



FILE NO:
US093869

COMPANY
WELL

WPX ENERGY ROCKY MTN LLC

FIELD

FEDERAL PA 31-27

COUNTY

PARACHUTE

STATE

GARFIELD

CO

Ver. 3.87

LOCATION:

S27 T6S R95W

SHL: 2852' FNL: 657' FEL

PAD: DOE 2-W-27

BHL: 912' FNL: 1926' FEL

RIG: NABORS 576

SEC 27

TWP 6S

RGE 95W

OTHER SERVICES
RAL CBL

PERMANENT DATUM

GL

ELEVATION 5856 FT

LOG MEASURED FROM

KB

26 FT

ABOVE P.D.

ELEVATIONS:

KB 5882 FT

DF

GL 5856 FT

DRILL. MEAS. FROM

KB

DATE

11-Jan-2015

RUN

TRIP

1

1

SERVICE ORDER

US093869

DEPTH DRILLER

8810 FT

DEPTH LOGGER

8735 FT

BOTTOM LOGGED INTERVAL

8725 FT

TOP LOGGED INTERVAL

4950 FT

TIME STARTED

07:00

TIME FINISHED

13:30

OPERATOR RIG TIME

5.5HR

TYPE OF FLUID IN HOLE

WATER

FLUID DENSITY

NA

FLUID SALINITY

NA

FLUID LEVEL

80 FT

LOGGED CEMENT TOP

NA

WELLHEAD PRESSURE

0 PSI

MAXIMUM HOLE DEVIATION

NA

NOMINAL LOGGING SPEED

15 FMN

MAX. RECORDED TEMP.

245 DEGF

REFERENCE LOG

NA

EQUIP. NO.

6670

LOCATION

GRAND JCT

RECORDED BY

D SMITH

WITNESSED BY

J DUCY

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD

| BIT SIZE | FROM | TO |
|----------|---------|---------|
| 13.5 IN | 0 FT | 2911 FT |
| 8.75 IN | 2911 FT | 8849 FT |

CASING RECORD

| SIZE | WEIGHT | GRADE | FROM | TO |
|----------|-----------|-------|------|---------|
| 9.625 IN | 36 LB/F | | 0 FT | 2911 FT |
| 4.5 IN | 11.6 LB/F | | 0 FT | 8849 FT |

REMARKS

RUN 1 TRIP 1: All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 10/JAN/2015 at the client's request.

The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

The amount of linear shift is -6 FT

Logged in PNC-3D mode.

BHT = 245

Logged with zero PSI at wellhead.

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES

CREW: HOLLER/BAUGHMAN/SMITH

EQUIPMENT DATA

| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. | POSITION |
|-----|------|---------|------------|------------|----------|
| 1 | 1 | TEMP | 8255XA | 11774586 | FREE |
| 1 | 1 | RPM | 8281FA | 10191667 | FREE |
| 1 | 1 | RPM | 8283PA | 10203151 | FREE |
| 1 | 1 | RPM | 8281EA | 10191667 | FREE |
| 1 | 1 | GR | 8262XA | 10317216 | FREE |
| 1 | 1 | TEL/CCL | 8248EA | 10387150 | FREE |

MAIN LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 4

Plotted: Sun Jan 11 13:25:07 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH093869/n353h02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 4842.250 ft BOTTOM DEPTH: 8763.000 ft

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) |
|------------------|-----------|------------|-------|---------------|
| GR | FILTER () | medium (1) | | TOP BOTTOM |

RPM PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) |
|------------------|-------------------|------------|-------|---------------|
| PNC Parameters | BOREHOLE CONTENTS | FLUID | | TOP BOTTOM |
| | OPEN/CASED HOLE | CASED HOLE | | " " |
| | BOREHOLE SIZE | 8.75 | in | " " |
| | CASING SIZE | 4.50 | in | " " |
| | MATRIX | SANDSTONE | | " " |
| | CORRECTION BUFFER | 11 | | " " |

CURVE DESCRIPTION REPORT

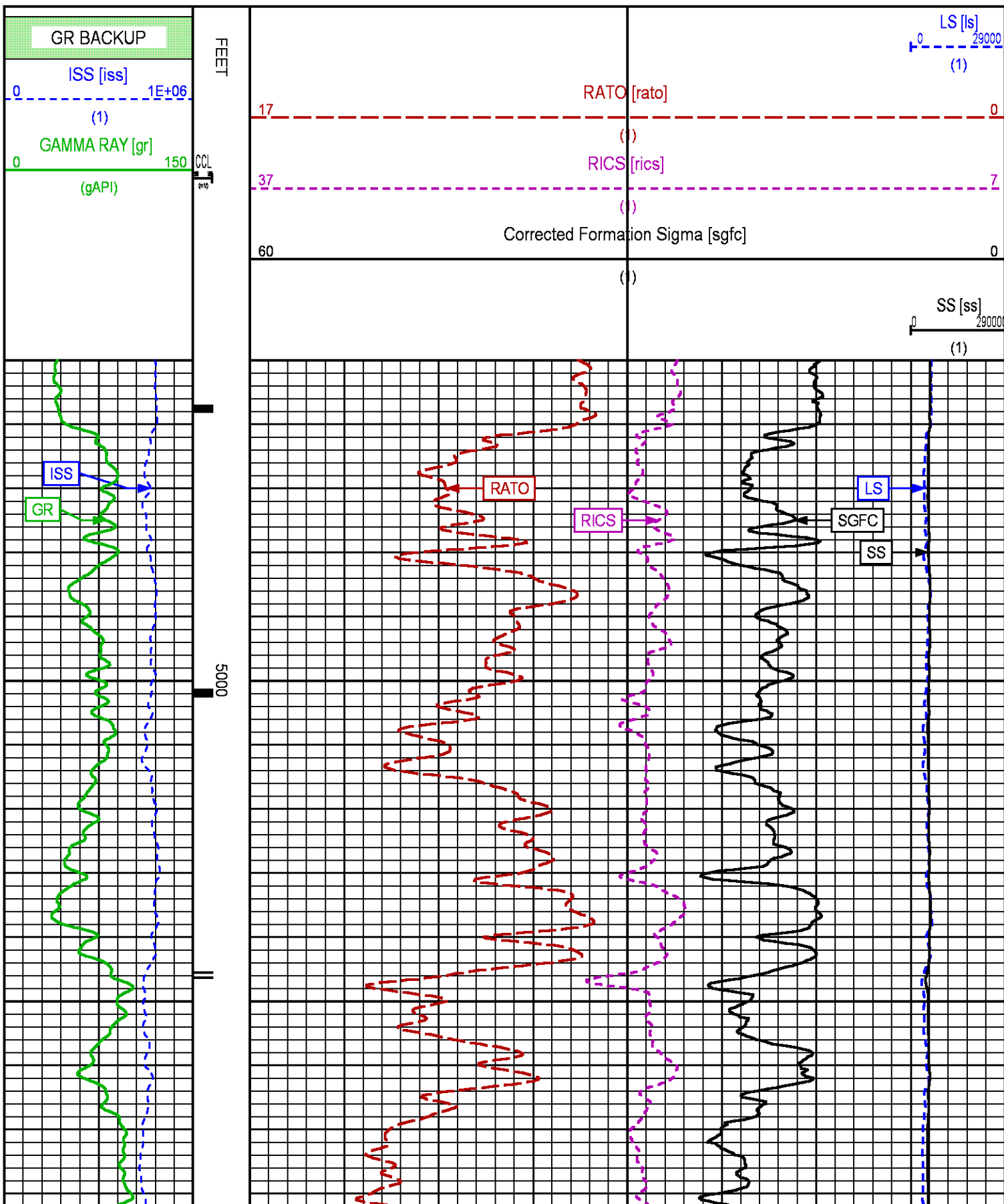
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|---|
| F1:CCL | Jan 11 13:08:45 2015 | CASING COLLAR LOCATOR |
| F1:GR | Jan 11 13:10:23 2015 | GAMMA RAY |
| F1:ISS | Jan 11 13:10:23 2015 | INELASTIC SHORT SPACE COUNT RATE |
| F1:LS | Jan 11 13:10:24 2015 | LONG SPACE COUNT RATE |
| F1:RATO | Jan 11 13:10:40 2015 | SHORT/LONG SPACE COUNT RATE RATIO |
| F1:RICS | Jan 11 13:10:53 2015 | SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS) |
| F1:SGFC | Jan 11 13:10:55 2015 | CORRECTED FORMATION SIGMA |
| F1:SS | Jan 11 13:10:55 2015 | SHORT SPACE COUNT RATE |

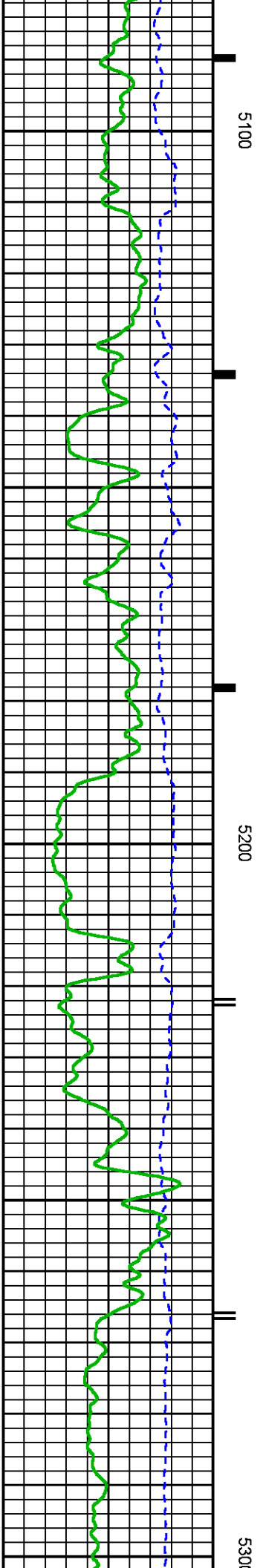
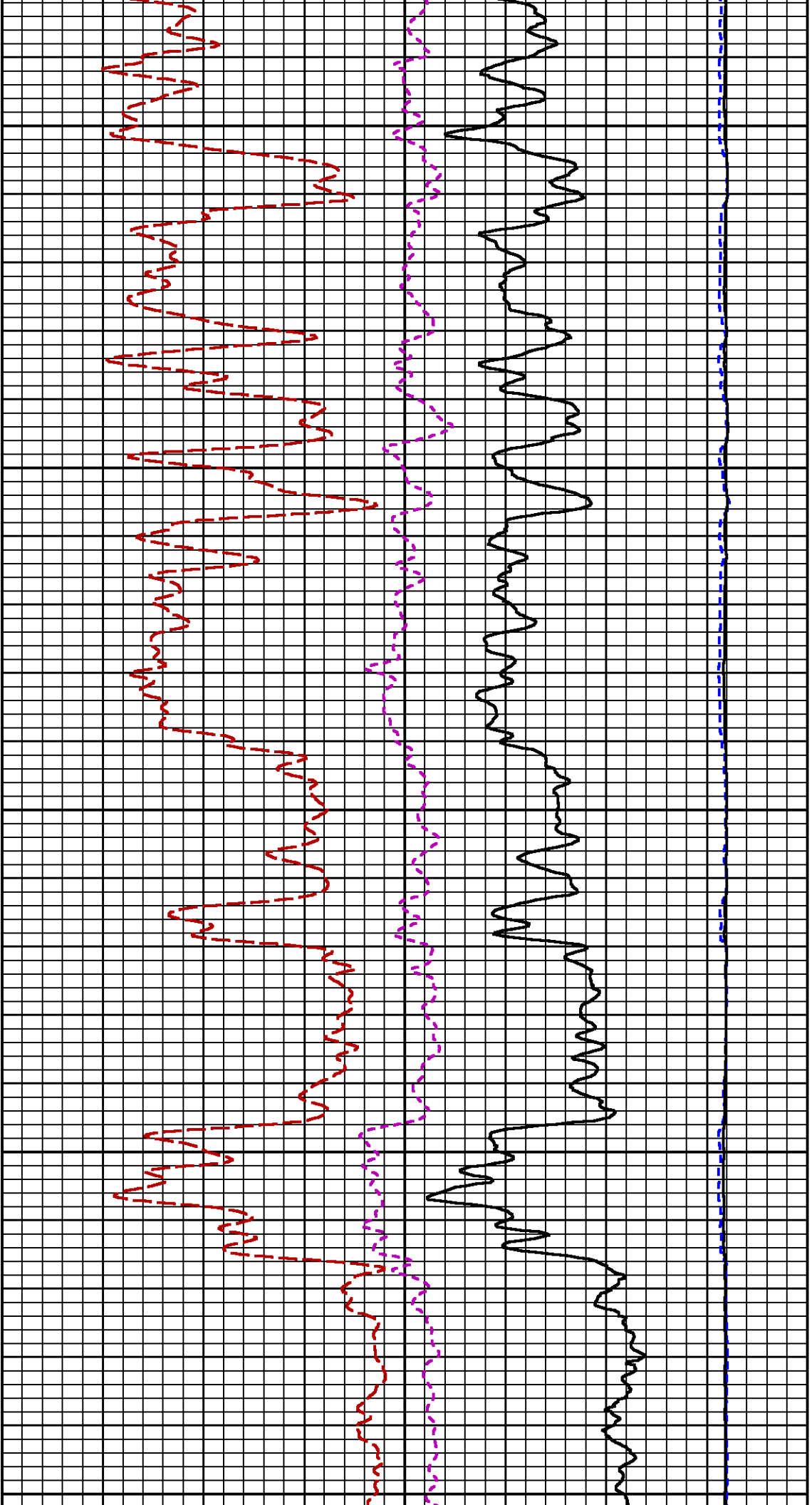
CURVE MEASURE POINT OFFSET

