

Army Core
holes Receipt

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

—
LOOSE-LEAF FIELD NOTEBOOK

—
9-137

Discard?

Dec 12, 1957
Notes by E. Gluck

CORE SAMPLES

Army Engineer drill hole samples
stored at Arkansas Geological and
Conservation Division Laboratory,
Little Rock, Arkansas.

A, Bell Foley Dam Site No. 1
Hole 200 5.00 Strawberry R. Valley, Ark.
64 5.03 (Probably J. H. Powell)

Surface elevation 291.6'

10 boxes

287.9' top

146.7 bottom

146.7

144.9'

3.7

Box-1

A-1

287.9 to 286.4 = 5.2

Dolomite, f-xlln, lt. gy

5.2

A-2 286.4 to 284.3 = 7.3 CL 0.6

7.3 Silty? granular zone 4" thick in
middle may be as ch. 0.6" - soft.

A-3 284.3 to 283.5 = 8.1

8.1

A-4 283.5 + 1.7
C-xlln w/ vein dol. throughout

9.8

Lower half

A-5

+ 1.6

11.4

A-6

+ 1.5 to 278.7 = 12.9

12.9

Dec. 13, 1966

(2)

12.9

A-7 278.7 + 2.3

15.2

A-8

+ 3.4

18.6

Trace 1" breccia 1' from base

A-9

+ 0.6 - 272.4 = 19.2

19.2

Box 2

A-10

272.4 to 268.4 = 23.2

23.2

A-11

268.4 + 3.7

26.9

A-12

3.5 to 261.2 = 30.4

Breccia to 2" in lower 1/2

30.4

A-13

261.2 to 256.8 = 34.8

Breccia to 2" & clear dol veins throughout

34.8

Box 3

← Some breccia & more stylolites than above

A-14

256.8 to 251.2 = 40.4

40.4

Lower half has in general coarser Al_2SiO_5
in dolomite & more white vein dol

A-15

251.2 + 6.1

46.5

A-16

+ 3.9 - 241.2 = 50.4

50.4

50.4

Box 4 This box has more greenish rock throughout

A-17 241.2 + 3.9

54.3

A-18 + 1.6

55.9 Slightly coarser

A-19 + 4.5 - 231.2 = 60.4

60.4 Lower half has uniron bands and lenses that are greener - shaly?

A-20 231.2 + 225.6 = 66.0

66.0 Banded as above but mostly in upper 1/3

Box 5 225.6 - 210.3

A-21 225.6 - 221.2 = 70.4

70.4

A-22 221.2 + 3.6

74.0

A-23 + 5.2 212.4 = 79.2

79.2

A-24 212.4 - 210.3 = 81.3

81.3

Box 6 210.3 - 194.5

A-25 210.3 + 4.0

85.3

A-26 + 4.0 - 202.3 = 89.3

89.3

89.3

A-27 $202.3 + 3.9$

93.2

A-28 $+3.9 - 194.5 = 97.1$

97.1

Box 7 $194.5 - 179.0$

A-29 $194.5 - 192.3 = 99.3$

99.3

A-30 $192.3 + 5.3$

104.6

A-31 $+4.9 - 182.3 = 109.3$

109.3

A-32 $192.3 - 179.0 = 112.6$

112.6

Box 8 $179.0 - 163.6$

A-33 $179.0 + 4.0$

116.6

A-34 $+2.7 - 172.3 = 119.3$

119.3

A-35 $172.3 + 3.5$

122.8

122.8

A-36

+ 3.0

BRECCIATED THROUGHOUT

125.8

A-37

+ 2.2

- 163.6 = 128.0

TOP 4" SHALEY DOLOMITE

128.0

BOX 9

163.6 - 148.3

A-38

163.6 - 162.3 = 129.3

129.3

A-39

162.3 + 5.3

134.6

A-40

+ 4.7

- 152.3 = 139.3

139.3

A-41

152.3 - 148.3 = 143.3

143.3

BOX 10

148.3 - 146.7

CL 0.6

A-42

148.3 - 146.7 = 144.9

144.9

Bottom of hole

Completed drilling Dec., 1940

December 14, 1957

B. Mill Creek Site 1 Buffalo River
Hole 1 Sta 37+50

Surface Ele 599.8

Samples from 568.1 to 283.6
in 19 boxes - Box 4 is missing

568.1

283.6

284.5

Starts in Cason shale

Box 1 568.1 - 31.7 is marked "Top Rock"

B-1 568.1 + 1.2
WEATHERED ZONE AT TOP OF CORE

B-2 +2.6 to 563.3 = 36.5 CL 1.0
GREENISH GRAY DOLOMITIC(?) shale

B-3 563.3 + 4.0

B-4 +5.1 to 553.6 = 46.2 CL 0.6

B-5 553.6 to 551.1 = 48.7

Box 2 551.1 to 535.1

B-6 551.1 + 4.0

B-7 +3.0 to 543.6 = 56.2 CL 0.5

B-8 543.6 + 3.2

B-9

+2.1

Cason base
Ferrake top

B-10

+3.2 TO 535.1 = 64.7

PINKISH GRAY MEDIUM XLVN PHOSPHATIC
LIMESTONE - TRACE OF GREEN SHALE LENSES AND
BLEBS

BOX-3

535.1 TO 519.8

B-11

535.1 TO 533.6 = 66.2 CL 0.3

B-12

533.6 + 2.5

B-13

+ 3.9

B-14

+ 3.6 TO 523.6 = 76.2

B-15

523.6 TO 519.8 = 80.0

BOX-4

Box-5 505.0 - 489.4

B-16 505.0 To 503.6 = 96.2

B-17 503.6 + 5.0

Fernvale
Plattin

B-18 +2.7 To 495.9 = 103.9

TOP of 18 is TOP of PLATTIN--FERNVALE--PLATTIN
CONTACT WELL EXPOSED BUT 0.9 BELOW CONTACT IS 8"
BAND WITH MIXTURE? FERNVALE AND PLATTIN-6S

