

Schlumberger

FOUR ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER
COMPUTED

PROVINCE YUKON TERRITORY
FIELD WILDEAT
WELL COLUMBIA GAS FIELD
COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD.

COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD.
WELL COLUMBIA GAS FIELD WOLANETEE
FIELD WILDEAT
PROVINCE YUKON TERRITORY
LOCATION 60 07' 16" N LAT
128 06' 03" W LONG
Permanent Datum KB 2225
Log Measured From KB 2225 Ft. Above Perm. Datum
Drilling Measured From KB
Other Services
DLE, DDC, CNL, GR, W-
VOL, FIL, BHC-68
ELEV. KB 2225
GL 2225
CBF

Date	14 OCT 77	Run No.	ONE
Depth Driller	12769	Depth Logger	12769
Bitm. Log Int' val	12778	Top Log Interval	10890
Casing Driller	10890	Casing Logger	10890
Bit Size	8 1/2"	Type Fluid in Hole	M.D.
Dens	1.01	Visc	22
pH	10.1	Fluid Loss	10.1
Source of Sample	10.1	Rm @ Meas. Temp	0F
Rm @ Meas. Temp	0F	Rm @ Meas. Temp	0F
Rm @ Meas. Temp	0F	Rm @ Meas. Temp	0F
Source Rm @ Meas. Temp	0F	Rm @ BHT	0F
Time Since Circ	13.5 HRS	Max Rec. Temp	0F
Equipment	HDT-E	Truck No.	920-C-339
Location	FRONTIER	Recorded By	CONDOLIST
Witnessed By	LANE		

FOLD HERE THIS HEADING AND LOG CONFORMS TO API RP 31

Run No.	Tool Type	HDM No.	HDE No.	HDP No.	HDS No.	DPI No.	DDR No.	Computed By	Correlation Interval	Step	Search
ONE	HDT-E	E 1740	EB 1927	D 1810	D 1755	-	-	DEC 30	4 FT.	1 FT.	45 X1

REMARKS
NOTE PASS MADE ON 5" x 25" FILM FOR FRACTURE IDENTIFICATION ON END OF LOG.
1st Run Service Order # 12456
Magnetic Declination 35 E

Time Entering Hole	1430 / 14th		
Time Bottom Reached	1430 / 14th		
Time Last Off Bottom	1600 / 14th	BHT No. 1	296 *F
Distance TD to Thermometer	22 FT	BHT No. 2	296 *F
Time Out Of Hole	1800 / 14th		
Mud Resistivities	Rm No. 1 0.208 ohm m @ 90 *F = 0.063 ohm m @ BHT		
	Rm No. 2 0.204 ohm m @ 89 *F = 0.061 ohm m @ BHT		
	Rm No. 3 ohm m @ *F = ohm m @ BHT		
Rw from Drill Stem Test	DST No. Rw = ohm m @ *F		
	DST No. Rw = ohm m @ *F	LOG TAPED	Y
	DST No. Rw = ohm m @ *F		Yes No

Any directional computations made from the dipmeter 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 be liable nor responsible for any loss, costs, damages or expenses incurred or sustained that may result from any such computations.

Rw from Drill Stem Test

DST No.	Rw =	ohm m @	*F		
DST No.	Rw =	ohm m @	*F	LOG TAPED	Yes No
DST No.	Rw =	ohm m @	*F		

"Any directional computations made from the dipmeter 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 be liable nor 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

VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF				VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF			
DIP ANGLES (degrees)	100'	1000'	1 mile (5280')	DIP ANGLES (degrees)	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 of 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 $28.7 \times 6.60 = 189.42$, or 189. feet.



GRAPHIC PRESENTATION

CORRELATION CURVE

DEPTHS

TRUE DIP ANGLE AND DIRECTION

DRIFT &
DIRECTION
OF SONDE

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

HDT-D TTR DEC 10

SEARCH ANGLE

STEP LENGTH

CORRELATION LENGTH

ARROW PLOT FROM CL

OCTOBER 14, 1977

RUN NO. ONE

YUKON TERRITORY

WILDCAT, N60-07-18

ET AL KOTANEEL

COLUMBIA GAS DEVEL



GRAPHIC PRESENTATION

CORRELATION CURVE	DEPTHS	TRUE DIP ANGLE AND DIRECTION	DRIFT & DIRECTION OF SONDE
			0

CORRELATION LENGTH	4 FT.	COLUMBIA GAS DEVELOPMENT OF CAN. ET AL KOTANELEE YT H-38 WILDCAT, N60-07-16, M124-06-03 YUKON TERRITORY RUN NO. ONE OCTOBER 14, 1977 ARROW PLOT FROM CLUSTER PROGRAM	0
	1 FT.		
STEP LENGTH	45 DEGREES X1		
SEARCH ANGLE			
HDT-D TTR DEC 10			

JOB 1331.00

CORRELATION CURVE	DEPTH	DIP ANGLE AND DIRECTION	BORHOLE DRIFT
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ALL QUALITY	ARROW PLOT	1331	0
FROM THE CLUSTER PROGRAM			
BLACK ARROWS ARE HIGHEST QUALITY			
CORRELATION LENGTH	4 FT.		

BLACK ARROWS ARE HIGHEST QUALITY

CORRELATION LENGTH 4 FT.

STEP LENGTH 1 FT.

SEARCH ANGLE 45 DEGREES X1

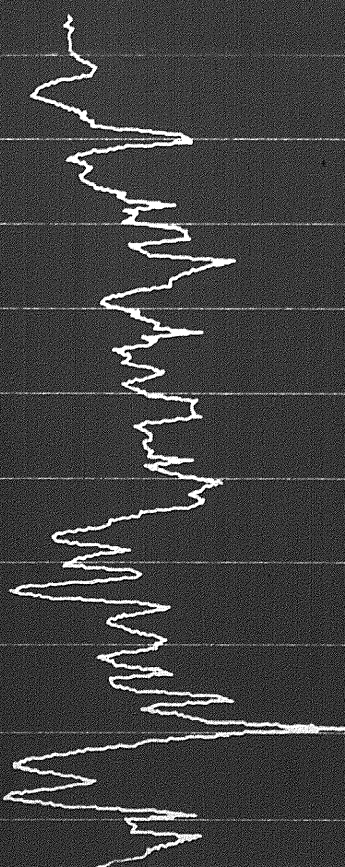
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ARROW PLOT

