

**Wellbenders Directional Services**

13901 TX 105
Conroe, TX 77304
936-539-9602

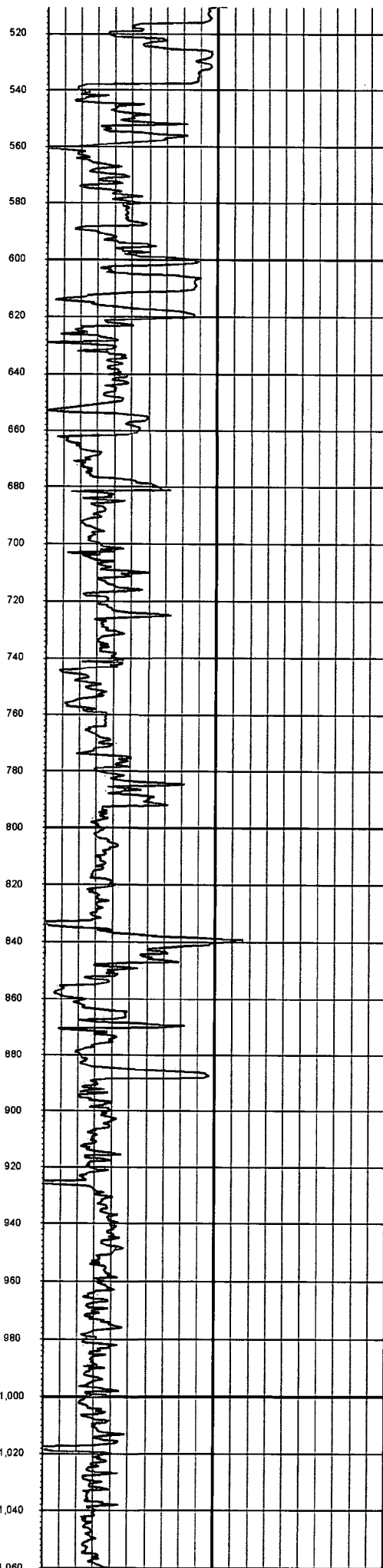
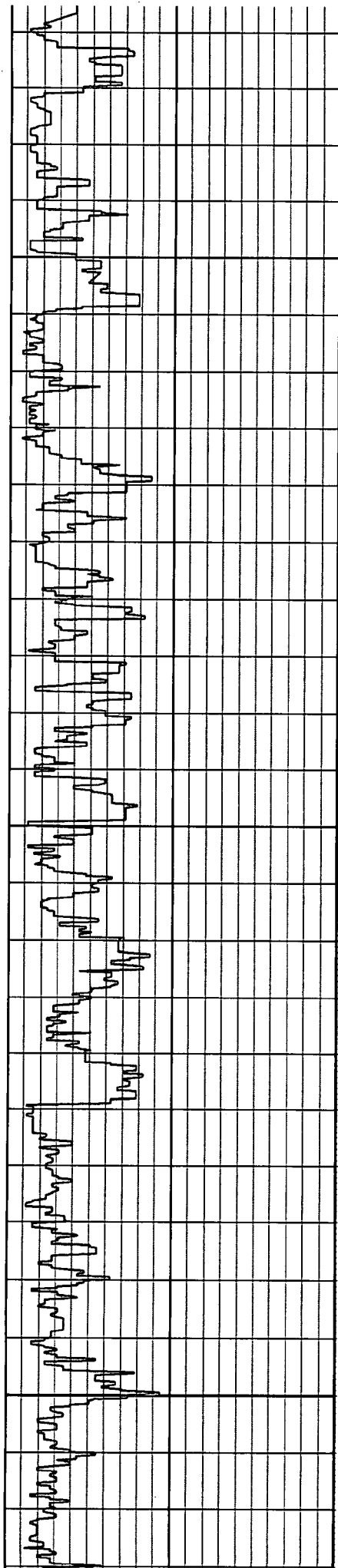
Rose 3H**Scale 2":100' - MD****8/9/2018 6:05 PM****Oper. Company:** Percussion Petroleum Operating**Well:** Rose 3H**Field:** N. Seven Rivers; Glorieta-Yeso**Rig:** Silver Oak #1**Well ID:** 30-015-45114**Job Number:** NMDG2018-1115**Notes:** Gamma Ray Logs**State:** New Mexico**County:** Eddy**Country:** United States**Location:** Eddy County**Start Date:** 08/01/2018 12:07:00**End Date:** 08/09/2018 04:34:00**Latitude:** 32.680508**Longitude:** -104.427371**Elev GL:** 3378**Elev DF:** 17**Elev KB:** 3395**Notes:** Gamma Ray Logs**Operator 1:** Drew Wood**Operator 2:** Jason Goff**Notes:** Gamma Ray Logs

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	797	636	636		
Bit Size	12.25	8.75	8.5		
Cal Factor	1.1266	1.1016	1.1016		
Survey Offset	60.00	69.00	70.00		
Gamma Offset	44.00	51.00	52.00		
Resistivity Offset	0.00	0.00	0.00		
Start Depth	107.00	1240.00	3256.00		
StartDate	8/1/2018	8/3/2018	8/4/2018		
StartTime	06:20	04:15	20:45		
EndDepth	1240.00	3256.00	8525.00		
EndDate	8/2/2018	8/4/2018	8/9/2018		
EndTime	04:26	20:00	03:30		
Mud Type	WBM	WBM	WBM		
Mud Weight	8.5	8.5	8.5		
Funnel Viscosity	28	28	28		
Plastic Viscosity	1	1	1		
Yield Point	1	1	1		
Gel Strength	1 / 1	1 / 1	1 / 1		
Solids Content	1.1	1.2	1.4		
Sand Content	Tr	Tr	Tr		
Filtrate Alkalinity	0 / 0.23	0.54 / 0.6	0.1 / 0.54		
Chlorides	1000	600	1800		
Temperature	106	117	118		
Hole Data			Casing Data		
Size	From	To	Size	From	To
20	0.00	107.00	17	0.00	107.00
12 1/4	107.00	1240.00	9 5/8	0.00	1240.00
8 3/4	1240.00	3256.00			
8 1/2	3256.00	8525.00			

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 interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

