

Schlumberger

FOUR - ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER
COMPUTED

PROVINCE YUKON TERRITORIES
FIELD WILDCAT
WELL COLUMBIA ET AL. KOTANEELEE
VT E-37
COMPANY COLUMBIA GAS DEVELOPMENT
OF CANADA LTD

CCOMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD
WELL COLUMBIA ET AL. KOTANEELEE
VT E-37
FIELD WILDCAT
PROVINCE YUKON TERRITORIES
LOCATION 60 06' 27" N LAT
124 07' 16" W LONG
Permanent Datum GL Elev 2013
Log Meas'd From KB 2' Ft Above Perm Datum
Drilling Measured From KB

Date	10 SEPT 78
Run No	TWO
Depth Driller	10750
Depth Logger	13740
Bitm Log Interval	13740
Top Log Interval	9465
Casing Driller	9490
Casing Logger	9465
Bit Size	5 1/2"
Type Fluid in Hole	RCL POLY
Dens	10.2
Visc	43
OH	10.0
Fluid Loss	14.6
Source of Sample	FLOWLINE
Rm @ Meas Temp	@ 9F
Rm @ Meas Temp	@ 0.072 @ 70 9F
Rmc @ Meas Temp	@ 9F
Source Rmf	M
Rm @ BHT	@ 9F
Time Since Circ	23 172 HRS
Max Rec Temp	316 9F
Equipment	HDT-C
Truck No.	DSU-C 295
Location	FRONTIER
Recorded By	MCOMR
Witnessed By	DORICH

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
TWO	HDT-C	F 1774	CB 1894	1828	D 1801			DEC 10	4 FT	1 FT	45 X 1

REMARKS
1st Run Service Order # 30833
Magnetic Declination 32 E

Time Entering Hole	2232	7:11:10	
Time Bottom Reached	2332	7:11:10	
Time Last Off Bottom	2333	7:11:10	
Distance TD to Thermometer	33	FT	
Time Out Of Hole	0 2 51	7 12	
Mud Resistivities	Rm No. 1	0.121 ohm - m @ 70 °F =	ohm - m @ BHT
	Rm No. 2	0.116 ohm - m @ 70 °F =	ohm - m @ BHT
	Rm No. 3	0.120 ohm - m @ 70 °F =	ohm - m @ BHT
Rw from Drill Stem Test	DST No.	Rw =	ohm - m @ °F
	DST No.	Rw =	ohm - m @ °F
	DST No.	Rw =	ohm - m @ °F
			LOG TAPED <input checked="" type="checkbox"/>
			Yes No

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Rw from Drill Stem Test

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

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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-E TTR DEC-10

SEARCH ANGLE

45 D

STEP LENGTH

CORRELATION LENGTH

ARROW PLOT FROM CLUSTER

C.L.I.C.

RUN NO. TWO

10-SE

60/06/27N-124/07/16M

WILDCAT

COLUMBIA ET AL KOTANEEL

COLUMBIA GAS DEVELOPMENT

DEVELOPMENT OF CA

KOTANEELEE Y T E

07/16M YUKON

10-SEP-78

M CLUSTER PROGRAM

LENGTH 4 FT.

1 FT.

45 DEGREES X1

10

JOB 2230.00

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

2 LEVELS POOLED WHEN WITHIN
3.5 DEGREES SOLID ANGLE

JOB 2230.00

S X1

RAM

E CA

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

2 LEVELS POOLED WHEN WITHIN
3.5 DEGREES SOLID ANGLE
BLACK ARROWS ARE POOLED RESULTS

CORRELATION LENGTH 4 FT

BLACK ARROWS ARE POOLED RESULTS

CORRELATION LENGTH 4 FT.

STEP LENGTH 1 FT.

SEARCH ANGLE 45 DEGREES X1

PC0130023518307001020420

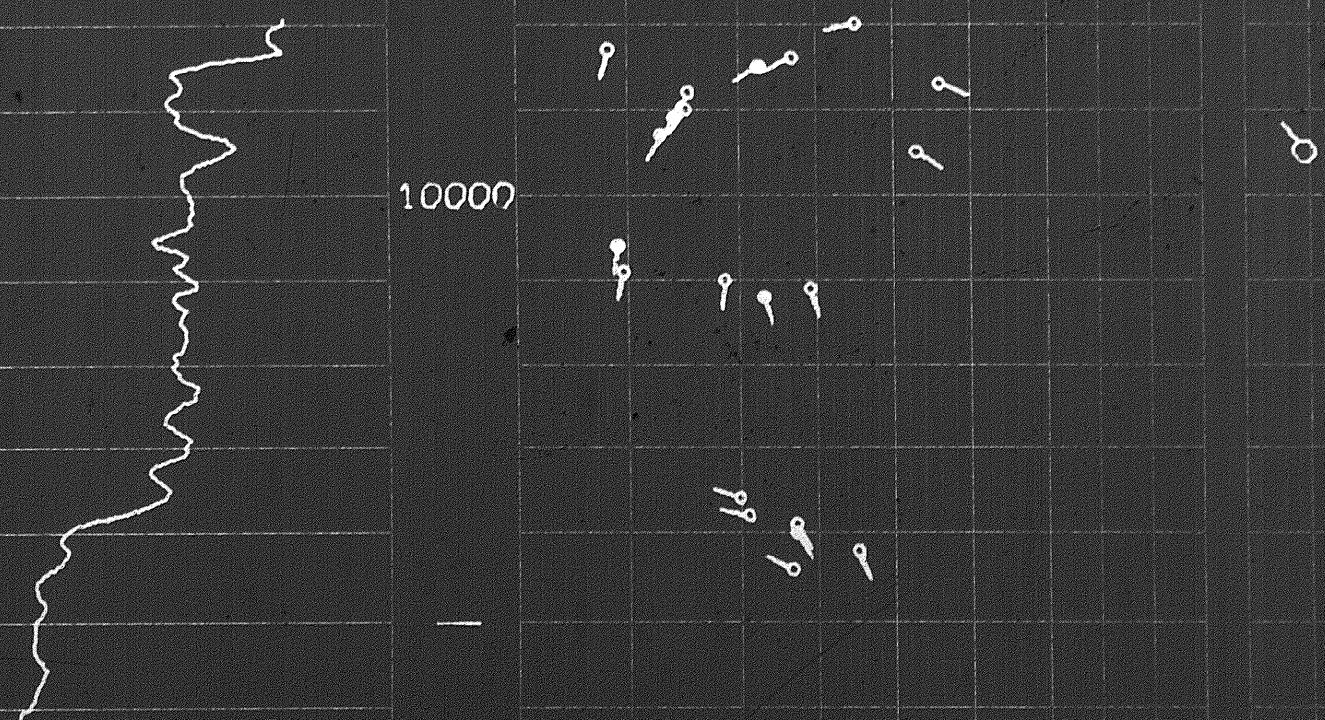
ARROW PLOT

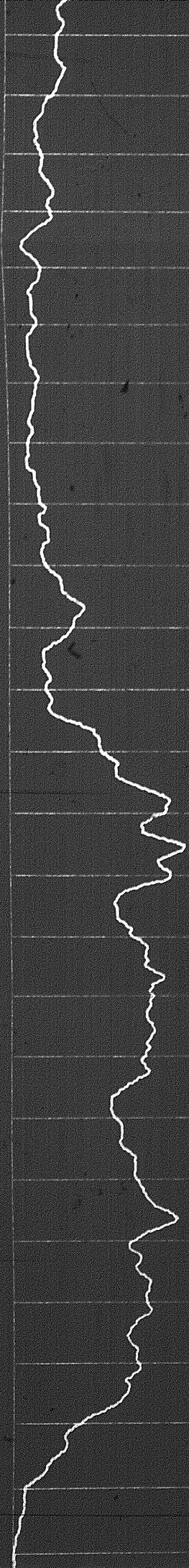
ZONE FROM 9980 TO 11797

RESISTIVITY INCREASED



10000

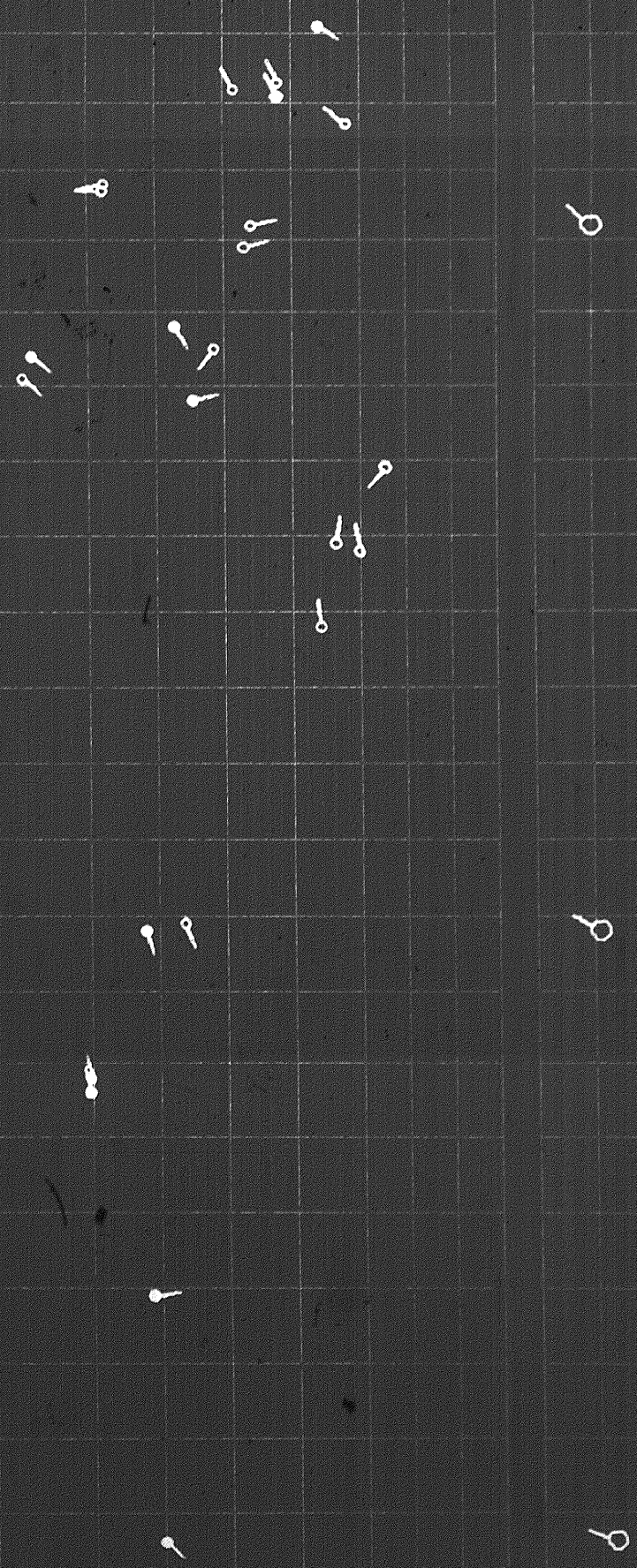




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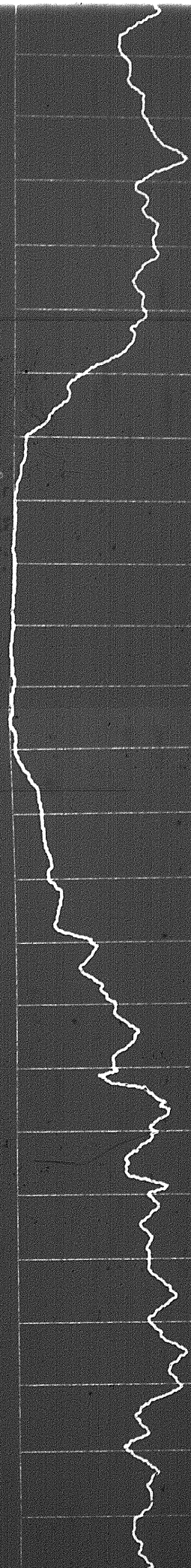
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10300



