



1 : 600 / 1 : 240

| WELL INFORMATION | | | | | |
|----------------------------------|-----------------|------------------|------------------|--|--|
| MWD Run Number | 100 | 200 | 300 | | |
| Date run completed | 26-Jan-15 | 27-Jan-15 | 31-Jan-15 | | |
| Rig Bit Number | 2 | 3 | 4 | | |
| Bit Size (in) | 8.750 | 8.750 | 6.125 | | |
| Tool Nominal OD (in) | 6.750 | 6.750 | 4.750 | | |
| Log Start Depth (MD, ft) | 1,224.00 | 4,813.00 | 6,016.00 | | |
| Log End Depth (MD, ft) | 4,813.00 | 6,016.00 | 10,639.00 | | |
| Drill or Wipe | Drill | Drill | Drill | | |
| Drill/Wipe Start Date and Time | 26-Jan-15 11:00 | 27-Jan-15 04:00 | 28-Jan-15 22:30 | | |
| Drill/Wipe End Date and Time | 26-Jan-15 20:00 | 27-Jan-15 14:30 | 31-Jan-15 04:10 | | |
| Min Inc (deg) @ Depth (MD, ft) | 0.17 @ 1,267.00 | 3.55 @ 4,853.00 | 85.00 @ 6,029.00 | | |
| Max Inc (deg) @ Depth (MD, ft) | 7.26 @ 2,583.00 | 79.60 @ 5,962.00 | 92.53 @ 7,769.00 | | |
| Bit TFA(in2) / Bit Type | 0.91 / PDC | 0.91 / PDC | 0.75 / PDC | | |
| Flow Rate (gpm) | 582.19 | 537.88 | 284.60 | | |
| Max AV (fpm) / CV (fpm) @ MWD | N/A / N/A | N/A / N/A | N/A / N/A | | |
| Fluid Type | Fresh Water Gel | Fresh Water Gel | Fresh Water Gel | | |
| Density (ppg) / Viscosity (spqt) | 10.80 / 32.00 | 11.75 / 36.00 | 10.50 / 38.00 | | |
| Filtrate CL (ppm) | 475.00 | 475.00 | 400.00 | | |
| pH / Fluid Loss (mptm) | 9.50 / 0 | 8.40 / 0 | 10.20 / 0 | | |
| PV (cP) / YP (lbf2) | 7 / 4.00 | 12 / 7.00 | 11 / 8.00 | | |
| % Solids / % Sand | 7.2 / 0.1 | 12.60 / 0.10 | 9.2 / 0.2 | | |
| % Oil / Oil:Water Ratio | N/A / N/A | N/A / N/A | N/A / N/A | | |
| Rm @ Measured Temp (degF) | N/A @ N/A | N/A @ N/A | N/A @ N/A | | |
| Rmf @ Measured Temp (degF) | N/A @ N/A | N/A @ N/A | N/A @ N/A | | |
| Rmc @ Measured Temp (degF) | N/A @ N/A | N/A @ N/A | N/A @ N/A | | |
| Max Tool Temp (in F) / S | 100.00 / PCM | 100.00 / PCM | 210.10 / PCM | | |

| | | | | | |
|-------------------------------|--------------------|--------------------|--------------------|--|--|
| Max Tool Temp (degF) / Source | 133.30 / PCM | 162.30 / PCM | 213.40 / PCM | | |
| Rm @ Max Tool Temp (degF) | N/A @ N/A | N/A @ N/A | N/A @ N/A | | |
| Lead MWD Engineer | Jual Pablo Centeno | Jual Pablo Centeno | Jual Pablo Centeno | | |
| Customer Representative | Justin Fields | Justin Fields | Dave Nielsen | | |

SENSOR INFORMATION

Downhole Processor Information

| | | | | | |
|---------------------------|-----------------|--------------------|-----------------|--|--|
| Tool Type | PCM | PCM | PCM | | |
| Software Version | 5.93 | 5.93 | 5.93 | | |
| Sub Serial Number | 11303511 | 11303511 | 12365886 | | |
| Insert Serial Number | 11399998 | 11399998 | 11145600 | | |
| Date and Time Initialized | 22-Jan-15 11:54 | 22-Jan-15 11:54:00 | 27-Jan-15 12:25 | | |
| Date and Time Read | 27-Jan-15 20:04 | 27-Jan-15 20:10 | 31-Jan-15 13:20 | | |
| ECMB SW Version | N/A | N/A | N/A | | |

Directional Sensor Information

| | | | | | |
|------------------------|----------|----------|----------|--|--|
| Tool Type | PCDC | PCDC | PCDC | | |
| Distance From Bit (ft) | 54.00 | 54.00 | 65.00 | | |
| Software Version | 6.21 | 6.21 | 6.33 | | |
| Sub Serial Number | 11303511 | 11303511 | 12365886 | | |
| Sonde Serial Number | 11638501 | 11638501 | 11062113 | | |
| Sensor ID Number | N/A | N/A | N/A | | |
| Toolface Offset (deg) | 217.70 | 109.40 | 229.20 | | |

Gamma Ray Sensor Information

| | | | | | |
|------------------------------|----------|----------|----------|--|--|
| Tool Type | PCG | PCG | PCG | | |
| Distance From Bit (ft) | 47.58 | 46.86 | 58.07 | | |
| Recorded Sample Period (sec) | 10 | 10 | 10 | | |
| Software Version | 8.15 | 8.15 | 8.15 | | |
| Sub Serial Number | 11303511 | 11303511 | 12365886 | | |
| Insert/Sonde Serial Number | 11120599 | 11120599 | 11579854 | | |

REMARKS

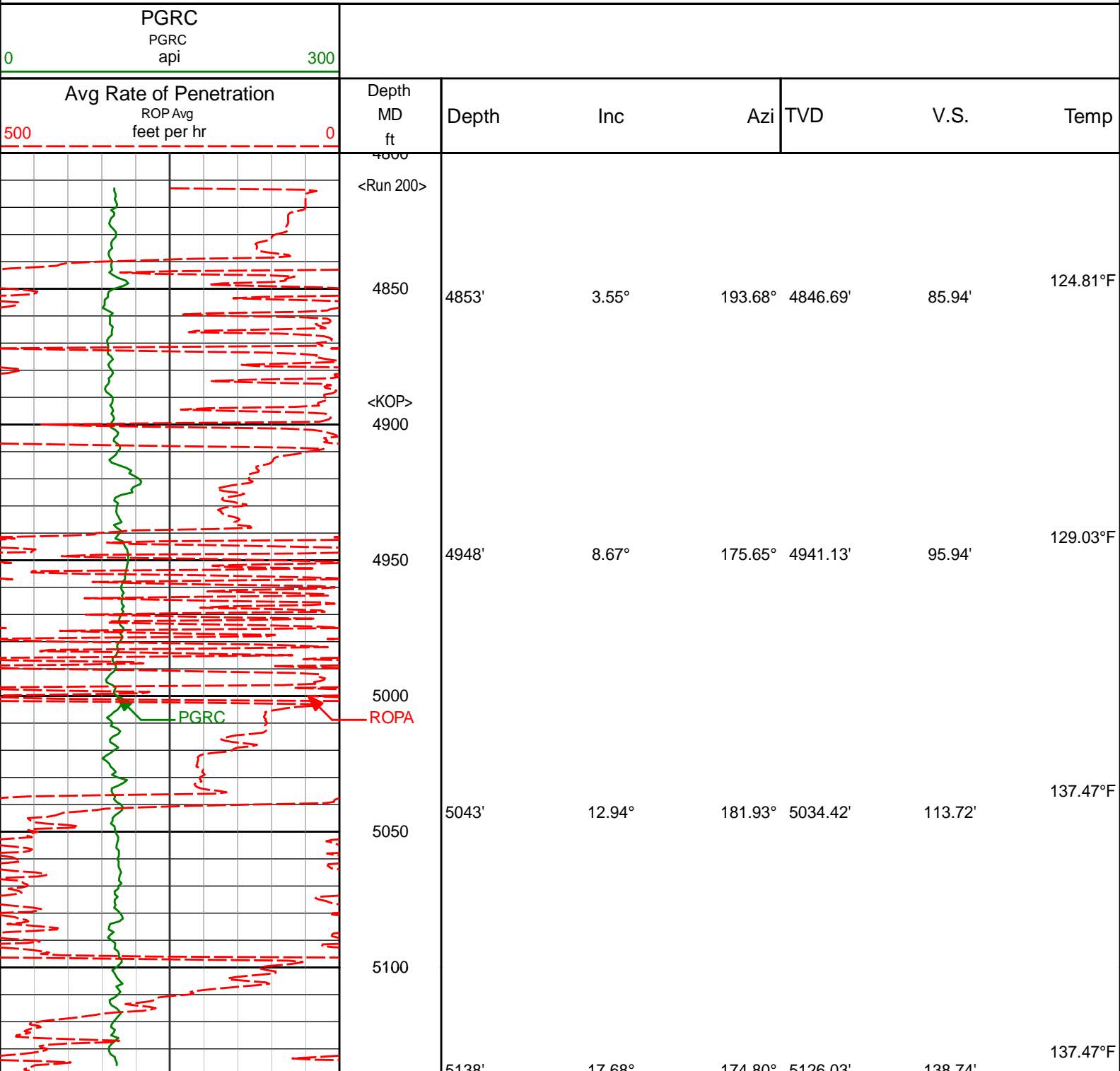
1. All depths are calibrated to the driller's pipe tally and are measured from the rig drill floor.
2. No depth corrections have been made for pipe stretch or compression.
3. All data presented is recorded (memory data) unless otherwise stated.
 - ROPA: Average Rate of Penetration is real time data.
 - PGRC: Smooth Pressure Case Gamma Ray Borehole corrected is recorded data.
4. The following smoothing parameters have been applied to the data:
 - All ROP in logs - 0.5 ft interval, 1.2 ft coercion distance.
 - Gamma in 2" (1:600) logs - 1 ft interval, 3 ft coercion distance.
 - Gamma in 5" (1:240) logs - 0.5 ft interval, 0.6 ft coercion distance.
5. INSITE version 8.1.10
6. Gamma presented inside casing/cement from 5969 ft. MD to 6008 ft. MD.

