



MAIL ROOM
SALLE DE COURIER

2013 MAR - 1 A 9:41

#4100, 350 – 7th Avenue SW, Calgary, AB T2P 3N9
Phone (403) 781-7800 Fax (403) 781-7801
www.mgmenergy.com

February 29, 2013

NEB/ONE

Hand Delivered

National Energy Board
444 Seventh Avenue SW
Calgary, AB T2P 0X8

Attention: Patrick Smyth (Chief Conservation Officer)
Lori-Ann Sharp (Frontier Data Management)

Greetings:

RE: Segmented Bond Tool Log (MGM) East Mackay I-78

Please find enclosed prints and digital format (CD) of the Segmented Bond Tool Log Casing Collar Locator for MGM East Mackay I-78.

For questions or concerns, please contact:
Paul Price P.Geol at 403-781-7817 or paul.price@mgmenergy.com,
Austin Springer at 403-781-7815 or austin.springer@mgmenergy.com.

Yours truly,

MGM ENERGY CORP.


Austin C. Springer
Geoscience Operations

14 Enclosures:

- Segmented Bond Tool Log
 - 1 paper copy
 - 1 digital copy (CD)



| | | |
|------------------------|-------------------------|----------------------------|
| FILE NO: | COMPANY | MGM ENERGY CORP |
| API NO: | WELL FIELD | MGM SHELL EAST MACKAY I-78 |
| | PROVINCE | EAST MACKAY |
| | LOCATION: | NORTHWEST TERRITORIES |
| Ver. 3.87 | | |
| UID: 3001786450125 30 | LAT 64.795 N | LONG 125.722 W |
| LICENSE: 1202 | K.L. K.B. KELLY BUSHING | ELEVATION: 155.00 M 6.20 M |
| | | JCR PERF |
| | | KB 161.20 M |
| | | DF 155.00 M |
| | | GL |
| PERMANENT DATUM | G.L. | ELEVATION 155.00 M |
| LOG MEASURED FROM | K.B. | ABOVE P.D. |
| DRILL. MEAS. FROM | KELLY BUSHING | ELEVATIONS: |
| DATE | TRIP | 22-FEB-2013 |
| RUN | 3 | 2 |
| SERVICE ORDER | CA215447 | |
| DEPTH DRILLER | 1978.5 M | |
| DEPTH LOGGER | 1973.5 M | |
| BOTTOM LOGGED INTERVAL | 1973.0 M | |
| TOP LOGGED INTERVAL | 390.0 M | |
| TIME STARTED | 22-FEB-2013 | 12:45 |
| TIME FINISHED | 22-FEB-2013 | 22:45 |
| OPERATOR RIG TIME | 10.0 HOURS | |
| TYPE OF FLUID IN HOLE | BRINE OR SALT WATER | |
| FLUID DENSITY | 1125.0 G/L | |
| FLUID SALINITY | N/A | |
| FLUID LEVEL | 10.0 M | |
| LOGGED CEMENT TOP | 390.0 M | |
| WELLHEAD PRESSURE | 0.0 KPA | |
| MAXIMUM HOLE DEVIATION | 3.1 DEG | |
| NOMINAL LOGGING SPEED | 9.0 M/MIN | |
| MAX. RECORDED TEMP. | NOT RECORDED | |
| REFERENCE LOG | BAKER HUGHES WIRELINE | |
| REFERENCE LOG DATE | 17-FEB-2012 | |
| EQUIP. NO. | LOCATION | Z008672 CANADA PERF |
| RECORDED BY | J.COLLIER/J.ZALESKIKH | |
| WITNESSED BY | B. MURPHY | |

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE 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 |
| 222.0 MM | 0.0 M | 401.8 M |
| 222.0 MM | 401.8 M | 1978.5 M |

| CASING RECORD | | | | |
|---------------|-----------|-------|-------|----------|
| SIZE | WEIGHT | GRADE | FROM | TO |
| 244.5 MM | 59.5 KG/M | NA | 0.0 M | 401.8 M |
| 177.8 MM | 38.7 KG/M | L-80 | 0.0 M | 1978.5 M |

REMARKS

RUN 3 TRIP 2 : CEMENT PLUG ON BOTTOM 20:00 21-FEB-2013
FLOW COLLAR @ 1978.5M
SBT LOG WAS RECORDED TO 390 M (SURFACE CSG) AS PER CLIENT REQUEST
LOG WAS PERFORMED ON 22 HOUR AFTER CEMENT JOB

DEPTH REFERENCED TO RIG FLOOR
CEMENT JOB WAS DONE WITH 2 TYPES OF CEMENT:
1 - TAIL - TD-1480 M, WITH 1900 KG/M³,
CEMENT COMPRESSIVE STRENGHT USED FOR CEMENT MAP: 17113 KPA

2 - LEAD - 1480 M - SURFACE, WITH 1400 KG/M³
CEMENT COMPRESSIVE STRENGHT USED FOR CEMENT MAP: 5419 KPA

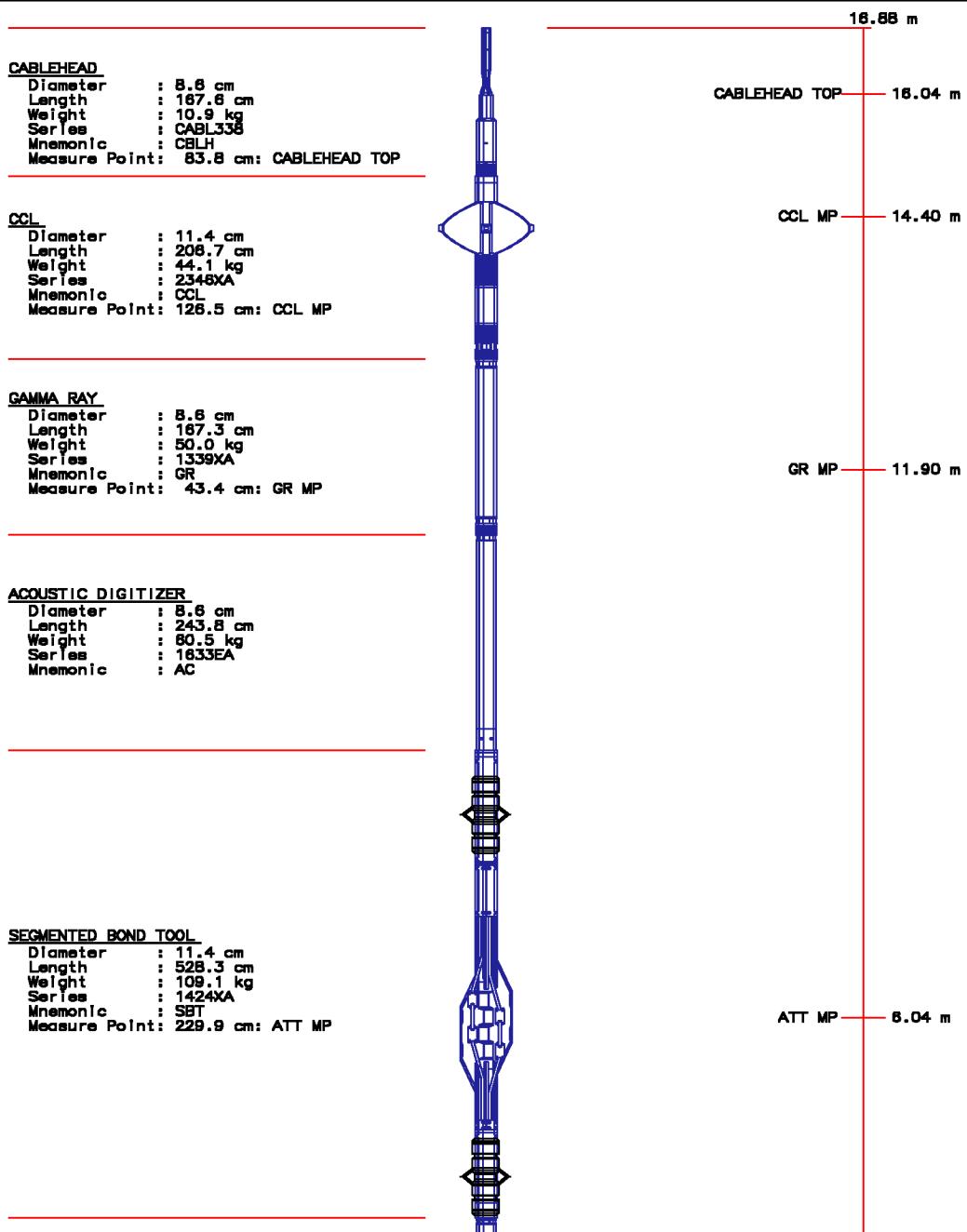
CEMENT JOB WAS DONE WITH GOOD RETURNS ON SURFACE.

EQUIPMENT DATA

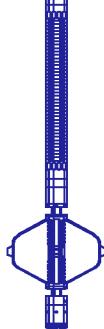
| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. | POSITION |
|-----|------|--------------|------------|------------|----------|
| 3 | 2 | CCL/CNTR/DC | 2346XA | 12633837 | FREE |
| 3 | 2 | TITAN GR | 1339XA | 12616995 | FREE |
| 3 | 2 | ACOUSC COMM | 1633EA | Z119708 | FREE |
| 3 | 2 | SEGMENTD BON | 1424XA | Z120950 | FREE |
| 3 | 2 | VDL SUB SBT | 1424PA | 12619213 | FREE |

INSTRUMENT CONFIGURATION

Source File: /dat1a/MGM/run3_ch/m331d"sbt-tdg



SEGMENTED BOND TOOL VDL SUB
 Diameter : 8.8 cm
 Length : 240.5 cm
 Weight : 49.1 kg
 Series : 1424PA
 Mnemonic : SBT
 Measure Point: 121.9 cm: SBT MP



SBT MP 2.56 m

4 ARM BOW SPRING CENTRALIZER
 Diameter : 8.8 cm
 Length : 125.5 cm
 Weight : 32.7 kg
 Series : 4341XA
 Mnemonic : CENT

BULL PLUG 3 3/8

TOTAL LENGTH: 16.88 m
 TOTAL WEIGHT: 363.8 kg
 MAX DIAMETER: 24.0 cm

0.00 m

MAIN LOG 1:240 SCALE - CS 5419 KPa

ECLIPS 6.1i Aug 06, 2010
 Updates: 1,2 Patches: 3

Sat Feb 23 04:25:15 2013

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MGM/run3_ch/main_lead.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 395.630 m BOTTOM DEPTH: 1499.997 m

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (m) |
|------------------|-------------|------------|-------|--------------|
| GR | FILTER () | medium (1) | | TOP |
| SBT | FILTER, 2pf | medium (1) | | " " |
| | FILTER, 4pf | medium (1) | | " " |
| TENSION | FILTER () | medium (1) | | " " |

SBT PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (m) |
|------------------|---------------------------|---------|-------|--------------|
| SBT | CASING OD | 177.800 | mm | TOP |
| | CASING WT | 38.700 | kg/m | " " |
| | FREE PIPE AMP. | 69.513 | mV | " " |
| | FREE PIPE ATTN. | 1.193 | dB/ft | " " |
| | CORR. FACTOR 1 (1424XA 1) | 1.729 | dB/ft | " " |
| | CORR. FACTOR 2 (1424XA 1) | -0.041 | dB/ft | " " |
| | CORR. FACTOR 3 (1424XA 1) | -0.007 | dB/ft | " " |
| | CORR. FACTOR 4 (1424XA 1) | -2.031 | dB/ft | " " |
| | CORR. FACTOR 5 (1424XA 1) | -0.266 | dB/ft | " " |
| | CORR. FACTOR 6 (1424XA 1) | 0.616 | dB/ft | " " |
| | SPACING | 0.199 | m | " " |
| | SPREADING FACTOR | 4.589 | dB/ft | " " |
| | CEMENT STRENGTH | 5419 | kPa | " " |
| | HI CUTOFF (1424XA 1) | 6.477 | dB/ft | " " |
| | LOW CUTOFF (1424XA 1) | 2.514 | dB/ft | " " |

SBT NORMALIZATION RESULTS

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS |
|------------------|---------------|--------|-------|
| SBT | CORR. FACTOR1 | 1.926 | dB/ft |
| | CORR. FACTOR2 | -0.156 | dB/ft |
| | CORR. FACTOR3 | -0.063 | dB/ft |
| | CORR. FACTOR4 | -2.155 | dB/ft |