10300

10400



1111

11

99
99

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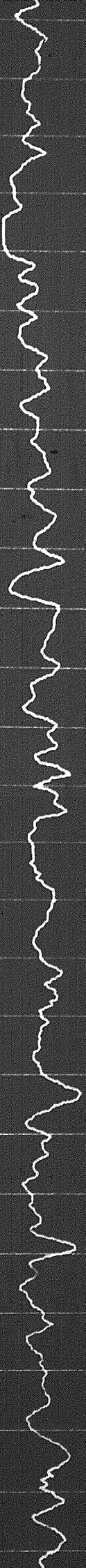
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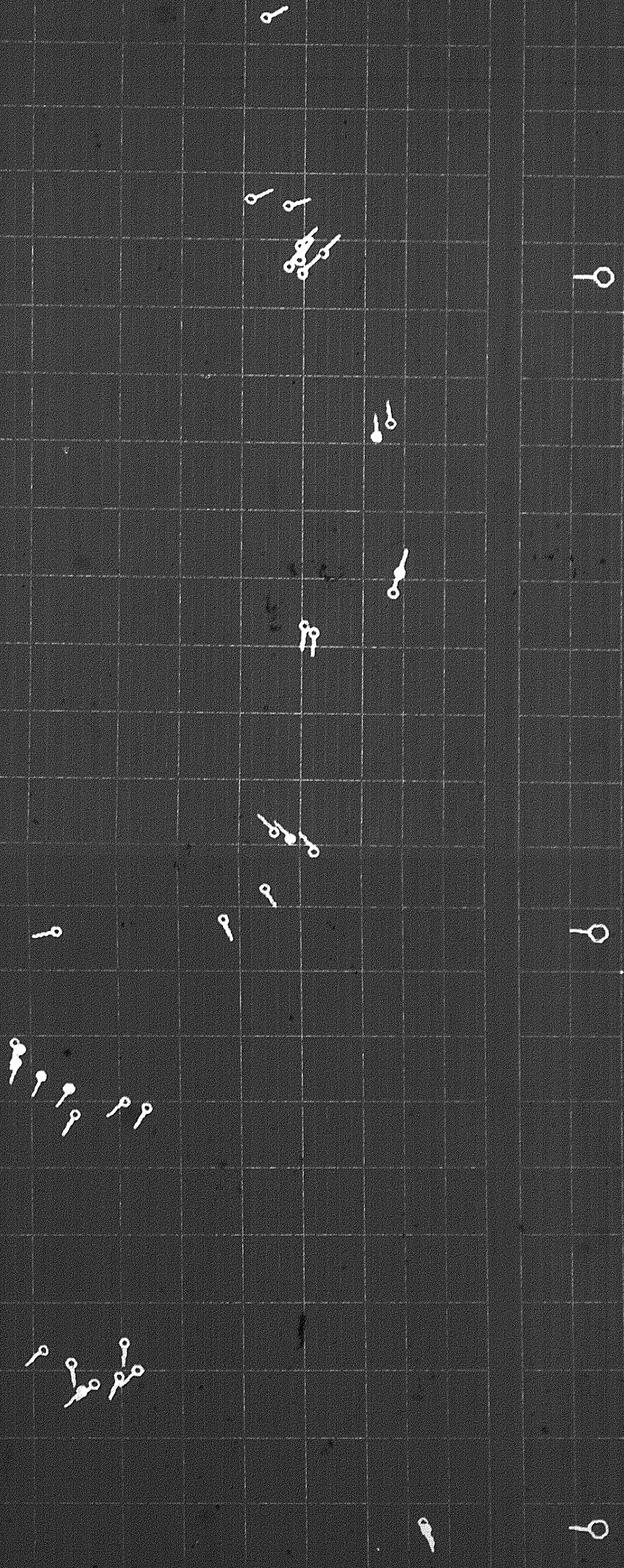
CONSTRUCTION DIVISION



10500

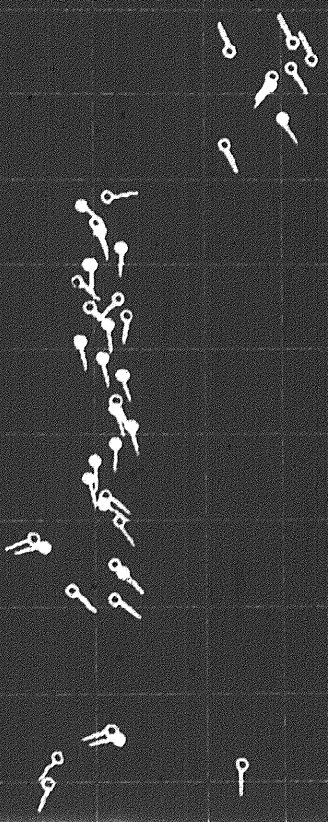
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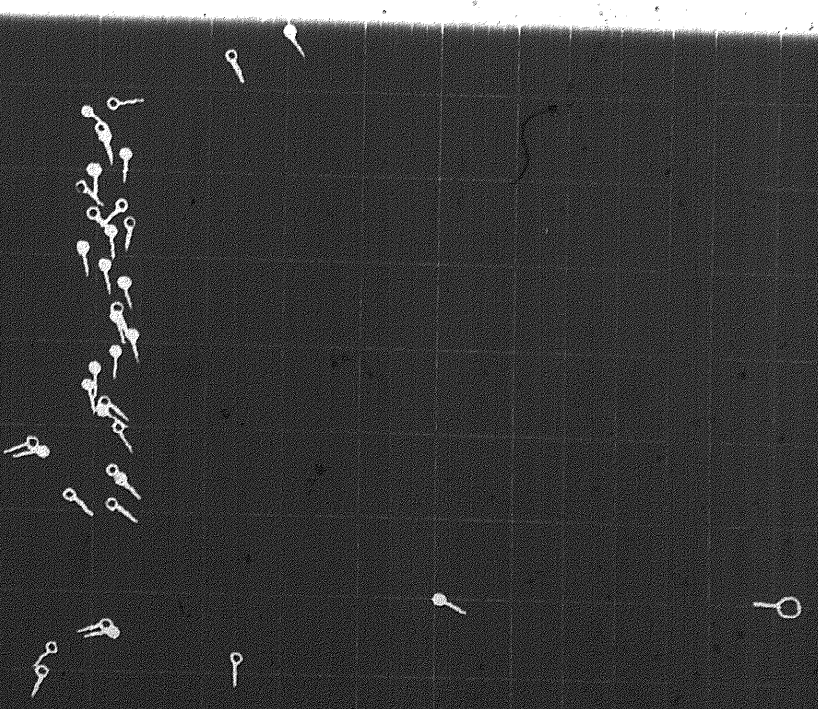
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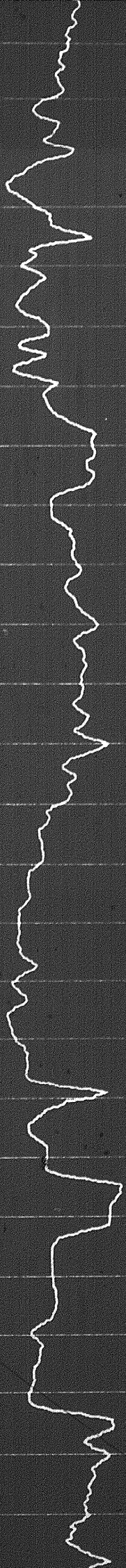
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10800

10800





10900

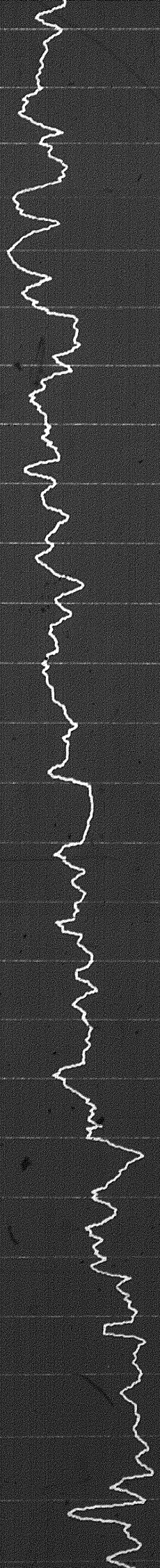
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0 10

