OFR
O-81-2B
c.1

GEOPHYSICAL LOGS, OLD MAID FLAT NO. 7A

CLACKAMAS COUNTY, OREGON

Interval from 96-1190 and 1190-5952 ft

OPEN-FILE REPORT O-81-2B

STATE OF OREGON

DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1981

GEOPHYSICAL LOGS, OLD MAID FLAT NO. 7A, CLACKAMAS COUNTY, OREGON

SCHLUMBERGER provided the logging service. Geophysical logs which are a part of this report consist of:

1. Four-arm high resolution continuous dipmeter
2. Borehole compensated sonic
3. Natural gamma ray--spectroscopy
4. Compensated neutron--formation density
5. Fracture identification
6. Variable density
7. Dual induction SFL
8. Temperature 9/29/80
9. Temperature 10/5/80
10. Temperature 10/13/80
11. Dual induction SFL with linear correlation log
12. Schlumberger directional survey

OREGON DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES
OPEN-FILE REPORT 0-81-26
1981

Schlumberger

FOUR — ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER
(COMPUTED)

COUNTY CLACKAMAS
FIELD or LOCATION 15-2S-8E
WELL OLD MAID FLAT NO. 7A
COMPANY FENIX & SCISSON

COMPANY FENIX & SCISSON INC.
WELL OLD MAID FLAT NO. 7A
FIELD OLD MAID FLAT AREA
COUNTY CLACKAMAS STATE OREGON
LOCATION : 2460'SOUTH & 2091'WEST
Sec. 15 Twp. 2S Rge. 8E

Permanent Datum: GL Elev. 2760
Log Measured From GL 0 Ft. Above Perm. Datum
Drilling Measured From GL

Elev.: K.B. -
D.F. 2771.6
G.L. 2760

Other Services:
DIL VDL
BHC HRT
FDC/CNL/GR

Date	9-29-80																						
Run No.	TWO																						
Depth—Driller	6027																						
Depth—Logger	5957																						
Btm. Log Interval	5936																						
Top Log Interval	1190																						
Casing—Driller	10¾" @ 1190																						
Casing—Logger	1190																						
Bit Size	9⅞"																						
Type Fluid in Hole	WATER																						
Dens. / Visc.	- / -																						
pH / Fluid Loss	- / - ml																						
Source of Sample	CIRCULATION																						
R_m @ Meas. Temp.	12.7 @ 80 °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	8.4 @ 80 °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	8.8 @ 80 °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
Source: R_{mf} / R_{mc}	M / M																						
R_m @ BHT	4.88 @ 208°F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F	@ °F
Time Since Circ.	3 HOURS																						
Max. Rec. Temp.	220°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
Equip. / Location	B126 / SAC																						
Recorded By	KAISER/STEFANI																						
Witnessed By	PRIEST																						

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

Changes in Mud Type or Additional Samples				
Date / Sample No.				
Depth—Driller				
Type Fluid in Hole				
Dens. / Visc.				
ph / Fluid Loss		ml		
Source of Sample				
R_m @ Meas. Temp.	@ °F		@ °F	
R_{mf} @ Meas. Temp.	@ °F		@ °F	
R_{mc} @ Meas. Temp.	@ °F		@ °F	
Source: R_{mf} / R_{mc}				
R_m @ BHT	@ °F		@ °F	
R_{mf} @ BHT	@ °F		@ °F	
R_{mc} @ BHT	@ °F		@ °F	

Run No.	1	2	3	4
Tool Type	HDT-D			
HDM No.	-			
Magnetic Declination	20°			
Analog Panel No.	-			
Digital Panel No.	752			
Correlated By	-			
Computed By	PCDCC			
Plotted By	PCDCC			
Remarks —	SERVICE ORDER NO. 135621			

"Any directional computations made from the dipmeter log must be regarded as approximate only. This is because the dipmeter log indicates the orientation of the instrument itself, rather than the direction and amount of the wall drift. Therefore, we do not and cannot guarantee the accuracy of such directional computations, and we shall not, except in the case of willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained that may result from any such computations."

TABLE OF VERTICAL DISPLACEMENT IN FEET CORRESPONDING TO VARIOUS HORIZONTAL DISTANCES AND ANGLES OF DIP

DIP ANGLES (degrees)	VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF 100′	1000′	1 mile (5280′)	DIP ANGLES (degrees)	VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF 100′	1000′	1 mile (5280′)
1	1.75	17.5	92.2	19	34.4	344.	1818.
2	3.5	35.	184.	20	36.4	364.	1922.
3	5.2	52.	277.	21	38.4	384.	2027.
4	7.0	70.	369.	22	40.4	404.	2133.
5	8.8	88.	462.	23	42.5	425.	2241.
6	10.5	105.	555.	24	44.5	445.	2351.
7	12.3	123.	648.	25	46.6	466.	2462.
8	14.1	141.	742.	30	57.7	577.	3048.
9	15.8	158.	836.	35	70.0	700.	3697.
10	17.6	176.	931.	40	83.9	839.	4430.
11	19.4	194.	1026.	45	100.0	1000.	5280.
12	21.3	213.	1122.	50	119.2	1192.	6293.
13	23.1	231.	1219.	55	142.8	1428.	7540.
14	24.9	249.	1316.	60	173.2	1732.	9145.
15	26.8	268.	1415.	65	214.4	2144.	11323.
16	28.7	287.	1514.	70	274.8	2748.	14507.
17	30.6	306.	1614.	75	373.2	3732.	19705.
18	32.5	325.	1716.	80	567.1	5671.	29945.

To obtain vertical displacements corresponding to multiples of hundreds feet, thousands of feet or miles, multiply the number found in the table by the number of hundreds, thousands or miles.

Example: The formation dip is 16 degrees. The vertical displacement occurring at a spot 660 feet away from the well is desired. The table shows 28.7 feet per 100 feet for a 16° dip. Therefore, 28.7 × 6.6 = 189.42 feet.

13	23.1	231.	1219.	55	142.8	1428.	7540.
14	24.9	249.	1316.	60	173.2	1732.	9145.
15	26.8	268.	1415.	65	214.4	2144.	11323.
16	28.7	287.	1514.	70	274.8	2748.	14507.
17	30.6	306.	1614.	75	373.2	3732.	19705.
18	32.5	325.	1716.	80	567.1	5671.	29945.

To obtain vertical displacements corresponding to multiples of hundreds feet, thousands of feet or miles, multiply the number found in the table by the number of hundreds, thousands or miles.

Example: The formation dip is 16 degrees. The vertical displacement occurring at a spot 660 feet away from the well is desired. The table shows 28.7 feet per 100 feet for 16° dip. Therefore 28.7 x 6.60 = 189.42, or 189. feet.

GRAPHIC PRESENTATION

CORRELATION CURVE	DEPTHS	TRUE DIP ANGLE AND DIRECTION 0° 10° 20° 30° 40° 50° 60° 70° 80° 90°	DRIFT & DIRECTION OF SONDE 0° 10°

SCHLUMBERGER DIPMETER ARROW PLOT

10-10-80SR16562L

FENIX & SCISSON INC.
OLD MAID FLAT #7A
OLD MAID FLAT AREA FIELD
CLACKAMAS COUNTY,OREGON
RUN NO. TWO 29-SEP-80
P.C.D.C.C.
ARROW PLOT FROM CLUSTER PROGRAM

CORRELATION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 70 DEGREES X1
HDT-G CSU DEC-10

JOB 4672.00

CORRELATION CURVE	DEPTHS	DIP ANGLE AND DIRECTION 0 10 20 30 40 50 60 70 80 90	BOREHOLE DRIFT 0 10

POOLED ARROW PLOT

2 LEVELS POOLED WHEN WITHIN

3.5 DEGREES SOLID ANGLE

BLACK ARROWS ARE POOLED RESULTS

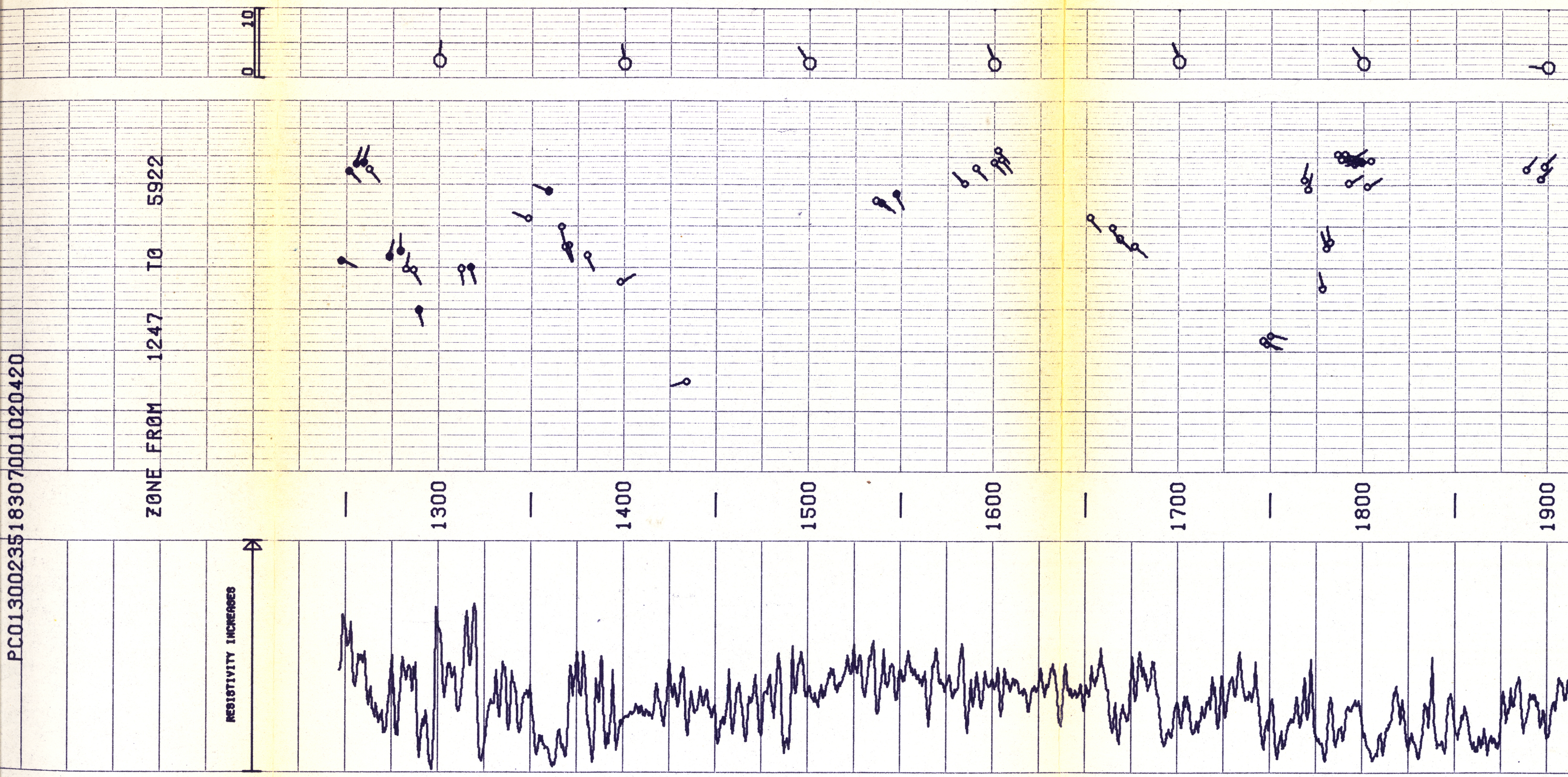
CORRELATION LENGTH 4 FT.

STEP LENGTH 2 FT.

