

Arden Ratzlaff

PETROLEUM GEOLOGIST

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107 N. Market 808 Bldg. Wichita, KS 67202

COMPANY CHIEFTAIN OIL CO., INC.

LEASE SALLY No. 3

FIELD SHUPBACH SOUTHWEST

LOCATION SE NW NW SE

SECTION 4 TOWNSHIP 34S RANGE 11W

COUNTY BARBER STATE KANSAS

CONTRACTOR FOSSIL DRILLING RIG NO. 2

COMMENCED DRILLING 4-12-72

COMPLETED DRILLING 4-19-72

RTD 5167 FEET LTD 555 FEET

MD UP AT 3200 FEET MD TYPE CHEMICAL

DRILLING TIME

AND

SAMPLE LOG

ELEVATIONS

KB 1303

IF 1501

GL 1875

Measurements Are All
From K.B.

CASING

13 5/8" @ 350' W. 350.5X

5 1/2" @ 582' W. 200.5X

ELECTRICAL SURVEYS

LOG-TRUCK - CANADA BOX DUAL
INJECTION, COMPENSATED RESISTION
& DENSITY, S.P. & CALIPER

PRODUCTION TOPS

SAMPLE

ELECTRIC LOG

MEASUREMENT
STARK
BASE KANSAS CITY
CHRONOMETER
MUSKOGEE
KINDERHOOK
VIOLEA
SIMPSON
SIMPSON SAND
TOTAL DEPTH

3014 (-7231)
4207 (-7206)
4387 (-7207)
4400 (-7125)
4420 (-7130)
4705 (-7160)
4820 (-7000)
4970 (-7007)
4984 (-6908)
5147 (-7160)

5410 (-7236)
4254 (-7211)
4387 (-7214)
4912 (-7125)
4439 (-7156)
4752 (-7200)
4870 (-7007)
4976 (-7075)
4994 (-6911)
5155 (-7170)

REMARKS AFTER ANALYZING ALL OF THE PERTINENT INFORMATION (PRODUCTION HISTORY OF THE AREA, SAMPLES, ELECTRIC LOG, ETC.) THE PERSON
MADE TO SET PRODUCTION CASING AN EXPECTANCE OF A COMMERCIAL WELL.

Arden Ratzlaff, Petroleum Geologist

NOTE! SAMPLES DEPOSITED AT THE K.G.S. SURVEY.

LEGEND



Anhydrite Salt Sandstone Shale Carb sh Limestone Dol. Lime Chert Dolomite

DRILLING TIME IN MINUTES
PER FOOT

Rate of Penetration Increases



LITHOLOGY

DEPTH

SAMPLE DESCRIPTIONS

REMARKS

3400

28

40

60

80

3500

20

40

60

80

3600

SH-MED TO DK GRY. SCOT GRN & GRY-GRN
W. SCOT GRN. EN. YIN. DENSE HARD LN

SAME W. SCOT LT GRY. V. SLT SILTY SN

SAME W. SCOT ALY. FIRM IN PART SH

SAME W. SCOT FINE BLUE TALL GRN. EN
YIN. SUB. SILTY TO DENSE. HARD LN

SH-LM AS ABOVE W. SCOT TAN LM IN
GRY. FOSSILS INCREASING TO GRN LM IN TAN
& GRN. FOSSILS INCREASING. DENSE. DENSE &
HARD

SH-MED GRY. SCOT DV GRY. TO ALY. GRN
W. GRN. BLUE TAN & GRN. EN. YIN. SUB.
CALY. TO DENSE. HARD LN

SH-LM AS ABOVE

SAME W. SCOT GRY-GRN SH

SH-LM AS ABOVE W. SCOT GRY. ALY.
& SILTY SH OR SILTY SILT

SILT. LT GRY. ALY. & SILTY IN PART BLUE
SCOT BLUE. TAN & GRN. EN. YIN. SUB. SILTY
TO DENSE. HARD LN & SCOT DV GRY &
ALY. FIRM SH