0.00 GR(API) 150.00 MD 0.00 ROP(FT/HR) 500.00 Surveys (MD/INC/AZ)

150.00 2 300.00 500 MD: 500.00 INC: 1.80 AZ: 236.98



MD: 592.00 INC: 4.62 AZ: 235.22

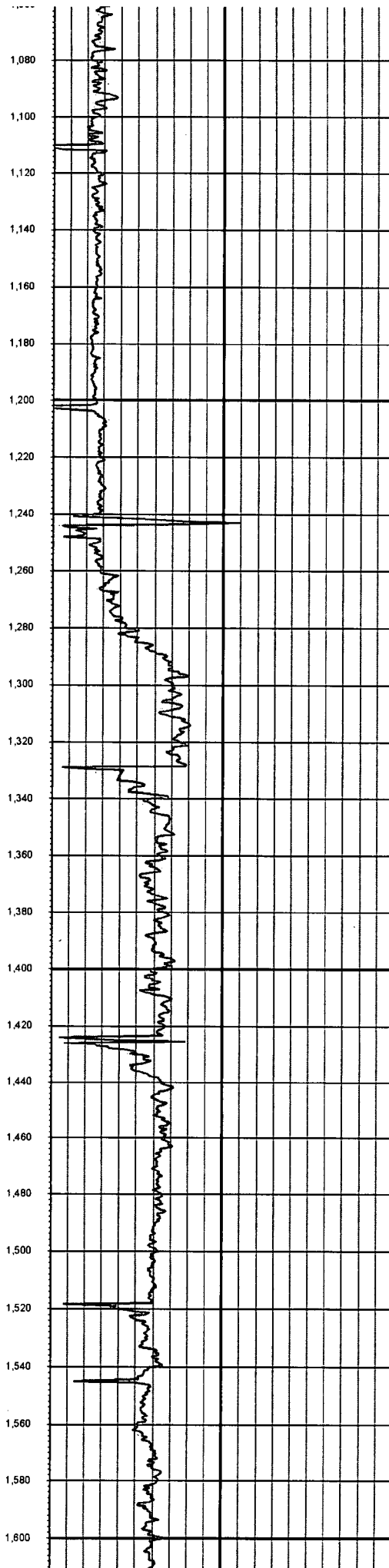
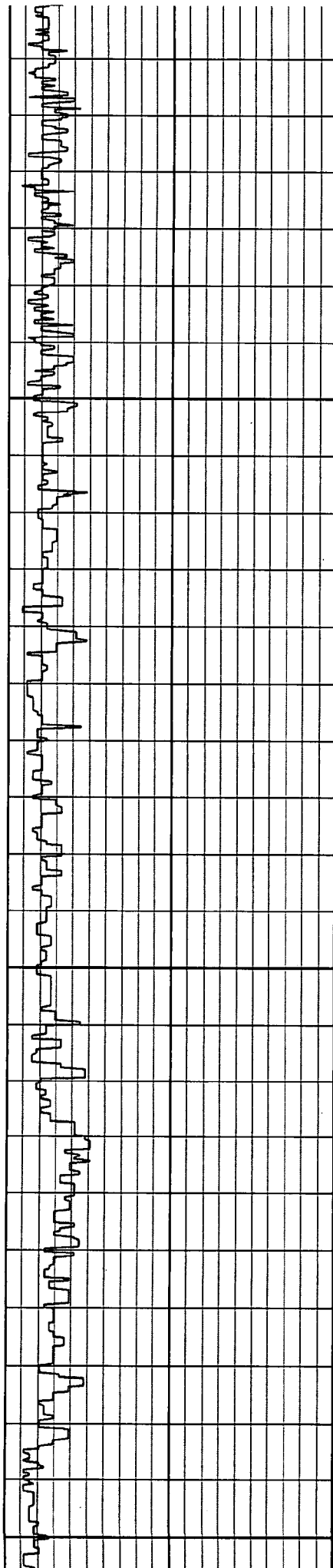
MD: 683.00 INC: 7.25 AZ: 235.04