CURVE DESCRIPTION REPORT

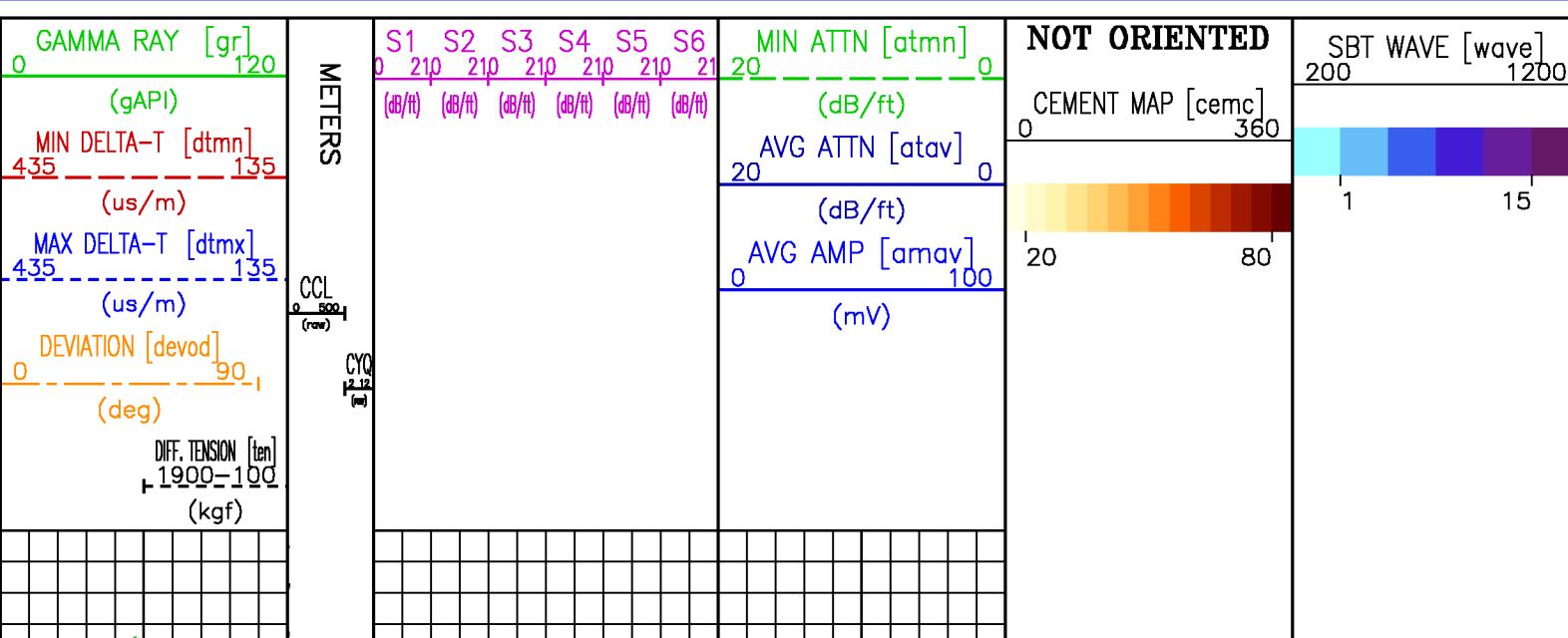
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|-----------------------|
| F1:AMAV | Feb 22 22:03:46 2013 | AVERAGE AMPLITUDE |
| F1:ATAV | Feb 22 22:03:46 2013 | AVERAGE ATTENUATION |
| F1:ATC1 | Feb 22 22:03:46 2013 | ATTENUATION PAD 1 |
| F1:ATC2 | Feb 22 22:03:46 2013 | ATTENUATION PAD 2 |
| F1:ATC3 | Feb 22 22:03:46 2013 | ATTENUATION PAD 3 |
| F1:ATC4 | Feb 22 22:03:46 2013 | ATTENUATION PAD 4 |
| F1:ATC5 | Feb 22 22:03:46 2013 | ATTENUATION PAD 5 |
| F1:ATC6 | Feb 22 22:03:46 2013 | ATTENUATION PAD 6 |
| F1:ATMN | Feb 22 22:03:46 2013 | ATTENUATION MINIMUM |
| F1:CCL | Feb 22 22:03:46 2013 | CASING COLLAR LOCATOR |
| F1:CEMC | Feb 22 22:03:46 2013 | CALIBRATED CEMENT MAP |
| F1:CYQ | Feb 22 22:03:46 2013 | CYCLE QUALITY |
| F1:DEVOD | Feb 22 22:03:46 2013 | DEVIATION |
| F1:DTMN | Feb 22 22:03:46 2013 | MINIMAL SLOWNESS |
| F1:DTMX | Feb 22 22:03:46 2013 | MAXIMAL SLOWNESS |
| F1:GR | Feb 22 22:03:46 2013 | GAMMA RAY |
| F1:TEN | Feb 22 22:03:46 2013 | DIFFERENTIAL TENSION |
| F1:WAVE | Feb 22 22:03:46 2013 | DIGITIZED WAVEFORM |

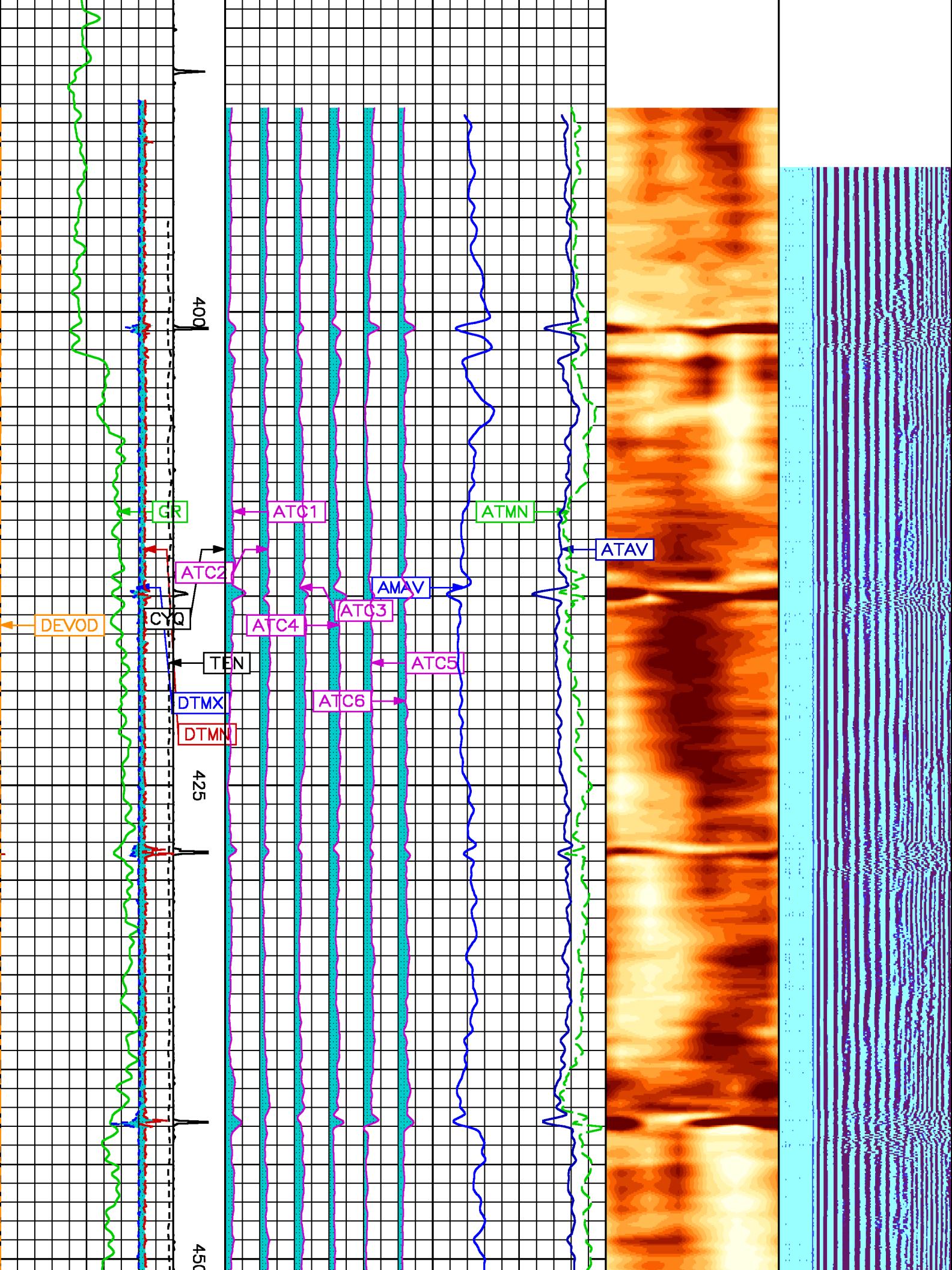
CURVE MEASURE POINT OFFSET

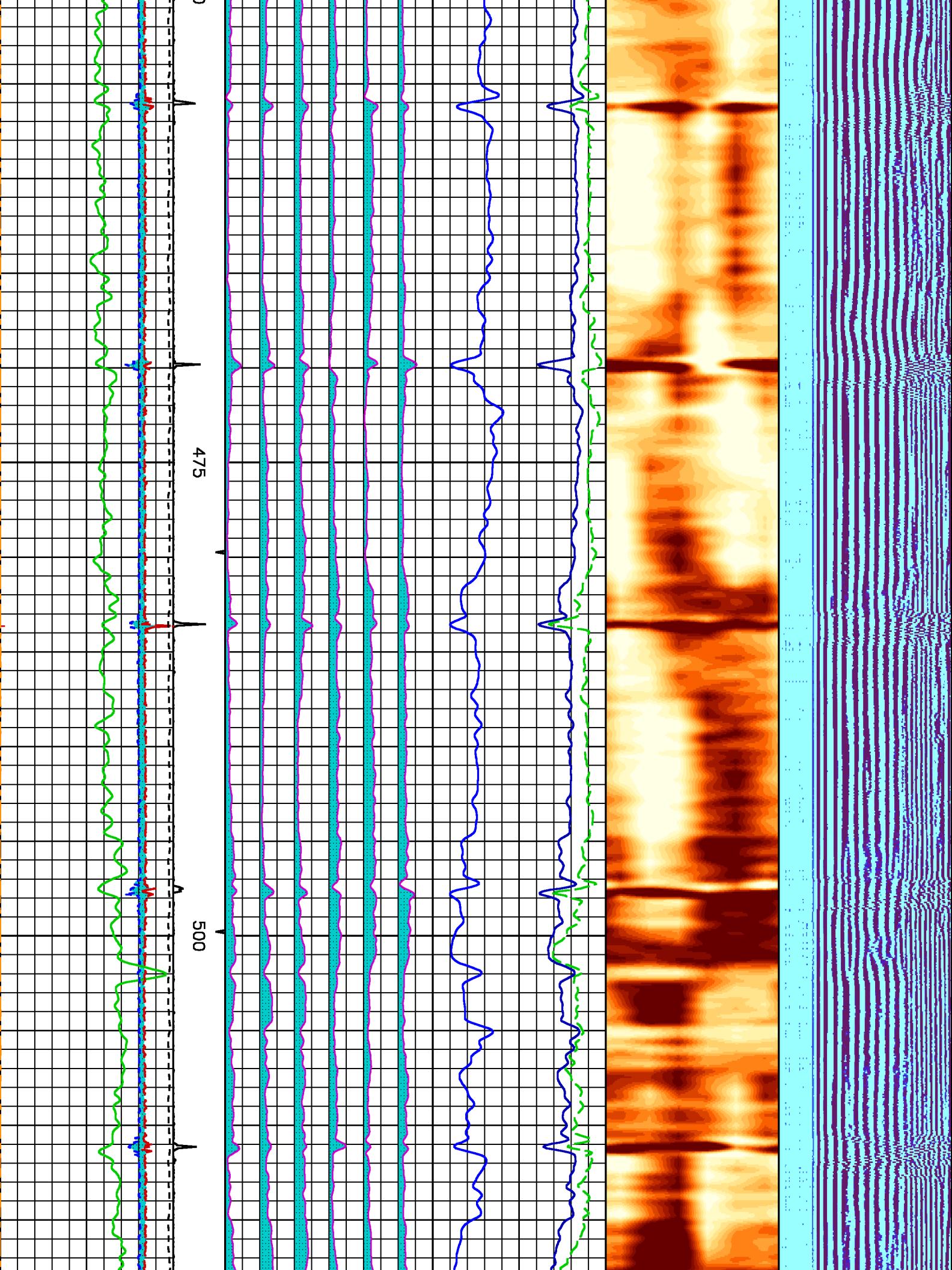
| CURVE | OFFSET (m) |
|-------|------------|-------|------------|-------|------------|-------|------------|
| AMAV | 6.02 | ATC3 | 6.02 | ATMN | 6.02 | DTMN | 6.02 |
| ATAV | 6.02 | ATC4 | 6.02 | CCL | 14.33 | DTMX | 6.02 |
| ATC1 | 6.02 | ATC5 | 6.02 | CYQ | 6.02 | GR | 11.81 |
| ATC2 | 6.02 | ATC6 | 6.02 | DEVOD | 6.02 | TEN | 0.00 |