B-19 495.9 + 2.6

B-20 +3.9 To 489.4 = 110.4

Box-6 489.4 To 474.1

B-21 489.4 To 485.9 = 113.9

B-22 485.9 + 4.0

B-23	+4.0
B-24	+2.0 TO 475.9 = 123.9
B-25	475.9 TO 474.1 = 125.7
Box-7	474.1 TO 458.5
B-26	474.1 + 4.8
B-27	+4.2 TO 465.9 = 133.9
B-28	465.9 + 3.5
B-29	+3.9 TO 458.5 = 141.3
Box 8	458.5 TO 442.9
B-30	458.5 TO 455.9 = 143.9
B-31	455.9 + 5.1
	B-31-A - upper 1.7 LS
	B-31-B - lower 3.4 DOL
B-32	+4.9 TO 445.9

B-33 445.9 TO 442.9 = 156.9
(DOL 0 TO 0.8); (LS 0.8 - 1.4) (DOL 1.4 TO BASE)
(B-33-A) (B-33-B) (B-33-C)

Box-9 442.9 TO 427.0

B-34 442.9 TO 438.0 = 161.8

B-35 438.0 + 5.2
0 TO 0.3 DOL 0.3 TO 0.5 SHALE

B-36 + 2.0

B-37 + 2.8 TO 428.0 = 171.8
1.4 TO 2.2 LS

B-38 428.0 - 427.0 = 172.8

Box-10 427.0 TO 411.5

B-39 427.0 + 3.9

B-40 + 3.7

B-41 + 1.4 TO 418.0 = 181.8

B-42 418.0 + 2.4

B-43 + 4.1 To 411.5 = 188.3

BOX-11 411.5 To 395.3

B-44 411.5 To 408.0 = 191.8 CL 0.5

B-45 408.0 + 4.7
MIDDLE 1' GREENISH GRAY AND CLAYEY

B-46 + 5.3 To 398.0 = 201.8
MIDDLE 1' STREAKS OF GREENISH GRAY SHALE

B-47 398.0 To 395.3 = 204.5
UPPER 1' STREAKS OF GREENISH GRAY SHALE

BOX-12 395.3 To 378.8

B-48 395.3 + 4.0

B-49 + 2.5 To 388.0 = 211.8 CL 0.8

B-50 388.0 + 5.2

B-51 +4.0 To 378.8 = 221.0

Box 13 378.8 to 363.1

B-52 378.8 to 378.0 = 221.8

B-53 378.0 + 3.0

B-54 + 4.0

B-55 + 3.0 to 368.0 = 231.8

B-56 368.0 to 363.1 = 236.7
1.0 to 2.0 green shale laminae in ls
more common than in remainder

Box-14 363.1 to 345.1

B-57 363.1 to 358.4 = 241.4

B-58 358.4 + 3.2

Dec 15, 1957

B-59 + 2.2
lower Ool + has scattered sd grs

B-60 + 1.2
Upper 0.3 is ss
lower 0.9 Plattin type limestone
to contact with St. Peter in B-61
Contact is sharp but stylolitic

B-61 + 1.1 to 348.4 = 251.4
Cl. 2, 3 (looks as if ss was lost
from bottom of core.
Upper 0.6 dolomitic, hard

B-62 348.4 to 345.1 = 254.7

Bex-15 345.1 to 330.1

B-63 345.1 to 340.6 = 259.2
Upper 1.0 white. Greenish color
increases ^{downward} to darker part at bottom

B-64 340.6 + 0.6
Shale

B-65 + 2.2 to 337.8 = 262.0

B-66 337.8 + 0.5
Shale

Dec 15, 1957

B-67 + 4.5
Greenish ss -- slightly darker in
upper 1.0 and middle 1.0 & lower 0.5

B-68 + R.7 to 330.1 = 269.7
Brownish-gray dolomite w/ 1/4" ss lenses
Lower 0.8 mostly ss w/ "marble cut" to
brecciated dolomite lenses & chips -
Rebeck = upper 0.5 only = shale (?)
Remainder is dolomite as described

Box-16 330.1 to 315.8

B-69 330.1 to 327.8 = 272.0 CL 0.1
ss

B-70 + 2.2
Upper 0.2 ss as above
Lower 2.0 sdg dolomite, more sand
in lower part

B-71 + 2.6
Upper 2.6 green ss
Lower 0.2 gyp shale

B-72 + 2.5
Upper half green ss
Lower half white ss

Dec 15, 1957

- B-73 + 2.7 to 317.8 = 282.0
 Upper 0.9 dolomite & sandy dolomite
 Lower 1.8 green dolie ss
 0.05 shale 0.9 above base
- B-74 317.8 to 315.8 = 284.0
 Upper 0.7 green ss
 Lower 1.3 white ss
- Box-17 315.8 to 300.6
- B-75 315.8 + 1.4
 Upper 0.5 = ss
 Lower 0.9 = Dol
- B-76 + 3.0
 Upper 2.5 = white ss
 Lower 0.5 = gray dolie ss
- B-77 + 2.5
 Dolomite
- B-78 + 1.1 to 307.8 = 292.0
 Dolie ss
- B-79 307.8 + 3.1
 Upper 1.0 w/ darker dolie ss "lumps"
 in white ss.
 Lower 2.1 white ss
- B-80 + 4.1 to 300.6 = 299.2
 white sandstone

(16)
Dec 15, 1957

Box 18 300.6 to 287.3

B-81 300.6 to 298.1 = 301.7
SS

B-82 298.1 + 0.4
top 0.03 shale
bottom 0.37 SS

St. Peter
Everton

B-83 + 0.9

sdg Dolomite
Vertical fractures to 1/8" filled with
sand - fell down from above?