ZONE FROM 10854 TO 12774

RESISTIVITY INCREASED

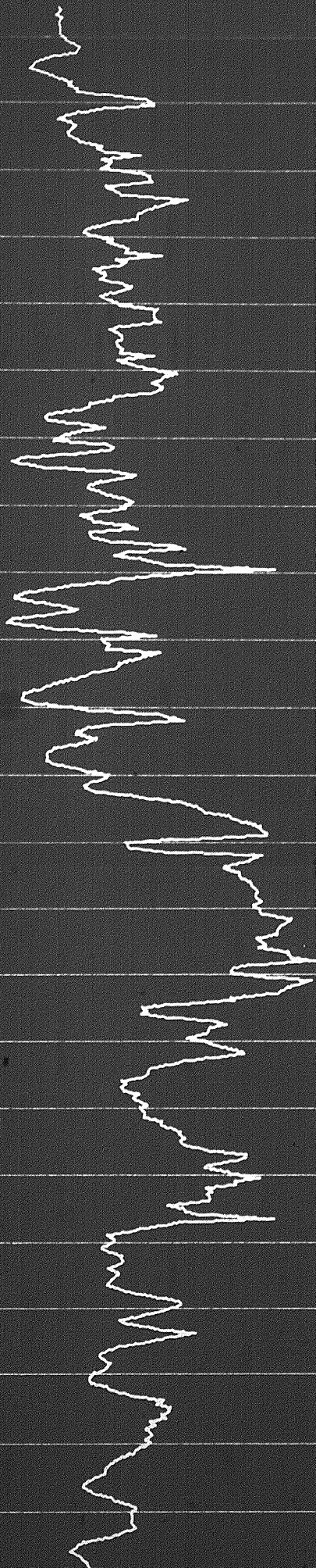
0 10



10900

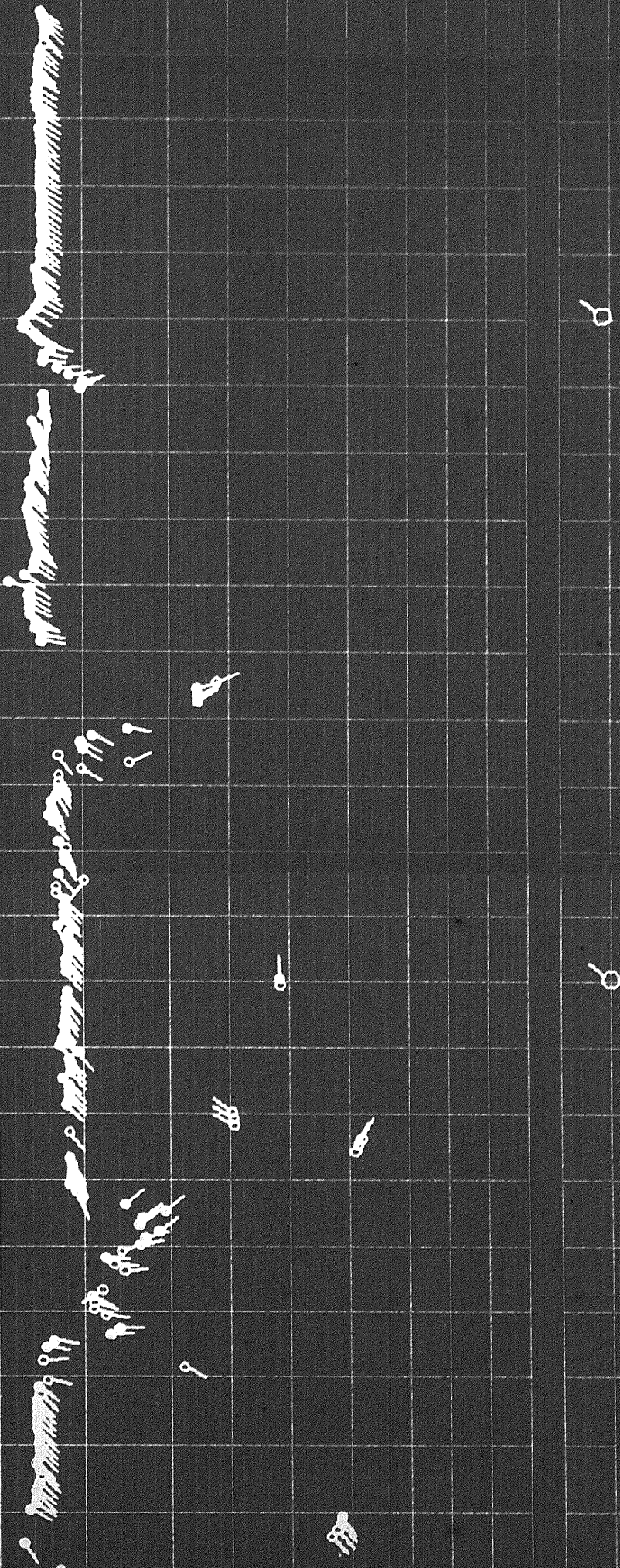


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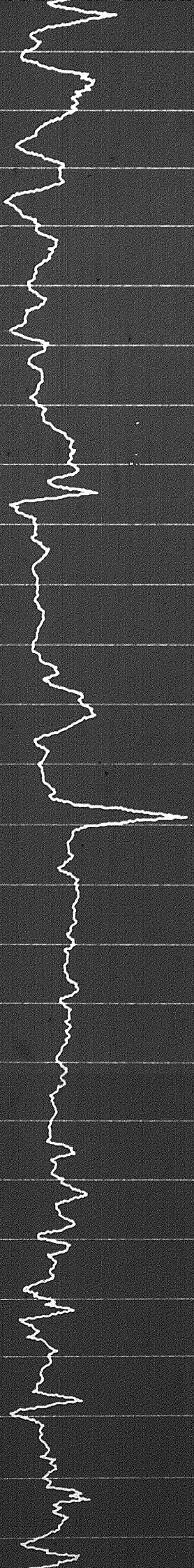
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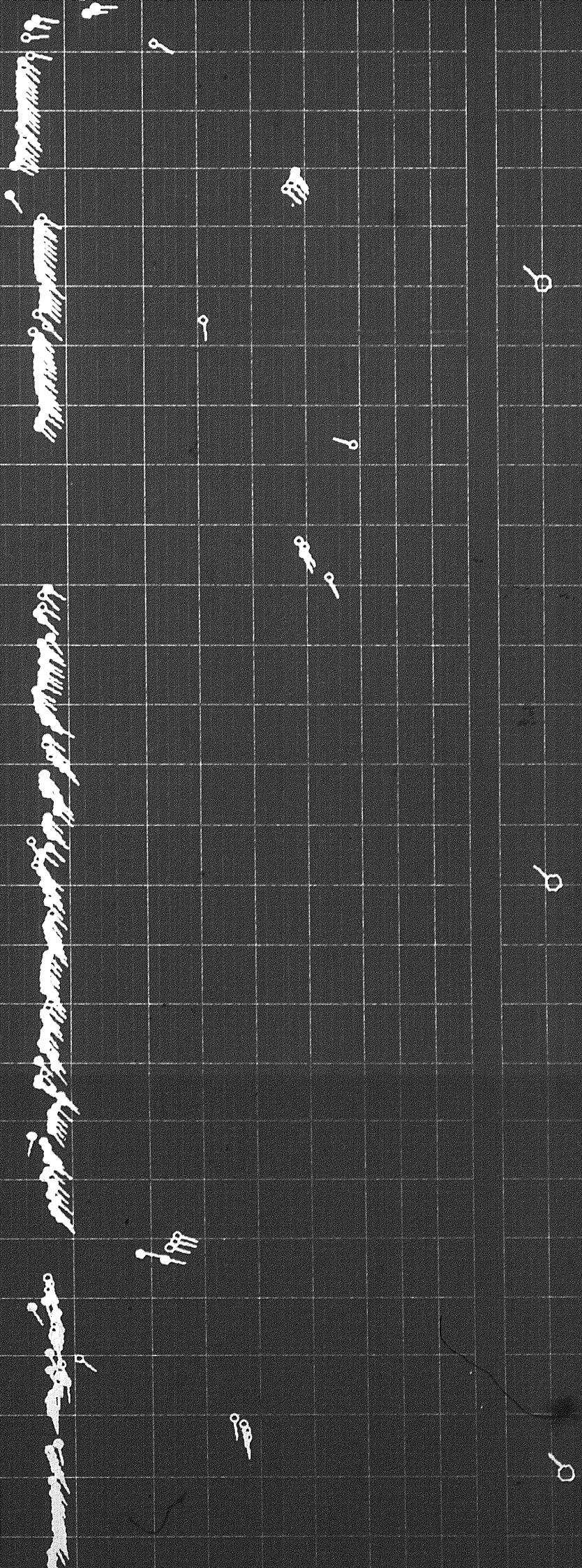
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11100

11200

11300



CONFIDENTIAL - DISSEMINATION PROHIBITED

11300

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11200

11300

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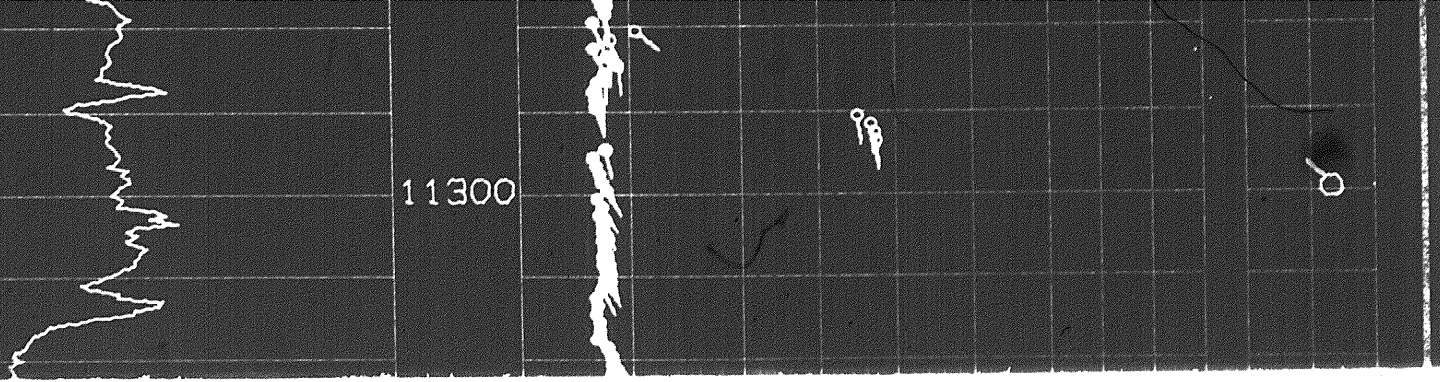
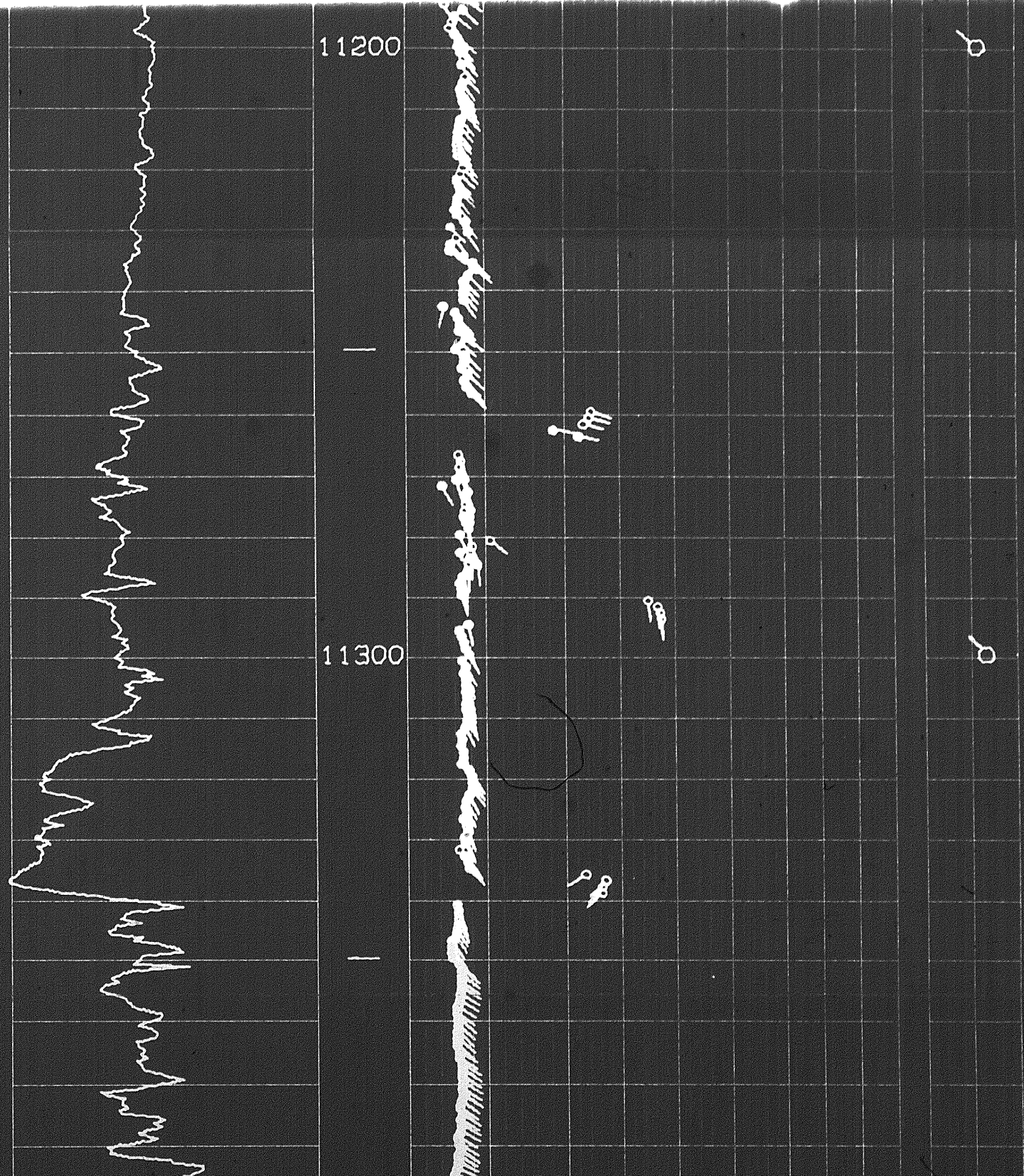
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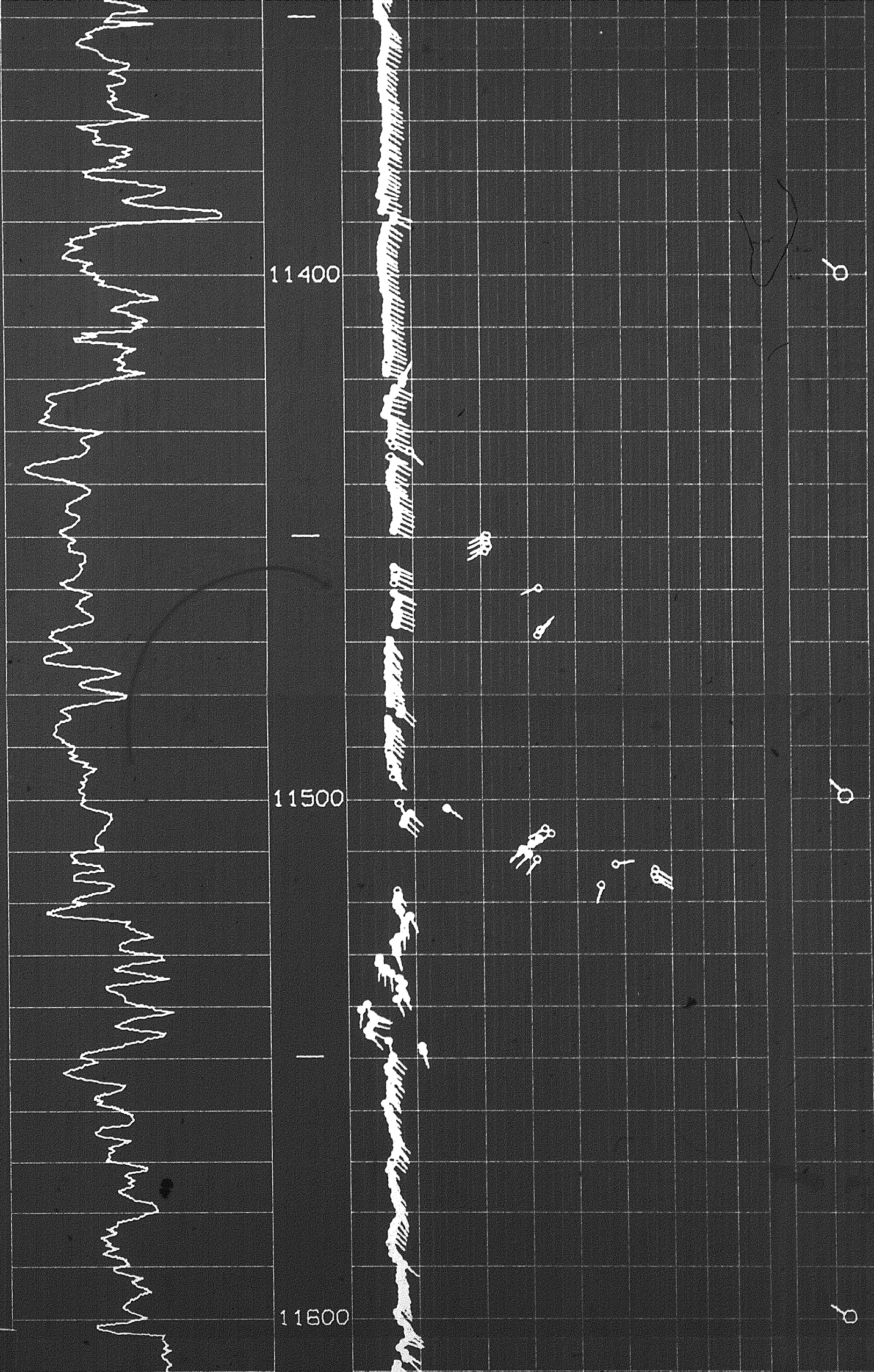
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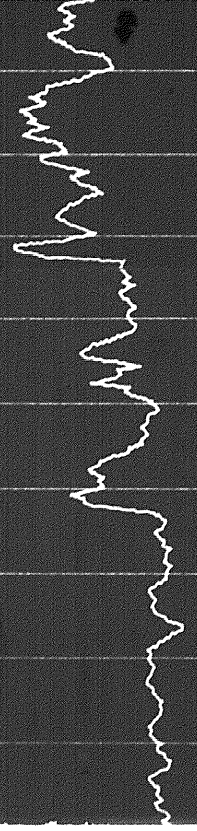