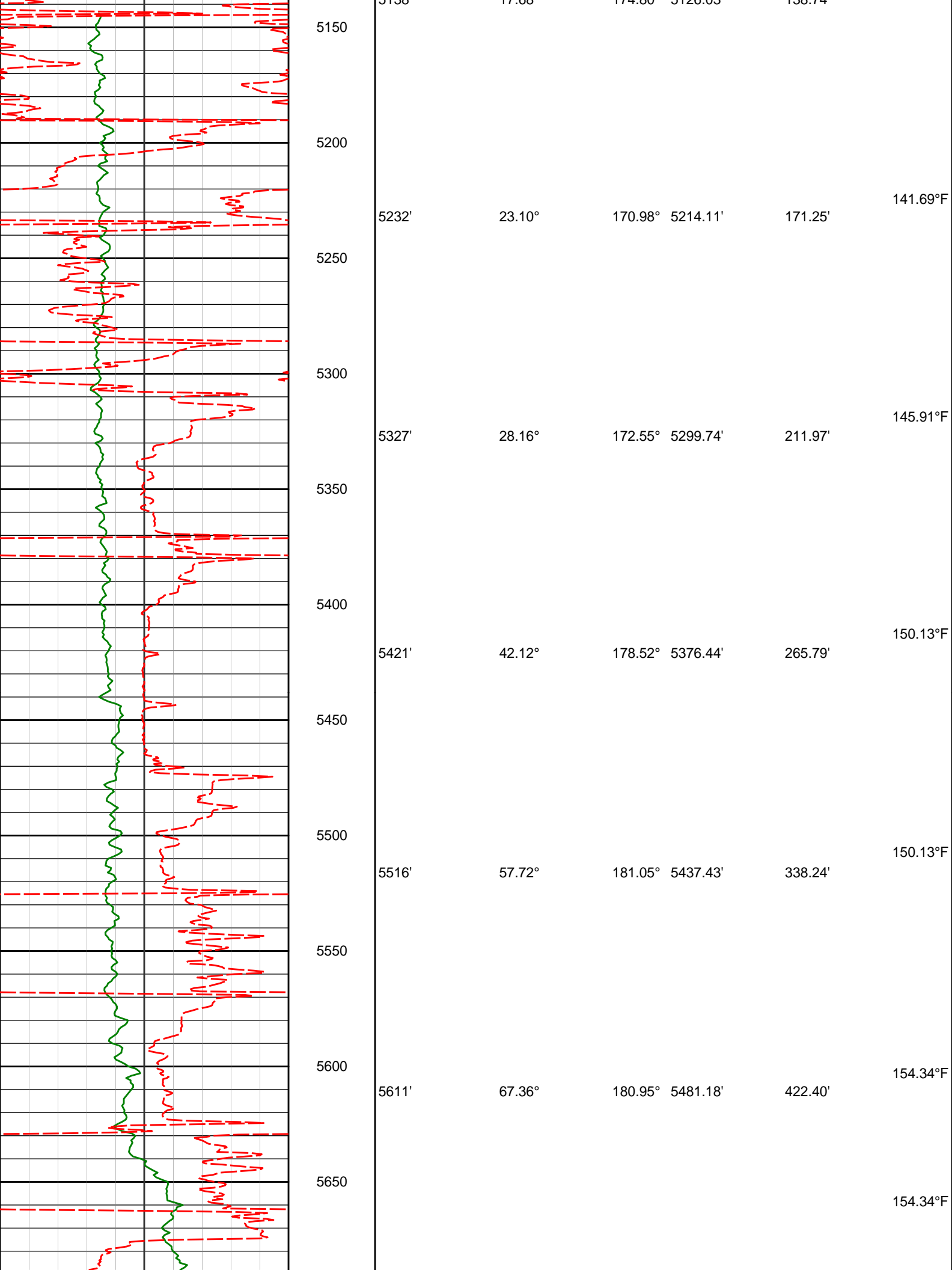
WARRANTY

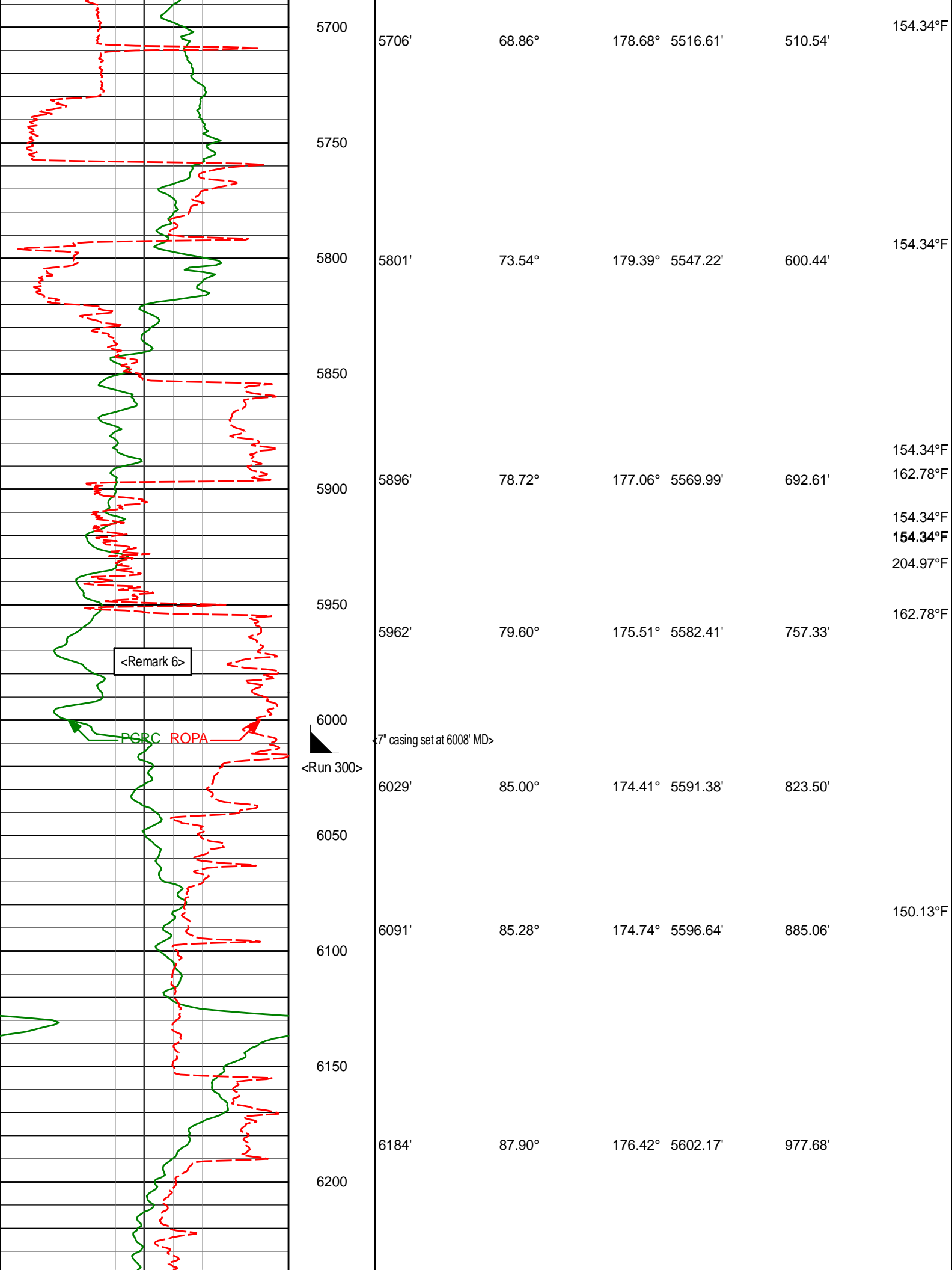
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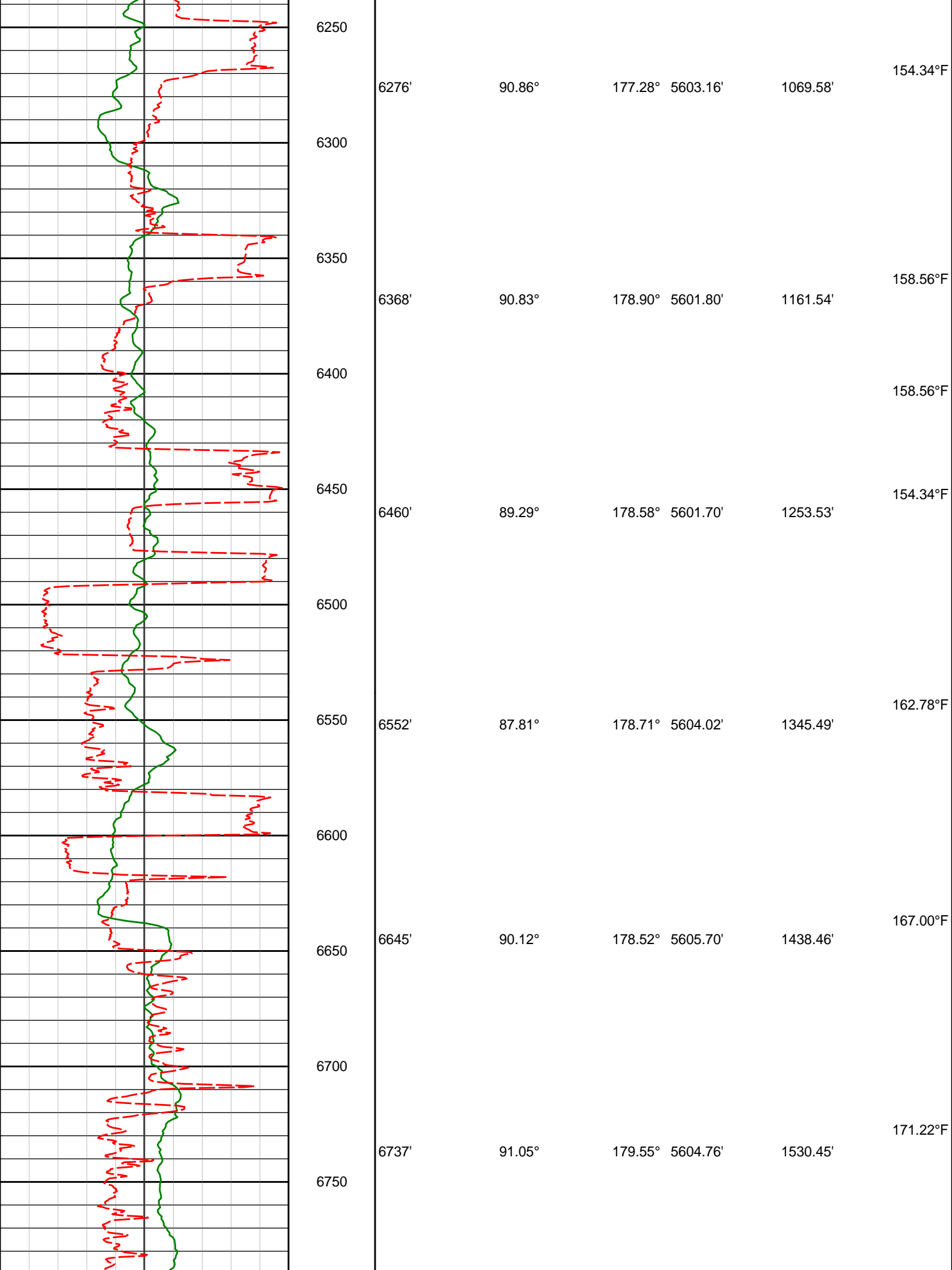
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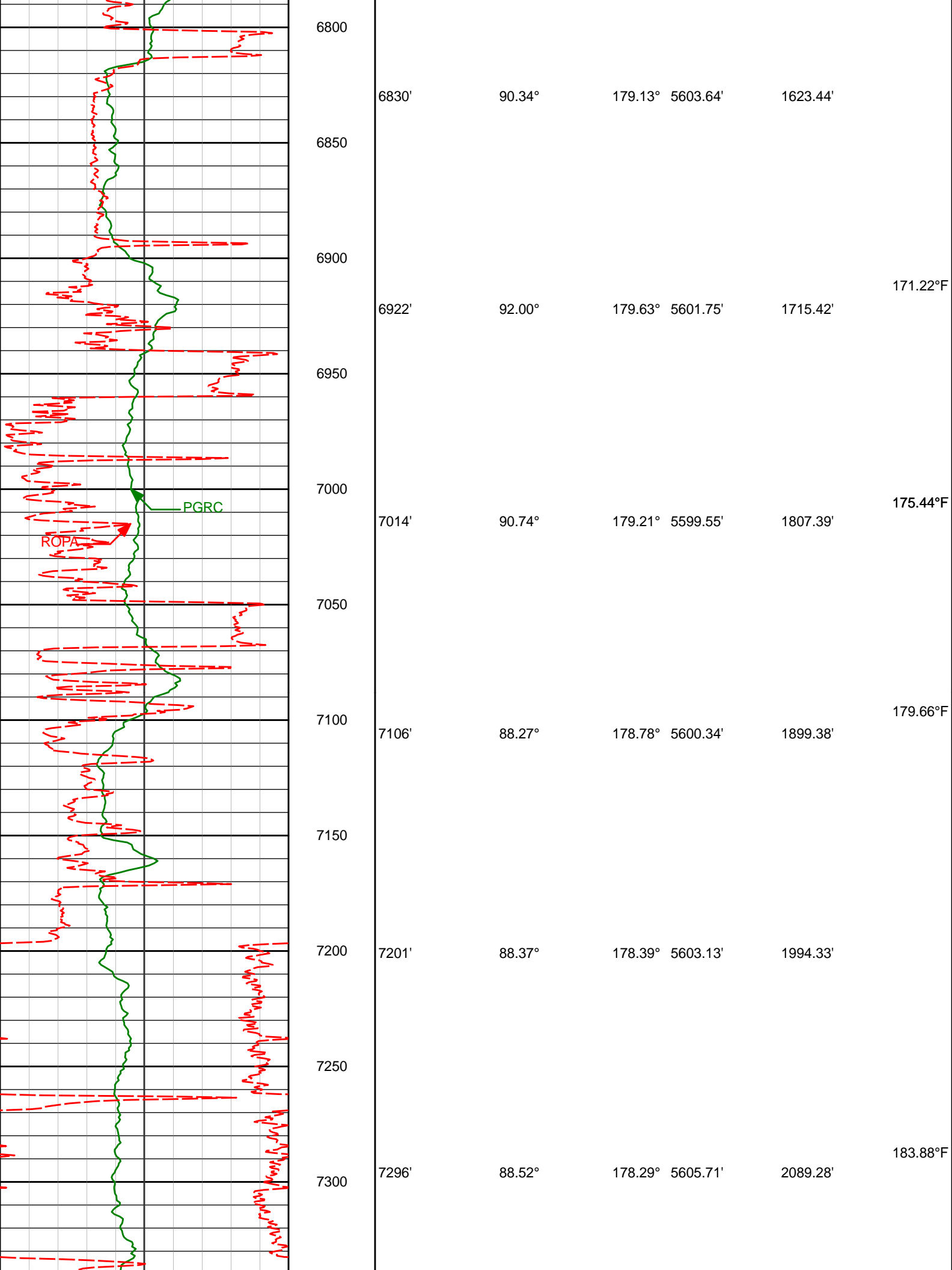
MD Detail 1:600 Scale

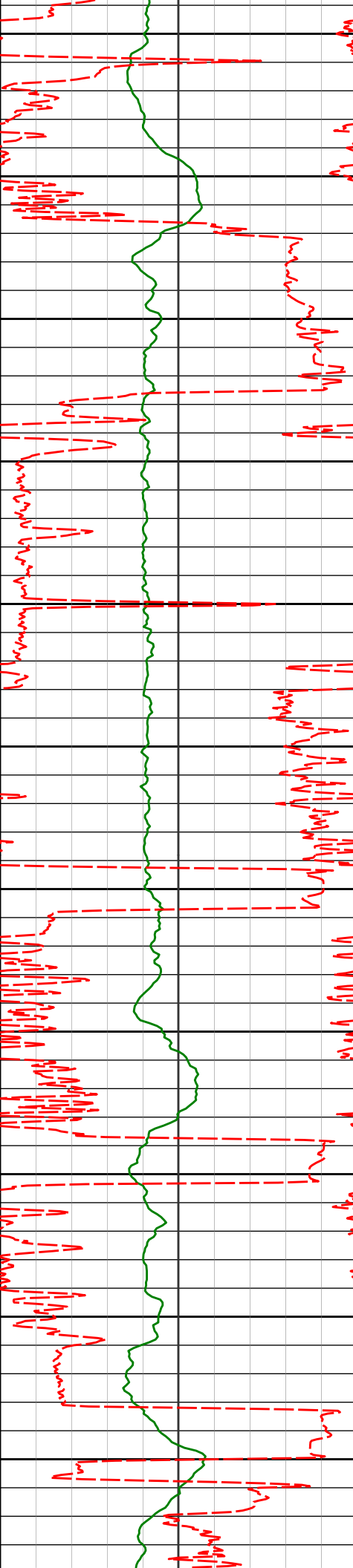












7350

7390'

88.58°

177.61° 5608.09'

2183.22'

183.88°F

7400

7450

7485'

90.09°

177.39° 5609.19'

2278.16'

183.88°F

7500

7550

7580'

89.97°

177.04° 5609.14'

2373.09'

183.88°F

7600

7650

7674'

91.70°

176.70° 5607.77'

2466.98'

183.88°F

7700

7750

7769'

92.53°

178.51° 5604.27'

2561.87'