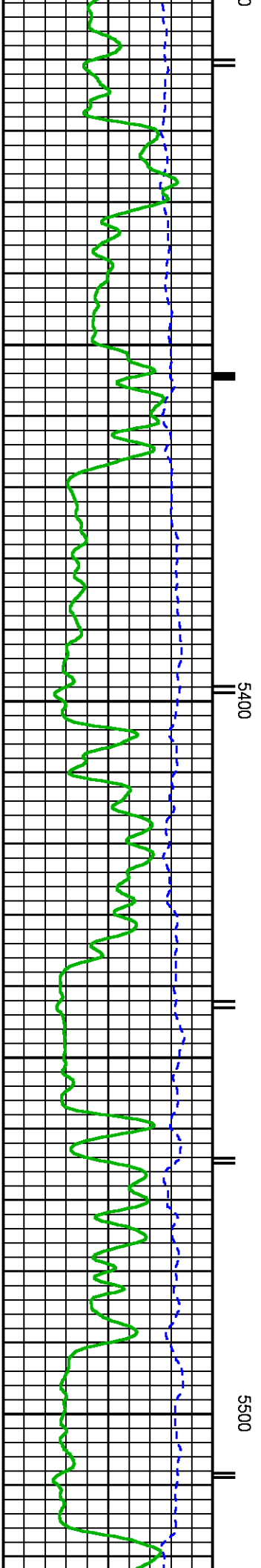
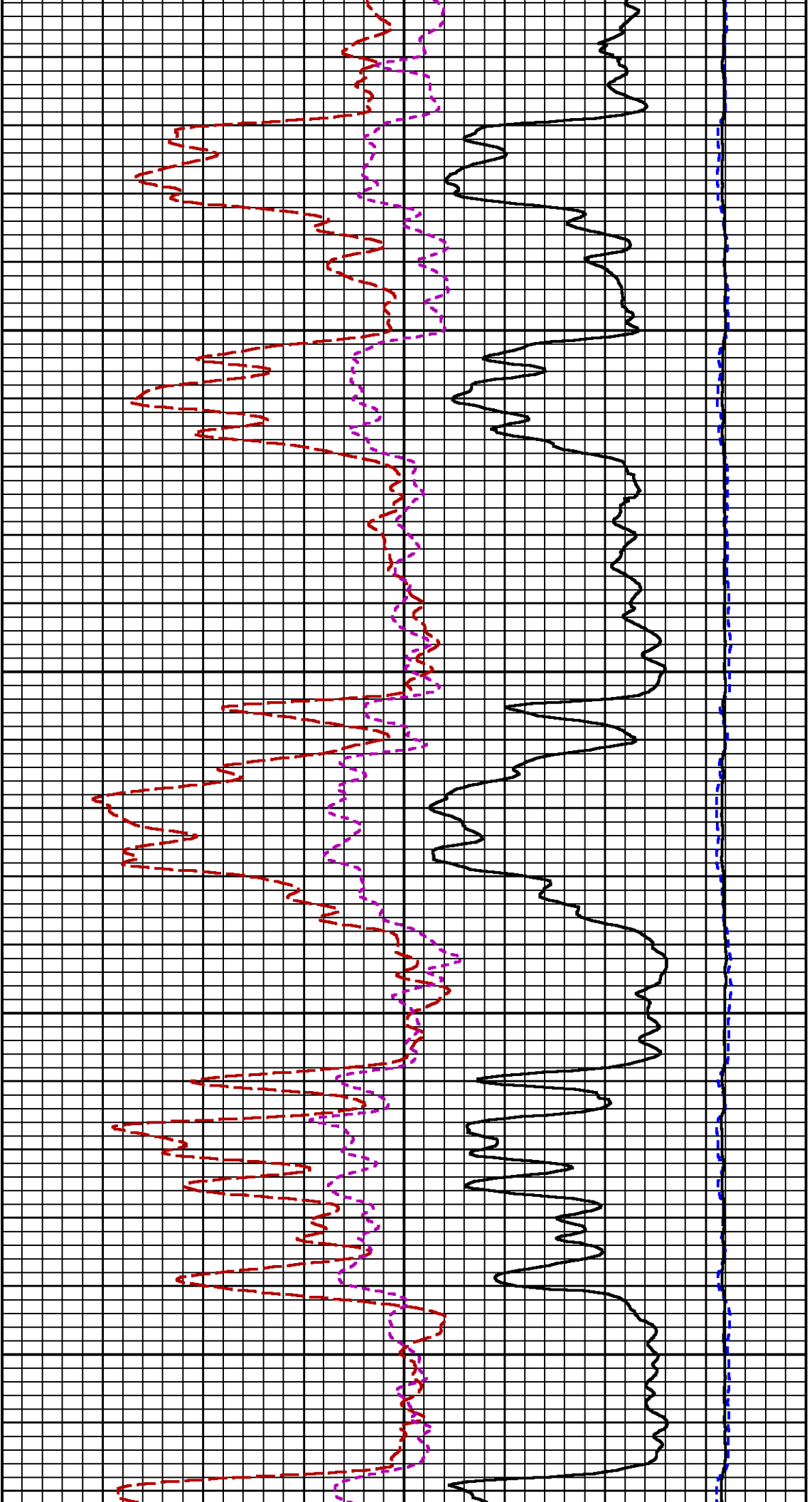
| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CCL | 26.00 | ISS | 12.75 | RATO | 12.75 | SGFC | 12.75 |
| GR | 23.00 | LS | 12.75 | RICS | 12.75 | SS | 12.75 |

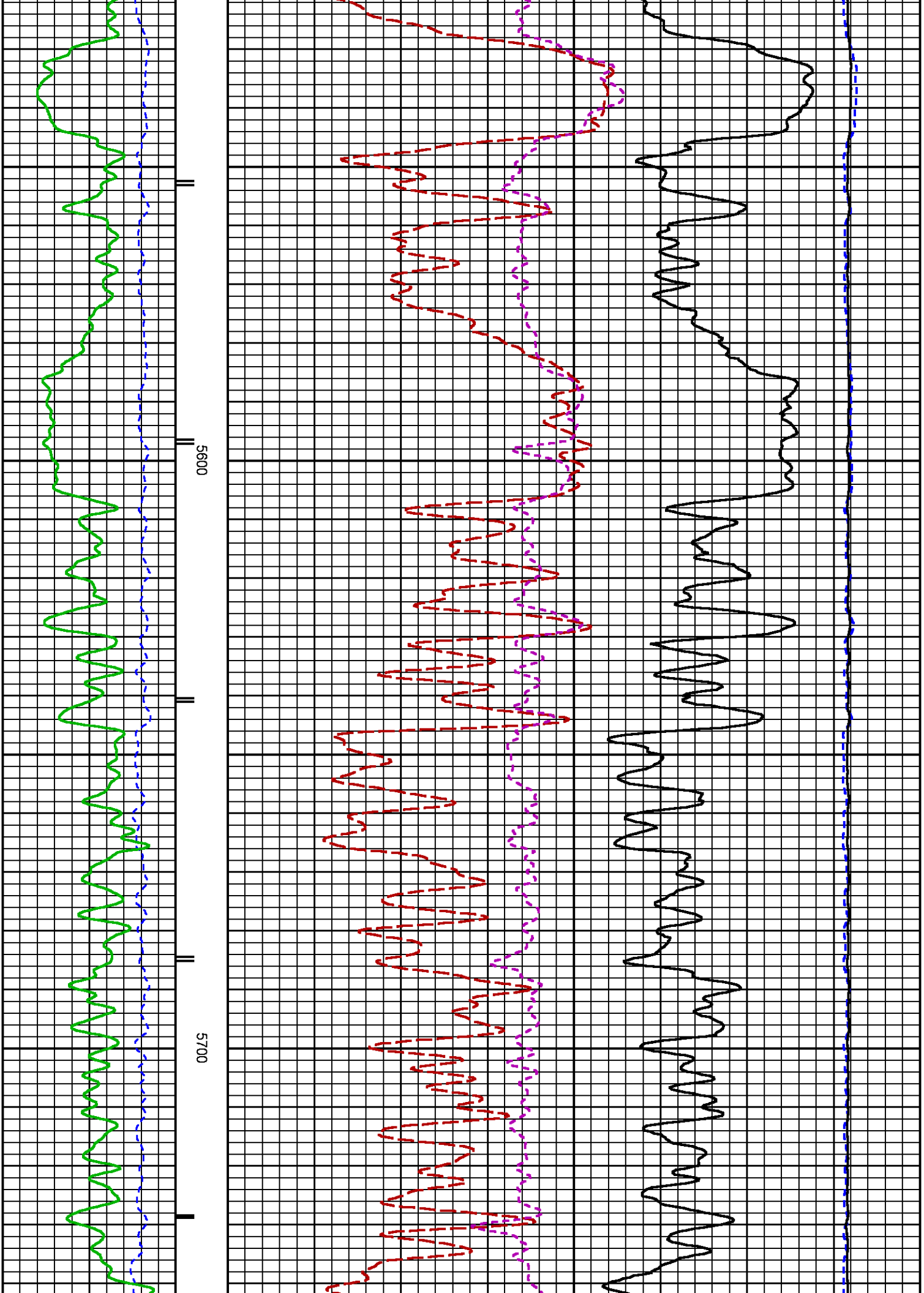
Presentation : HL6670:WPX_RPM_PNC3D_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 4950 - 8763 Feet

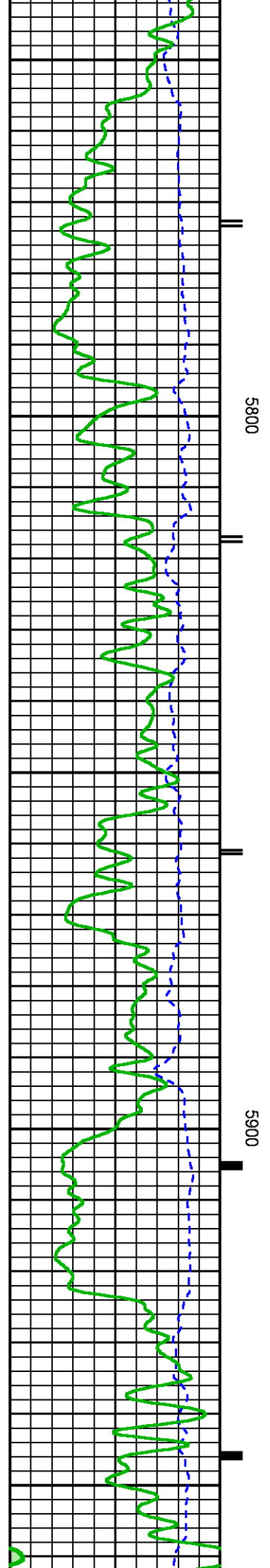
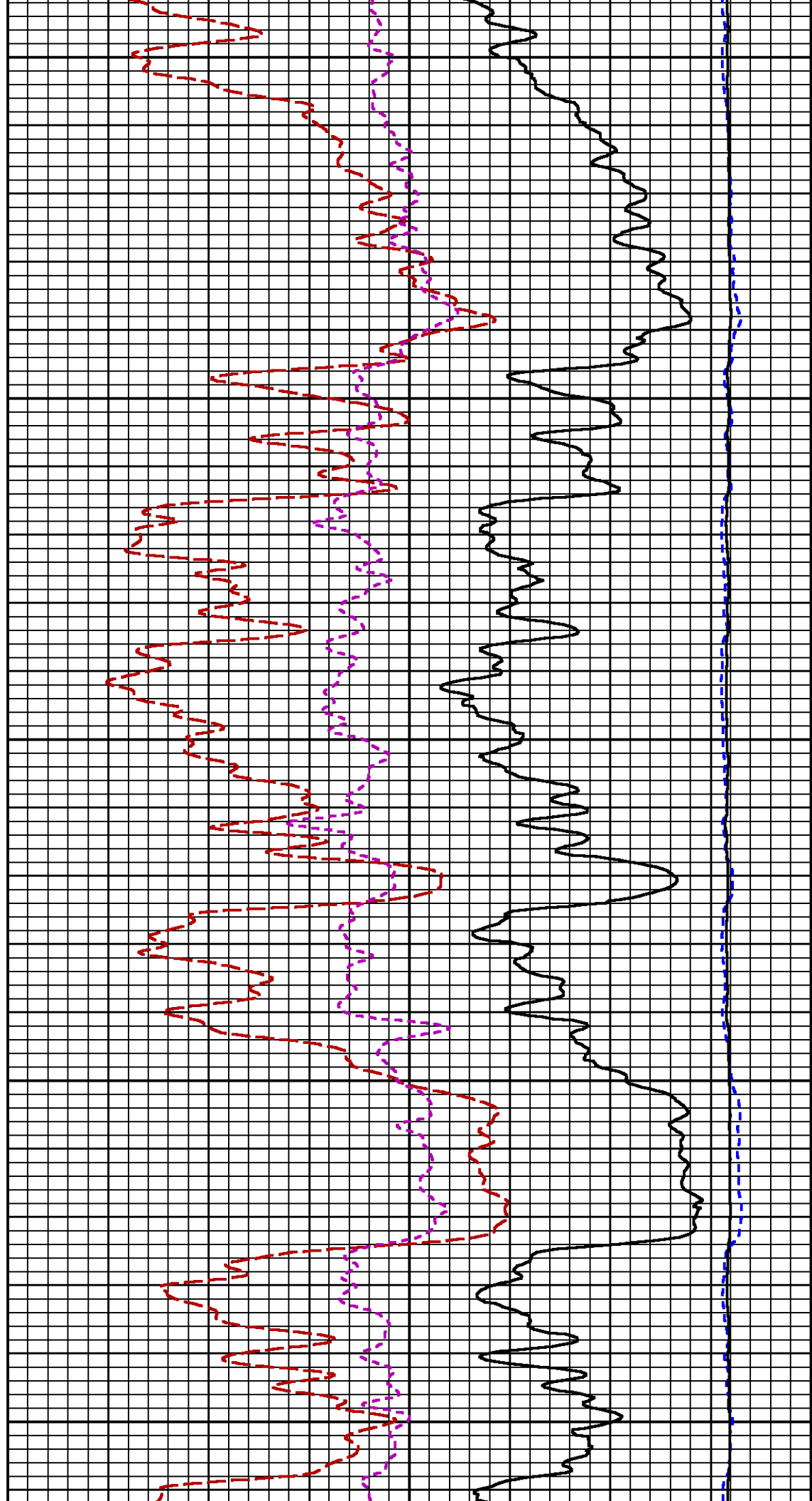
Data File 1 : F1 : HL6670:/dat1a/CH093869/RPM_MAIN.xtf
Created On : Jan 11 13:08:26 2015
Company : WPX ENERGY ROCKY MTN LLC
Well : FEDERAL PA 31-27
Field : PARAHUTE
File Interval : 25 - 8763 Feet
OCT : n353h