B-84 + 3.2 to 293.6 = 306.2

sdg dolomite
Sand filled fractures as above in B-83

B-85 293.6 + 3.6

sdg dol
Fractures contain mostly dolomite X/15

B-86 + 2.7 to 287.3 = 312.5

sdg dol

Box 19 287.3 to 283.6

B-87 287.3 to 283.6 = 316.2

sdg dolomite

Bottom of Hole

Snowball quad

(17)

December 16, 1957

C Mill Creek Site 1
Hole 3 Station 42+00.10

Surface elevation 608.3

Samples from Box 1 to 7
595.0
to 498.2
96.8 Starts in St. Joe

Box 1 596.3 to 580.5

NS 596.3 to 595.0 = 13.3

C-1 595.0 to 594.7 = 13.6

CAVITY 594.7 To 594.5

C-2 594.5 To 593.4 = 14.9

C-3 593.4 + 1.5

C-4 +0.9 To 591.0 = 17.3

CAVITY 591.0 To 590.7 = 17.6

C-5 590.7 To 589.1 = 19.1 (Note: Elevation & depth adjusted on by drillers figures)

589.1 To 589.0 = ^{19.2} NO SAMPLE

C-6 589.0 To 588.5 = 19.8

(NOTE: FIGURES DONT MATCH
ACTUAL CORE PRESENT
.10)

C-7-A 588.5 + 1.4

7-A UPPER 0.7 ← Lower 1/2 more shaley
7-B LOWER 0.7 ← st Joe
BMSS

C-8 + 1.4 To 585.7 = 22.6

C-9 585.7 + 1.0

C-10 1.0 To 583.7 = 24.6

C-11 583.7 + 0.7

BMSS
Silurian ls

C-12 + 2.5 To 580.5 = 27.8

BOX-2 580.5 To 565.1

C-13 580.5 To 577.7 = 30.6

Dense limestone in C-13 - C-14 - C-15
in "lumps" to 2" rather than beds

C-14 577.7 To 572.7 = 35.6

C-15 572.7 To 567.7 = 40.6

C-16 567.7 To 565.1 = 43.2

Box-3 565.1 To 550.0

C-17 565.1 To 562.7 = 45.6
Vertical fracture through most of
C-17 & C-18

C-18 562.7 To 557.7 = 50.6

C-19 557.7 + 4.0

C-20 +3.7 To 550.0 = 58.3

Box-4 550.0 To 534.9

C-21 550.0 To 548.2 = 60.1

C-22 548.2 + 4.0

C-23 + 1.3
Silurian
Cession

C-24 + 0.5

C-25 + 4.2 To 538.2 = 70.1

C-26 538.2 To 534.9 = 73.4

BOX-5 534.9 To 518.2

C-27 534.9 + 3.9

C-28 + 2.4 To 528.2 = 80.1 Cl. 0.4

C-29 528.2 + 1.5

C-30 + 4.0

C-31 + 4.1 To 518.2 = 90.1 Cl 0.4

BOX-6 518.2 To 502.4

C-32 518.2 + 4.1

C-33 + 4.0

C-34 + 1.9 To 508.2 = 100.1

C-35 508.2 + 1.1

C-36 + 0.9

C-37 + 3.8 To 502.4 = 105.9

Box-7 502.4 To 498.2

C-38 502.4 To 418.2 = 110.1
bottom of Hole

Snowball quad

(22)

D

Mill Creek Site 1
 Hole 5 Station 62+50
 Surface elevation 761.4

Dec 16, 1957

Samples from 750.2
 to 685.1
 65.1

Boxes 1 to 4

All in Boone

Box 1 756.1 To 730.0

D-1 750.2 To 748.2 = 13.2

D-2 748.2 To 746.1 = 15.3

D-3 746.1 To 741.5 = 19.9

D-4 741.5 To 738.2 = 28.2

D-5 738.2 To 730.0 = 31.4 CAVITY AND CL. =
 50%

BOX 2 730.0 To 709.1

D-6 730.0 To 719.2 = 42.2

D-7 719.2 To 709.1 = 52.3

BOX-3 709.1 To 692.0

D-8 709.1 To 703.2 = 58.2

(23)

D-9 703.2 To 697.6 = 63.8

D-10 697.6 To 692.0 = 69.4

BOX-4 692.0 To 685.1

D-11 692.0 To 690.1 = 71.3

D-12 690.1 To 685.1 = 76.0
Bottom of HOLE

Dec. 16, 1957 (24)

E Hargus Eddy Dam Site - Current R. Mo.
Hole 2 Station 31734

Surface elevation - 526.0 Boxes 1 to 9

Samples from 495.5
to 343.7 ← { Roubidoux
Bescard
van Buren
161.8

Box 1 495.5 to 456.1

E-1 495.5 To 481.1 = 44.9 C.L. 50%
SS except lower 0.5 = tripoli

E-2 481.1 To 462.4 = 63.6 C.L. 75%

E-3 462.4 To 456.1 = 69.9 C.L. 25%

Box-2 456.1 To 439.7

E-4 456.1 To 453.0 = 73.0

E-5 453.0 To 448.6 = 77.4 C.L. 25%

E-6 448.6 To 445.0 = 81.0

E-7 445.0 To 442.7 = 83.3

E-8 442.7 To 439.7 = 86.3

- Box-3 439.7 To 426.2
- E-9 439.7 To 436.9 = 89.1
- E-10 436.9 To 432.8 = 93.2
- E-11 432.8 To 428.8 = 97.2
- E-12 428.8 To 426.2 = 99.8
- Box-4 426.2 To 413.0
- E-13 426.2 To 422.1 = 103.9
- E-14 422.1 To 418.3 = 107.7
- E-15 418.3 To 415.0 = 111.0
- E-16 415.0 To 413.0 = 113.0
- Box-5 413.0 To 400.6
- E-17 413.0 To 410.3 = 115.7
- E-18 410.3 To 407.5 = 118.7
- E-19 407.5 To 403.7 = 122.3

