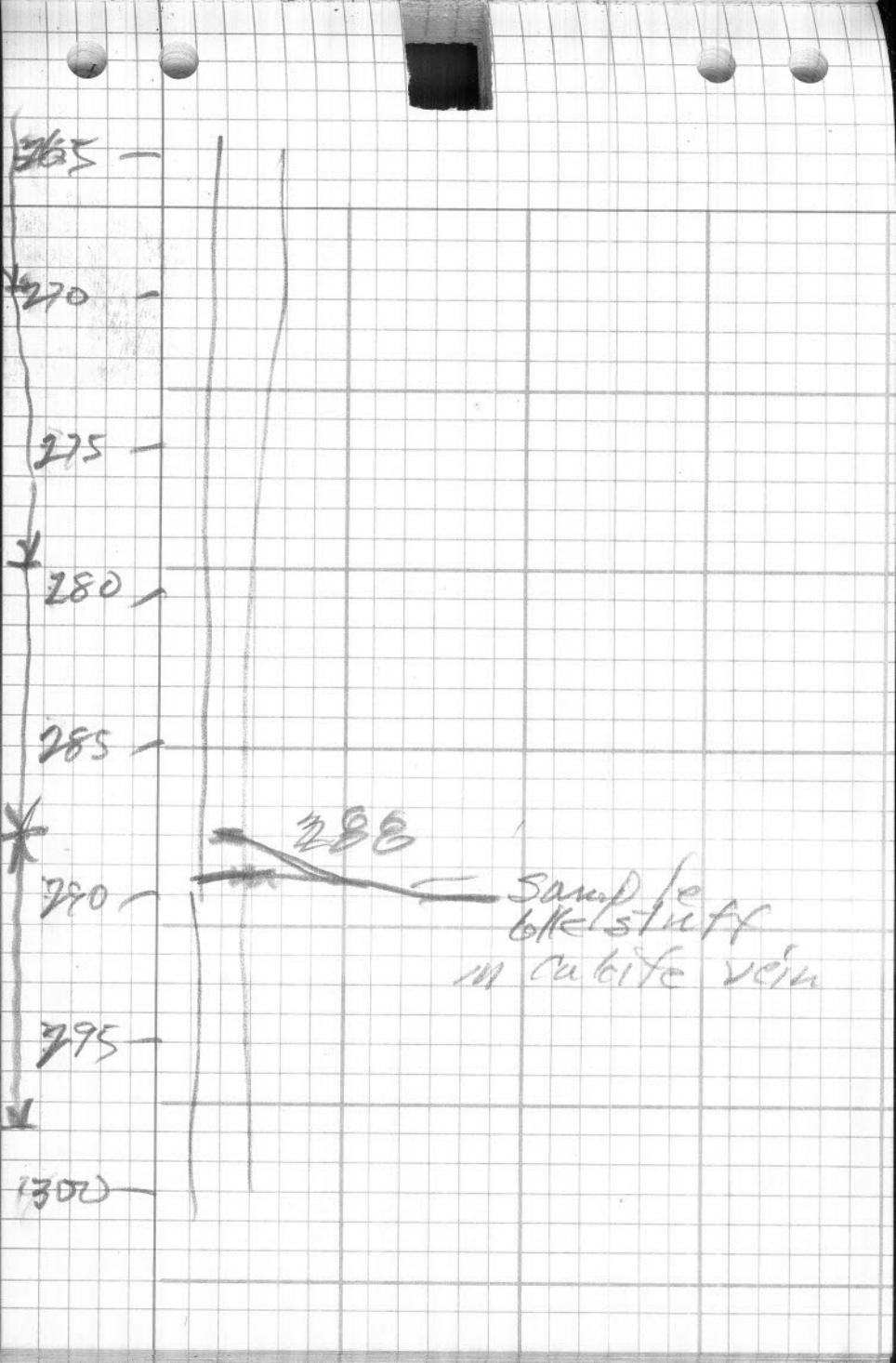
dkgy shale sl (cmy but has been decalcified represented by 2' of core