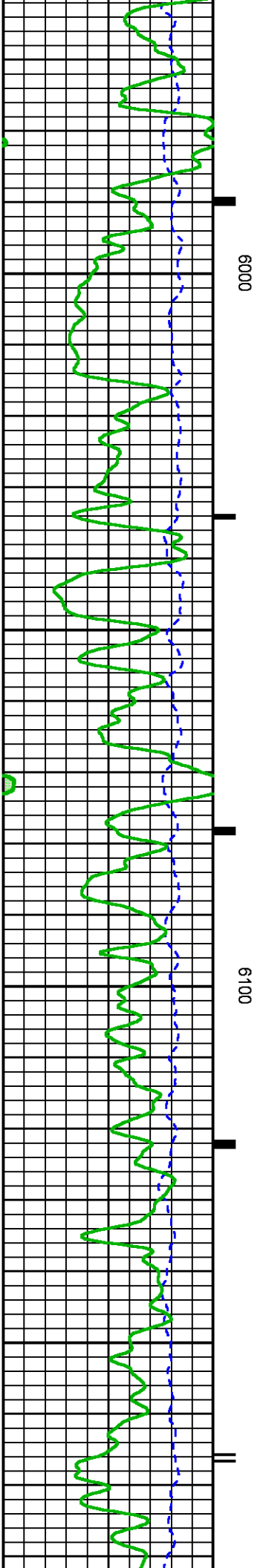
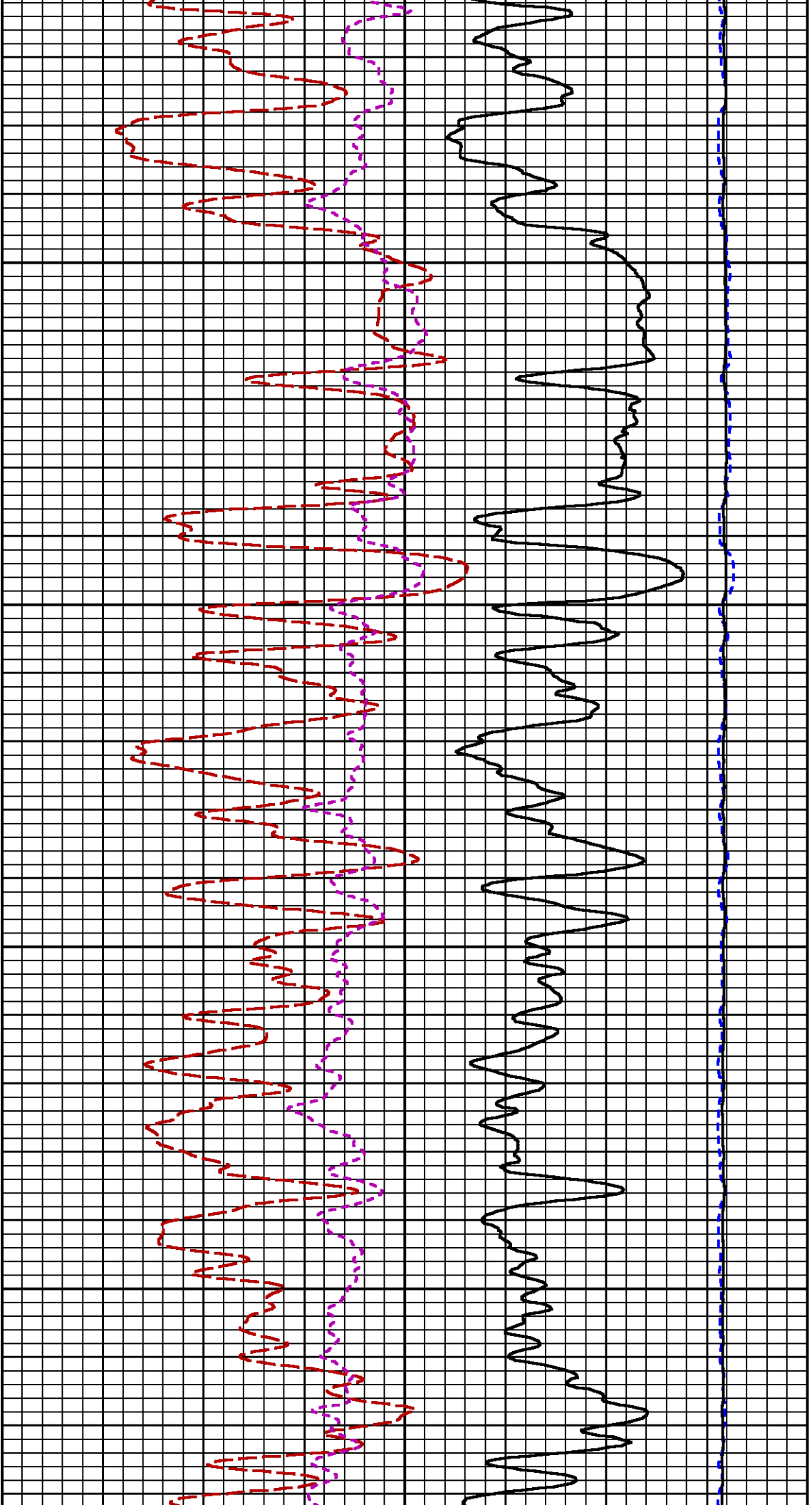


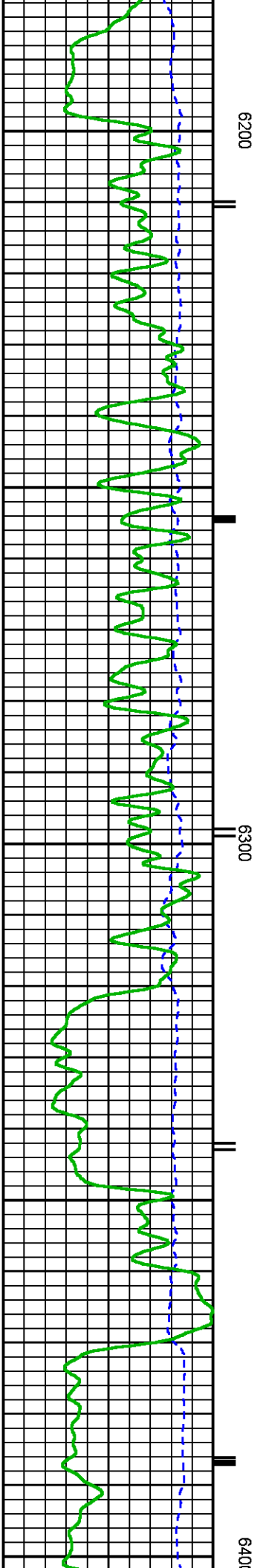
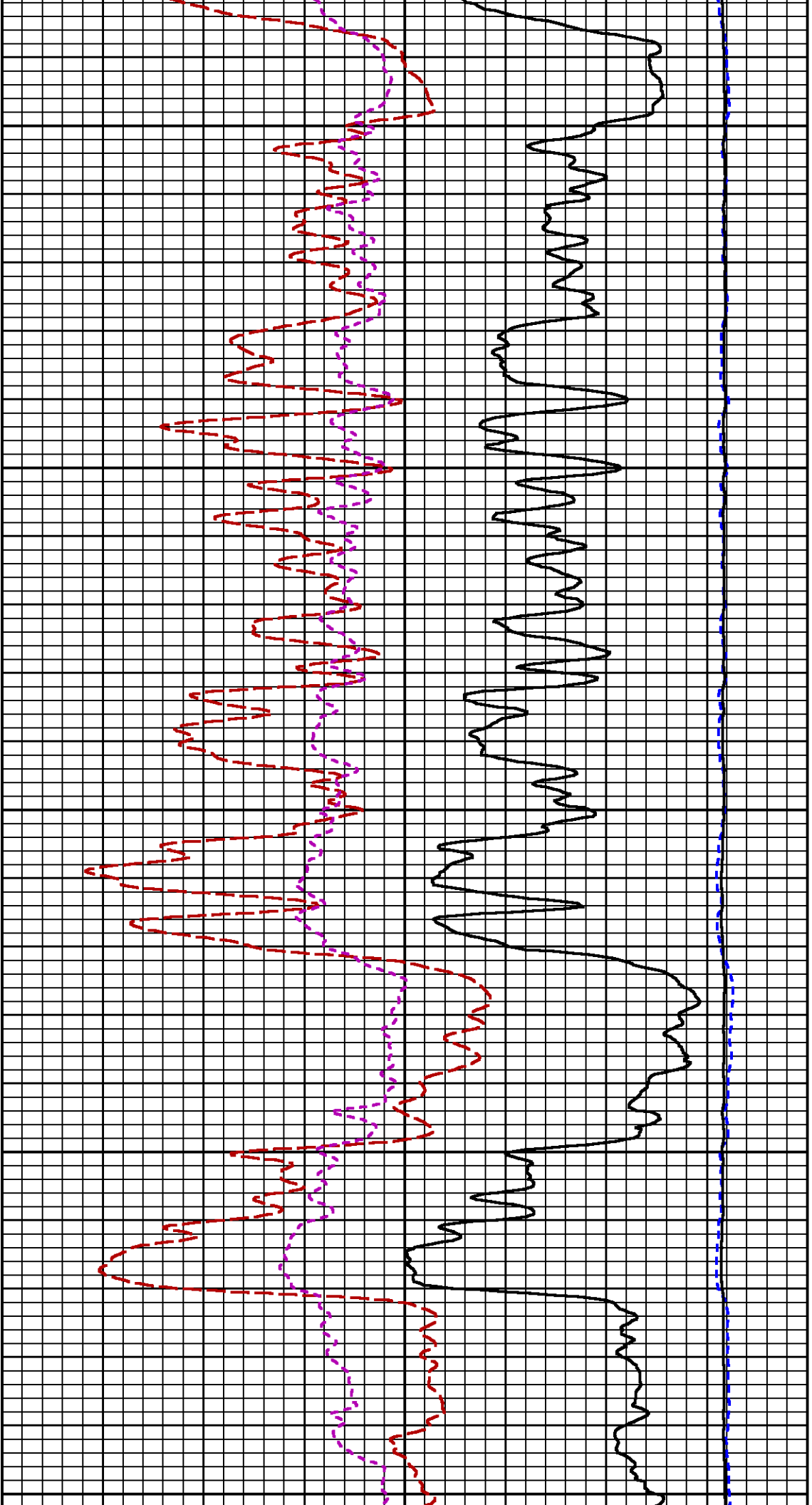