11400

11500

11600

404

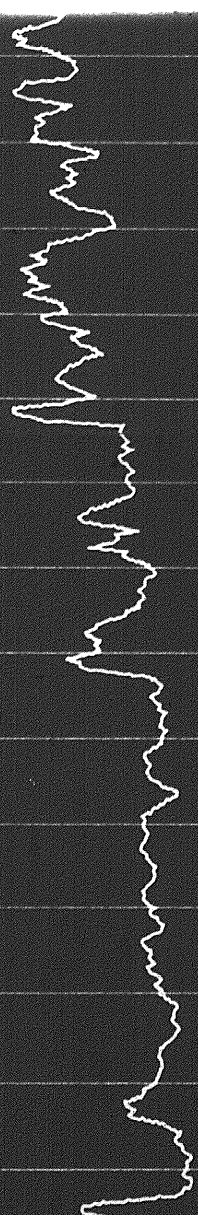


11600



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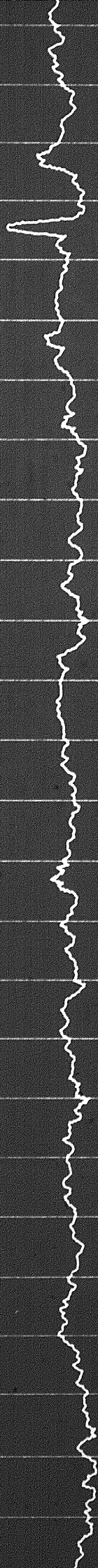
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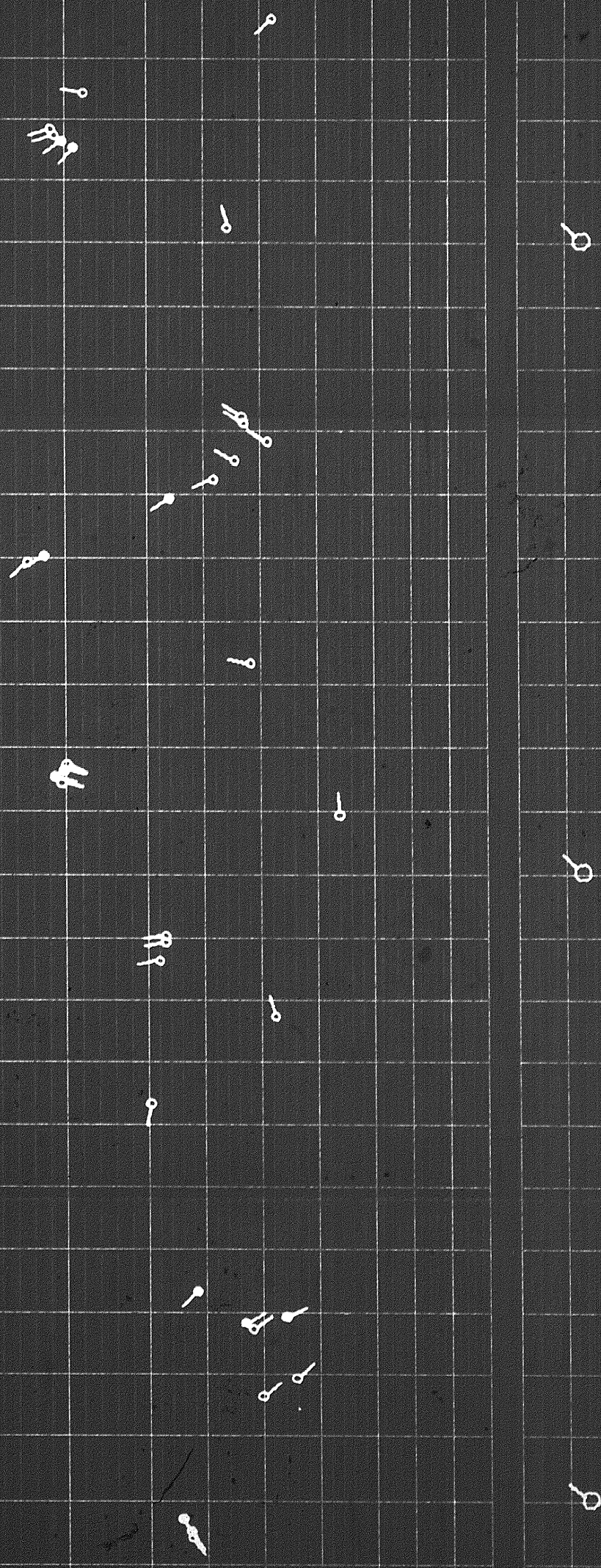
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11700

11800

11900



11800

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12000



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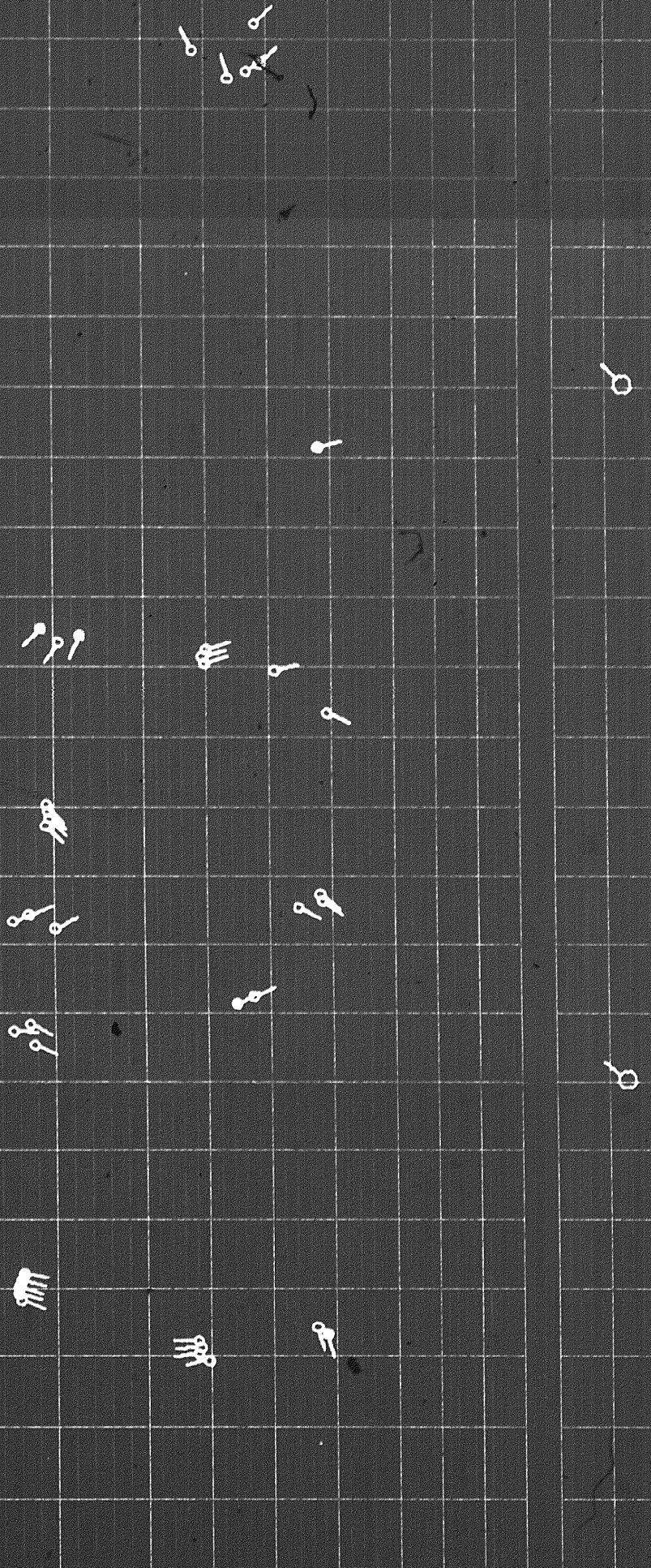
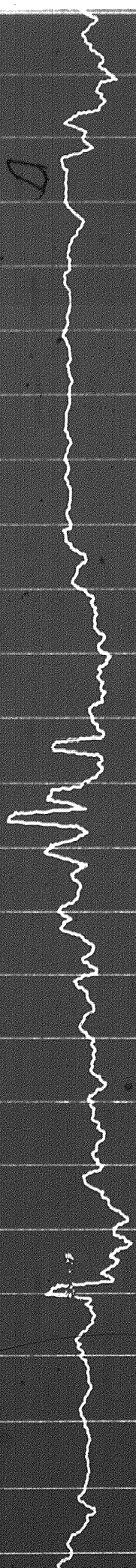
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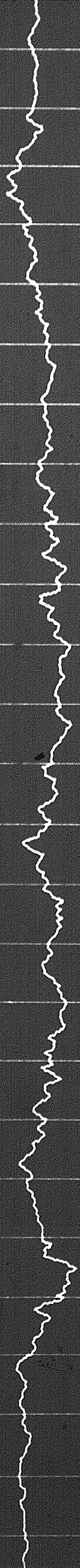
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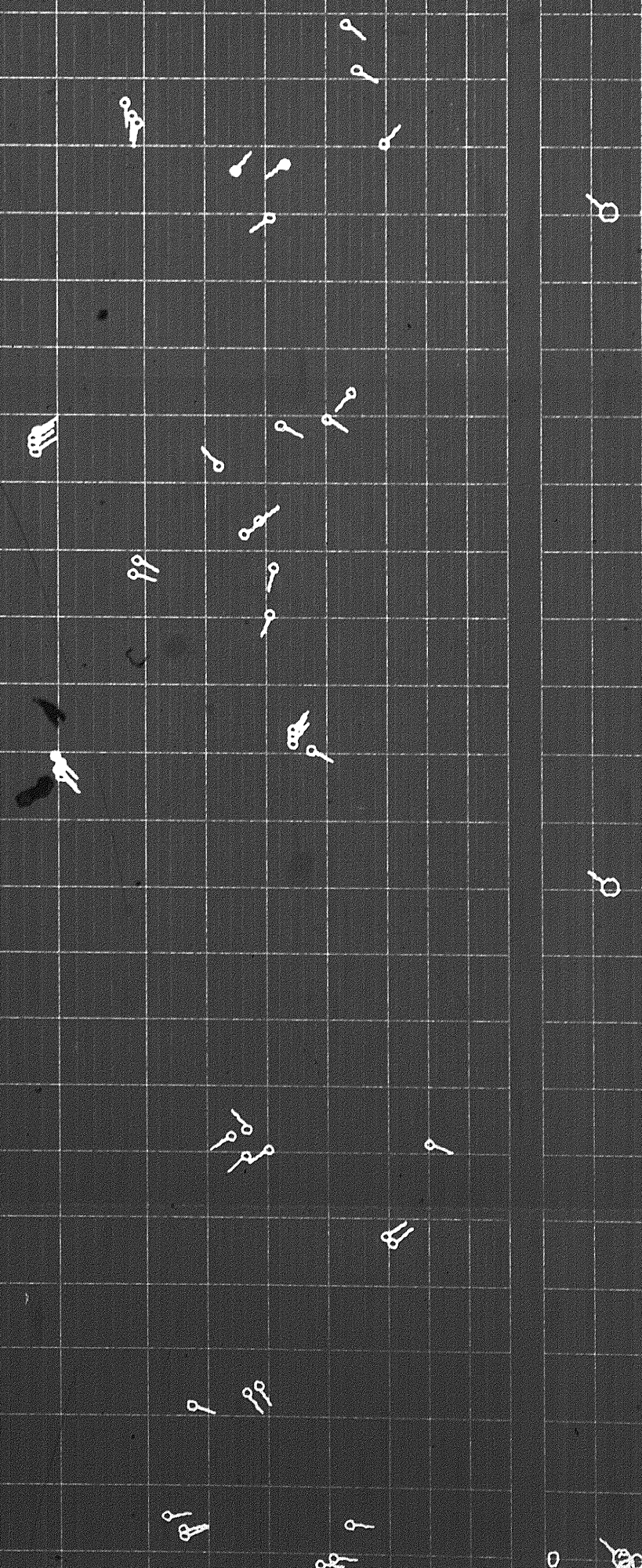
707