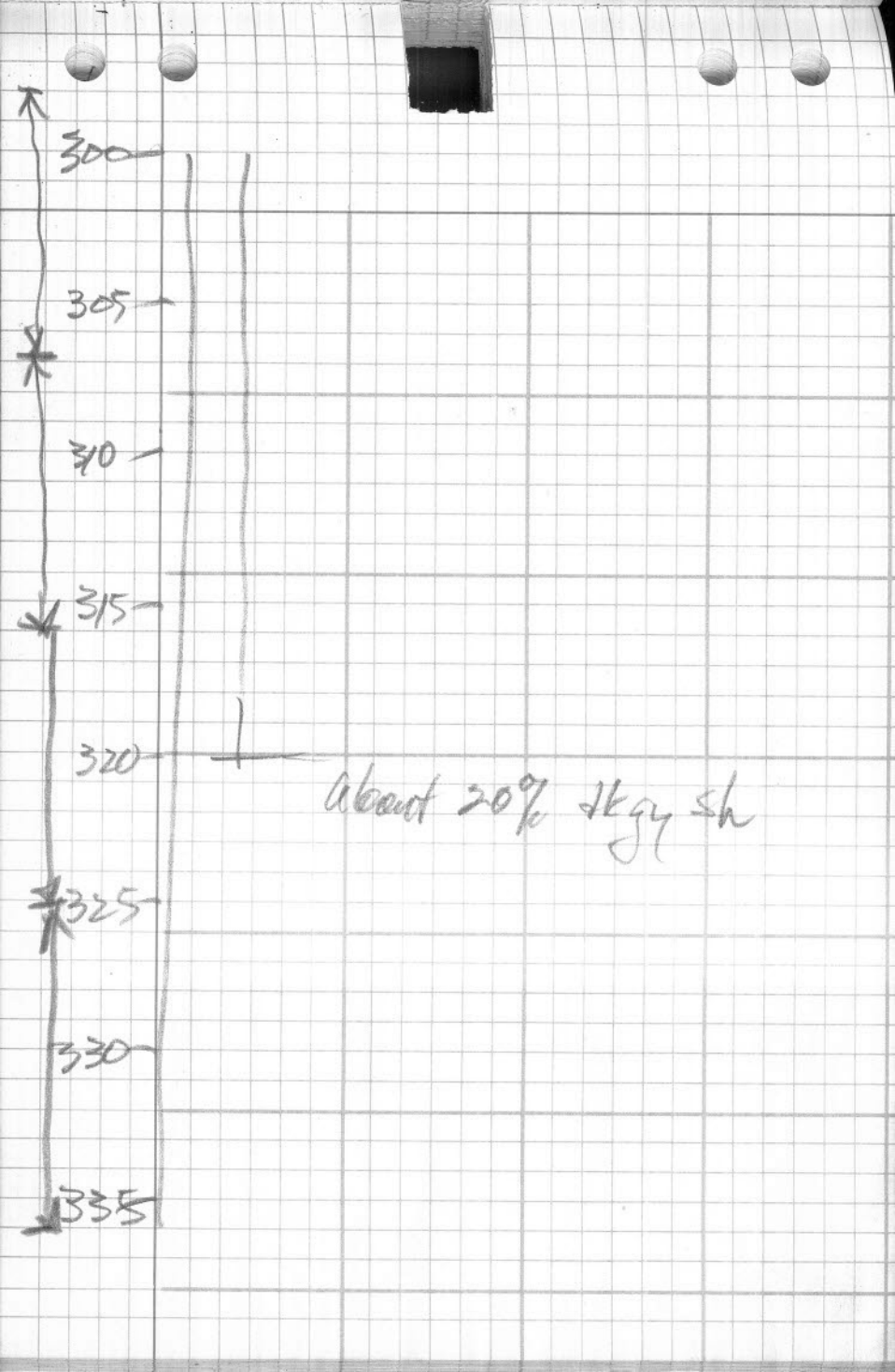
Qtz vein

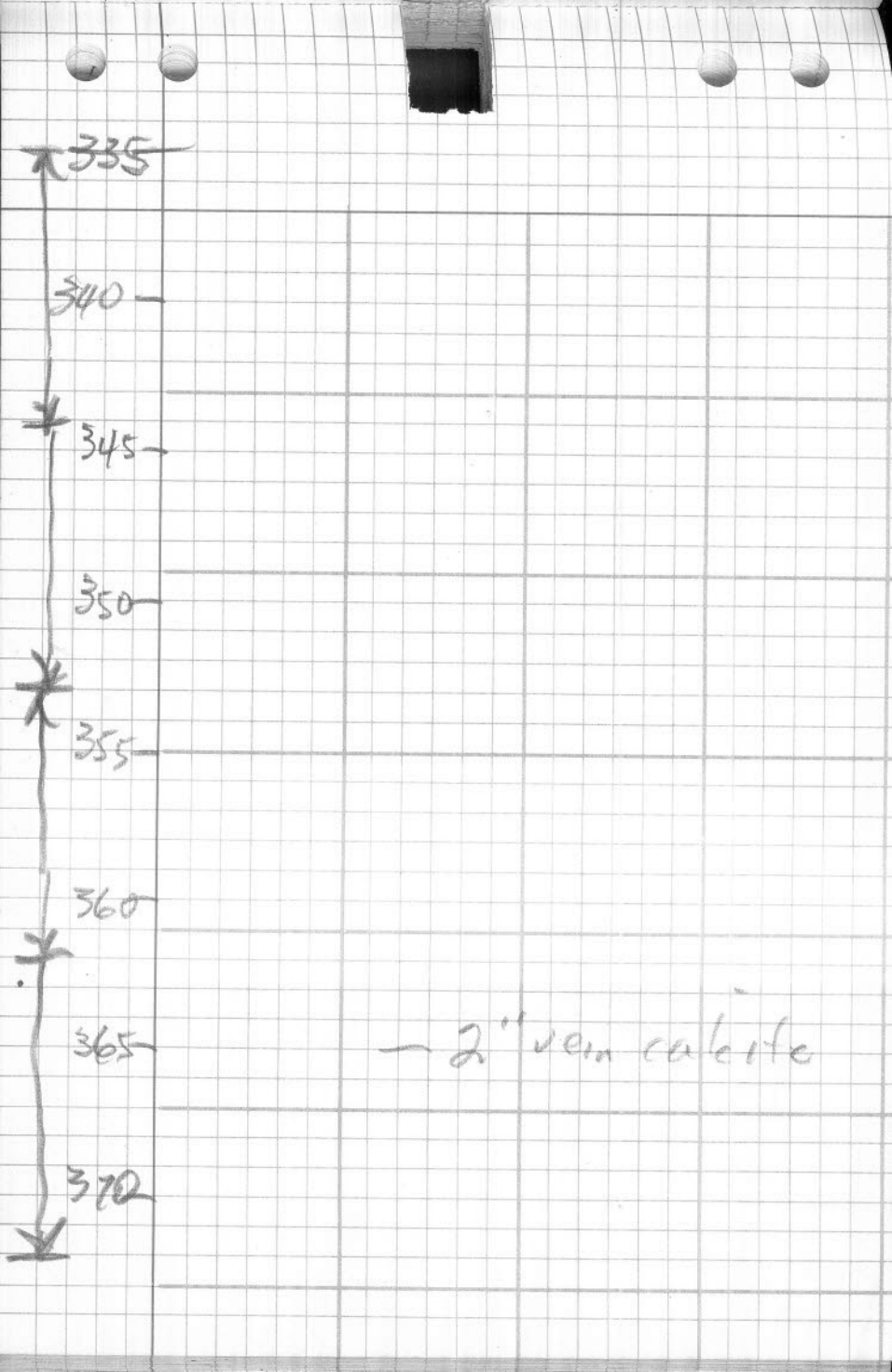
m-dgy lms ~~bedding~~ 45° right side up

calcite veins


230
235
240
245
250
255
260
265
about 10% decrease


265
270
275
280
285
288
290
295
300