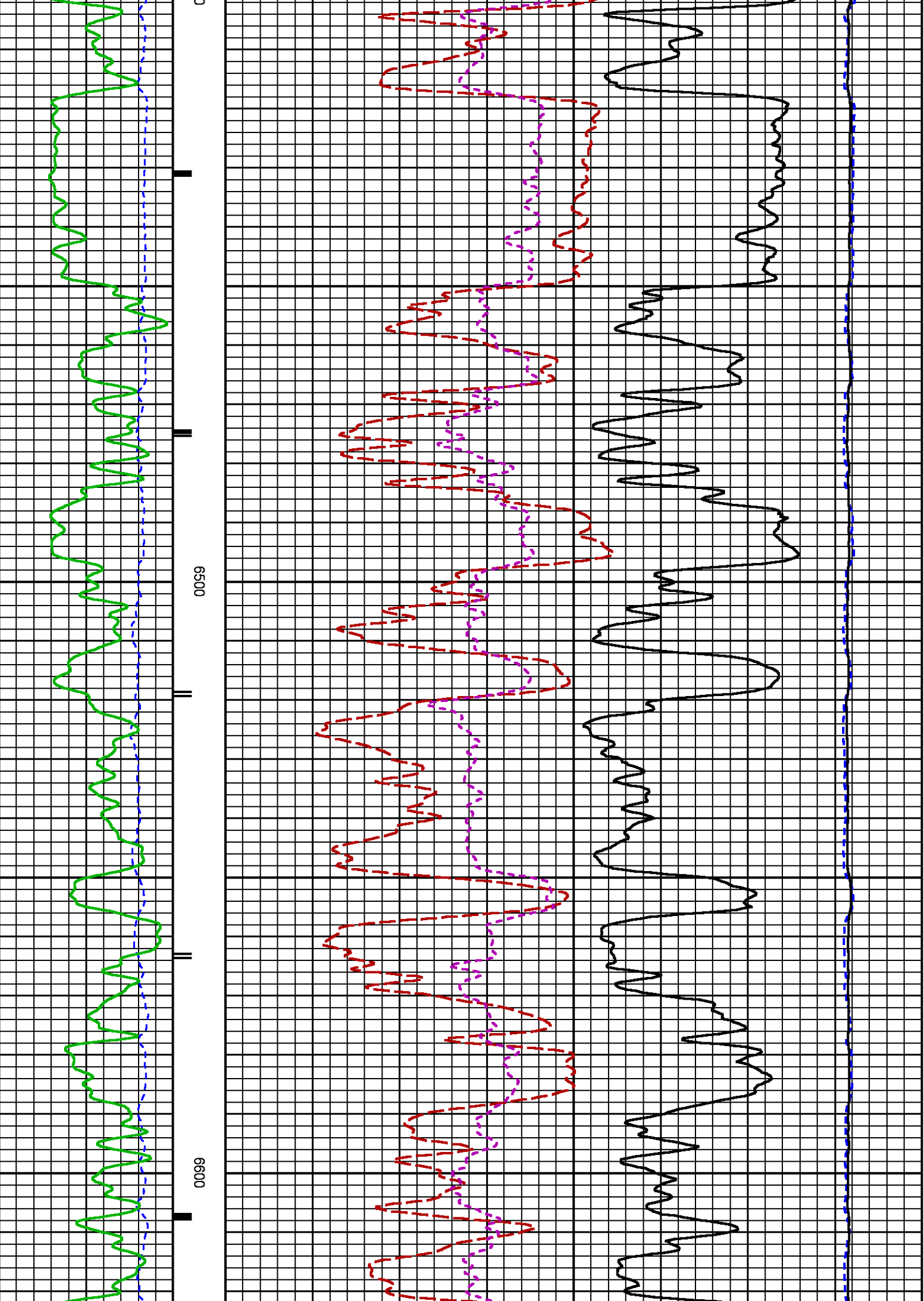


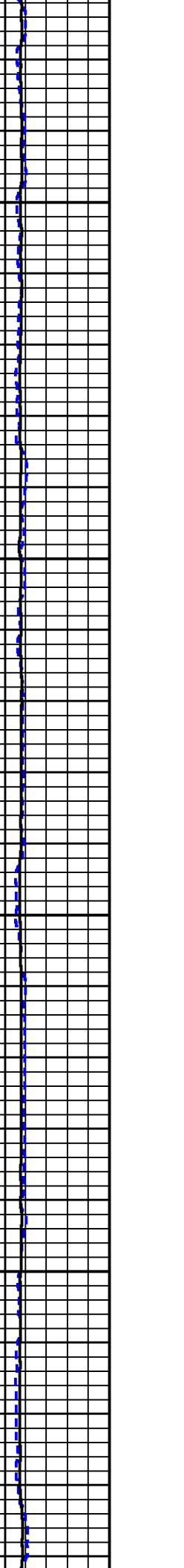
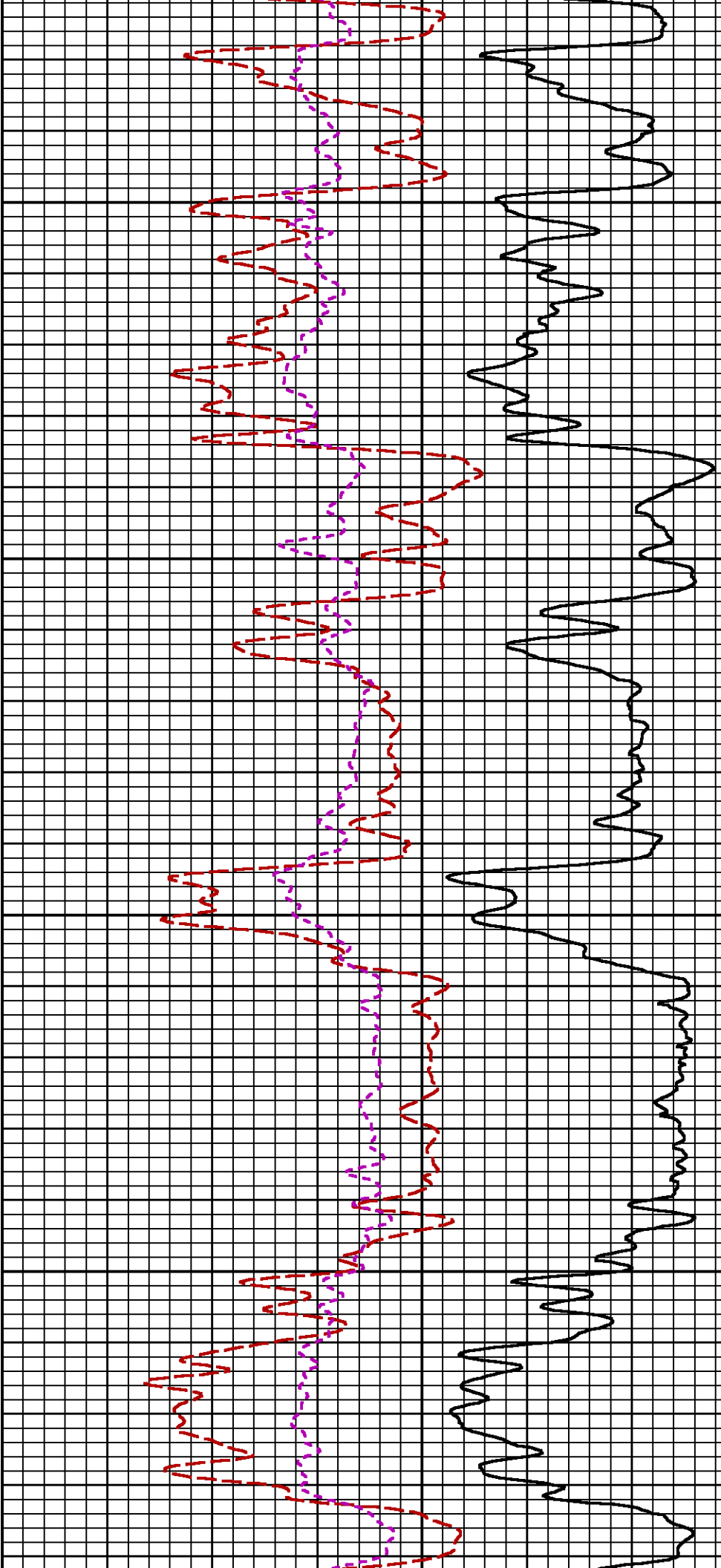
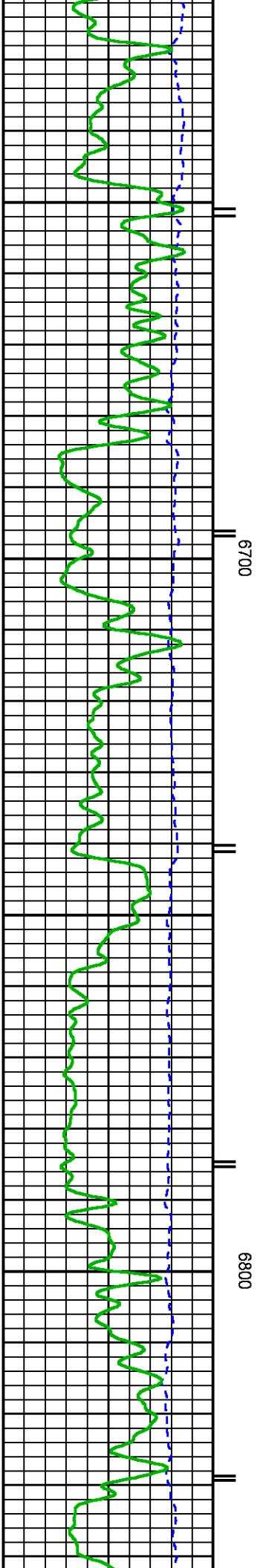


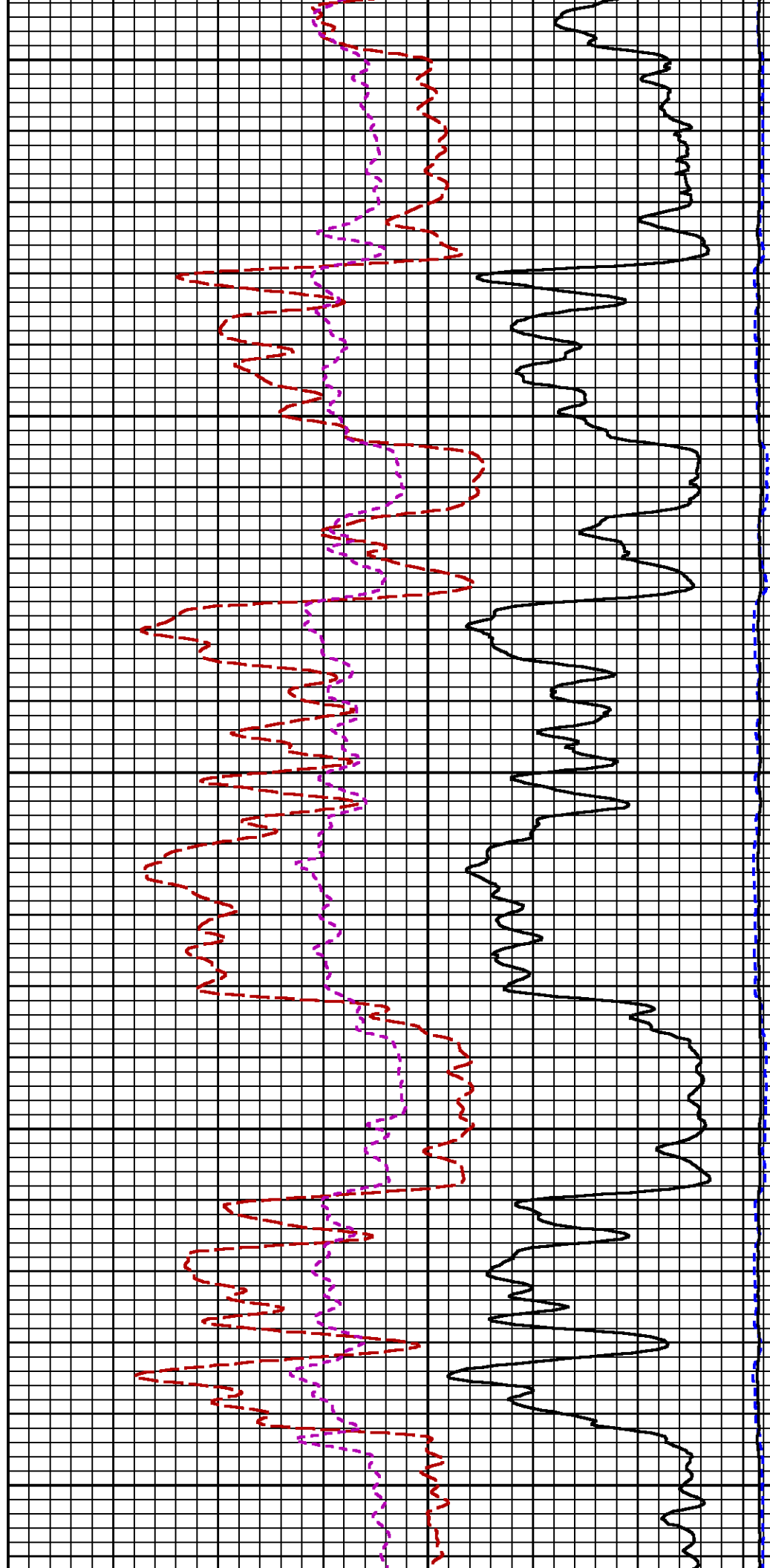
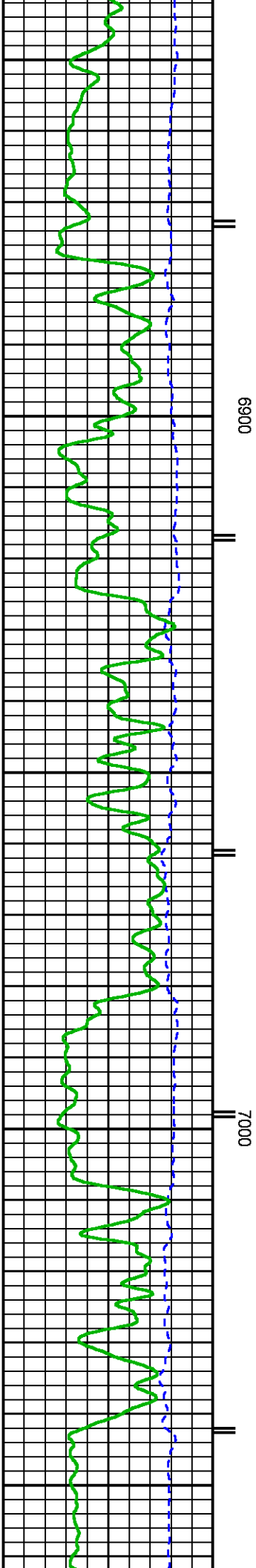