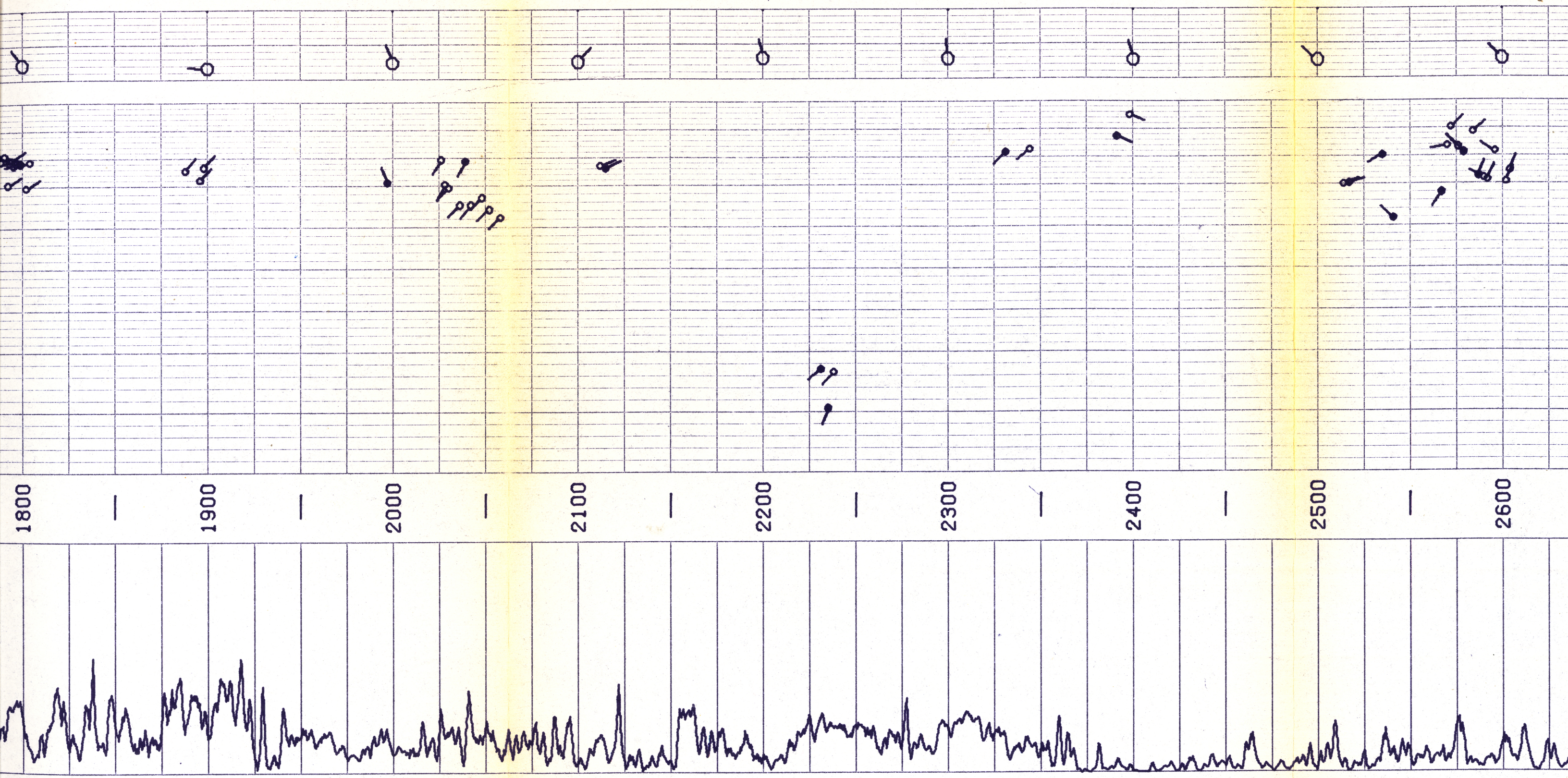
SEARCH ANGLE 70 DEGREES X1

PC013002351830700102042O

FOOT DUO-DECIMAL .500 IN. GRID


PC01300235183070010204 20
ZONE FROM 1247 TO 5922
0
10
1300
1400
1500
1600
1700
1800
1900
RESISTIVITY INCREASES

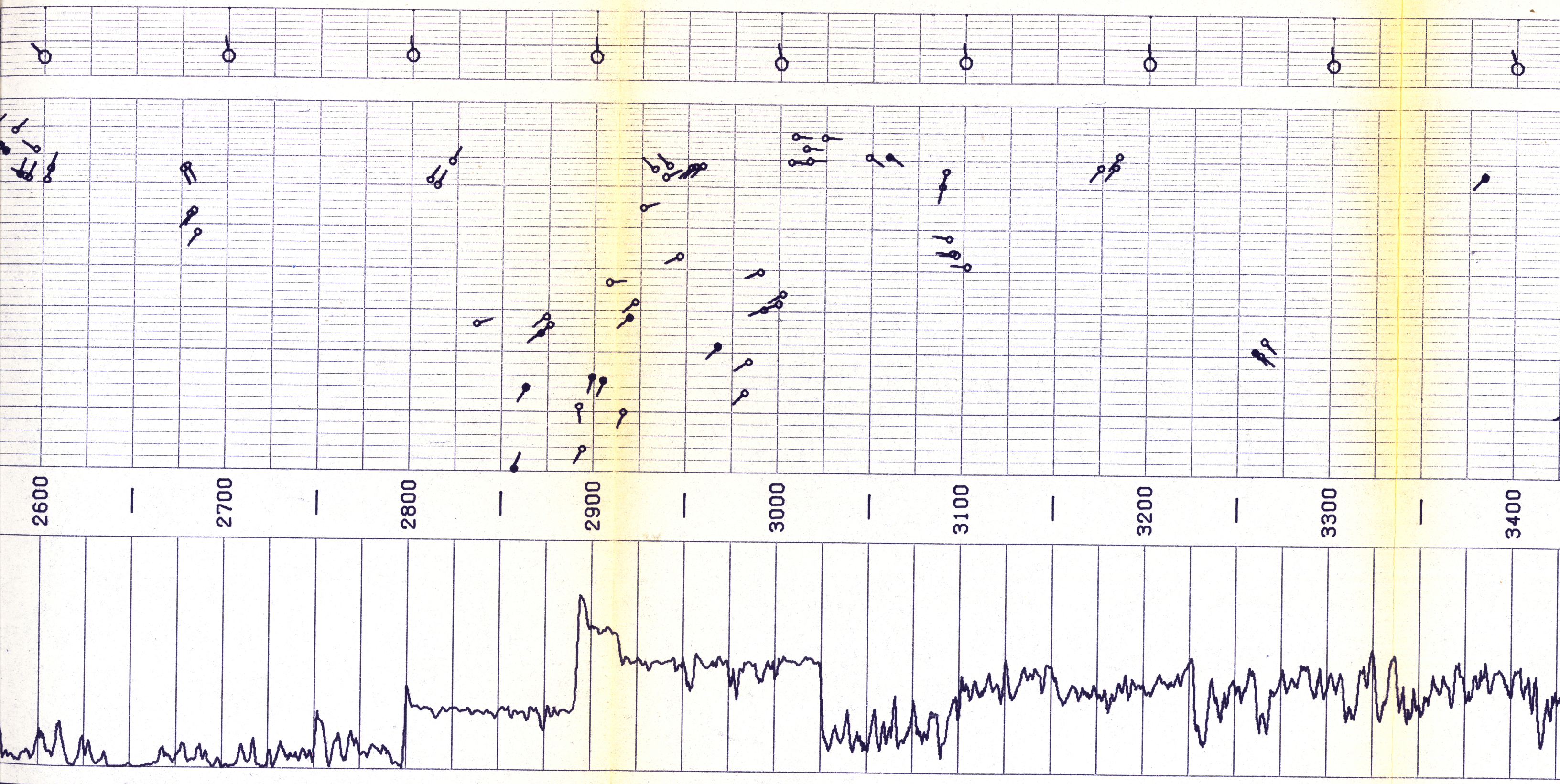
SCHLUMBERGER DIPMETER ARROW PLOT



FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT

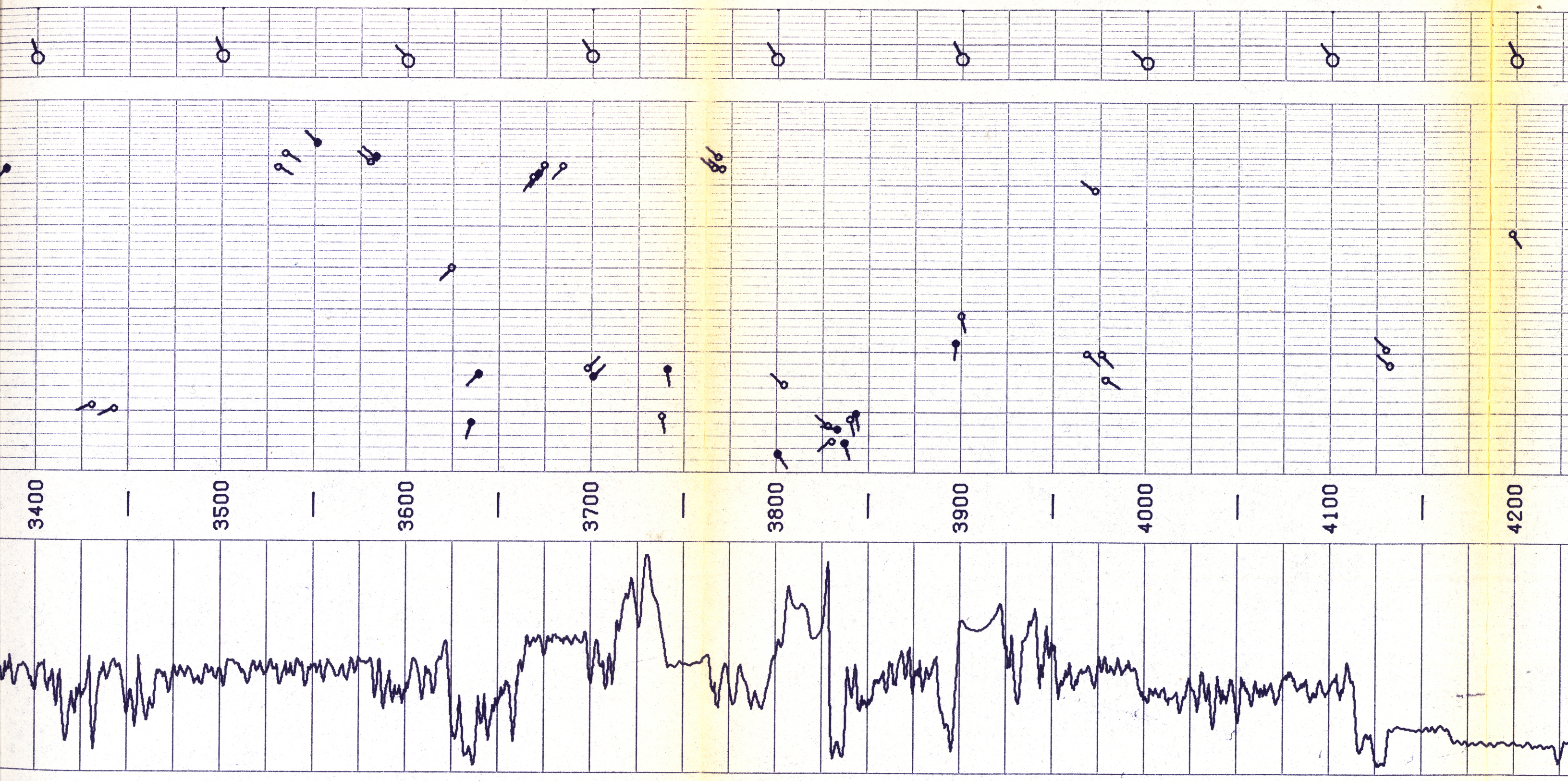
SCHLUMBERGER



FOOT DUO-DECIMAL .500 IN. GRID

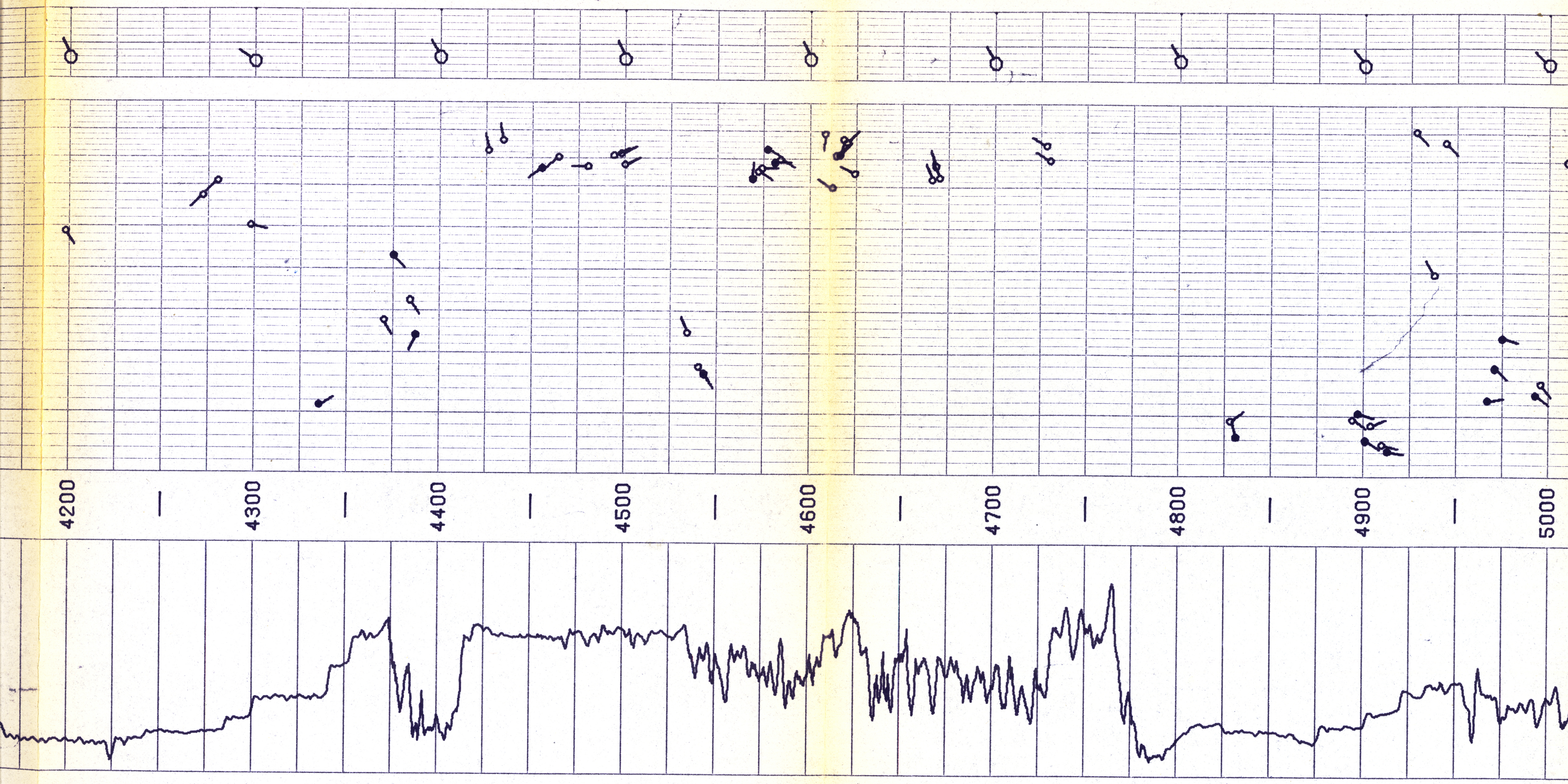
FOOT DUO-DECIMA

SCHLUMBERGER DIPMETER ARROW PLOT



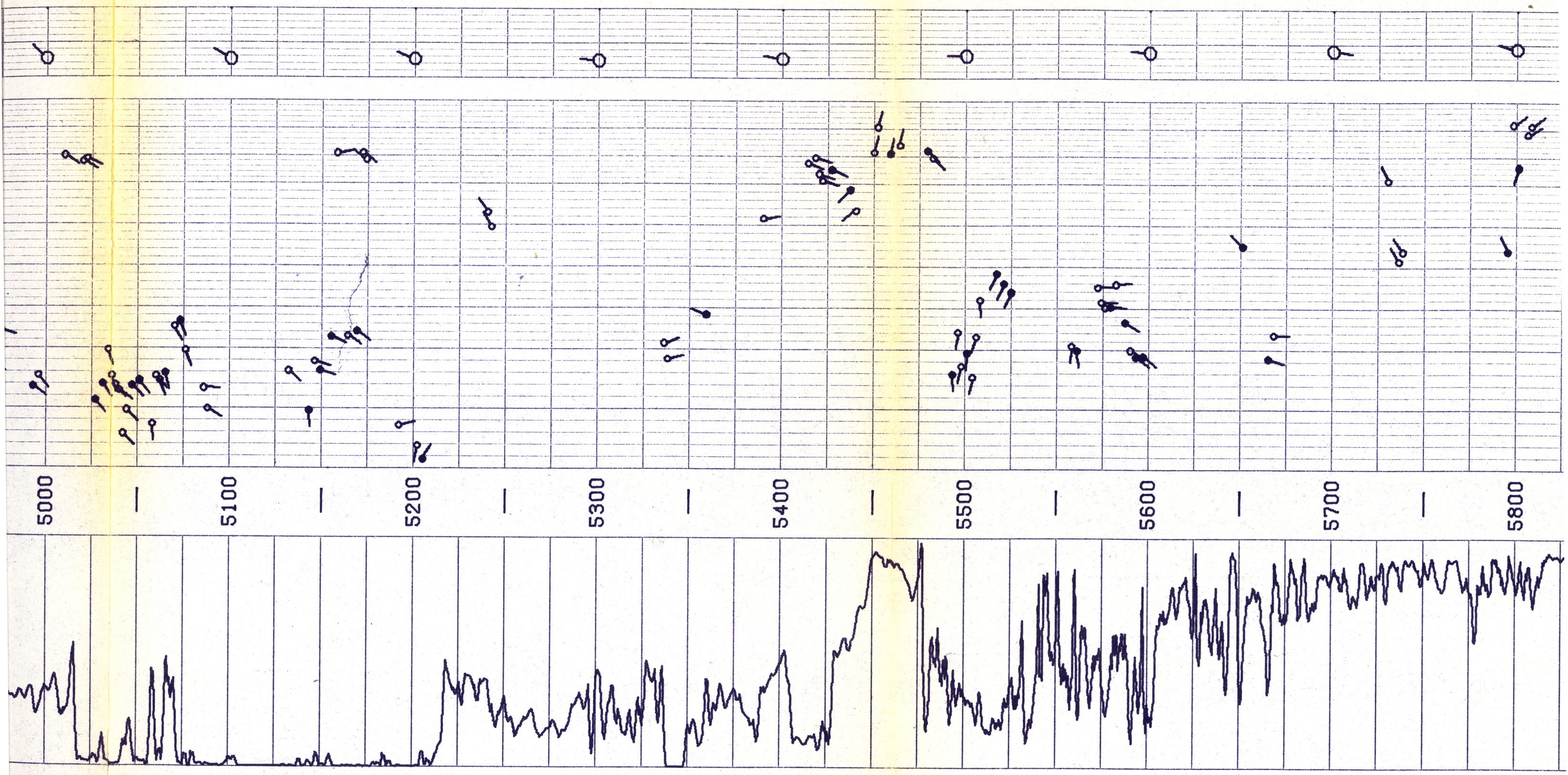
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT



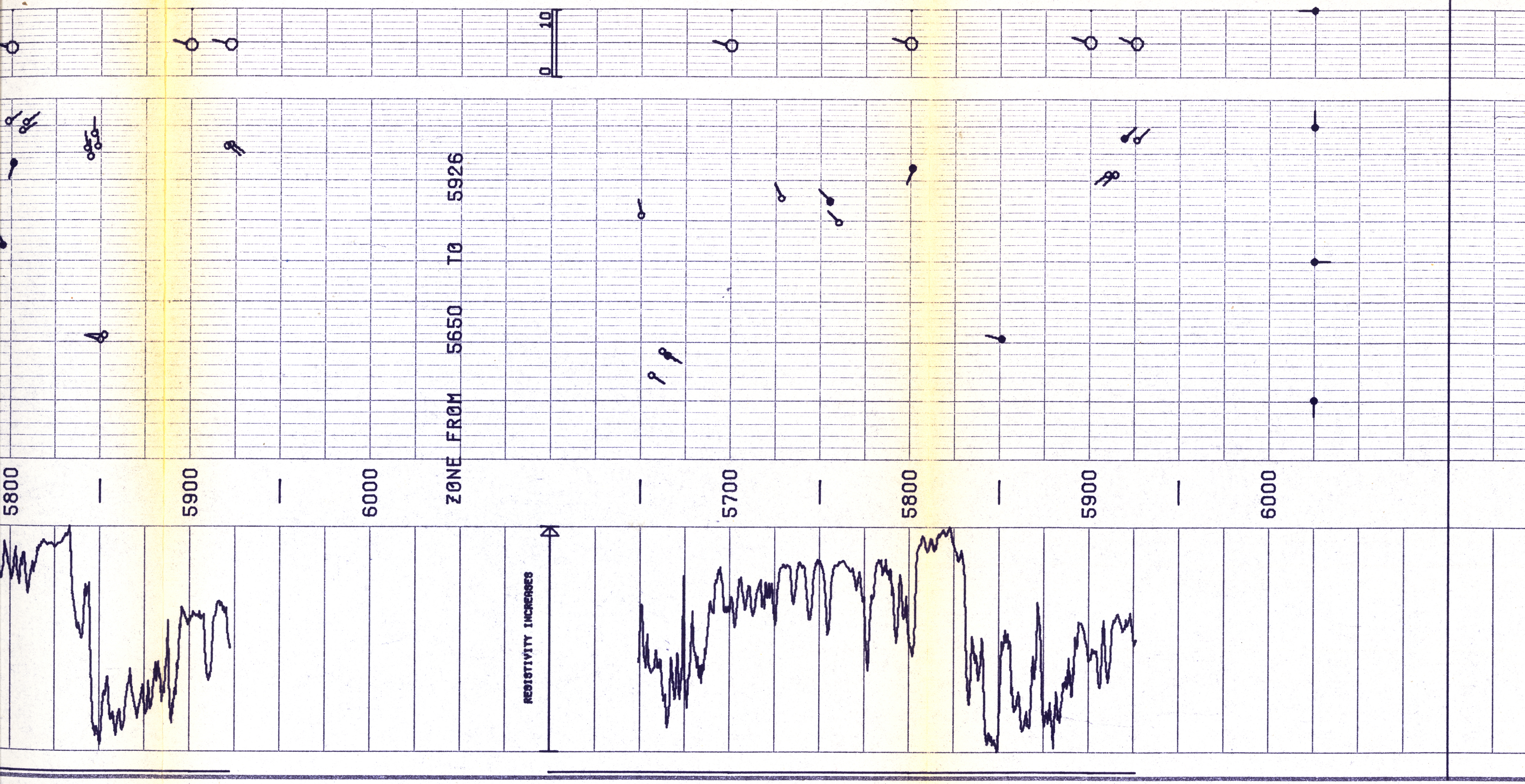
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT SCHLUMBERGER



FOOT DUO-DECIMAL .500 IN. GRID FOOT DUO-DECIMA

SCHLUMBERGER DIPMETER ARROW PLOT



SCHLUMBERGER DIPMETER ARROW PLOT

10-10-80 SEL 3562 LT

JOB 4672.00

CORRELATION CURVE DEPTHS DIP ANGLE AND DIRECTION BOREHOLE DRIFT

0 10 20 30 40 50 60 70 80 90 0 10

ALL QUALITY ARROW PLOT 004672

FROM THE CLUSTER PROGRAM

BLACK ARROWS ARE HIGHEST QUALITY

CORRELATION LENGTH 4 FT.

STEP LENGTH 2 FT.