sandy bkt stuff
in calcite vein


300
305
310
315
320
325
330
335
about 20% drop


335
340
345
350
355
360
365
370
— 2" vein calcite

370

375

380

abundant calcite veins

NC-4A

150

155

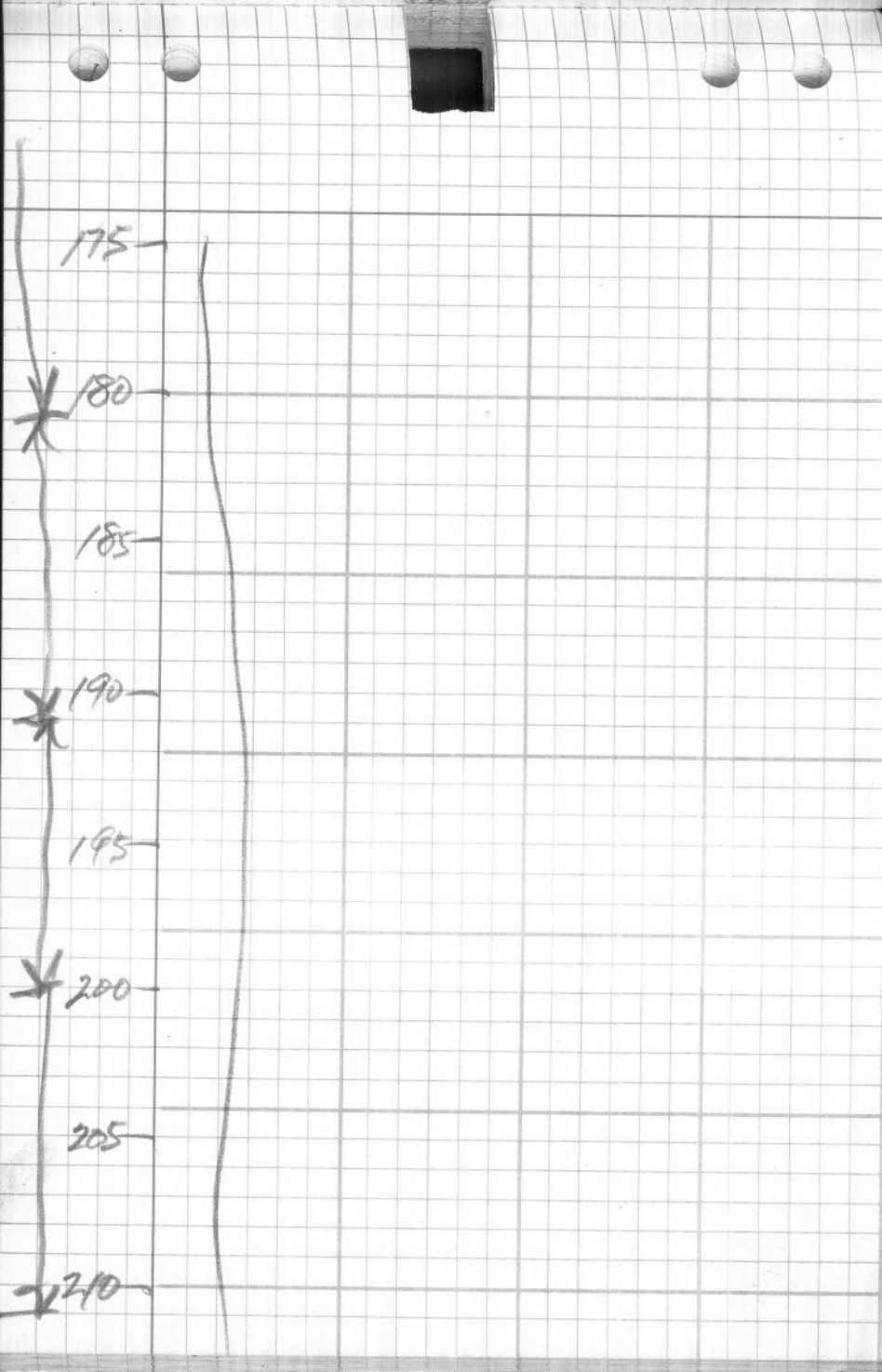
160

