RON NELSON

CONSULTING PETROLEUM GEOLOGIST
3322 LINCOLN DRIVE
HAYS, KANSAS 67601
PHONE: 785-628-3449

GEOLOGIC REPORT LOG

COMPANY Downing-Nelson Oil Co. Inc

WELL Erleka #2

FIELD

LOCATION 162' FNL & 1681' FEL

SEC. 14 TWP. 14s RGE. 21w

COUNTY Trego

STATE Kansas

14

PRODUCTION ARB-Mm-LKC

ELEVATION KB 2242'
DF
GL 2234'

Drilling Measured From: KB

Samples Saved From 3500 To: TD

Drilling Time From 3200' To: TD

Samples Examined From: 3500 To: TD

Geological Supervision From 3500 To Total Depth

Wellsite Geologist Ron Nelson

Electrical Surveys Neutron - Density - Neutron
Micro - Dual Ind.

OPERATOR DNOCI

CONTRACTOR Discovery Drilling Rig #3

COMM: 1-23-13 COMP: 1-30-13

CASING RECORD

SURF: 8 5/8" @ 221' PROD: 5 1/2" @ 4069'

TOTAL DEPTH DRILLERS: 4070'

TOTAL DEPTH LOG 4072'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
TOP ANHYDRITE	1596	1596	+646	+3
BASE ANHYDRITE	1638	1638	+604	+3
TOPEKA	3308	3309	-1067	FL
HEEBNER	3545	3547	-1305	-1
TORONTO	3564	3566	-1324	-1
LKC	3583	3586	-1344	-3
BKC	3824	3825	-1583	+3
MARMATON	3903	3906	-1664	+7
CHEROKEE SHALE	3947	3951	-1709	+4
CONGLOMERATE	ABSENT			
ARBUCKLE	3960	3964	-1722	+21

REFERENCE WELL FOR STRUCTURE DNOCI's Erleka #1 @ 135' FSL & 2470' FEL
Sec 11-14s-21w