SEARCH ANGLE 70 DEGREES X1

PC013002351830700102042O

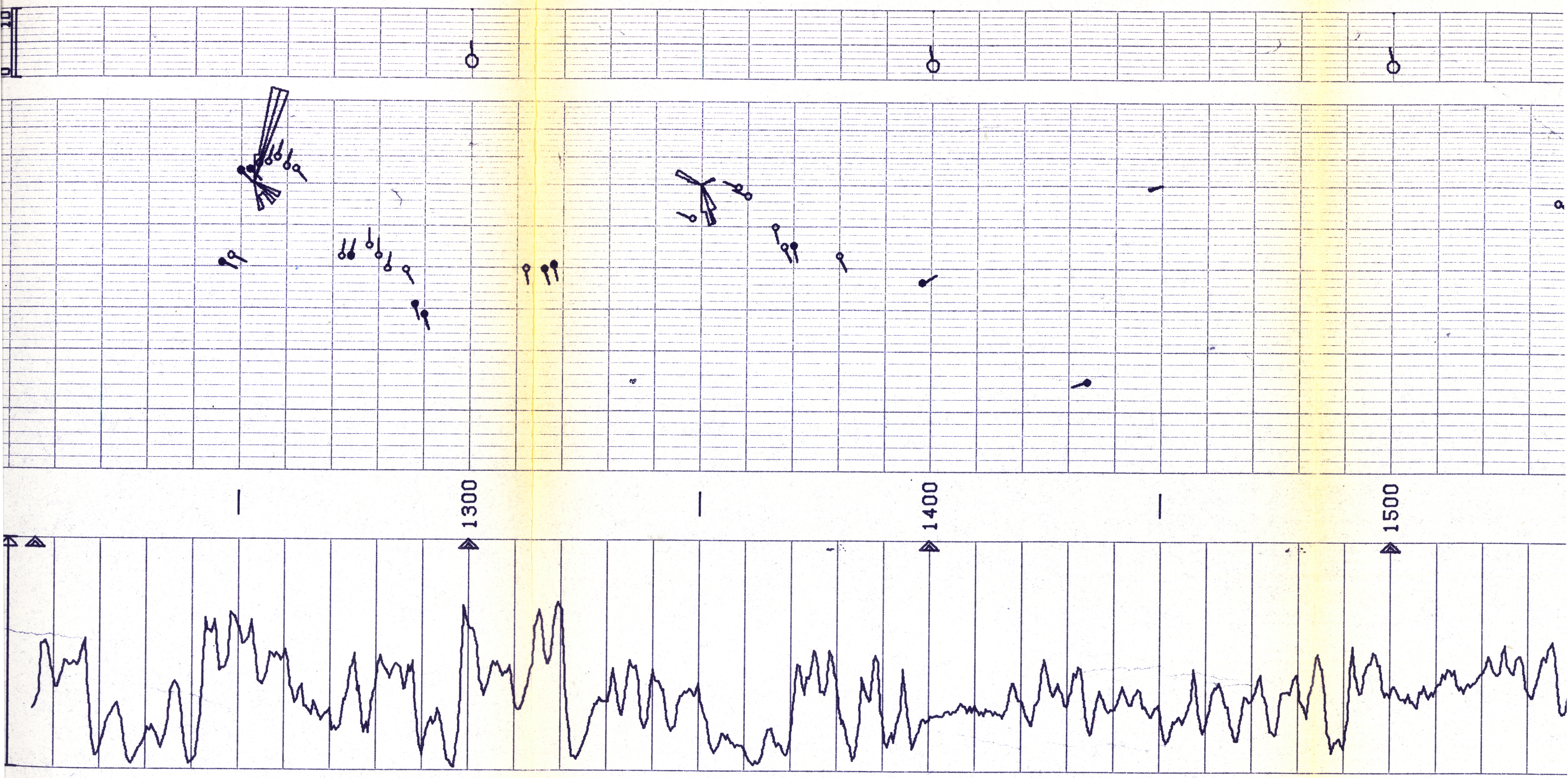
ZONE FROM 1206 TO 5928

RESISTIVITY INCREASES

0 10

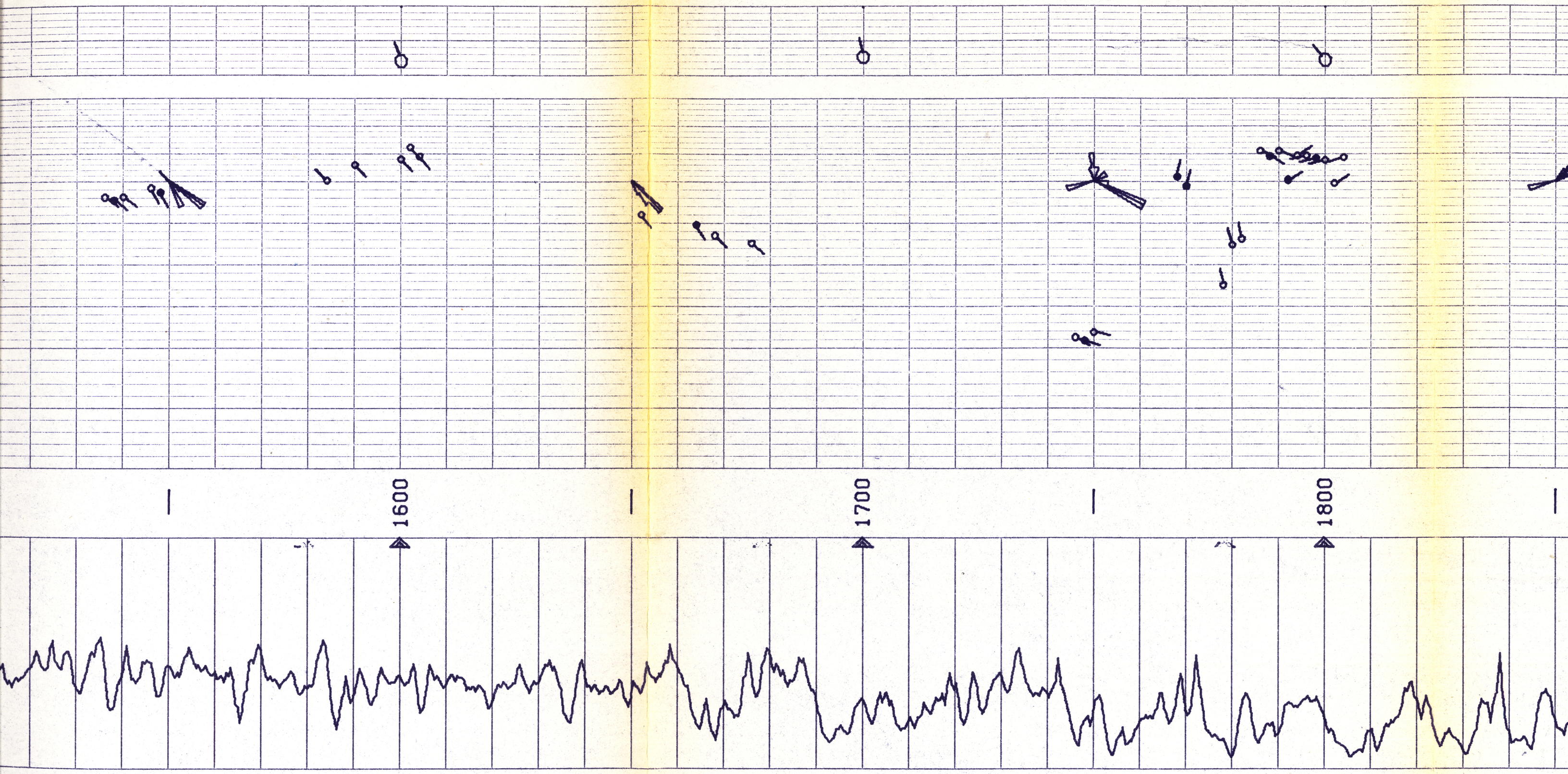
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT SCHI



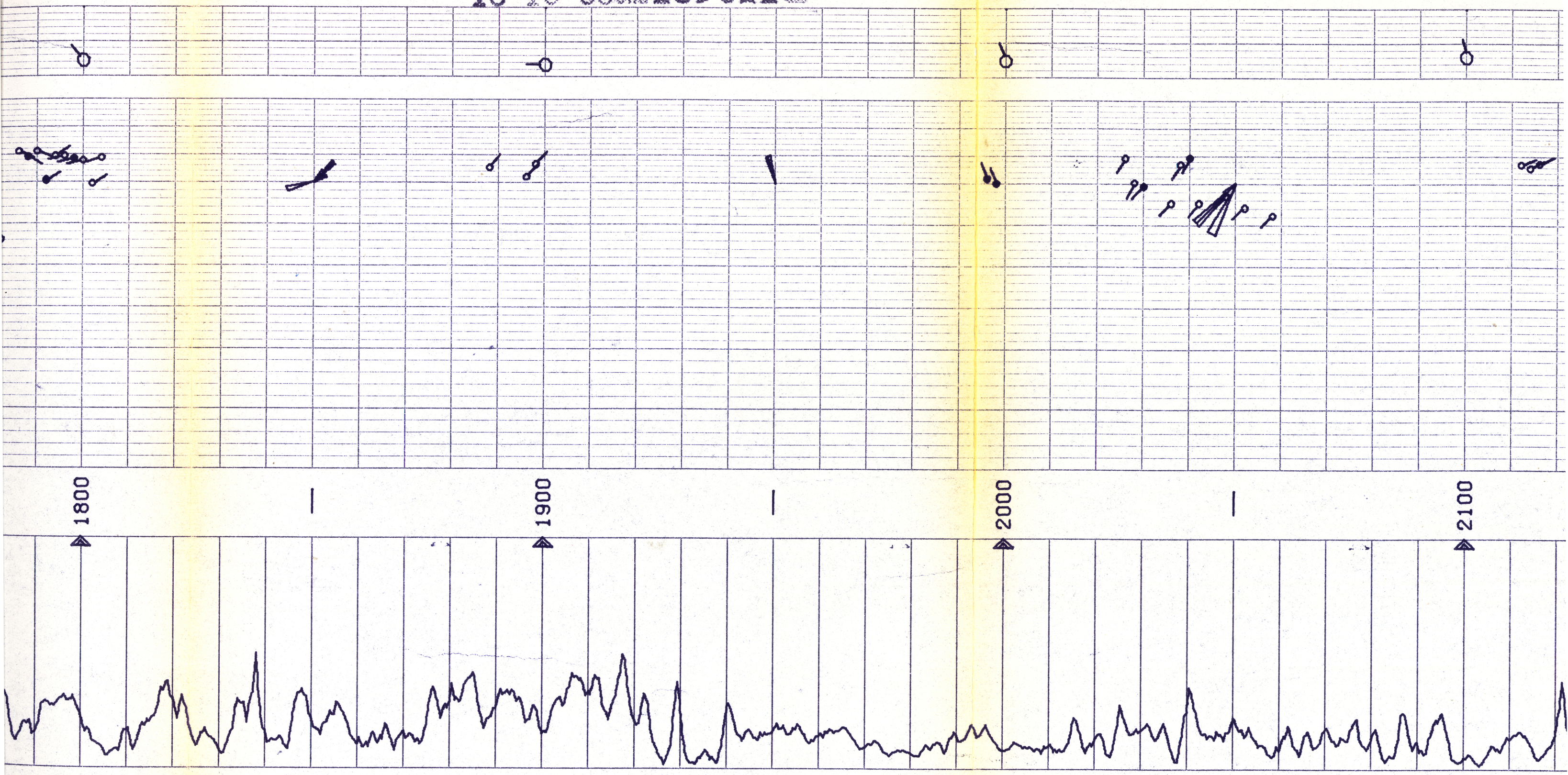
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLO



FOOT DUO-DECIMAL .500 IN. GRID

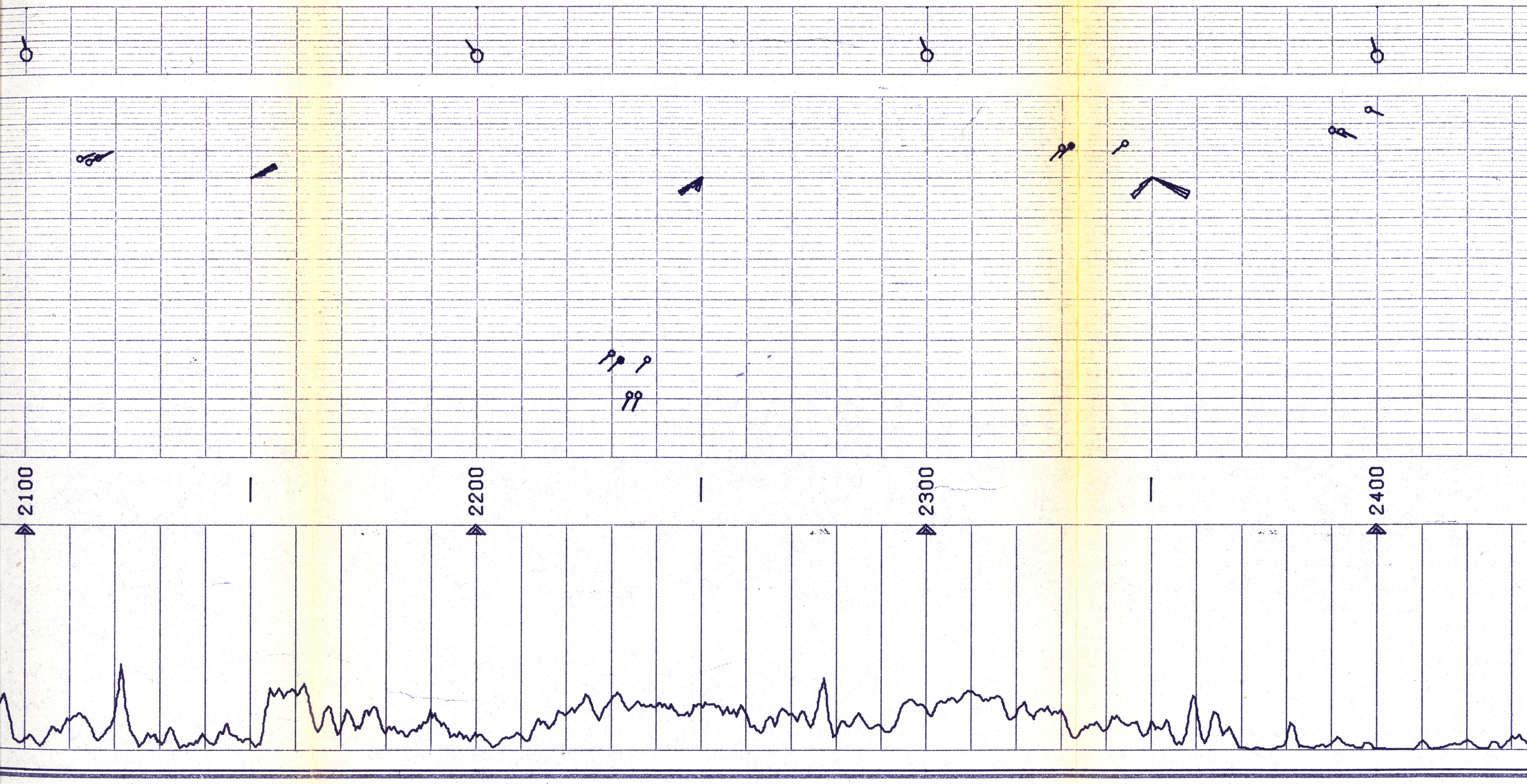
10-10-80SAC135621



SCHLUMBERGER DIPMETER ARROW PLOT

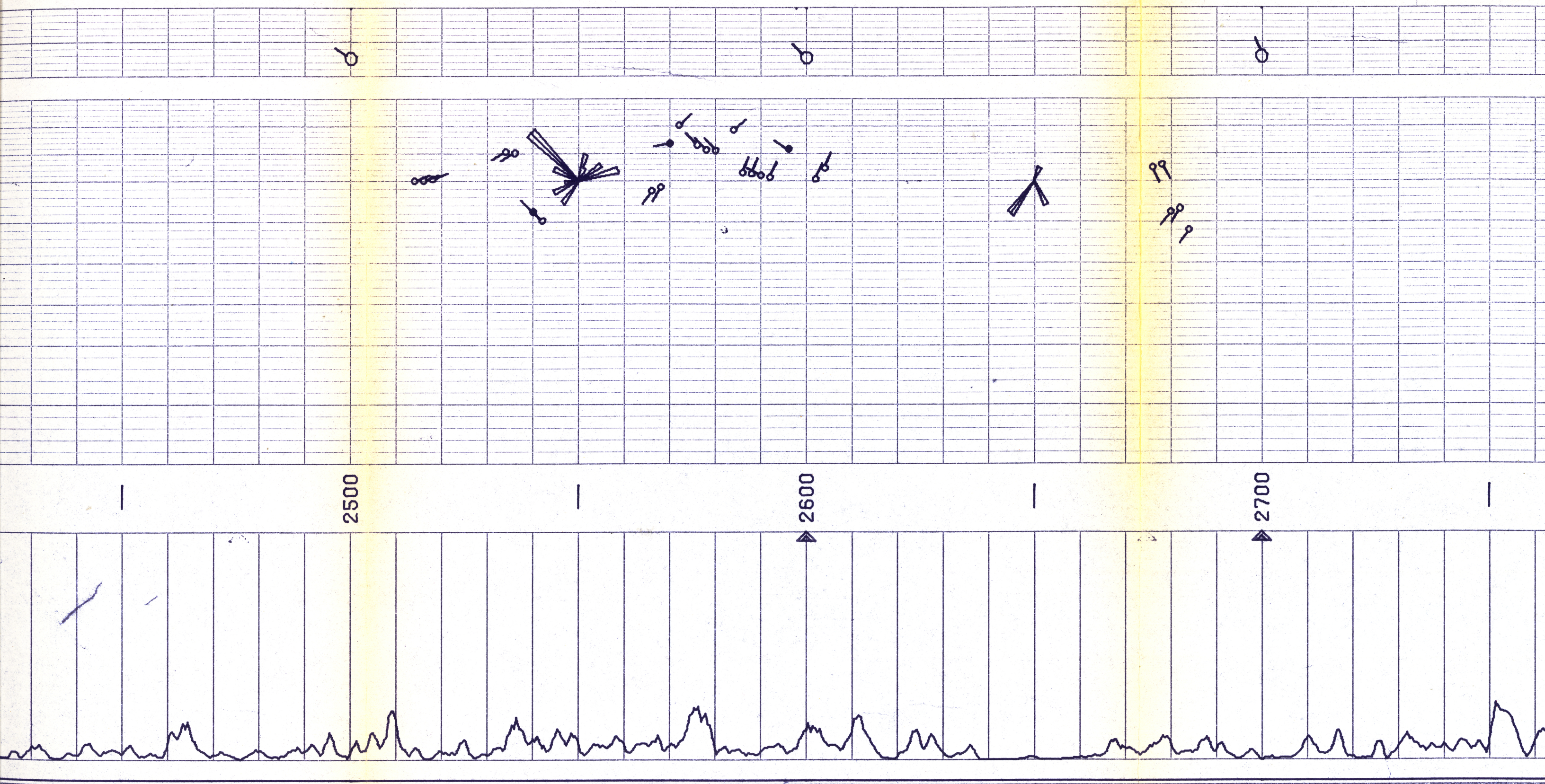
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT



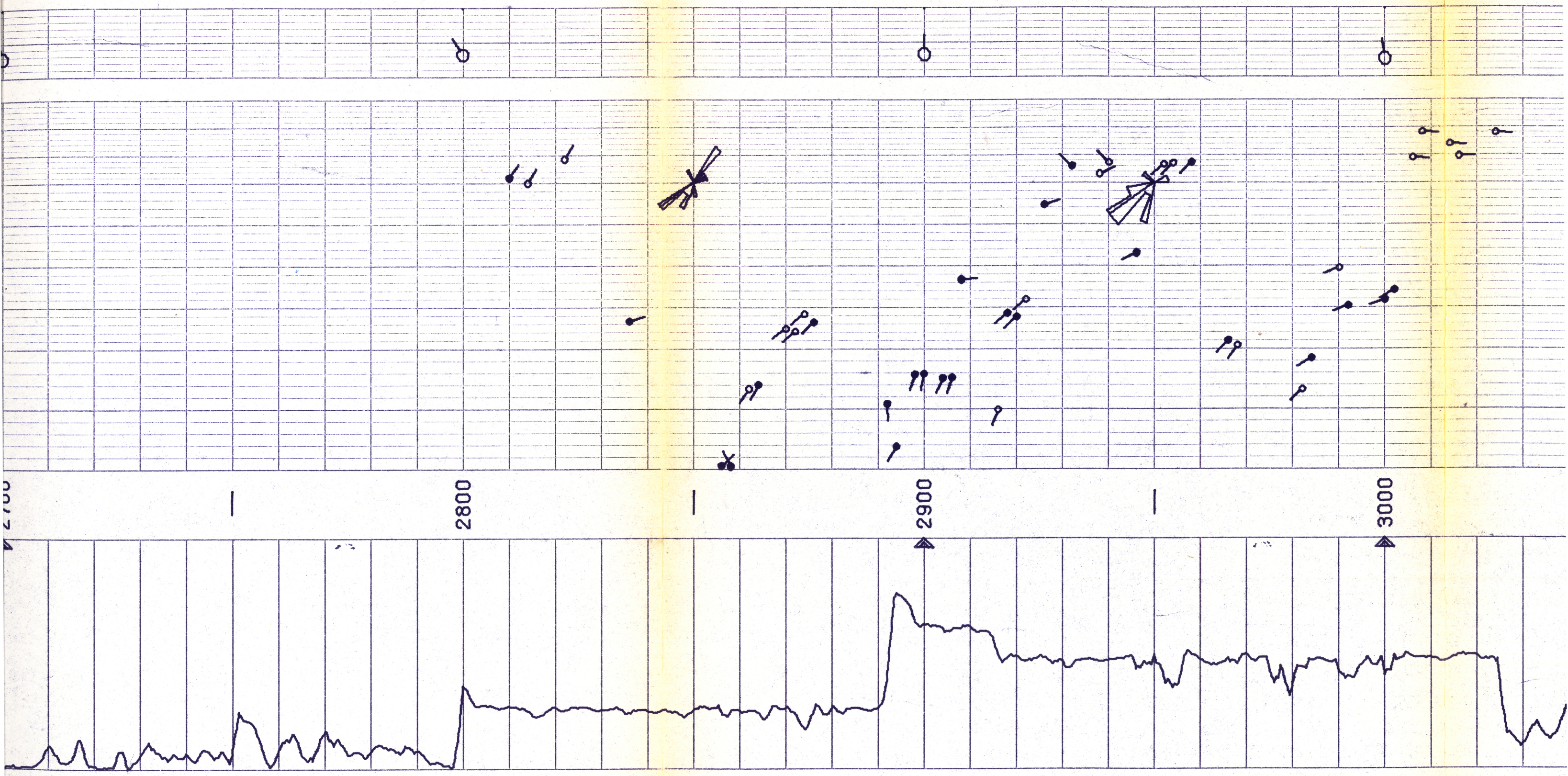
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGE



FOOT DUO

SCHLUMBERGER DIPMETER ARR



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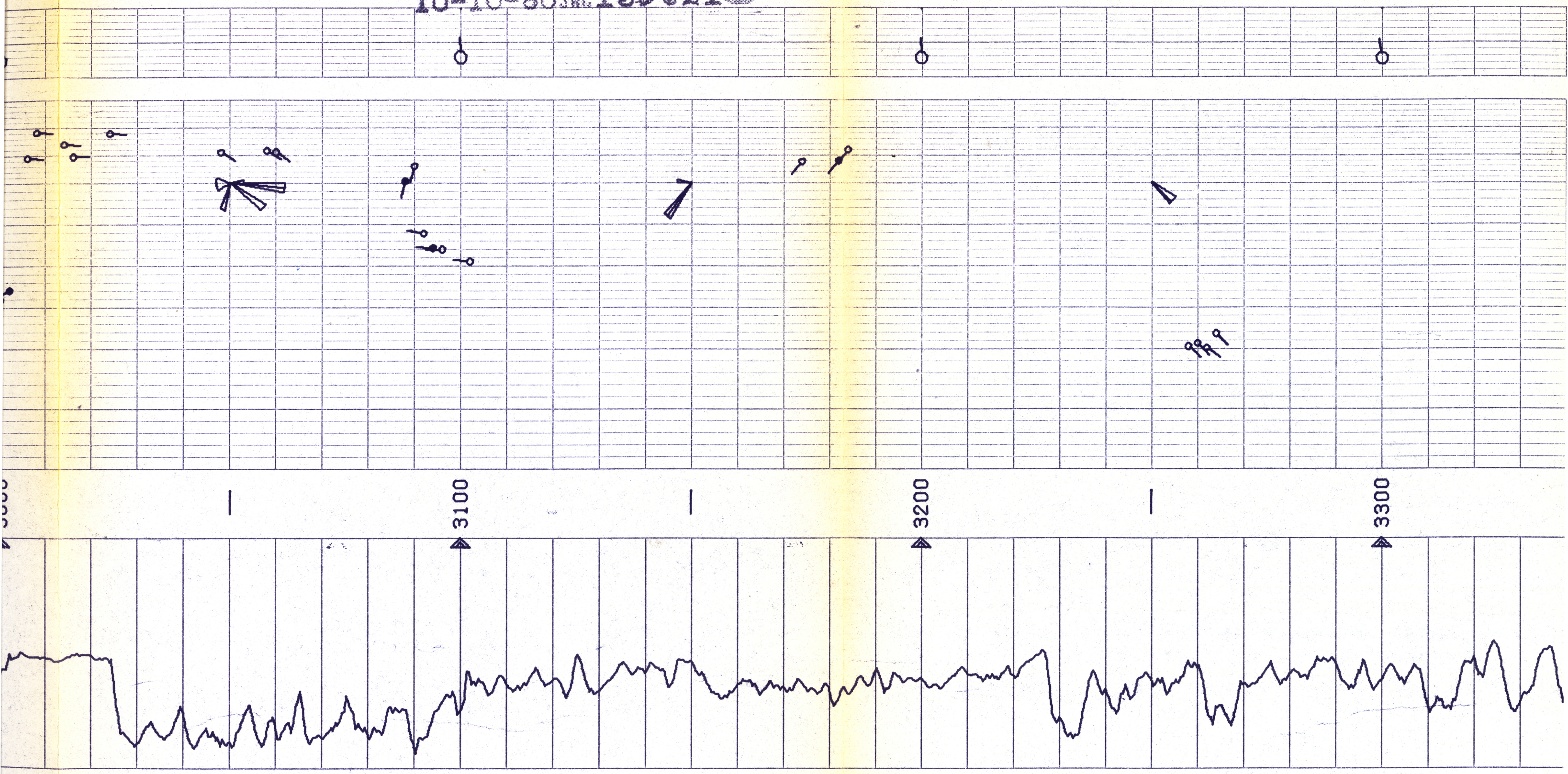
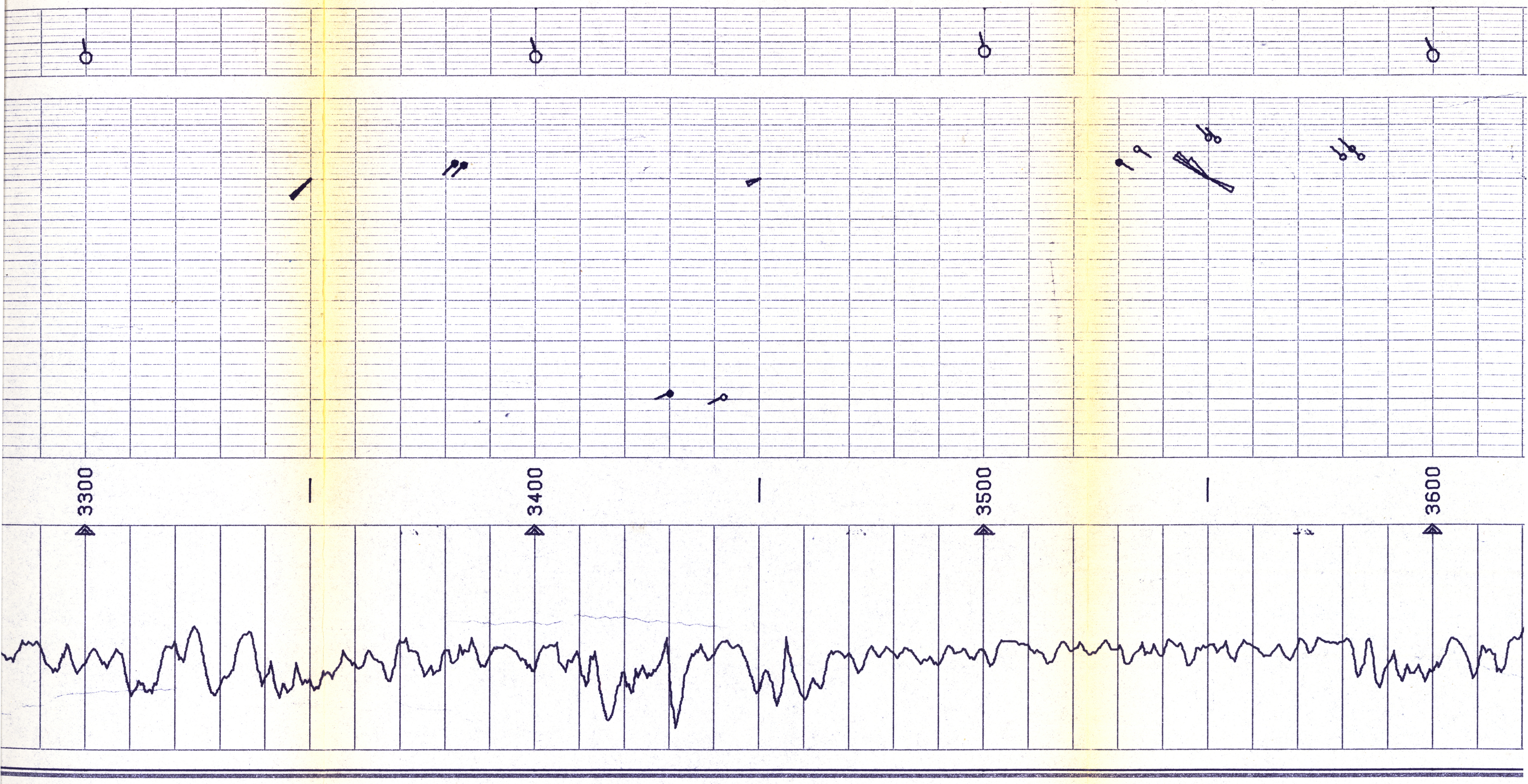
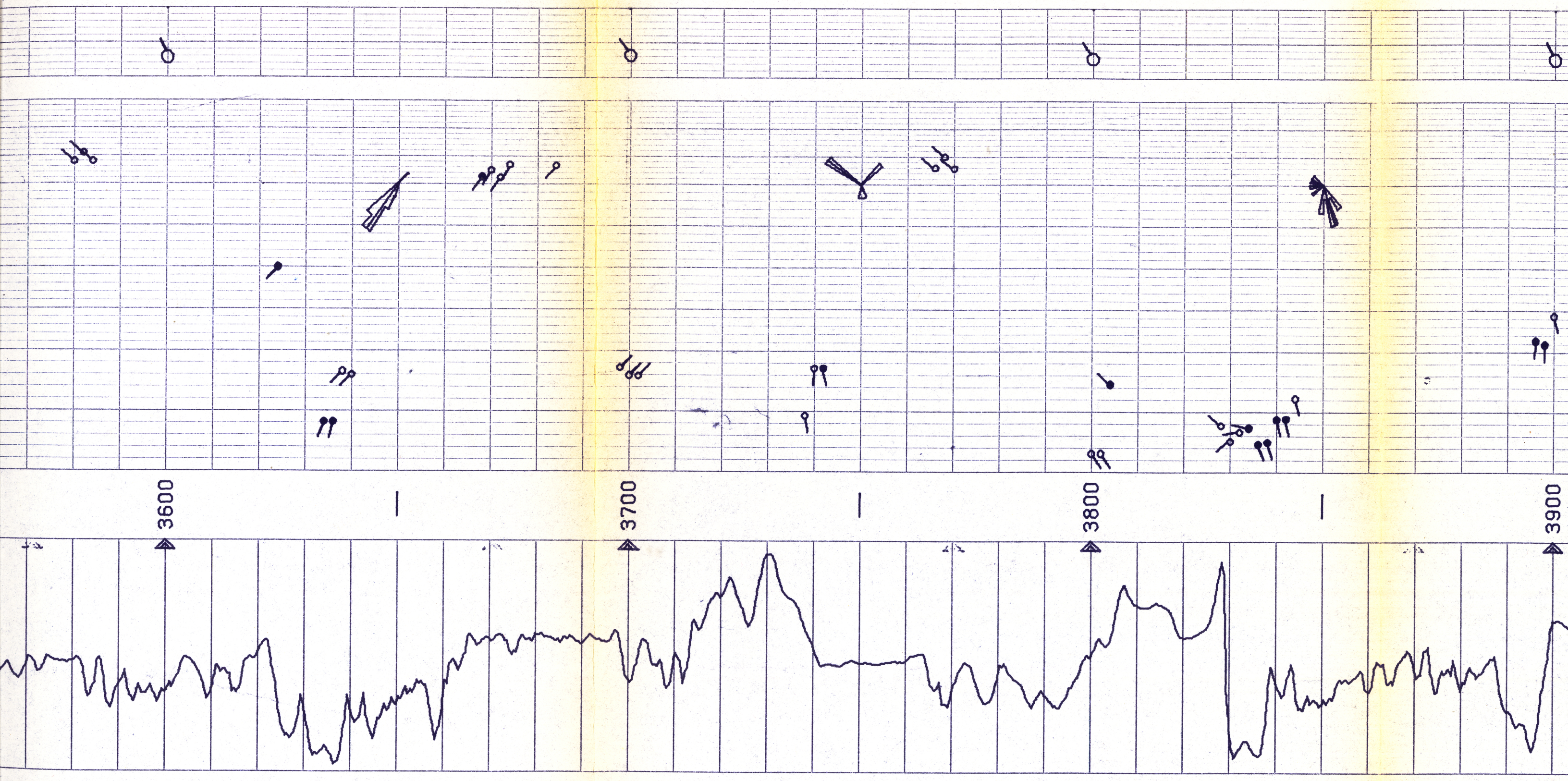
10-10-80SMC135621