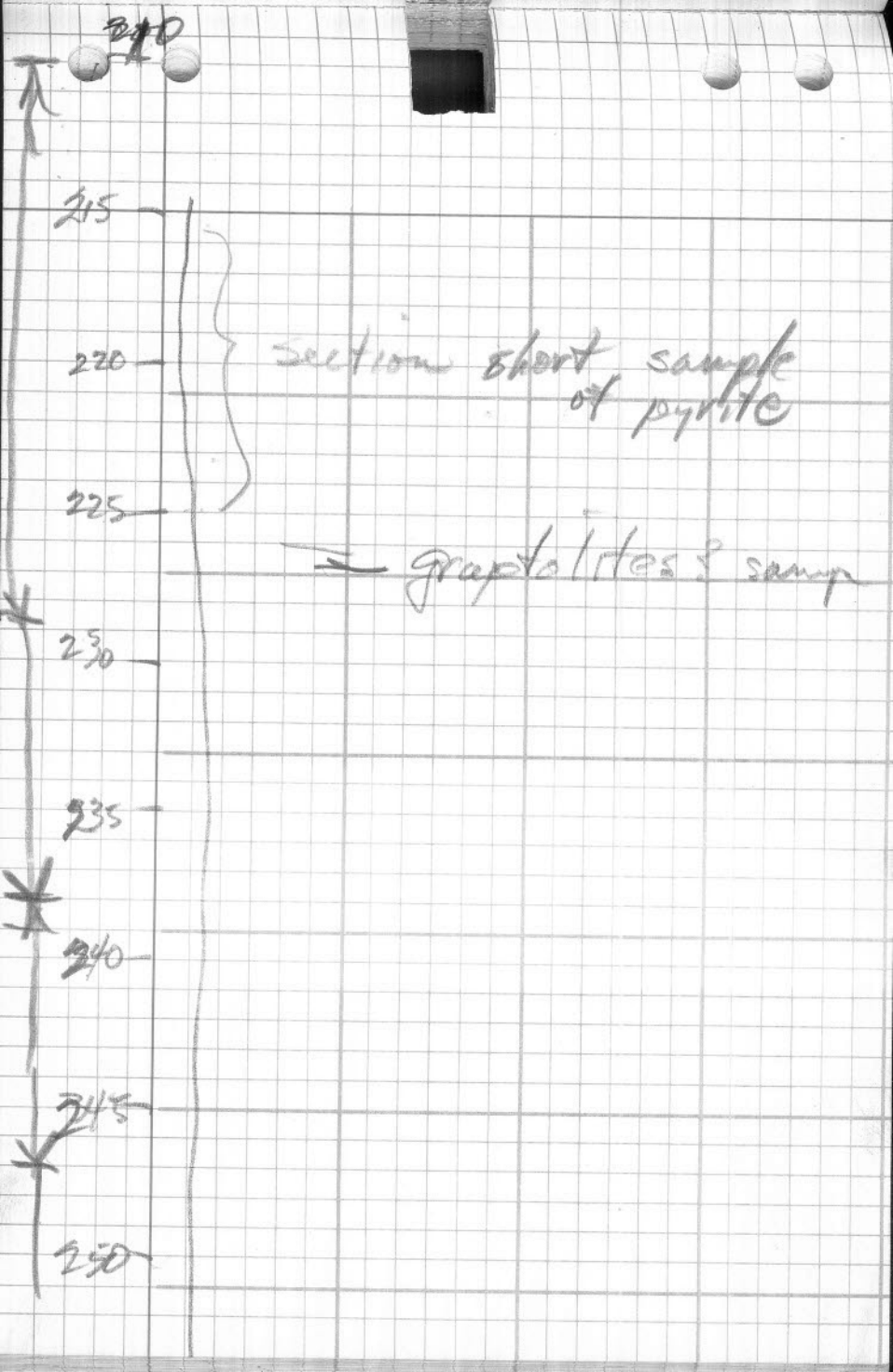
165

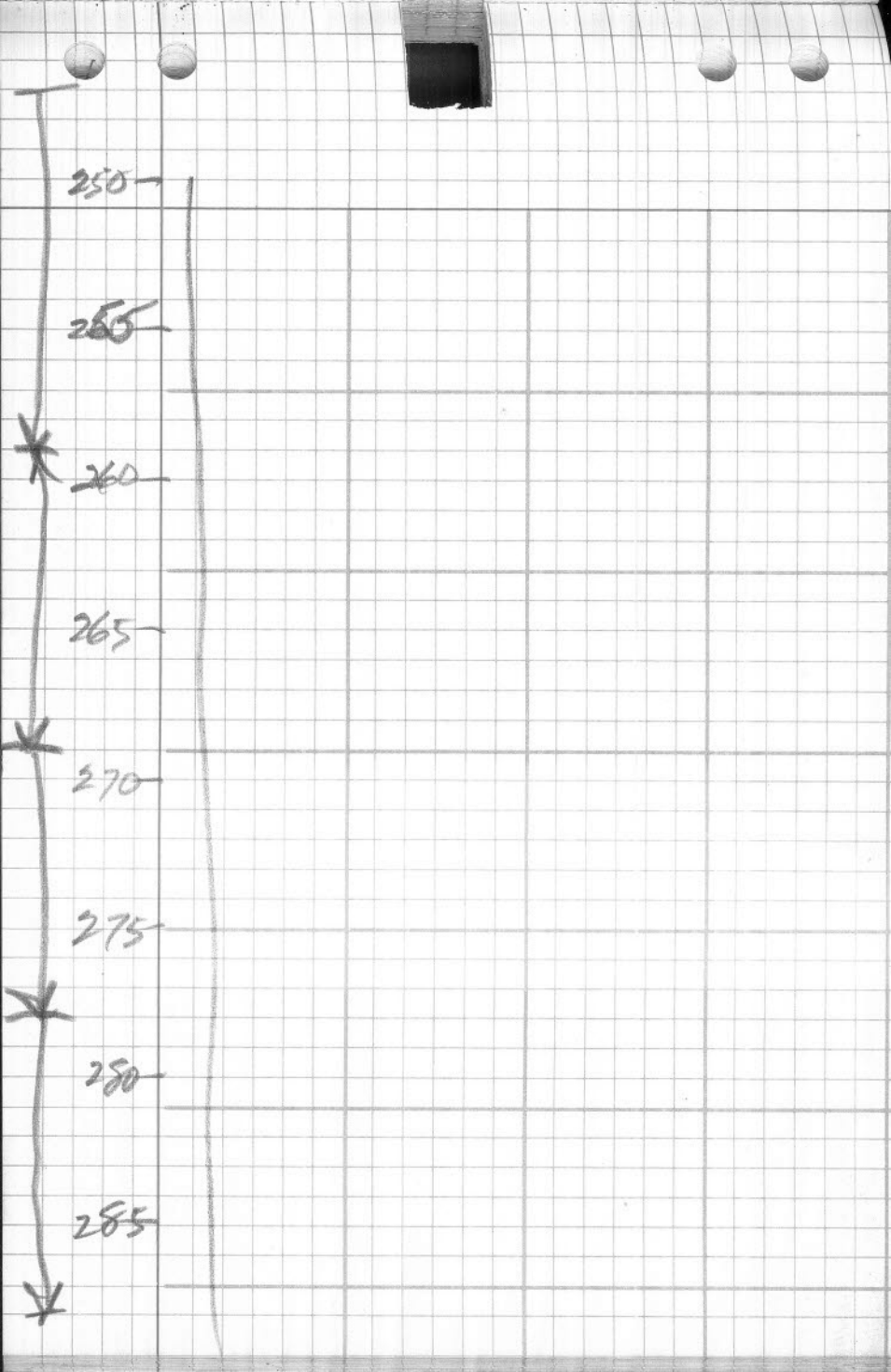
170

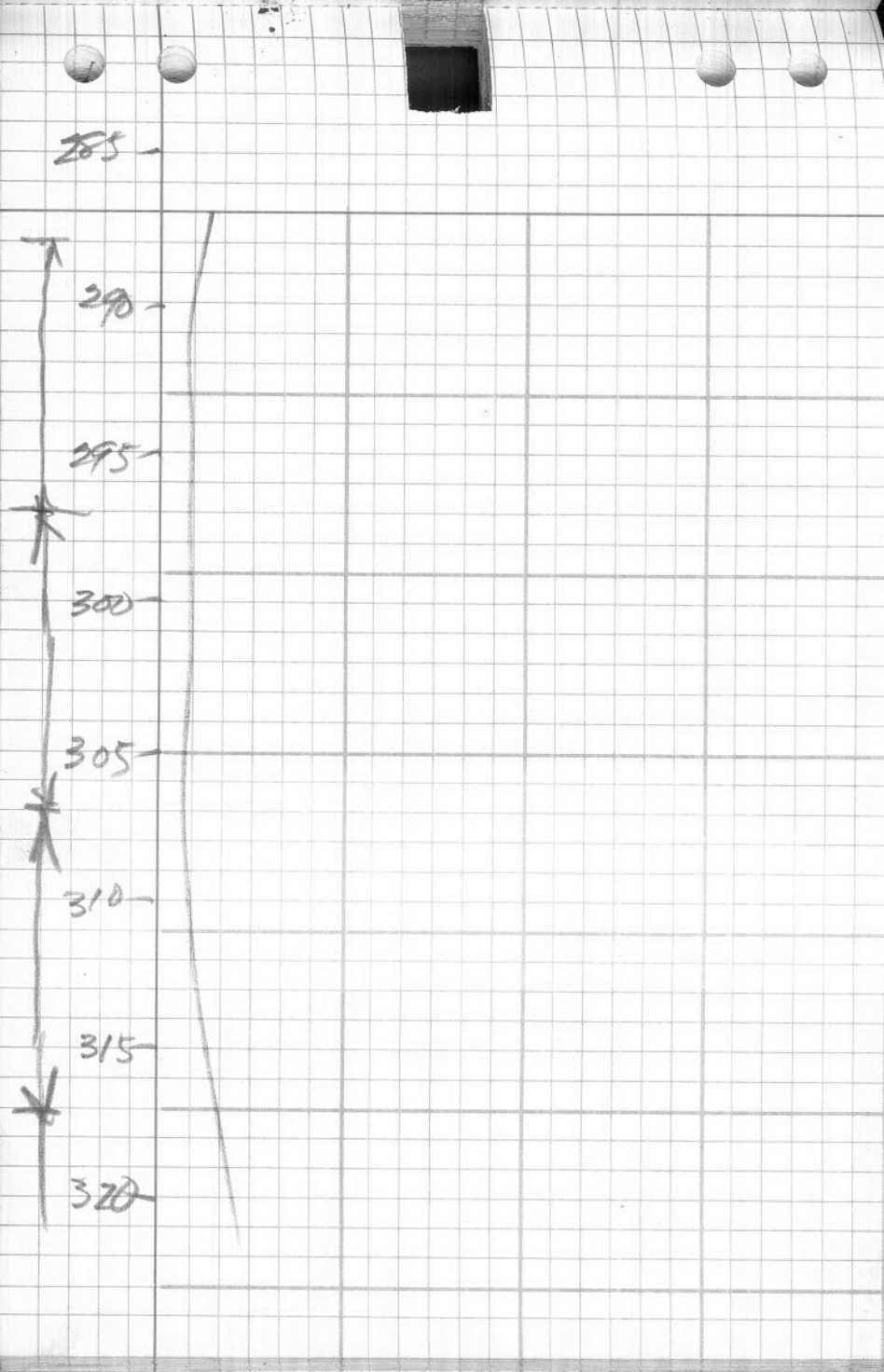
175

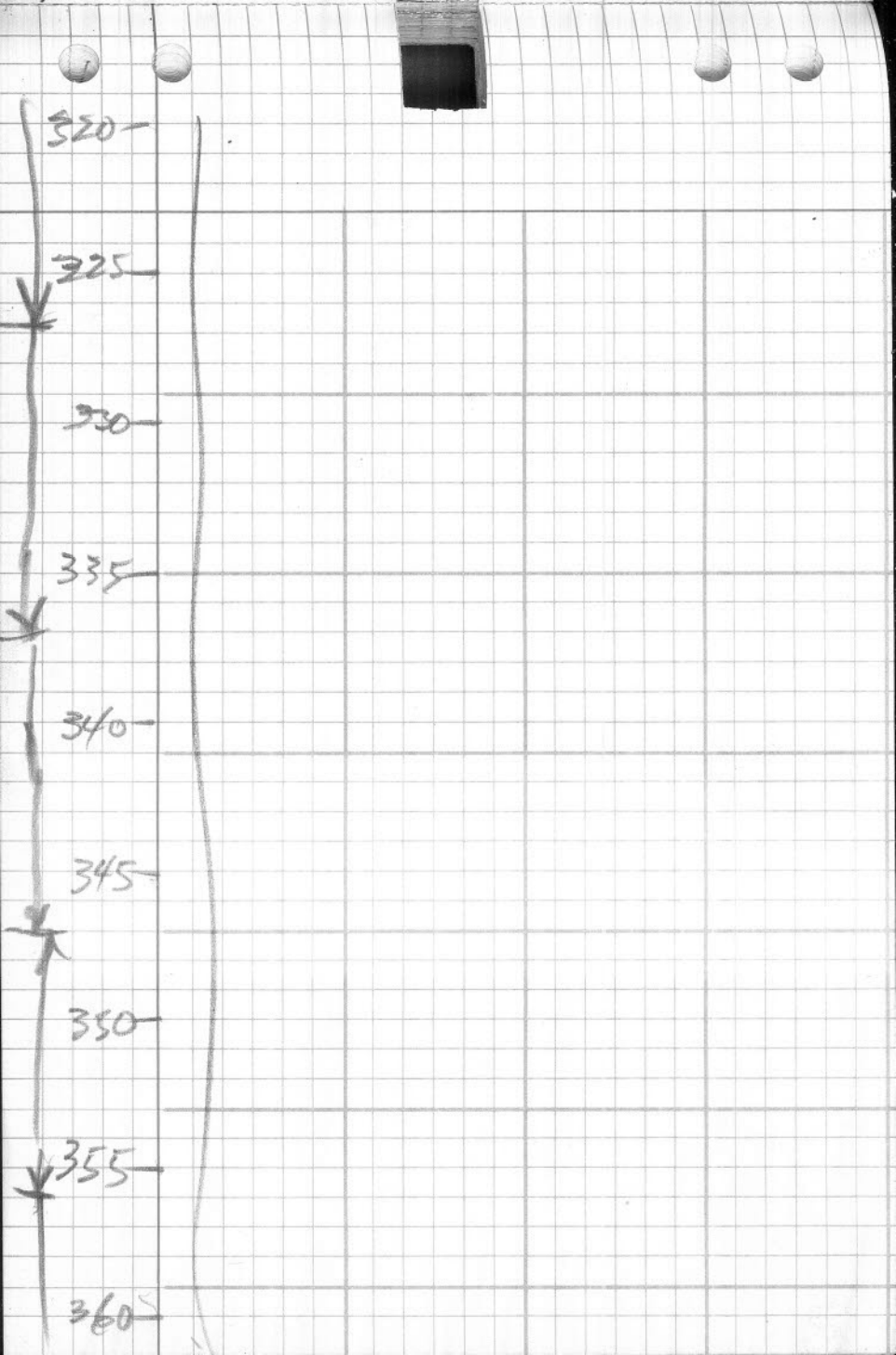
Medium to coarse grained dacite
light side up at 45°
calcite veins up to 5" thick