MD: 775.00 INC: 9.10 AZ: 229.51

MD: 868.00 INC: 10.15 AZ: 222.48

MD: 960.00 INC: 10.59 AZ: 219.84

MD: 1052.00 INC: 10.68 AZ: 219.93



MD: 1143.00 INC: 10.64 AZ: 221.42

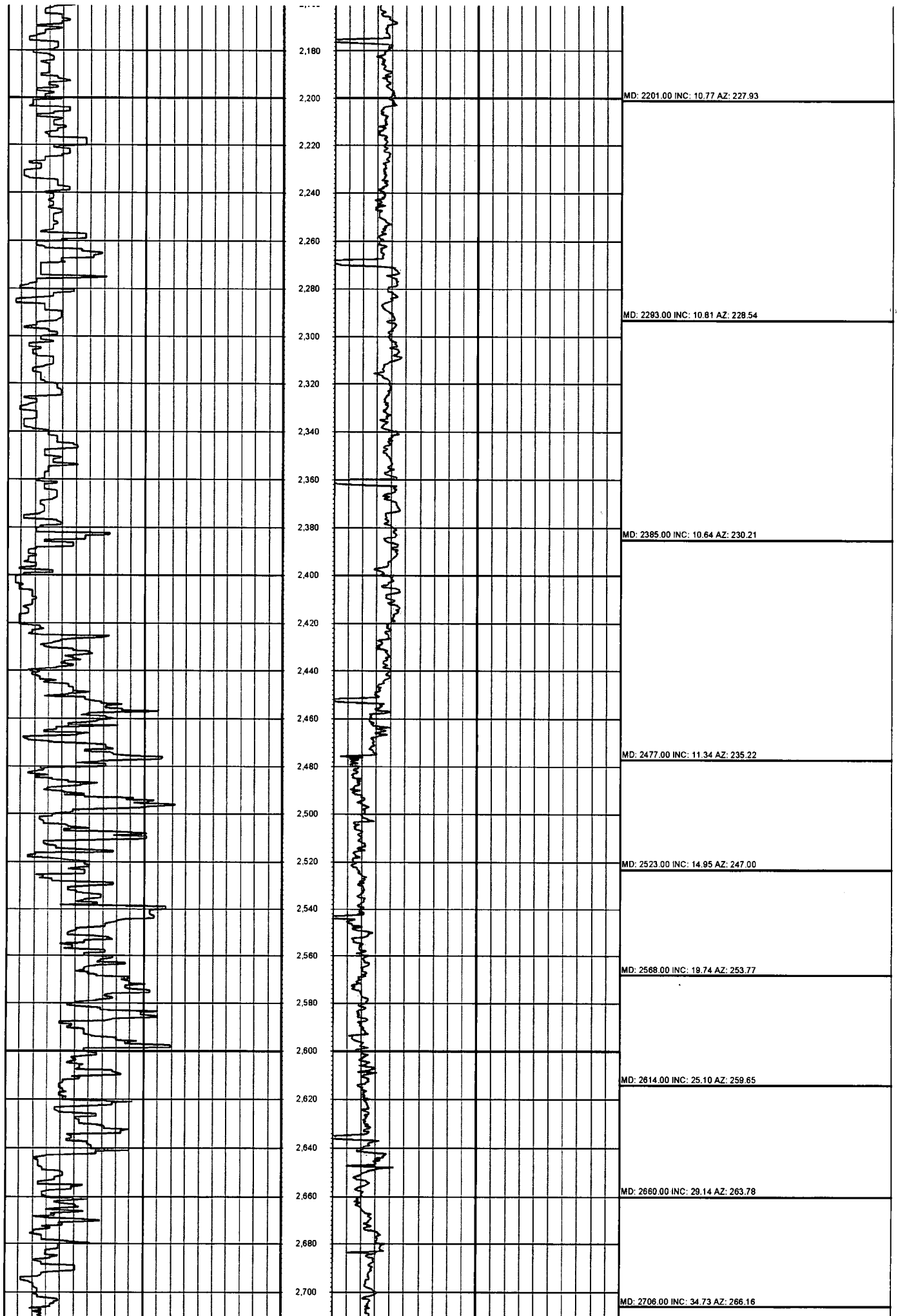
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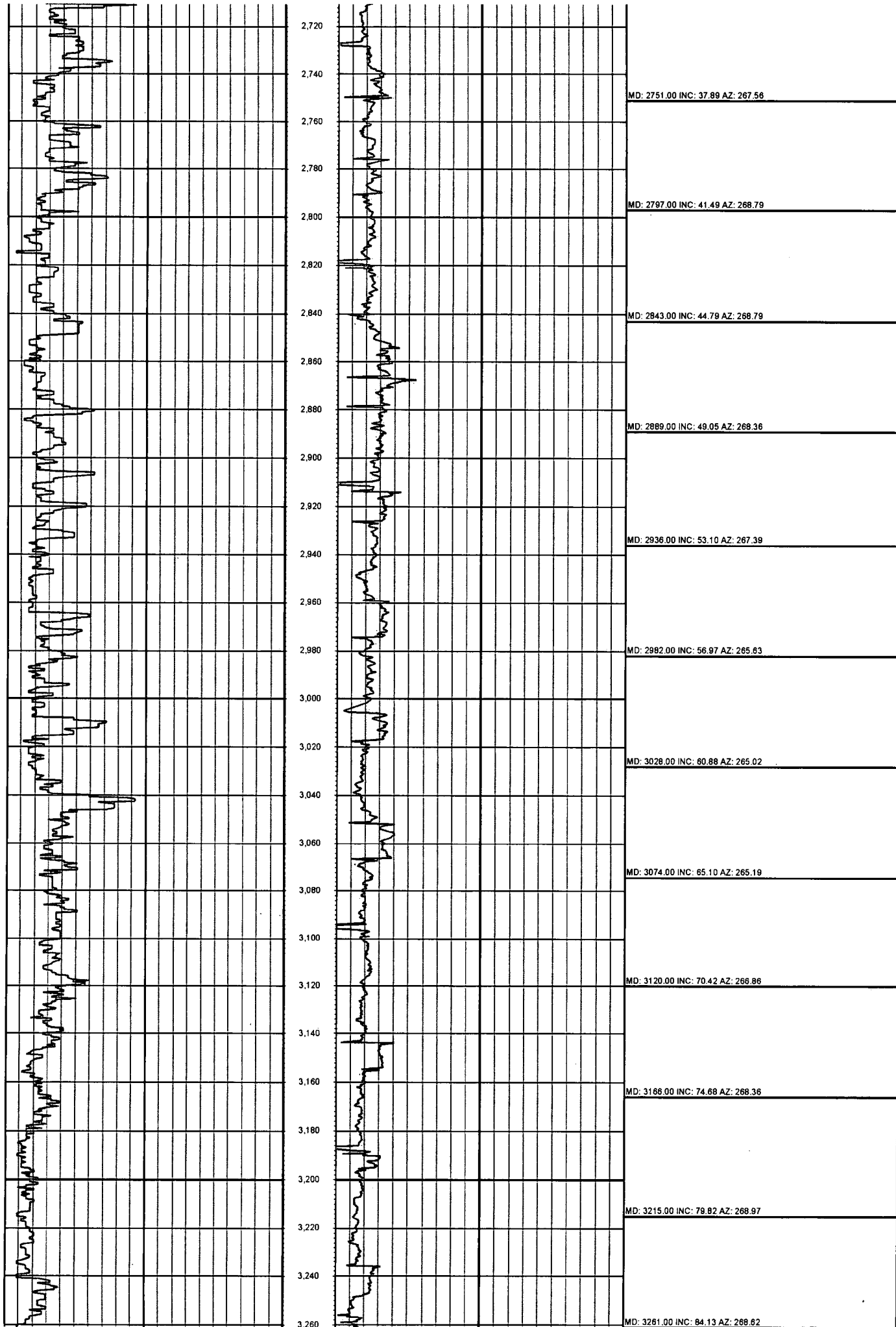
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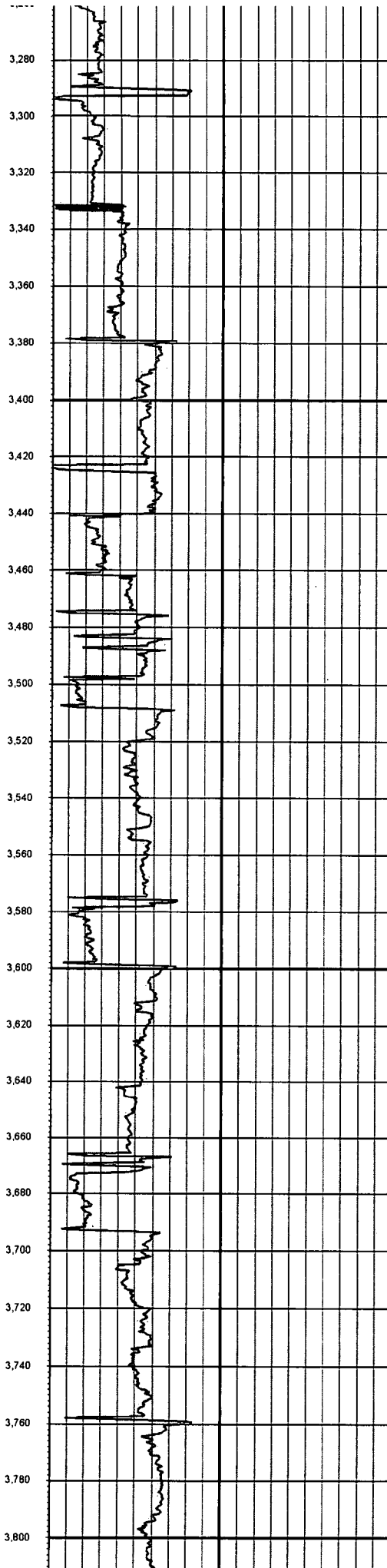
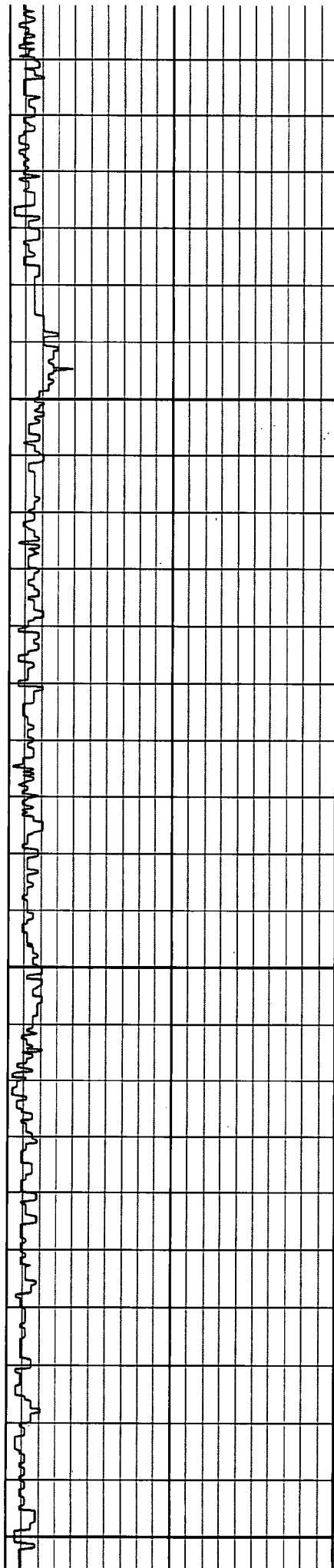
MD: 1358.00 INC: 9.98 AZ: 223.36