DAILY PENETRATION		BIT RECORD						
DATE	DEPTH	NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS

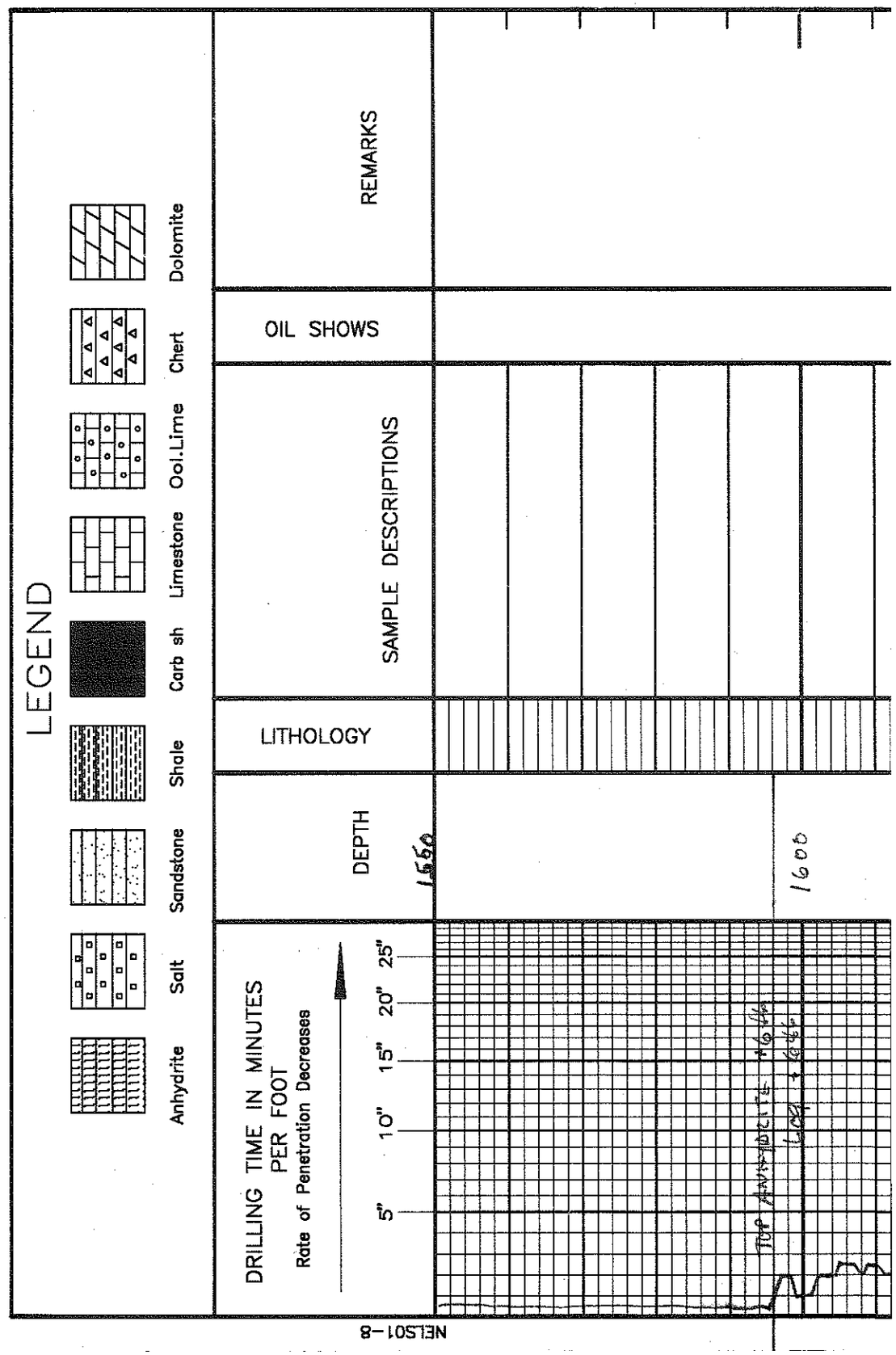
FORMATION	INTERVAL	DESCRIPTION