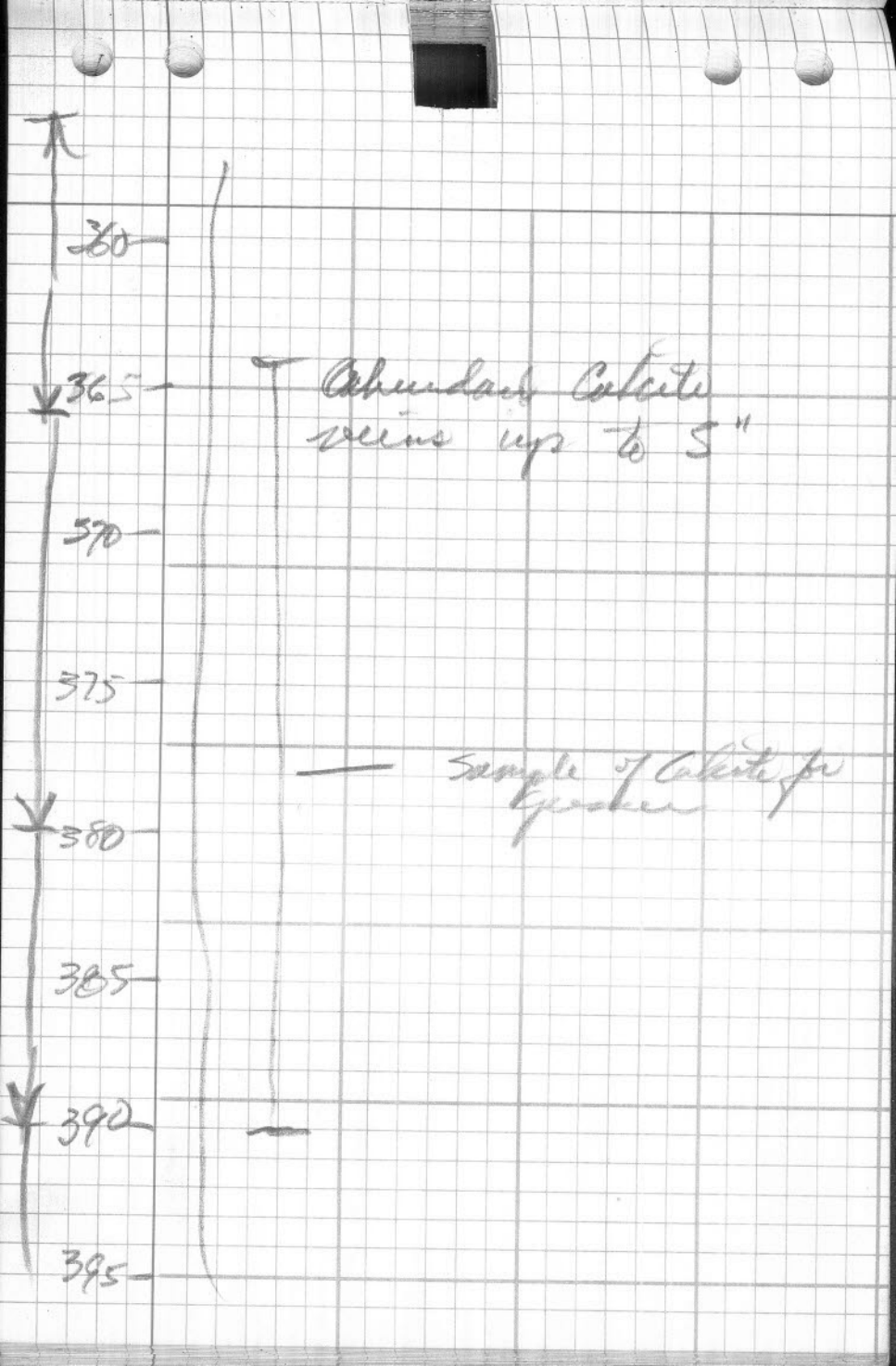

175
180
185
190
195
200
205
210

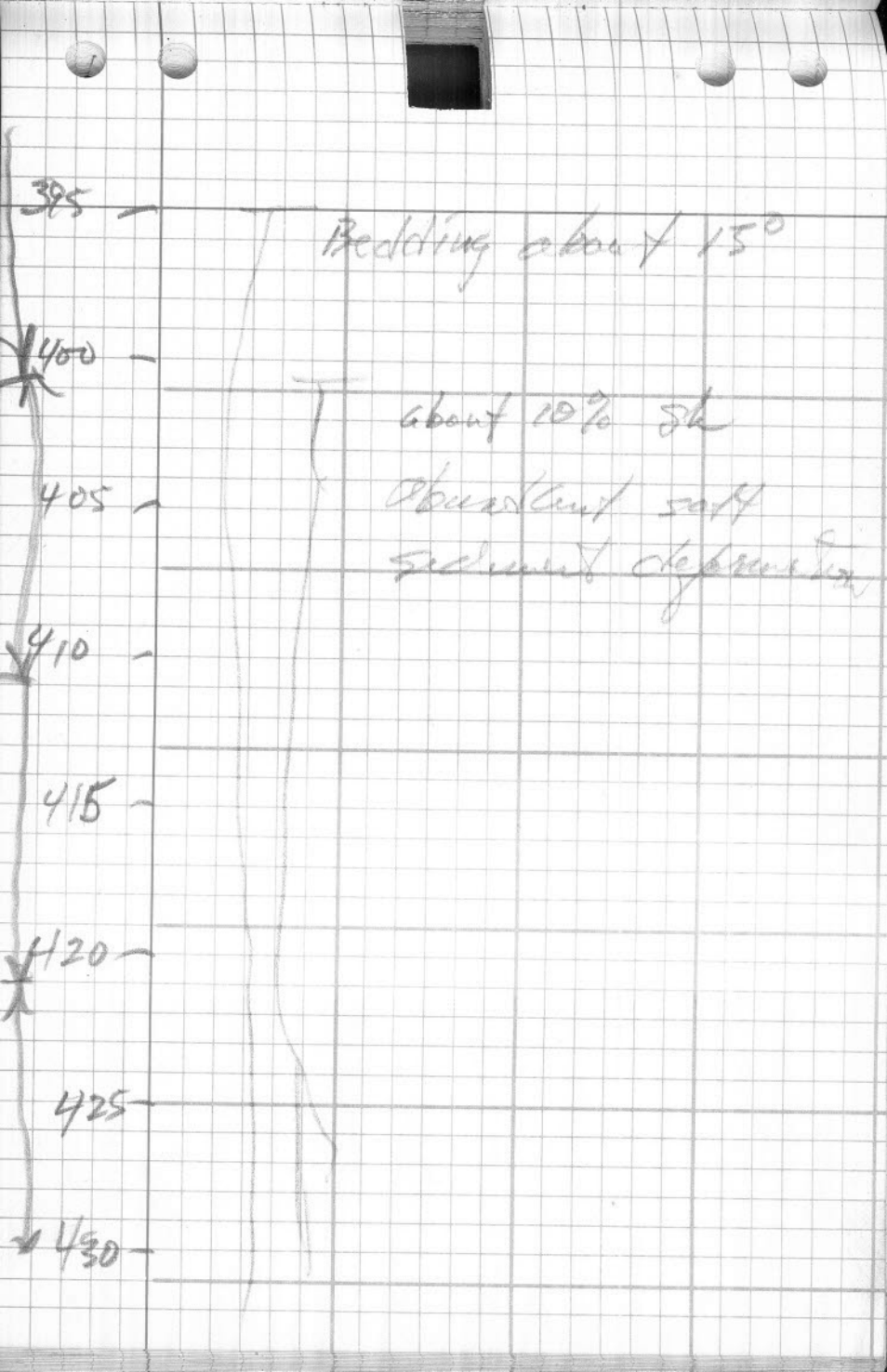

215
220
225
230
235
240
245
250
section short sample of pyrite
graptolites? samp

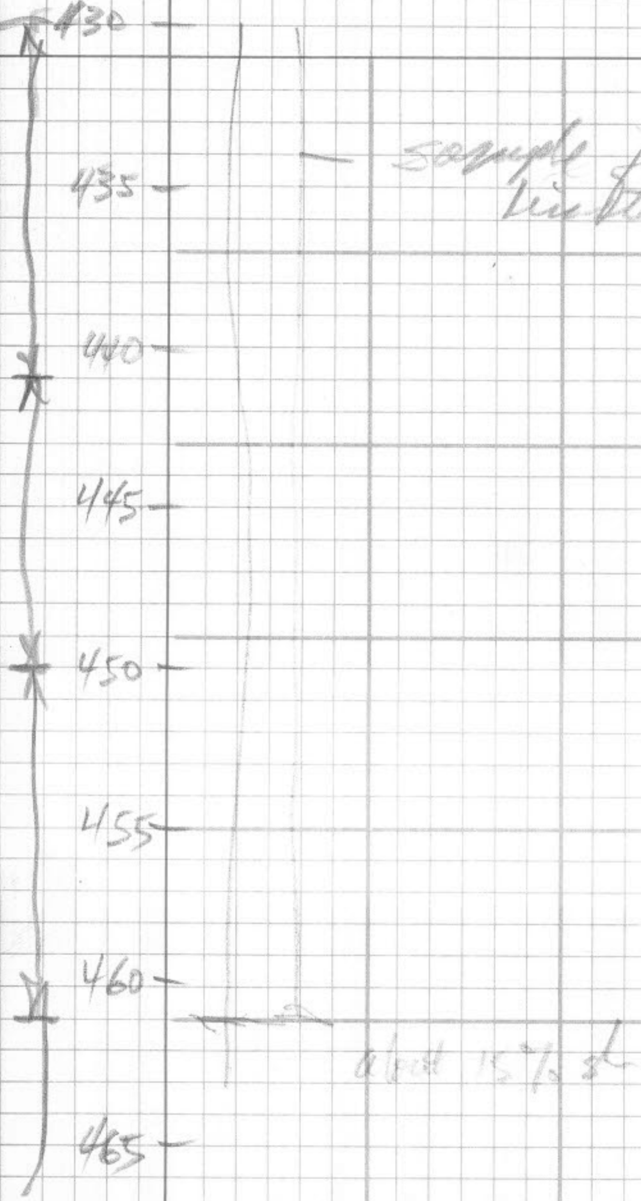

250
255
260
265
270
275
280
285


285
290
295
300
305
310
315
320

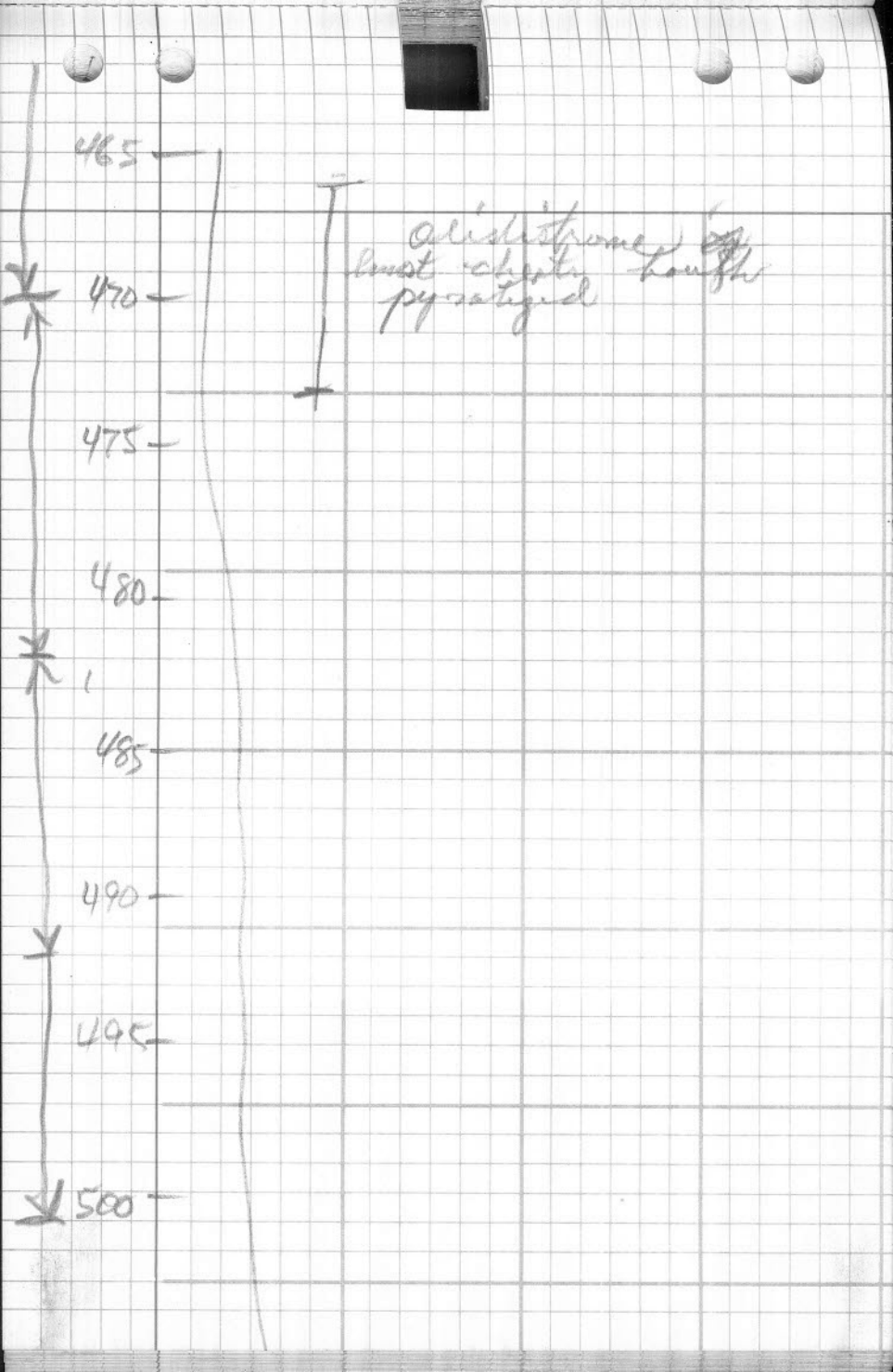

320
325
330
335
340
345
350
355
360

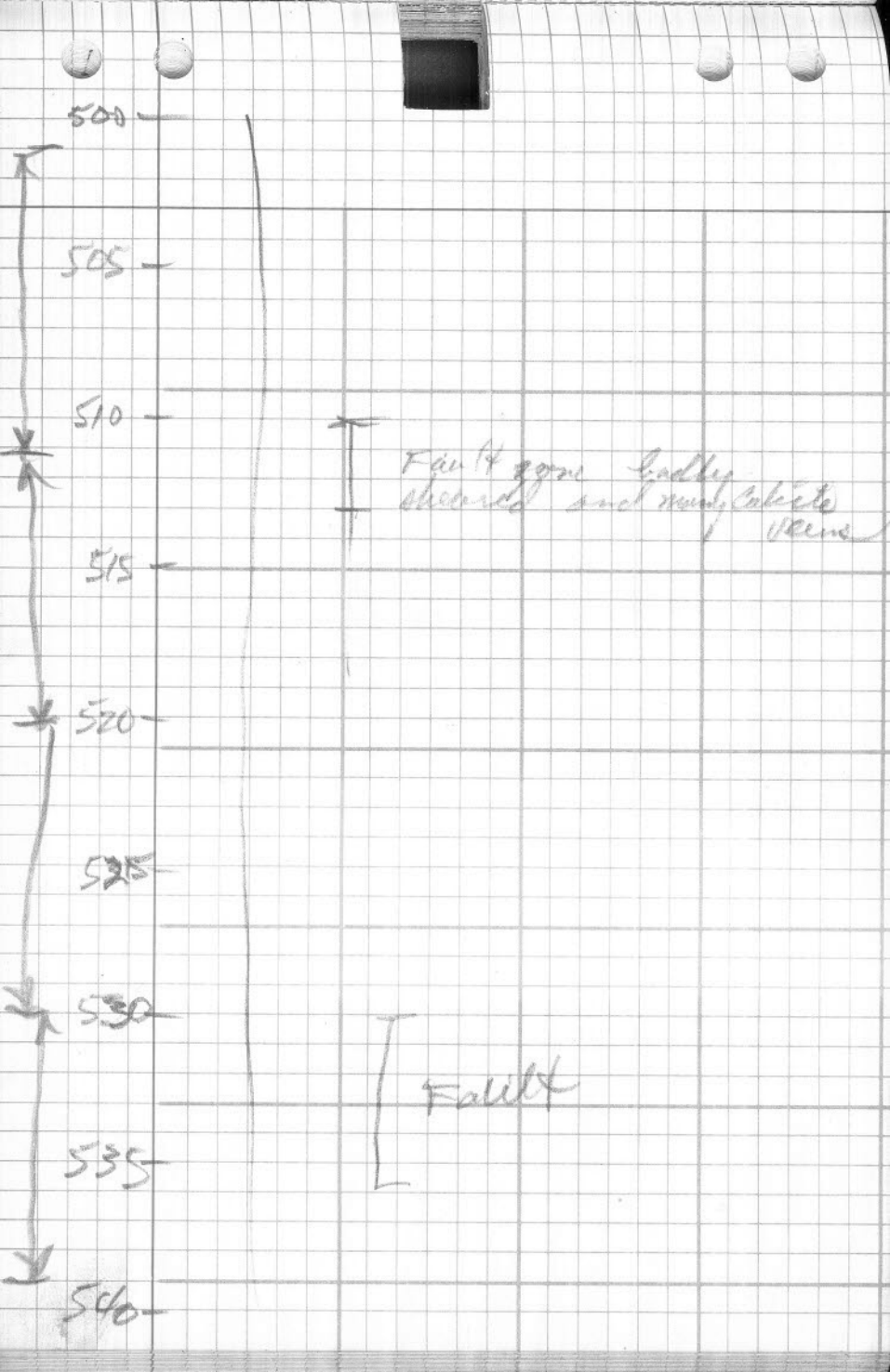

360
365
370
375
380
385
390
395
Abundant Calcite veins up to 5"
Sample 7 Calcite for Epsilon


395
Bedding about / 15°
400
about 10% Sh
405
Obvious cut surf
Sedimentary deformation
410
415
420
425
430



430
435
440
445
450
455
460
465
sample for Haley's Tie-stone?
about 15% sh


465
470
475
480
485
490
495
500
dolostone
most cherty
pyritized


500
505
510
515
520
525
530
535
540
Fault
Fault zone. Faulty sheared and mud, calcite veins

542

545 — sample Gomers Blk lms

550 —

Beds back to about 30°

555 —

— Sample of light gry lms

560 —

565 —

570 —

575 — TD

MC 4

Big Fork.

Sent a lot of samples

0-35 Dk gy shale and siliceous shale and chert

35-45 "

45-50 "

50-60 "

60-65 "