MD: 1452.00 INC: 9.76 AZ: 221.60

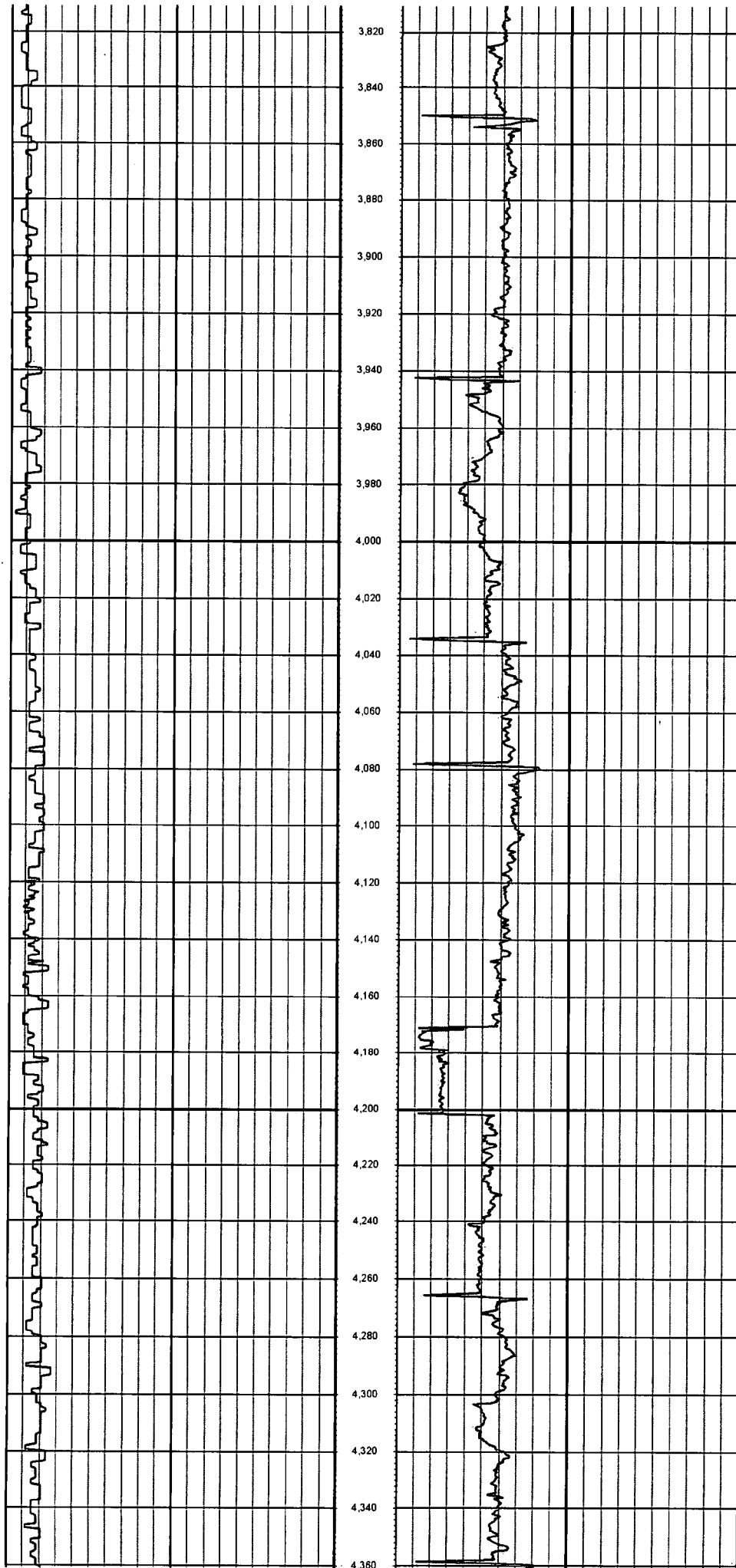
MD: 1546.00 INC: 9.36 AZ: 221.16







MD: 3308.00 INC: 90.55 AZ: 267.30
MD: 3355.00 INC: 93.27 AZ: 267.12
MD: 3415.00 INC: 94.42 AZ: 267.48
MD: 3507.00 INC: 91.43 AZ: 269.06
MD: 3598.00 INC: 90.11 AZ: 269.41
MD: 3690.00 INC: 88.57 AZ: 268.88
MD: 3783.00 INC: 89.05 AZ: 268.79