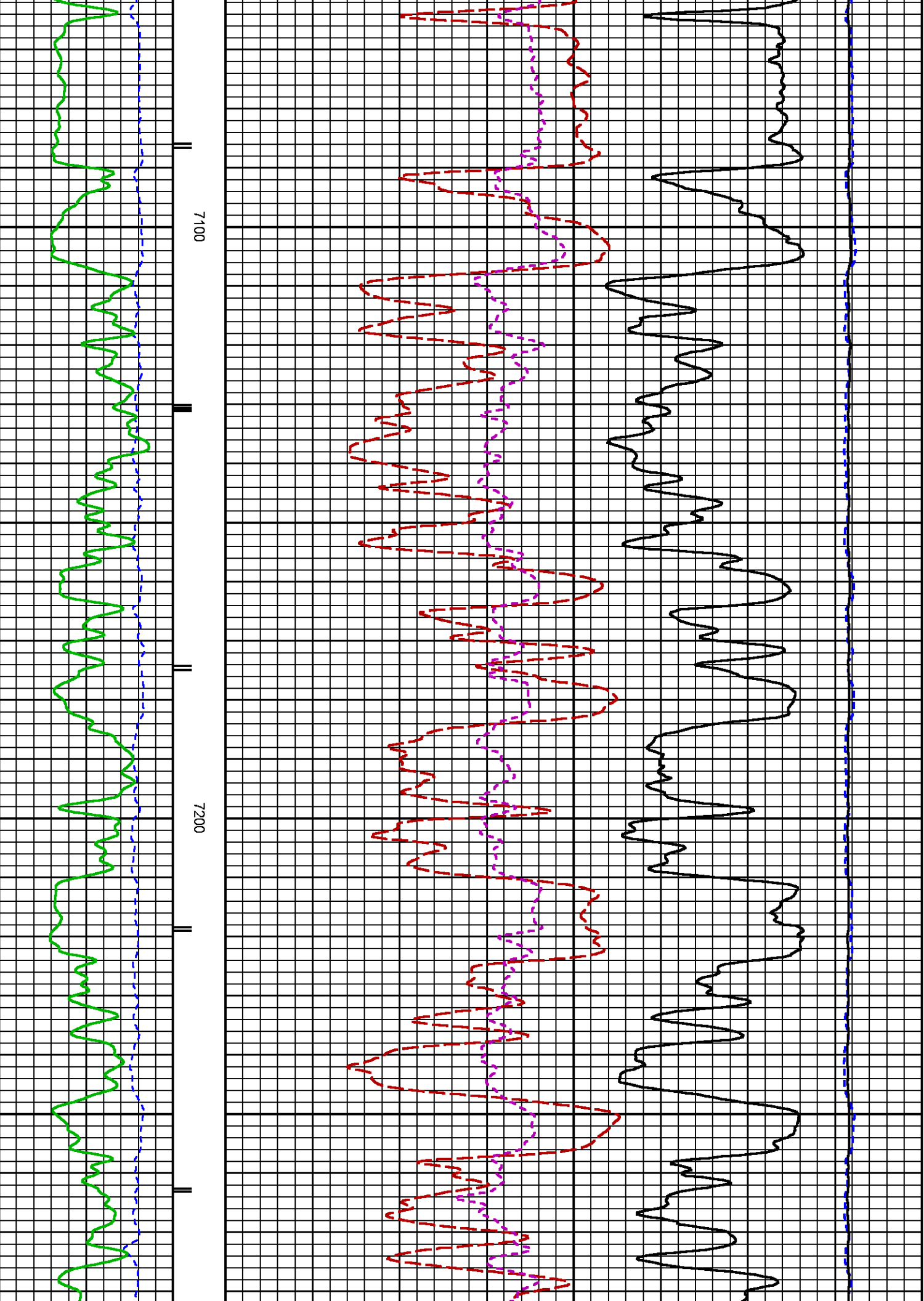


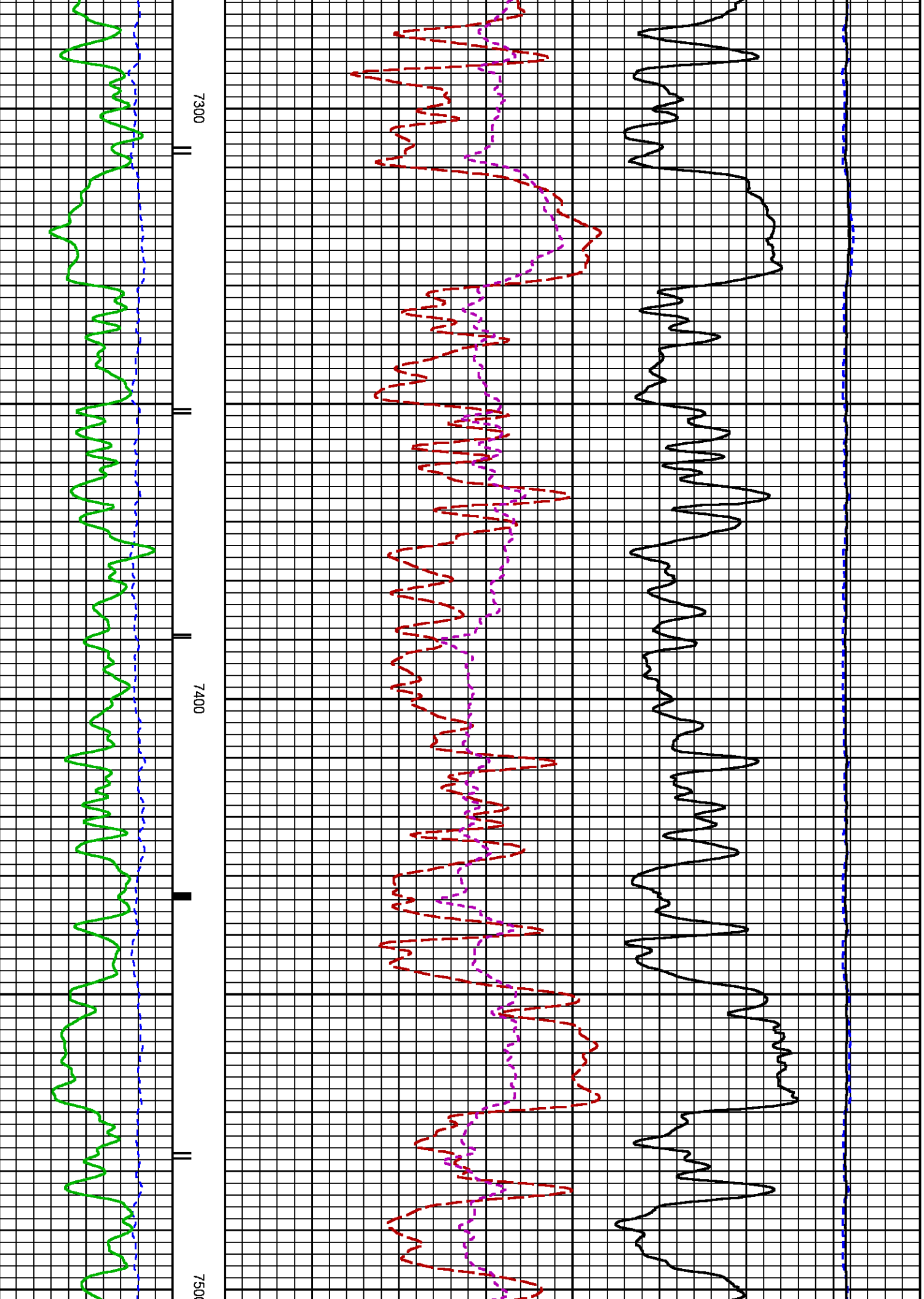


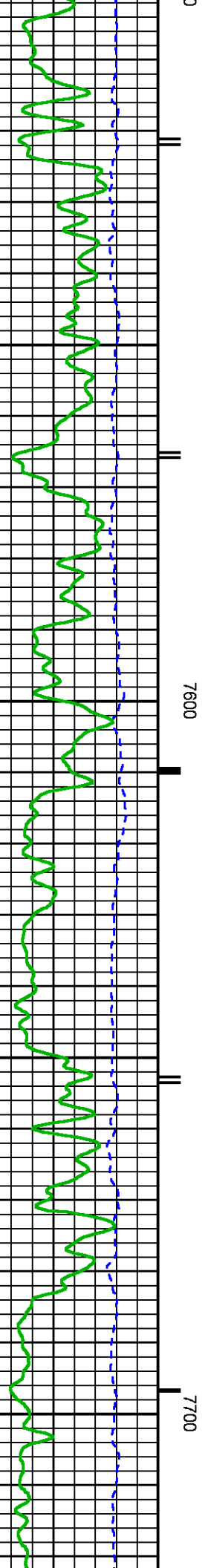
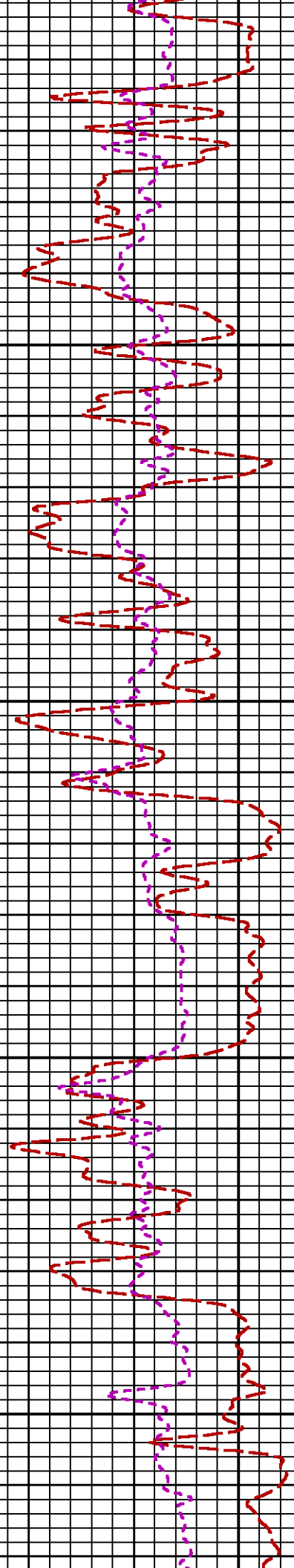
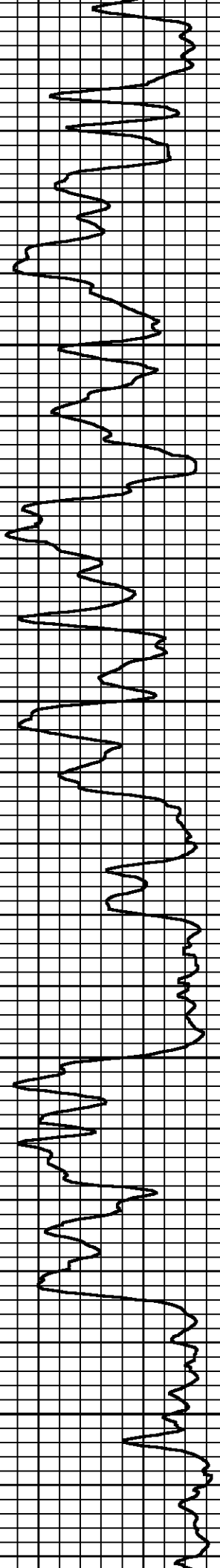






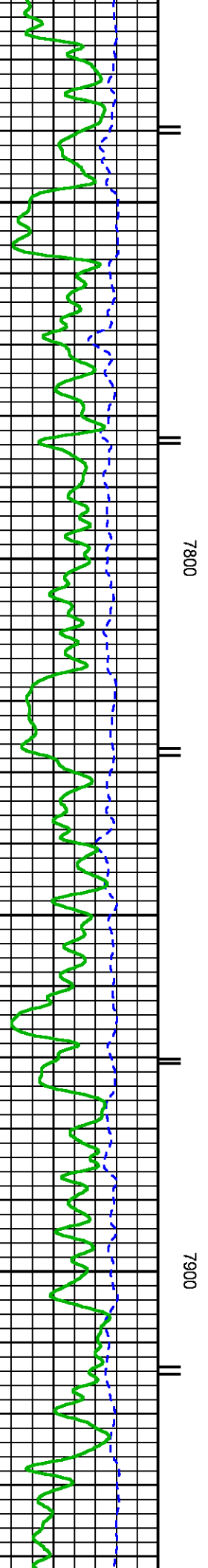
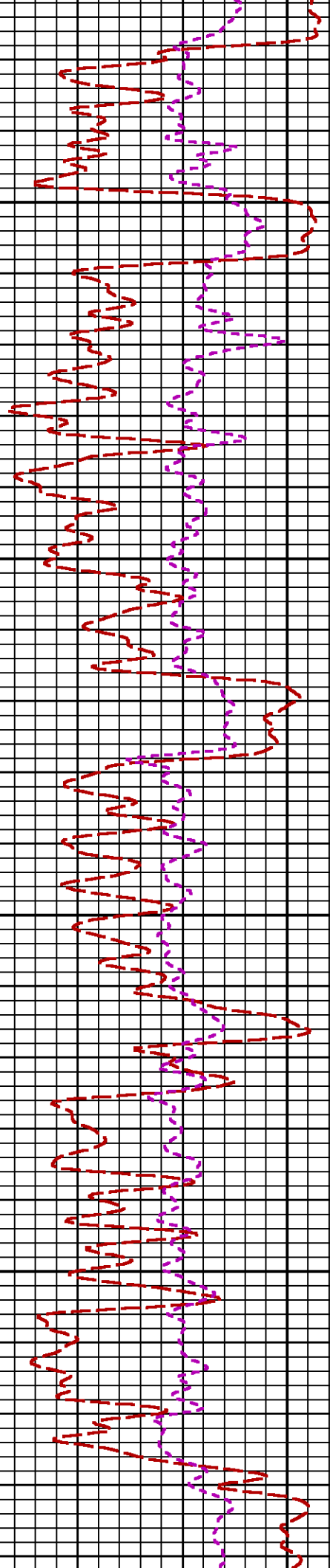
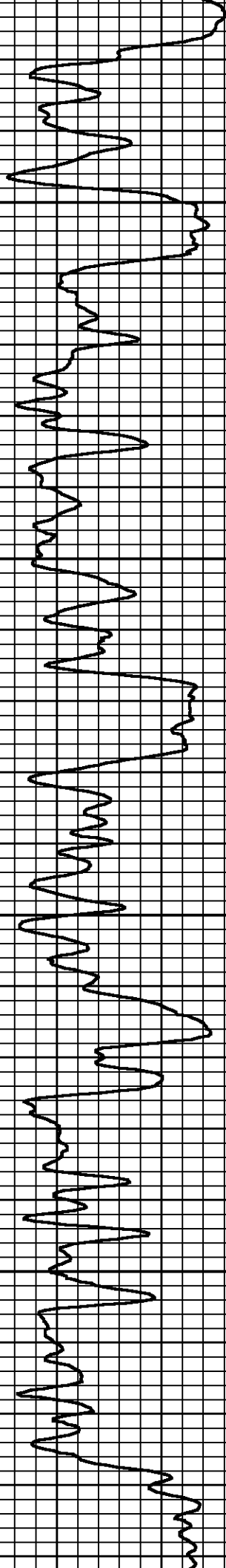