- E-20 403.7 To 400.6 = 125.4
- BOX 6 400.6 To 385.4
- E-21 400.6 To 396.6 = 129.4
- E-22 396.6 To 397.0 = 133.0
- E-23 393.0 To 389.5 = 136.5
- E-24 389.5 To 385.4 = 140.6
- BOX 7 385.4 To 371.9
- E-25 385.4 To 382.4 = 143.6
- E-26 382.4 To 379.4 = 146.6
- E-27 379.4 To 377.0 = 149.0
- E-28 377.0 To 371.9 = 154.1
- BOX 8 371.9 To 358.0
- E-29 371.9 To 369.4 = 156.6
- E-30 369.4 To 365.5 = 160.5

27

$$E-31 \quad 365.5 \text{ To } 361.7 = 164.3$$

$$E-32 \quad 361.7 \text{ To } 358.0 = 168.0$$

$$\text{Dox -9} \quad 358.0 \text{ To } 343.7$$

$$E-33 \quad 358.0 \text{ To } 353.5 = 172.5$$

$$E-34 \quad 353.5 \text{ To } 351.8 = 174.2$$

$$E-35 \quad 351.8 \text{ To } 347.2 = 178.8$$

$$E-36 \quad 347.2 \text{ To } 343.7 = 182.3$$

(28)

Dec 17, 1957

F

Hargus Eddy Current R.

Hole 3, Station 35+85

Surface Elevation 357.0

Boxes 1 to 5

From 325.8

to 255.8

70.0

All in Gasconade

Box 1 325.8 to 309.4

31.2

F-1 325.8 + 2.0 00L. AT BASE

33.2

F-2 + 3.2

36.4

F-3 + 3.6 To 315.9 = 41.1 Cl. 1.1

41.1

F-4 315.9 To 314.0 = 43.0

F-5 314.0 To 311.7 = 45.3

F-6 311.7 To 309.4 = 47.6

Box-2 309.4 To 295.5

F-7 309.4 To 306.8 = 50.2

F-8 306.8 To 305.0 = 52.0

F-9 305.0 To 302.5 = 54.5

29

F-10 302.5 To 300.9 = 56.1

F-11 300.9 + 1.6 2" OOL AT TOP
57.7

F-12 +3.8 To 295.5 = 61.5

Box-3 295.5 To 280.4

F-13 295.5 To 291.5 = 65.5

F-14 291.5 + 3.8
69.3

F-15 + 2.1 To 285.6 = 71.4

F-16 285.6 To 282.6 = 74.4

F-17 282.6 To 280.4 = 76.6

Box-4 280.4 to 265.8

F-18 280.4 to 277.1 = 79.9

F-19 277.1 to 276.5 = 80.5
Top 0.2 is shaley

(30)

Dec 17, 1957

F-20 276.5 to 273.0 = 84.0

F-21 273.0 to 270.6 = 86.4

F-22 270.6 + 2.4
88.8

F-23 + 2.4 to 265.8 = 91.2
Dark chert "lumps" to lenses in
porous dolomite

Box-5 265.8 TO 255.8

F-24 265.8 To 261.7 = 95.3
2.5 To 3.0 is WHITE TRIPOLI under 0.5 dk ds
dol and over 94 dol w/ tripoli chips to base

F-25 261.7 To 259.8 = 97.2
LOWER 0.5 DENSE CHERT

F-26 259.8 To 257.8 = 99.2

F-27 257.8 To 255.8 = 101.2
BOTTOM OF HOLE.

DEC 17, 1959

G Hargus Eddy Current R.
 Hole 4 Station 43+75 Boxes 1-7
 Surface Elevation 353.9

From 311.8 in Gascanade
 to 212.5 4 upper Van Buren
 99.3

42.1

Box 1 311.8 to 296.1

~~44.6~~

G-1 311.8 to 309.3

~~44.6~~

~~46.1~~

G-2 309.3 + 1.5

~~46.1~~

~~50~~

G-3 + 4.0

50.1

G-4 + 3.0 To 300.8 = 53.1

53.1

G-5 300.8 To 296.2 = 57.7

Box 2 296.2 To 282.5

G-6 296.2 To 294.5 = 59.4

G-7 294.5 + 4.5

63.9

G-8 + 3.8

67.7

G-9 + 1.7 To 284.5 = 69.4

G-10 284.5 To 282.5 = 71.4

Box-3 282.5 To 266.3

G-11 282.5 + 3.2
74.6 08 To 1.3 AND 1.6 To 2.1 is WHITE TRIPOLI.