MD: 3875.00 INC: 89.71 AZ: 269.41

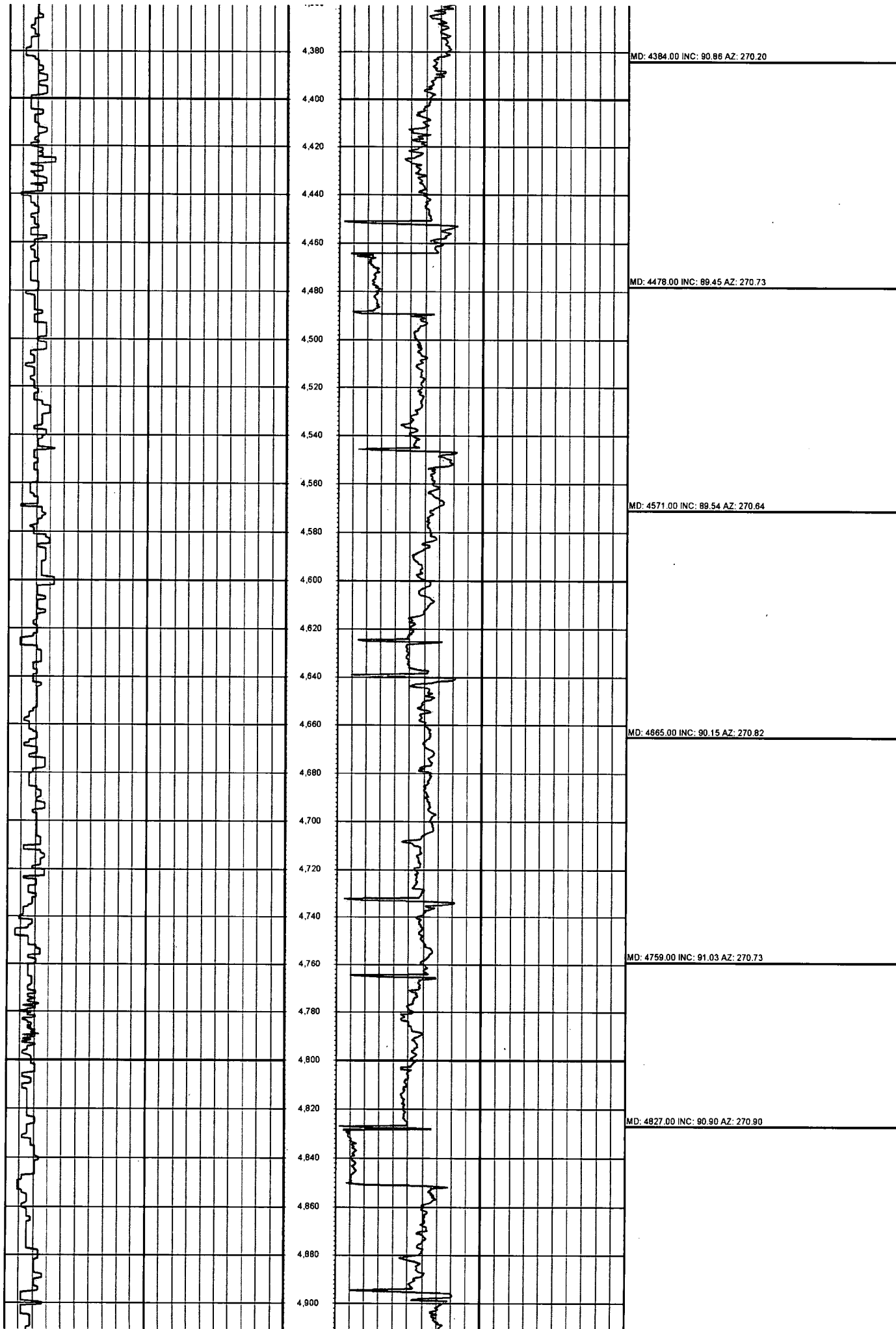
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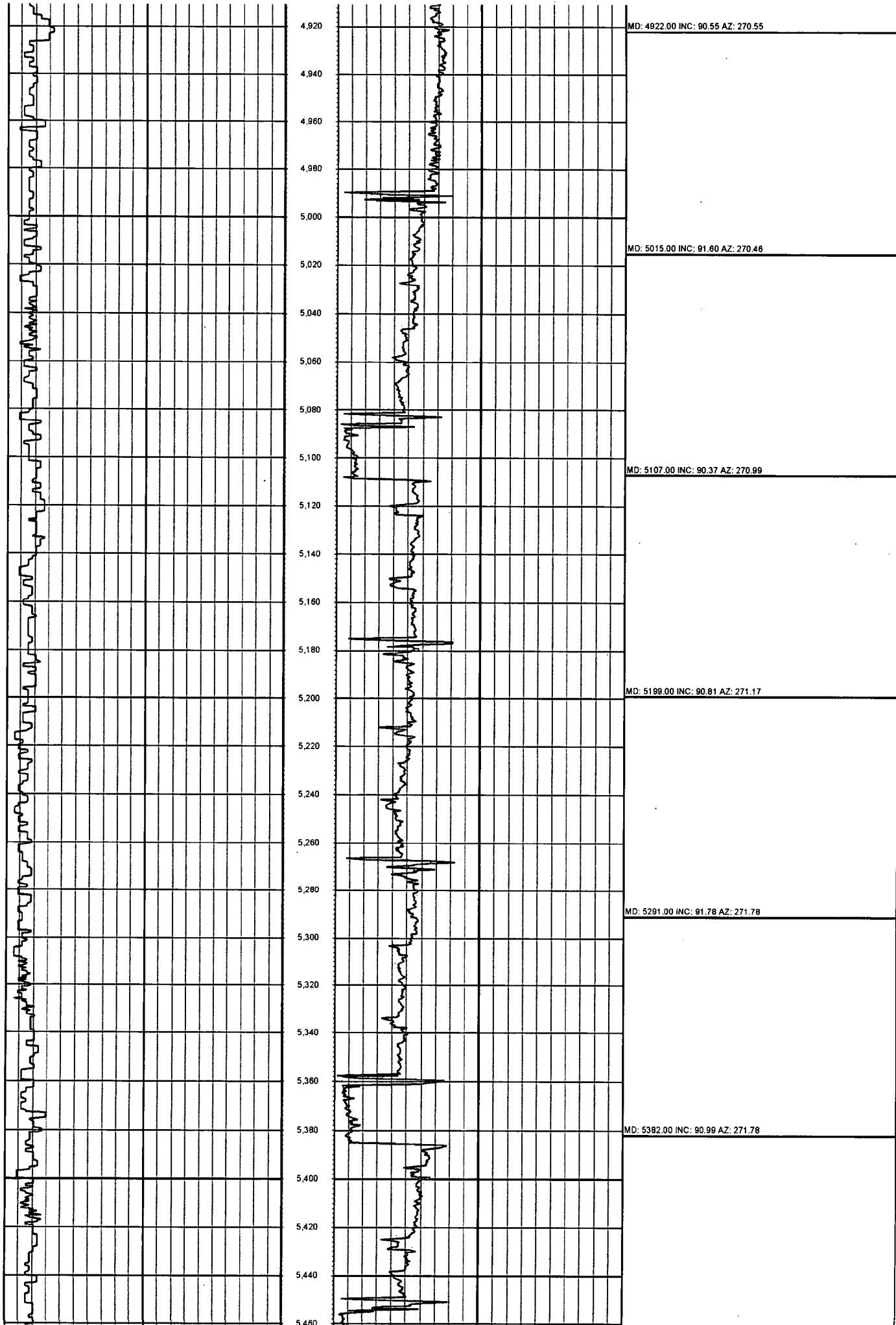
MD: 4010.00 INC: 90.73 AZ: 269.67