12200

12300

12400



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12400

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12400

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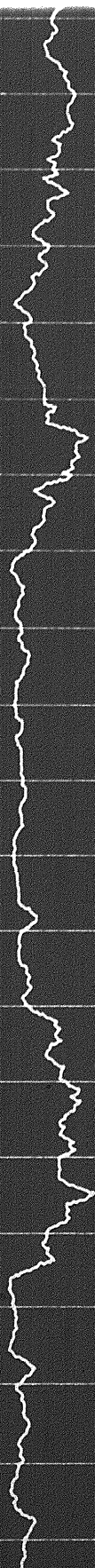
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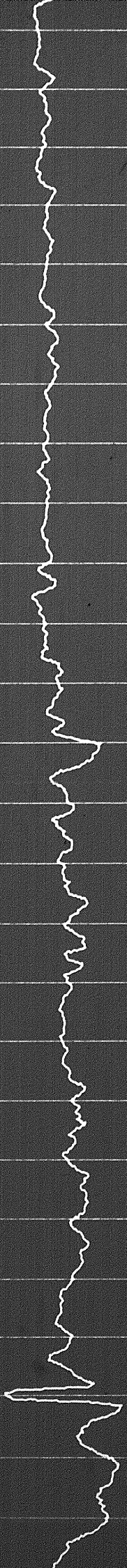


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70 h



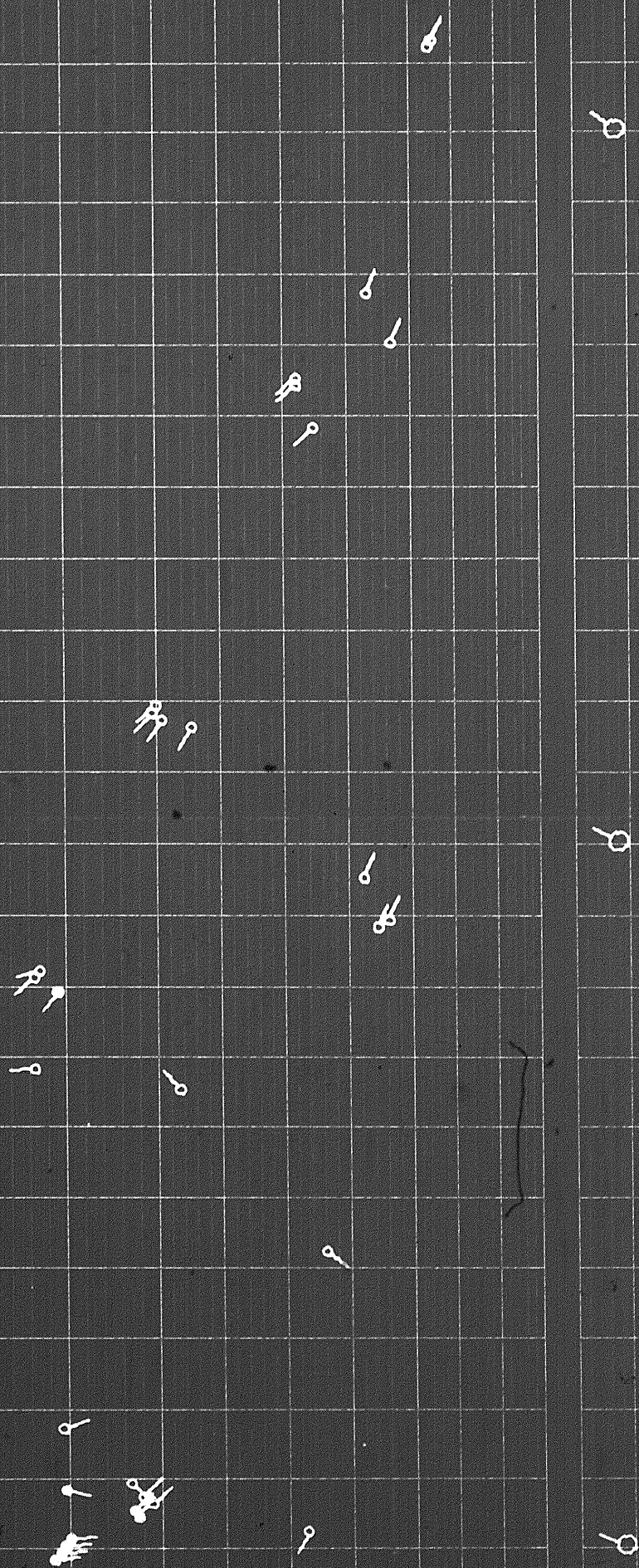
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12600

12700

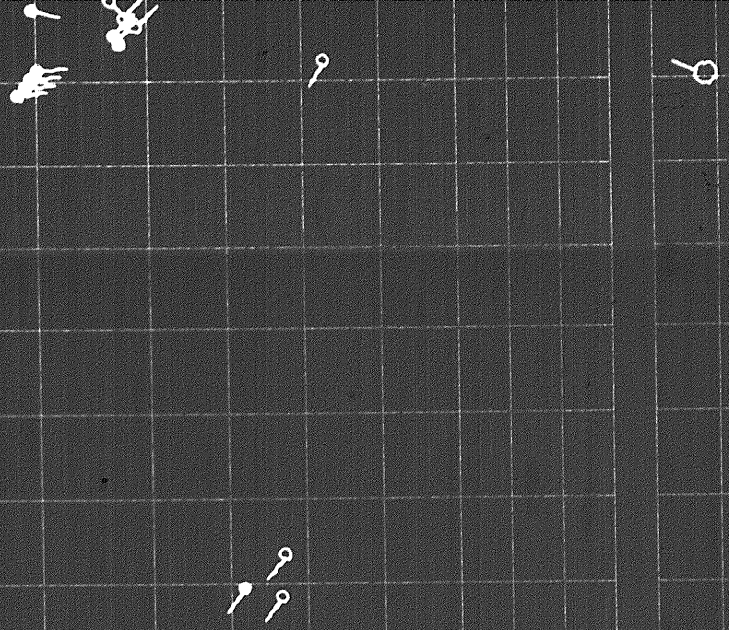
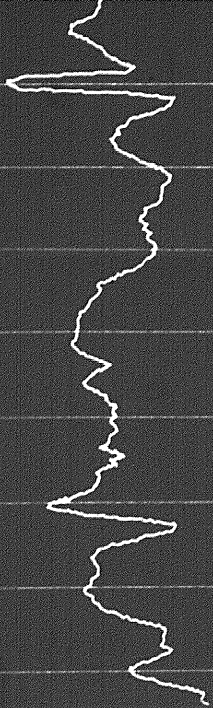
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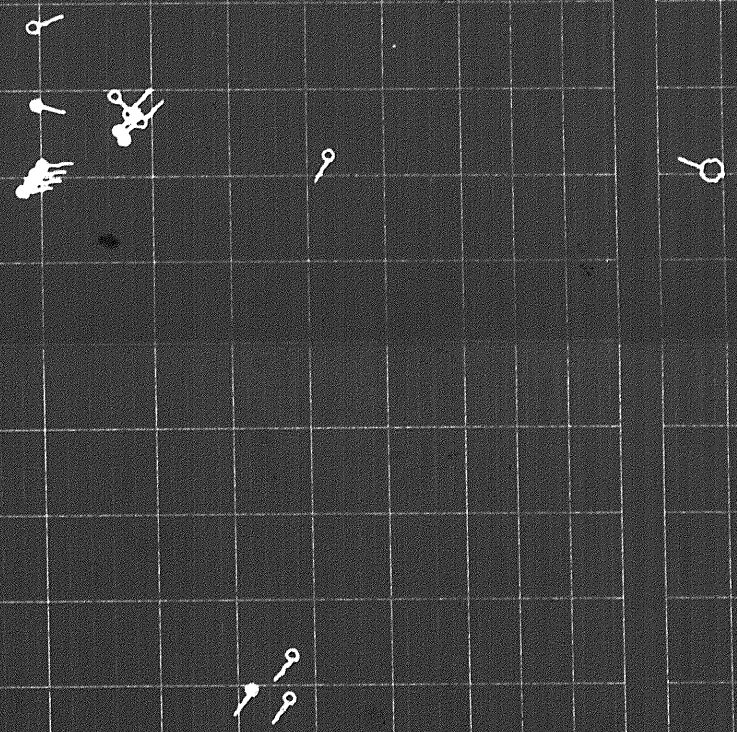
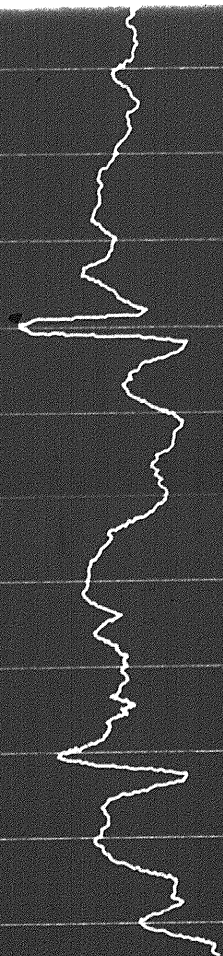