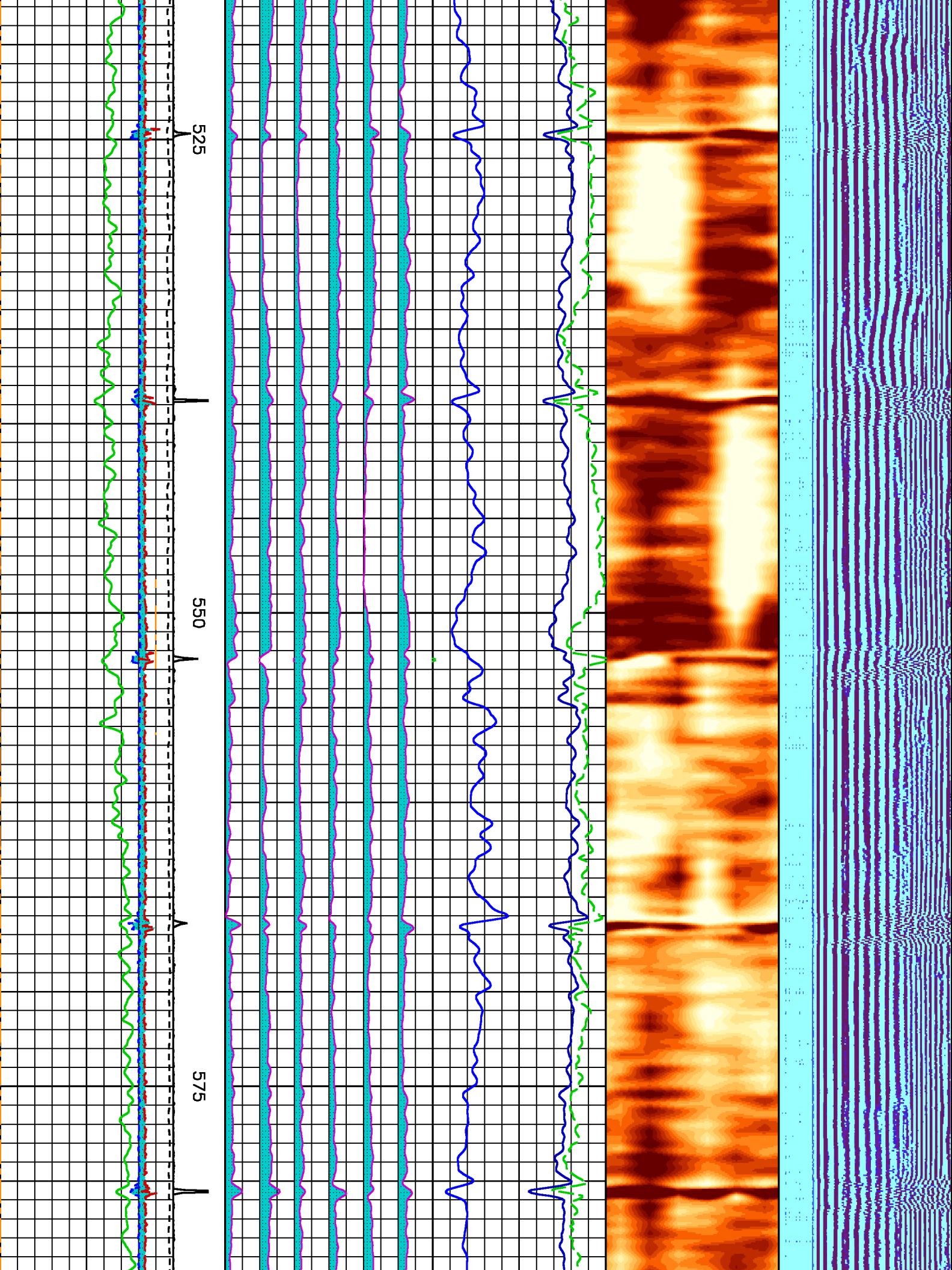
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: 380.543 – 1500 Meters

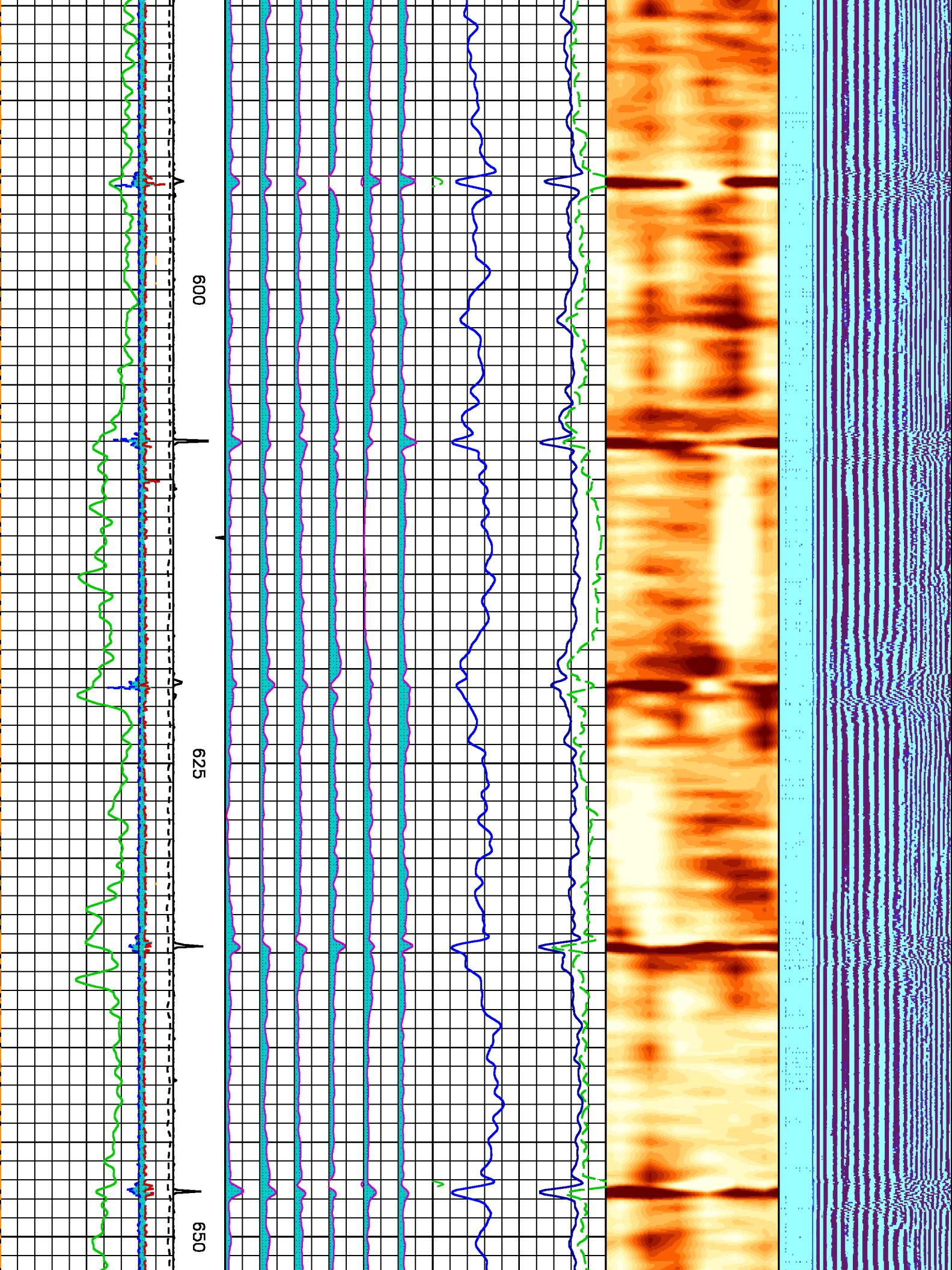
Data File 1 : F1 : sysa:/dat1a/MGM/run3_ch/main_lead.aff
Created On : Feb 22 22:03:46 2013
Company : MGM ENERGY CORP
Well : MGM SHELL EAST MACKAY I-78
Field : EAST MACKAY
File Interval : 380.543 – 1500 Meters
Oct : m331d