65-73 "

73-76 "

76-80 "

80-86 "

86-91 "

91-93 "

93-117 "

117-135 "

NIC4

135 – 149

NP + IDA # 1

NEc SE SW NW Sec 3
T.3S, R.25W

0

5

10

MI 15 10-20 — about 50% dkgy sh and dkgy dense to granular lms badly sheared dumber calcite & Qz veins Lms in beds upto 2"

60% recovery

20

20

25

MI 20-30

As above but about 80% lms

40% recovery

2 generations of calcite grd veins

30

MI 30-40

Dkgy dense lms thin shale stringers 95% lms

35

Calcite veins vertical to bedding

Breccia of lms and calcite

Styolite in all directions

Trace of oil along Styolite

40

Back to Dkgy, dense lms very thin stringers of sh excellent examples of folding. Some 20% inclined qtz calcite veins of 1/4"

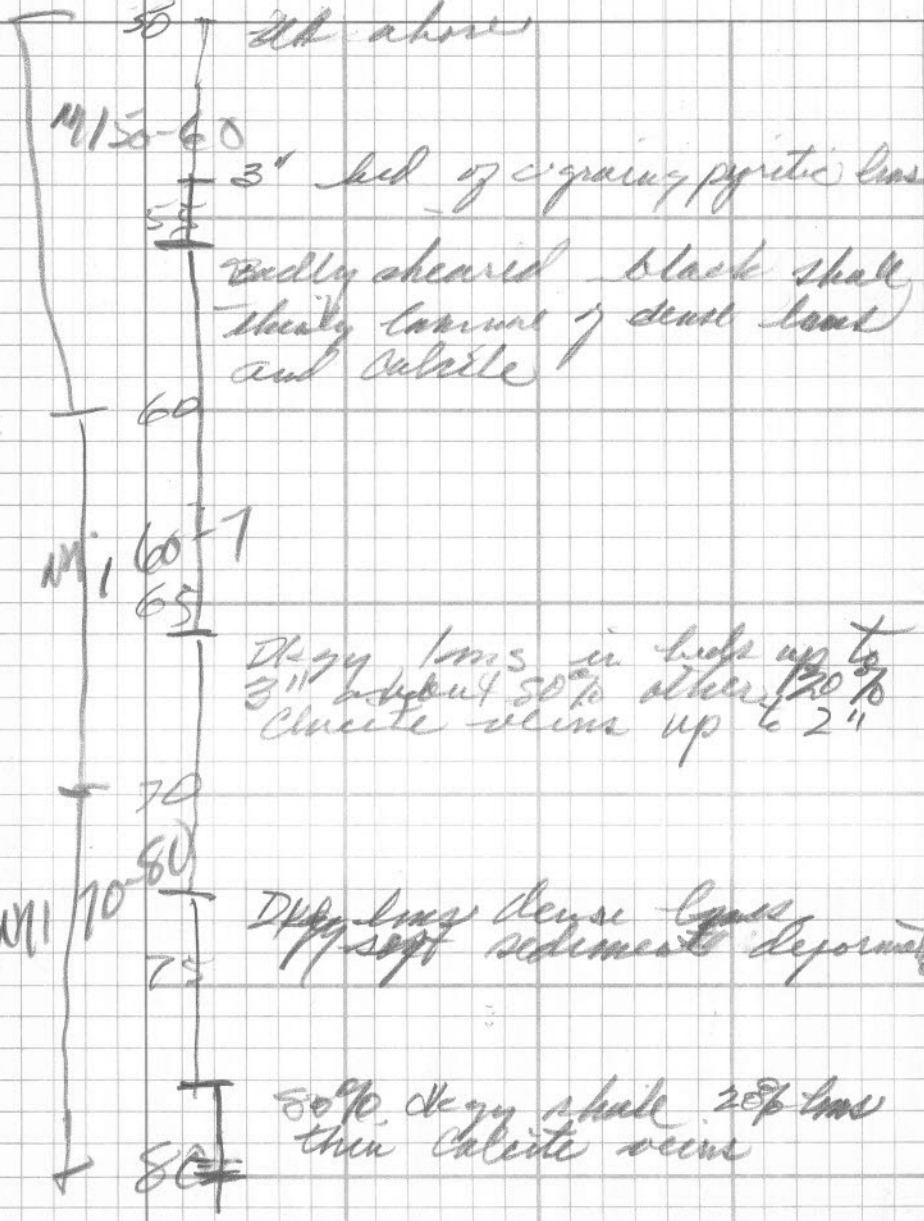
MI 40-50

45

2" calcite vein

80% recovery

50


50
Silt above
MI 50-60
3" bed of c grain pyritic lens
55
Badly sheared black shale
thinly laminae of dense tan
and calcite
60
MI 60-70
65
Dk gy lens in beds up to 2"
3" between 50% shear 20%
Calcite veins up to 2"
70
MI 70-80
Dk gy lens dense lenses
75
soft sediments deformed
80
50% Dk gy shale 20% lens
thin Calcite veins