10h

12700



12700



12800

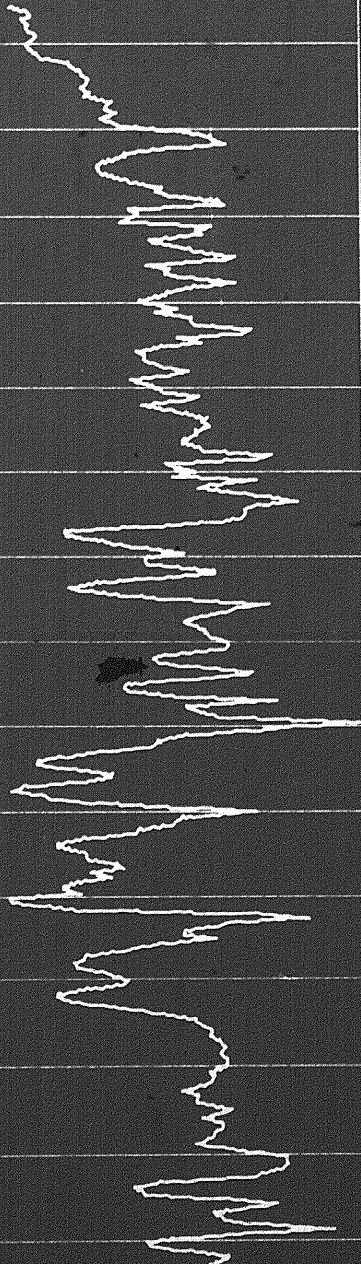
10

12800

ZONE FROM 10856 TO 11058

RESISTIVITY INCREASE

0 10



10800

11000

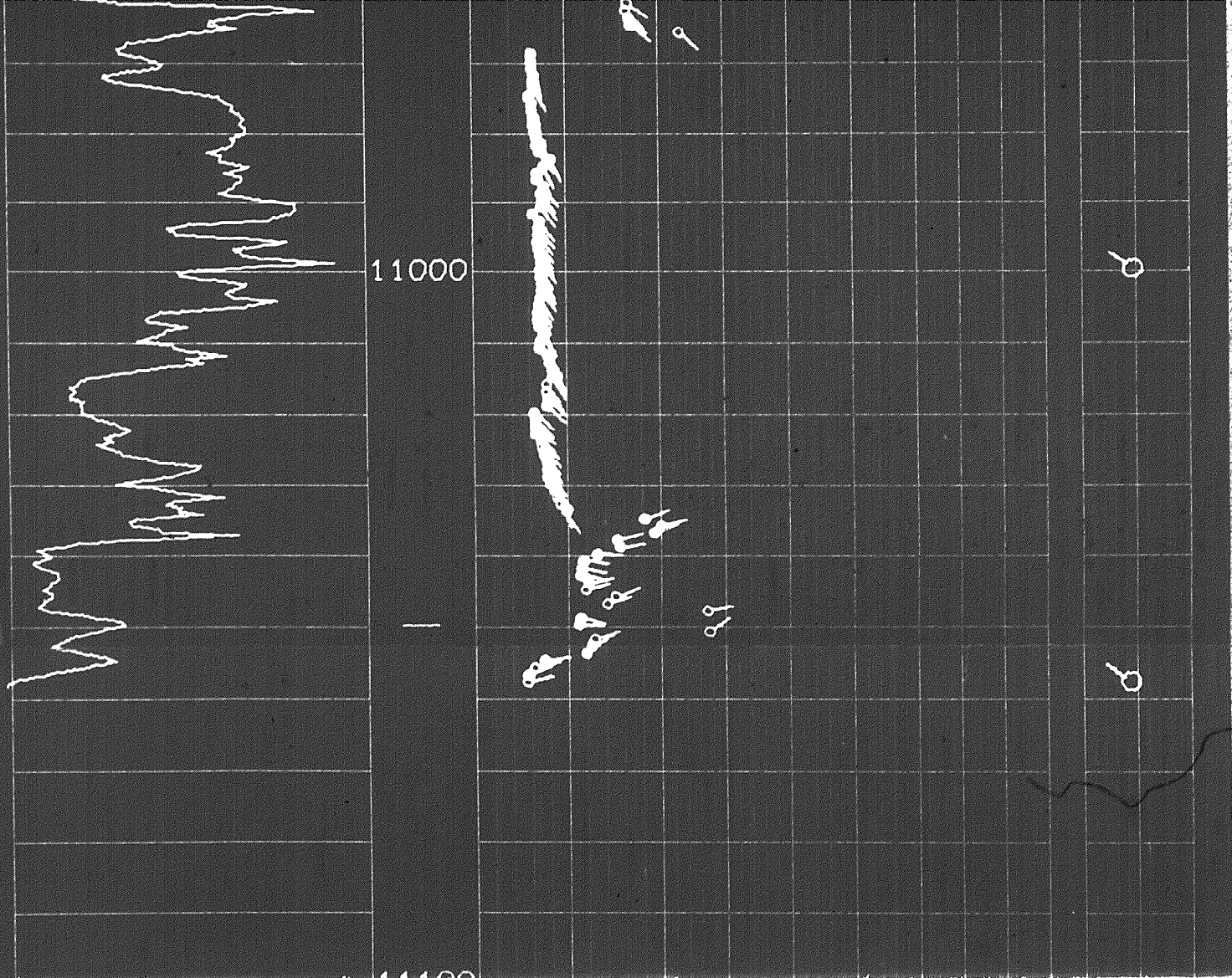


999
999

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9

708



12800

ZONE FROM 10856 TO 11058

RESISTIVITY INCREASED

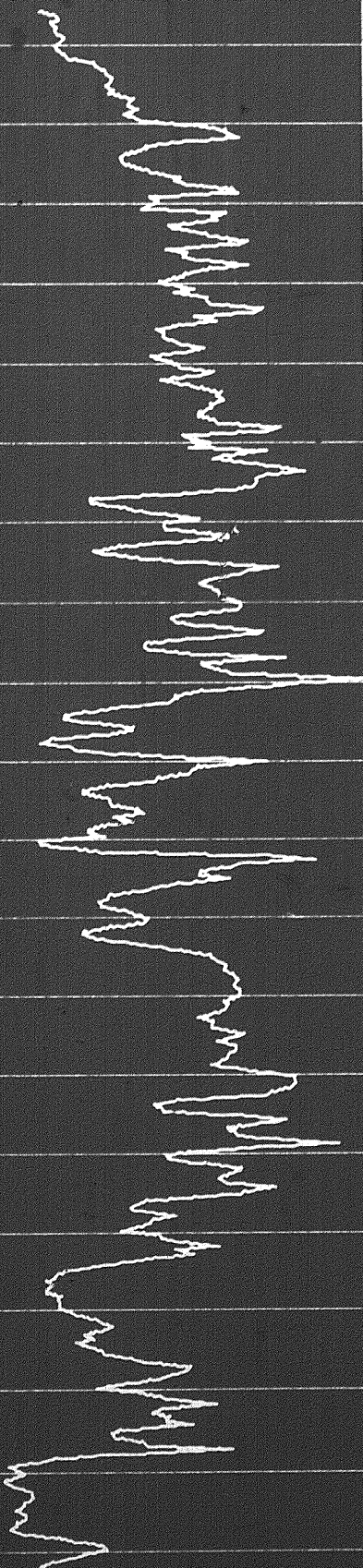


RESISTIVITY INCREASED

0 10

10900

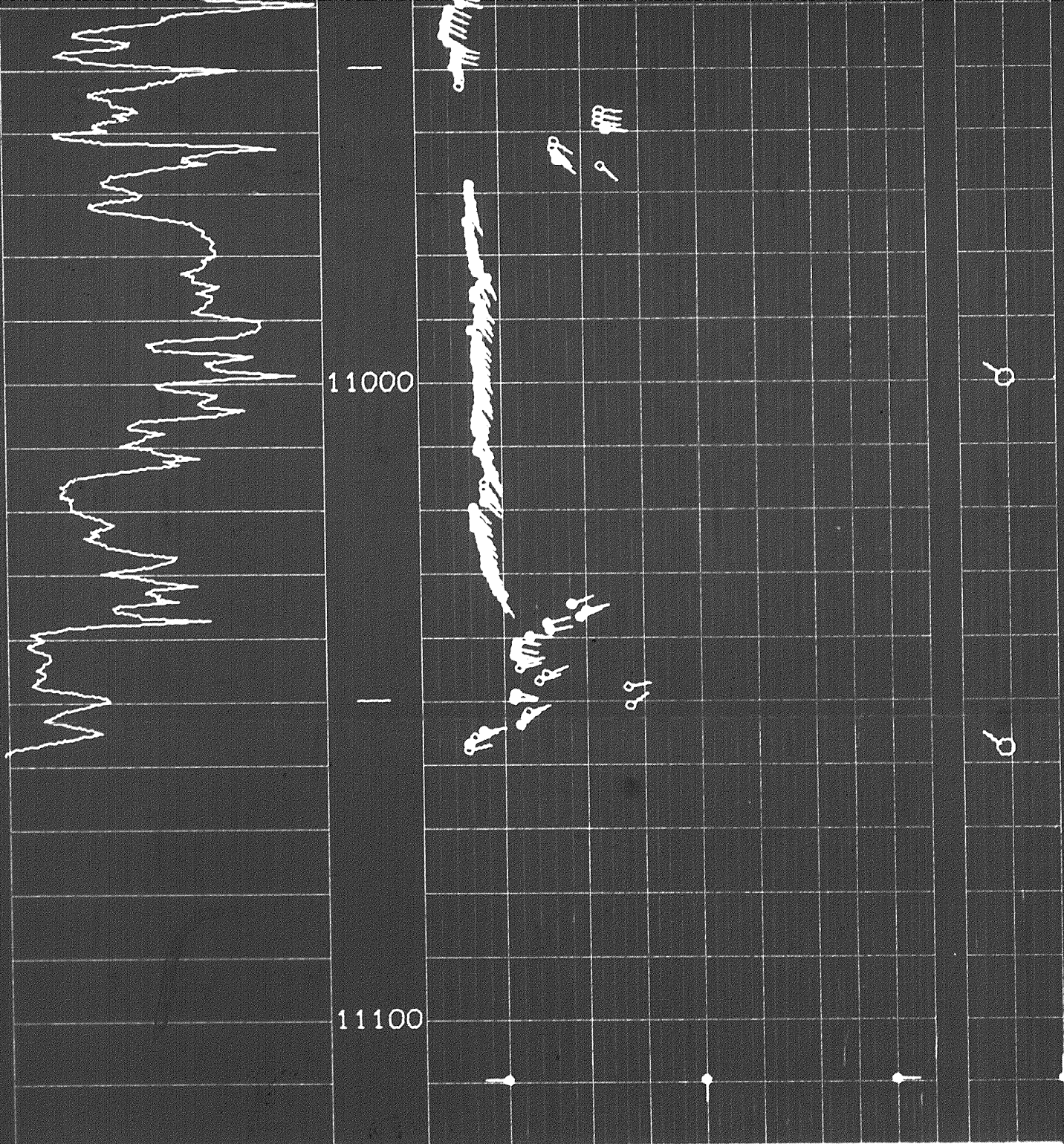
11000



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CORRELATION CURVE