188.09°F

7800

7850

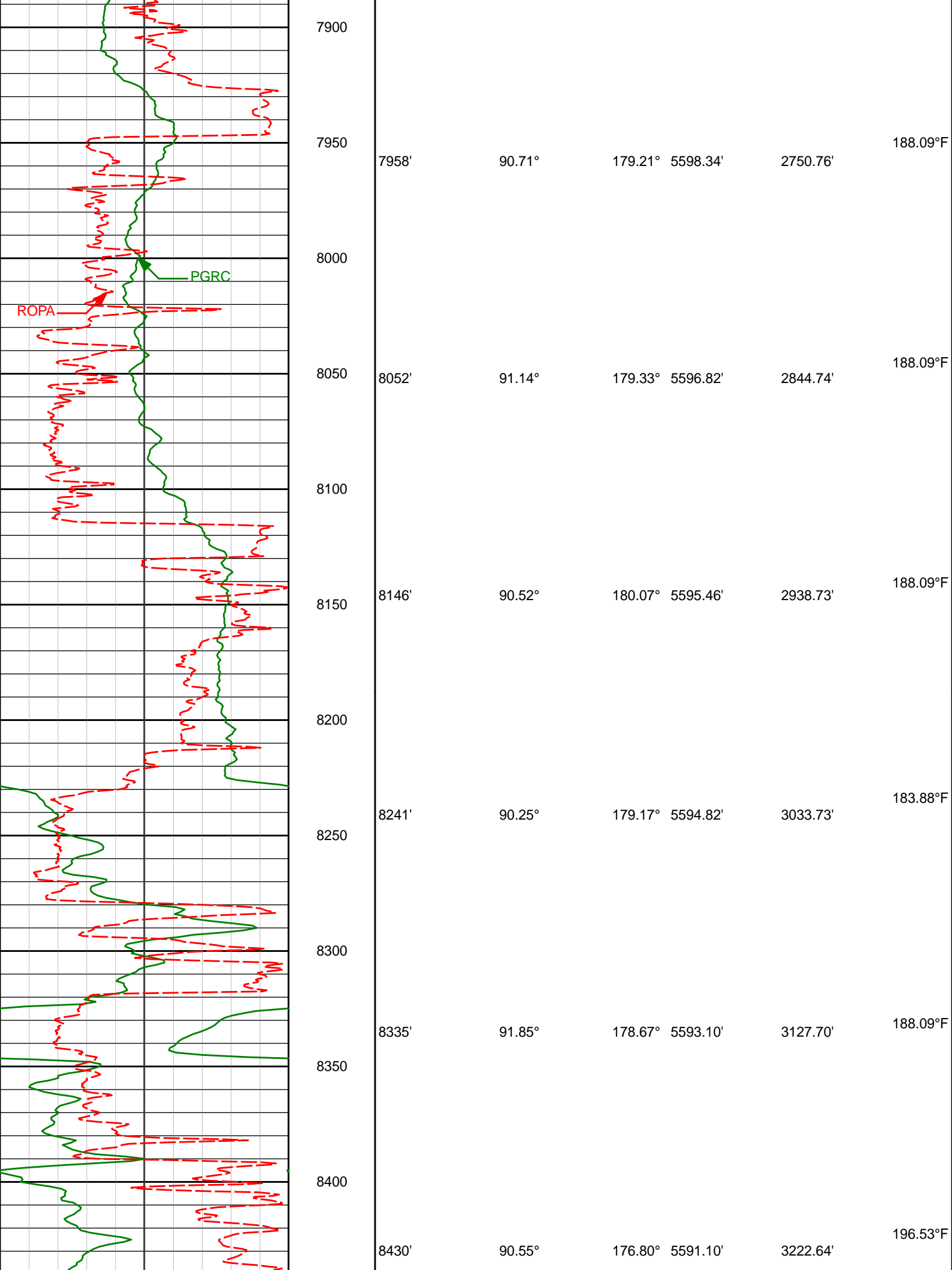
7864'

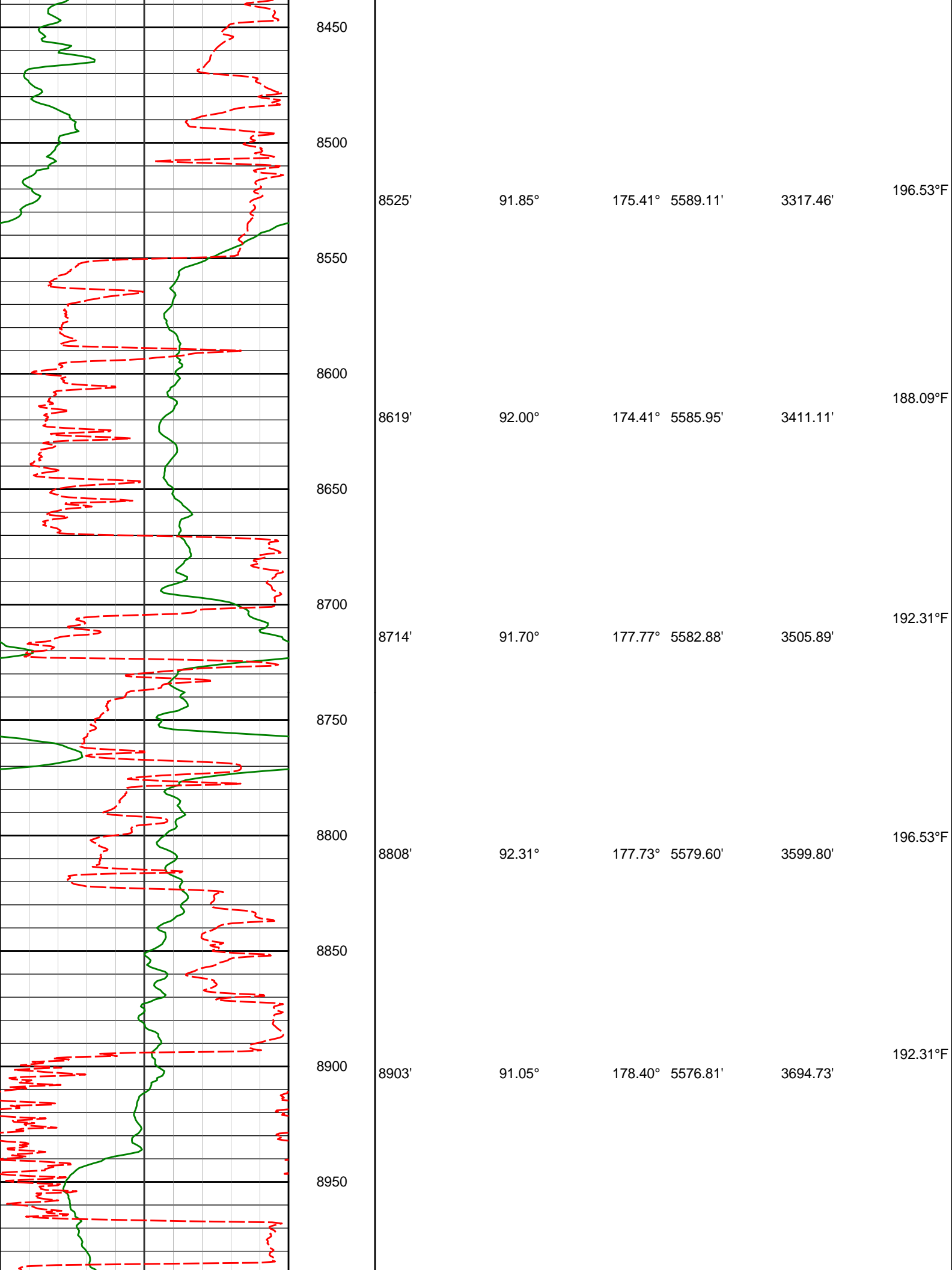
91.97°

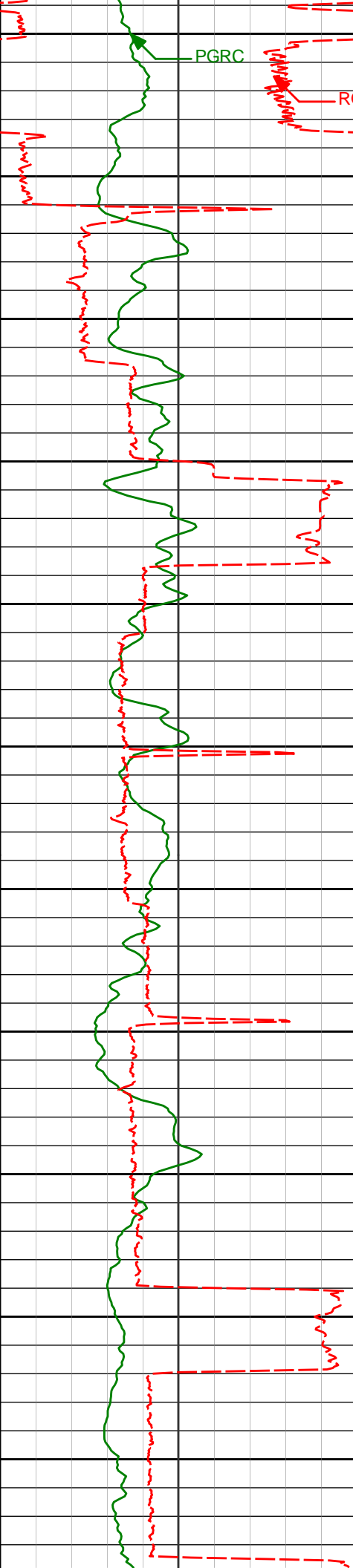
178.68° 5600.54'

2656.79'