M180 – 80 – 3" bed of stgy dense –
Chalcedonic chert
stgy dense lmz up to
85 – 6" light with calcite up
4 ft
4" bed of chert

4" bed of chert

90

M190 – 100

95 – shear zone
– shear zone

100

Brecciated lmz [illegible]
105 – and Calcite veins up
6" in diameter

110

110 — Dk gy dense lms, folded beds up to 2"

M 70 — 120 — 2" calcite

115

120 — calcite vein at 70° to bedding

M 120-130

125 — Dkgy bddy stained shale and lms

dk gy dense lms beds up to 2" flat, other partings by dk gy sh

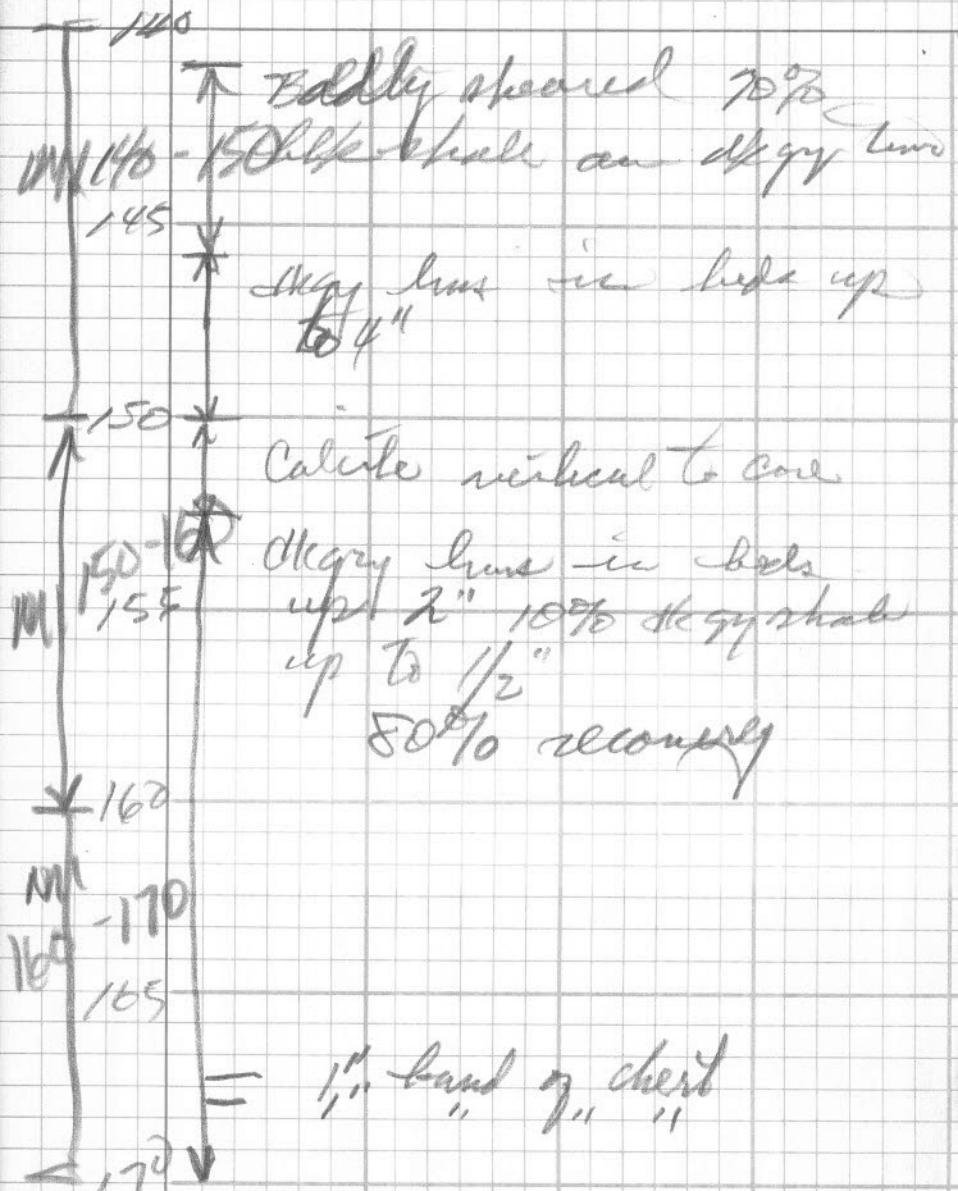
130

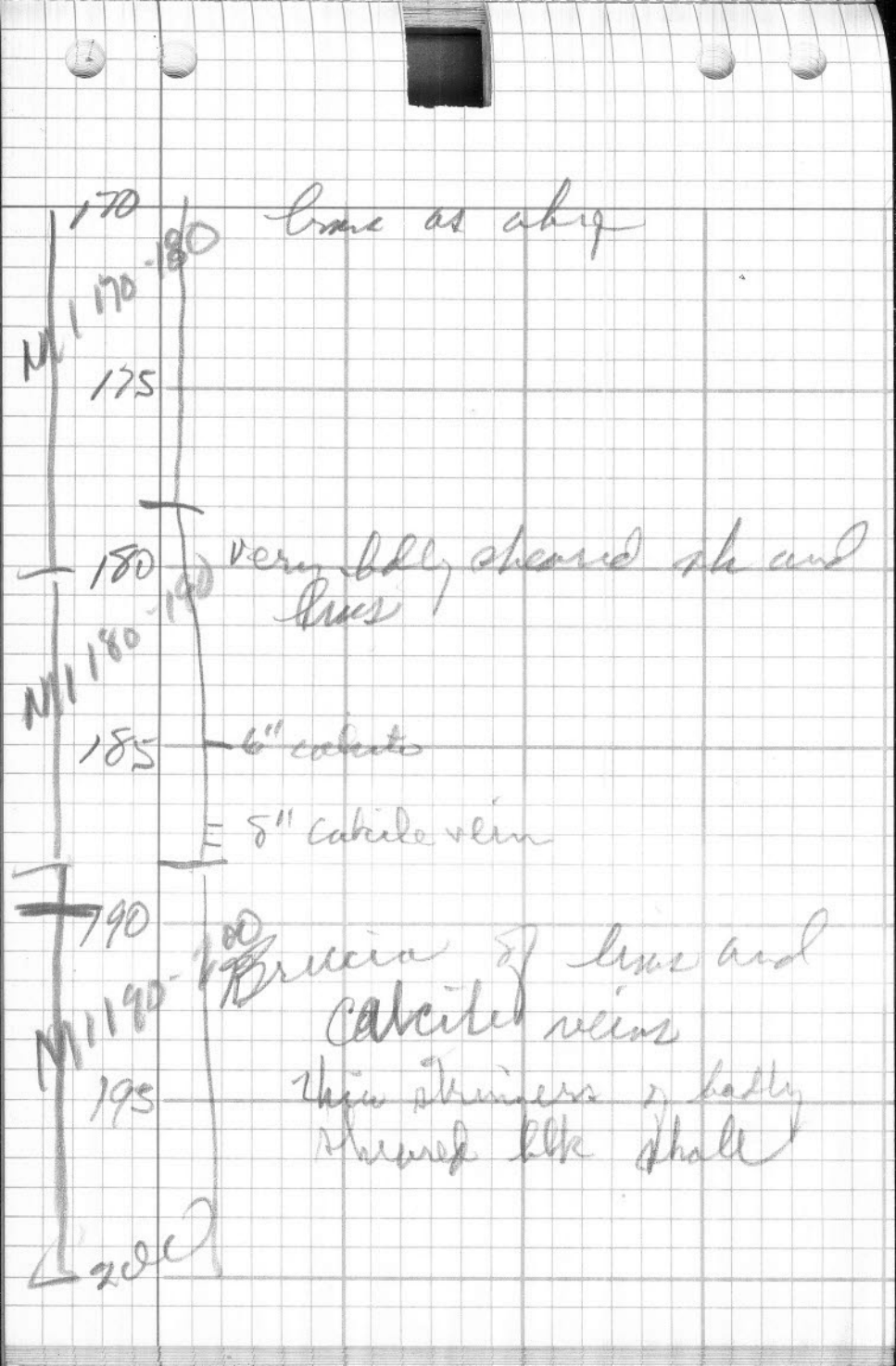
140

M 130
135

Oil sample

140


140
Badly sheared 70%
140 - 150 Olive shale on dk gry lmst
145
dk gry lmst in beds up to 4"
150
Calcite veinlet to core
150 - 155
dk gry lmst in beds up to 2" 10% dk gy shale up to 1/2"
80% recovery
160
160 - 170
165
1" band of chert
" " "
170


170
Lime as abv
170-180
175
180
very bldy sheared sh and lime
180-190
180
185
6" calcite
5" calcite vein
190
190-200
Breccia of lime and calcite veins
Thin stringers of badly sheared blk shale
195
200

NM 200
200-205 | as above
205

TD 207

McGraw Mtn ✓

NW SE SE SE Sec 19 T 2S, R 22W

10

McG 9-17 — 6" "Cgrund" ss dike
medium gray silty shale 90% and dk gry sh
15
luminous some of the silty shale has ppt pyrite

20

McG 17-21 — ss Cg dike Bull walking

25

Bedd dipping about 10° to core, all right side up.