101

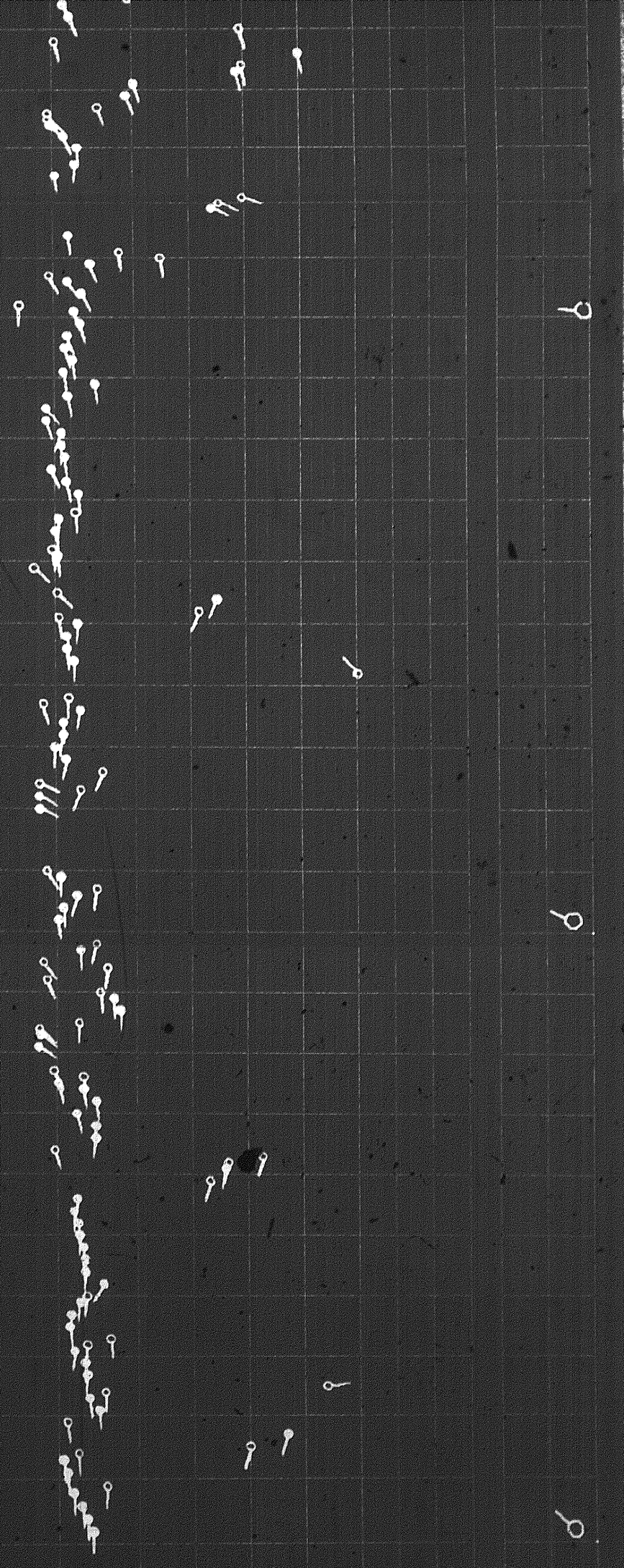
COMMUNICATIONS CENTER



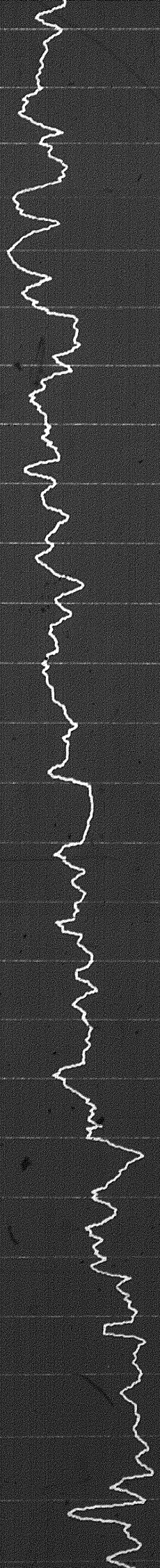
11100

11200

11300



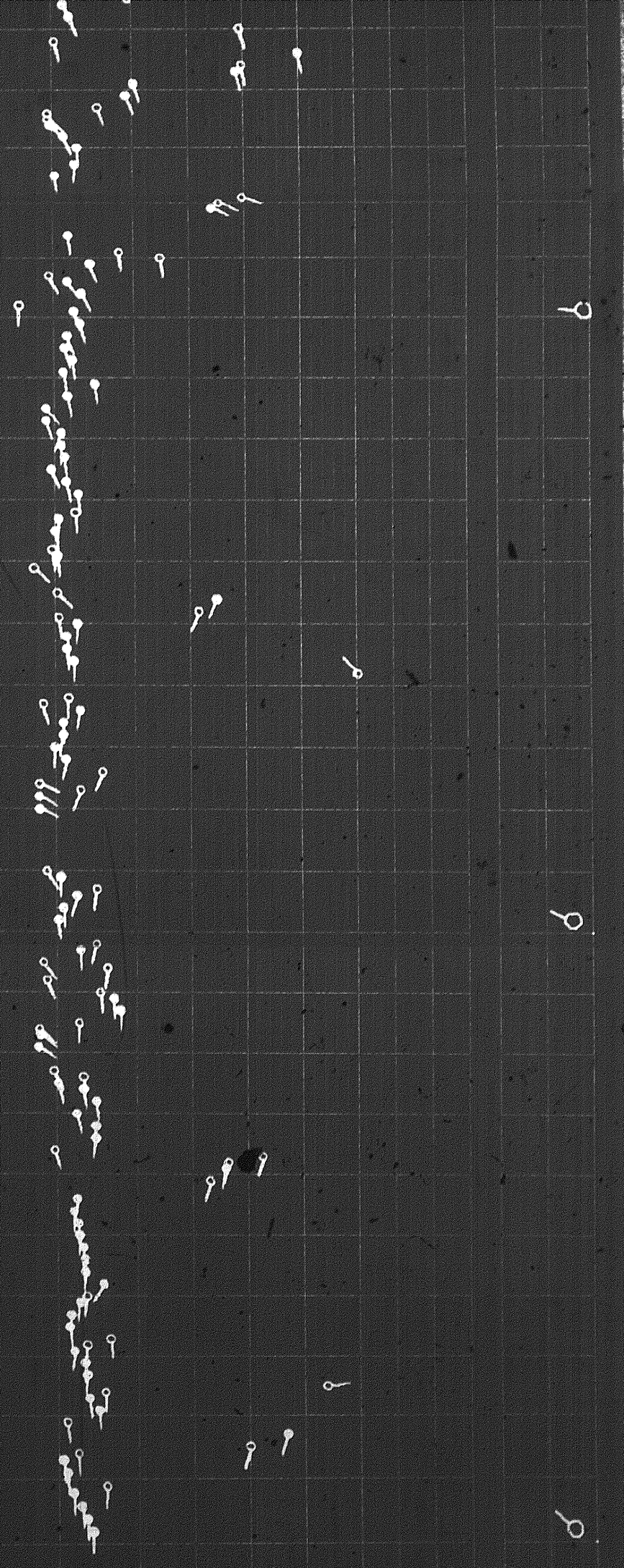
CONFIDENTIAL



11100

11200

11300



CONFIDENTIAL

Rw from Drill Stem Test

DST No.	Rw =	ohm m @	*F	
DST No.	Rw =	ohm m @	*F	LOG TAPED <input checked="" type="checkbox"/> <input type="checkbox"/>
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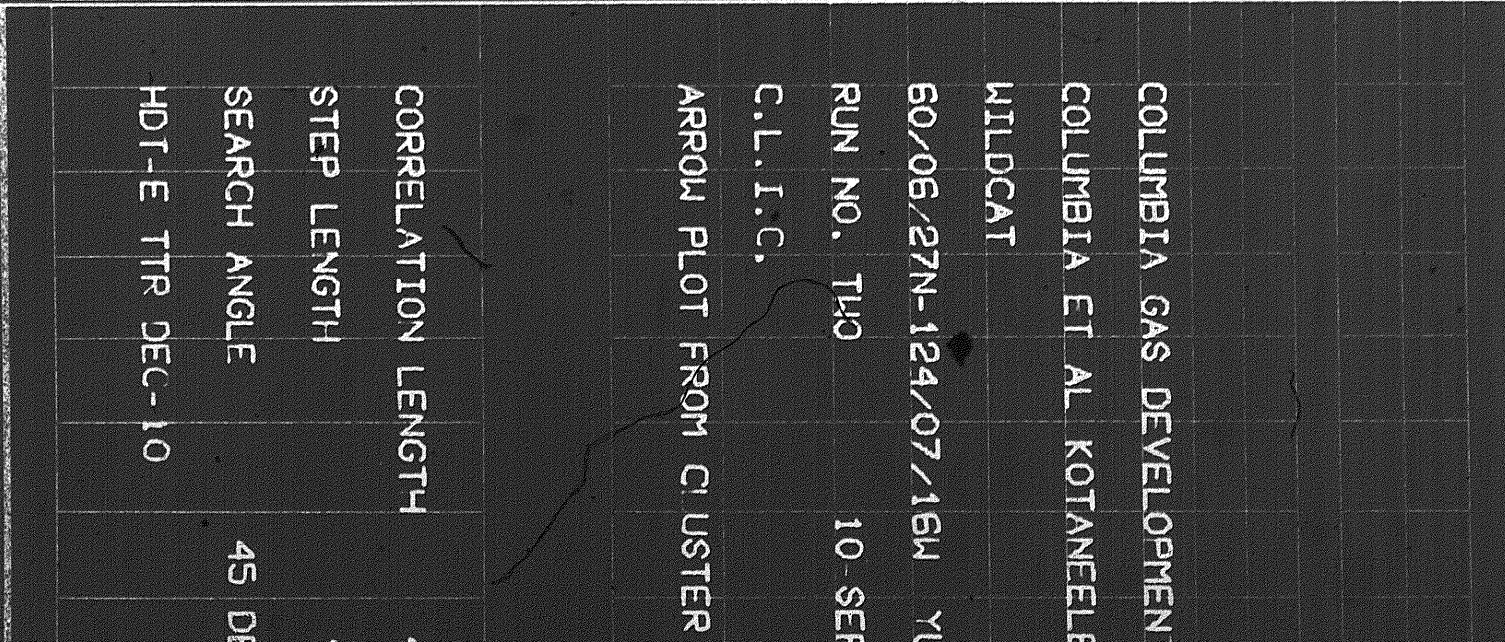
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		0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	0°		

COLUMBIA GAS DEVELOPMENT
 COLUMBIA ET AL. KOTANEELLE
 WILDCAT
 60/06/27N-124/07/16W YI
 RUN NO. T140 10-SEF
 C.L.I.C.
 ARROW PLOT FROM CLUSTER
 CORRELATION LENGTH
 STEP LENGTH
 SEARCH ANGLE 45 DE
 HDT-E TTR DEC-10

3.5 DEGREES SOLID ANGLE

BLACK ARROWS ARE POOLED RESULTS

CORRELATION LENGTH 4 FT.

STEP LENGTH 1 FT.

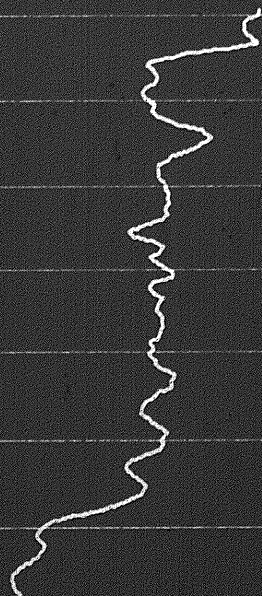
SEARCH ANGLE 45 DEGREES X1

PC0130023518307001020420

ARROW PLOT

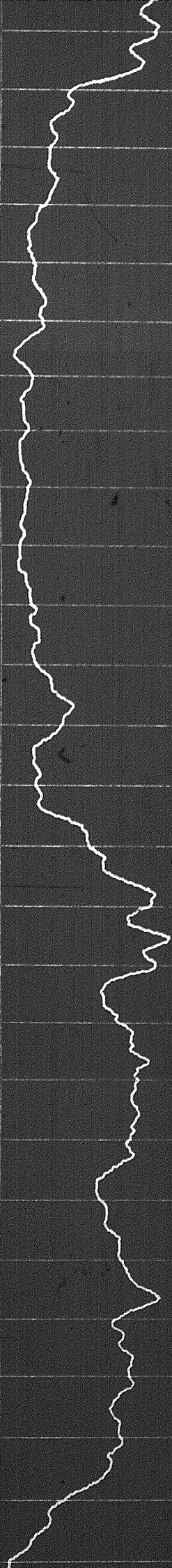
ZONE FROM 9980 TO 11797

RESISTIVITY INCREASED



10000

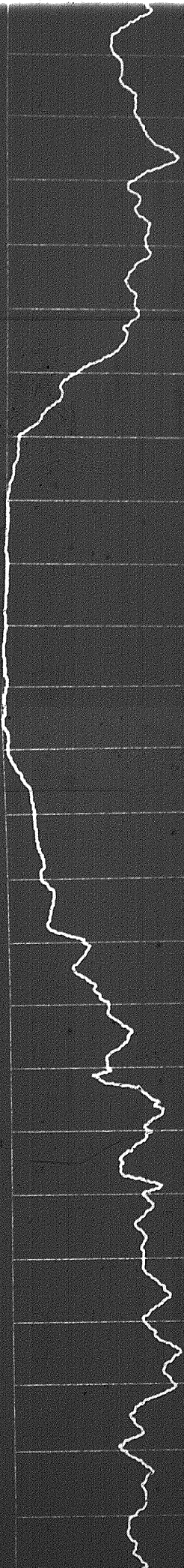




10100

10200





10300

10400

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999

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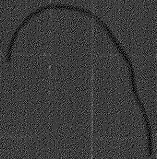
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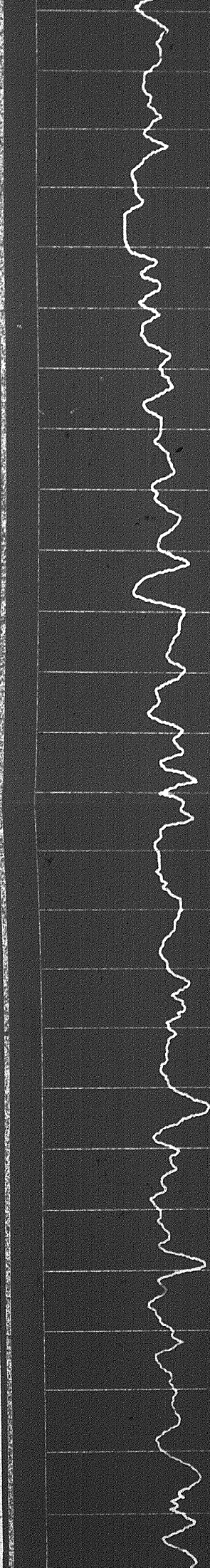
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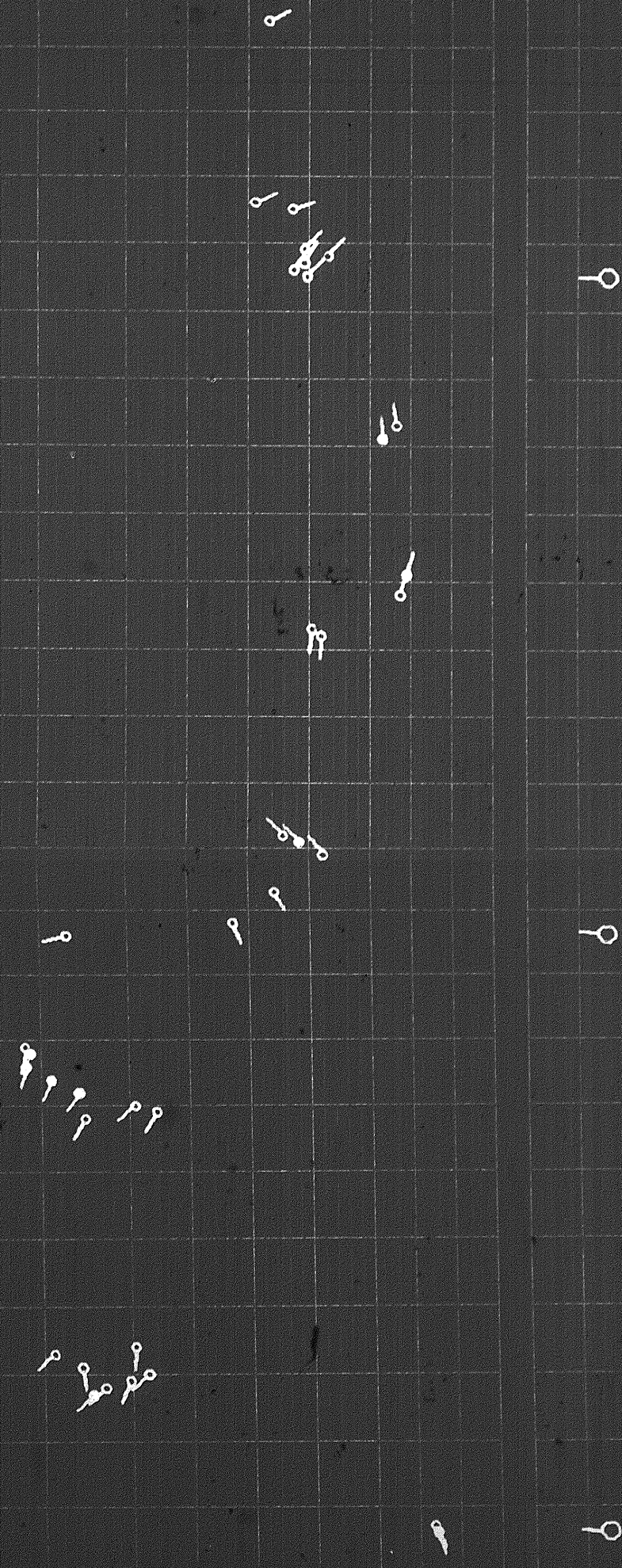