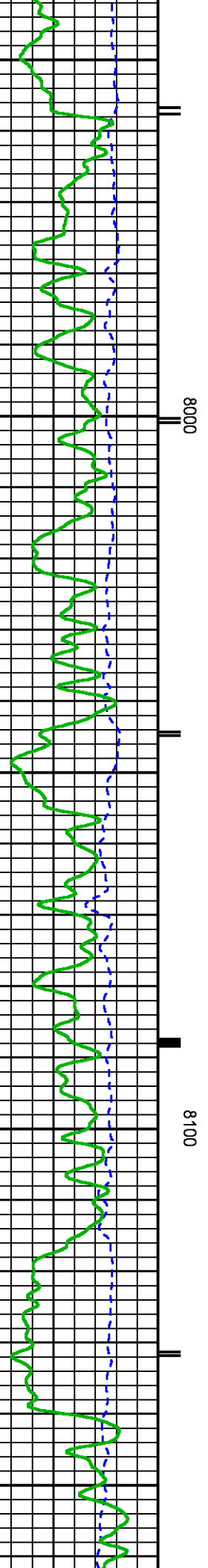
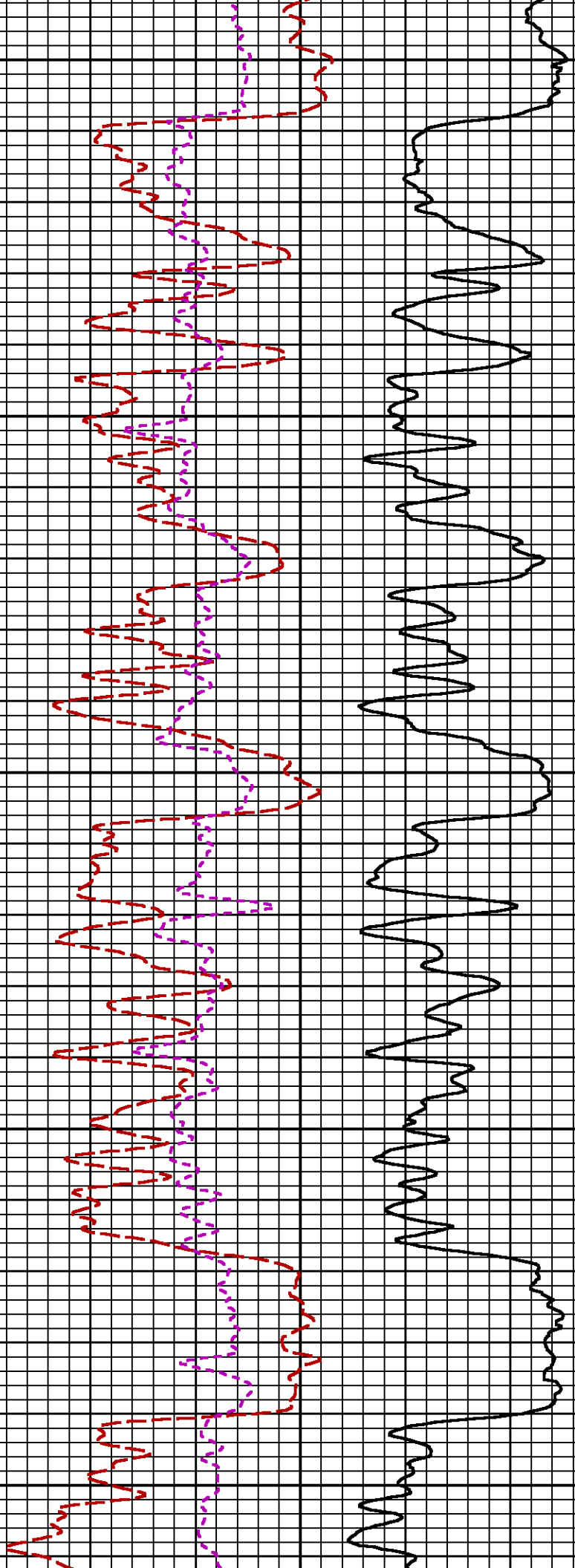


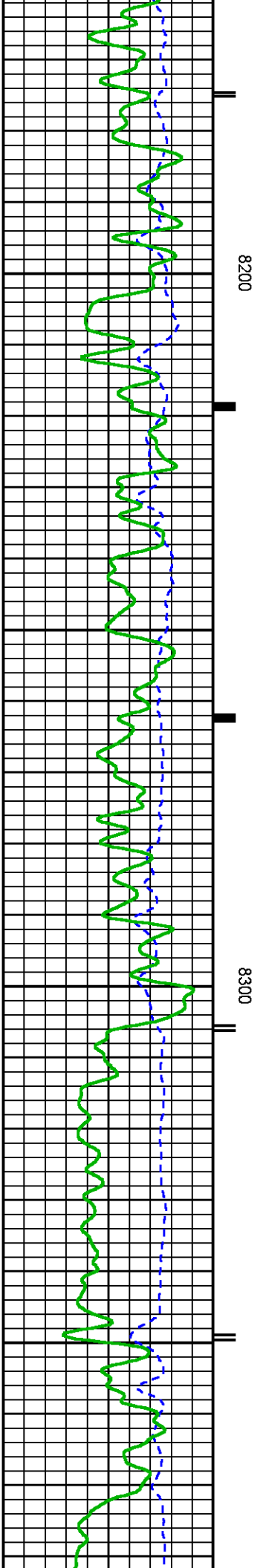
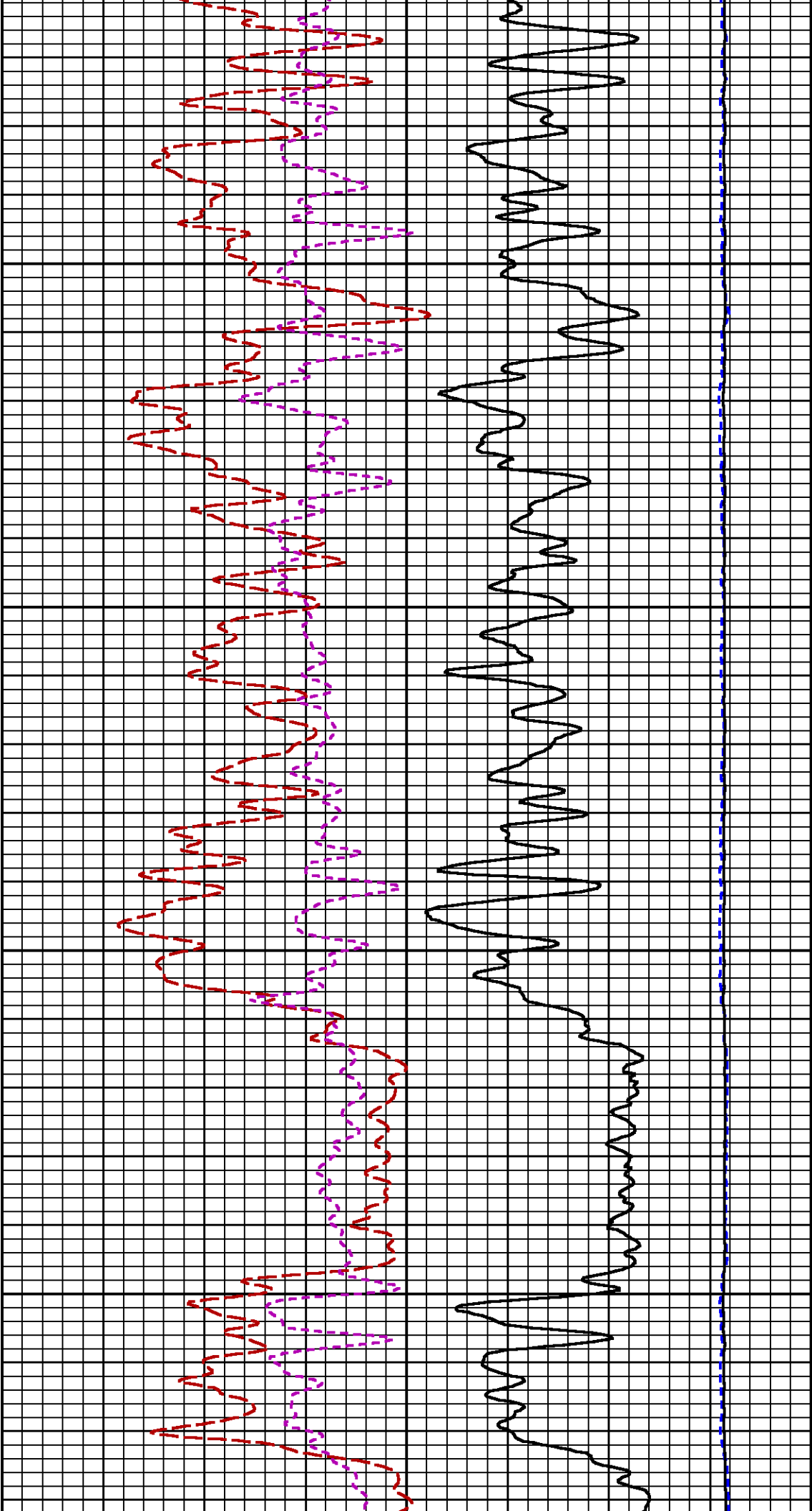


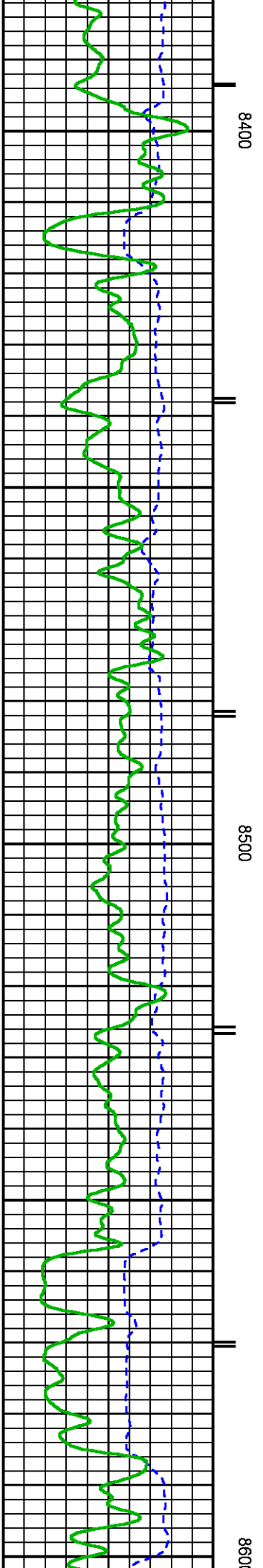
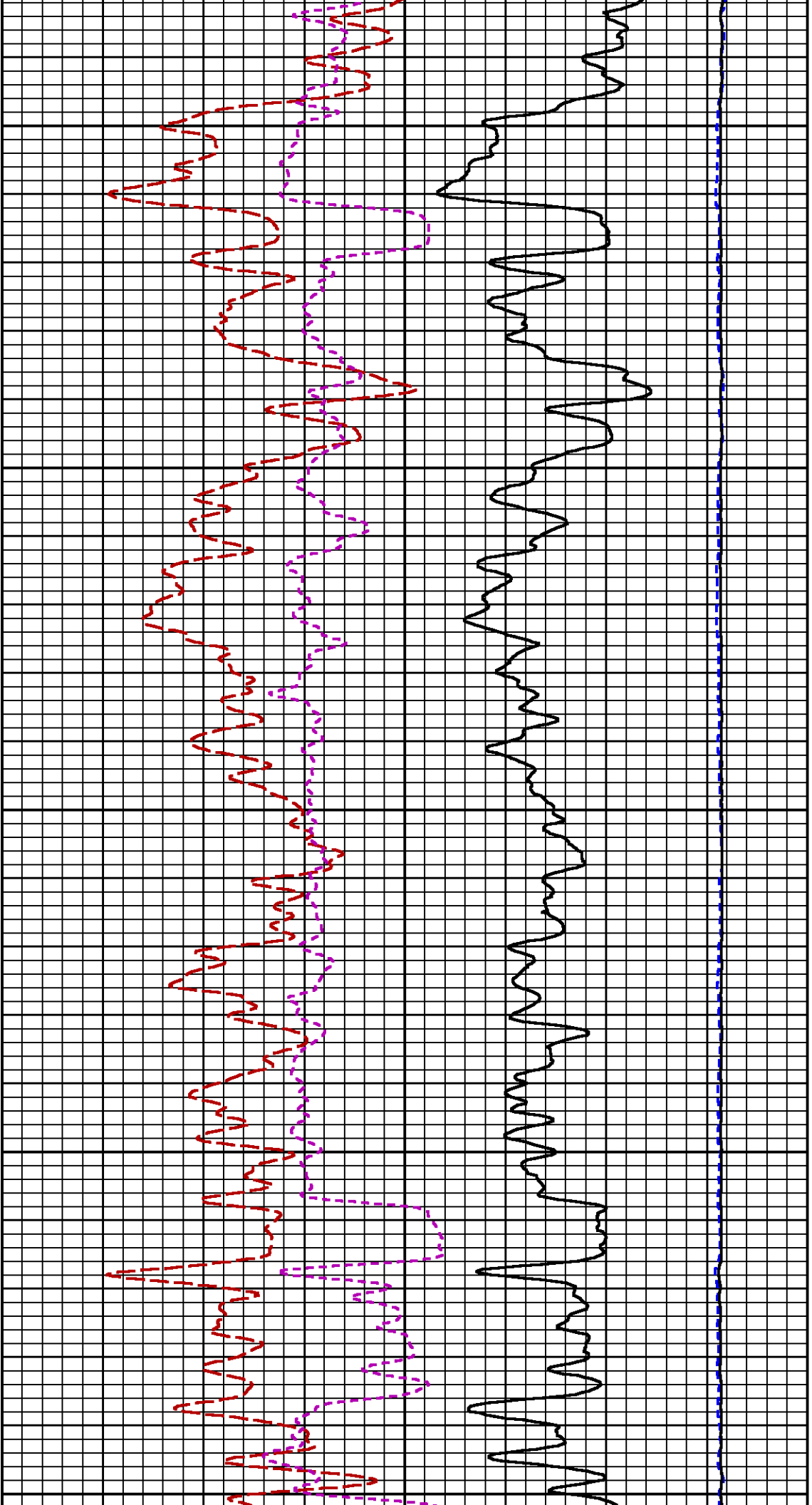
7600