30

30

MG 27-37 as above

35

40

MG 37-47

45

MG 47-57

50

55

— 55 dike 2'

60

60

57-67

65 — 2" quartz calcite vein

70

67·77

75

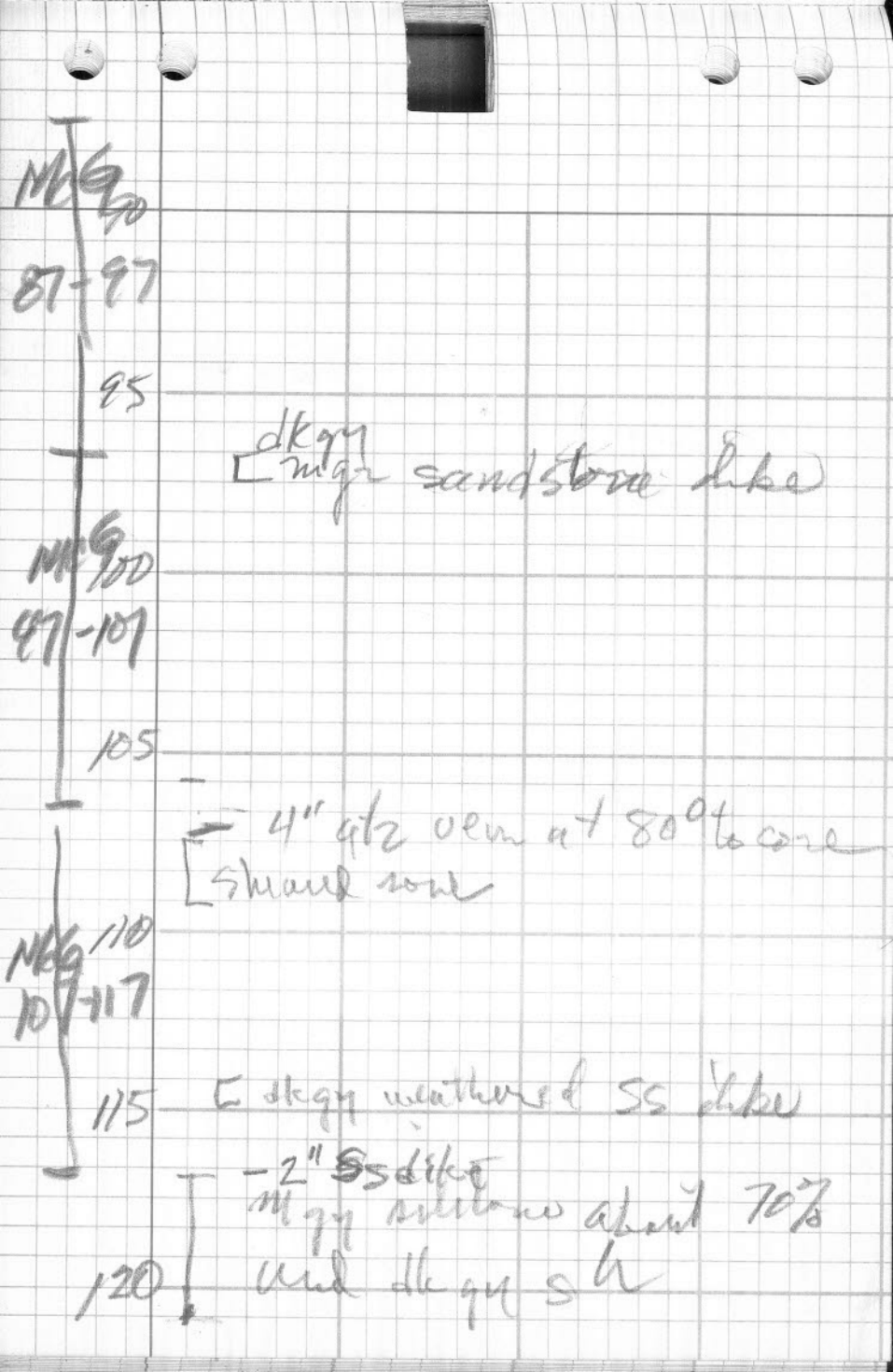
mgy sh and dk gy sh lamina of siltstone up to 1/4" soft sediment in siltstone [illegible] all rock is slightly lime

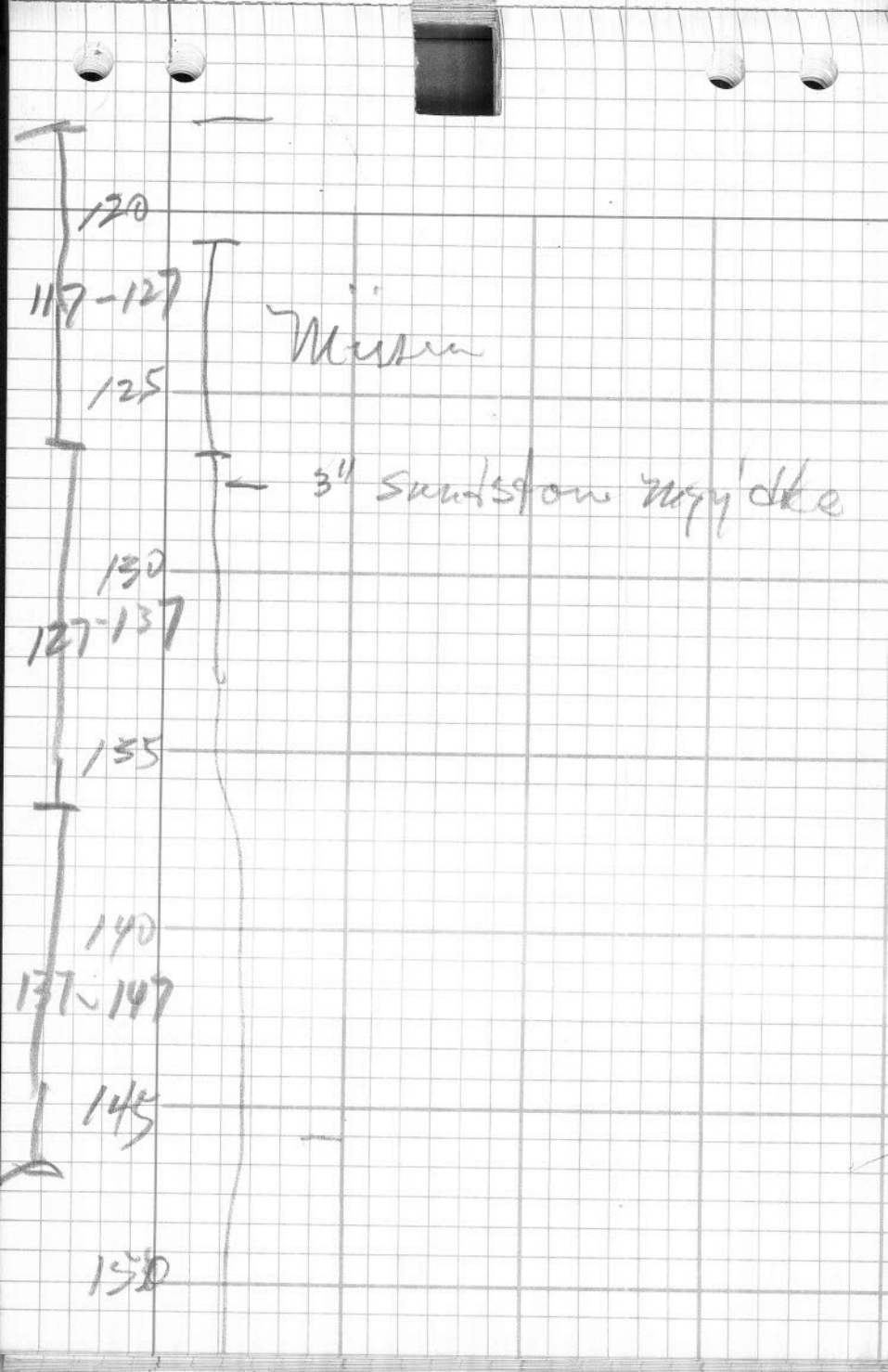
80

77-87

85

90


MKG
80
87-97
95
dk gy mafic sandstone like
MKG
80
97-107
105
4" qtz vein at 80° to core
shaved zone
MKG
110
107-117
115
dk gy weathered SS like
-2" SS dike
Mafic veins about 70°
and dk gy sh
120


120
117-127
Marker
125
3" sandstone injection
130
127-137
135
140
137-147
145
150

150

147-157

155

three sets of calcite veins one vertical one at angle 45° and one folded

160

157-167

165

— [illegible] mgr Sandstone [illegible]
70% to coal

170

167-177

175

TD 177