G-12 + 1.4 To 277.9 = 76.0 CAVITY 0.5

G-13 277.4 To 274.4 = 79.5

G-14 274.4 To 271.7 = 82.2

G-15 271.7 To 267.7 = 86.2

B-16 267.7 To 266.3 = 87.6

Box-4 266.3 To 251.1

G-17 266.3 To 265.1 = 88.8

G-18 265.1 + 3.0

91.8
G-19 + 3.6

95.4
G-20 + 3.4 To 255.1 = 98.8

G-21 255.1 To 252.6 = 101.3

G-22 252.6 To 251.1 = 102.8

Box-5 251.1 To 236.6

G-23 251.1 + 4.1
106.9

G-24 + 5.0 To 242.0 = 111.9

G-25 242.0 + ^{2.5}~~2.6~~
114.4

G-26 + ^{2.9}~~3.0~~ To 236.6 = 117.3
TOP 0.2 SHALE

Box-6 236.6 To 221.0

G-27 236.6 To 233.1 = 120.8
BANDED CHERT IN LOWER 0.3

G-28 233.1 To 230.4 = 123.5
BANDED CHERT IN UPPER 0.5

G-29 230.4 To 228.2 = 125.7

G-30 228.2 + 3.4
129.1

G-31 + 3.8 To 221.0 = 132.9

Box 7 221.0 To 212.5

G-32 221.0 To 218.5 = 135.4

G-33 218.5 + 3.0
138.4

G-34 + 3.0 To 212.5 = 141.4
BOTTOM OF HOLE

H

DEC 17, 1957 (34)

Galena Dam Site No. 1
Hole 2 Station 39+00
10+00

BOXES 1-7

From 984.7
to 847.3
137.4Box 1 948.7 to 934.1
18.6H-1 948.7 to 946.0 = 21.3
21.3H-2 946.0 to 941.1 = 26.2
26.2H-3 941.1 + 3.2
29.4H-4 + 3.8 to 934.1 = 33.2
0.6 to 1.1 paper thin shale partings
@ 1/2 inch intervals is slightly darker
& silty dol.
33.2
3.5 to 3.8 chert

Box-2 934.1 to 918.6

H-5 934.1 + 2.3

35.5

H-6 + 3.6

39.1

H-7 + 1.3 to 926.9 = 40.4

H-8 926.9 to 925.2 = 42.1

H-9 925.2 to 923.8 = 43.5

Dec 17, 1957 (85)

H-10 923.8 + 1.2
44.7

H-11 + 4.0 to 918.6 = 48.7

Box-3 918.6 to 903.3

H-12 918.6 to 917.9 = 49.4

H-13 917.9 + 3.1
52.5

H-14 + 3.9

56.4

H-15 + 2.9 to 908.0 = 59.3

H-16 908.0 to 903.3 = 64.0

Box-4 903.3 to 888.1

H-17 903.3 to 901.0 = 66.3

H-18 901.0 + 2.0
Chert 0.0 to 0.2
68.3 0.5 to 0.8

H-19 + 4.2

72.5

H-20 + 3.4 to 891.4 = 75.9

H-21 891.4 to 888.1 = 79.2

Box 5 888.1 to 813.2

H-22 888.1 + 3.9
83.1

H-23 + 3.4 to 880.8 = 86.5

H-24 880.8 to 876.8 = 90.5 } check
0.0 to 1.1 granular; 1.1 to 2.6 } 0.1
dense; 2.6 to 3.3 granular; } error
lower 0.3 shaly }
H-25 876.8 to 875.1 = 92.1

H-26 875.1 to 873.2 = 94.0
Dense 0.0 to 0.6

Box 6 873.3 to 858.9

H-27 873.3 to 869.9 = 97.4

H-28 869.9 + 2.6
100.0

H-29 + 2.3 to 865.0 = 102.3

H-30 865.0 to 861.3 = 106.0

H-31 861.3 To 858.9 = 108.4

Box-7 858.9 To 847.3

H-32 858.9 + 3.9

112.3

H-33 + 3.6 To 851.4 = 115.9

H-34 851.4 + 2.9

118.8

H-35 + 1.2 To 847.3 = 120.0

Bottom of HOLE

(38)

Jan 14, 1958

I

Galena Dam Site No 1

Hole 5 Station 30+05

Boxes 1 to 9

10+00

From 1015.1

Surface elevation 1021.6

to 895.1

120.0

Jeff. City fm

Box 1 1015.1 to 999.5

6.5 = 6.5

I-1 1015.1 to 1011.4 = 10.2 (?)

10.2 Shale bed 0.05 thick @ 0.5' above base

I-2 1011.4 to 1007.4 = 14.2

Granular (sdy or ool) in 0.4' zone w/ base

14.2 1.2' above base I-2

I-3 1007.4 to 1004.5 = 17.1

17.1

I-4 1004.5 to 999.5 = 22.1

0.05 shale partings (2) split
unit into 3 equal parts

22.1

Box 2 999.5 to 985.3

I-5 999.5 + 4.3

26.4

I-6 + 1.1 to 994.4 = 27.2

0.1 at top of unit is sh - other
is ss.

27.2

I-7 994.4 to 990.4 = 31.2

31.2

I-8 990.4 + 3.2

34.4

0.3 sdy chert @ top

I-9 + 1.9 to 985.3 = 36.3

36.3

top 0.1 is shale

Box-3 985.3 to 970.9
 36.3
 I-10 985.3 + 3.0
 39.3 Sh partings throughout - lower 0.5 granular
 I-11 + 5.9 to 976.4 = 45.2
 45.2 0 - 0.4 granular - sdy?
 lower 0.3 honey comb porosity

I-12 976.4 to 972.5 = 49.1
 49.1 Upper 1.0 banded - cryptozoan? - next 1.5 granular -

I-13 972.5 to 970.9 = 50.7
 50.7 Ds chert in "lumps" throughout.