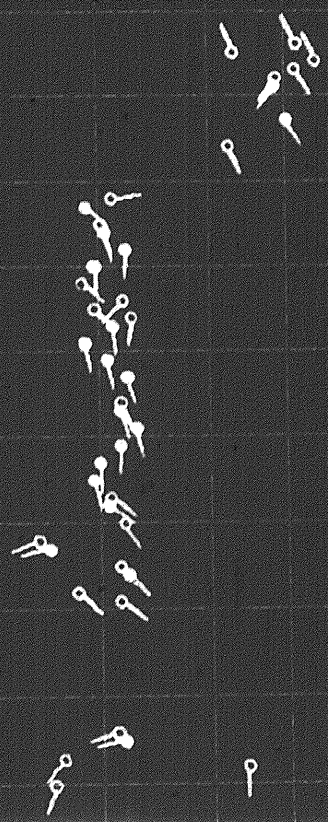
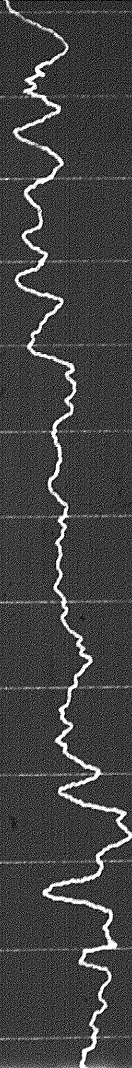
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10600

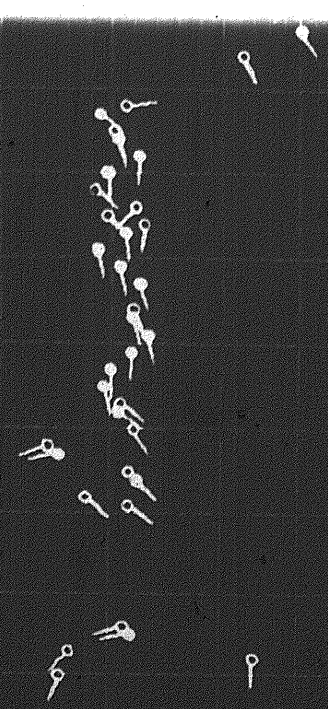
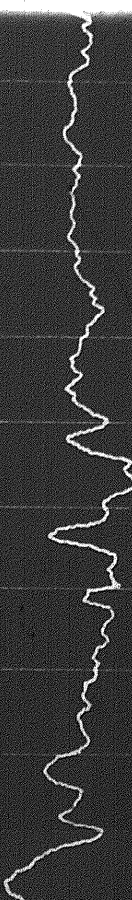
10700



10700

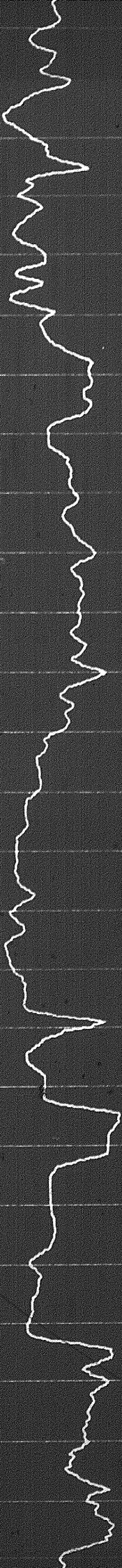


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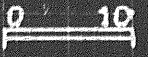
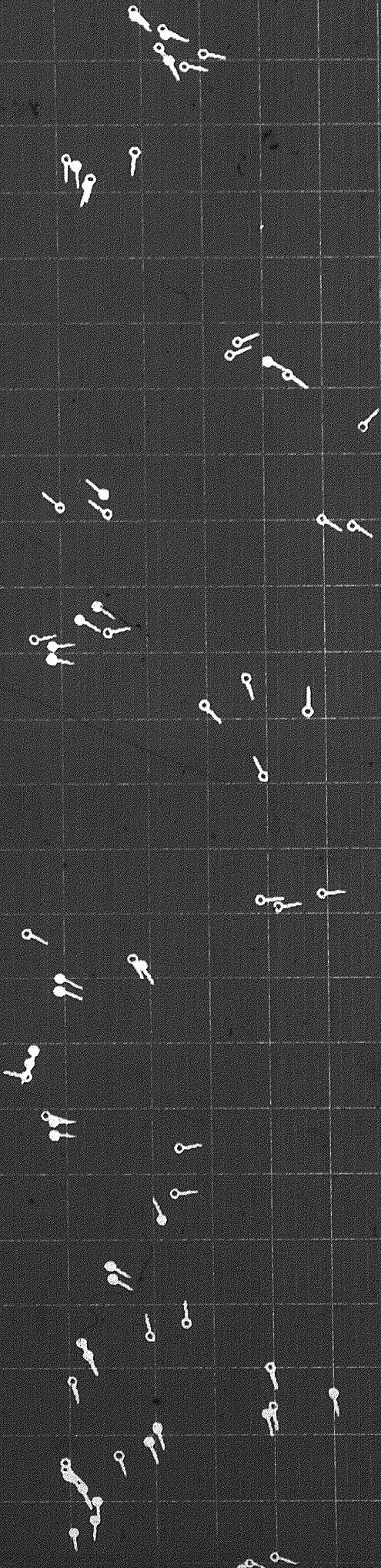
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UNIVERSITY MICROFILMS INTERNATIONAL



10900

11000

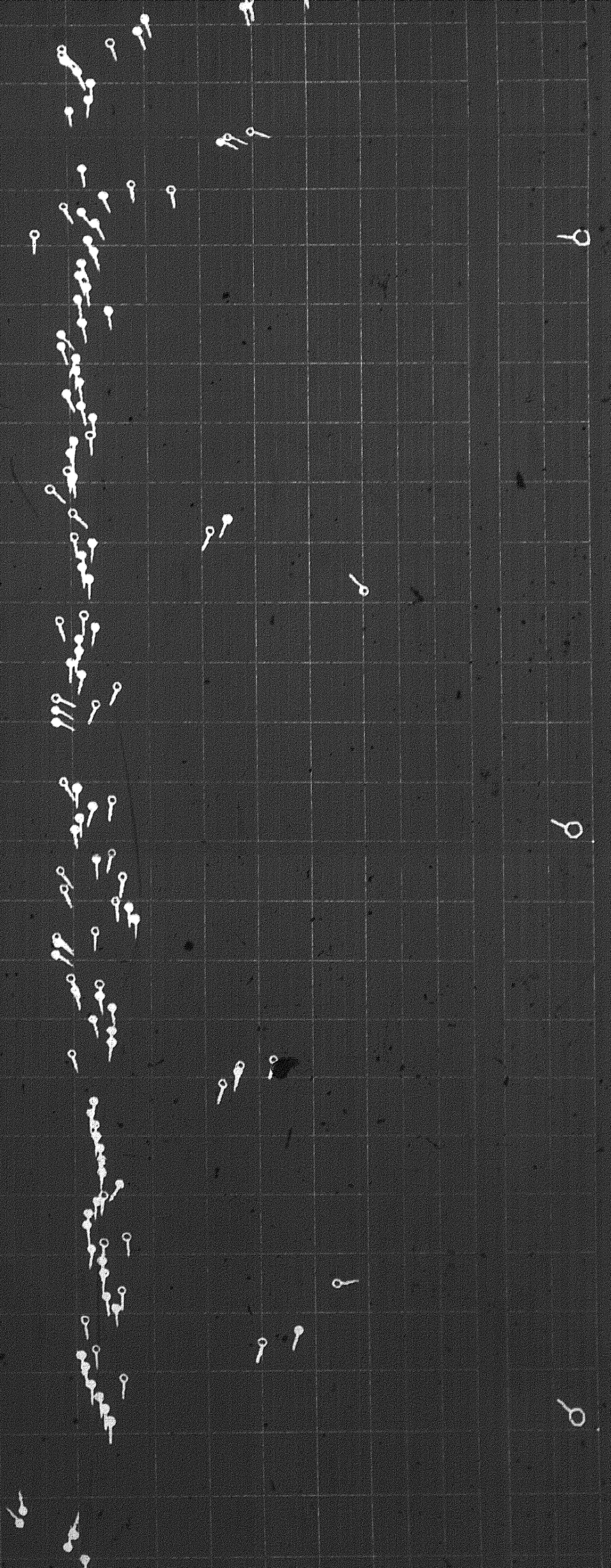




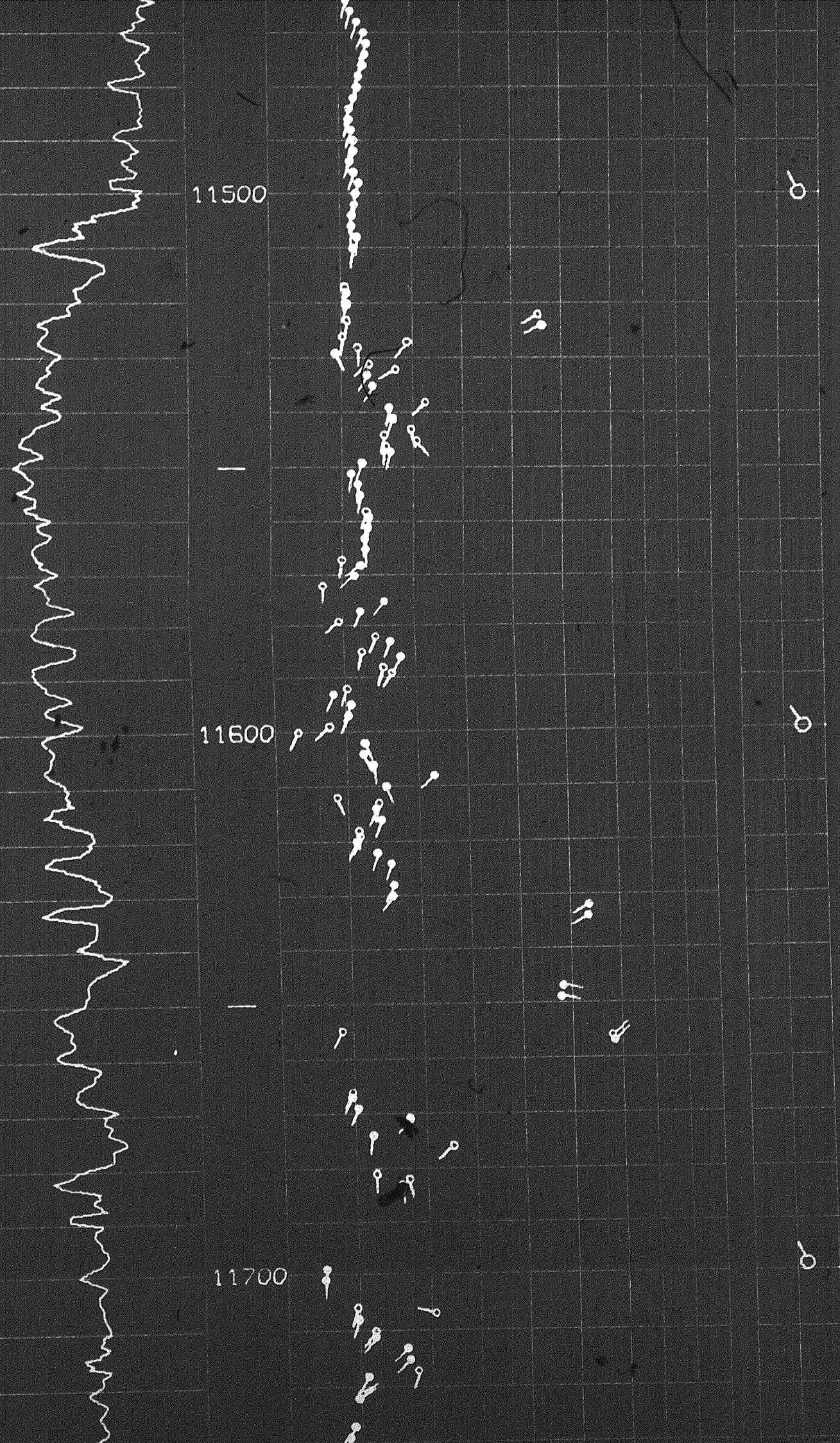
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11200