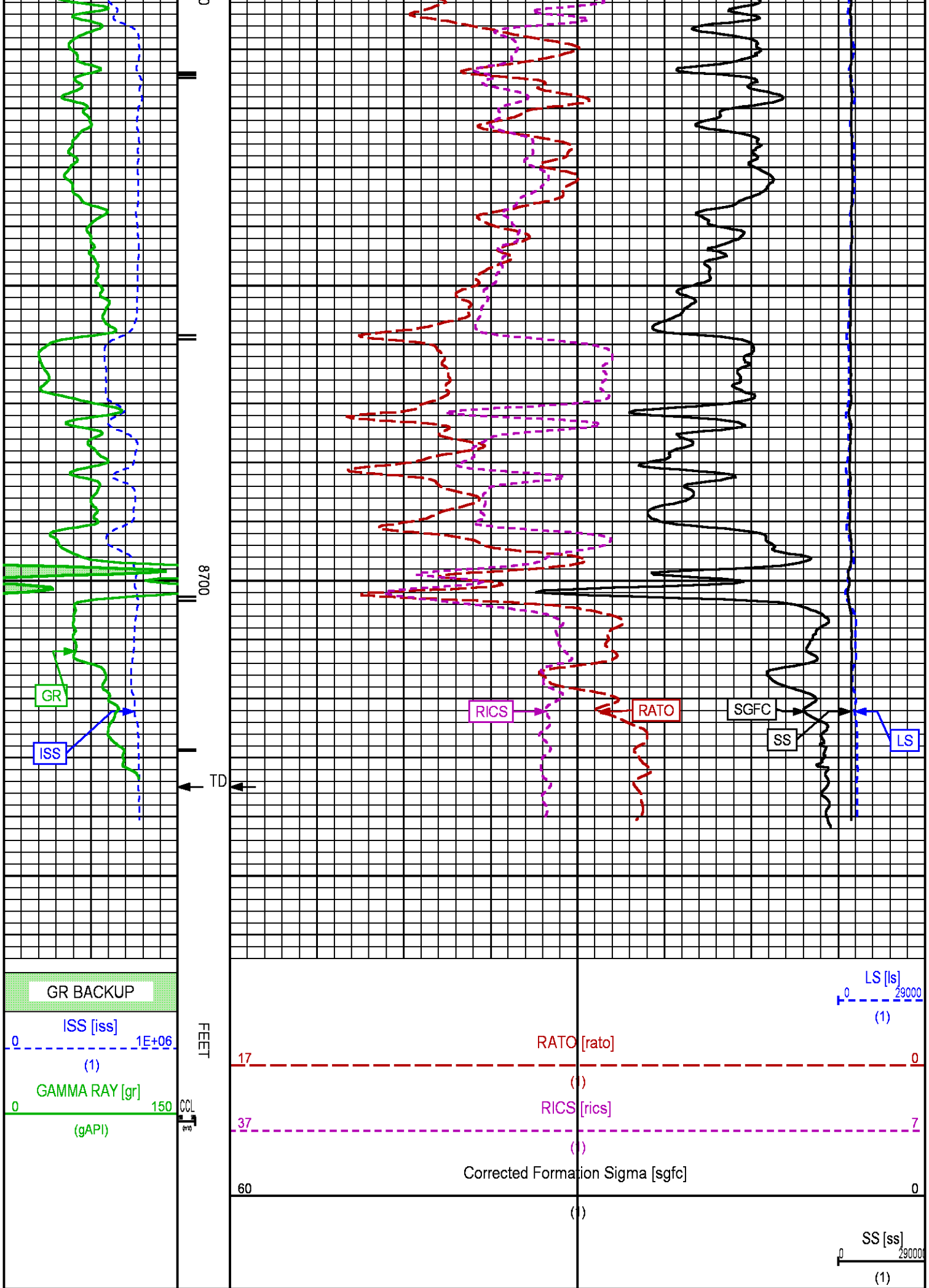
7700











REPEAT LOG

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 4

Plotted: Sun Jan 11 13:28:28 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH093869/n353h01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 7825.750 ft BOTTOM DEPTH: 8248.000 ft

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|------------------|-----------|------------|-------|---------------|--------|
| GR | FILTER () | medium (1) | | TOP | BOTTOM |

RPM PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|------------------|-------------------|------------|-------|---------------|--------|
| PNC Parameters | BOREHOLE CONTENTS | FLUID | | TOP | BOTTOM |
| | OPEN/CASED HOLE | CASED HOLE | | " | " |
| | BOREHOLE SIZE | 8.75 | in | " | " |
| | CASING SIZE | 4.50 | in | " | " |
| | MATRIX | SANDSTONE | | " | " |
| | CORRECTION BUFFER | 11 | | " | " |

CURVE DESCRIPTION REPORT

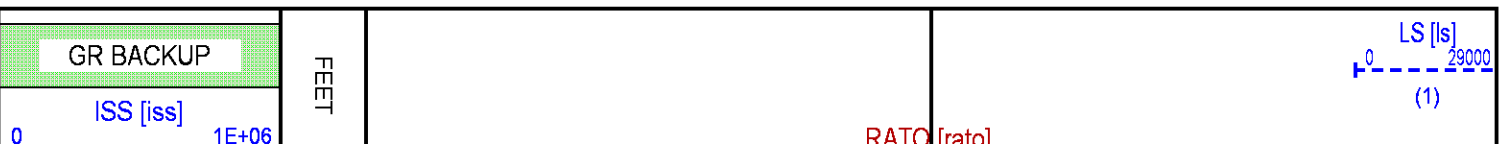
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|---|
| F1:CCL | Jan 11 08:27:41 2015 | CASING COLLAR LOCATOR |
| F1:GR | Jan 11 08:27:41 2015 | GAMMA RAY |
| F1:ISS | Jan 11 08:27:41 2015 | INELASTIC SHORT SPACE COUNT RATE |
| F1:LS | Jan 11 08:27:41 2015 | LONG SPACE COUNT RATE |
| F1:RATO | Jan 11 08:27:41 2015 | SHORT/LONG SPACE COUNT RATE RATIO |
| F1:RICS | Jan 11 08:27:41 2015 | SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS) |
| F1:SGFC | Jan 11 08:27:41 2015 | CORRECTED FORMATION SIGMA |
| F1:SS | Jan 11 08:27:41 2015 | SHORT SPACE COUNT RATE |

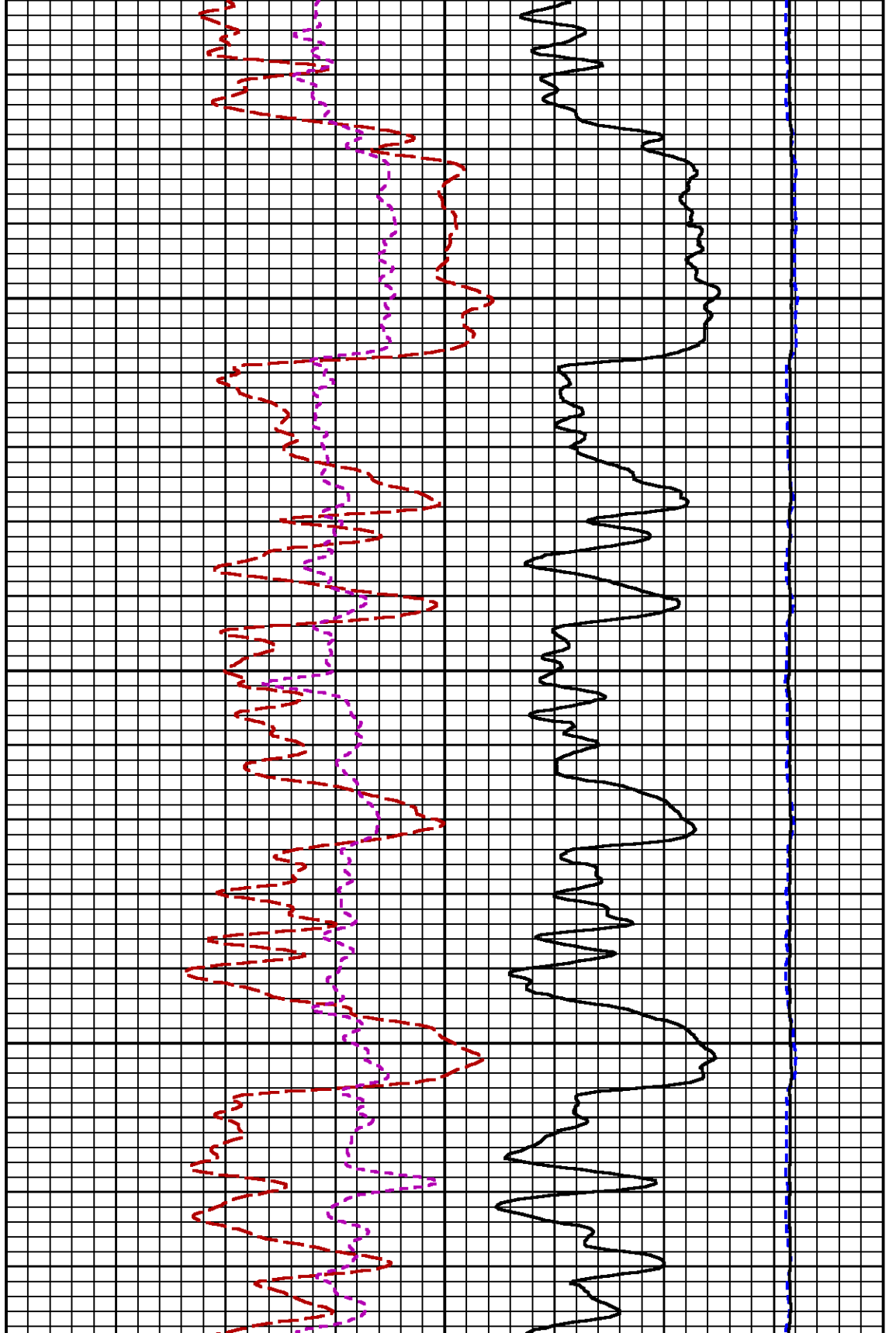
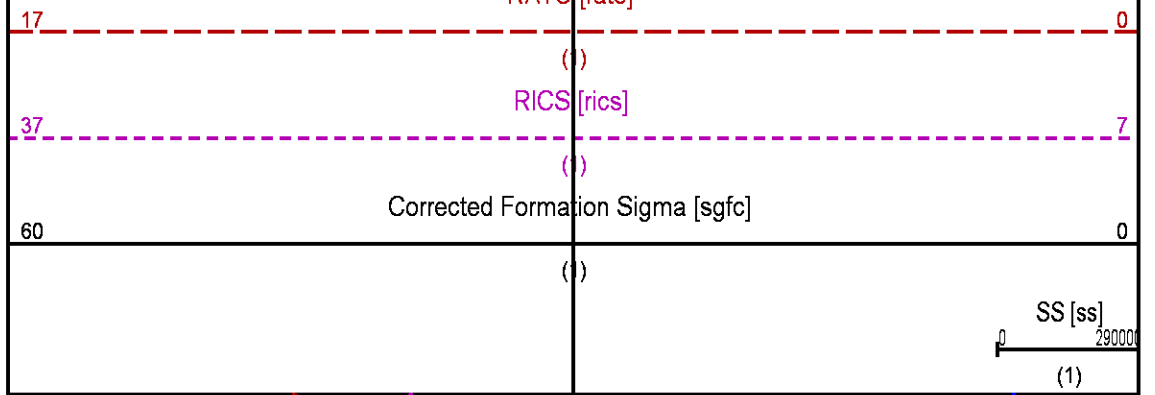
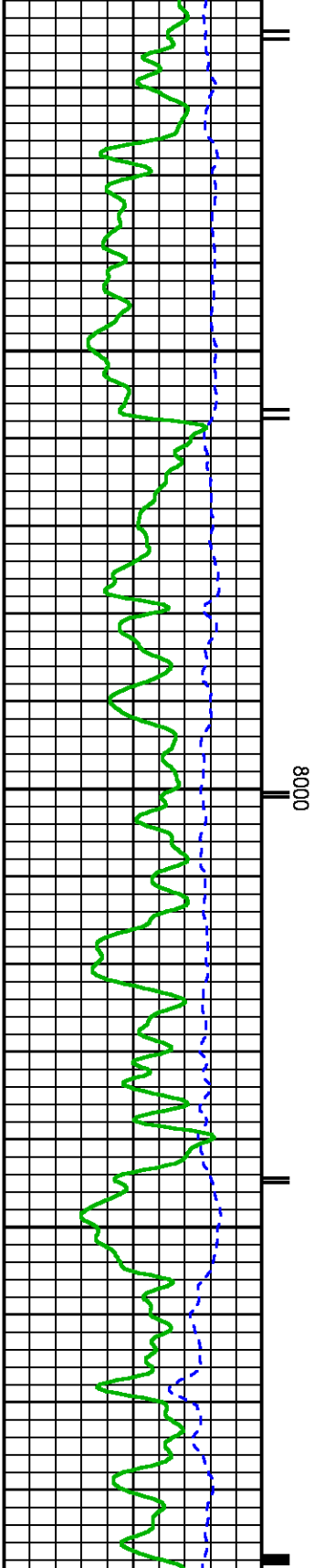
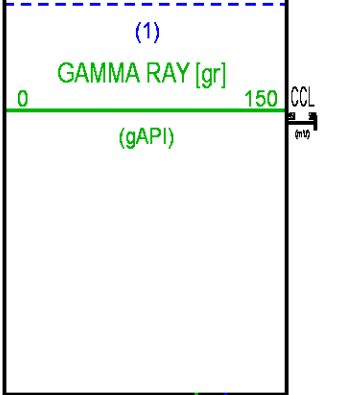
CURVE MEASURE POINT OFFSET