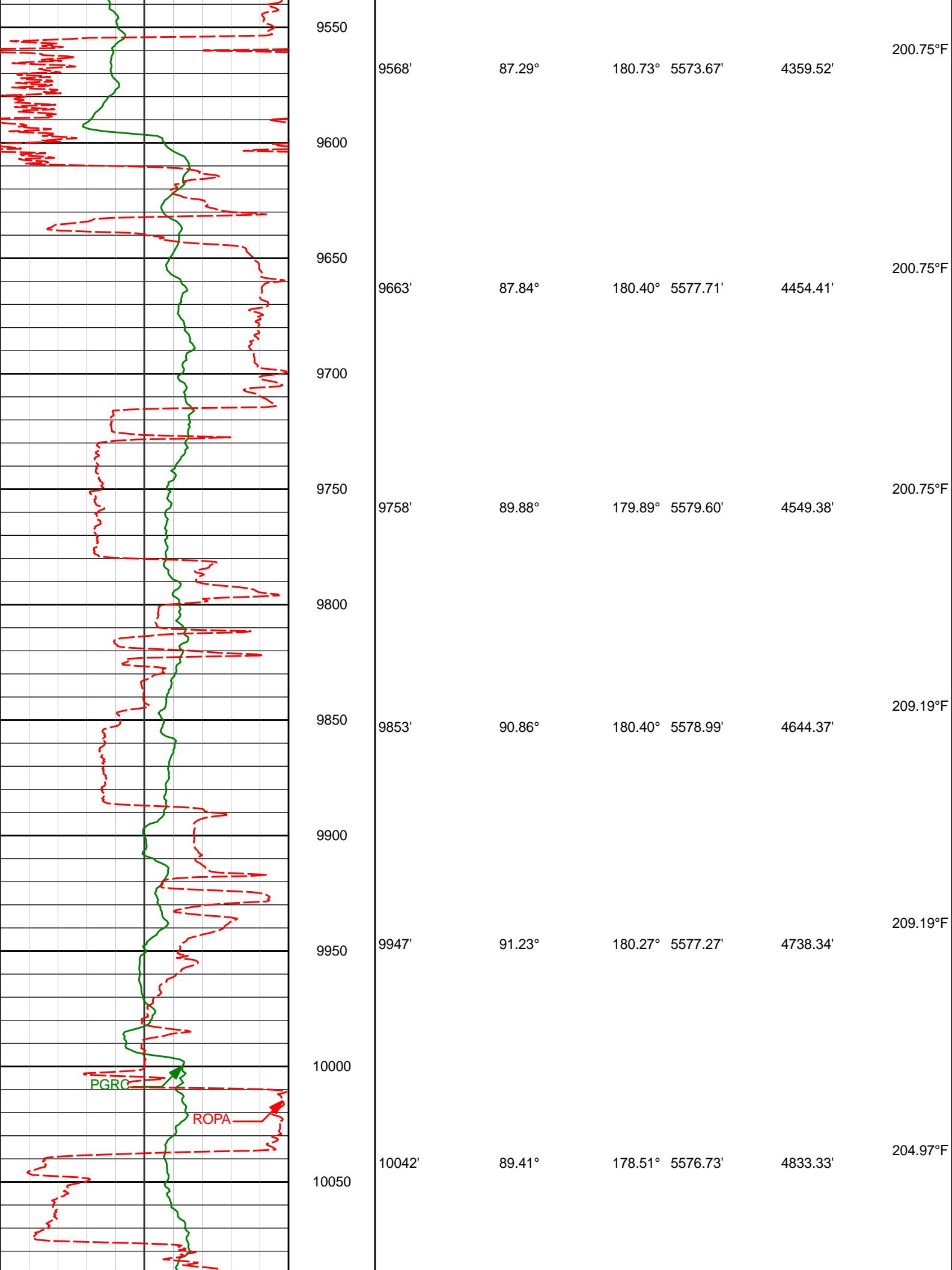
188.09°F

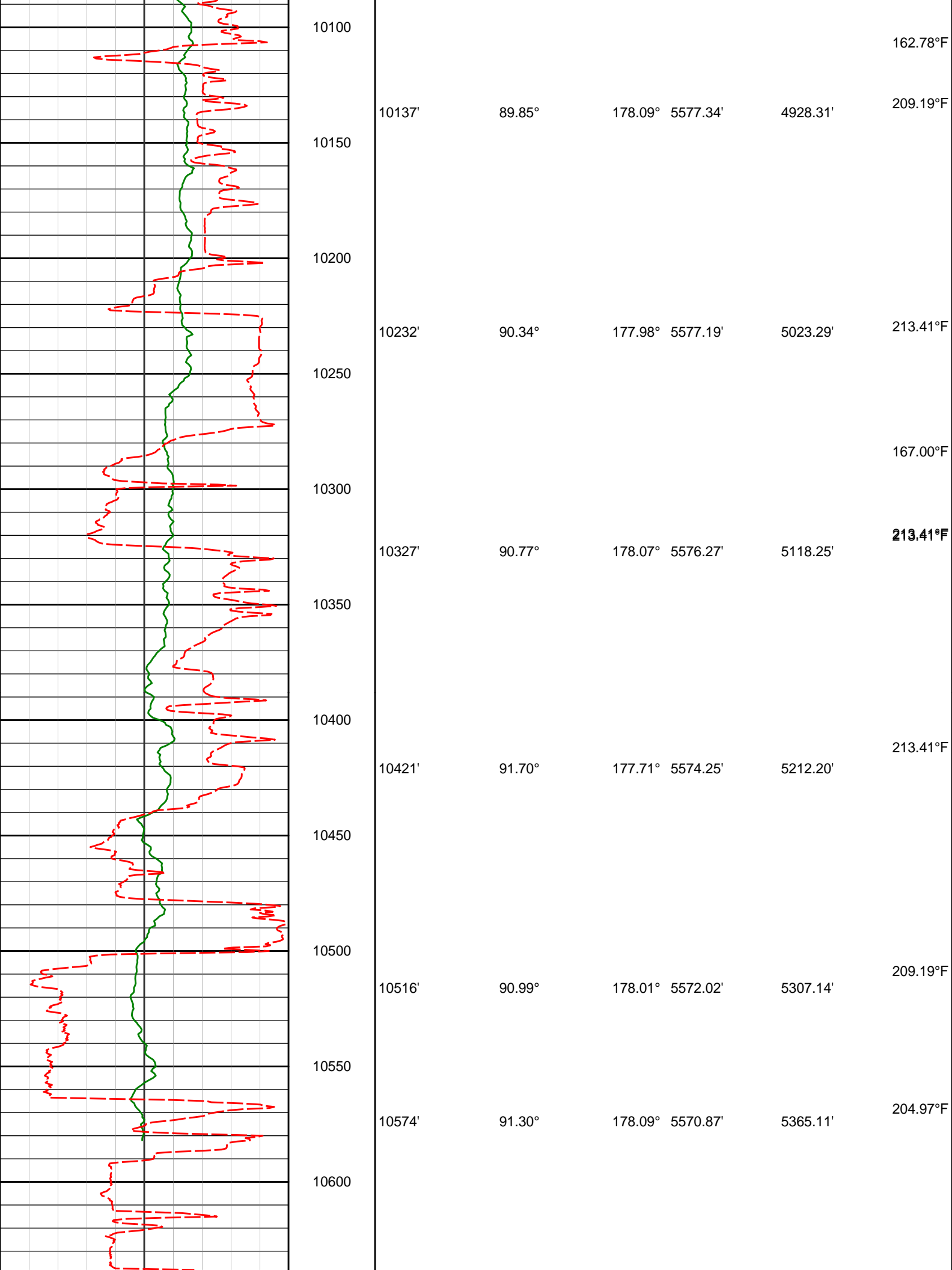


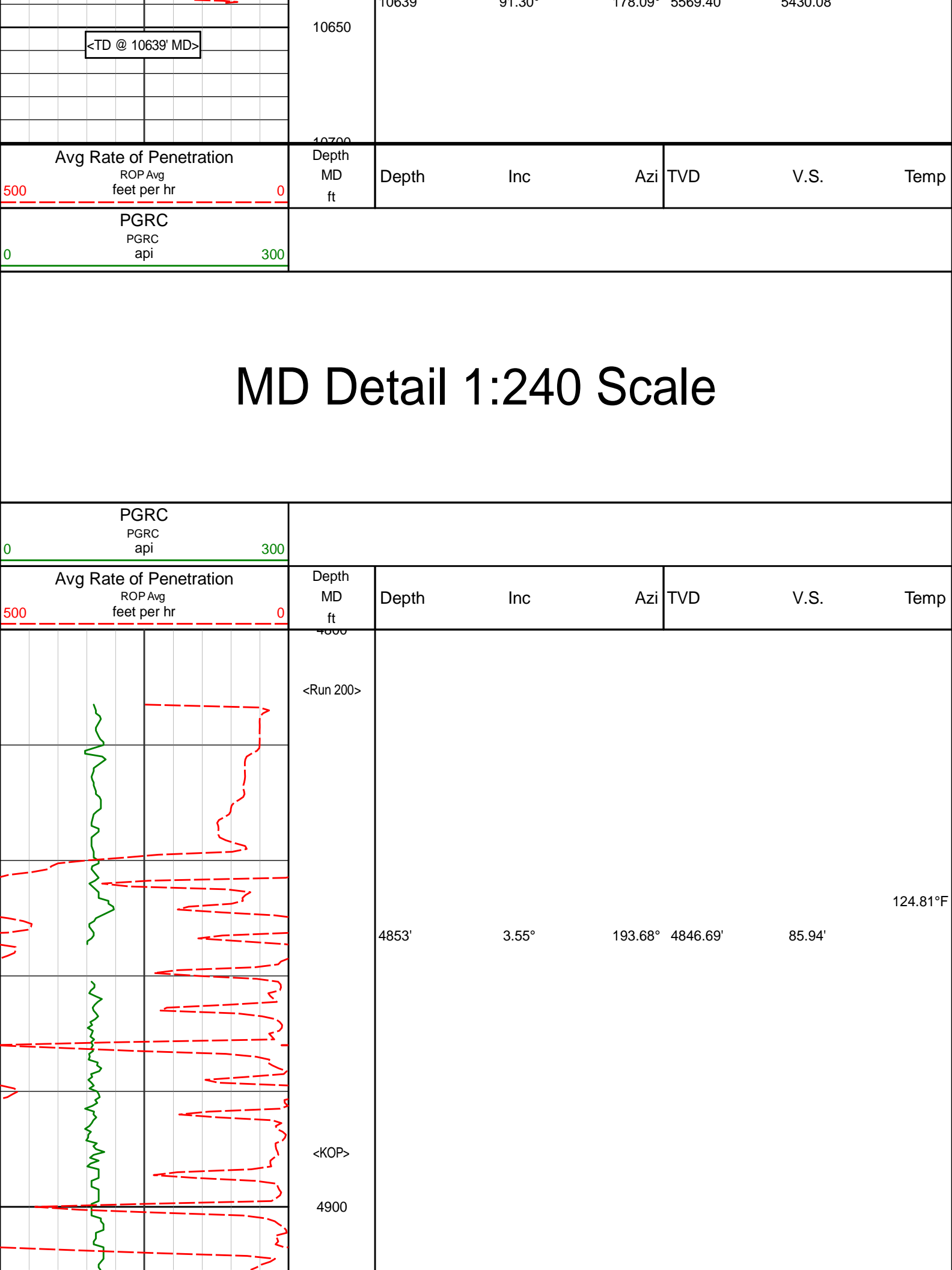


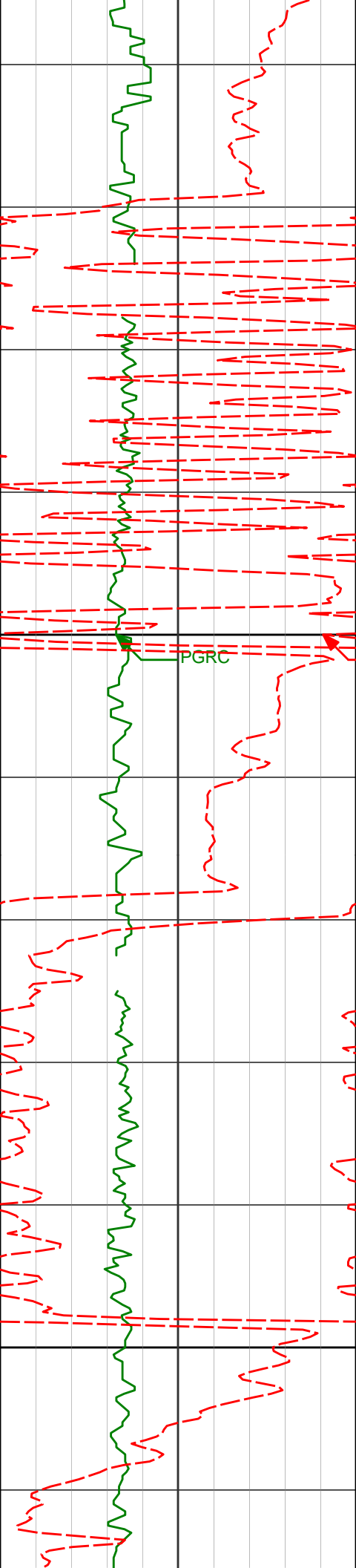


| | | | | | | |
|------|-------|--------|---------|----------|----------|----------|
| 9000 | 8998' | 90.37° | 179.57° | 5575.63' | 3789.72' | 192.31°F |
| 9050 | | | | | | |
| 9100 | 9093' | 91.45° | 179.18° | 5574.13' | 3884.70' | 196.53°F |
| 9150 | | | | | | |
| 9200 | 9188' | 89.66° | 179.73° | 5573.21' | 3979.69' | 196.53°F |
| 9250 | | | | | | |
| 9300 | 9282' | 90.49° | 180.59° | 5573.08' | 4073.68' | 196.53°F |
| 9350 | | | | | | |
| 9400 | 9377' | 91.42° | 180.17° | 5571.49' | 4168.66' | 200.75°F |
| 9450 | | | | | | |
| 9500 | 9472' | 89.35° | 181.59° | 5570.86' | 4263.61' | 196.53°F |









4948'

8.67°

175.65° 4941.13'

95.94'

129.03°F

5000
PGRC
ROPA

5043'

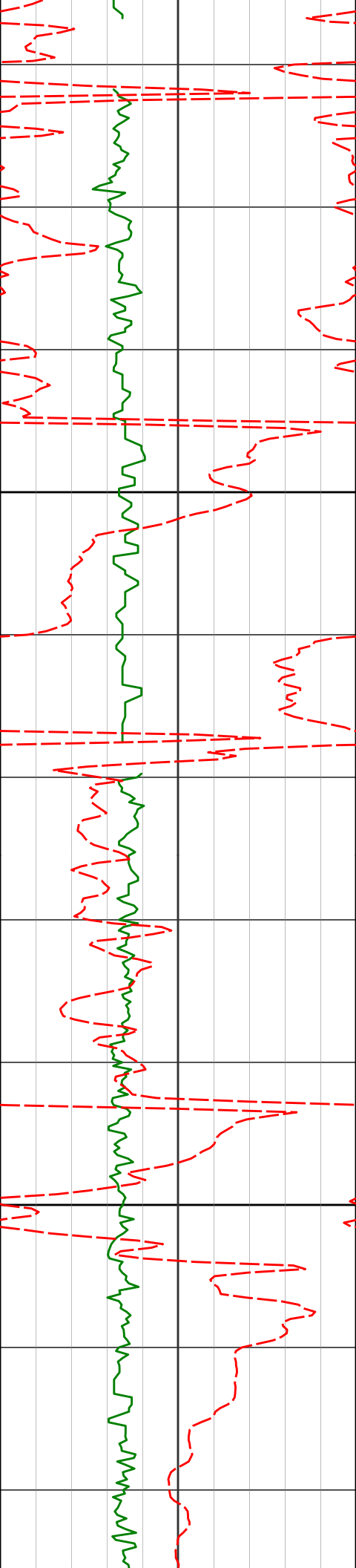
12.94°

181.93° 5034.42'

113.72'

137.47°F

5100



5138'

17.68°

174.80° 5126.03'

138.74'

137.47° F

5200

141.69°F

5232'

23.10°

170.98° 5214.11'

171.25'

5300

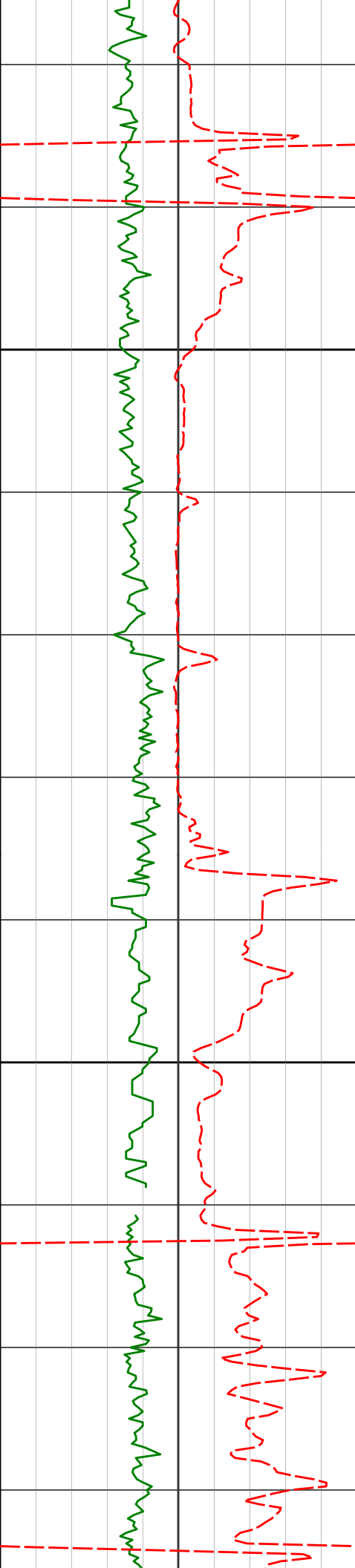
145.91°F

5327'

28.16°

172.55° 5299.74'

211.97'



5400

5421'

42.12°

178.52° 5376.44'

265.79'