SH & SILT AS ABOVE W. V. SCOT GRN. EN
YIN. DENSE. HARD LN & V. SCOT ALY. FIRM
SH

20

SH. ALK. BRD. COB. PLIC TAN & BRN. COI
YIN. DENSE. HARD LM. & MED. COB. SLI
CITY SH

40

LM. COB. BRD. SH. LT. GR. & TAN. COI YIN.
SUB. CHY. TO DENSE. HARD LM. SCOT. GR. COI
COB. SH. & SCOT. ALK. SH. AS ABOVE

60

LM. COB. BRD. & TAN. W. LT. GR. COI
YIN. SUB. CHY. TO DENSE. HARD LM.
SH. AS ABOVE

80

SAME AS ABOVE

3700

SH. MED. GR. COI. GR. COI. TO GR. W.
SCOT. LM. AS ABOVE

20

SH. & SCOT. LM. AS ABOVE

40

SH. LT. TO MED. GR. & GR. COI. SCOT.
COB. BRD. & TAN. COI YIN. SUB. CHY.
TO DENSE. HARD LM.

60

SH. LT. GR. COI. ULTA. MED. GR. & TAN. W.
LM. AS ABOVE

80

SAME AS ABOVE

3800

SH. MED. GR. COI. COI. SCOT. GR. COI
ALK. W. Y. SCOT. LM. AS ABOVE

20

SAME AS ABOVE

40

60

80

3900

20

40

60

80

4000

20

40

SH. MED GRAY Y. SLT SILTY GRAY GRN & M.
SCOT BY GRAY

1 IN. BLUE GRAY TAN & GRN BDN SUB-CHLKY
TO MED HARD. PASS IN PORT. IN BLUE & TAN
1 IN. W. MED GRAY ON SIDES & EDGES
BOOR BOR-ALC

1 IN. AS ABOVE W. INCR IN GRN & SLT
INCR IN BOR (BOOR PERM)-ALC

1 IN. BLUE TAN & BDN GRN IN TAN. SUB-
CHLKY TO BDN TAN & BDN BLUE
MED GRAY GRAY GRN SH

SPR BDN GRN IN AS ABOVE & 50%
SH AS ABOVE

1 IN. GRN BLUE GRAY TAN & GRN IN TAN
SUB-CHLKY TO TAN & GRN W. MED
GRAY SLT GRAY SLT SILTY & TR DE GRAY

1 IN. AS ABOVE W. INCR IN SH & AS ABOVE

1 IN. BLUE GRAY TAN & GRN IN TAN. SH
BLUE & TAN MED GRN & 1 IN. W. BOOR TAN & GRN
BOR (PERM) 1/2 IN. S-PLUS WIL CHLKY IN

1 IN. BLUE & TAN GRN & SH GRAY TO GRN
BOR-ALC BLUE SCOT IN & GRN CHLKY &
SUB-CHLKY IN

1 IN. AS ABOVE BLUE GRAY TAN & GRN IN
TAN SUB-CHLKY TO TAN. HARDER & ST
BLK GRN IN PORT & MED TO DE GRAY SH

1 IN. & CONC SH AS ABOVE

60

20

4100

20

40

60

80

4200

20

40

60

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.

SAME W. SCOT. TH. FIN. CRK. BLK. BLK.
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SH. BLK. CRK. W. MED. TO TH. GR. BLK.
 LY. BLK. BLK. TH. BL. GR. BLK. (GR. BLK.)
 IN. BLK. BLK. BLK. BLK. BLK. BLK. BLK.

SAME AS ABOVE

80

STARK

4329

46 UNITS

-2906

1M. UNH. COM. BLUE. GRY. TAN. & BDN. EN
 YIN. SUB-CHUNKY. TR. CHUKY TO BDN.
 F. HAD. V. SCAT. TAN. GRY. F. EN. SUB.
 SUB-TRANS. CHUKY

4300

1M. UNH. COM. BLUE. GRY. TAN. & BDN.
 EN. YIN. SUB-CHUNKY. TR. CHUKY TO BDN.
 TANSE. HAD. IN. HAD. TO. GRY. BDN.
 (HAR.) GRY. GRY. TAN. STILL. CHUKY. CHUKY.
 AS ABOVE

20

HUSHUCKNEY

4321

64 UNITS

-2938

SAME IN INCR. IN BIK. V. PAPA. (HAR. GRY.
 HAD. EN. PRINT. GRY. GRY. H. S.