OF SHOW	LOG ANALYSIS O	LOG ANALYSIS S W

DRILL STEM TESTS

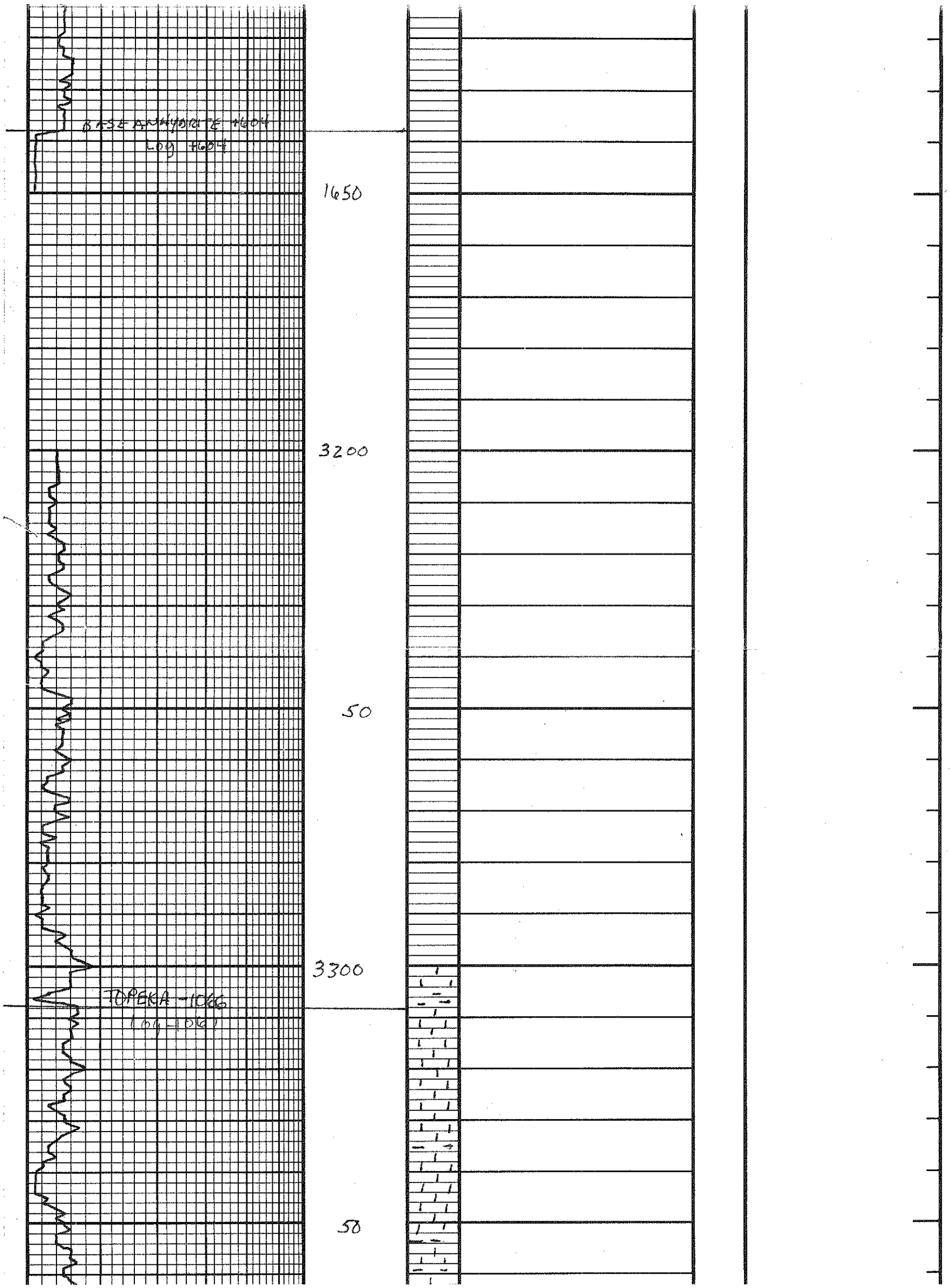
No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IHH–FHH	RECOVERY