150.13°F

5500

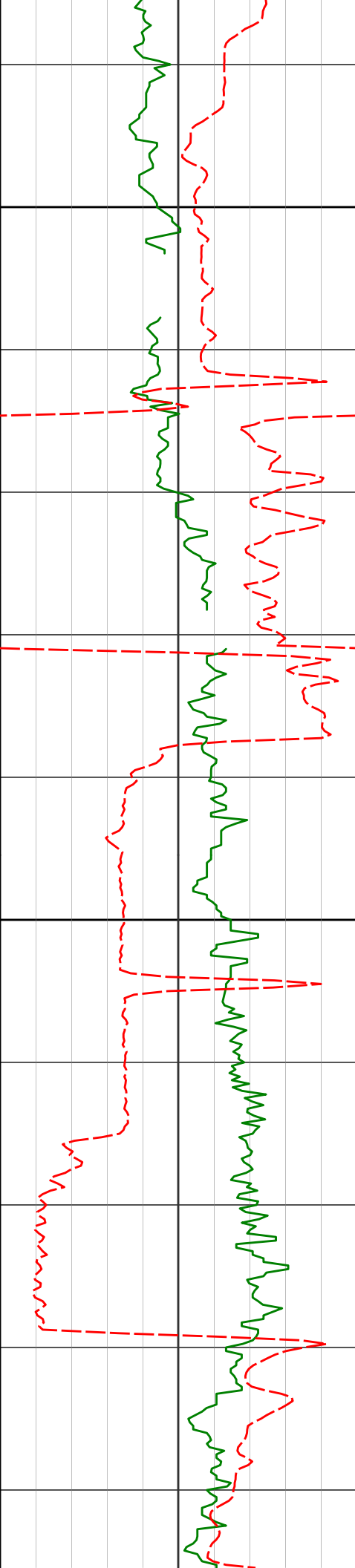
5516'

57.72°

181.05° 5437.43'

338.24'

150.13°F



5600

5611'

67.36°

180.95° 5481.18'

422.40'

154.34°F

5700

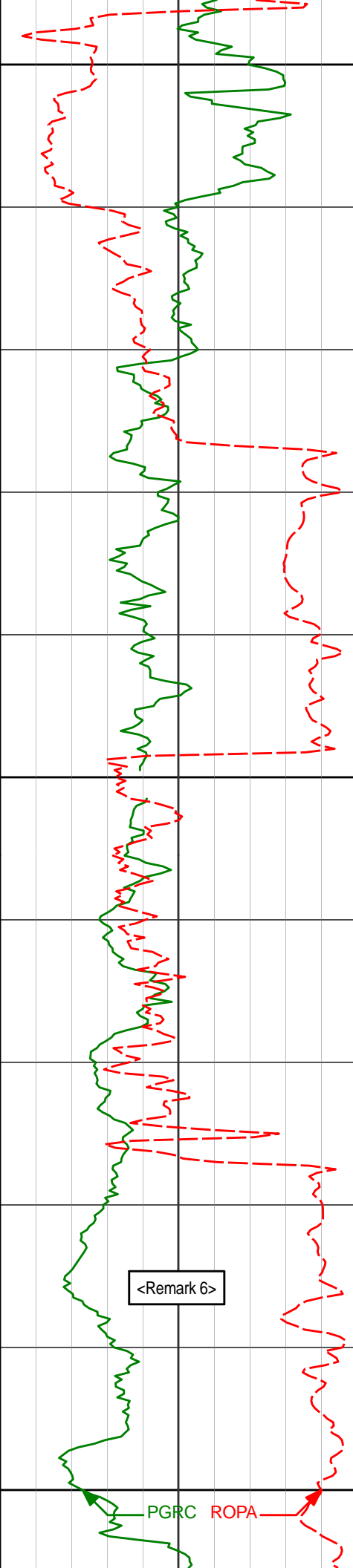
5706'

68.86°

178.68° 5516.61'

510.54'

154.34°F



5800

5801'

73.54°

179.39° 5547.22'

600.44'

154.34°F

5900

5896'

78.72°

177.06° 5569.99'

692.61'

154.34°F

162.78°F

154.34°F

154.34°F

204.97°F

162.78°F

5962'

79.60°

175.51° 5582.41'

757.33'

<Remark 6>

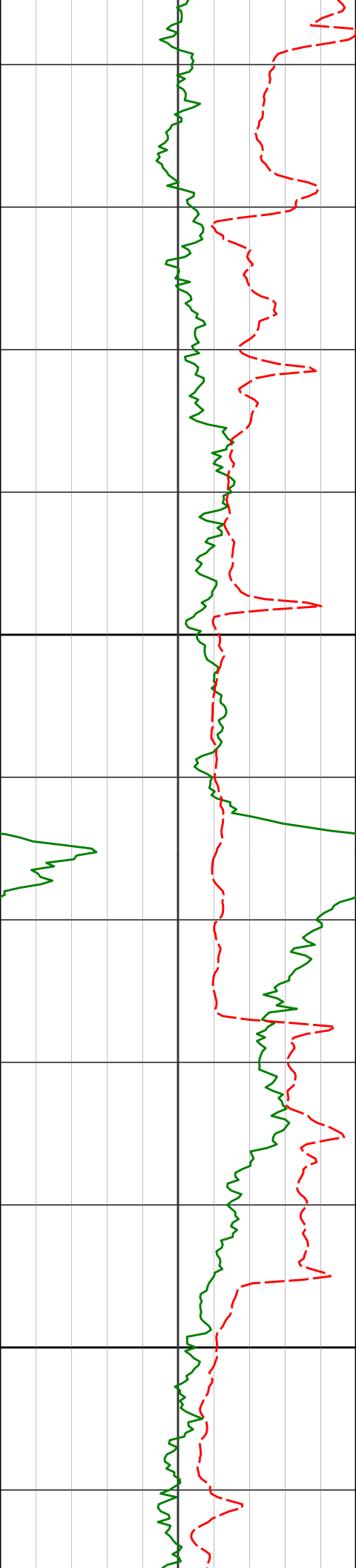
6000

PGRC

ROPA



<7" casing set at 6008' MD>



<Run 300>

6029'

85.00°

174.41° 5591.38'

823.50'

6091'

85.28°

174.74° 5596.64'

885.06'

6100

6184'

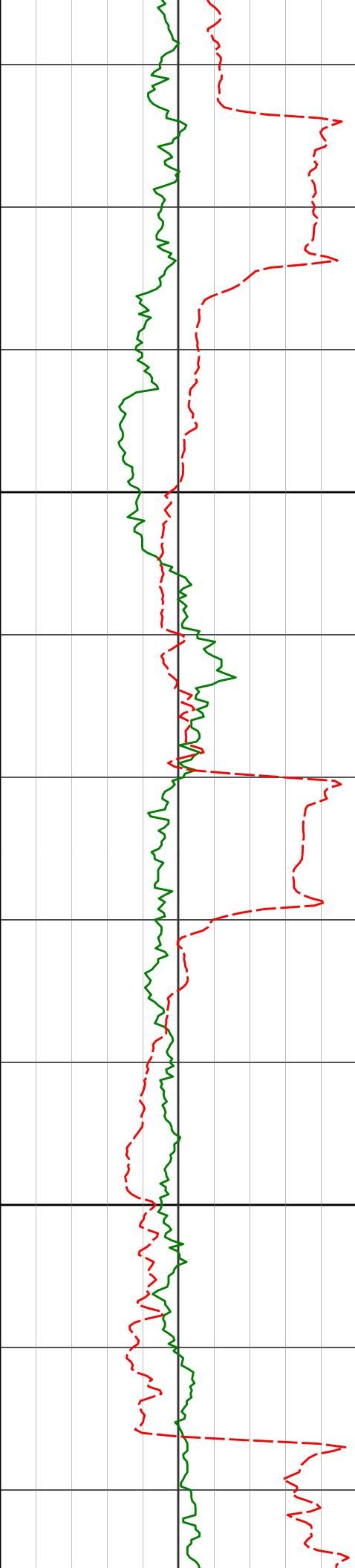
87.90°

176.42° 5602.17'

977.68'

6200

150.13°F



6300

6276'

90.86°

177.28° 5603.16'

1069.58'

154.34°F

6400

6368'

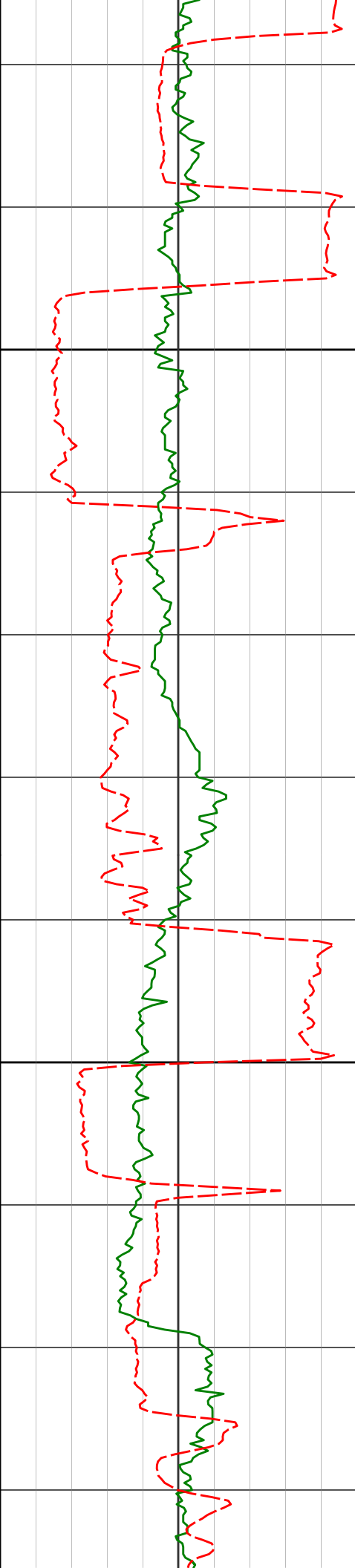
90.83°

178.90° 5601.80'

1161.54'

158.56°F

158.56°F



6500

6600

6460'

6552'

6645'

89.29°

87.81°

90.12°

178.58° 5601.70'

178.71° 5604.02'

178.52° 5605.70'

1253.53'

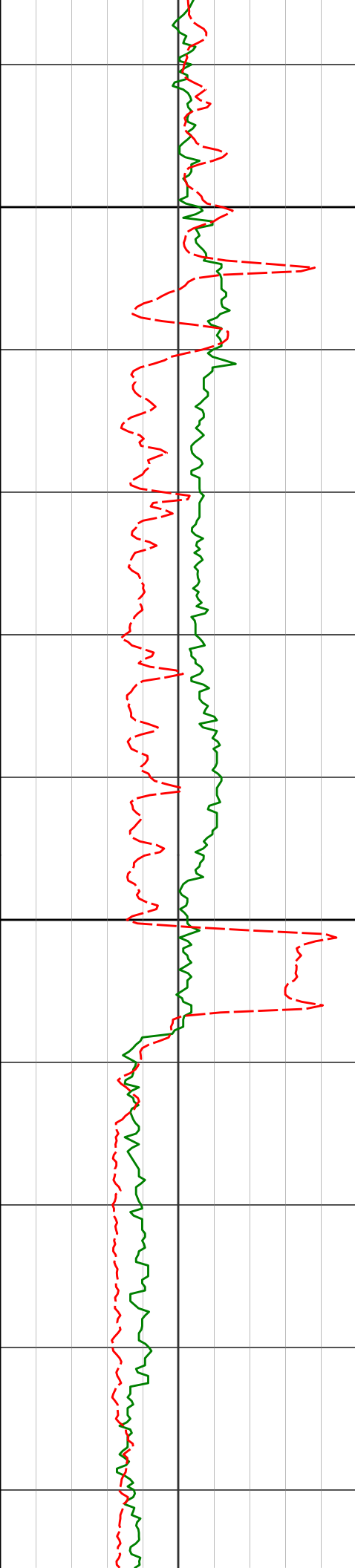
1345.49'

1438.46'

154.34°F

162.78°F

167.00°F



6700

6800

6737'

6830'

91.05°

90.34°

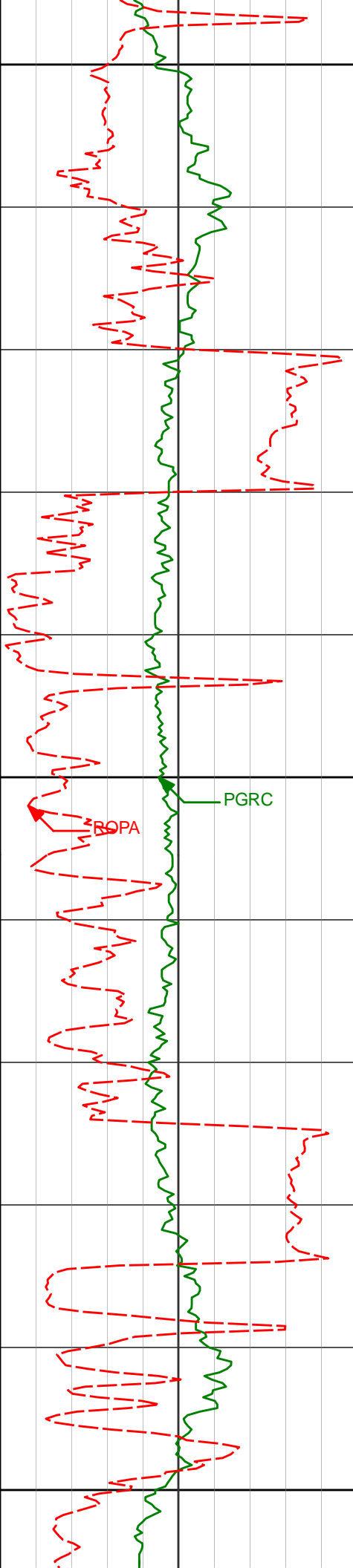
179.55° 5604.76'

179.13° 5603.64'

1530.45'

1623.44'

171.22°F



6900

171.22°F

6922'

92.00°

179.63° 5601.75'

1715.42'

7000

175.44°F

7014'

90.74°

179.21° 5599.55'

1807.39'