DEPTHS

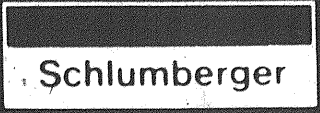
TRUE DIP ANGLE AND DIRECTION

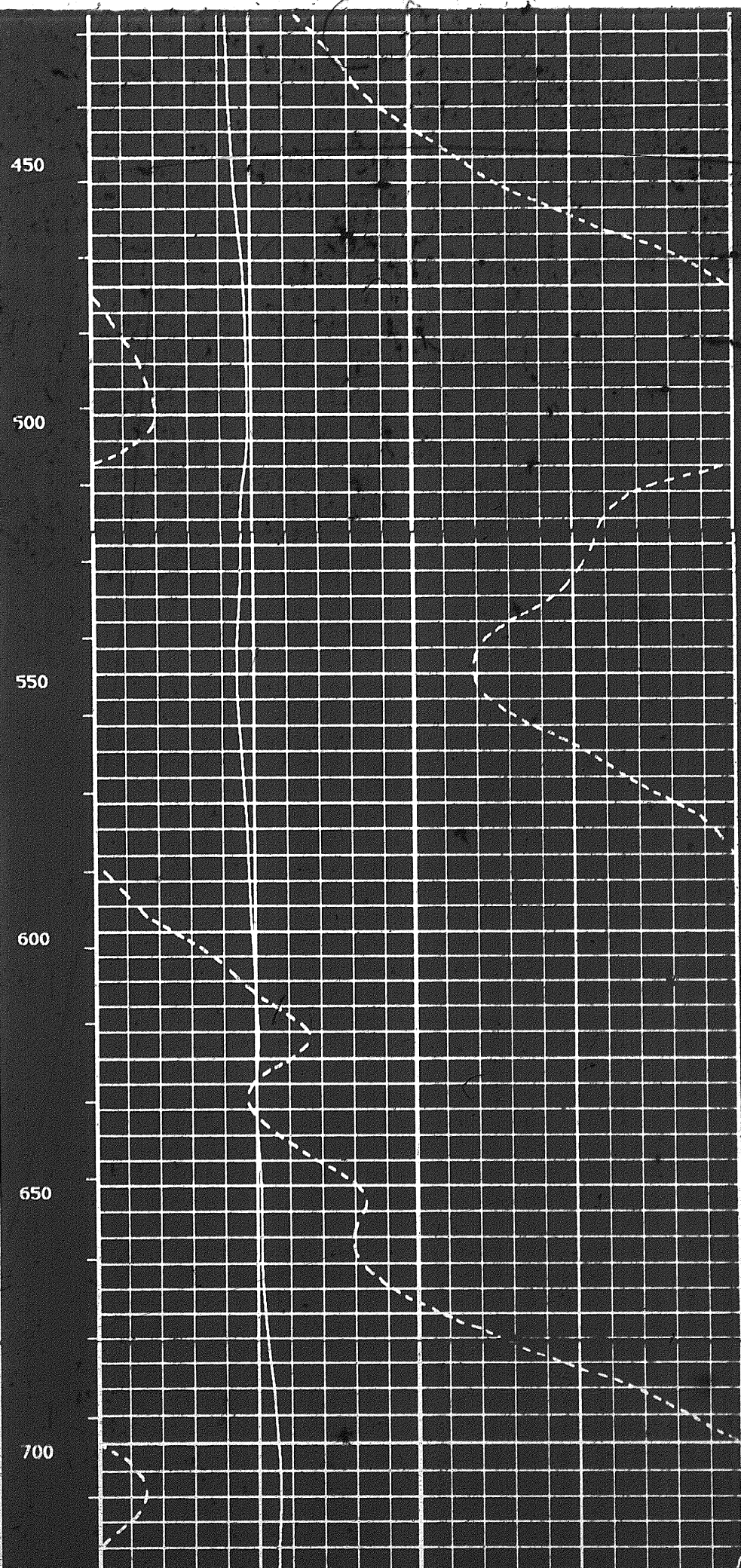
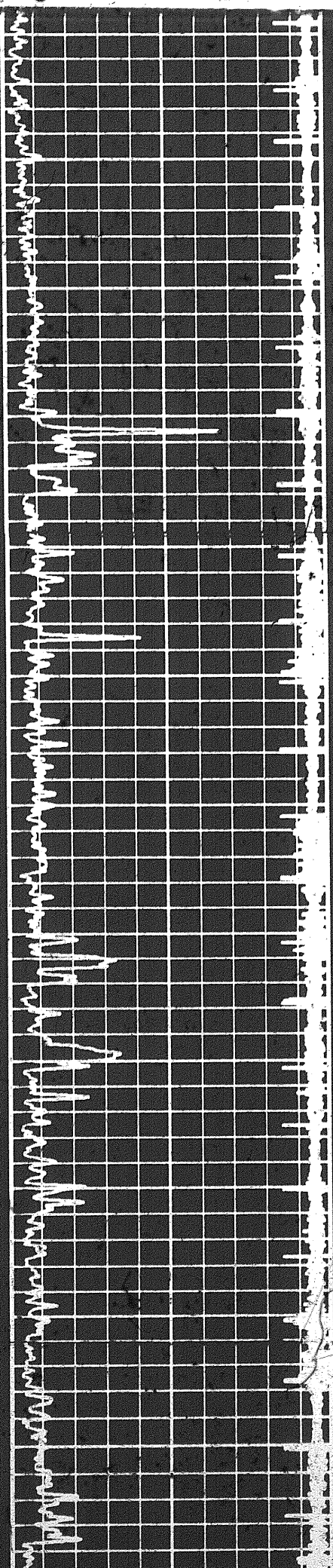
DRIFT & DIRECTION OF SONDE

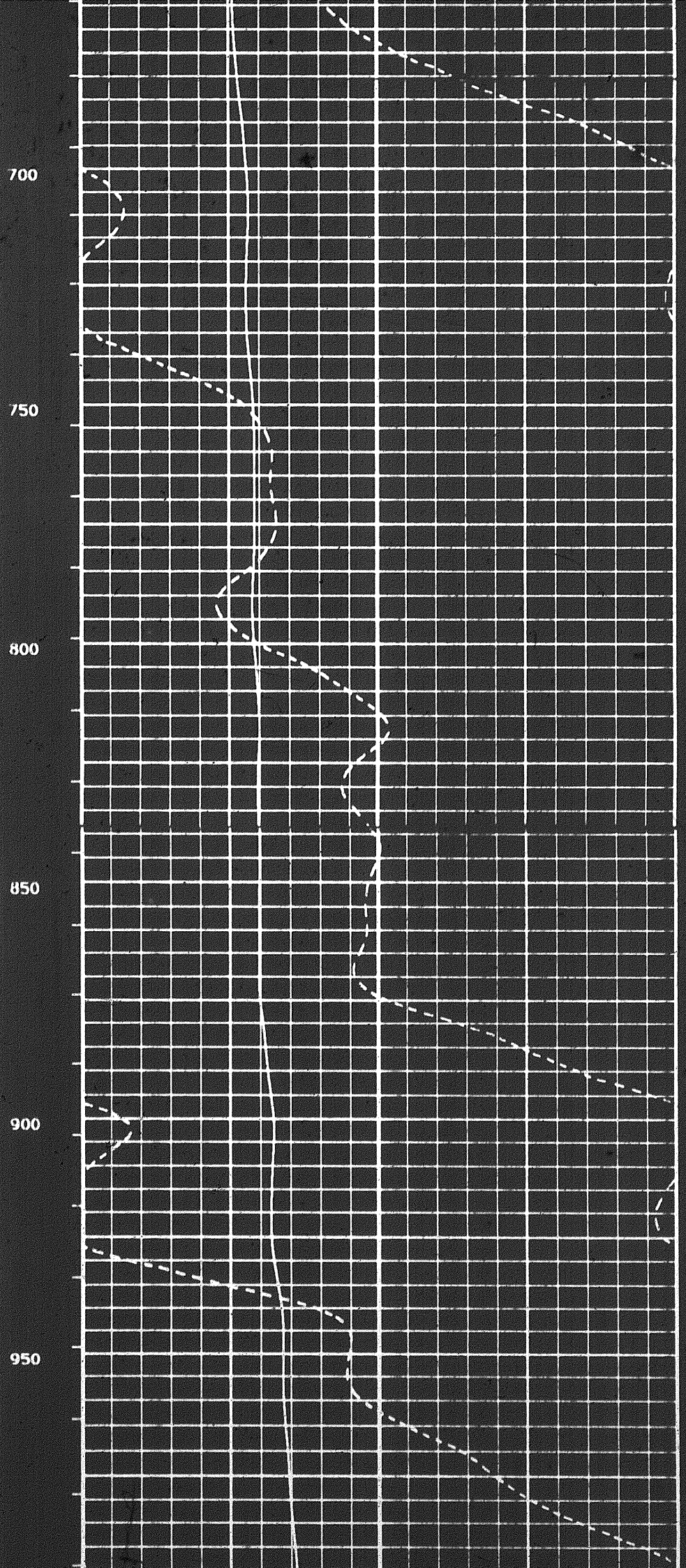
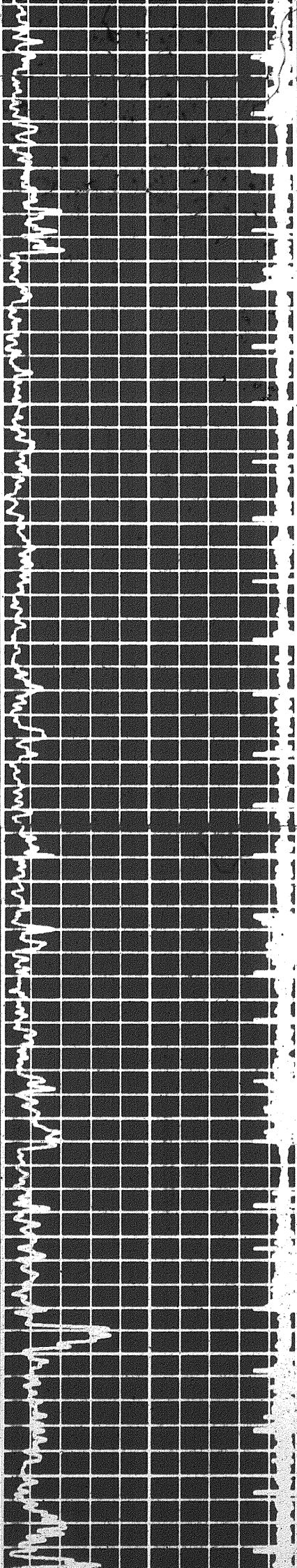
6 Feb
 COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD

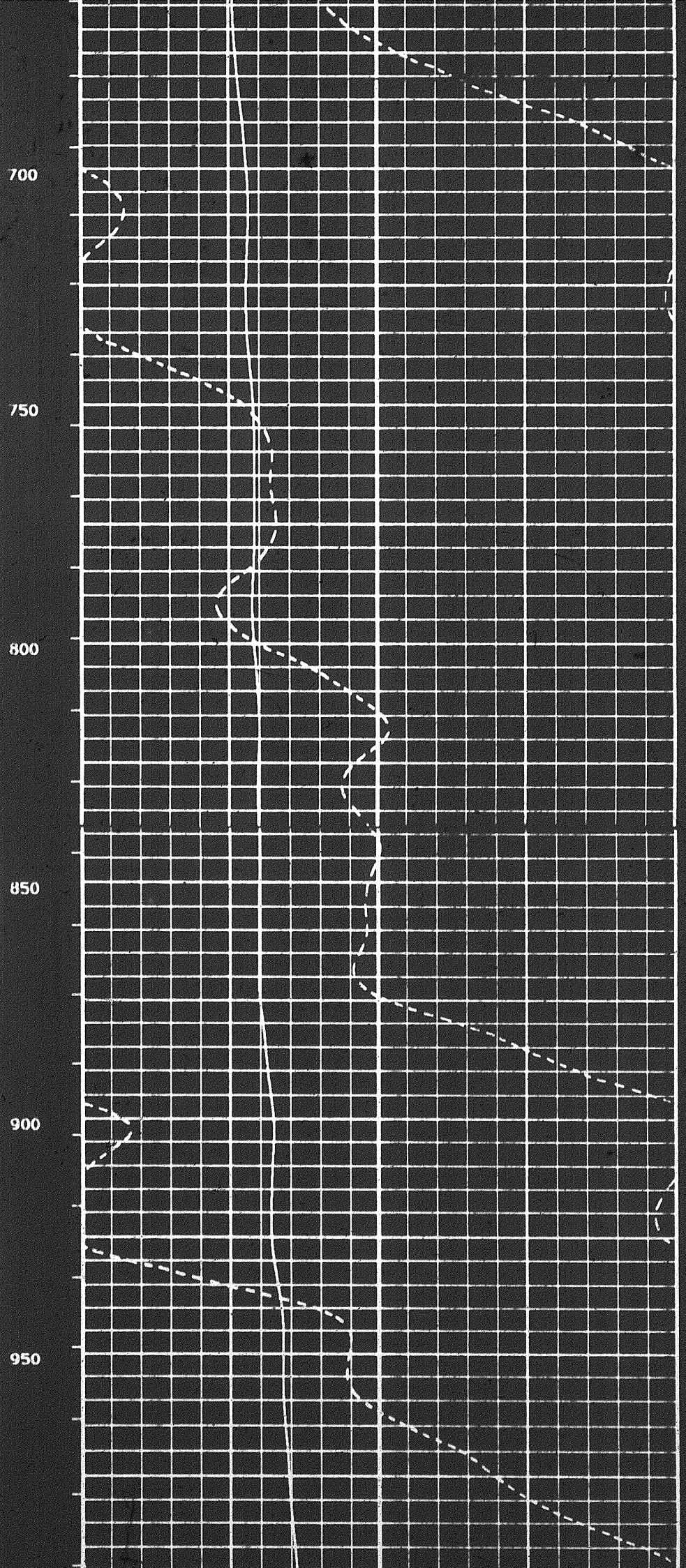
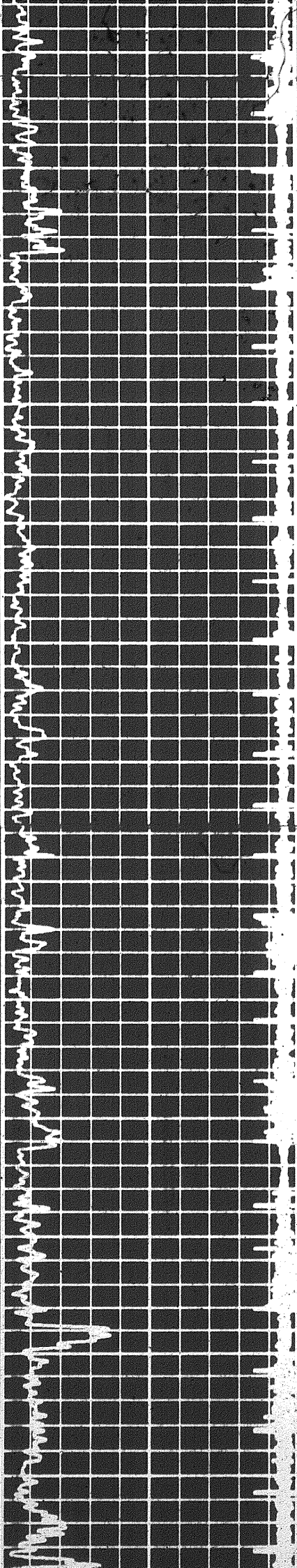
WELL COLUMBIA GAS ET AL KOTANEELEE YT H-38