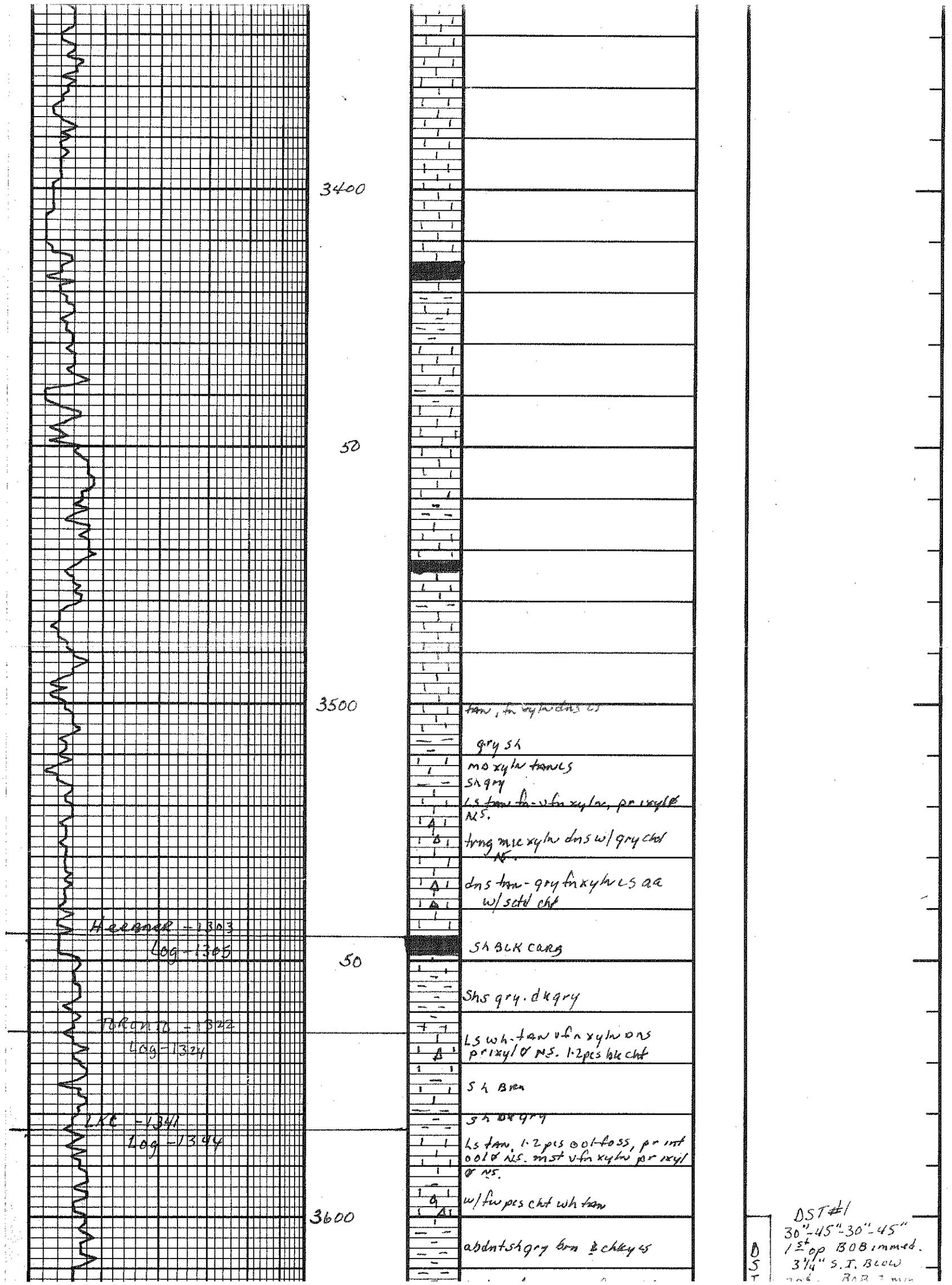
REMARKS AND RECOMMENDATIONS BASED ON DST'S & STRUCTURE, RAN 5½" PROD. PIPE, FOR completion in Arbuckle, LKC & Marmaton BEFORE ABANDONMENT.