11300



COMMUNICATIONS DIVISION (MAY 1961)



11500

11600

11700

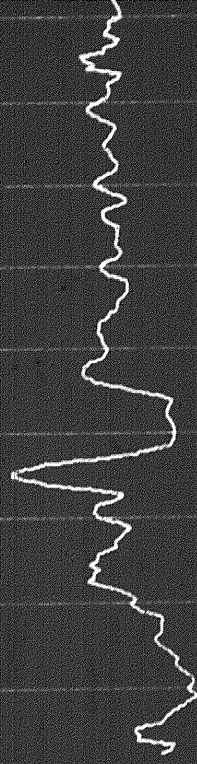
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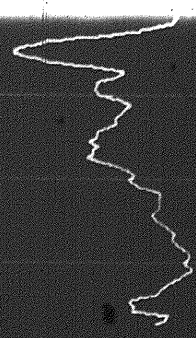
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11800

ZONE FROM 11623 TO 13733

RESISTIVITY INCREASES



11800

ZONE FROM 11623 TO 13733

RESISTIVITY INCREASES



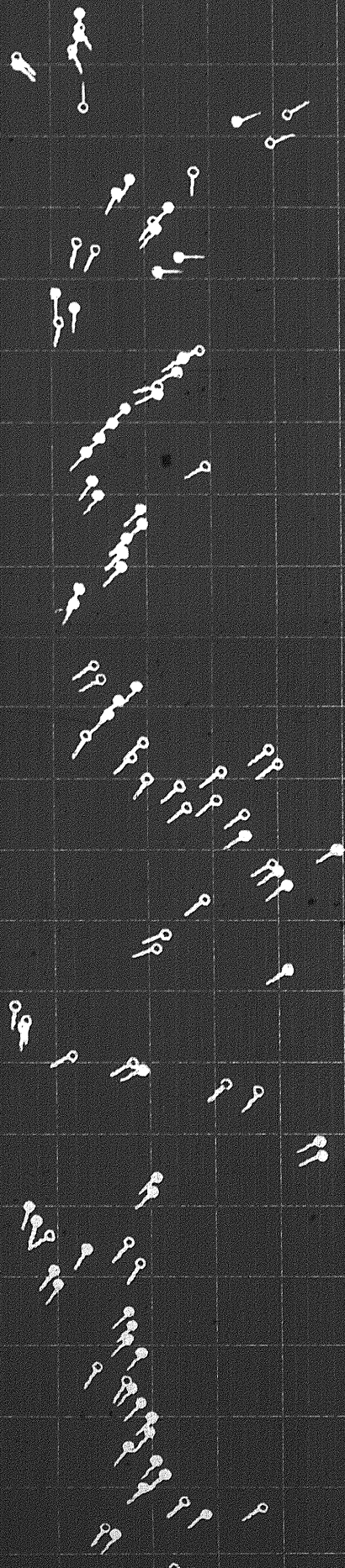
RESISTIVITY INCREASED

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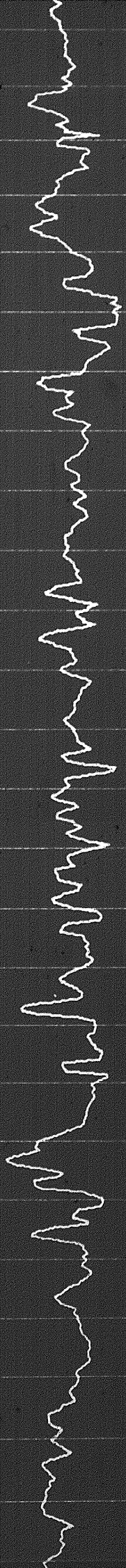


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11800

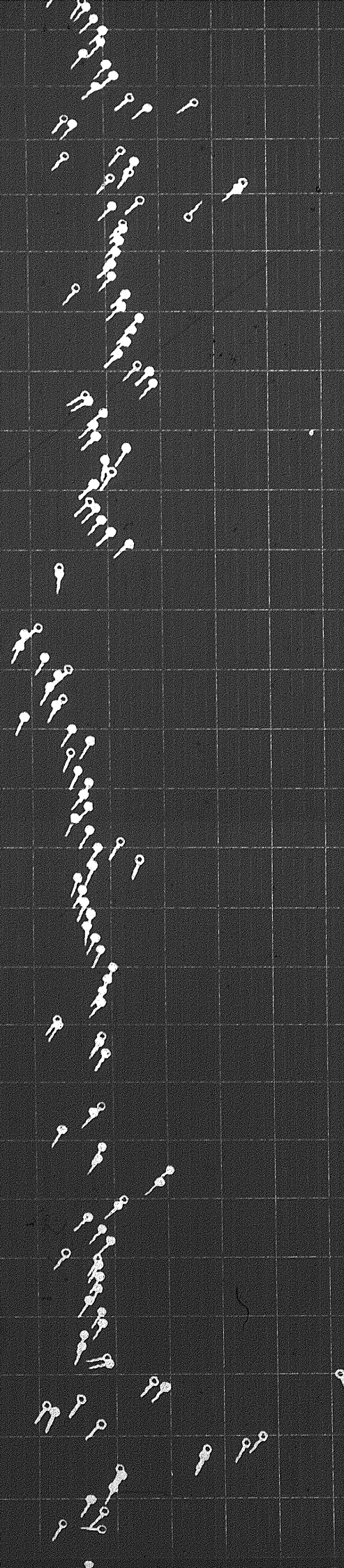


DIAMETER ARROW POINT



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12000



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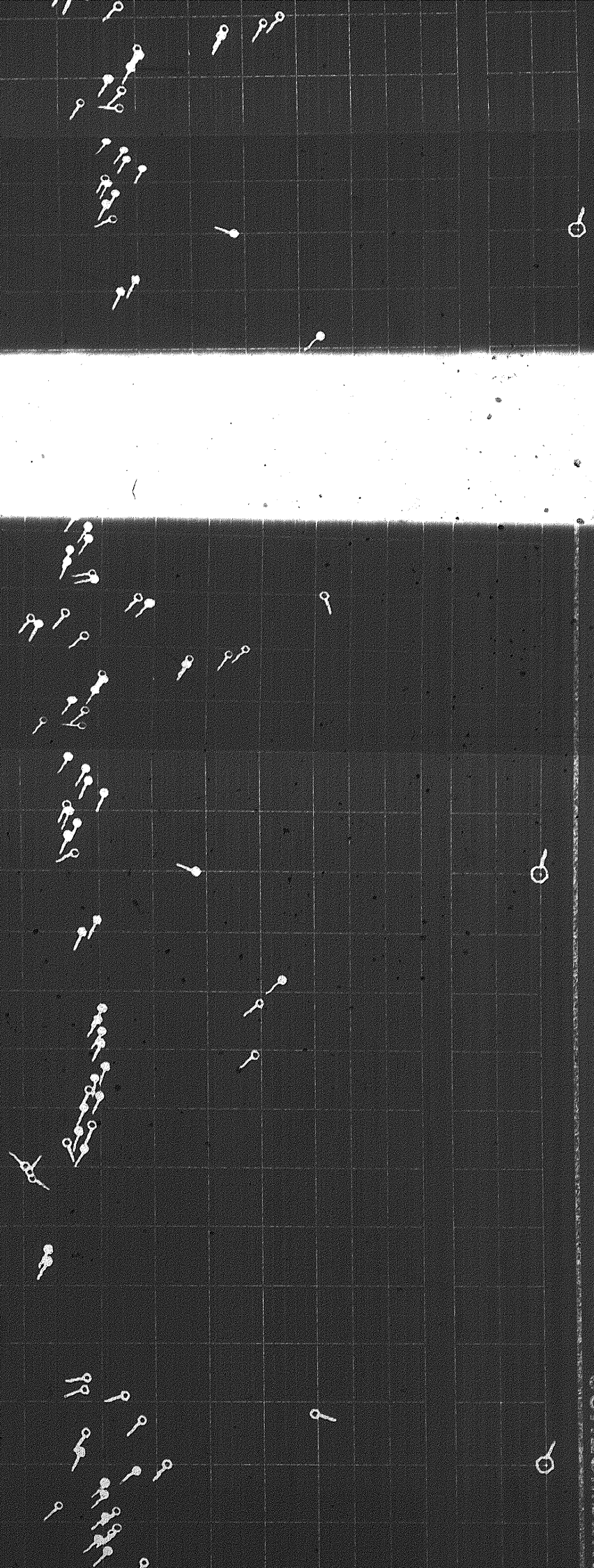
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12100

12100

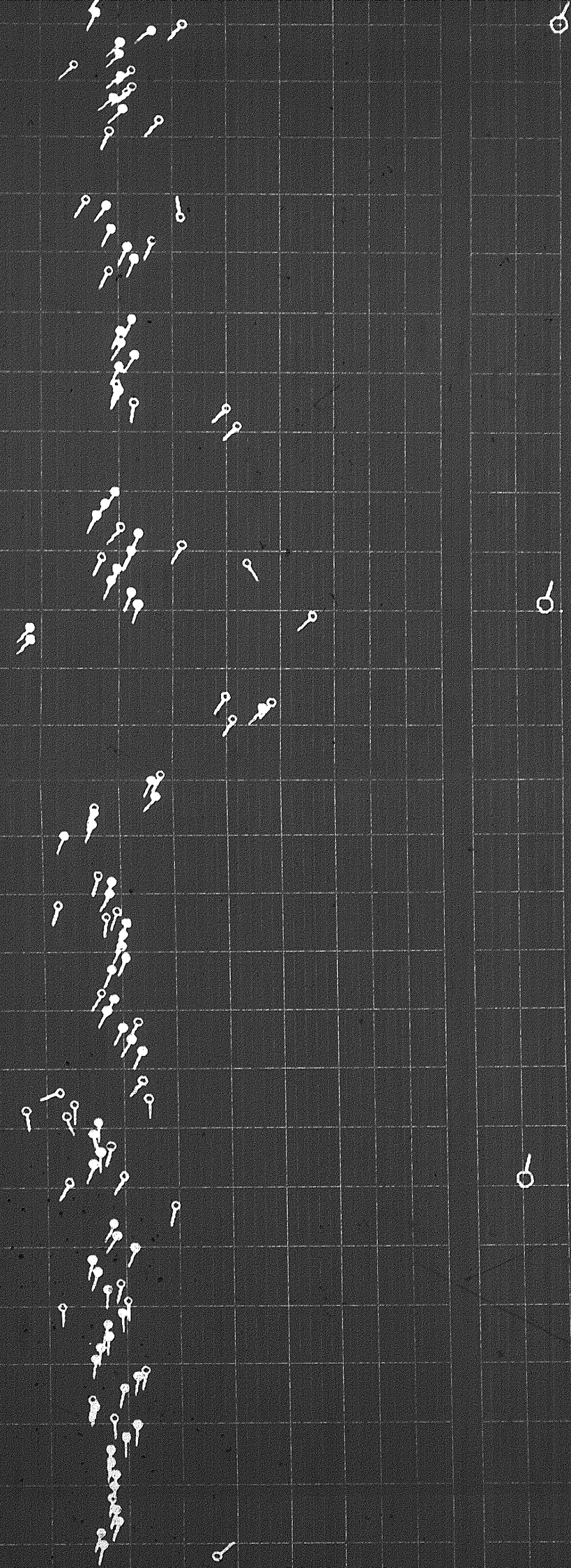
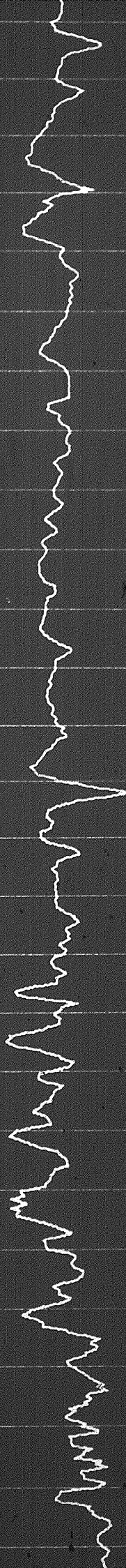
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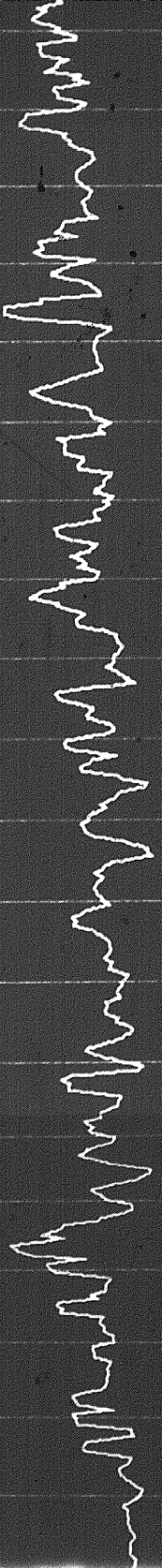