7100

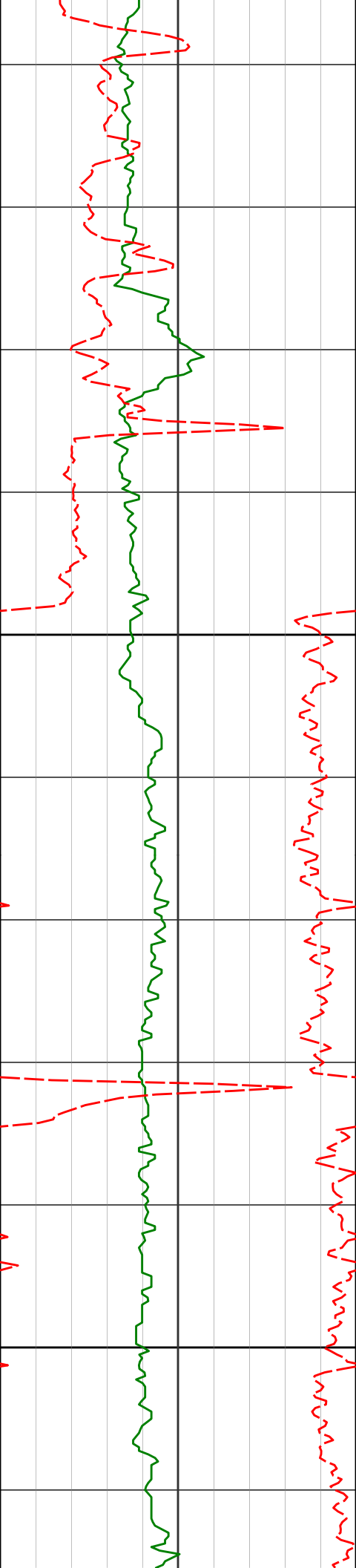
179.66°F

7106'

88.27°

178.78° 5600.34'

1899.38'



7200

7201'

88.37°

178.39° 5603.13'

1994.33'

7300

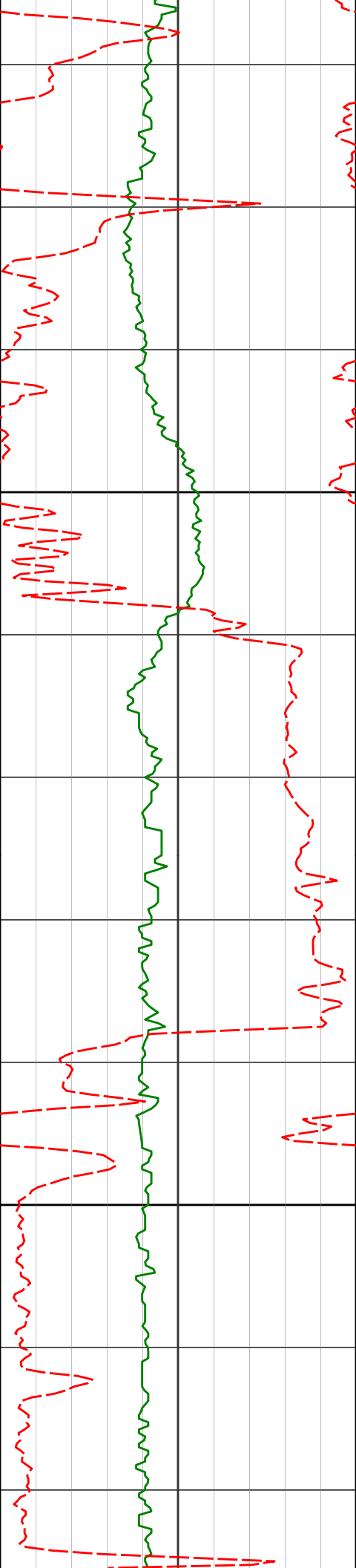
7296'

88.52°

178.29° 5605.71'

2089.28'

183.88°F



7400

7390'

88.58°

177.61° 5608.09'

2183.22'

183.88°F

7500

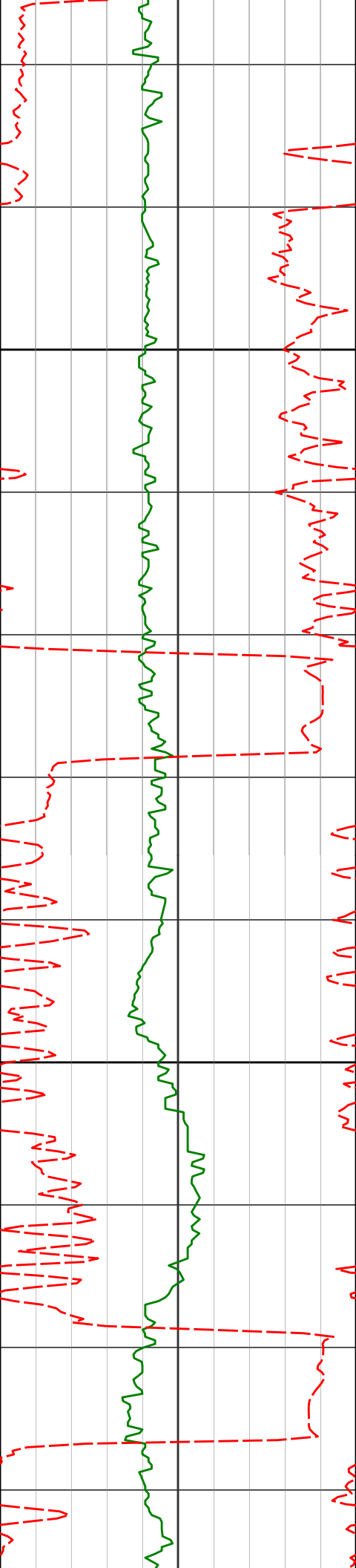
7485'

90.09°

177.39° 5609.19'

2278.16'

183.88°F



7600

7700

7580'

7674'

7769'

89.97°

91.70°

92.53°

177.04° 5609.14'

176.70° 5607.77'

178.51° 5604.27'

2373.09'

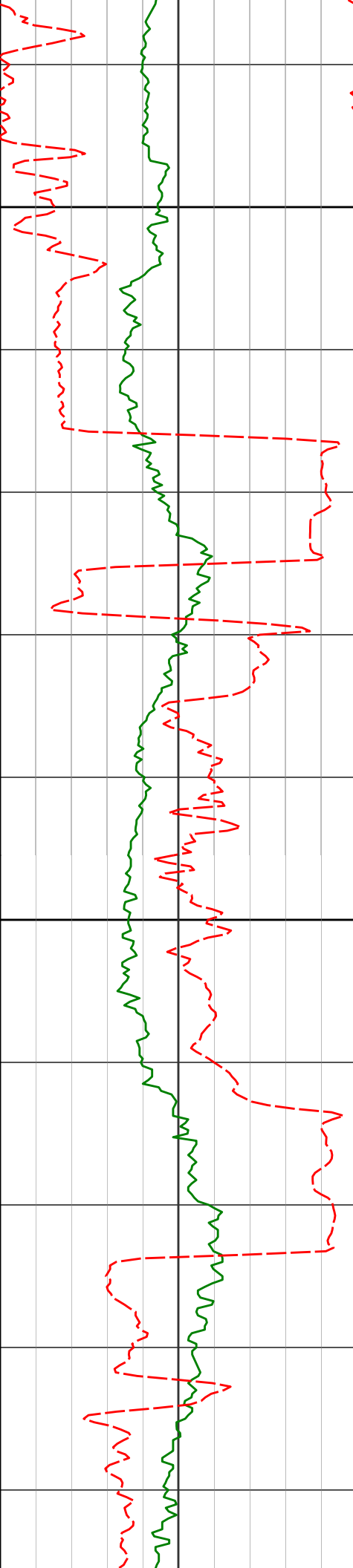
2466.98'

2561.87'

183.88°F

183.88°F

188.09°F



7800

7864'

91.97°

178.68° 5600.54'

2656.79'

188.09°F

7900

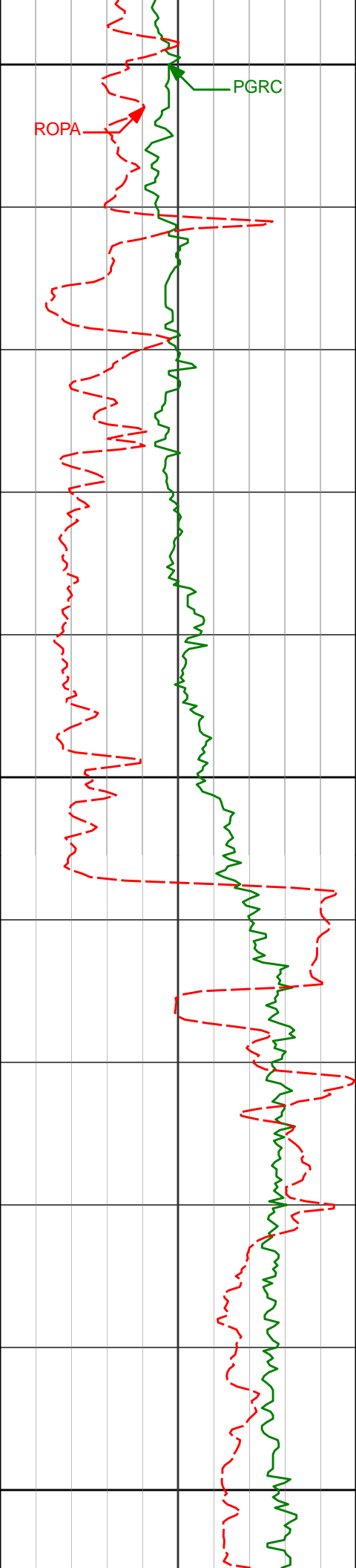
7958'

90.71°

179.21° 5598.34'

2750.76'

188.09°F



8000

ROPA

PGRC

8100

8200

8052'

91.14°

179.33° 5596.82'

2844.74'

188.09°F

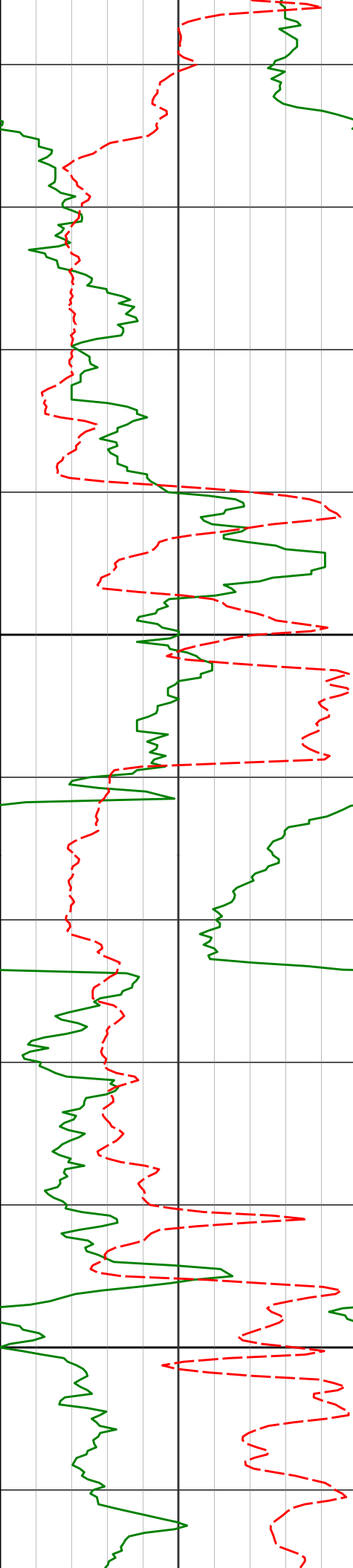
8146'

90.52°

180.07° 5595.46'

2938.73'

188.09°F



8300

8400

8241'

8335'

8430'

90.25°

91.85°

90.55°

179.17°

178.67°

176.80°

5594.82'

5593.10'

5591.10'

3033.73'

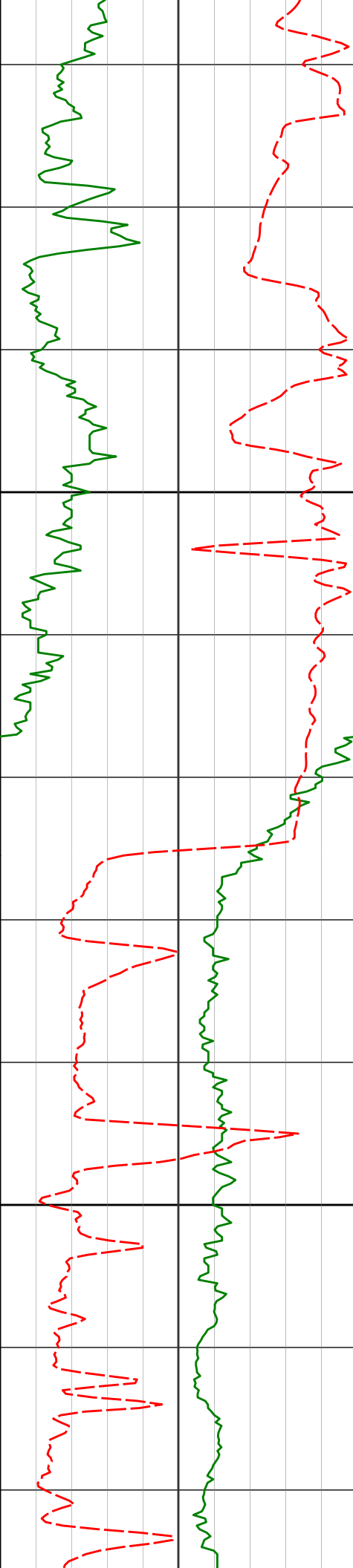
3127.70'

3222.64'

183.88°F

188.09°F

196.53°F



8500

8600

8525'

91.85°

175.41° 5589.11'

3317.46'