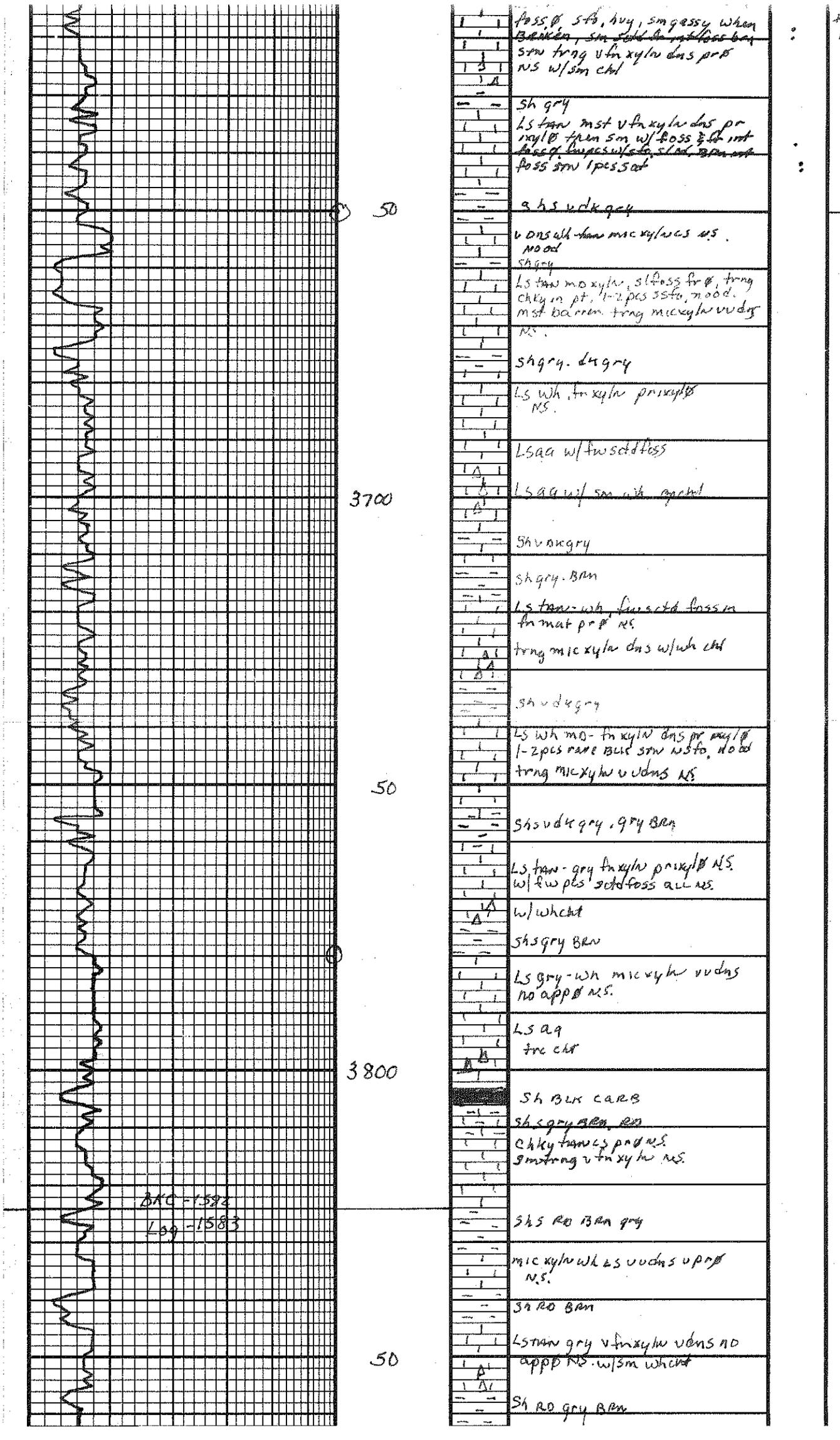
Ron Nelson



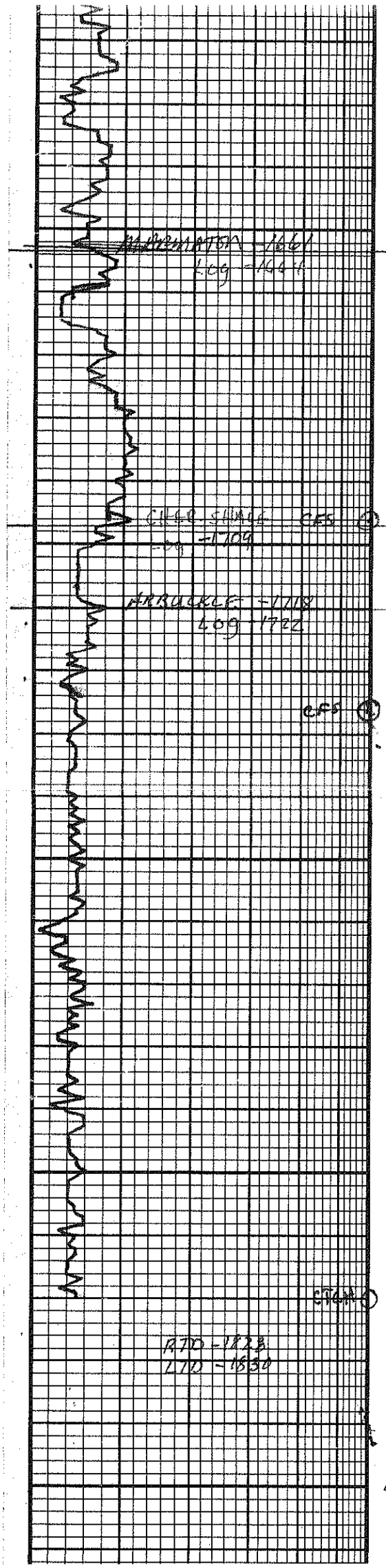
NELS01-8

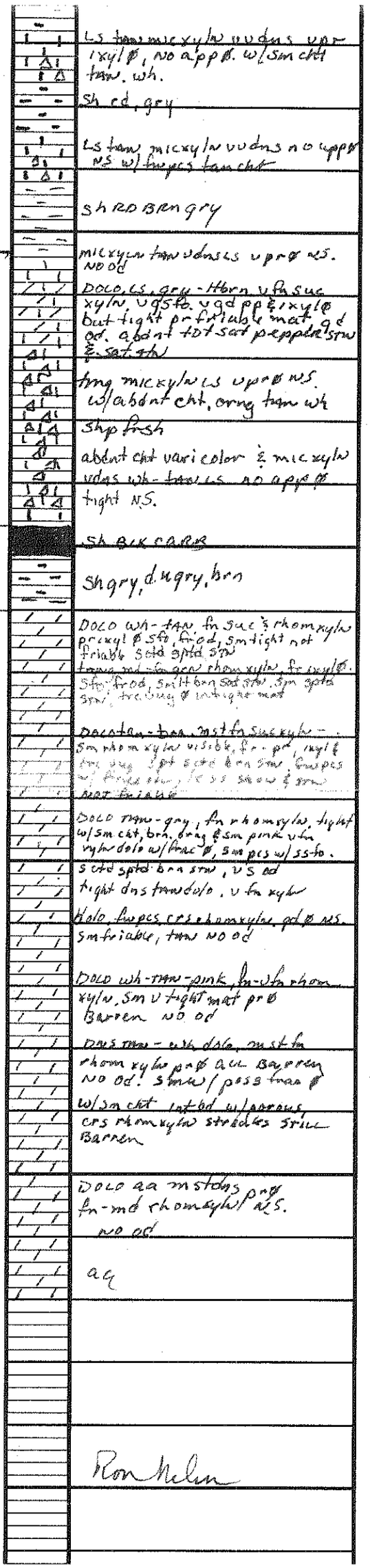

BASE ANHYDRITE -1604
LOG -1604
1650
3200
50
3300
TOPEKA -1066
(LOG -1061)
50


3400
50
3500
tan, fn xyln ls
gry sh
mo xyln tan ls
sh gry
ls tan fn-vfn xyln, pr xyl ⊘ NS.
trng mic xyln dns w/ gry cht NS.
dns tan-gry fn xyln ls aa w/ scttd cht
Heebner -1303
Log -1305
SH BLK CARB
50
Shs gry. dk gry
Toronto -1322
Log -1324
ls wh-tan vfn xyln ons pr xyl ⊘ NS. 1-2 pcs blk cht
Sh Brn
LKC -1341
Log -1344
sh dk gry
ls tan. 1-2 pcs oolt-foss, pr int ooldic NS. mst vfn xyln pr xyl ⊘ NS.
w/ few pcs cht wh tan
3600
abdnt sh gry brn & chky ls
DST
DST #1
30"-45"-30"-45"
1st op BOB immed.
3¼" S.I. BLOW