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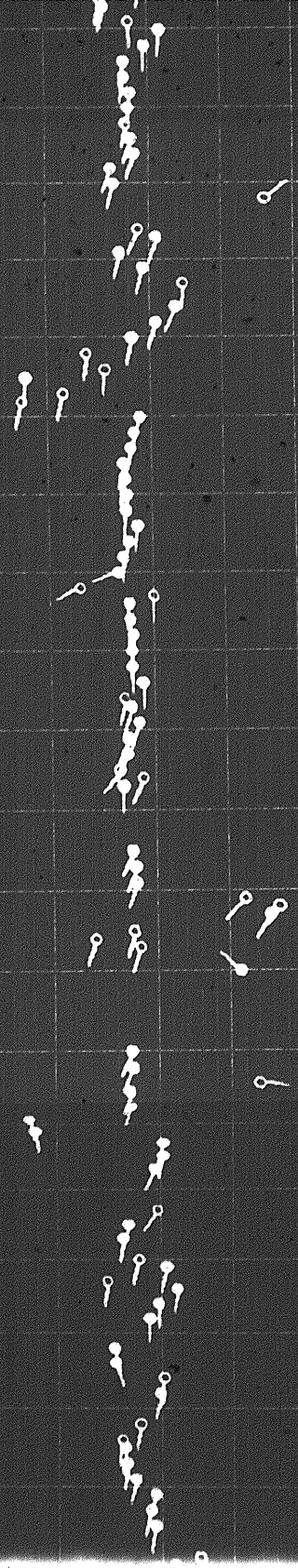
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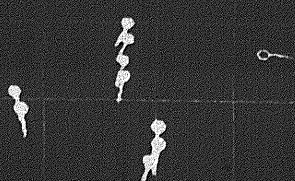
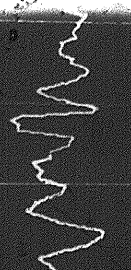
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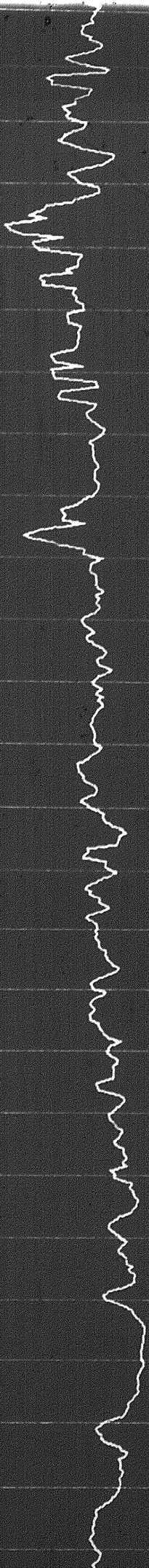
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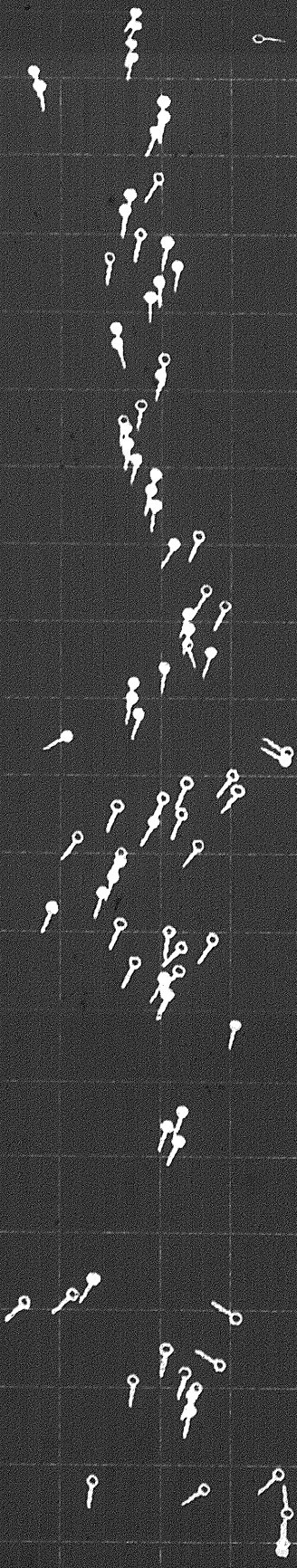




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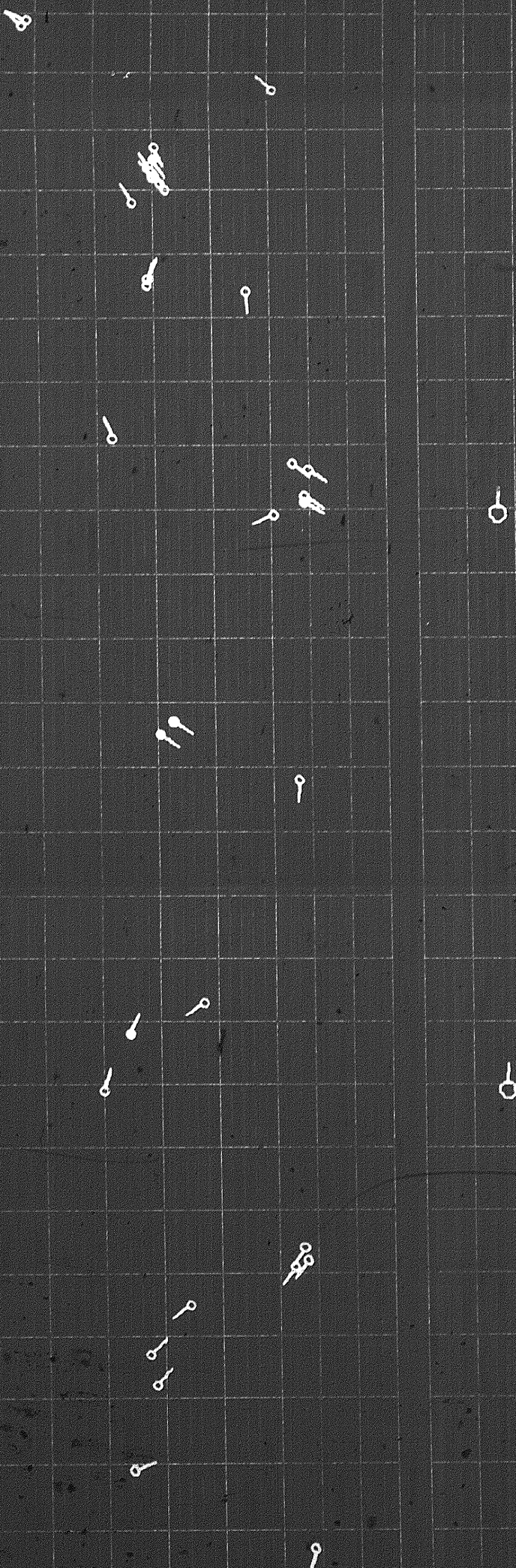
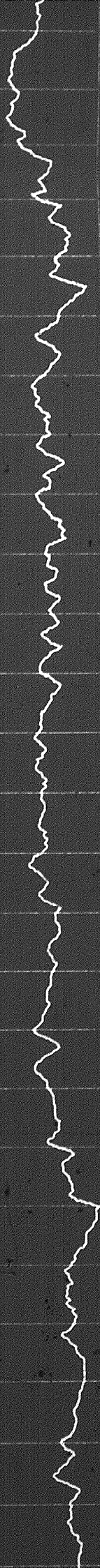
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COMPUTER PLOT DIRECTION ARROW PLOT

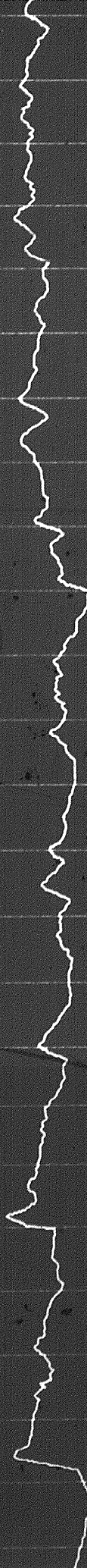
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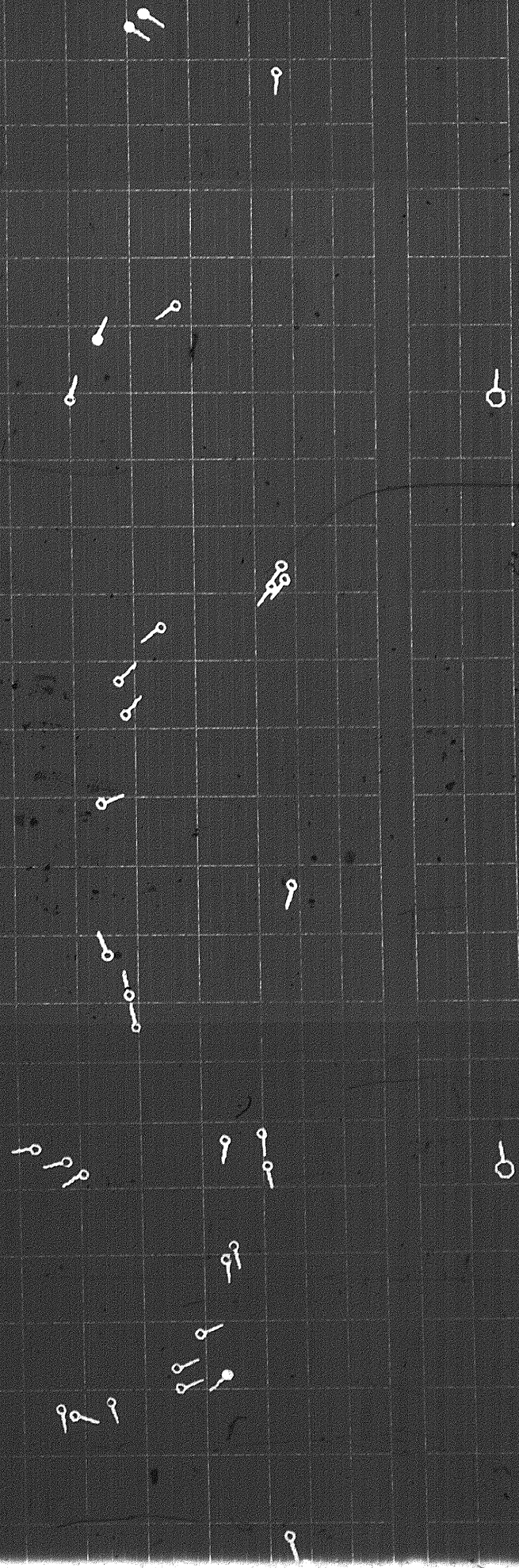