SCHLUMBERGER DIPMETER ARROW PLOT

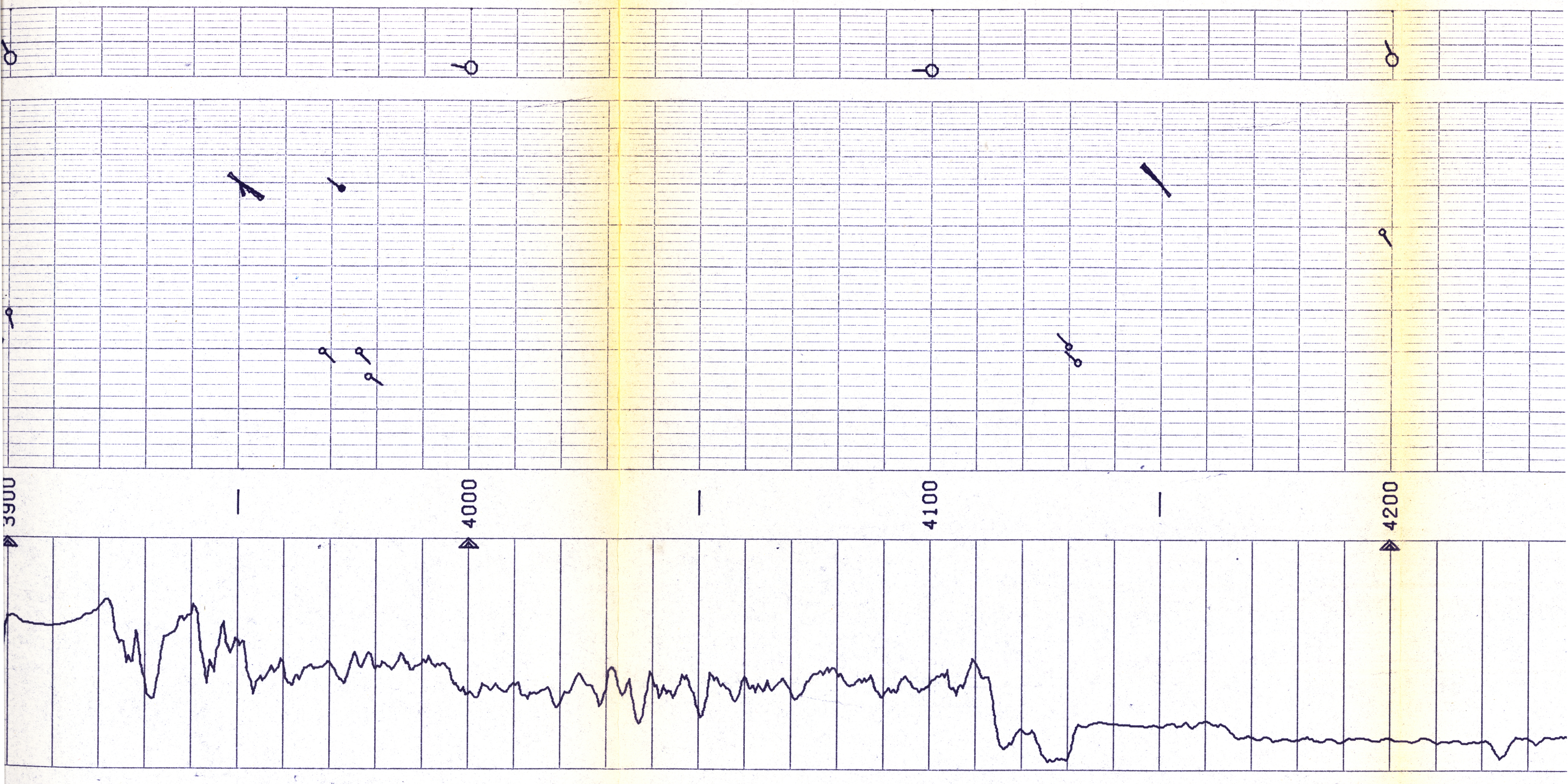


SCHLUMBERGER DIPMETER ARROW PLOT

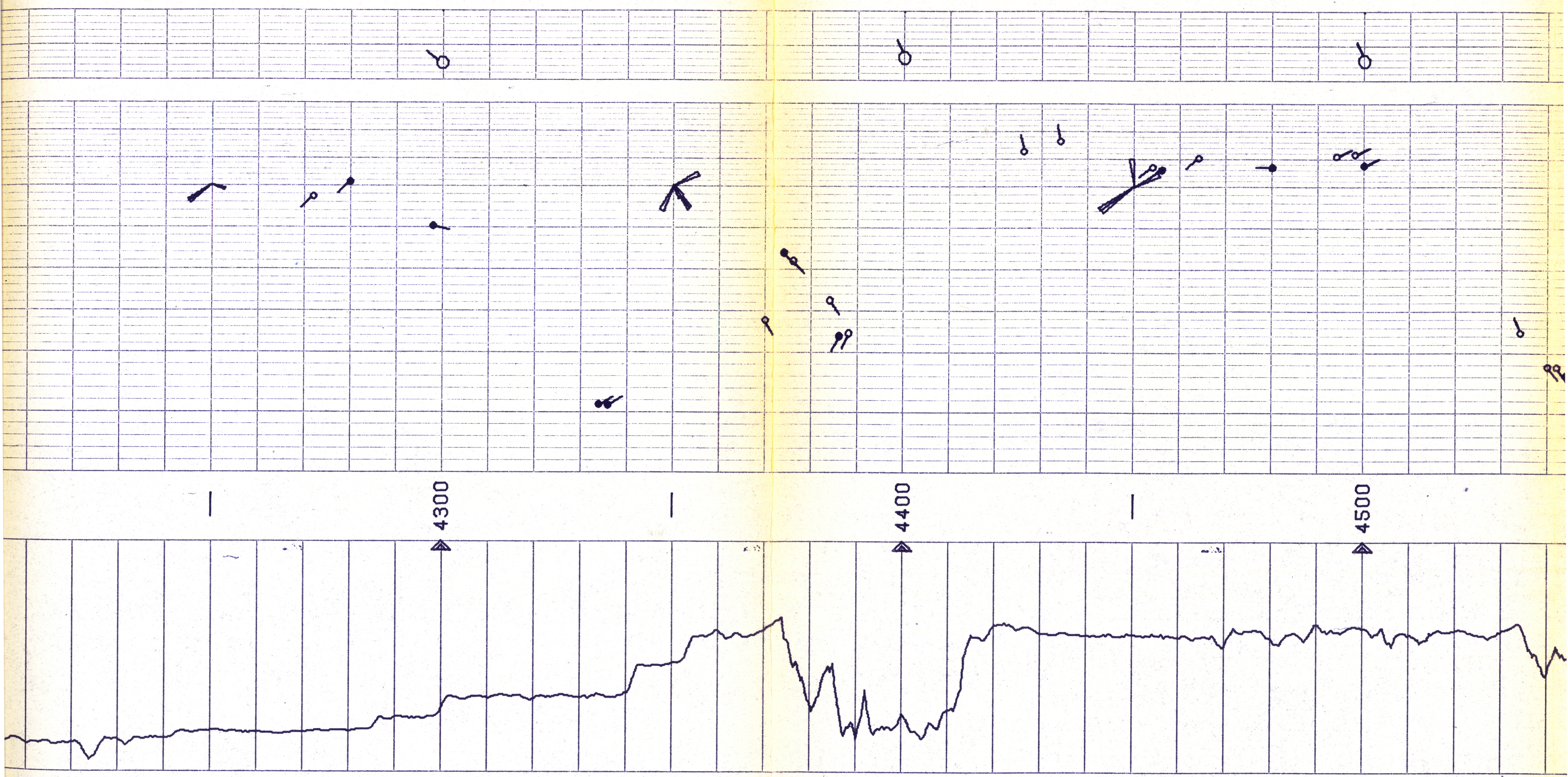


FOOT DUO-DECIMAL .500 IN. GRID

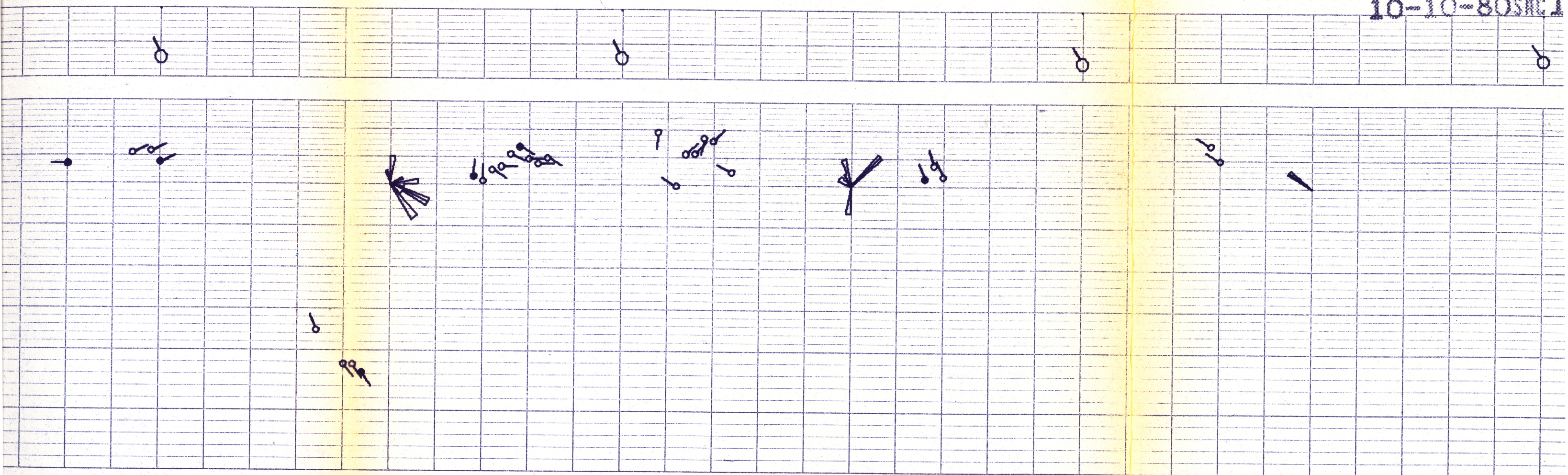
SCHLUMBERGER DIPMETER AR

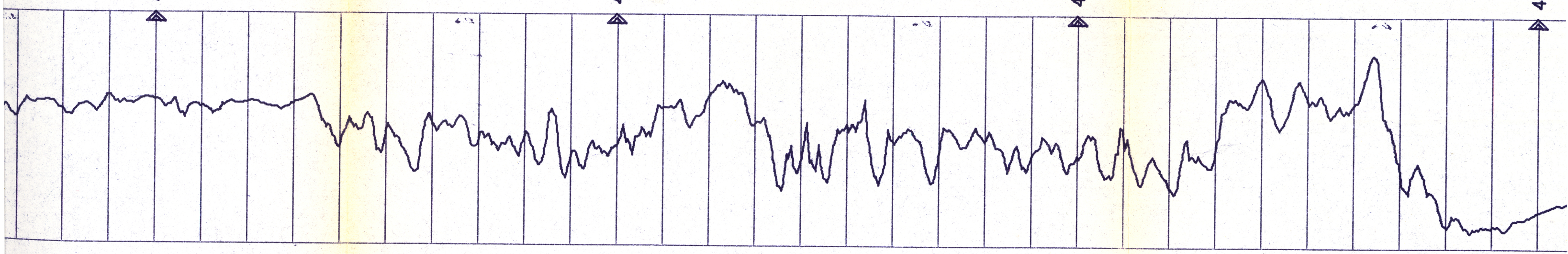


FOOT DUO-DECIMAL .500 IN. GRID


4300
4400
4500

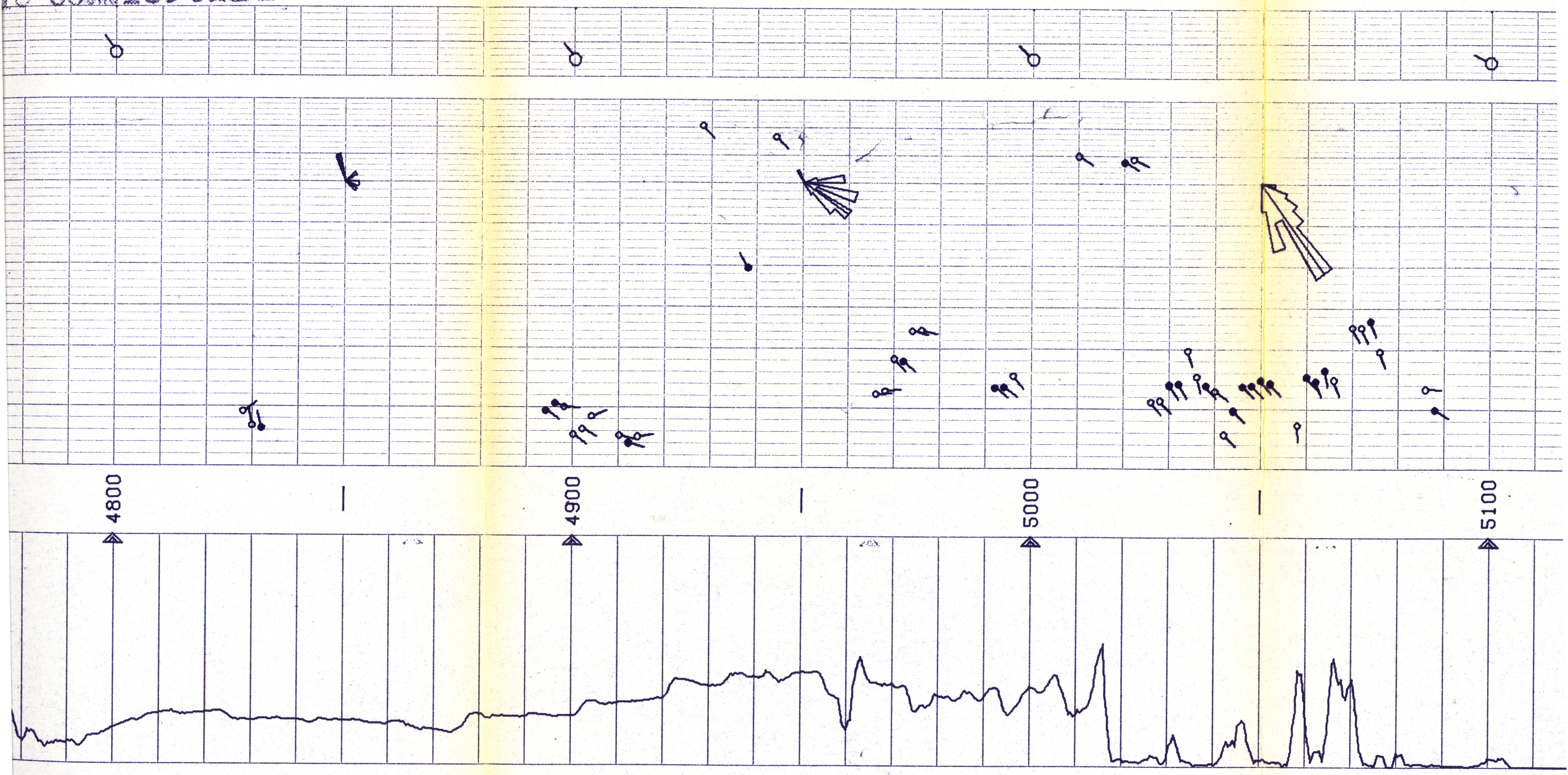
10-10-80SIC I





SCHLUMBERGER DIPMETER ARROW PLOT

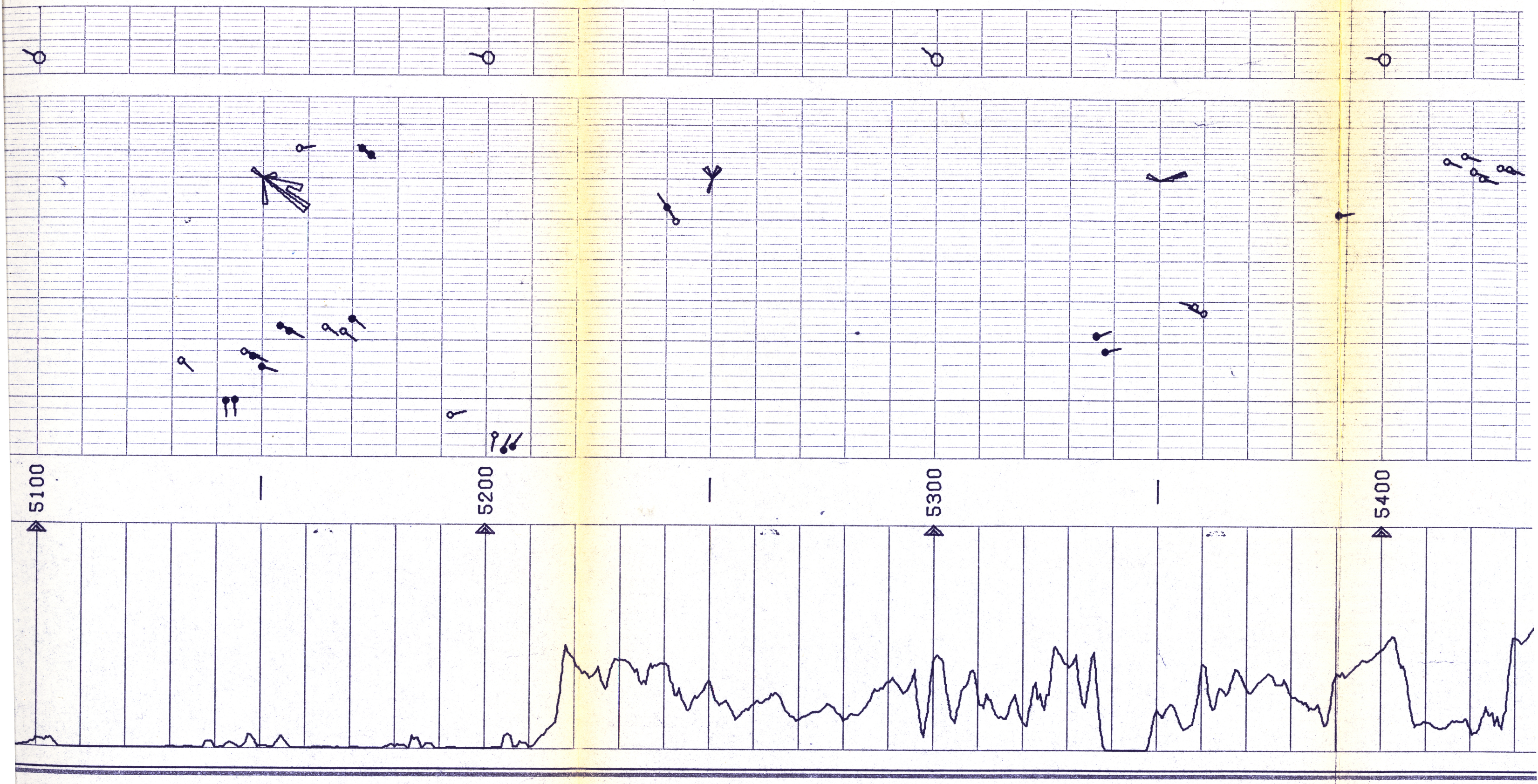
10-80SAC135621



FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT

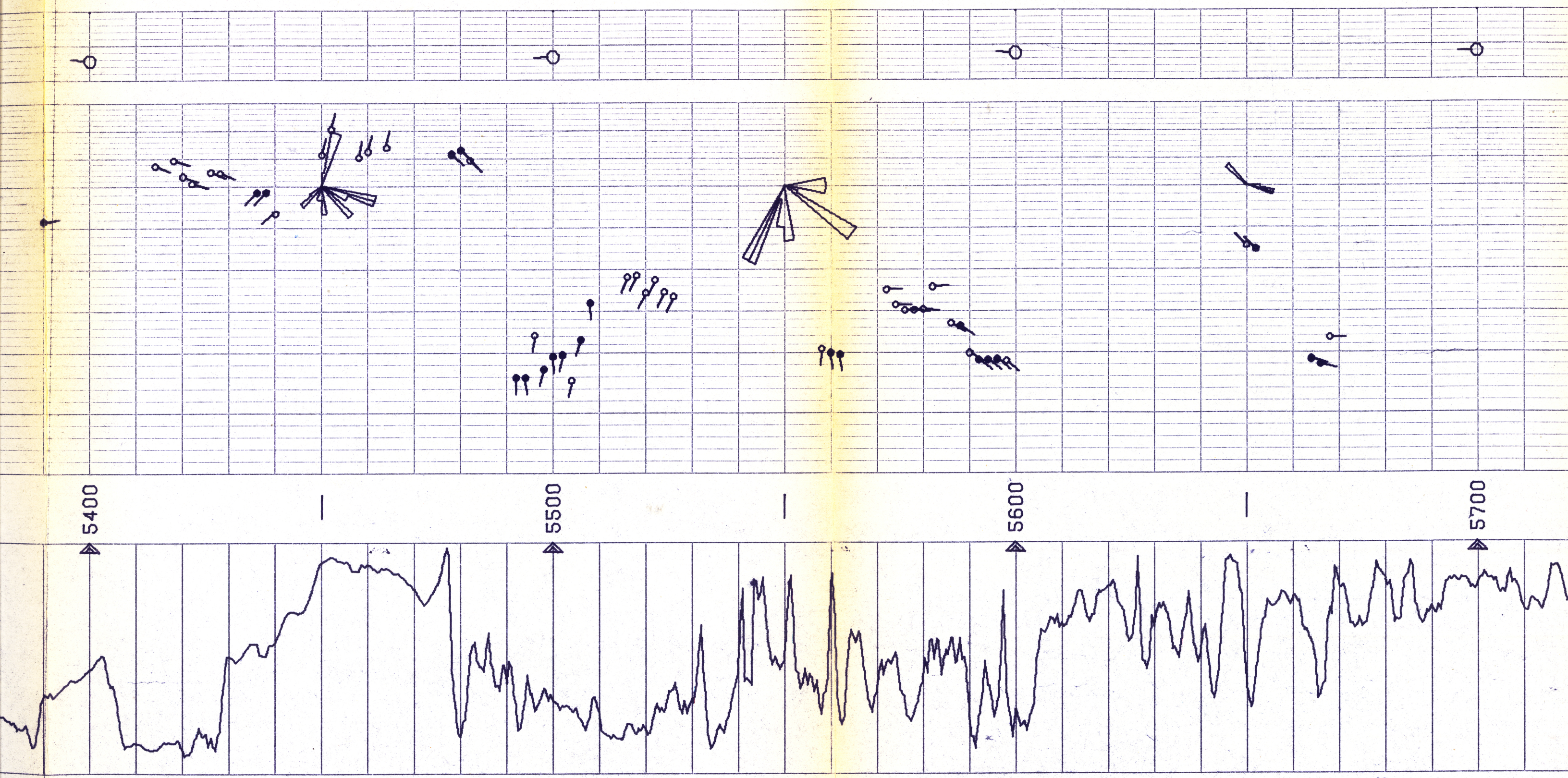
SCHLUMBERGER DIPMETER



FOOT DUO-DECIMAL .500 IN. GRID

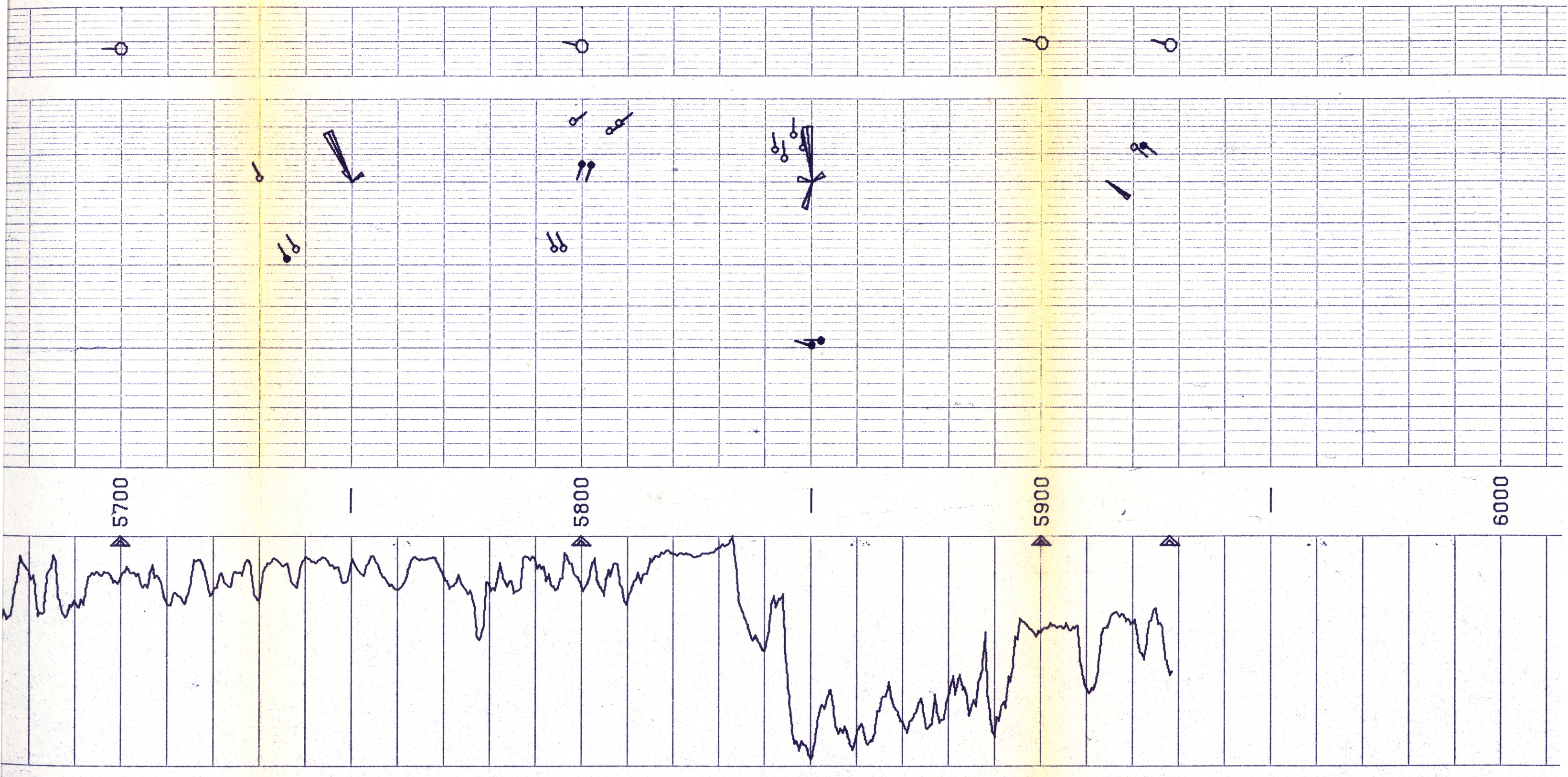
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT

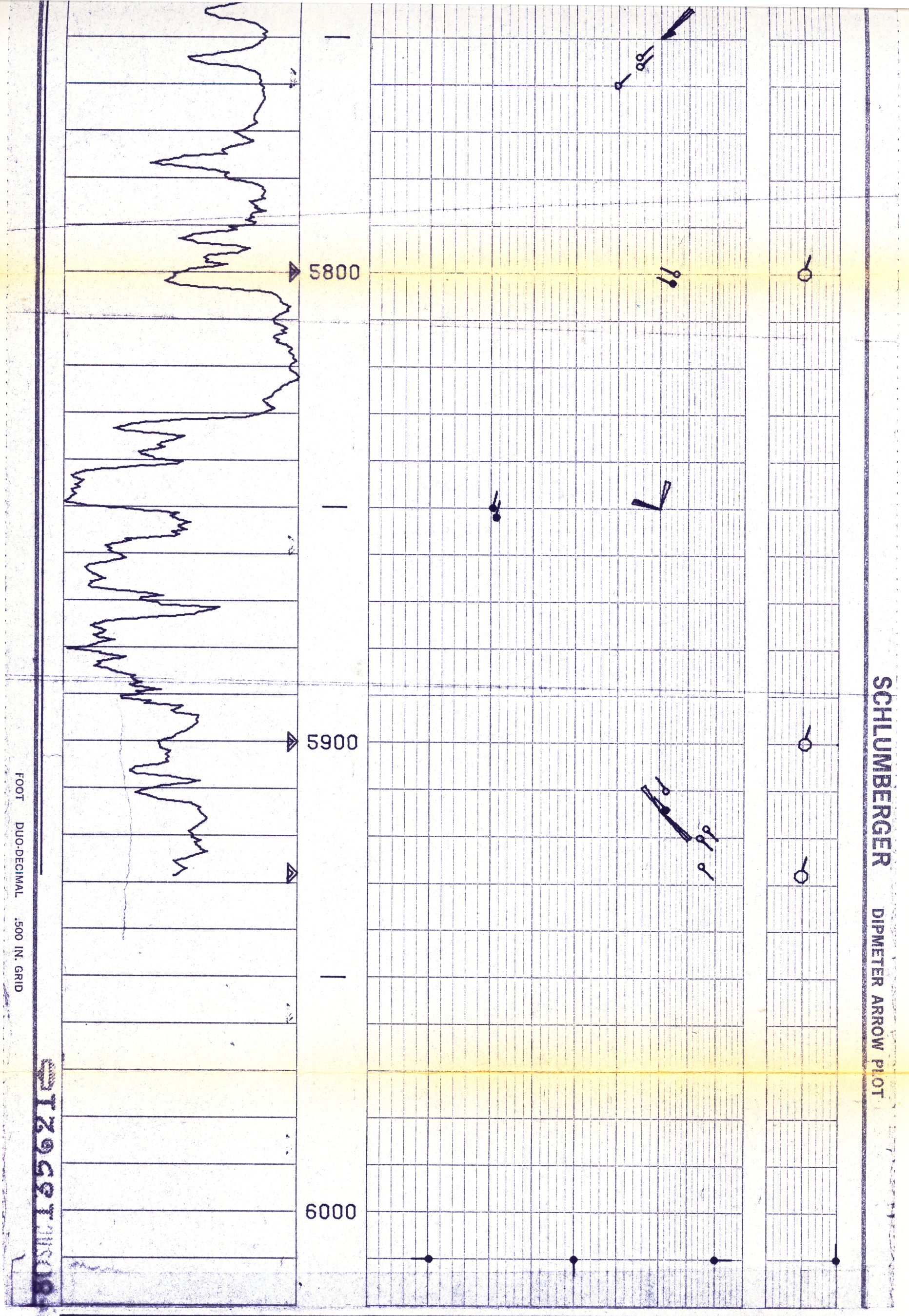


FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER DIPMETER ARROW PLOT



FOOT DUO-DECIMAL .500 IN. GRID



CORRELATION CURVE	DEPTHS	0° 10° 20° 30° 40° 50° 60° 70° 80° 90° TRUE DIP ANGLE AND DIRECTION	0° 10° DRIFT & DIRECTION OF SONDE

COMPANY FENIX & SCISSON INC.

WELL OLD MAID FLAT NO. 7A

FIELD OLD MAID FLAT AREA

COUNTY CLACKAMAS STATE OREGON

Rm 12.7 @ 80 °F
Rmf 8.4 @ 80 °F
Rmc 8.8 @ 80 °F
BHT 208 °F

SCHL. FR 5936
SCHL. TD 5957
DRLR TD 6027
Elev:
KB -
DF 2771.6
GL 2760

OREGON DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES
OPEN-FILE REPORT 0-81-2B
1981

Schlumberger

BOREHOLE COMPENSATED SONIC LOG

COMPANY FENIX & SCISSON INC.
WELL OLD MAID FLAT NO. 7A
FIELD OLD MAID FLAT
COUNTY CLACKMAS STATE OREGON

LOCATION: 2460'SOUTH *& 2091'WEST

API SERIAL NO	SEC	TWP	RANGE
	15	2S	8E

Other Services: DIL HDT NGT FIL HRT FDC/CNL/GR

COUNTY CLACKMAS
FIELD OLD MAID FLAT
LOCATION 15-2S-8E
WELL OLD MAID FLAT NO.7A
COMPANY FENIX & SCISSON INC.

Permanent Datum: GL ; Elev.: 2760