#	
1	IFP 33-77 FFP 84-111 SIP 288-276 HP 1758-1689 REC: 93' C.G.O. 124' GSOCWM 5%G: 5%O: 20%W: 70% mud BHT 106° very heavy oil less than 20 gravity



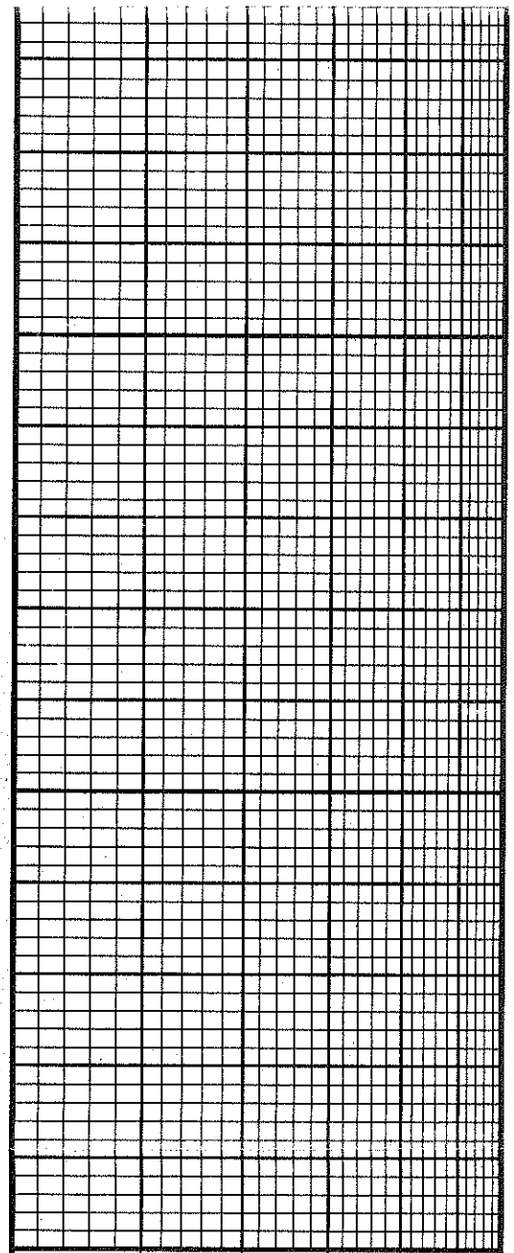


DST #2
3900'-3946'
30"-45"-30"-45"
1st op 3 3/4" Blow
2nd op 1 1/4" Blow
IFP 36-47
FFP 59-56
SIP 917-750
HP 1933-1879
Rec 66' HOCM
40% oil, 60% mud

DST #2

DST #3
3937'-3976'
30"-45"-30"-45"
1st op BOB 5 min
wk surf blow - SI
2nd op BOB 6 min
wk surface blow SI
IFP 35-103
FFP 123-140
SIP 1140-1121
HP 1945-1843
REC 186' gas
186' c.g.o.
124' HOCM
40% oil 60% mud
Gravity 38°

DST #3



5" 10" 15" 20" 25" DRILLING TIME Minutes/Foot → Rate of Penetration Decreases	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS

OPERATOR DNOCI

LOCATION 162' FNL & 1681' FEL

LEASE ERLEKA #2

IP ~~ARB-Mau-LKC~~

SEC 14 TWP 14S RNG 21W

ELEVATION 2242' KB RTD 4070'

COUNTY TREGO STATE KANSAS