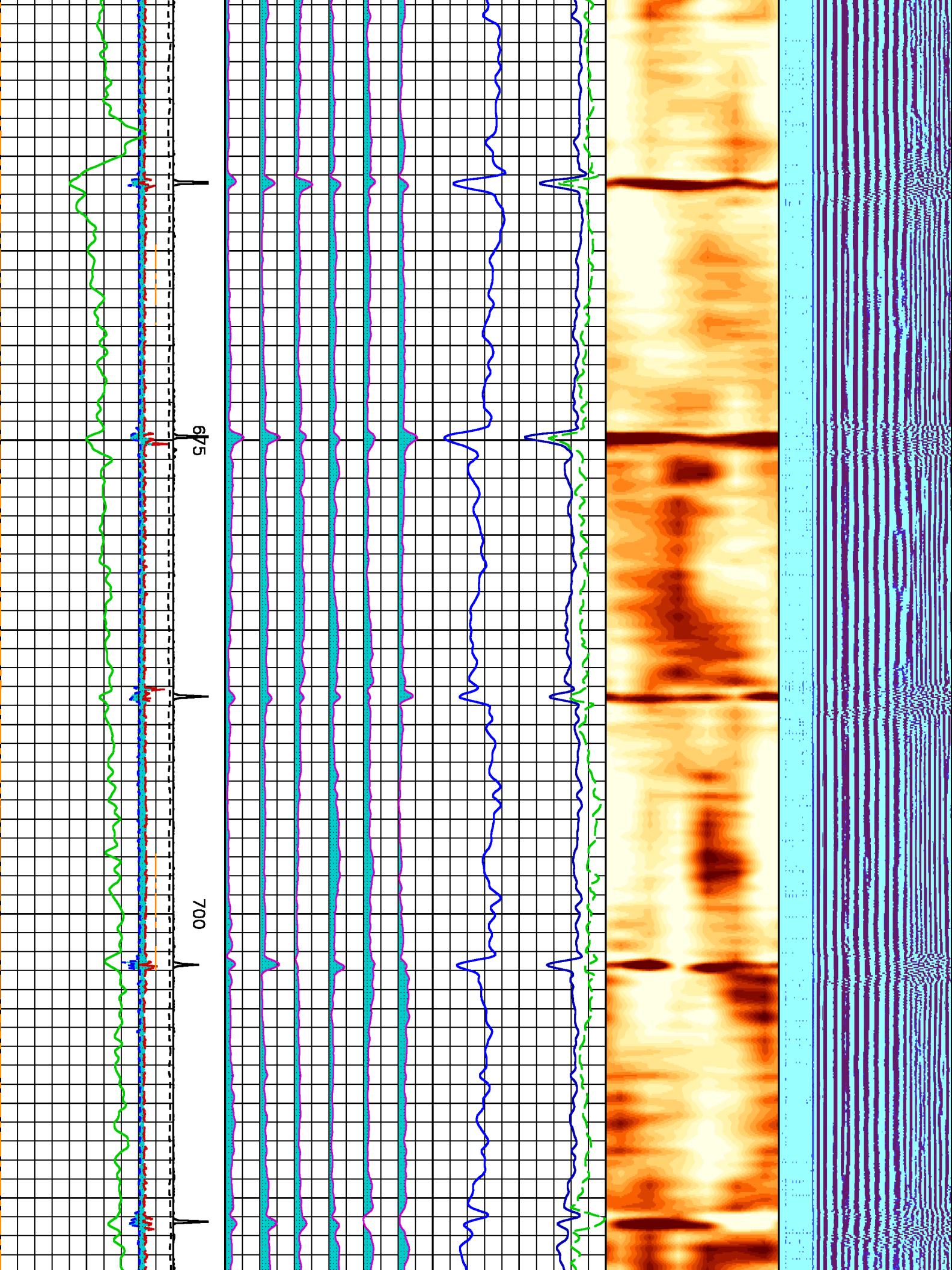


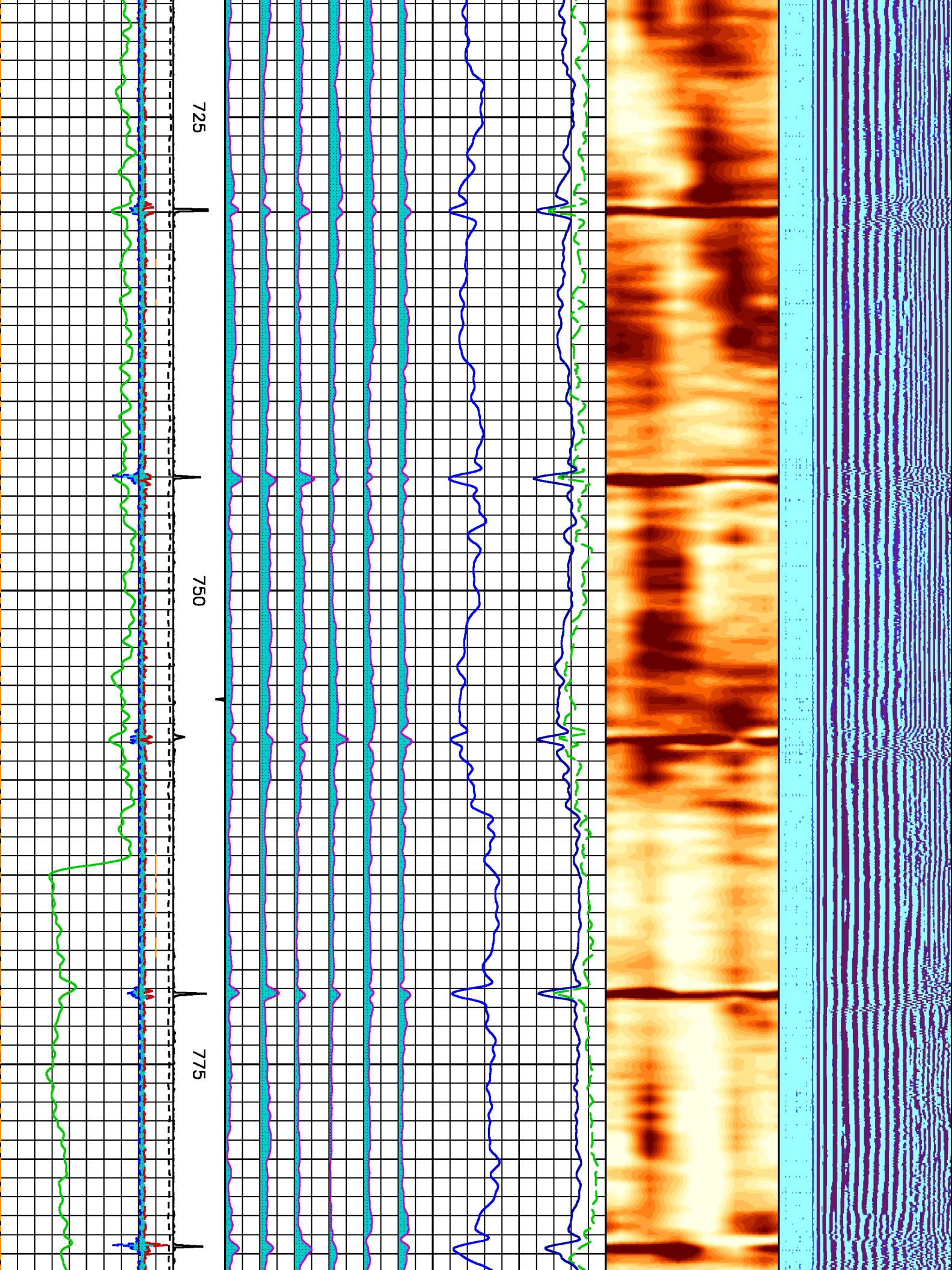


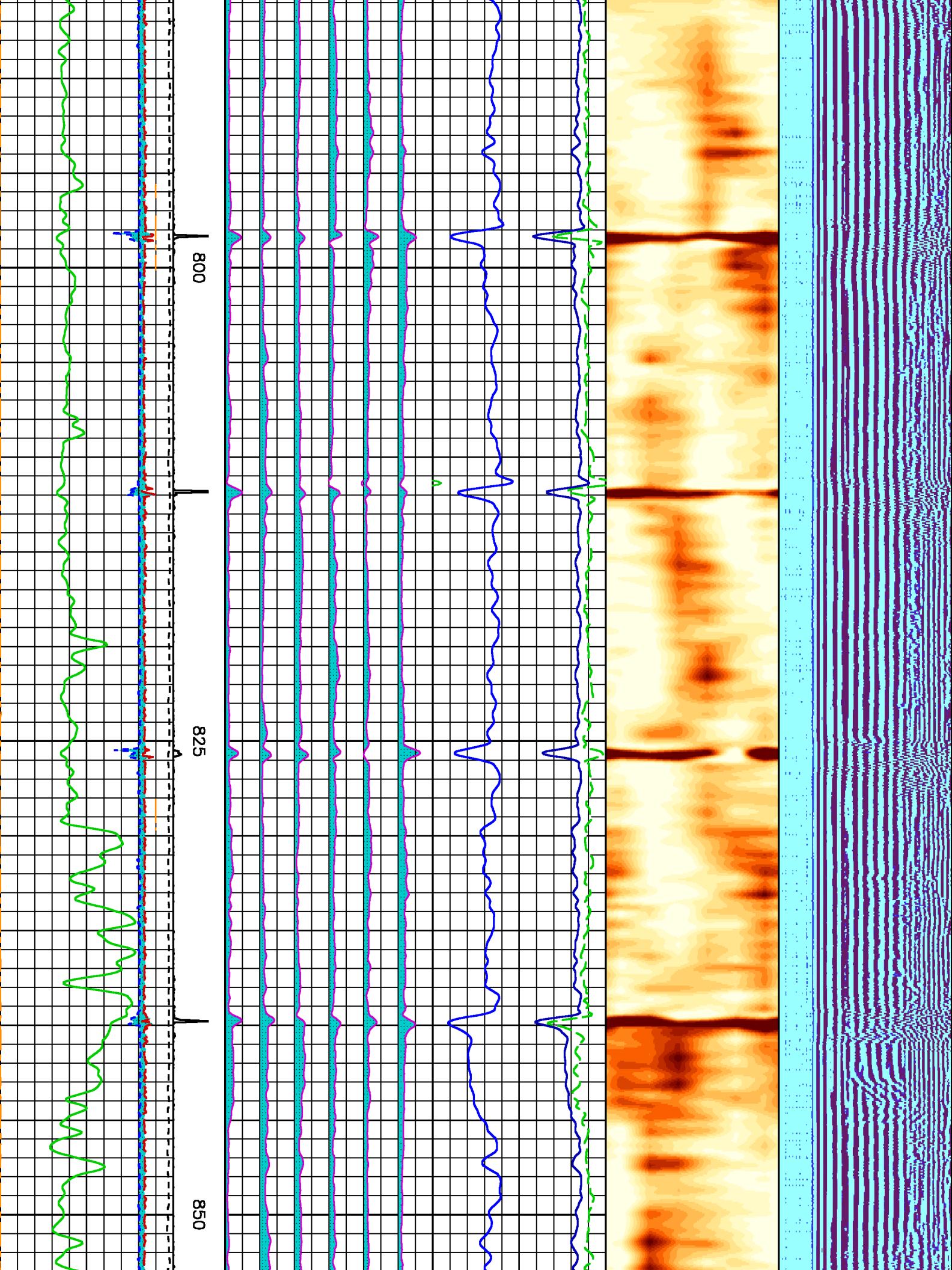


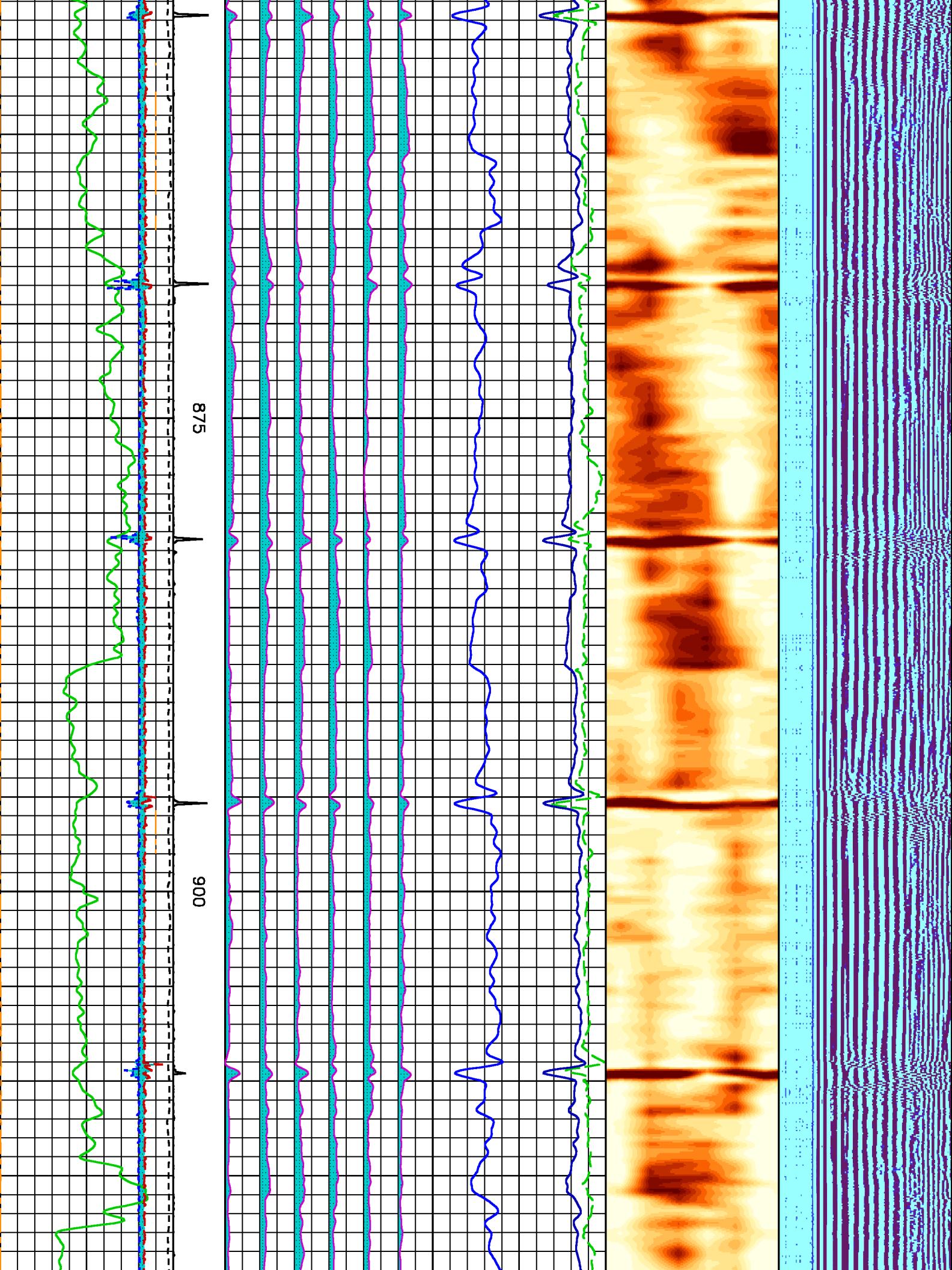


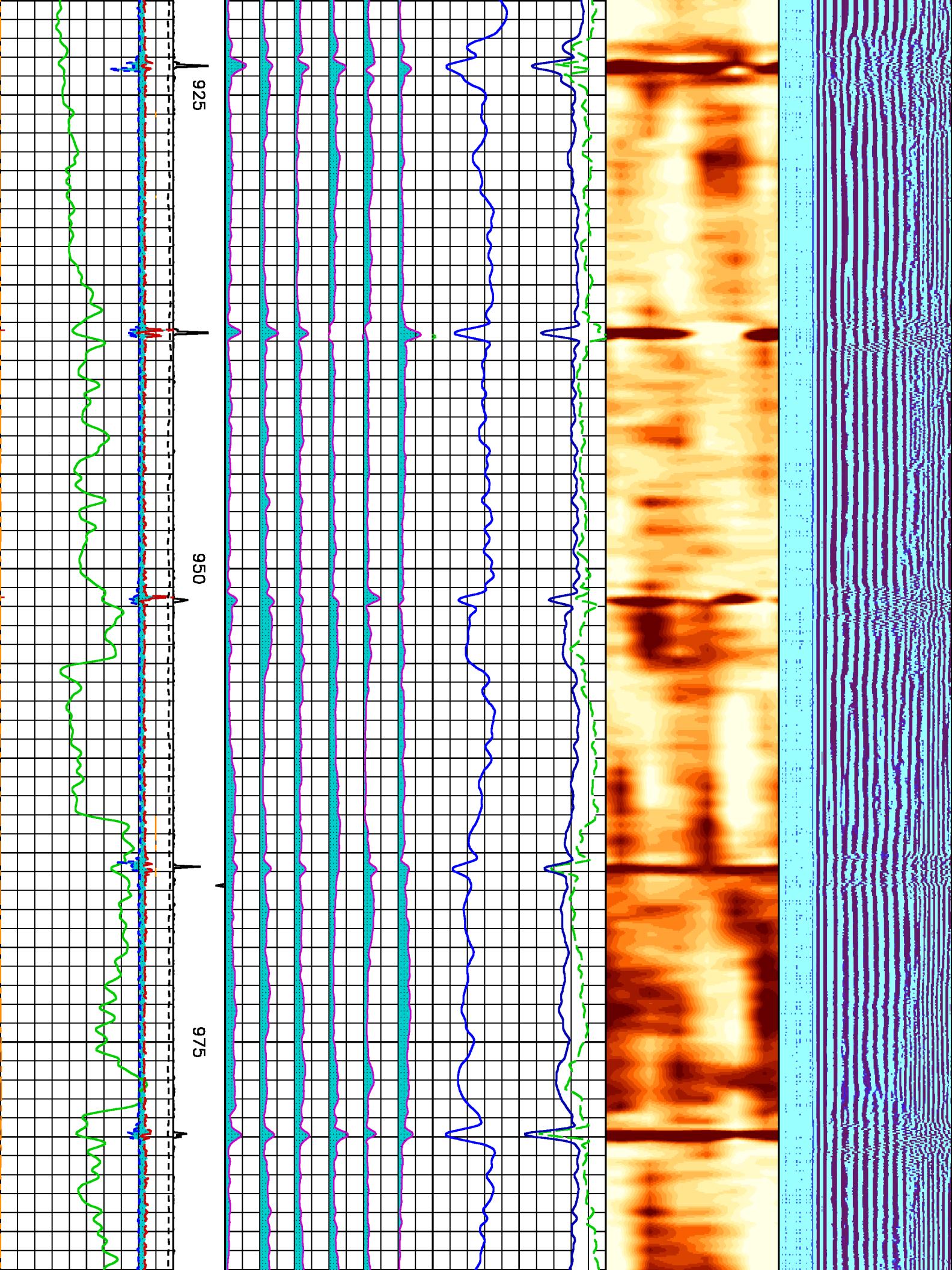


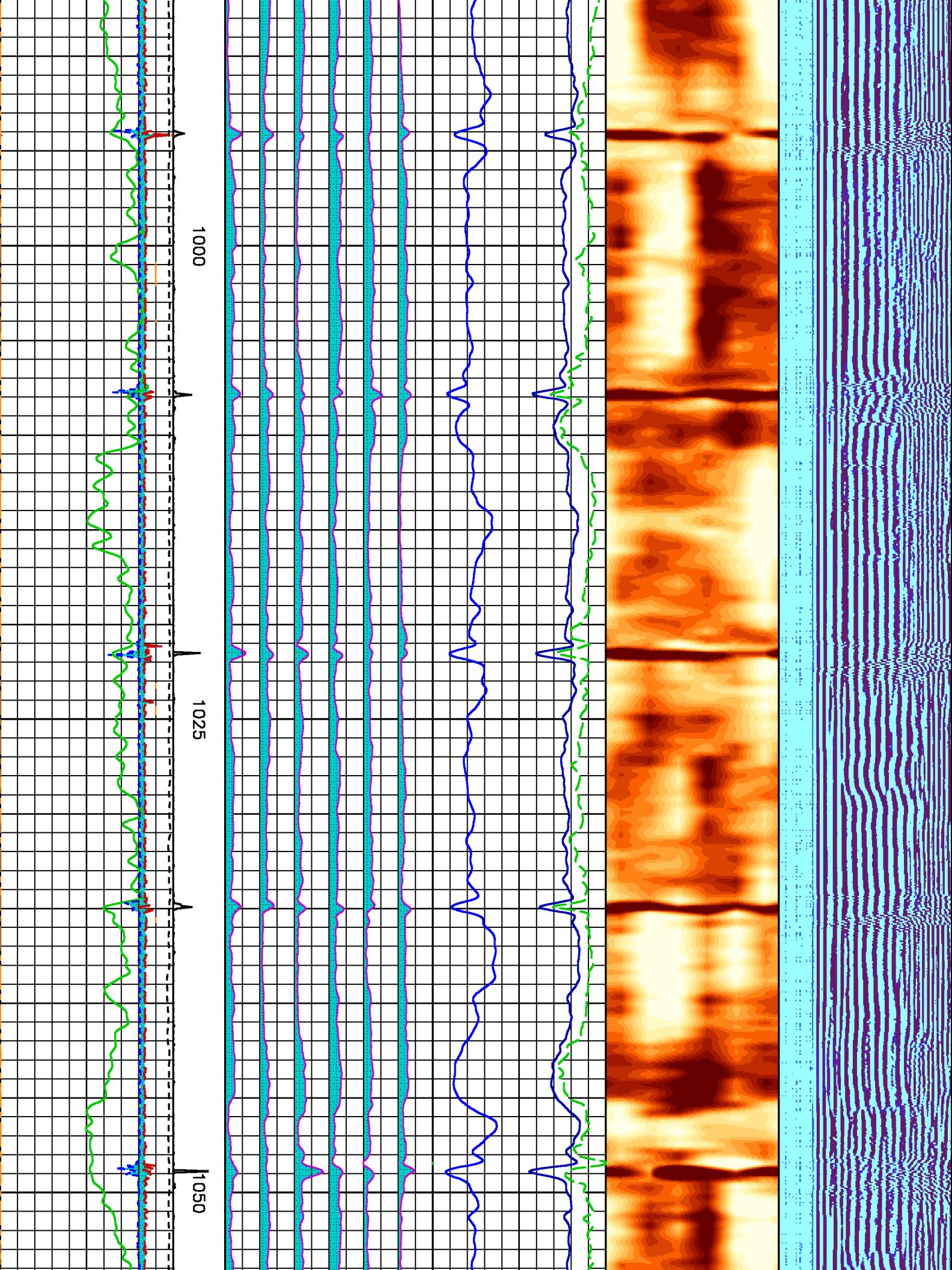


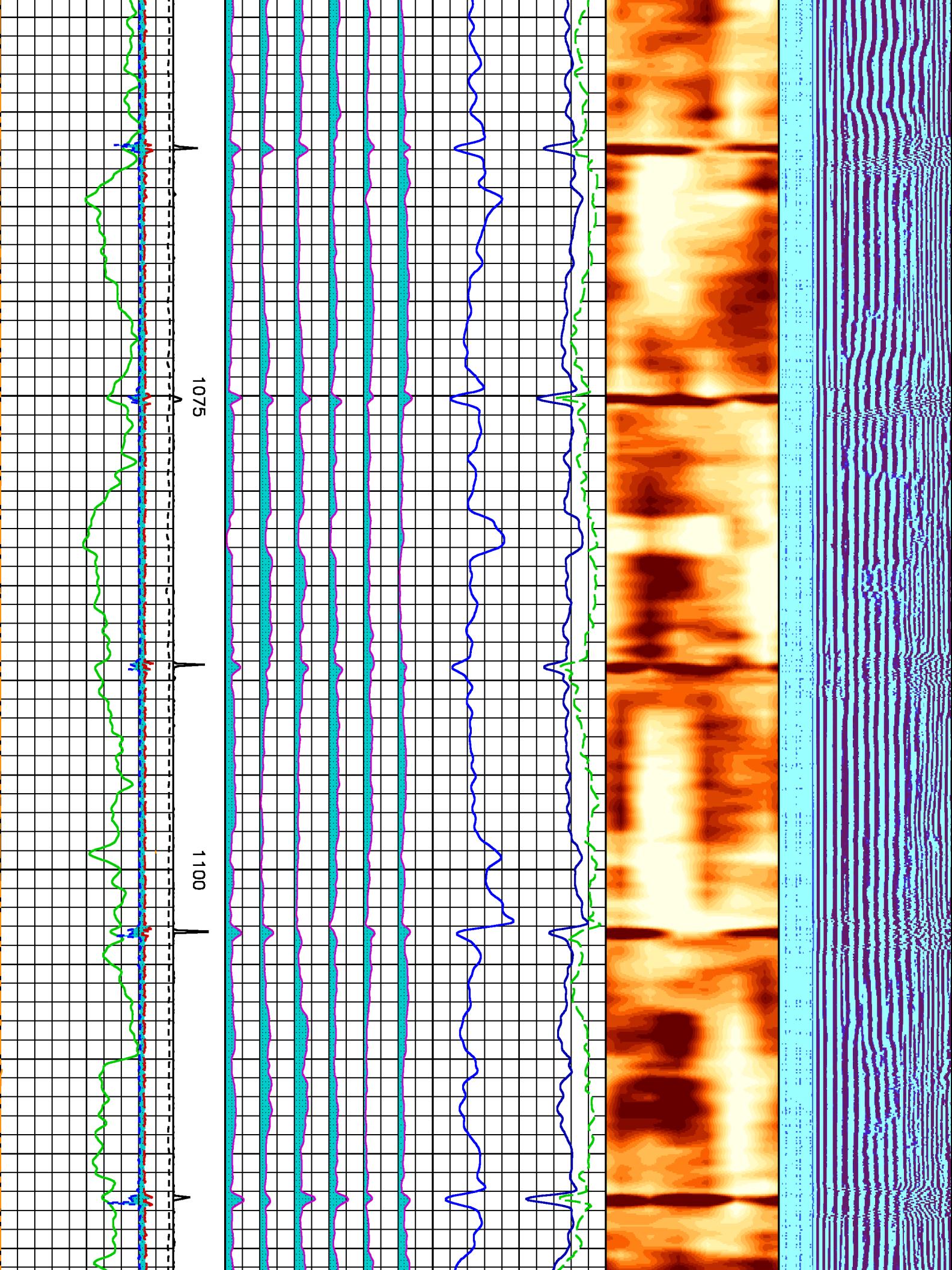


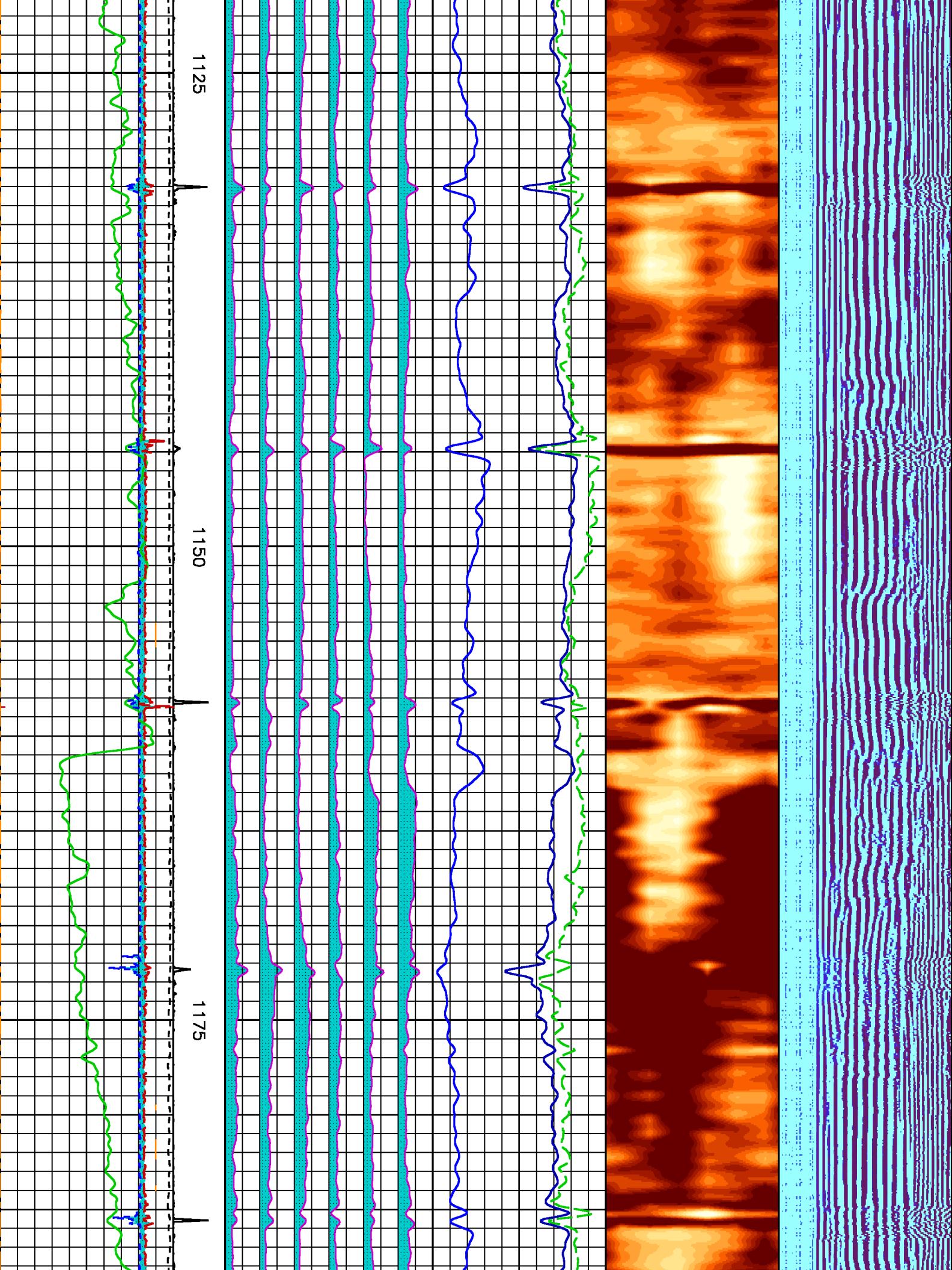


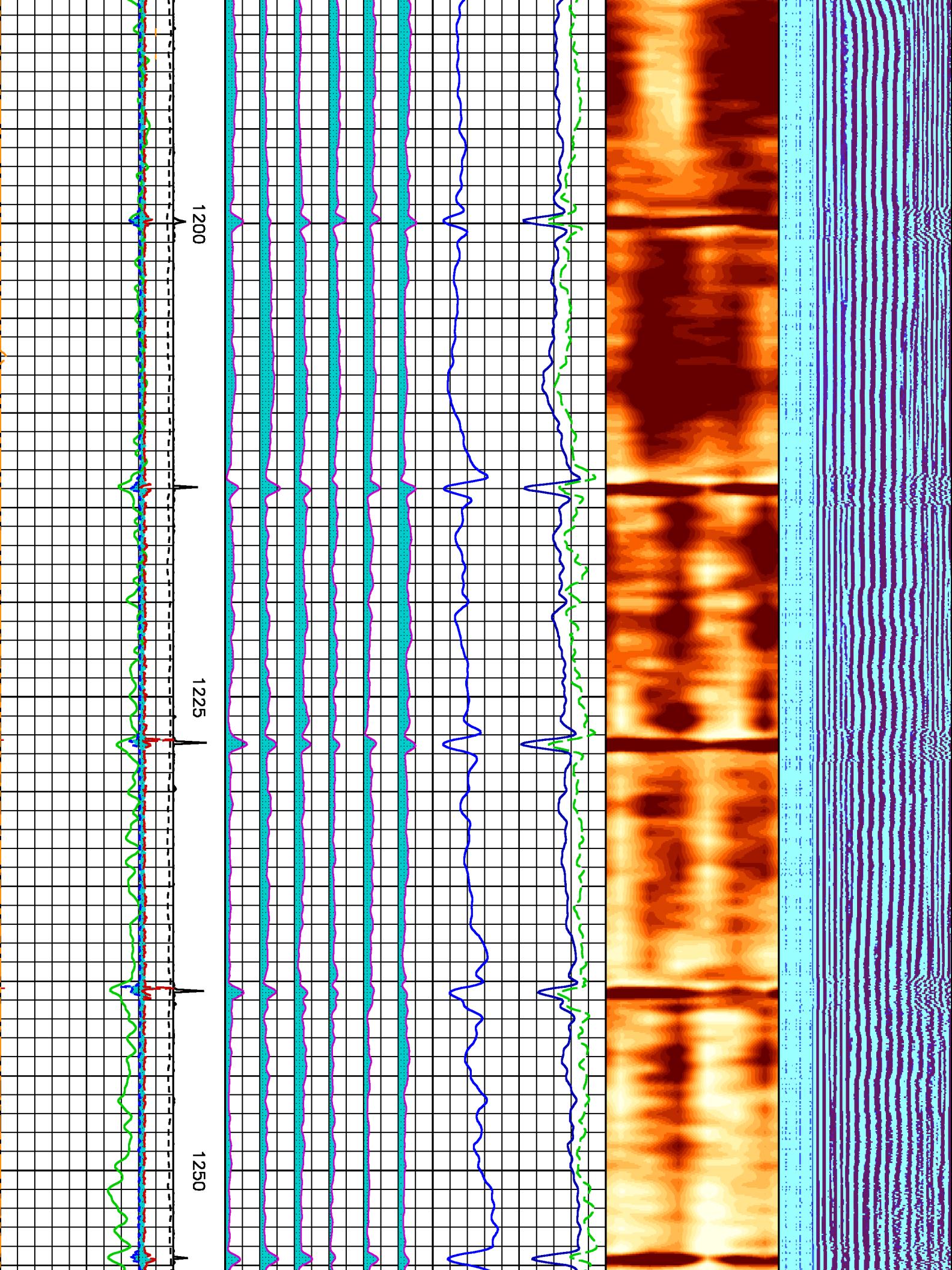


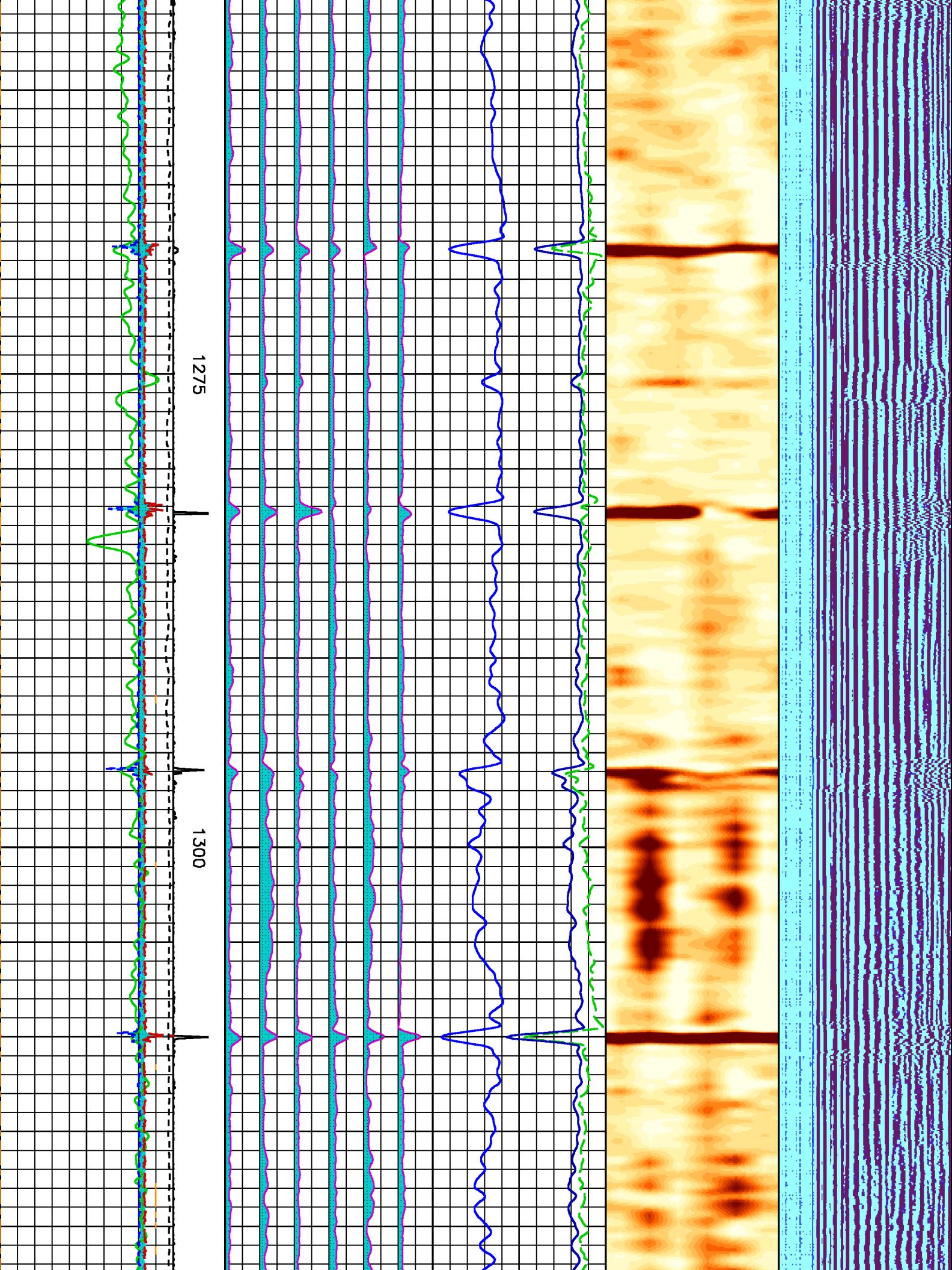


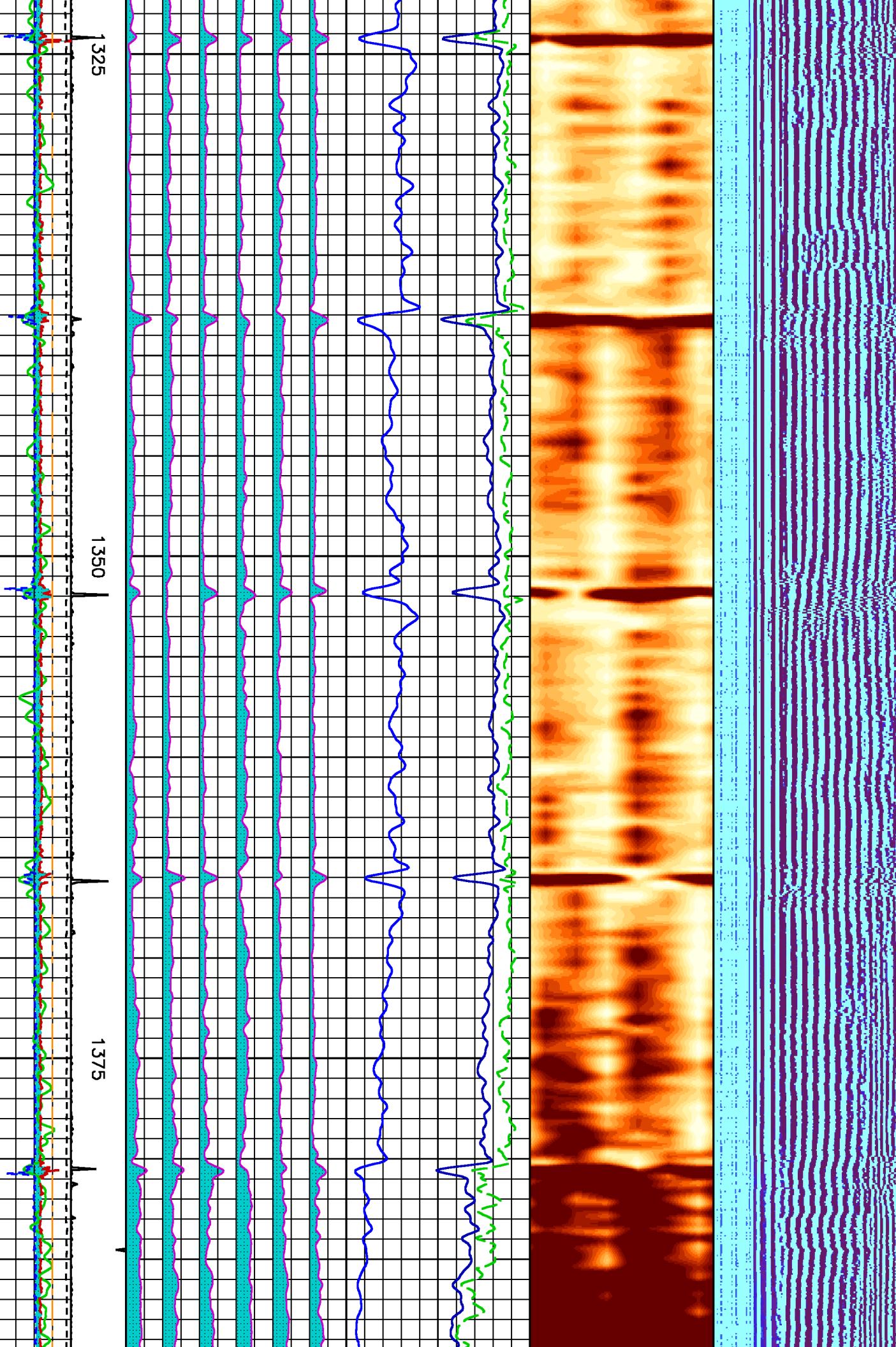


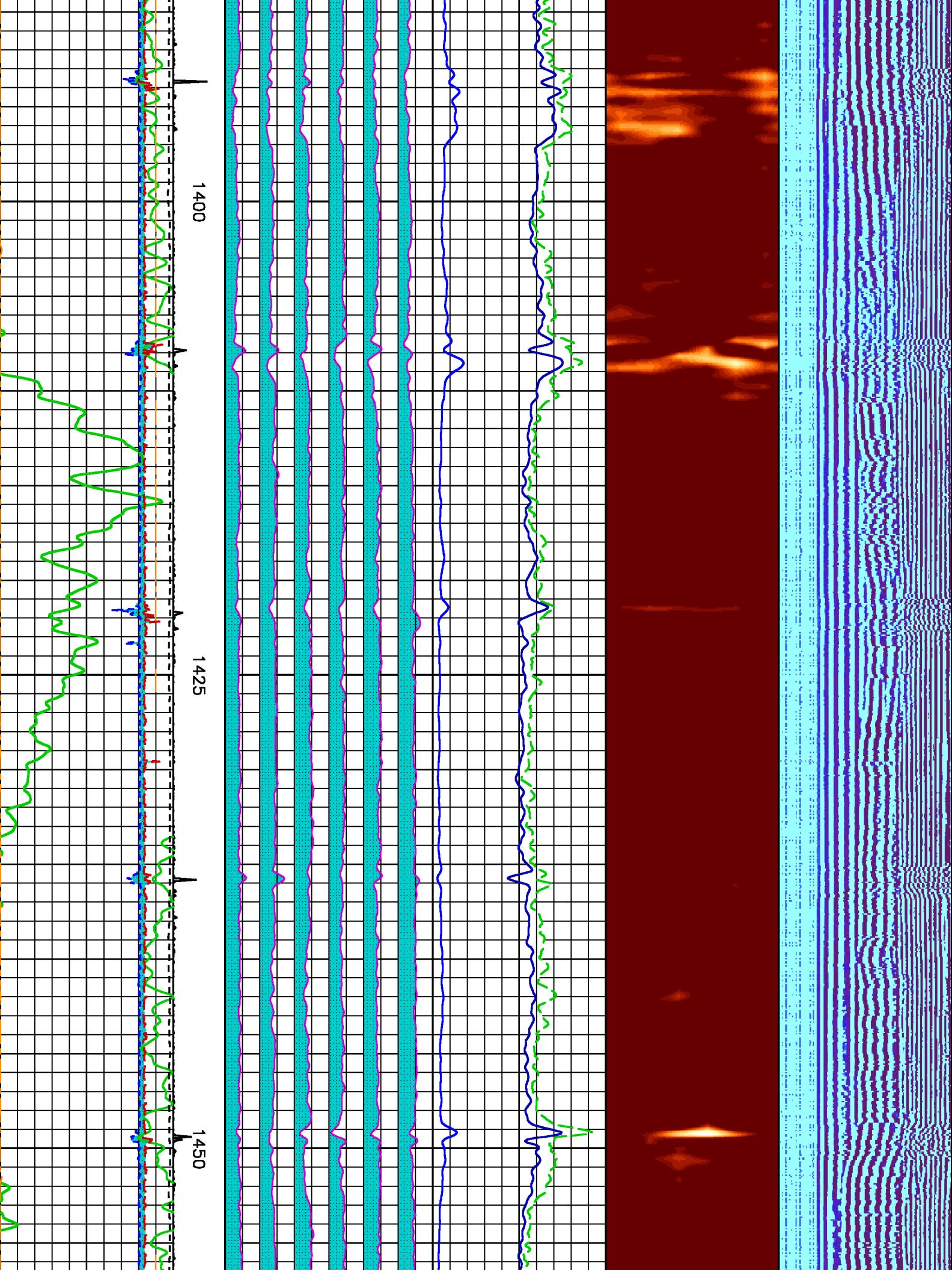


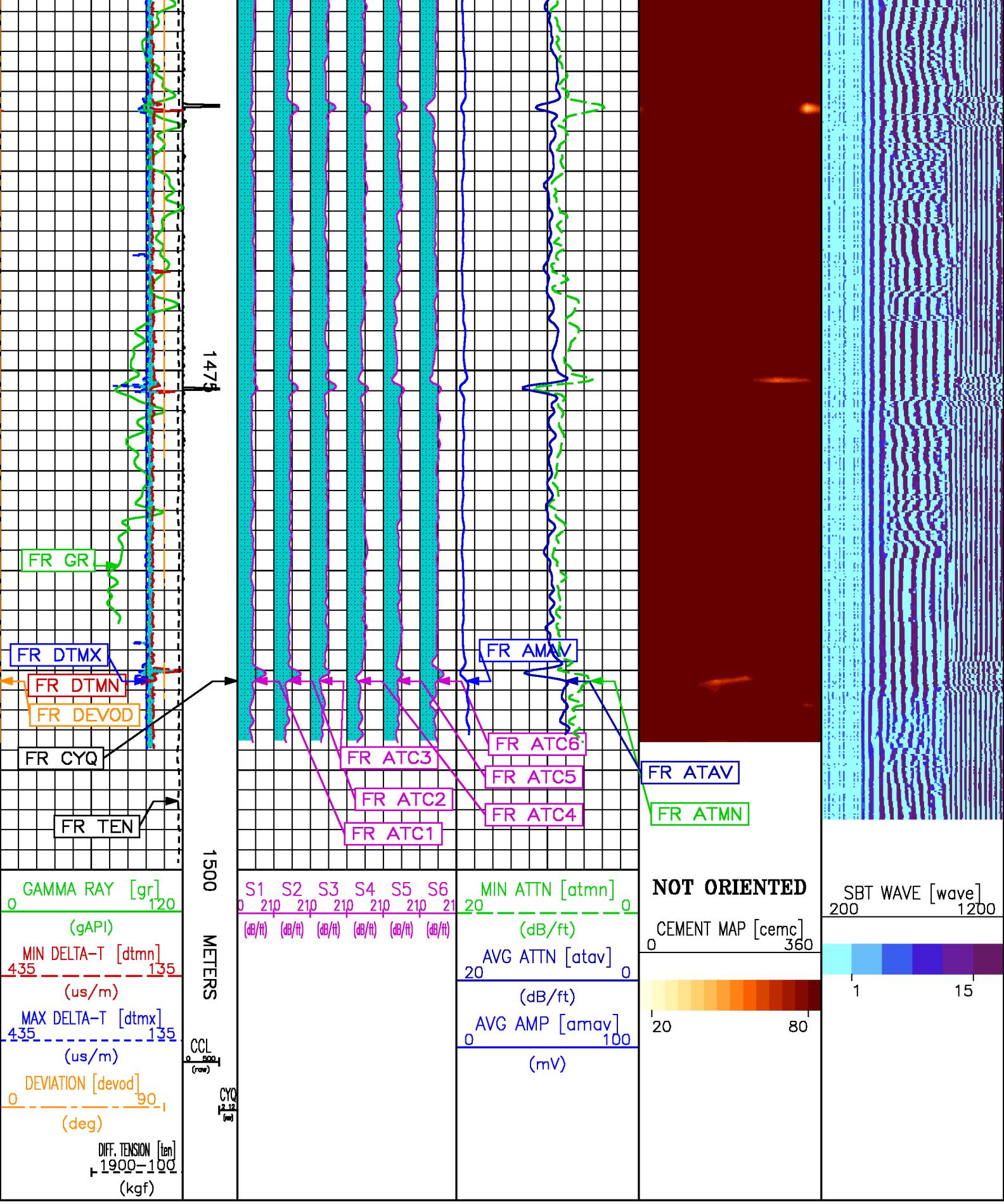












MAIN LOG 1:240 SCALE = CS 17113 KPa

ECLIPS 6.1i Aug 06, 2010
Updates: 1,2 Patches: 3

Sat Feb 23 04:25:39 2013

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MGM/run3_ch/m331d05.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 394.868 m BOTTOM DEPTH: 1977.009 m

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (m) |