MD: 4103.00 INC: 91.43 AZ: 270.03

MD: 4196.00 INC: 89.58 AZ: 269.65

MD: 4291.00 INC: 90.24 AZ: 270.11





MD: 4922.00 INC: 90.55 AZ: 270.55

MD: 5015.00 INC: 91.60 AZ: 270.46

MD: 5107.00 INC: 90.37 AZ: 270.99

MD: 5199.00 INC: 90.81 AZ: 271.17

MD: 5291.00 INC: 91.78 AZ: 271.78

MD: 5382.00 INC: 90.99 AZ: 271.78

MD: 5474.00 INC: 90.59 AZ: 270.73

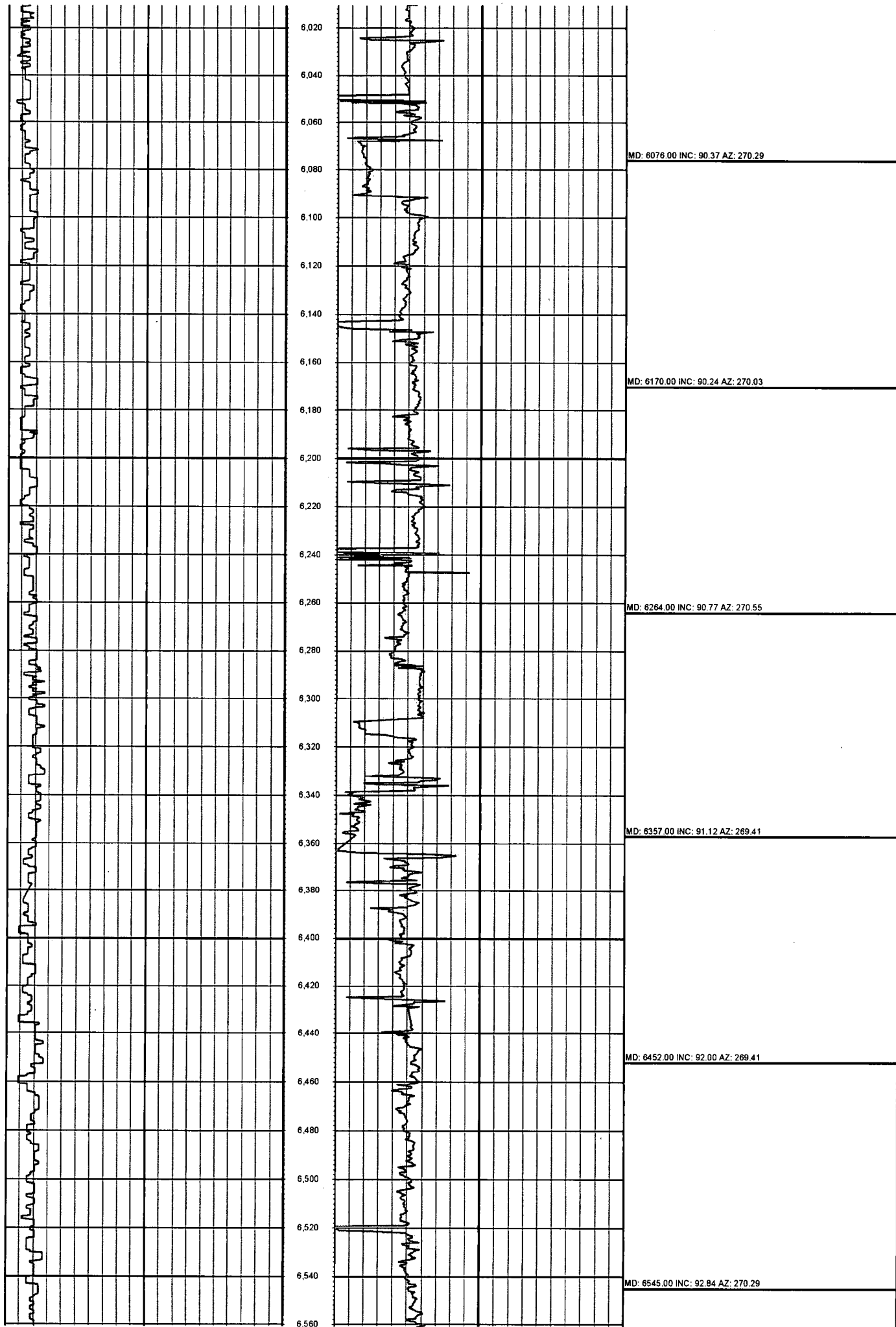