Box-4 970.9 to 956.6

I-14 970.9 + 1.5
 52.2 cherty throughout

I-15 + 5.0 to 964.4 = 57.2
 57.2 Sh partings 1.0 below top & 1.5 above base

I-16 964.4 + 2.6
 59.8

I-17 + 2.4
 62.2

I-18 + 2.8 to 956.6 = 65.0
 65.0
 Box 5 956.6 to 943.4

I-19 956.6 + 3.3
 68.3 Sh in middle 1.0

I-20 + 4.6
 72.9

I-21 + 2.3 to 946.4 = 75.2
 75.2

I-22 946.4 to 943.4 = 78.2
 78.2

Box-6 943.4 to 928.5

78.2

I-23 943.4 to 937.5 = 84.1

84.1

I-24 937.5 to 932.2 = 89.4

89.4

I-25 932.2 to 930.8 = 90.8

90.8 Fossils in "barrycomb" chert

I-26 930.8 to 928.5 = 93.1

0 to 0.4 fossils

93.1 0.4 to 1.3 gran

1.3 to 1.9 - 1/2 gran to decsc

1.9 to 2.3 - gran.

Box-7 928.5 to 914.3

I-27 928.5 to 924.5 = 97.1

97.1 lower half more ruggy - 0.05 ss @ 2.5
bottom 0.5 is 50% chert 50% 1/2 gran dol.

I-28 924.5 to 2.9

99.8 sh. or col. ch. 0 to 0.2 - 0.2 to 0.25 1.0 - 1.1 in
I-29 ^{clear dol. w/ sphaerulite - all 0.05 in diameter - vein dol.?}
+ 3.5 (0.3 to 1.5 ss w/ dol lenses in part)

103.4 sh partings in upper half

I-30 + 2.9 to 915.3 = 106.3

106.3

I-31 915.3 to 914.3 = 107.3

107.3

Box 8 914.3 to 901.6

I-32 914.3 to 3.6

110.9

I-33 + 5.1 to 905.6 = 116.0

116.0

I-34 905.6 to 901.6 = 120.0

120.0

Box 9 901.6 to 895.1

(41)

120.0

I-35 901.6 + 4.4

124.4 Vugge w/ r.c dol (?) xls in vugs

I-36 + 2.1 to 895.1 = 126.5

126.5 bottom 0.3 contains dol (?) chert vugs

Bottom of hole

January 15, 1958 (42)

J

Galena Dam Site No. 1

Station 26+00

10+00

Boone

Jeff city

From 1098.6

to 1012.1

86.5

Surface Elevation 1108.2

6 Boxes

Box 1 1098.6 to 1083.5

9.6

J-1 1098.6 to 1095.6 = 12.6

12.6

J-2 1095.6 to 1091.7 = 16.5

16.5

J-3 1091.7 to 1088.2 = 20.0

20.0

J-4 1088.2 to 1086.6 = 21.6

21.6

J-5 1086.6 to 1083.5 = 24.7

24.7

Box 2 1083.5 to 1068.2

J-6 1083.5 to 1080.2 = 28.0

28.0

v. clayey in lower 0.5

J-7 1080.2 to 1078.2 = 30.0

30.0

J-8 1078.2 + 2.4

32.4

Pyrite in lower 2/3 of unit

J-9 + 3.8

36.2

J-10 + 3.8 to 1068.2 = 40.0

40.0

Box 3 1068.2 to 1052.8

40.0

J-11 1068.2 + 2.0

42.0

J-12 + 1.3

43.3

J-13 + 0.5 (includes v. thin BMSS
43.8 Chert throughout in (at about base - irregular
lumps mixed with ls. sh. contact w/ J.C.)
Chert may be residual Ord.

Boone
Jeff City

J-14 + 1.0

44.8

J-15 + 3.0

47.8 light colored in lower 0.8

J-16 + 2.2 to 1058.2 = 50.0

50.0

J-17 1058.2 to 1054.8 = 53.4

53.4

J-18 1054.8 to 1052.8 = 55.4

55.4

Box 4 1052.8 to 1037.9

J-19 1052.8 + 3.7

59.1

J-20 + 4.3 to 1044.8 = 63.4

63.4

J-21 1044.8 + 3.0
Sol gro in lower 0.3

66.4

J-22 + 3.9 to 1037.9 = 70.3

70.3 upper 0.2 sdy dol of lower 0.3 dolies
to sdy dol. otherwise - ss

Box 5 1037.9 to 1023.4

70.3

J-23 1037.9 + 3.1

73.4 to 1.8 ss 1.8 to 3.1 dol

J-24 + 4.0

77.4

J-25 + 3.0 to 1027.8 = 80.4

80.4

J-26 1027.8 to 1026.4 = 81.8

81.8

J-27 1026.4 to 1023.4 = 84.8

84.8

Box 6 1023.4 to 1012.1

J-28 1023.4 + 3.5

88.3

J-29 + 3.2 to 1016.7 = 91.5

91.5

J-30 1016.7 + 2.5

94.0

J-31 + 2.1 to 1012.1 = 96.1

96.1

Bottom of hole

K-

Wilkins #1 (Penters Bluff ?)
SE 1/4 Sec 9, T15N R8W

Box 1 to 14
Plattin - Joachim - St Peter

Box 1 0 - 14.7

0.0

K-1 0 - 3.8

3.8

K-2 3.8 - 7.8

7.8

K-3 7.8 - 11.2

11.2

K-4 11.2 - 14.7

14.7

Box-2 14.7 to 29.6

K-5 14.7 to 18.9

18.9 lower 1.5 dolomitic (?)