40

BASE K.C.

4350

58 UNITS

-2967

SAME AS ABOVE. AND CARB. SH. & STILL
 GRY. GRY. - H. S. - SH. HAD. SUB-CHUNKY
 FOR. TR. SUB-TRANS. CHUKY. HAD. EN.

60

SH. BIK. CORP. (HAR. HAD. HAD. GRY. &
 GRY. GRY. SH. HAD. HAD. HAD. AS ABOVE

80

1M. COM. BLUE. GRY. TAN. & BDN. EN. YIN.
 SUB-CHUKY TO BDN. & HAD. HAD. HAD. HAD.
 TO. GRY. GRY. GRY. GRY. & BIK. SH.

4400

1M. & SCAT. EN. HAD. HAD. BIK. CORP. SH.

20

ALYAMONT

4430

-3047

1M. COM. BLUE. GRY. TAN. & BDN. EN. YIN.
 SUB-CHUKY TO BDN. & HAD. HAD. HAD. HAD.
 FOR. BIK. CORP. HAD. GRY. SCAT. GRY. GRY. HAD. SH.

40

1M. COM. BLUE. GRY. TAN. & BDN. EN. YIN. SUB-CHUKY
 TO BDN. & HAD. HAD. HAD. HAD. HAD. HAD.
 BIK. SH.