Log Measured From GL 0 Ft. Above Perm. Datum
Drilling Measured From GL

Elev.: K.B. --
D.F. 2771.6
G.L. 2760

Date	8-16-80	9-29-80
Run No.	ONE	TWO
Depth-Driller	1190	6027
Depth-Logger (Schl.)	1191	5957
Btm. Log Interval	1180	5908
Top Log Interval	96	1190
Casing-Driller	18" @ 96	10 3/4" @ 1190
Casing-Logger	96	1190
Bit Size	14 3/4"	9 7/8"
Type Fluid in Hole	BENTONITE	WATER
Dens. / Visc.	91 / 68	- / -
pH / Fluid Loss	8.5 / 9.6 ml	- / - ml
Source of Sample	FLOWLINE	CIRCULATION
Rm @ Meas. Temp.	8.97 @ 69 °F	12.7 @ 80 °F
Rmf @ Meas. Temp.	6.69 @ 66 °F	8.4 @ 80 °F
Rmc @ Meas. Temp.	10.9 @ 66 °F	8.8 @ 80 °F
Source: Rmf / Rmc	M / M	M / M
Rm @ BHT	6.37 @ 100°F	4.88 @ 208°F
TIME: Circulation Stopped	0700	0800
Logger on Bottom	1350	1230
Max. Rec. Temp.	100° °F	208°F
Equip. / Location	8128 / SAC	8126 / SAC
Recorded By	ROWE	KAISER/STEFANI
Witnessed By	NEWMAN	PRIEST

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

Run No.	ONE	TWO		
Service Order No.	123166	135621		
Fluid Level	-	-		

EQUIPMENT DATA

Sonic Panel No.	383	443		
Sonic Cart No.	-	592		
Sonic Sonde No.	-	347		
Mem. Panel No.	CSU	-		
G.R. Cart. No.	-	2683		
G.R. Panel No.	456	418		
Caliper No.	-	1237		
TTR No.	-	-		
Centralizers: No.	1	1		
Type	CME-Z	CME-Z		
Standoffs: No.	1	1		
Type	FIN	FIN		
Time Const.-Sec.	-	-		
Speed - F.P.M.	30	30		

CALIBRATION DATA

GR	BKG. CPS	37.6	57		
	Source CPS	187.1	225		
	Tc Sec	-	-		

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

LOGGING DATA

Porosity Selectors				Depth	
Δt_m	Δt_f	Cp	Ø Scale	From	To

REMARKS

RUN ONE: MUD FLOW W/TREES 200'-250

Velocity (ft./sec) = 1,000,000 / Interval Transit Time (microseconds per foot)

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DTM	US/F	56.00	CDTS		100.0	BS	INCH	14.75
FPHI		PHIX	DTF	US/F	189.0			
DO		0.0	BHS		OPEN			