|------------------|-------------|------------|-------|--------------|
| GR | FILTER () | medium (1) | | TOP |
| SBT | FILTER, 2pf | medium (1) | | " |
| | FILTER, 4pf | medium (1) | | " |
| TENSION | FILTER () | medium (1) | | " |

SBT PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (m) |
|------------------|---------------------------|---------|-------|--------------|
| SBT | CASING OD | 177.800 | mm | TOP |
| | CASING WT | 38.700 | kg/m | " |
| | FREE PIPE AMP. | 69.513 | mV | " |
| | FREE PIPE ATTN. | 1.193 | dB/ft | " |
| | CORR. FACTOR 1 (1424XA 1) | 2.342 | dB/ft | " |
| | CORR. FACTOR 2 (1424XA 1) | -0.347 | dB/ft | " |
| | CORR. FACTOR 3 (1424XA 1) | -0.209 | dB/ft | " |
| | CORR. FACTOR 4 (1424XA 1) | -1.998 | dB/ft | " |
| | CORR. FACTOR 5 (1424XA 1) | -0.019 | dB/ft | " |
| | CORR. FACTOR 6 (1424XA 1) | 0.232 | dB/ft | " |
| | SPACING | 0.199 | m | " |
| | SPREADING FACTOR | 4.589 | dB/ft | " |