SCHEMATIC OF WELTER ARROW PLO



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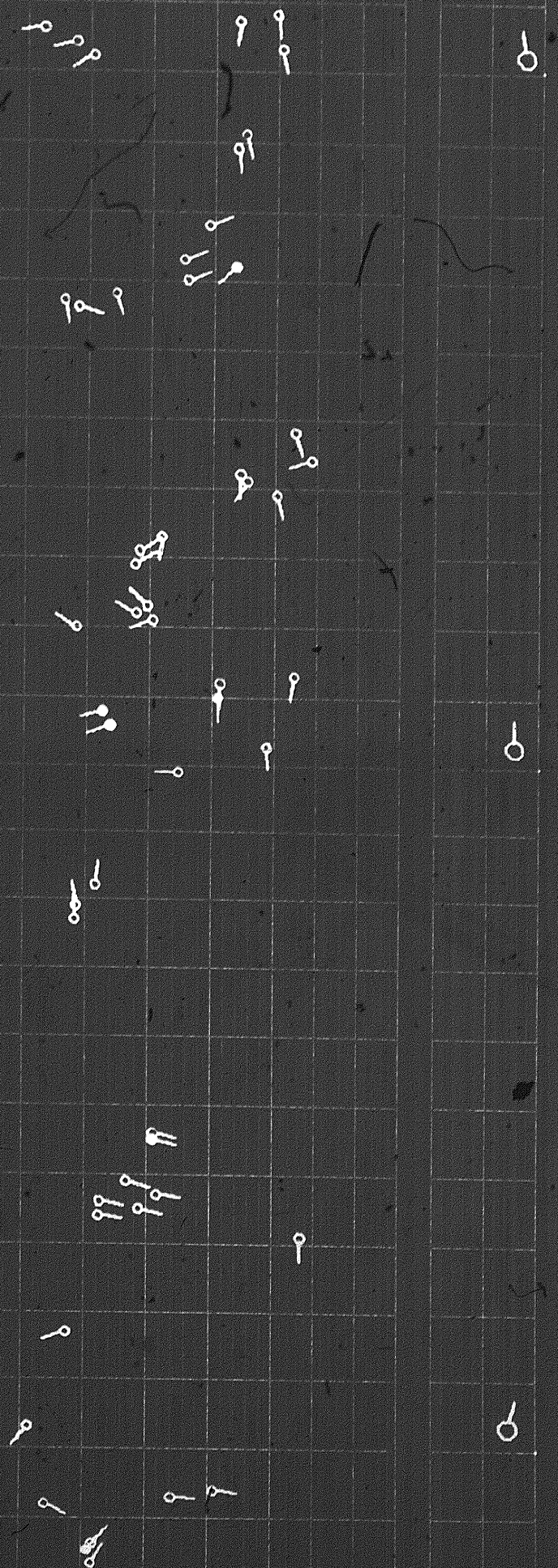




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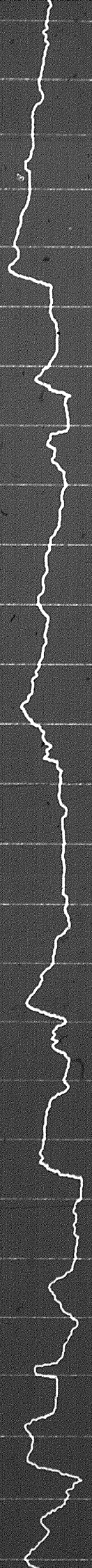


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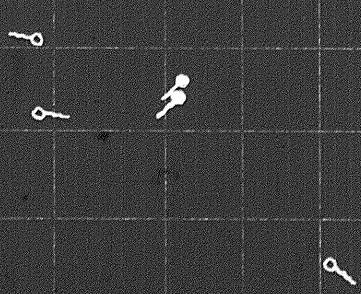
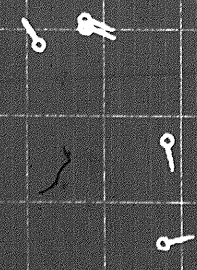
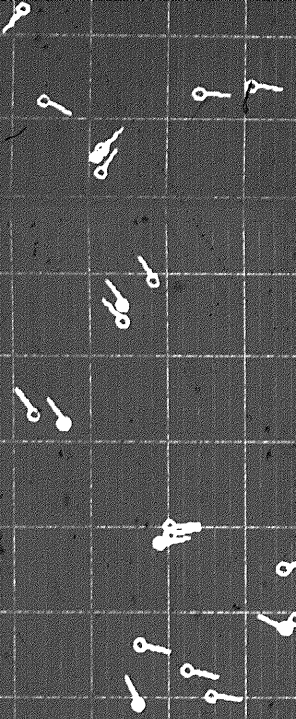
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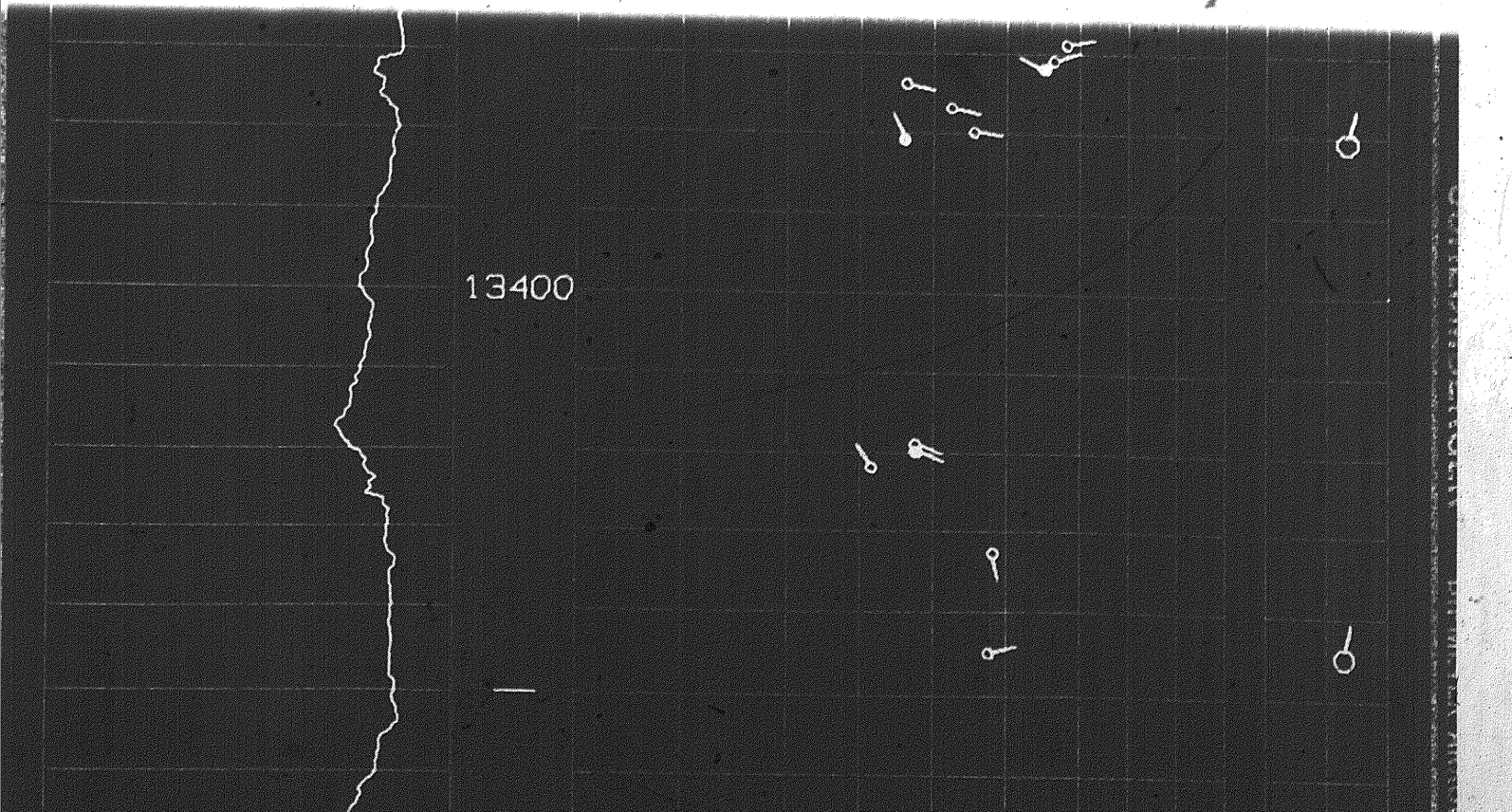
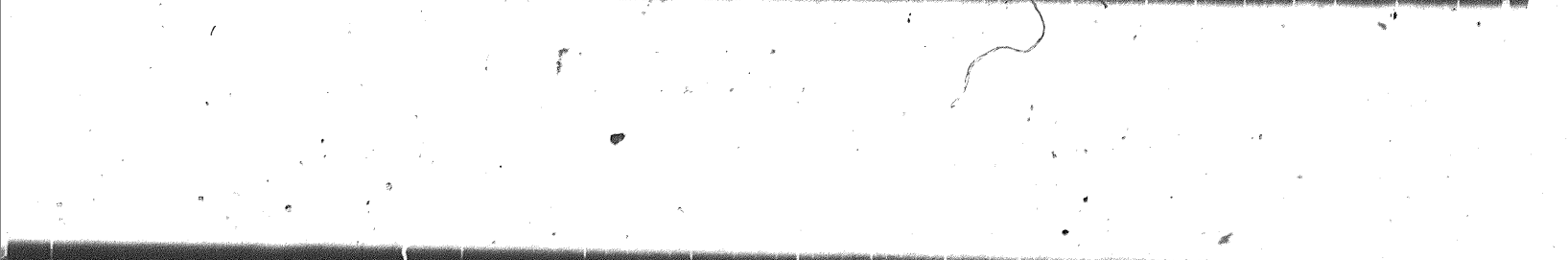
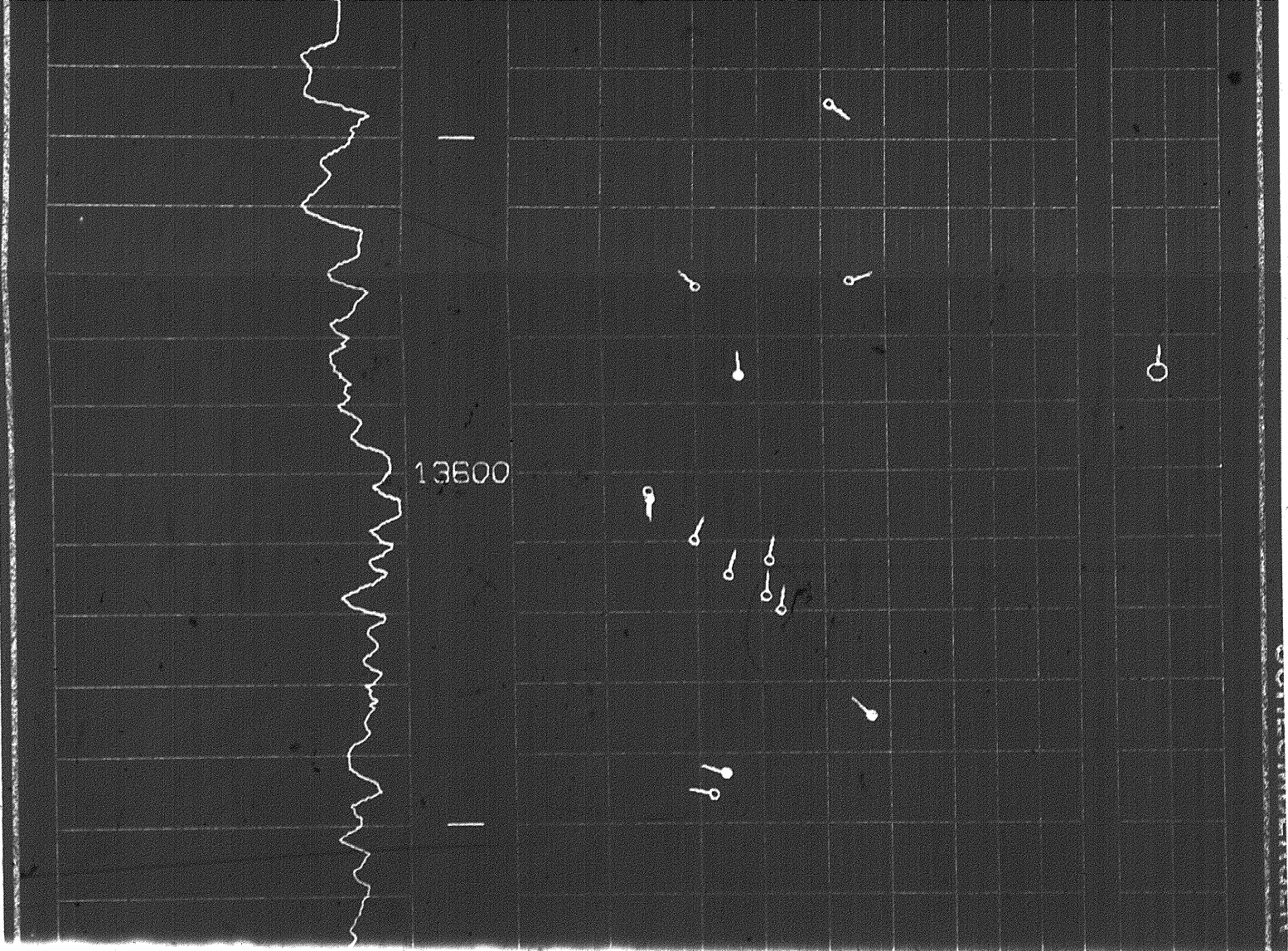