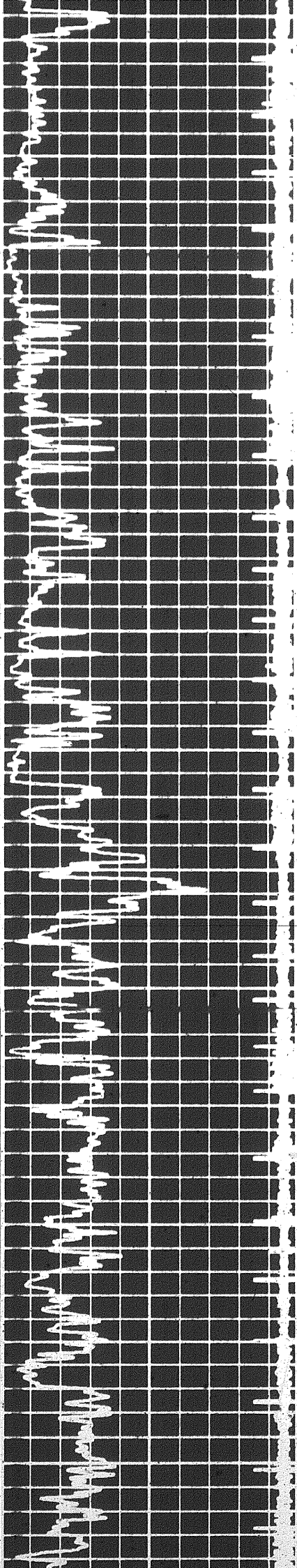
FIELD WILDCAT PROVINCE YUKON TERRITORY











950

1000

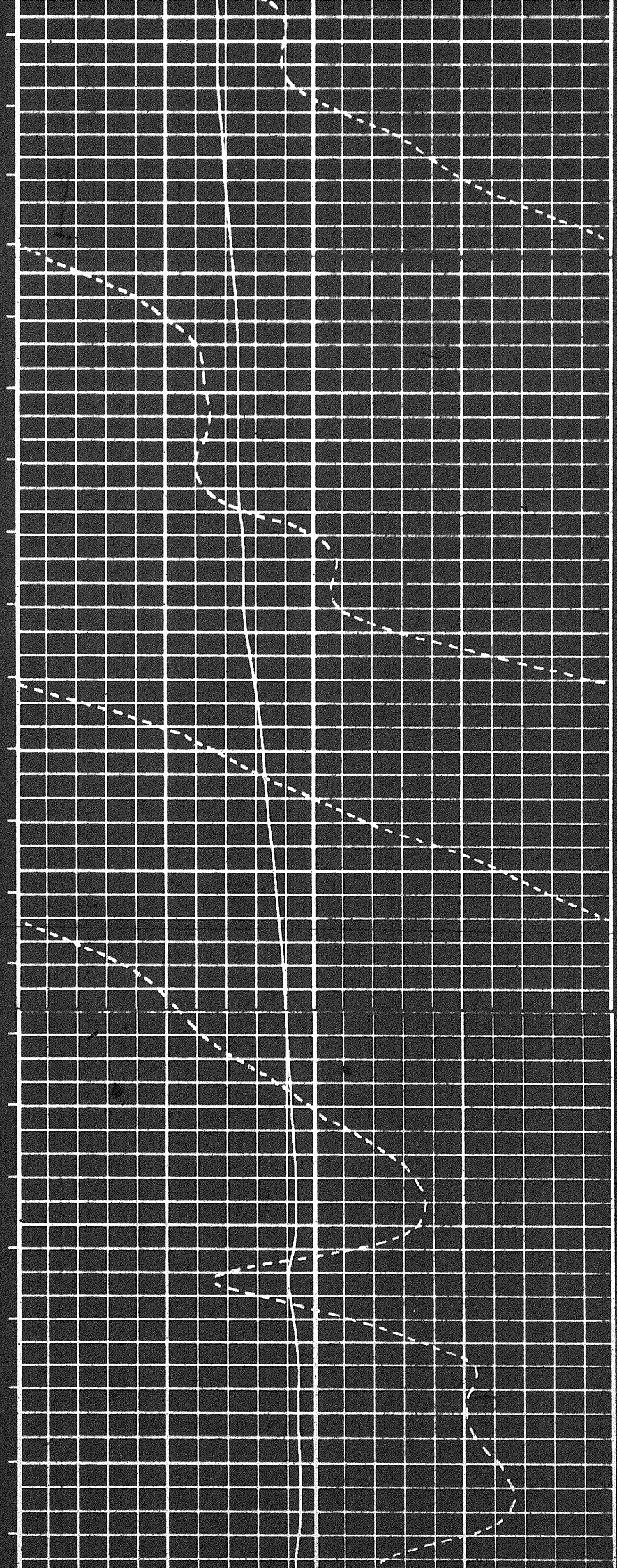
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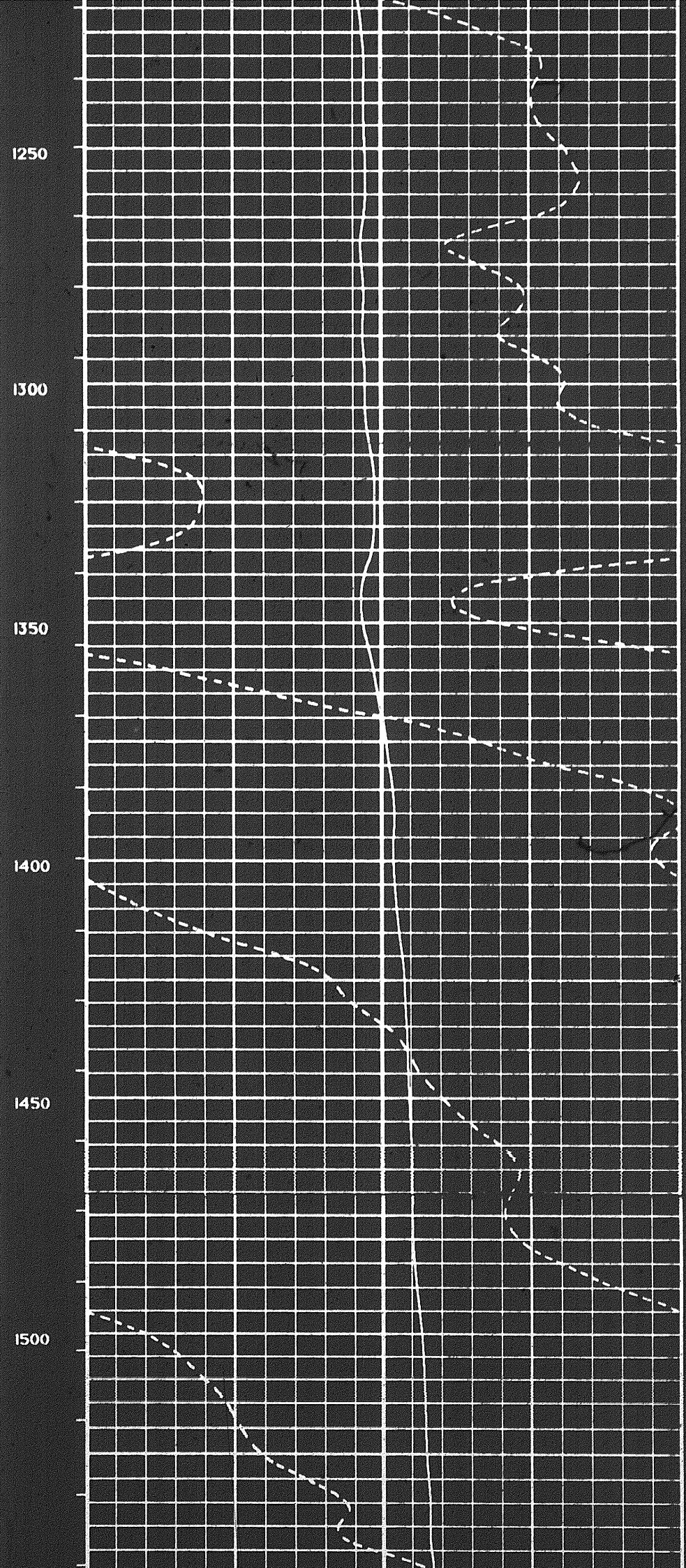
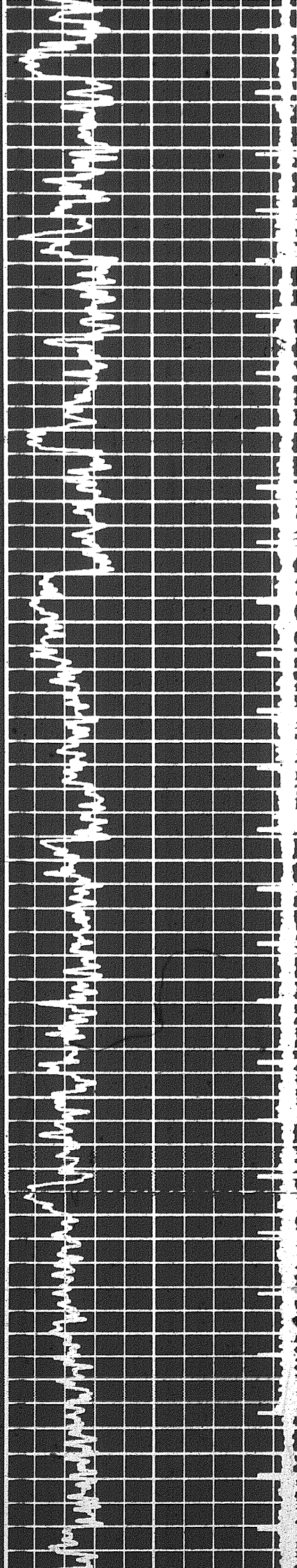
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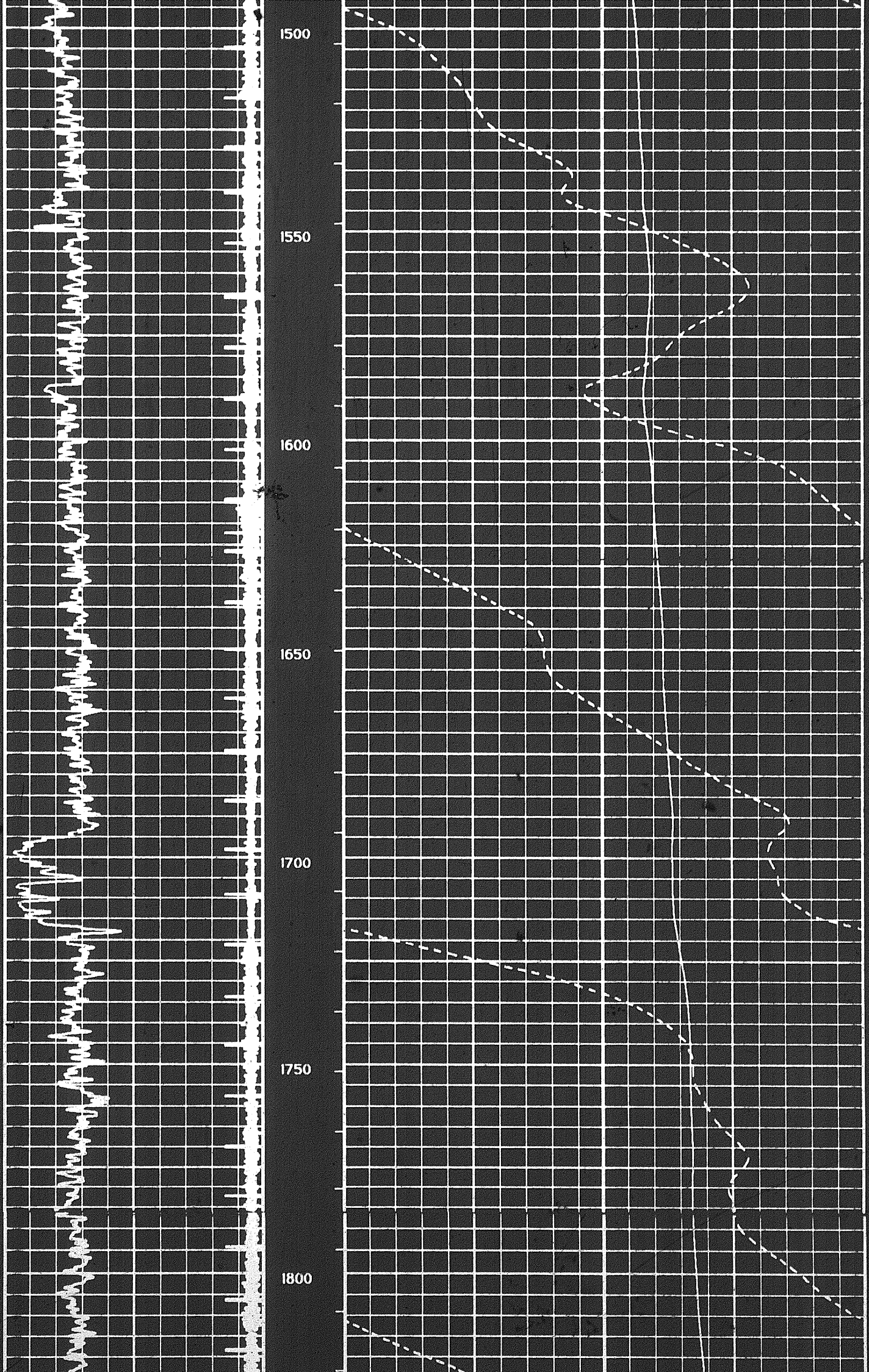