60

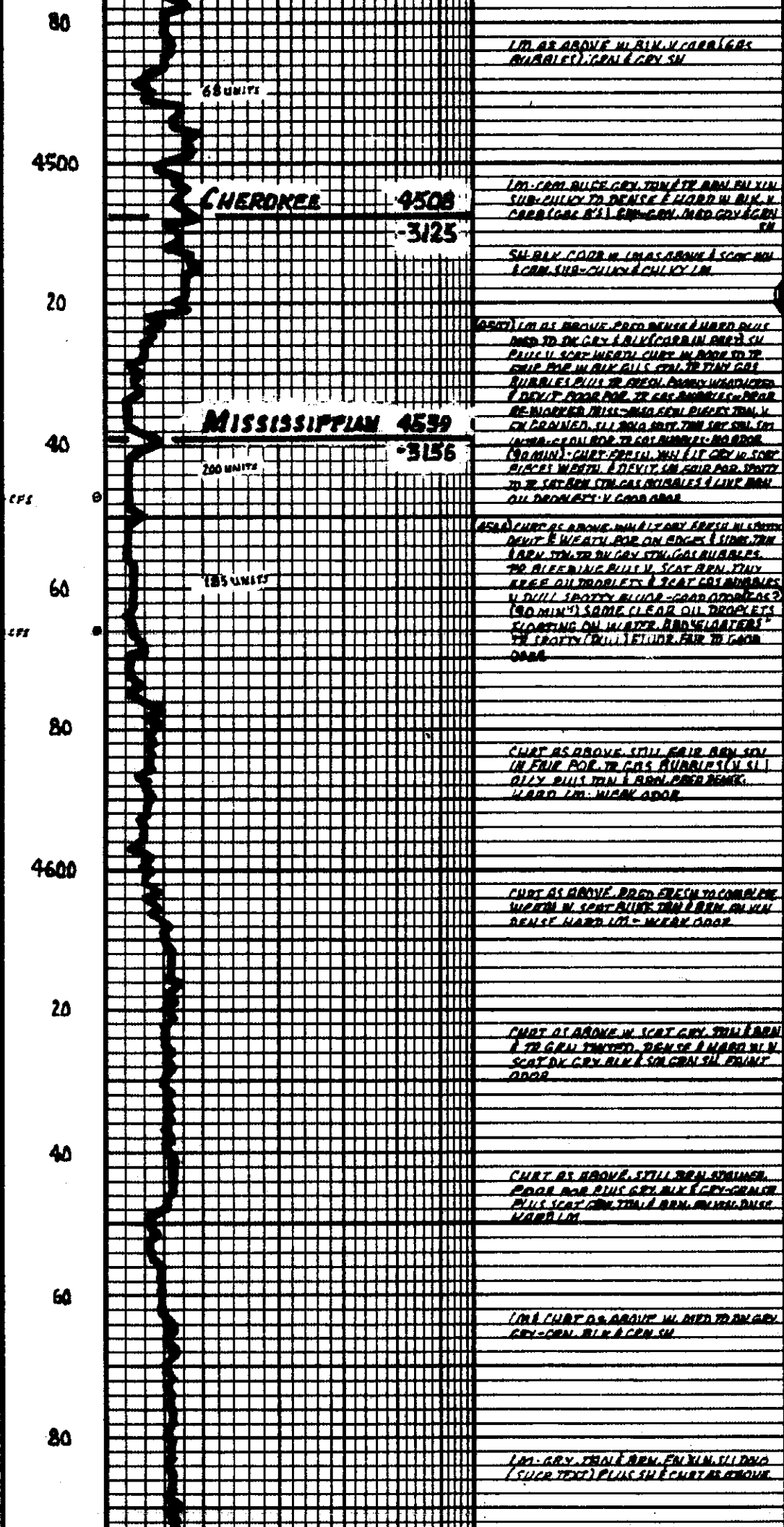
PANTEE

4461

100 UNITS

-3078

1M. BLUE. GRY. TAN. & BDN. EN. YIN. SUB-CHUKY
 CHUKY TO BDN. HAD. HAD. HAD. HAD. HAD. HAD.
 BIK. V. CORP. SH.



4700

20

40

60

80

4800

20

40

60

80

4900

KINDERHOOK 4743**-3360**

1M COLO IN PART BULK TAN. WRM TO
CRN & GRN. GRN. TAN. TAN. TAN. TAN.
WRT. PRD. PRD. PRD. PRD. W. CON. W.
GRN. GRN. & BLY. SN

1M. SN. AS. ABOVE. W. SCOT. LT. GRN. &
TAN. PRD. SN. PRD. SN. PRD. SN. PRD.

SH. MED. TO. PR. GRN. GRN. GRN. & BLY. &
GRN. W. L. M. & CURT. AS. ABOVE.

SAME AS ABOVE.

SH. MED. TO. PR. GRN. BLY. & GRN. GRN. W. V.
SCOT. BLY. TAN. & GRN. EN. SN. PRD.
PRD. PRD. L. M.

SN. AS. ABOVE. W. SCOT. BLY. GRN. & GRN. &
BLY. GRN. BLY. PRD. SCOT. GRN. GRN. GRN. SN.

CHATTANOOGA 4831**-3448**

SH. MED. TO. PR. GRN. BLY. BLY. GRN. &
BLY. GRN. BLY.