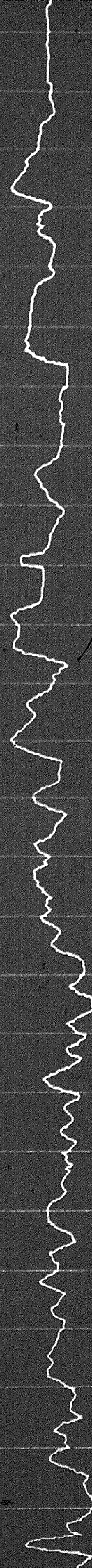
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COMMUNICATIONS SECTION





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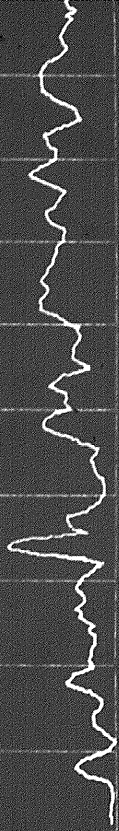
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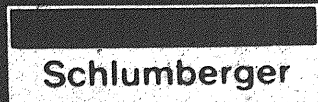
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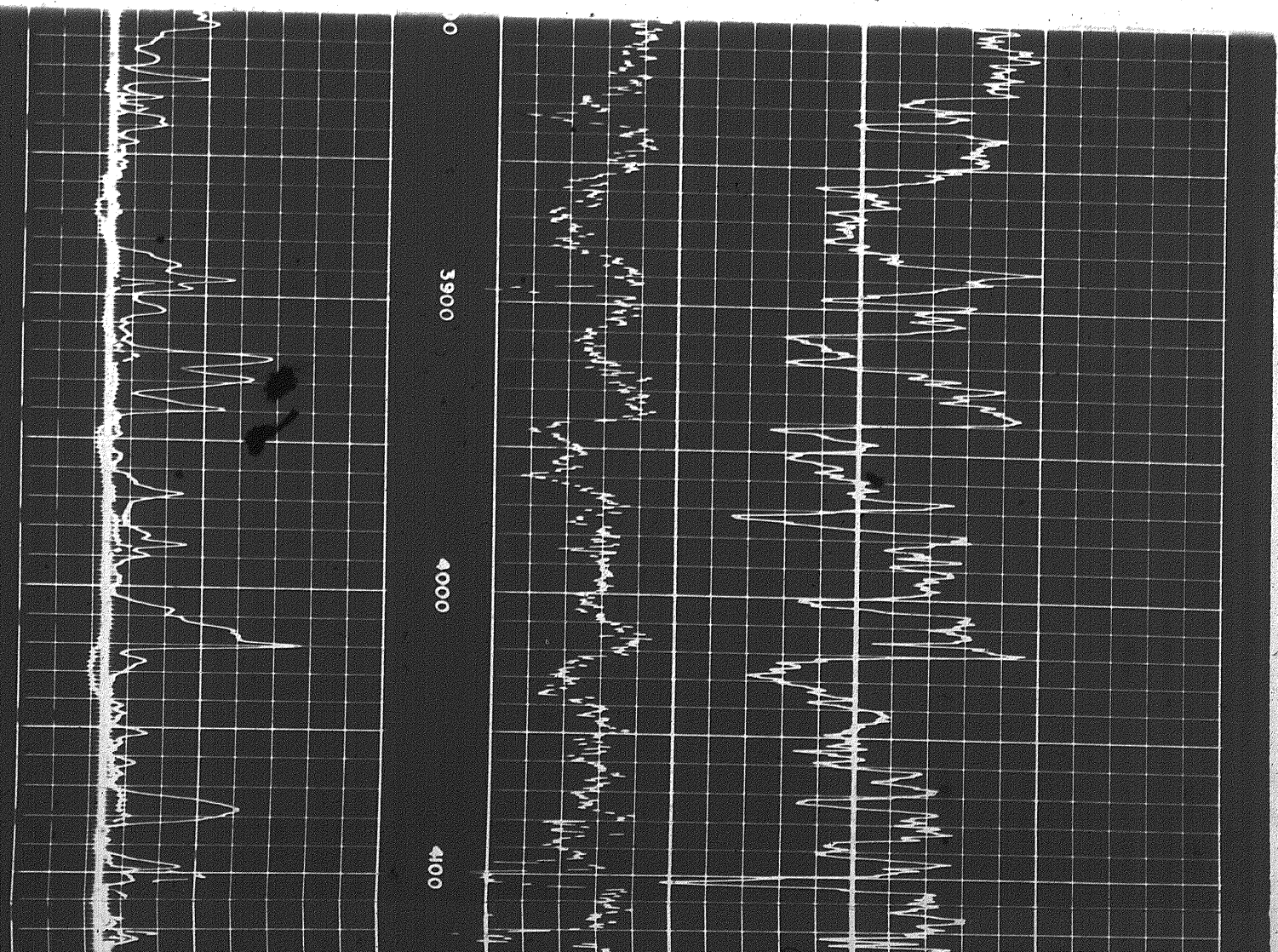
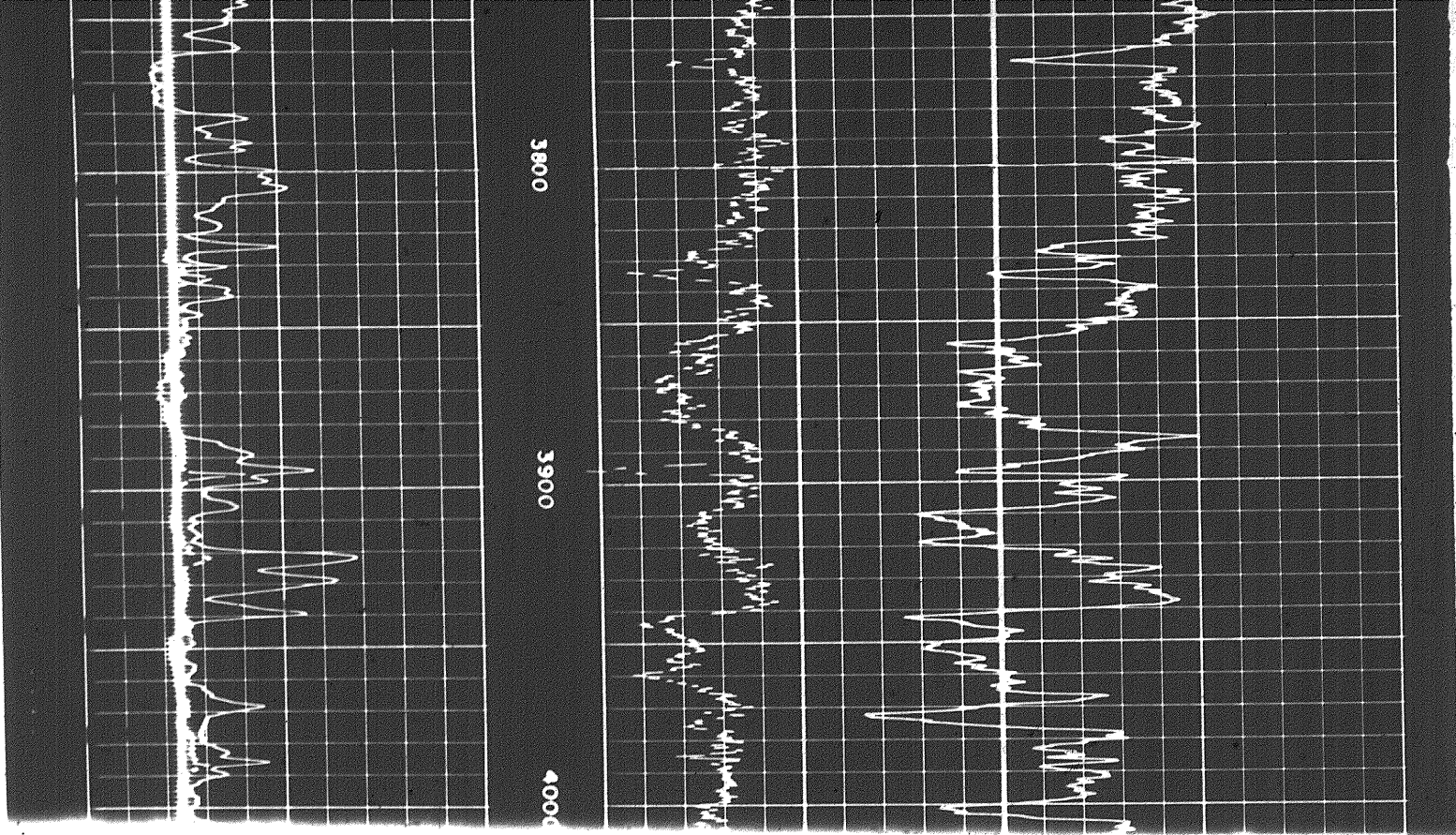
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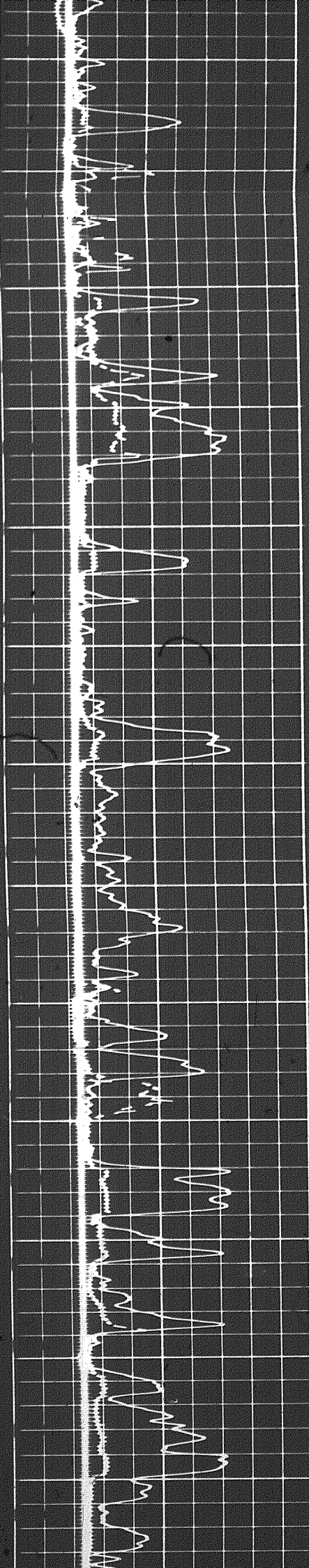
COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD

WELL COLUMBIA ET AL KOTANEELEE Y.T. E-37

FIELD WILDCAT PROVINCE YUKON TERRITORIES







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