196.53°F

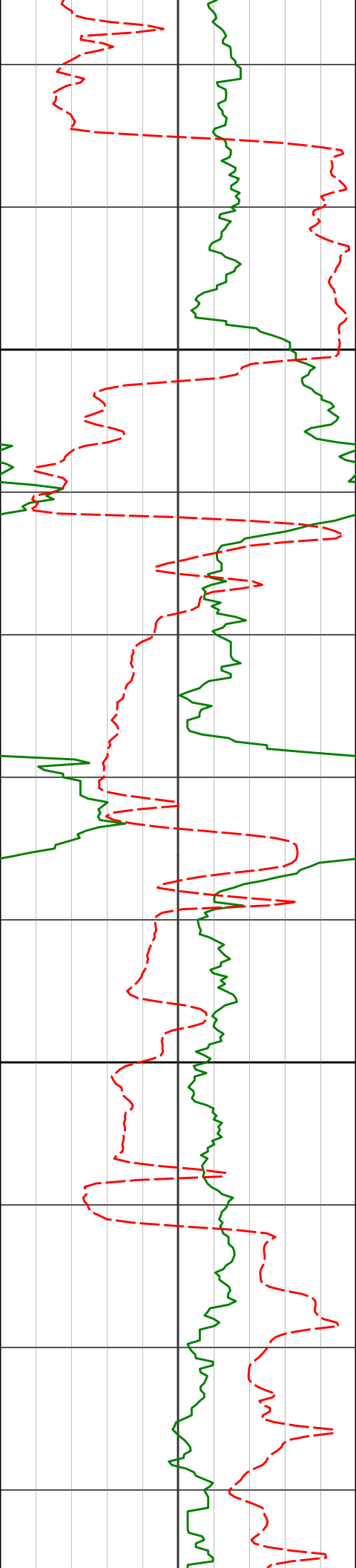
8619'

92.00°

174.41° 5585.95'

3411.11'

188.09°F



8700

8714'

91.70°

177.77° 5582.88'

3505.89'

192.31°F

8800

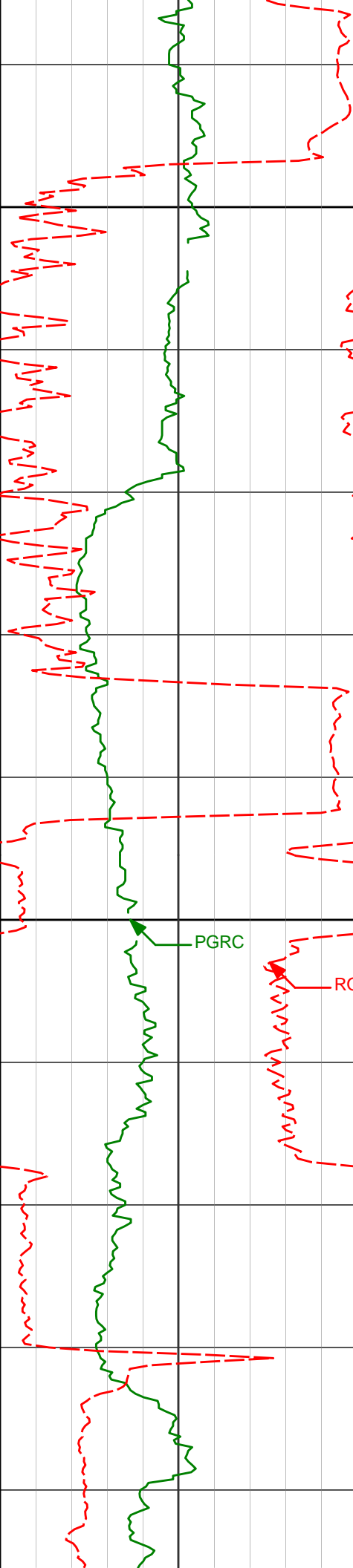
8808'

92.31°

177.73° 5579.60'

3599.80'

196.53°F



8900

9000

PGRC

ROPA

8903'

8998'

91.05°

90.37°

178.40° 5576.81'

179.57° 5575.63'

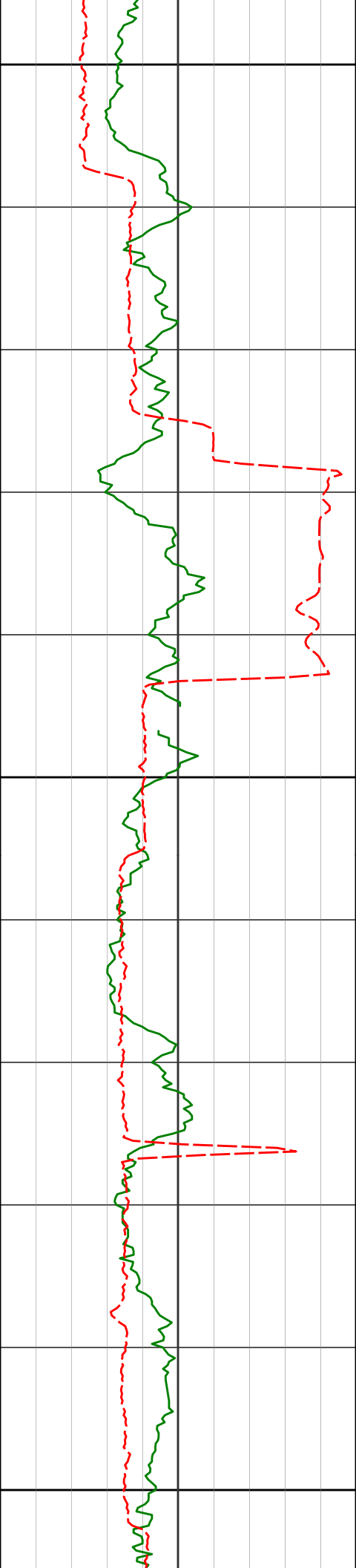
3694.73'

3789.72'

192.31°F

192.31°F

196.53°F



9100

9200

9300

9093'

91.45°

179.18° 5574.13'

3884.70'

196.53°F

9188'

89.66°

179.73° 5573.21'

3979.69'

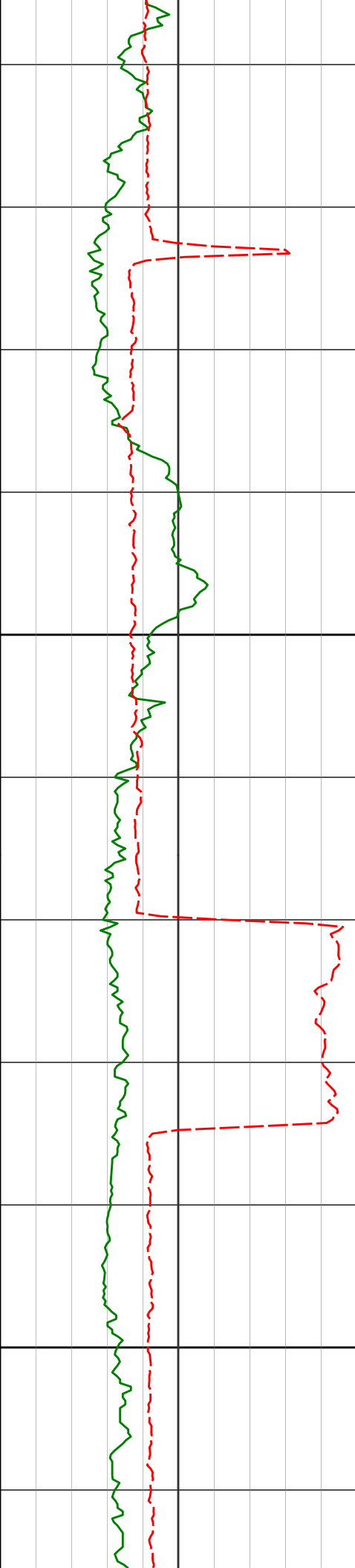
9282'

90.49°

180.59° 5573.08'

4073.68'

196.53°F



9400

9500

9377'

9472'

91.42°

89.35°

180.17° 5571.49'

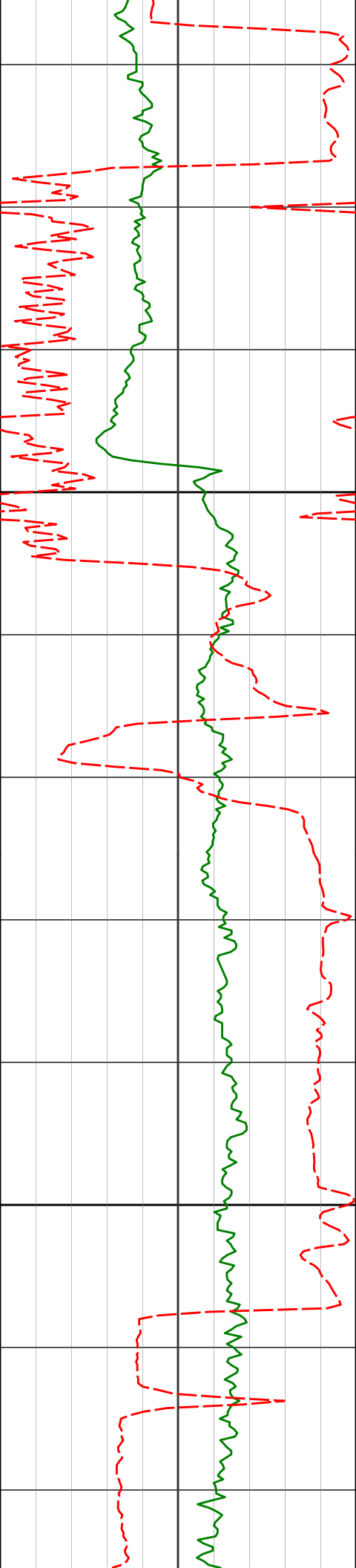
181.59° 5570.86'

4168.66'

4263.61'

200.75°F

196.53°F



9600

9700

9568'

87.29°

180.73° 5573.67'

4359.52'

9663'

87.84°

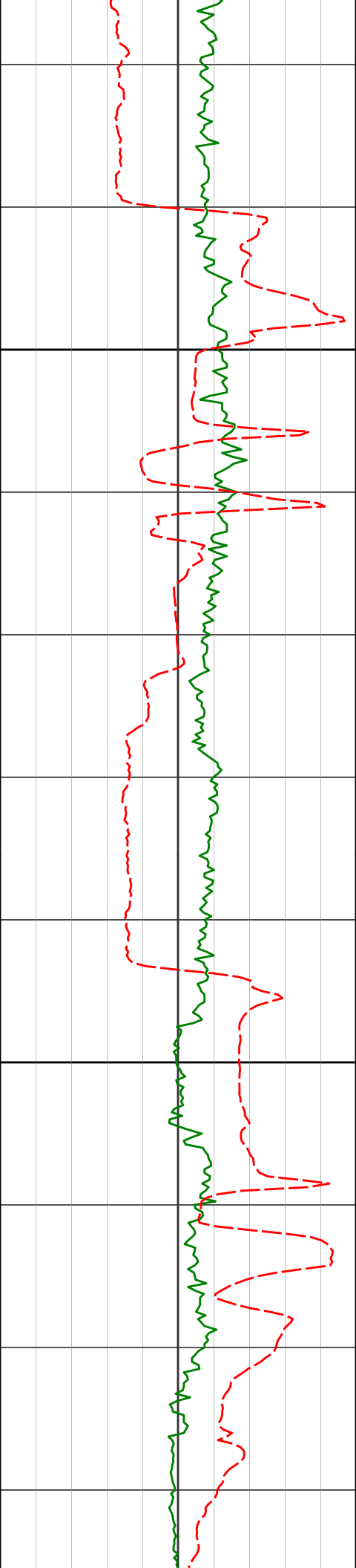
180.40° 5577.71'

4454.41'

200.75°F

200.75°F

200.75°F



9800

9900

9758'

89.88°

179.89° 5579.60'

4549.38'

9853'

90.86°

180.40° 5578.99'

4644.37'

9947'

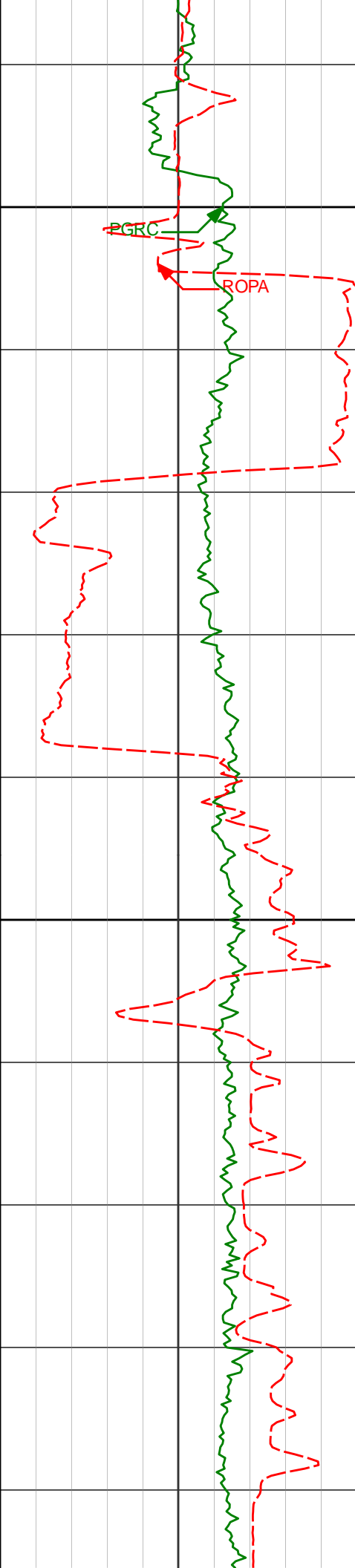
91.23°

180.27° 5577.27'

4738.34'

209.19°F

209.19°F



10000

10100

10042'

89.41°

178.51° 5576.73'

4833.33'

204.97°F

10137'