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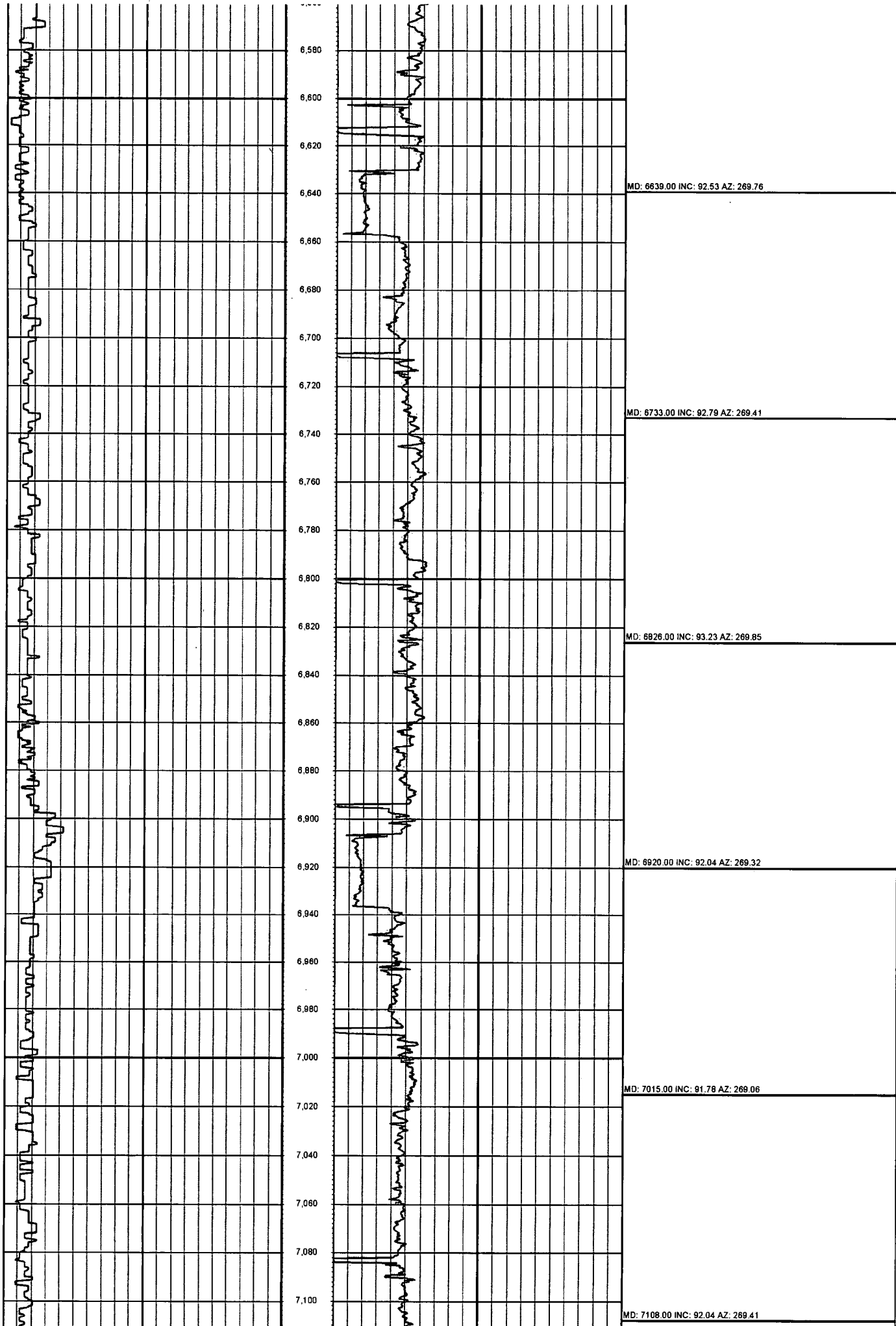
MD: 5700.00 INC: 91.25 AZ: 270.29

MD: 5793.00 INC: 90.33 AZ: 270.20

MD: 5887.00 INC: 90.51 AZ: 270.11

MD: 5981.00 INC: 91.03 AZ: 270.73





MD: 6639.00 INC: 92.53 AZ: 269.76

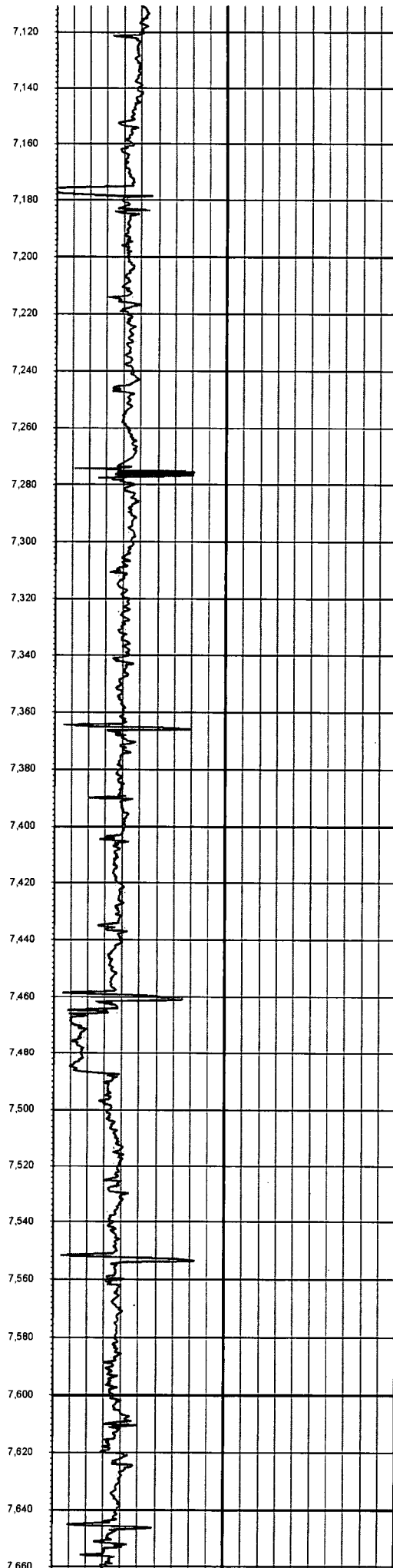
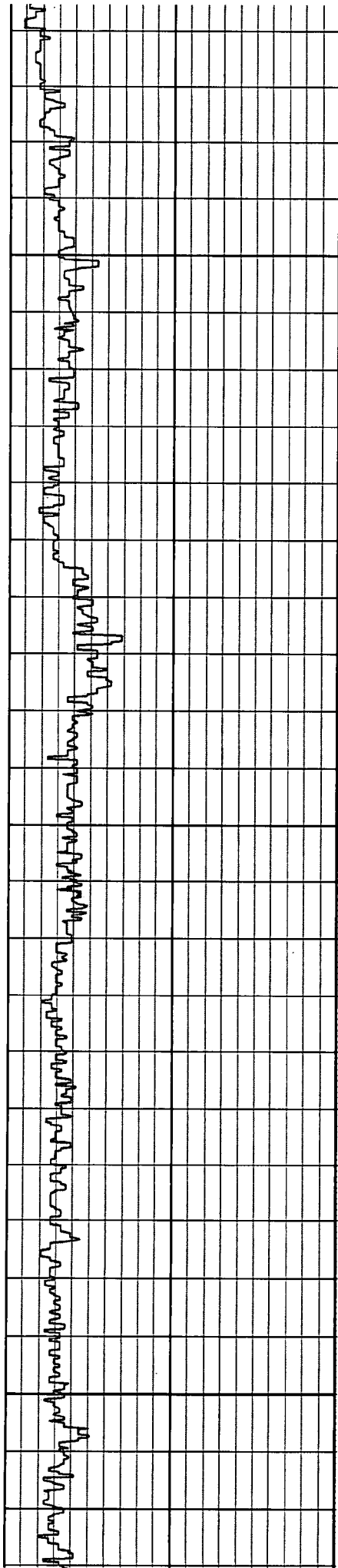
MD: 6733.00 INC: 92.79 AZ: 269.41