| | CEMENT STRENGTH | 17113 | kPa | " |
| | HI CUTOFF (1424XA 1) | 9.563 | dB/ft | " |
| | LOW CUTOFF (1424XA 1) | 3.286 | dB/ft | " |

SBT NORMALIZATION RESULTS

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS |
|------------------|---------------|--------|-------|
| SBT | CORR. FACTOR1 | 1.930 | dB/ft |
| | CORR. FACTOR2 | -0.161 | dB/ft |
| | CORR. FACTOR3 | -0.122 | dB/ft |
| | CORR. FACTOR4 | -2.135 | dB/ft |
| | CORR. FACTOR5 | -0.171 | dB/ft |
| | CORR. FACTOR6 | 0.659 | dB/ft |

FILE: /dat1a/MGM/run3_ch/m331d05.sbt.qc.meta

CURVE DESCRIPTION REPORT

| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|---------------------|
| F1:AMAV | Feb 22 18:19:04 2013 | AVERAGE AMPLITUDE |
| F1:ATAV | Feb 22 18:19:04 2013 | AVERAGE ATTENUATION |
| F1:ATC1 | Feb 22 18:19:04 2013 | ATTENUATION PAD 1 |
| F1:ATC2 | Feb 22 18:19:04 2013 | ATTENUATION PAD 2 |