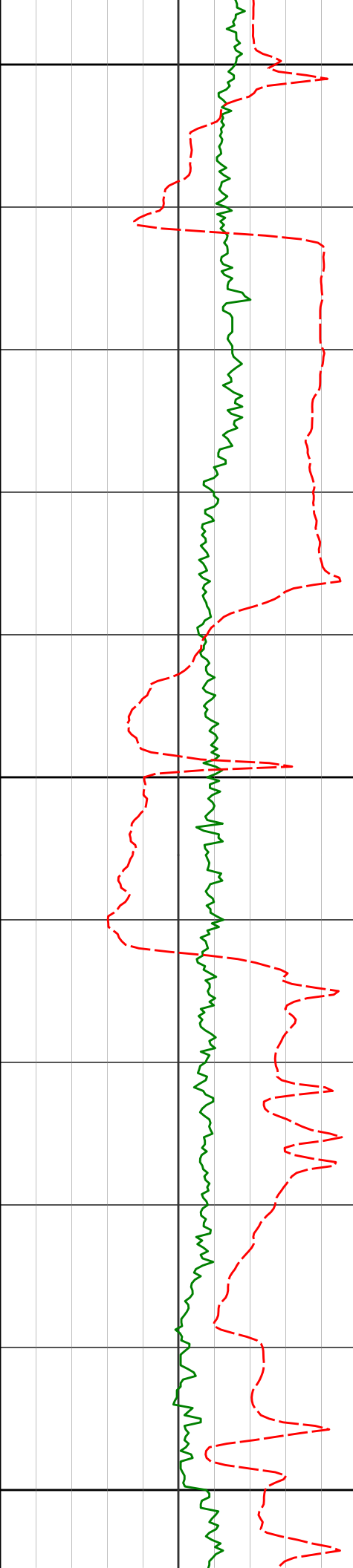
89.85°

178.09° 5577.34'

4928.31'

162.78°F

209.19°F



10200

10232'

90.34°

177.98° 5577.19'

5023.29'

213.41°F

10300

10327'

90.77°

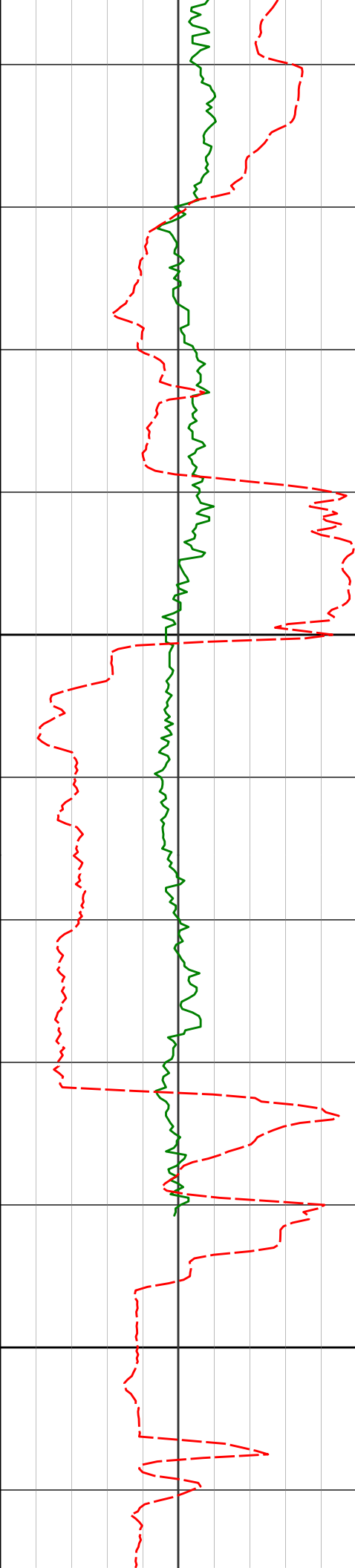
178.07° 5576.27'

5118.25'

213.41°F

10400

167.00°F



10500

10600

10421'

91.70°

177.71° 5574.25'

5212.20'

10516'

90.99°

178.01° 5572.02'

5307.14'

10574'

91.30°

178.09° 5570.87'

5365.11'

213.41°F

209.19°F

204.97°F

| | | | | | | | |
|----------|-------|--------|---------|-----------|----------|---------|-------|
| 3814.00 | 1.15 | 130.55 | 3808.08 | 70.15 S | 100.44 W | 69.07 | 1.06 |
| 3909.00 | 1.57 | 143.47 | 3903.05 | 71.81 S | 98.94 W | 70.76 | 0.55 |
| 4004.00 | 1.36 | 149.28 | 3998.02 | 73.83 S | 97.59 W | 72.79 | 0.28 |
| 4098.00 | 1.27 | 182.36 | 4092.00 | 75.83 S | 97.07 W | 74.79 | 0.80 |
| 4193.00 | 1.23 | 207.09 | 4186.97 | 77.79 S | 97.58 W | 76.74 | 0.57 |
| 4287.00 | 1.60 | 226.97 | 4280.95 | 79.58 S | 99.00 W | 78.53 | 0.65 |
| 4382.00 | 2.71 | 237.43 | 4375.88 | 81.70 S | 101.86 W | 80.61 | 1.23 |
| 4476.00 | 1.64 | 258.45 | 4469.81 | 83.16 S | 105.05 W | 82.04 | 1.40 |
| 4665.00 | 1.01 | 256.33 | 4658.76 | 84.10 S | 109.31 W | 82.93 | 0.34 |
| 4759.00 | 0.34 | 268.86 | 4752.75 | 84.30 S | 110.39 W | 83.12 | 0.72 |
| 4853.00 | 3.55 | 193.68 | 4846.69 | 87.13 S | 111.37 W | 85.94 | 3.70 |
| 4948.00 | 8.67 | 175.65 | 4941.13 | 97.14 S | 111.52 W | 95.94 | 5.69 |
| 5043.00 | 12.94 | 181.93 | 5034.42 | 114.91 S | 111.33 W | 113.72 | 4.65 |
| 5138.00 | 17.68 | 174.80 | 5126.03 | 139.93 S | 110.38 W | 138.74 | 5.36 |
| 5232.00 | 23.10 | 170.98 | 5214.11 | 172.39 S | 106.19 W | 171.25 | 5.94 |
| 5327.00 | 28.16 | 172.55 | 5299.74 | 213.05 S | 100.36 W | 211.97 | 5.37 |
| 5421.00 | 42.12 | 178.52 | 5376.44 | 266.83 S | 96.65 W | 265.79 | 15.28 |
| 5516.00 | 57.72 | 181.05 | 5437.43 | 339.28 S | 96.56 W | 338.24 | 16.54 |
| 5611.00 | 67.36 | 180.95 | 5481.18 | 423.47 S | 98.03 W | 422.40 | 10.15 |
| 5706.00 | 68.86 | 178.68 | 5516.61 | 511.61 S | 97.74 W | 510.54 | 2.73 |
| 5801.00 | 73.54 | 179.39 | 5547.22 | 601.50 S | 96.23 W | 600.44 | 4.98 |
| 5896.00 | 78.72 | 177.06 | 5569.99 | 693.64 S | 93.36 W | 692.61 | 5.95 |
| 5962.00 | 79.60 | 175.51 | 5582.41 | 758.33 S | 89.16 W | 757.33 | 2.67 |
| 6029.00 | 85.00 | 174.41 | 5591.38 | 824.44 S | 83.32 W | 823.50 | 8.23 |
| 6091.00 | 85.28 | 174.74 | 5596.64 | 885.94 S | 77.48 W | 885.06 | 0.68 |
| 6184.00 | 87.90 | 176.42 | 5602.17 | 978.49 S | 70.33 W | 977.68 | 3.35 |
| 6276.00 | 90.86 | 177.28 | 5603.16 | 1070.33 S | 65.27 W | 1069.58 | 3.35 |
| 6368.00 | 90.83 | 178.90 | 5601.80 | 1162.27 S | 62.20 W | 1161.54 | 1.76 |
| 6460.00 | 89.29 | 178.58 | 5601.70 | 1254.24 S | 60.18 W | 1253.53 | 1.71 |
| 6552.00 | 87.81 | 178.71 | 5604.02 | 1346.18 S | 58.01 W | 1345.49 | 1.61 |
| 6645.00 | 90.12 | 178.52 | 5605.70 | 1439.14 S | 55.76 W | 1438.46 | 2.49 |
| 6737.00 | 91.05 | 179.55 | 5604.76 | 1531.12 S | 54.21 W | 1530.45 | 1.50 |
| 6830.00 | 90.34 | 179.13 | 5603.64 | 1624.10 S | 53.14 W | 1623.44 | 0.89 |
| 6922.00 | 92.00 | 179.63 | 5601.75 | 1716.07 S | 52.14 W | 1715.42 | 1.89 |
| 7014.00 | 90.74 | 179.21 | 5599.55 | 1808.04 S | 51.22 W | 1807.39 | 1.45 |
| 7106.00 | 88.27 | 178.78 | 5600.34 | 1900.02 S | 49.60 W | 1899.38 | 2.72 |
| 7201.00 | 88.37 | 178.39 | 5603.13 | 1994.95 S | 47.26 W | 1994.33 | 0.41 |
| 7296.00 | 88.52 | 178.29 | 5605.71 | 2089.87 S | 44.51 W | 2089.28 | 0.20 |
| 7390.00 | 88.58 | 177.61 | 5608.09 | 2183.78 S | 41.15 W | 2183.22 | 0.73 |
| 7485.00 | 90.09 | 177.39 | 5609.19 | 2278.68 S | 37.01 W | 2278.16 | 1.61 |
| 7580.00 | 89.97 | 177.04 | 5609.14 | 2373.57 S | 32.39 W | 2373.09 | 0.39 |
| 7674.00 | 91.70 | 176.70 | 5607.77 | 2467.41 S | 27.27 W | 2466.98 | 1.87 |
| 7769.00 | 92.53 | 178.51 | 5604.27 | 2562.26 S | 23.30 W | 2561.87 | 2.09 |
| 7864.00 | 91.97 | 178.68 | 5600.54 | 2657.16 S | 20.97 W | 2656.79 | 0.61 |
| 7958.00 | 90.71 | 179.21 | 5598.34 | 2751.12 S | 19.24 W | 2750.76 | 1.46 |
| 8052.00 | 91.14 | 179.33 | 5596.82 | 2845.10 S | 18.04 W | 2844.74 | 0.48 |
| 8146.00 | 90.52 | 180.07 | 5595.46 | 2939.08 S | 17.55 W | 2938.73 | 1.02 |
| 8241.00 | 90.25 | 179.17 | 5594.82 | 3034.08 S | 16.91 W | 3033.73 | 0.99 |
| 8335.00 | 91.85 | 178.67 | 5593.10 | 3128.04 S | 15.14 W | 3127.70 | 1.78 |
| 8430.00 | 90.55 | 176.80 | 5591.10 | 3222.94 S | 11.39 W | 3222.64 | 2.40 |
| 8525.00 | 91.85 | 175.41 | 5589.11 | 3317.70 S | 4.93 W | 3317.46 | 1.99 |
| 8619.00 | 92.00 | 174.41 | 5585.95 | 3411.27 S | 3.40 E | 3411.11 | 1.08 |
| 8714.00 | 91.70 | 177.77 | 5582.88 | 3505.99 S | 9.87 E | 3505.89 | 3.55 |
| 8808.00 | 92.31 | 177.73 | 5579.60 | 3599.86 S | 13.56 E | 3599.80 | 0.66 |
| 8903.00 | 91.05 | 178.40 | 5576.81 | 3694.76 S | 16.76 E | 3694.73 | 1.51 |
| 8998.00 | 90.37 | 179.57 | 5575.63 | 3789.74 S | 18.44 E | 3789.72 | 1.42 |
| 9093.00 | 91.45 | 179.18 | 5574.13 | 3884.72 S | 19.48 E | 3884.70 | 1.21 |
| 9188.00 | 89.66 | 179.73 | 5573.21 | 3979.70 S | 20.39 E | 3979.69 | 1.97 |
| 9282.00 | 90.49 | 180.59 | 5573.08 | 4073.70 S | 20.13 E | 4073.68 | 1.27 |
| 9377.00 | 91.42 | 180.17 | 5571.49 | 4168.68 S | 19.50 E | 4168.66 | 1.07 |
| 9472.00 | 89.35 | 181.59 | 5570.86 | 4263.66 S | 18.04 E | 4263.61 | 2.64 |
| 9568.00 | 87.29 | 180.73 | 5573.67 | 4359.60 S | 16.10 E | 4359.52 | 2.33 |
| 9663.00 | 87.84 | 180.40 | 5577.71 | 4454.51 S | 15.16 E | 4454.41 | 0.68 |
| 9758.00 | 89.88 | 179.89 | 5579.60 | 4549.48 S | 14.91 E | 4549.38 | 2.21 |
| 9853.00 | 90.86 | 180.40 | 5578.99 | 4644.48 S | 14.68 E | 4644.37 | 1.17 |
| 9947.00 | 91.23 | 180.27 | 5577.27 | 4738.46 S | 14.13 E | 4738.34 | 0.42 |
| 10042.00 | 89.41 | 178.51 | 5576.73 | 4833.45 S | 15.14 E | 4833.33 | 2.66 |
| 10137.00 | 89.85 | 178.09 | 5577.34 | 4928.40 S | 17.96 E | 4928.31 | 0.64 |
| 10232.00 | 90.34 | 177.98 | 5577.19 | 5023.34 S | 21.22 E | 5023.29 | 0.53 |
| 10327.00 | 90.77 | 178.07 | 5576.27 | 5118.28 S | 24.49 E | 5118.25 | 0.46 |
| 10421.00 | 91.70 | 177.71 | 5574.25 | 5212.20 S | 27.95 E | 5212.20 | 1.06 |
| 10516.00 | 90.99 | 178.01 | 5572.02 | 5307.10 S | 31.50 E | 5307.14 | 0.81 |
| 10574.00 | 91.30 | 178.09 | 5570.87 | 5365.06 S | 33.47 E | 5365.11 | 0.55 |
| 10639.00 | 91.30 | 178.09 | 5569.40 | 5430.01 S | 35.64 E | 5430.08 | 0.01 |

CALCULATION BASED ON MINIMUM CURVATURE METHOD

**SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT**

**VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG A DIRECTION OF 179.39 DEGREES (GRID)
A TOTAL CORRECTION OF 6.92 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED**

**HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 10639.00 FEET
IS 5430.12 FEET ALONG 179.62 DEGREES (GRID)**

Surface surveys at 425 ft, 800 and 1200 ft have had azimuths corrected to grid north, but were not taken by Halliburton.

Last survey is a projection from 10574 ft MD to TD at 10639 ft MD.

Date Printed: 31 January 2015