K-6 18.9 to 22.5

22.5

K-7 22.5 to 26.1

26.1

K-8 26.1 to 29.6

29.6

Box 3 29.6 to 44.3

K-9 29.6 + 3.5

33.1

K-10a + 1.0
+ ~~2.7~~ to 36.1

34.1

K-10b + 2.0 to 36.1

36.1

36.1

K-11 36.1 + 4.3

40.4

K-12 + 3.9 to 44.3

44.3

Box-4 44.3 to 58.9

K-13 44.3 + 1.6

45.9

K-14 + 2.2

48.1

K-15 + 3.7

51.8

K-16 + 2.5 to 54.3

54.3

K-17 54.3 + 2.5

56.8

K-18 + 2.1 to 58.9

58.9

Box 5 58.9 to 73.6

~~60.4~~

K-19 58.9 to 60.4

60.4 shaly 1.1 to base

K-20 60.4 + 2.0

62.4 greater or shaly in upper 0.3

K-21 + 3.8

66.2

K-22 + 4.2 to 70.4

70.4

K-23 70.4 to 73.6

73.6

Box 6 73.6 to 88.6

73.6

K-24 73.6 + 3.8

77.4

K-25 + 2.8 to 80.2

80.2

K-26 80.2 + 4.5

84.7

K-27 + 3.9 to 88.6

88.6

Box-7 88.6 to 102.8

K-28 88.6 to 90.0

90.0

K-29 90.0 + 1.7

91.7

K-30 + 3.8

95.5

K-31 + 2.7

98.2

K-32 + 1.8 to 100.0

100.0

K-33 100.0 to 102.8

102.8

Box 8 102.8 to 117.4

K-34 102.8 + 3.8

106.6

K-35 + 3.4 to 110.0

110.0

K-36 110.0 + 3.7

113.7

K-37 + 3.7 to 117.4

117.4 Lower 0.4 = much green clay

Box - 9 117.4 to 132.0

117.4

K-38 117.4 to 119.8

119.8

K-39 119.8 + 1.4

121.2

K-40 + 3.5

124.7

K-41 + 3.7

128.4

K-42 + 1.4 to 129.8

129.8 0.3 shale @ top

K-43 129.8 to 132.0

132.0 0.1 to 0.7 = clayey

Box 10 132.0 to 146.6

K-44 132.0 + 3.8

135.8

K-45 + 3.9 to 139.7

139.7

K-46 139.7 + 3.1

142.8

K-47 + 3.8 to 146.6

146.6

Box-11 146.6 to 160.6

146.6

K-48 146.6 + 1.4

148.0

K-49 + 0.8

148.8

Plattin No evidence of Joachim Unconformity - 0.1 shaley

K-50 + 0.8 to 149.6

149.6

K-51 149.6 + 1.6

151.2

K-52 2.5

153.7

K-53 3.5

157.2

K-54 1.8 to 159.0

159.0

K-55 159.0 to 160.6

160.6

Box-12 160.6 to 174.6 (Box says 172.6)

K-56 16.6 + 3.7

164.3

K-57 + 1.9

166.2

K-58 + 2.8 to 169.0

169.0 sdy 0.0 to 0.7 + 1.3 to 1.7

K-59 169.0 + 2.4

171.4 shaley 0.2 to 0.5

K-60 + 3.2 to 174.6 (Box says 172.6)

174.6

Box 13 174.6 (marked 172.6) to 191.0

174.6

(marked 174.6)

K-61 174.6 to 179.0

(Core = 3.6, CL = 0.8)

178.2 0.0 to 0.5 sdy, 0.5 to 2.7 mostly dense
2.7 to base granular but not sdy

K-62 179.0 + 3.8

179.2 a - 0.0 to 1.0

182.0 b - 1.0 to 3.8

K-63 + 2.7

sdv 0.0 to 0.4

CL 0.9

184.7

K-64

+ 1.9 to 188.3

184.7

186.6

K-65 188.3 + 1.3

187.9 trace d in lower 0.1

~~186.6~~

K-66 + 0.5

188.4

~~187.9~~

K-67 + 0.9 to 191.0

~~188.4~~

Box 14 191.0 to ? (marked 196.1 --

189.3 has 6.8 core [1.7 CG]

Samples measured by Core interval
and not adjusted to lower depth
given in box (Red figures adjusted
back to K-61

K-68 191.0 + 0.8

190.1

K-69 + 1.5

191.6

K-70 + 1.4

193.0 Top 0.2 dense dol that grades
into sandstone below

193.0

K-71

+ 1.0

lower 0.2 dense dol w/ sdy lenses

194.0

K-72

+ 0.6

Grades from dol of K-71 into
SS of K-73.

194.6

K-72 includes marked contact
(probably gradational) ofJoachim

St. Peter

K-73

+ 1.5

Upper part mostly white SS
lower 0.8 slightly darker & more
dolomitic.

196.1

Bottom of hole

L.

Sylamore # 7 Boxes 1-16
Sec 25, T15N, R11W
On Slope - IZard County Line
See Miser - Zinc Report for
geology of area

Starts in Ferrvale, Kimmswick
& Plattin called, Probably ends
in Joachim

L-1

Box-1 4.6 to ^(20.9??) ? (Figures in Box 1 appear
to be in error -- Sample thickness
is tied mostly to actual core,
thickness down to 33.9 in
Box # 2.)