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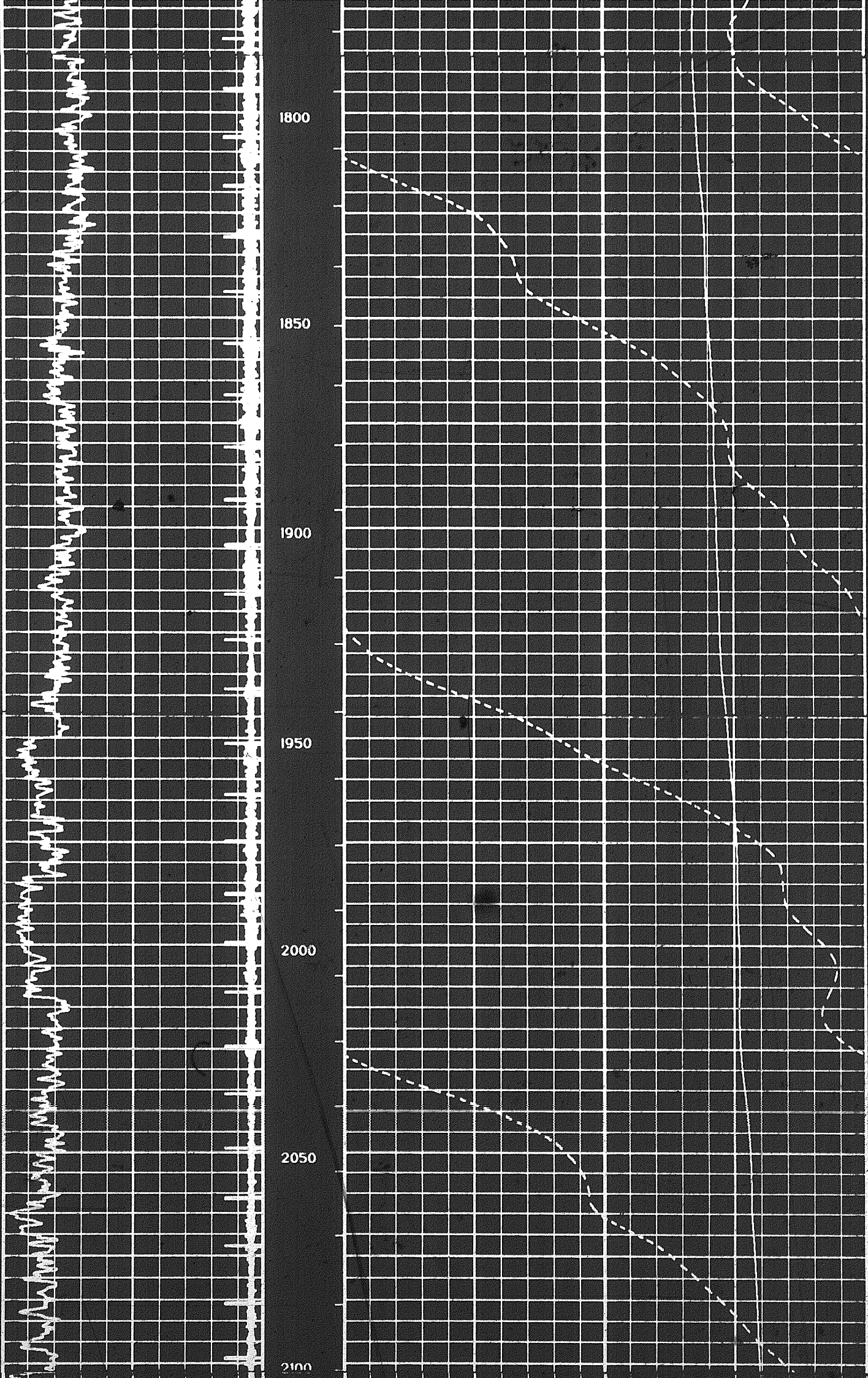
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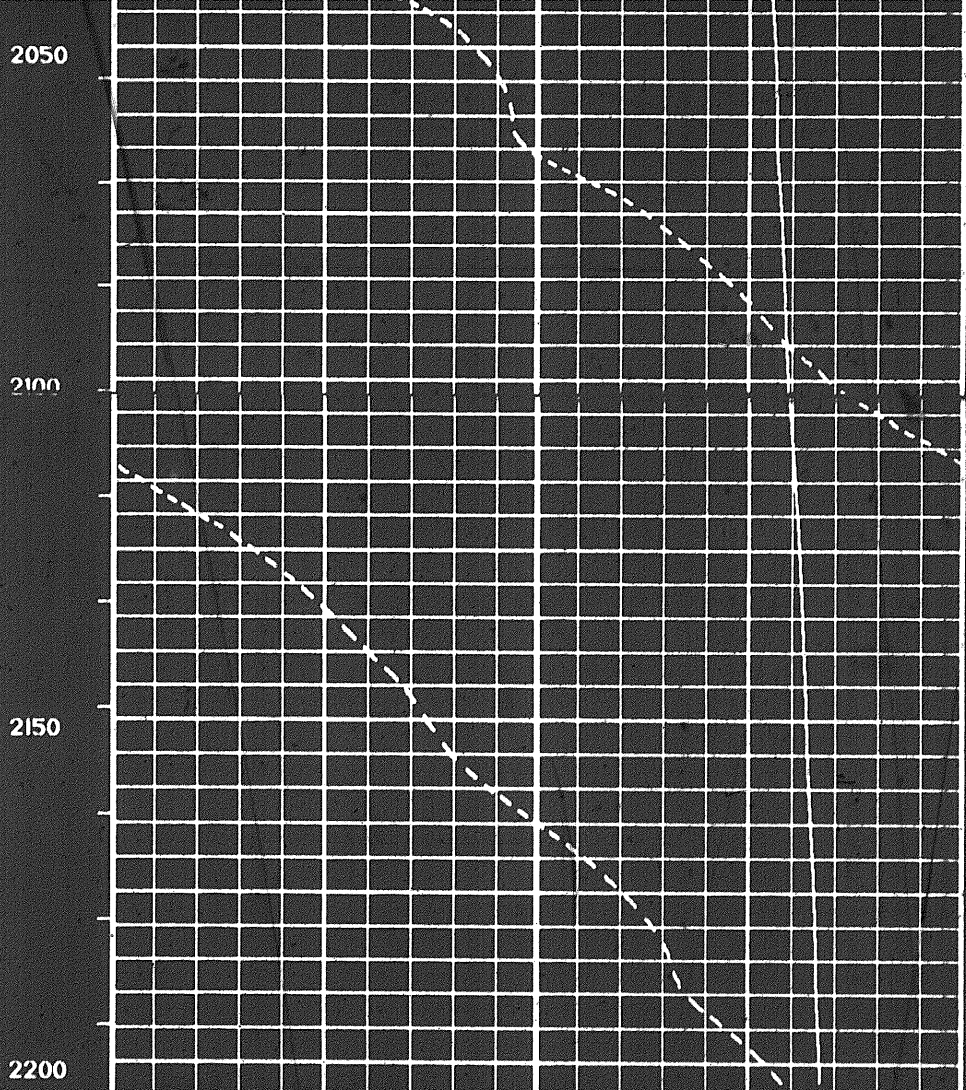
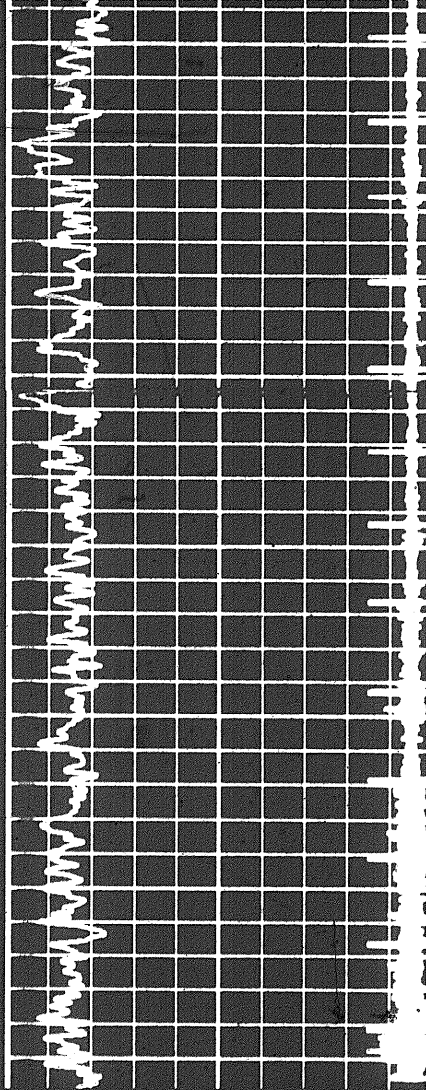
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COMPANY-	ANDERSON OIL & GAS INC	FR	00
WELL-	COLUMBIA ET AL KOTANEELEE YT B-38	LR	3245.0
FIELD-	KOTANEELEE	Elev: KB	685.80
PROVINCE-	YUKON	GL	678.18