CALI(IN) 8.000 — 18.00

GR (GAPI) 0.0 — 150.0

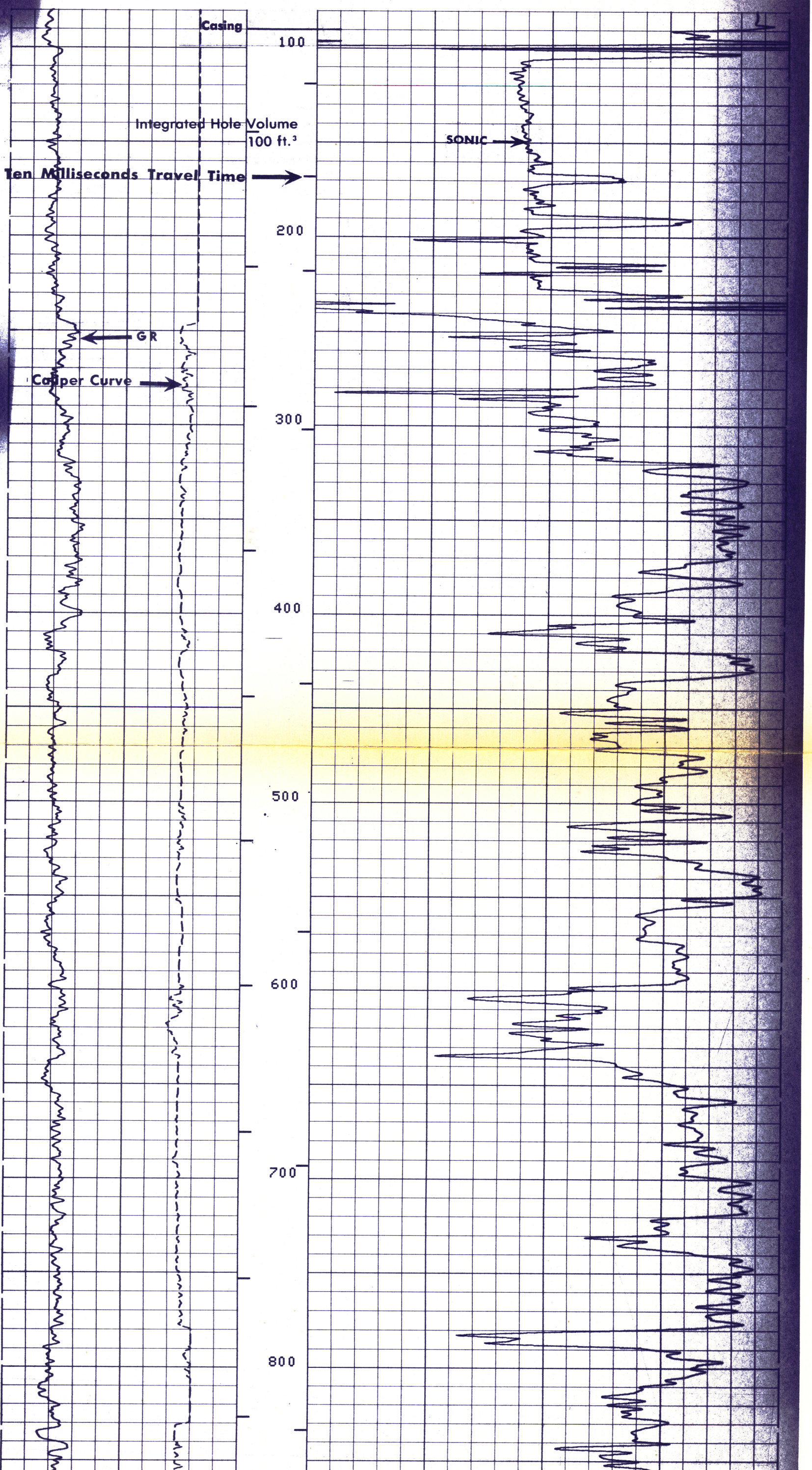
DT (US/F) 150.0 — 50.00

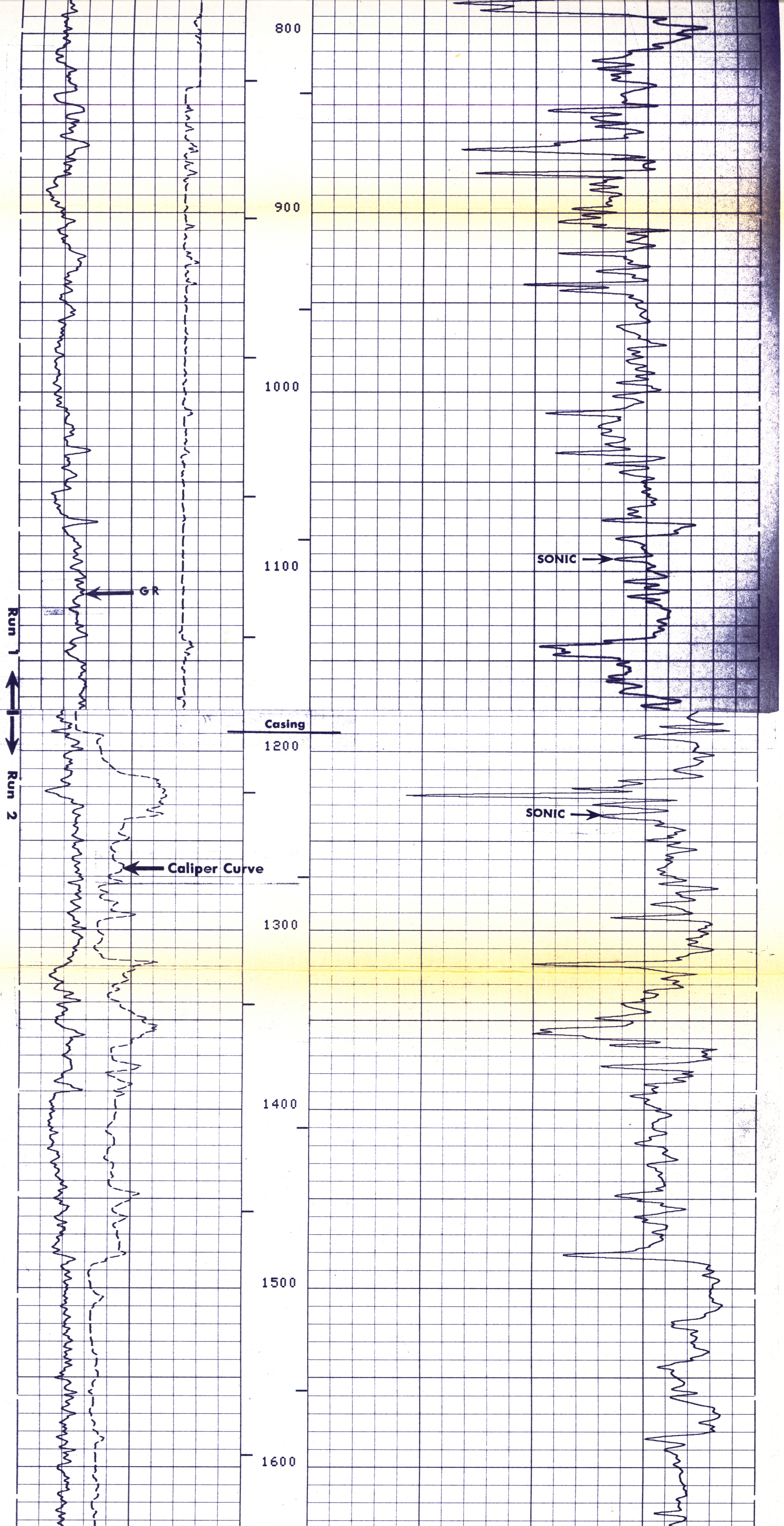
8.000 18.00
GR (GAPI)
0.0 150.0

DT (US/F)
150.0 50.00

FILE

4

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GR
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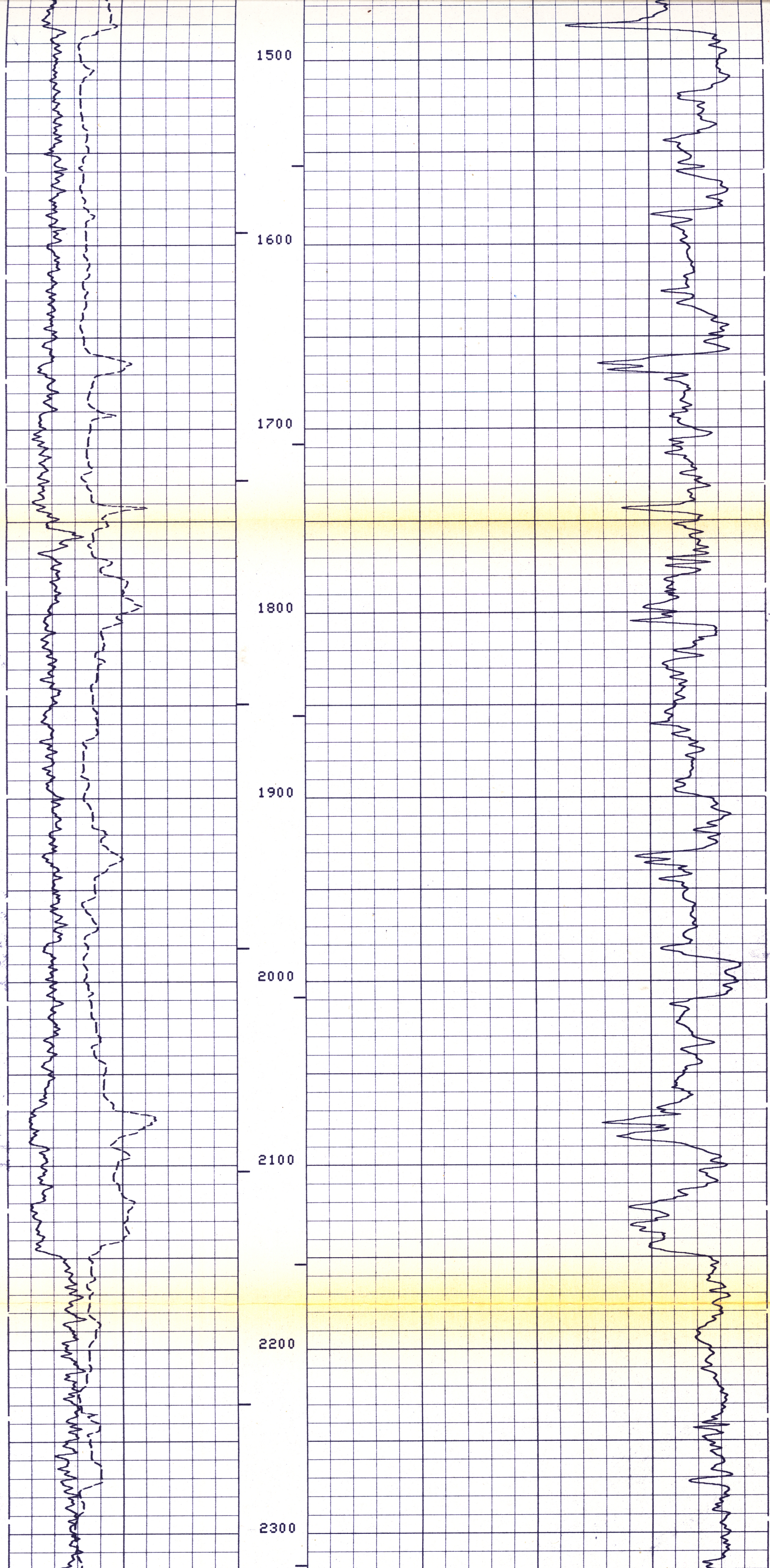
Run 2
Casing
Caliper Curve
SONIC
SONIC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1700
1800
1900
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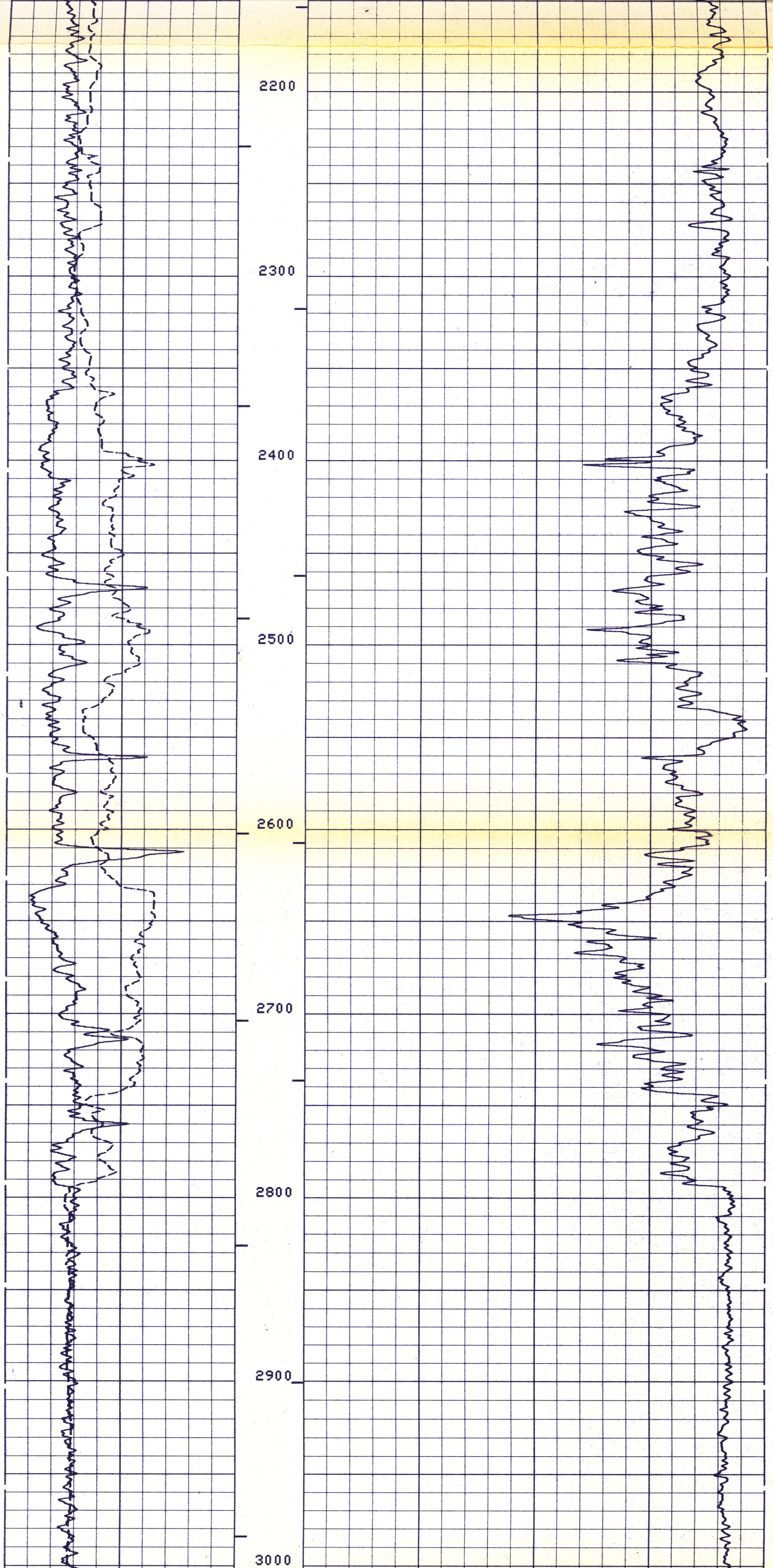
2200
2300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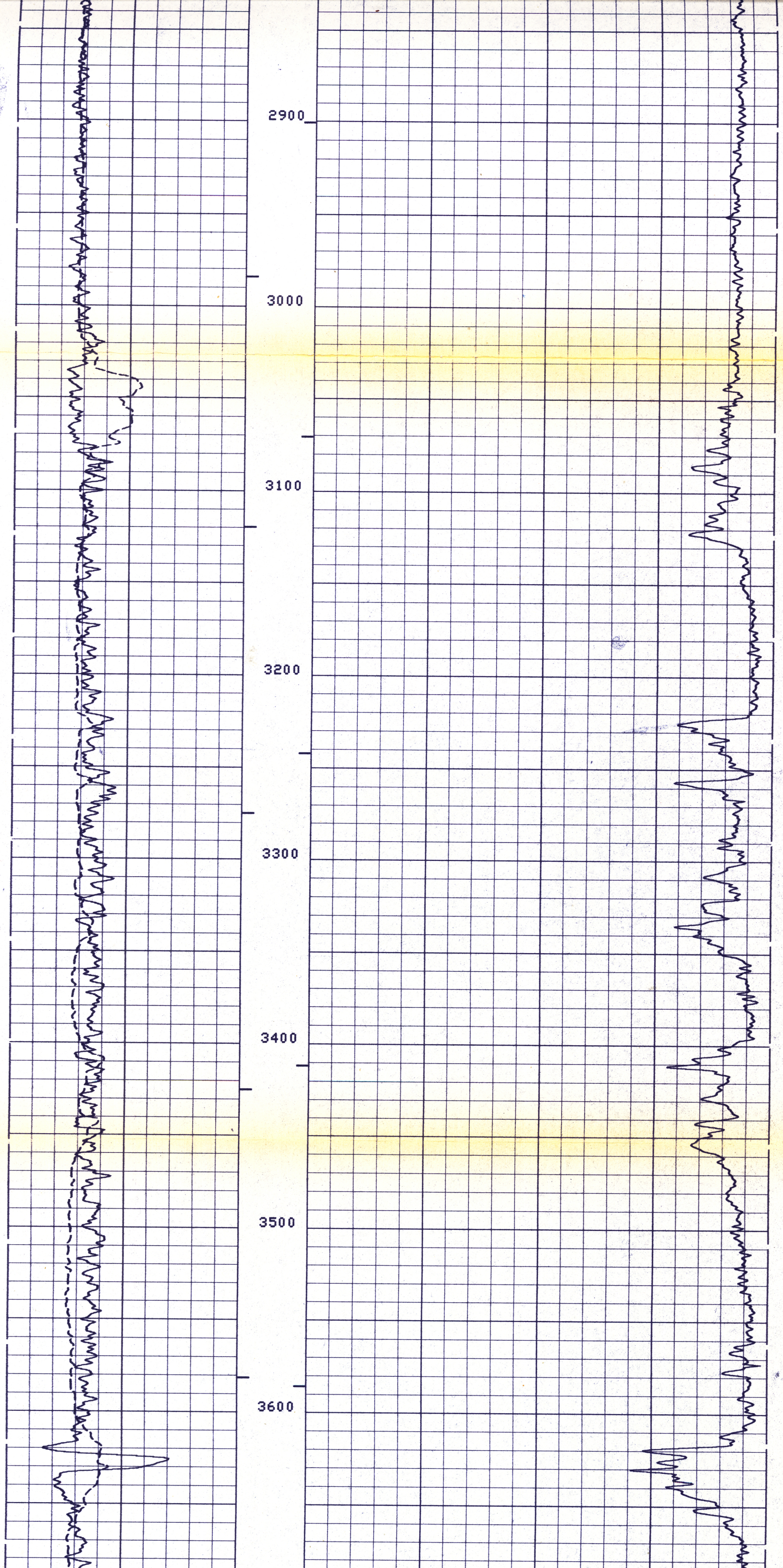
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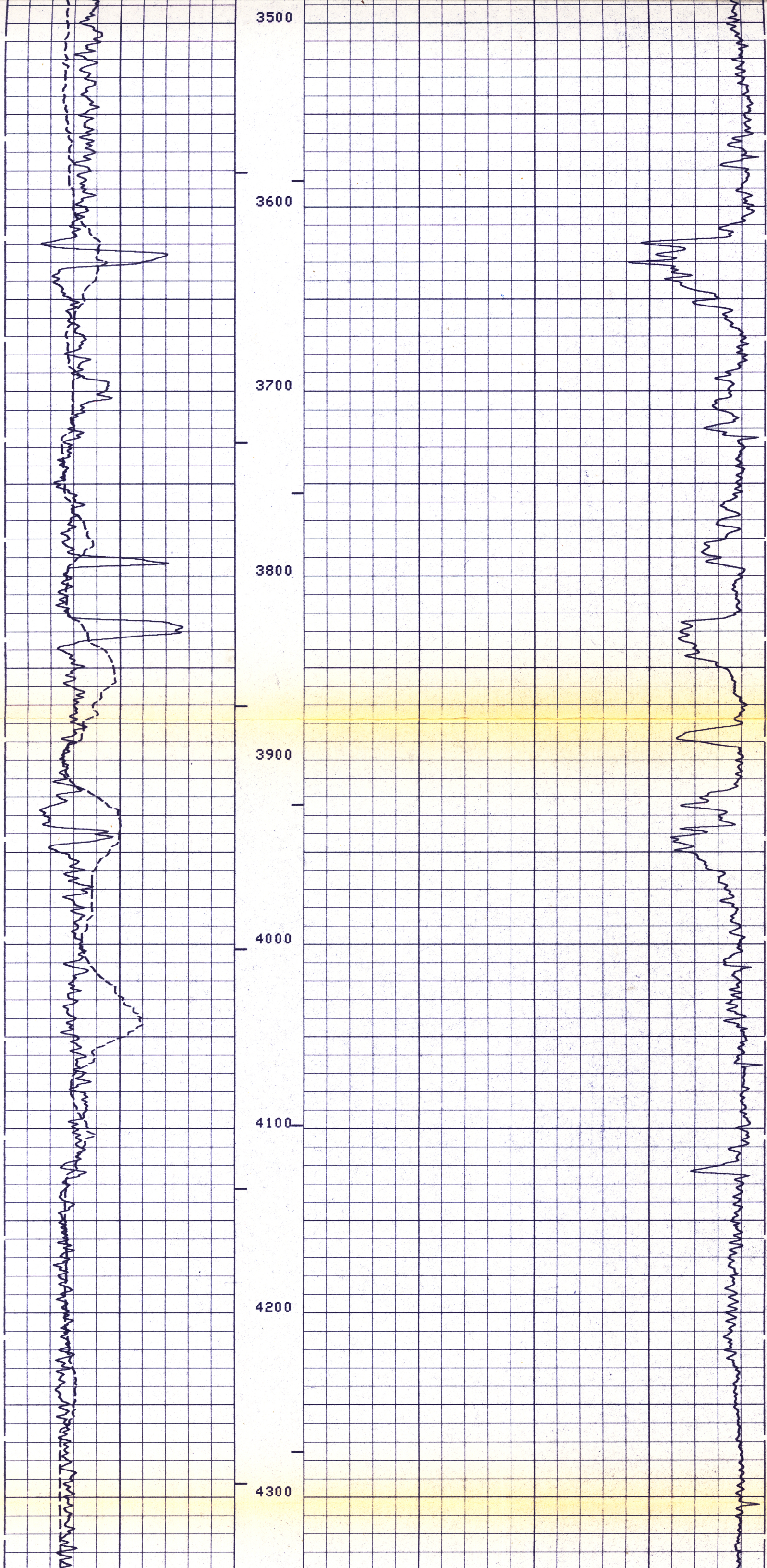
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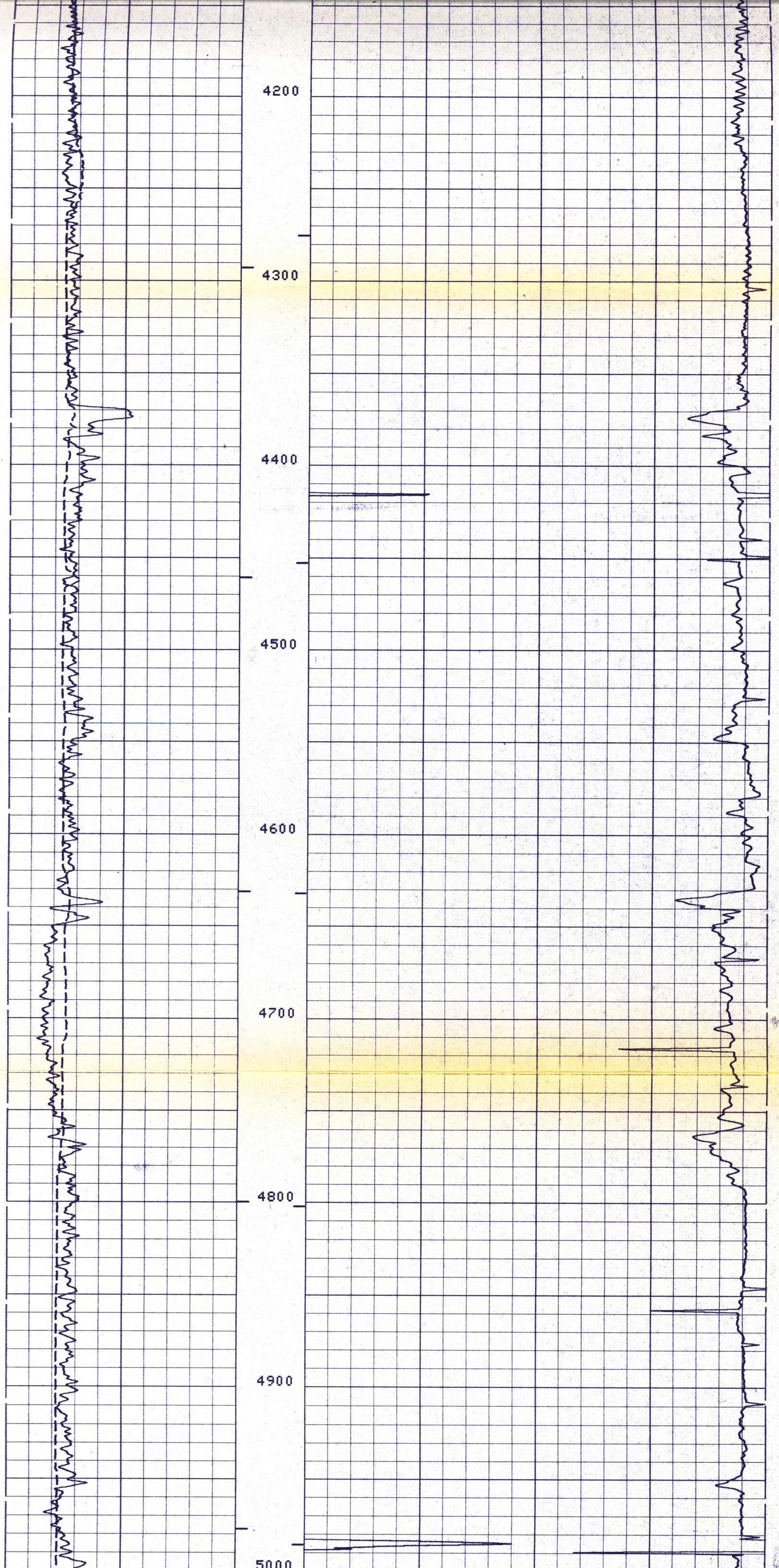