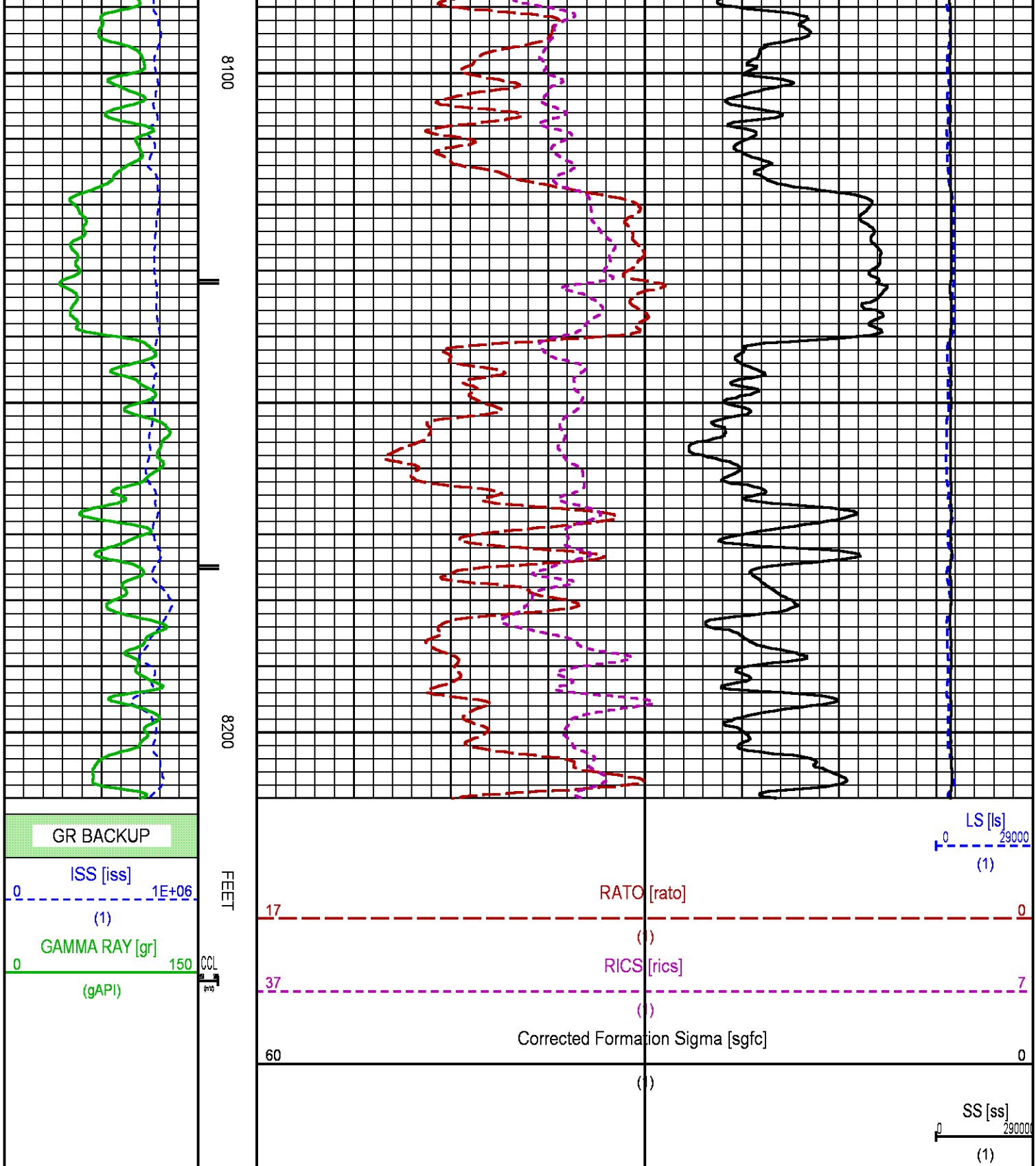
| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CCL | 26.00 | ISS | 12.75 | RATO | 12.75 | SGFC | 12.75 |
| GR | 23.00 | LS | 12.75 | RICS | 12.75 | SS | 12.75 |

Presentation : HL6670:WPX_RPM_PNC_3D.fvpdf [5"/100' Scale]
 Plot Interval : 7910 - 8210 Feet

Data File 1 : F1 : HL6670:/dat1a/CH093869/RPM_REPEAT.xtf
 Created On : Jan 11 08:27:41 2015
 Company : WPX ENERGY ROCKY MTN LLC
 Well : FEDERAL PA 31-27
 Field : PARAHUTE
 File Interval : 25 - 8734.5 Feet
 OCT : n353h







CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH093869/n353hf.tp1

GR PRIMARY CALIBRATION SUMMARY

FILE: /dat1a/CH093869/n353hf.tp1

DATE/TIME: 2011/11/22 09:00:10

TOOL #: 8262XA 10317216 DATE/TIME PERFORMED: Wed Dec 31 11:22:23 2014

UNIT #: 3880TA HL6670 CALB JIG #: 4702NK DA-041

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | CR DIFF (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | CALBRTR (gAPI) |
|----|-----------------------|-----------------------|--------------------|-------|----------------------|----------------------|-------------------|
| GR | 109.47 | 428.11 | 318.6 | 0.565 | 61.84 | 241.84 | 180 |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 8262XA 10317216 DATE/TIME PERFORMED: Wed Dec 31 11:24:36 2014

UNIT #: 3880TA HL6670 VERI JIG #: 4702NK DA-041

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|-----------------|
| GR | 109.82 | 428.07 | 0.565 | 62.04 | 241.81 | 179.77 |
| | | | | | | 170.00 190.00 |

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10203151 DATE/TIME PERFORMED: Wed Dec 31 14:17:26 2014

UNIT: 3880TA HL6670 CALIBRATOR: 2437XB 112674 SOURCE: 8281AA 11803641 HOURS: 8281AA 216

| | ISS | Mtr Vits (V) | SS Gain | LS Gain | XLS Gain | EA Temp (degF) | Sync Delay (usec) | RCAL |
|--------------|---------|-----------------|---------|---------|----------|-------------------|----------------------|--------|
| Raw Data | 810554 | 124 | 2261 | 2371 | 2443 | 104 | 7 | 0.9721 |
| Interpolated | 1300000 | 148 | 2242 | 2362 | 2425 | | | |

| | ISS | BKS | BKL | BKX | SGA1 | SDA1 | SGA2 | SDA2 |
|----------|--------|------|-----|-----|-------------|-----------|-------------|-----------|
| Raw Data | 810554 | 6220 | 972 | 135 | 26.11 | 0.15 | 24.12 | 0.32 |
| | | | | | 25.35 26.40 | 0.00 0.20 | 23.60 24.80 | 0.00 0.40 |

| | ISS | ILS | IXS | SS | SS2 | LS | CSS | CLS |
|---------------|--------|--------|-------|-------|-------|-------|-------|-------|
| Raw Data | 810554 | 168008 | 26262 | 88979 | 31657 | 8212 | 53866 | 13125 |
| Fit Quality % | | 1.005 | 1.073 | 1.006 | 0.963 | 1.070 | 0.923 | 1.075 |

| | ISS | RBOR | RIN ISS/LS | RIN13 ISS/XS | RICS ISS/CSS | RATO SS/LS | RTWO SS2/LS | RONE CSS/CLS |
|---------------|---------|-----------|---------------|-----------------|-----------------|---------------|----------------|-----------------|
| Raw Data | 810554 | 1.43 | 4.82 | 30.88 | 15.05 | 10.84 | 3.86 | 4.10 |
| | | 1.42 1.45 | 3.55 5.52 | 22.20 32.70 | 10.99 16.34 | 10.06 11.10 | 3.57 3.95 | 3.76 4.22 |
| Fit Quality % | | 0.060 | 0.116 | 0.146 | 0.173 | 0.107 | 0.123 | 0.104 |
| Reduced | 1414033 | 1.43 | 4.84 | 30.92 | 15.08 | 10.85 | 3.86 | 4.11 |
| | | 1.42 1.45 | 4.33 5.52 | 27.60 32.70 | 13.70 16.34 | 10.06 11.10 | 3.57 3.95 | 3.76 4.22 |

TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA 11774568 DATE/TIME PERFORMED: Wed May 14 12:39:45 2014

UNIT #: 3880TA HL6670

| | T(0) | T(1) | T(2) | T(3) |
|---------------------|---------------|--------------|--------------|---------------|
| Corr Coeff for Temp | -9.274653E+00 | 1.055639E-01 | 2.143764E-06 | -2.782846E-10 |

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH093869/n353h~F.tdg

A3 CABLEHEAD

Diameter : 1.37"

PCM POWER SUPPLY

Diameter : 1.70"
Length : 3.86'
Weight : 18 lbs
Series : 8250EA
Mnemonic : PCM

TELEMETRY / CCL

Diameter : 1.70"
Length : 4.46'
Weight : 20 lbs
Series : 8248ED
Mnemonic : PCM
Measure Point: 1.00': CCL MP

GAMMA RAY

Diameter : 1.70"
Length : 3.02'
Weight : 15 lbs
Series : 8262XA
Mnemonic : GR
Measure Point: 0.89': GR MP

RPM ELECTRONICS

Diameter : 1.70"
Length : 4.48'
Weight : 16 lbs
Series : 8281EA
Mnemonic : RPM

RPM C DETECTOR SECTION

Diameter : 1.70"
Length : 9.40'
Weight : 41 lbs
Series : 8283PA
Mnemonic : RPM
Measure Point: 5.45': XLS DETECTOR
Measure Point: 5.04': LS DETECTOR
Measure Point: 4.79': SS DETECTOR

34.08'

CCL MP — 26.03'

GR MP — 22.90'

XLS DETECTOR — 13.58'

LS DETECTOR — 13.16'

SS DETECTOR — 12.91'

RPM SOURCE SECTION

Diameter : 1.70"
Length : 4.70'
Weight : 18 lbs
Series : 8281FA
Mnemonic : RPM

TEMPERATURE / PRESSURE

Diameter : 1.70"
Length : 3.30'
Weight : 13 lbs
Series : 8255XA
Mnemonic : SRPL
Measure Point: 1.52': TEMP MP

TEMP MP
PRES MP

1.65'

BULL PLUG 1 11/16

0.00'

TOTAL LENGTH: 34.08'
TOTAL WEIGHT: 144 lbs
MAX DIAMETER: 0'1.70"



| | | | | |
|--------------------------|--------------------------|-------------|-----------------|----------------|
| COMPANY | WPX ENERGY ROCKY MTN LLC | | FILE NO: | |
| WELL | FEDERAL PA 31-27 | | US093869 | |
| FIELD | PARACHUTE | | API NO: | |
| COUNTY | GARFIELD | STATE | CO | 05045222420000 |
| LOCATION: | | ELEVATIONS: | S27 T6S R95W | |
| SHL: 2852' FNL; 657' FEL | | KB 5882 FT | PAD: DOE 2-W-27 | |
| BHL: 912' FNL; 1926' FEL | | DF | RIG: NABORS 576 | |
| SEC 27 TWP 6S RGE 95W | | GL 5856 FT | | |
| | | DATE | 11-Jan-2015 | |