| F1:ATC3 | Feb 22 18:19:04 2013 | ATTENUATION PAD 3 |
| F1:ATC4 | Feb 22 18:19:04 2013 | ATTENUATION PAD 4 |
| F1:ATC5 | Feb 22 18:19:04 2013 | ATTENUATION PAD 5 |
| F1:ATC6 | Feb 22 18:19:04 2013 | ATTENUATION PAD 6 |
| F1:ATMN | Feb 22 18:19:04 2013 | ATTENUATION MINIMUM |

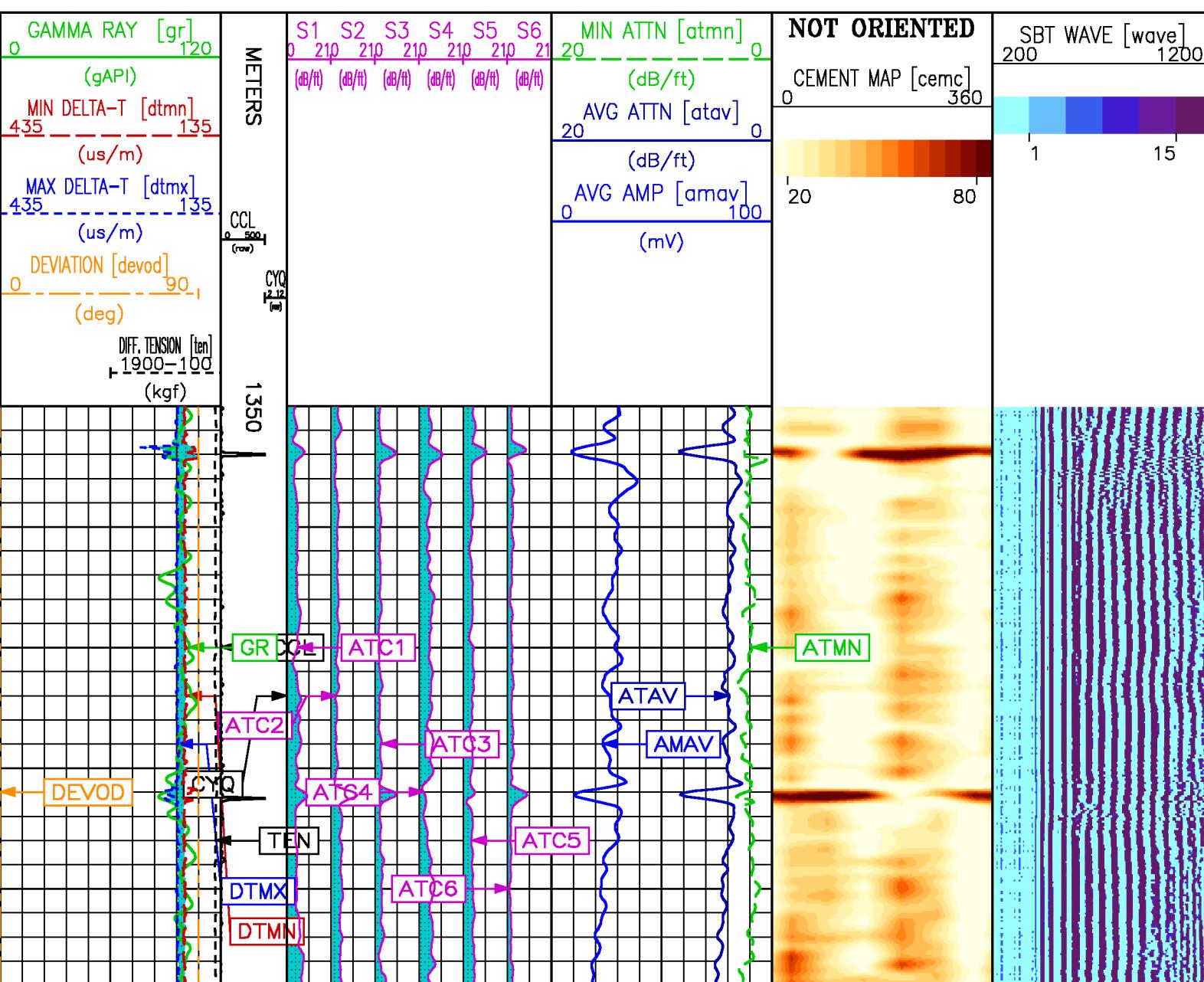
| | | |
|----------|----------------------|-----------------------|
| F1:ATMN | Feb 22 18:19:04 2013 | ATTENCAION MINIMUM |
| F1:CCL | Feb 22 18:19:04 2013 | CASING COLLAR LOCATOR |
| F1:CEMC | Feb 22 18:19:04 2013 | CALIBRATED CEMENT MAP |
| F1:CYQ | Feb 22 18:19:04 2013 | CYCLE QUALITY |
| F1:DEVOD | Feb 22 18:19:04 2013 | DEVIATION |
| F1:DTMN | Feb 22 18:19:04 2013 | MINIMAL SLOWNESS |
| F1:DTMX | Feb 22 18:19:04 2013 | MAXIMAL SLOWNESS |
| F1:GR | Feb 22 18:19:04 2013 | GAMMA RAY |
| F1:TEN | Feb 22 18:19:04 2013 | DIFFERENTIAL TENSION |
| F1:WAVE | Feb 22 18:19:04 2013 | DIGITIZED WAVEFORM |