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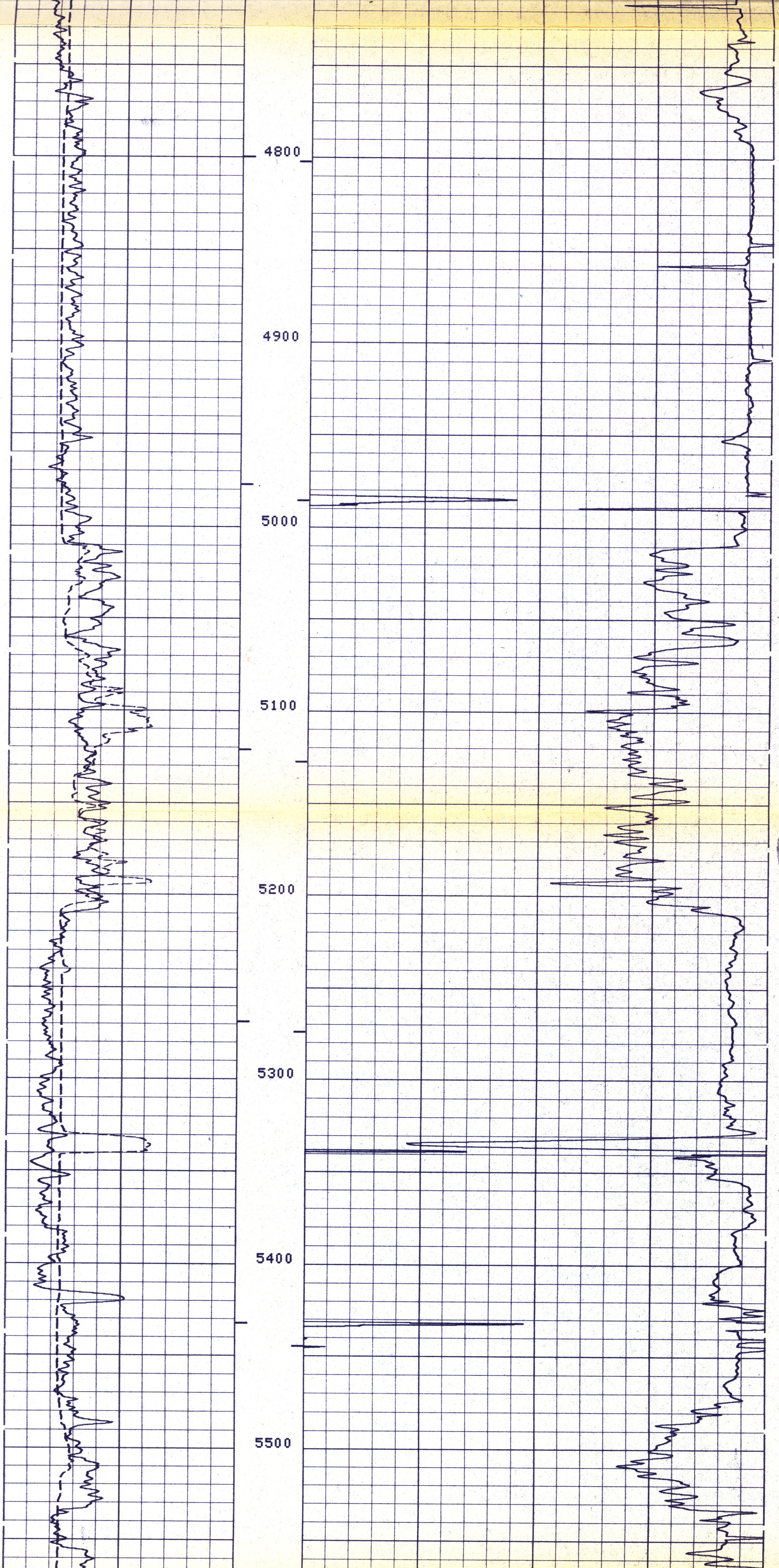
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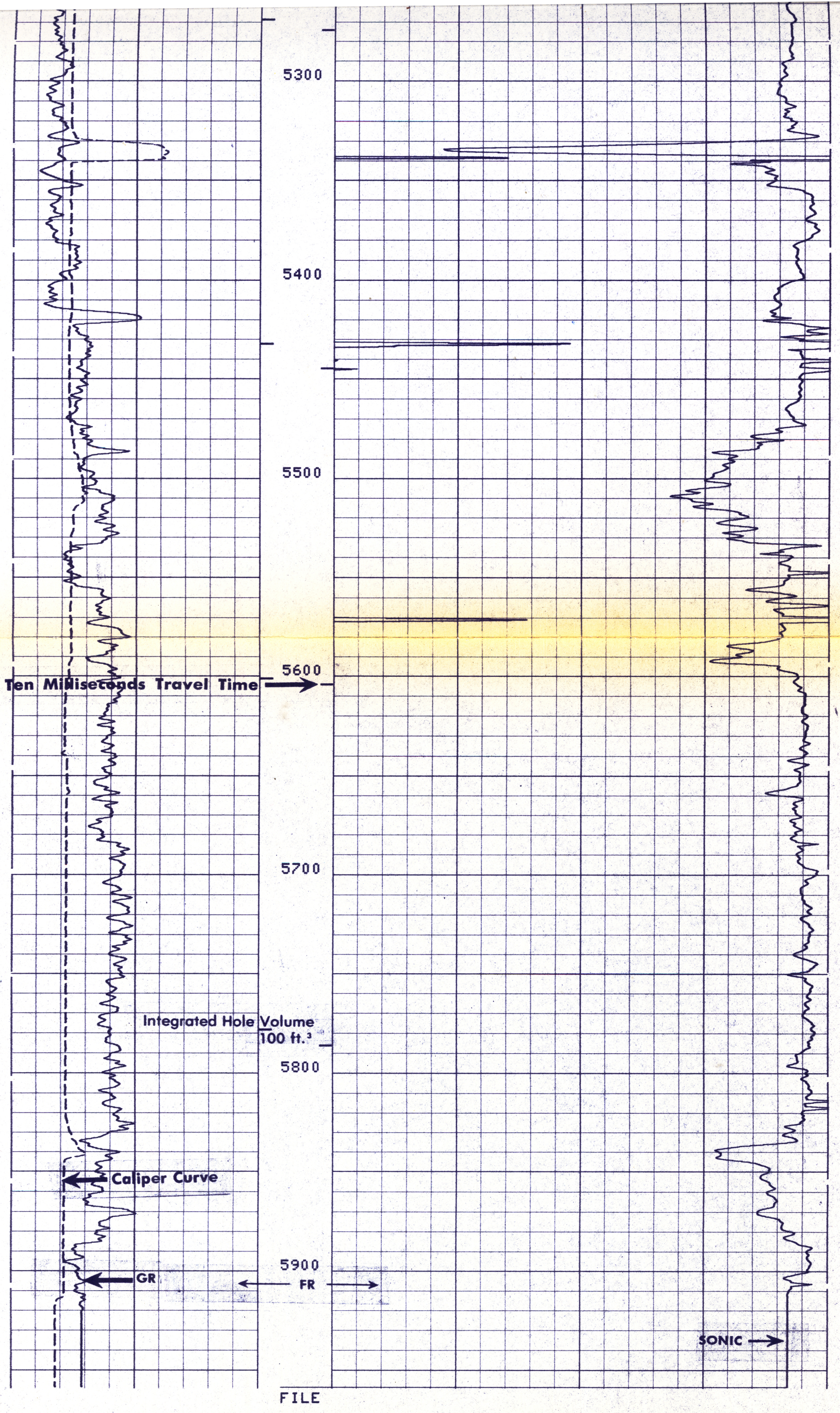
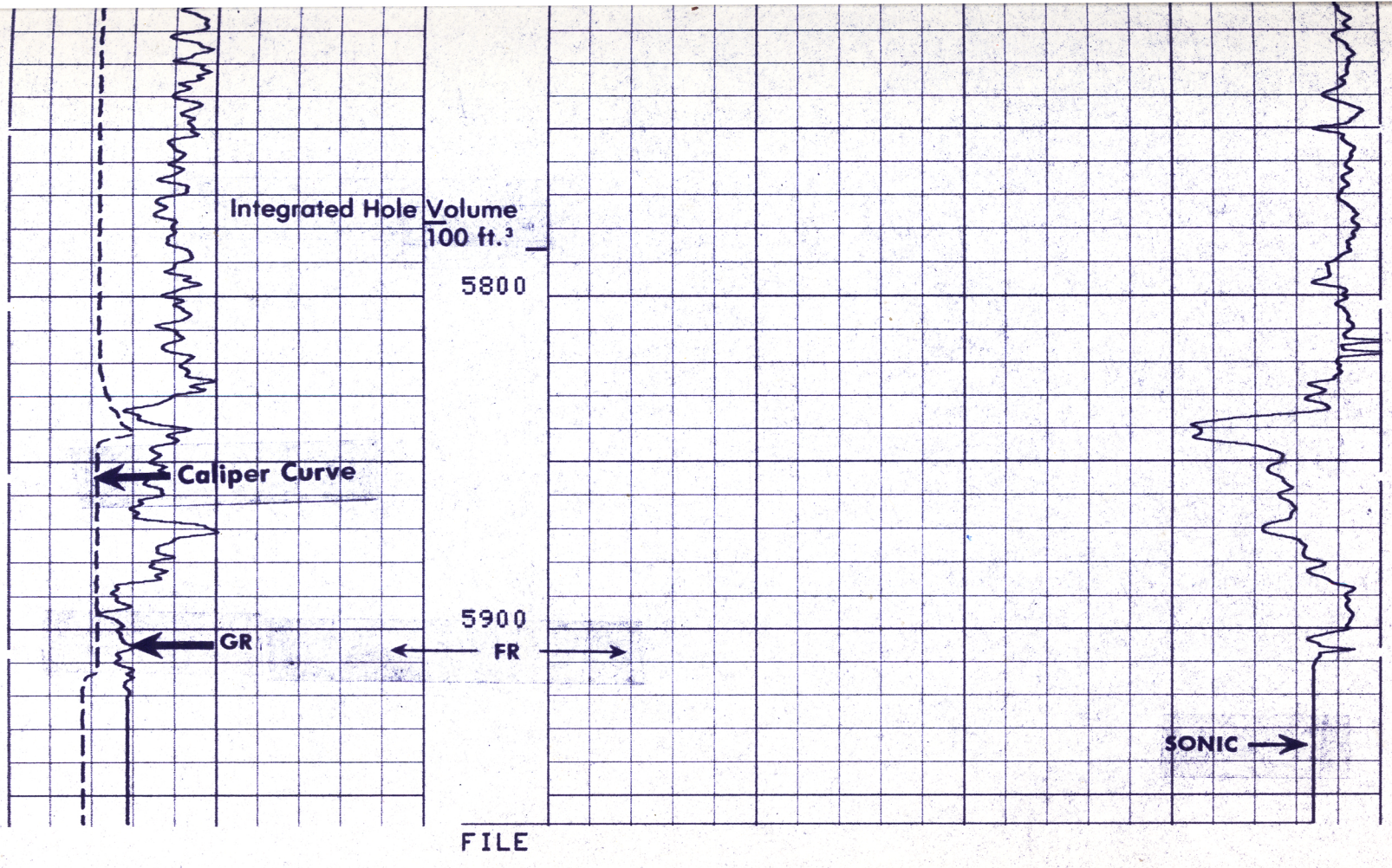


CALI(IN)		DT (US/F)
8.000 18.00		
GR (GAPI)		
0.0 150.0		150.0 50.00

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DTM	US/F	56.00	CDTS		100.0	BS	INCH	9.870
SBR	OHMM	1.000	DSEC	MM/M	4.710			



CALI(IN)		DT (US/F)
8.000 — 18.00		
GR (GAPI)		
0.0 — 150.0		150.0 — 50.00

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DTM	US/F	56.00	CDTS		100.0	BS	INCH	9.870
SBR	OHMM	1.000	DSEC	MM/M	4.710	DTF	US/F	189.0
FPHI		PHIX	MSEC	MM/M	4.440			
DO		0.0	BHS		OPEN			

COMPANY FENIX & SCISSON INC.

WELL OLD MAID FLAT NO. 7A

FIELD OLD MAID FLAT

COUNTY CLACKAMAS STATE OREGON

SCHL. FR 5908
SCHL. TD 5957
DRLR. TD 6027

Elev: KB --
DF 2771.6
GL 2760