Ferrvale
Sp. Gr. = 2.68
ABSORP = 0.6%

4.6

L-1 4.6 + 1.3

5.9

L-2 + 4.0 to 9.9 (Figure + core check)

9.9

L-3 9.9 + 2.5 to 13.4 (CL 1.0) (Figures +
core check)

13.4

L-4 13.4 + 3.5

16.9

L-5 + 4.0 (should be 20.9)

20.9

Box 2 (20.9 ?? to 36.3)

53

20.9

L-6 + 4.0

24.9

L-7 + 4.0

28.9

L-8 + 4.1 (CL 0.9) to 33.9

33.9

L-9 33.9 to 36.3

36.3

Box 3 36.3 to 51.1

L-10 36.3 + 3.0

39.3

L-11 + 2.9 to 42.2 (Marked 1.6 CG)

42.2

L-12 42.2 + 3.0

45.2

L-13 + 3.0

48.2

L-14 + 2.9 to 51.1

51.1

Box 4 51.1 to 65.3

L-15 51.1 to 52.0

52.0

L-16 52.0 + 1.6

53.6

50%
of each
gone ---
Sampled
for Alkali
reaction
by Engineers

53.6

L-17 + 1.0

54.6

Ferrvale
Krimswick

L-18

+ 1.0

55.6

L-19

+ 1.3 to 56.9

56.9

L-20

56.9 + 1.3

58.2

L-21

+ 3.6

61.8

L-22

+ 3.5 to 65.3

65.3

Box 5

65.3 to 79.5

No Sample

65.3 to 72.8

Sampled for alkali reaction by
Engineers

72.8

L-23

72.8 + 3.6 to 76.4

76.4

L-24

76.4 to 79.5

79.5

Box -6 79.5 to 97.3

Kimmswick

SpGr = 2.68

Absorp = 0.5%

79.5

D.F.E = 91

(sand blast character)

(Note: Part of this box drilled to biscuits)

L-25 79.5 + 6.1

1.1 cavity top @ 80.5

1.3 cavity top @ 82.6

85.6

L-26

+ 4.2 to 89.8

89.8

L-27

89.8 to 91.7

91.7

L-28

91.7 to 94.8

94.8

L-29

94.8 to 97.3

97.3

Box #7

97.3 to 112.0

L-30

97.3 + 3.6

100.9

L-31

+ 1.4

102.3

0.1 shale @ top

L-32

+ 1.0

103.2

shaley in upper 0.4

L-33

+ 0.8

104.1

Kimmswick 33

Plattin 34

Contact called on bedding plane split
no other good evidence except
upper 0.2 Plattin (in L-34) is sl. clayey

104.1	
L-34	+ 0.7 to 104.8
104.8	Clayey & granular in top 0.2
L-35	104.8 + 1.4
106.2	Clayey & granular in top 0.1
L-36	+ 2.3
108.5	
L-37	+ 3.5 to 112.0
	1.4 to 1.8 clayey? & granular
	1.8 to base very dark, dense
112.0	layers 0.1 thick alternate with
	slightly granular layers - ostracods
Box #8	112.0 to 126.0
	Plattin
	Sp Gr = 2.69
	Absorp = 0.5 %
	D.F.E. = 93
L-38	112.0 to 114.6
114.6	
L-39	114.6 + 4.1
118.7	granular & clayey? in upper 0.6
	& 1.4 to 2.1 - "true" Plattin 2.1 to base
L-40	+ 3.5 to 122.2
122.2	
L-41	122.2 to 126.0
126.0	

Box 9 126.0 to 141.8

126.0

L-42 126.0 to 130.8

130.8 Dark & shaley in lower 0.8

L-43 130.8 + 3.0

133.8

L-44 + 3.6

137.4

L-45 + 4.4 to 141.8

141.8

Box 10 141.8 to 156.4

L-46 141.8 to 146.7

146.7

L-47 146.7 + 2.3

149.0

L-48 + 3.6

152.6 Upper 1/2 dark; Lower 1/2 light

L-49 + 3.8 to 156.4

156.4

Box-11 156.4 to 171.0

L-50 156.4 + 3.7

160.1

L-51 + 3.7

163.8 00-0.5, 2.5-2.9 & 3.5-3.7 - shaley

L-52 + 2.6 = 166.4

166.4

L-53 166.4 + 2.1

168.5

L-54 + 2.5 to 171.0

171.0

Box-12 171.0 to 186.0
(50% of sample gone -- sampled for 2Kali reaction by Engineers)

L-55 171.0 to 176.3
176.3

L-56 176.3 to 186.0
186.0

Box-13 186.0 to 200.6

L-57 186.0 + 3.7
189.7 1.1 to 3.4 darker & sl granular
wh. Calcite vein through lower 1/2 of unit

L-58 + 3.7
193.4

L-59 + 2.3 to 195.7
195.7 top 1.1 dark & granular

L-60 195.7 + 1.6
197.3

L-61 + 3.3 to 200.6
200.6 Gran & sl clayey in upper 1.6

Box 14 200.6 to 215.3

L-62 200.6 to 205.6
205.6 Shaley ls 2.1 to 2.3

L-63 205.6 + 2A
208.0

L-64 + 3.7
211.7

L-65 + 3.6 to 215.3
215.3 Shaley ls. 1.1 to 1.8

Box-15 215.3 - 230.0
215.3

L-66 215.3 + 3.5
218.8 Lower 1.3 granular & clayey

L-67 + 4.6 to 223.4
223.4

L-68 223.4 + 2.8
226.2 More clayey in upper 0.4 & middle 0.4.
Green shale blocks throughout

L-69 + 3.8 to 230.0
230.0

Box 16 230.0 to 236.7

~~231.0~~

L-70 230.0 + 1.0
231.0

L-71 + 0.5
231.5

Plattin 0.02 ss @ contact
Joachim

L-72 + 1.0
232.5

L-73 + 1.4
233.9

L-74 + 1.1
235.0 Ostracods in lower 0.1 just above
stylolitic contact with L-75

L-75 + 1.7 to 236.7

236.7 Bottom of hole