MD: 6826.00 INC: 93.23 AZ: 269.85

MD: 6920.00 INC: 92.04 AZ: 269.32

MD: 7015.00 INC: 91.78 AZ: 269.06

MD: 7108.00 INC: 92.04 AZ: 269.41



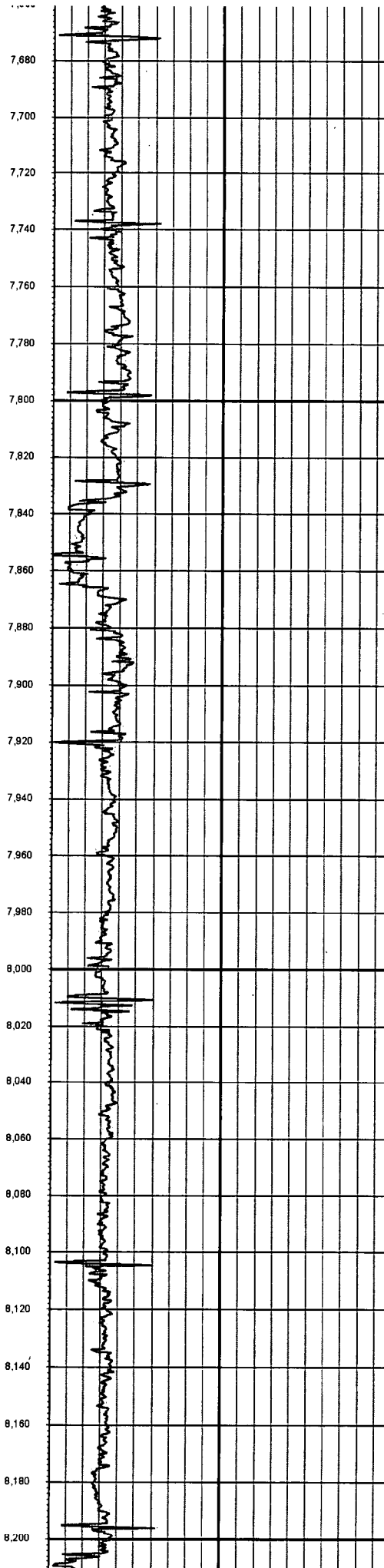
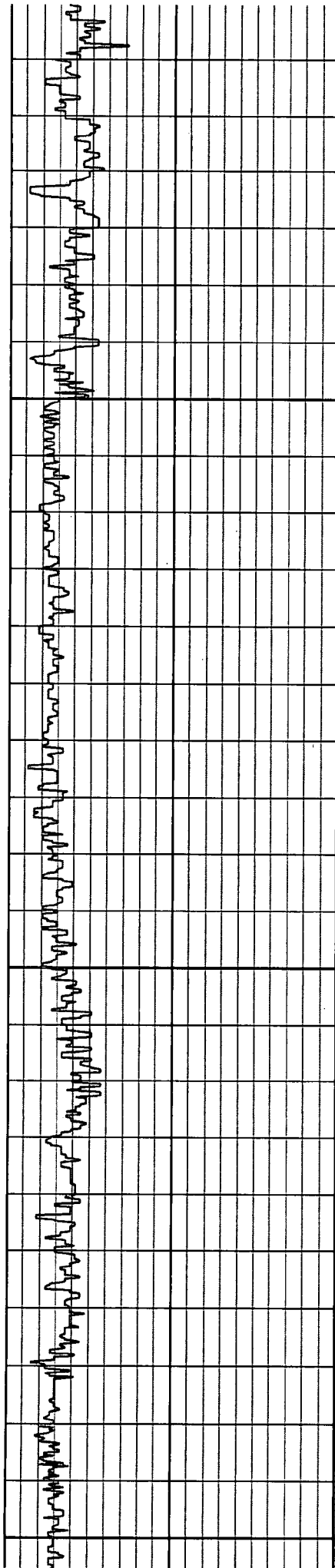
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MD: 7297.00 INC: 92.70 AZ: 269.85

MD: 7391.00 INC: 93.01 AZ: 270.20

MD: 7484.00 INC: 91.82 AZ: 270.20

MD: 7577.00 INC: 92.13 AZ: 270.46



MD: 7669.00 INC: 92.40 AZ: 270.90

MD: 7761.00 INC: 92.88 AZ: 271.08

MD: 7853.00 INC: 90.99 AZ: 270.90

MD: 7944.00 INC: 90.77 AZ: 270.82

MD: 8036.00 INC: 91.08 AZ: 271.26

MD: 8127.00 INC: 91.65 AZ: 271.61