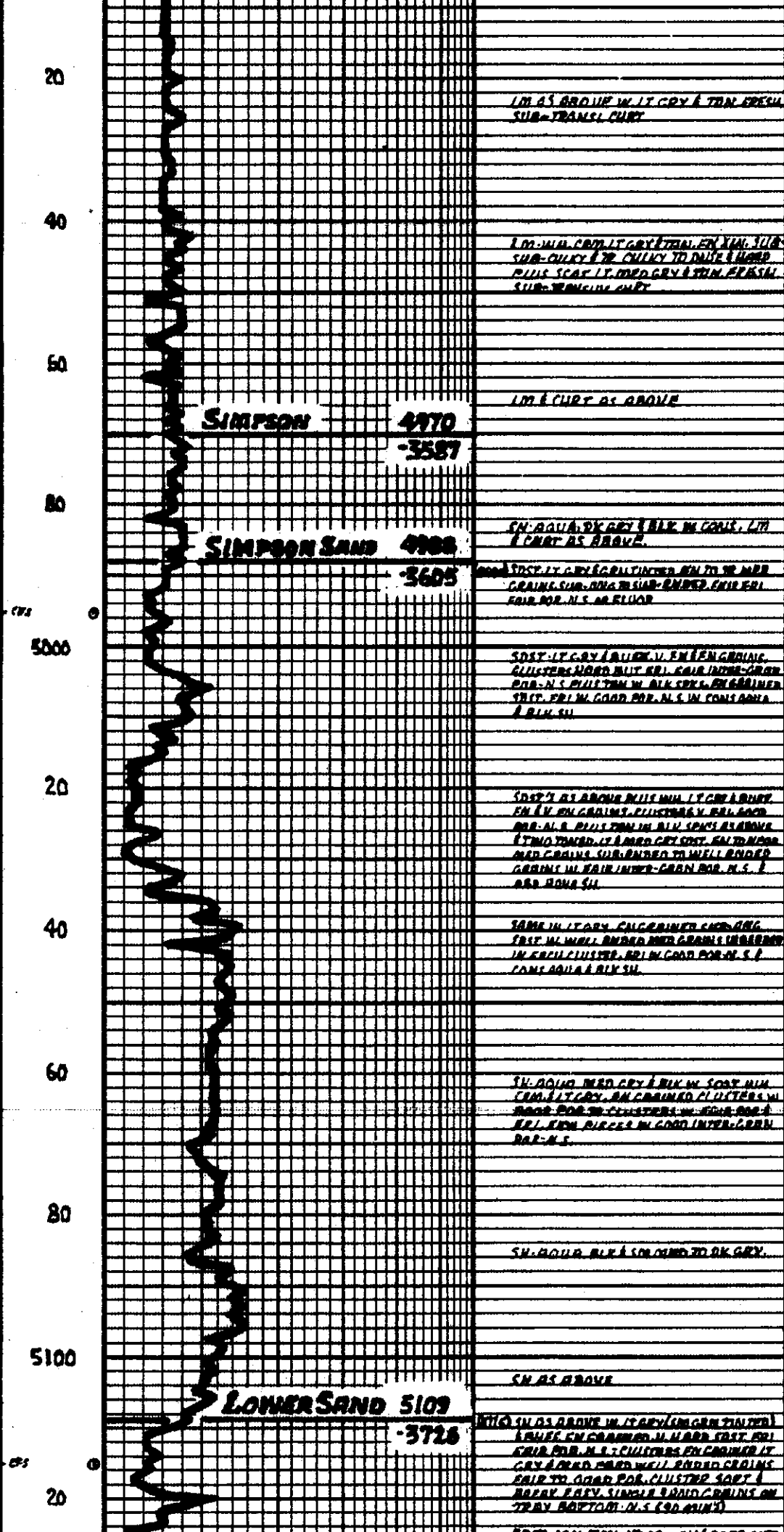
SN. AS. ABOVE. V. FL. TAN. BLY. TAN. GRN.
BLY. & BLY. GRN. BLY. SP. GRN. GRN. SN.

VIOLA 4853**-3480**

1M. PRD. BLY. GRN. & TAN. EN. V. M. SN.
CH. SN. TAN. GRN. GRN. GRN. GRN. SN.
AS. ABOVE.

1M. W. PRD. LT. GRN. & TAN. GRN. &
TAN. GRN. & TAN. GRN. GRN. GRN. GRN. GRN.
GRN. - STILL. AD. SN. AS. ABOVE.

1M. W. PRD. LT. GRN. GRN. GRN. GRN. GRN. GRN.
W. SCOT. BLY. TAN. & GRN. GRN. GRN. GRN.
CH. SN. TAN. GRN. GRN. GRN. GRN.



40

STRT-100 TAN CYCLOPS READER NEW
GRAINED. POOR (EN GRAINED) TO 50 COM
1 (MED) INTER-CORN POR. V. GR. SINGLE
GRAINS ON TRAY BOTTOM. N.S. - 800
RAD. ADUA SU

5167
T.D. 5167
-3764
FIRST SPT. AS ABOVE IN VIAL. DIFF. IN CORN
COMB CLUSTERS POORLY PRI. PROB. POOR
POR. N.S. - CONS. ADUA SU.