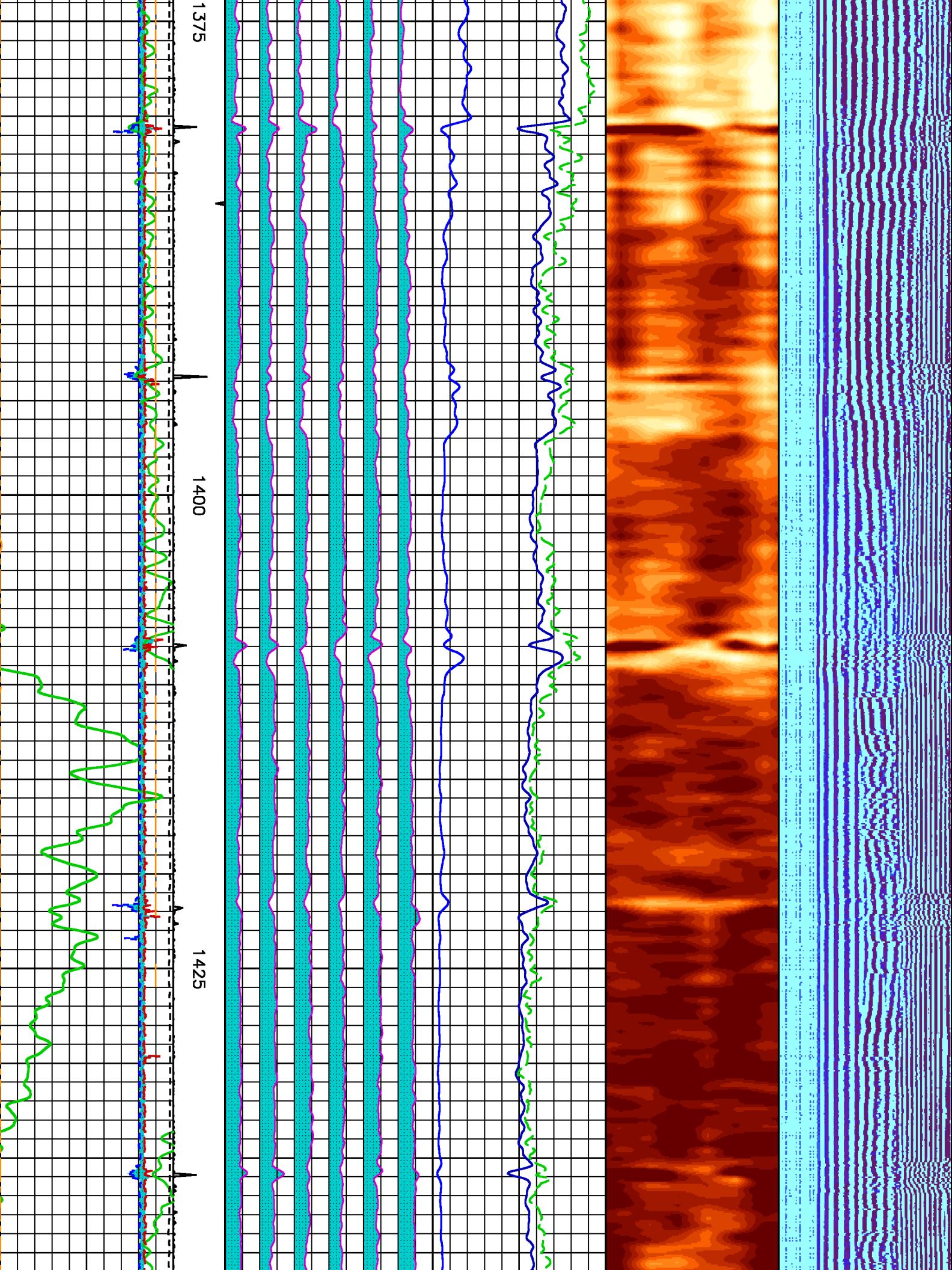
CURVE MEASURE POINT OFFSET

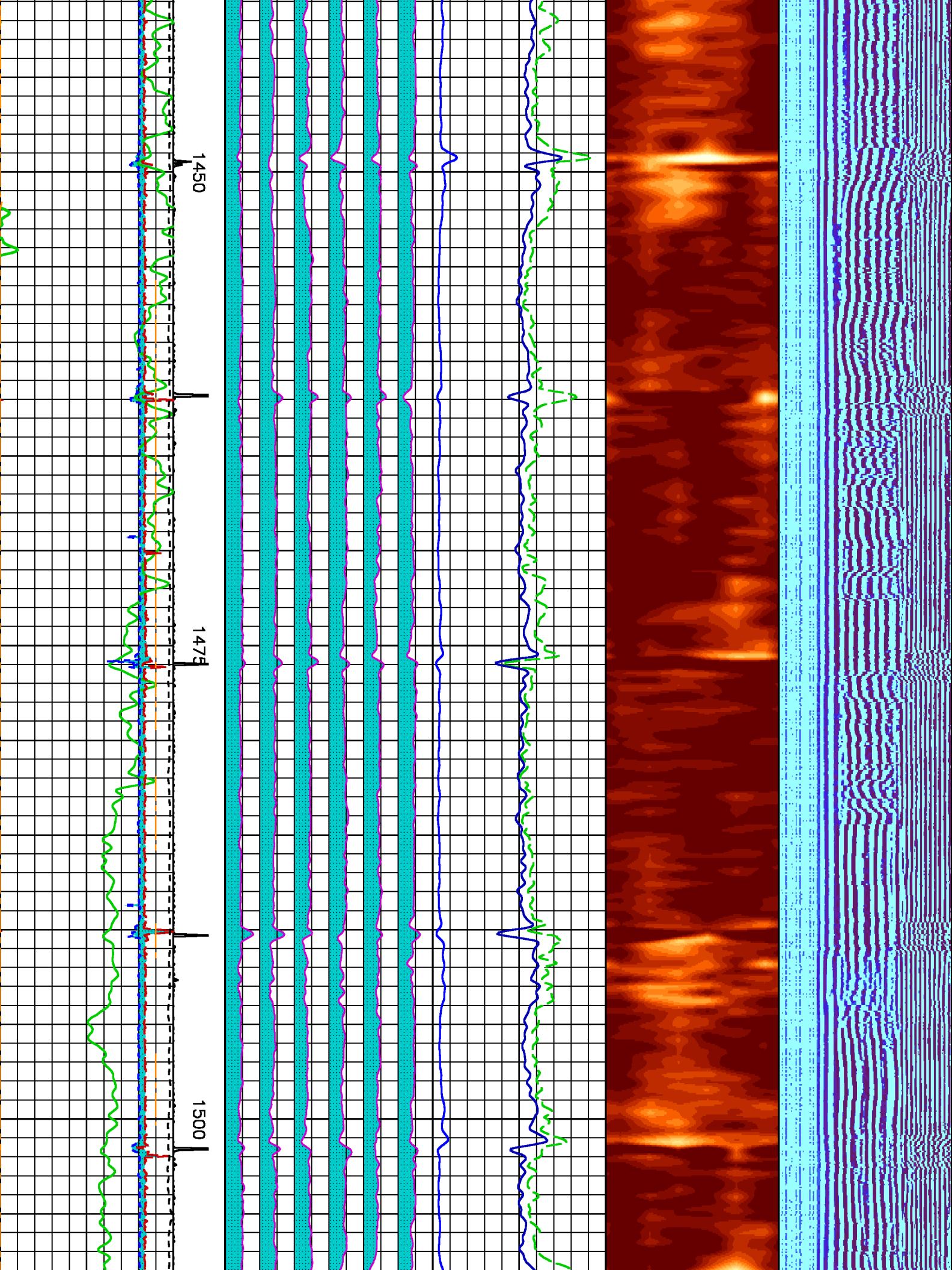
| CURVE | OFFSET (m) |
|-------|------------|-------|------------|-------|------------|-------|------------|
| AMAV | 6.02 | ATC3 | 6.02 | ATMN | 6.02 | DTMN | 6.02 |
| ATAV | 6.02 | ATC4 | 6.02 | CCL | 14.33 | DTMX | 6.02 |
| ATC1 | 6.02 | ATC5 | 6.02 | CYQ | 6.02 | GR | 11.81 |
| ATC2 | 6.02 | ATC6 | 6.02 | DEVOD | 6.02 | TEN | 0.00 |

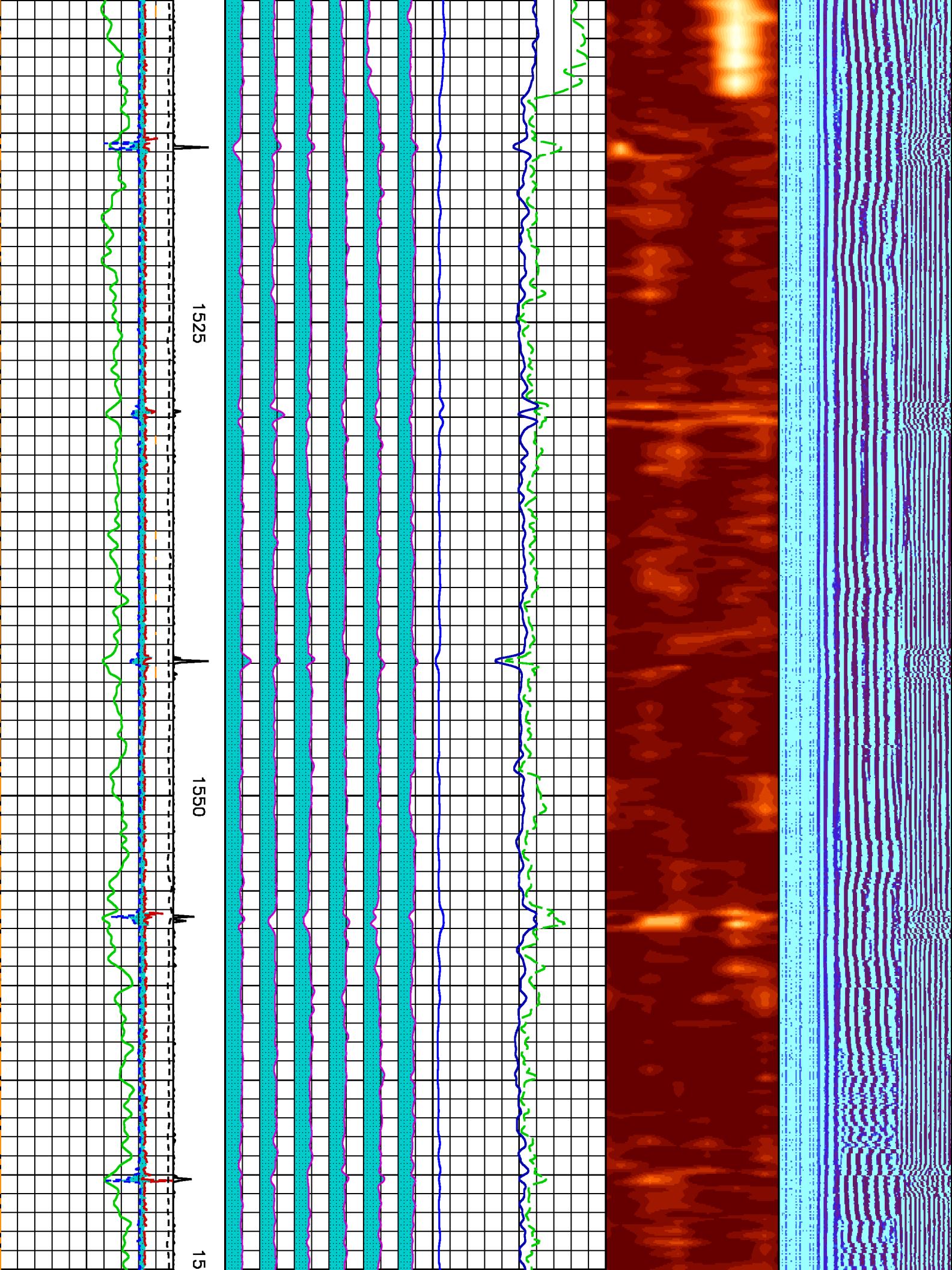
Presentation Plot Interval : sysa:/dat1a/MGM/run3_ch/sbtmon-no-rb_main_tail.pdf [1:240 Scale]
: 1350 – 1977.09 Meters

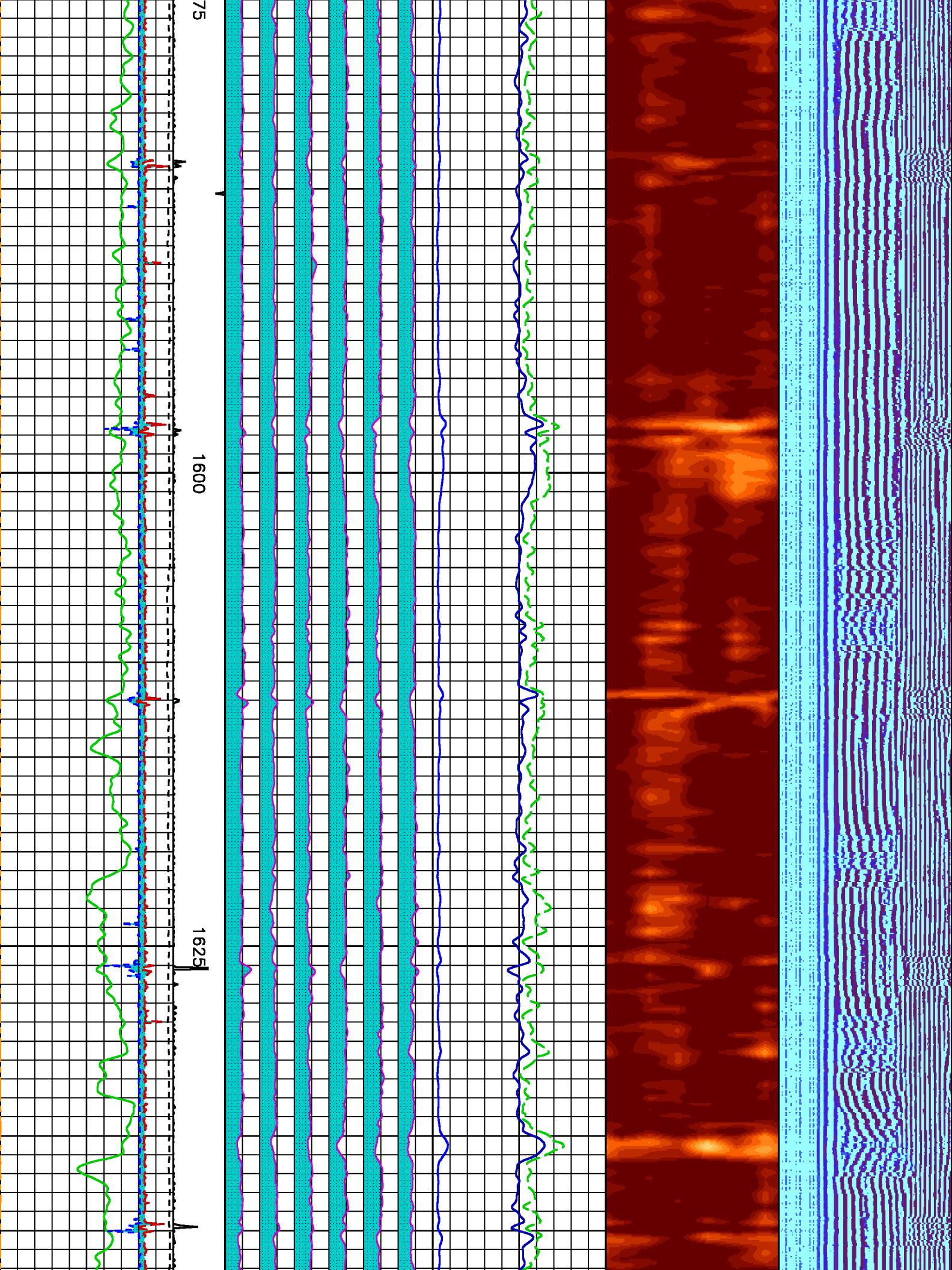
Data File 1 : F1 : sysa:/dat1a/MGM/run3_ch/m331d05.aff
Created On : Feb 22 18:19:04 2013
Company : MGM ENERGY CORP
Well : MGM SHELL EAST MACKAY I-78
Field : EAST MACKAY
File Interval : 380.619 – 1977.09 Meters
Oct : m331d

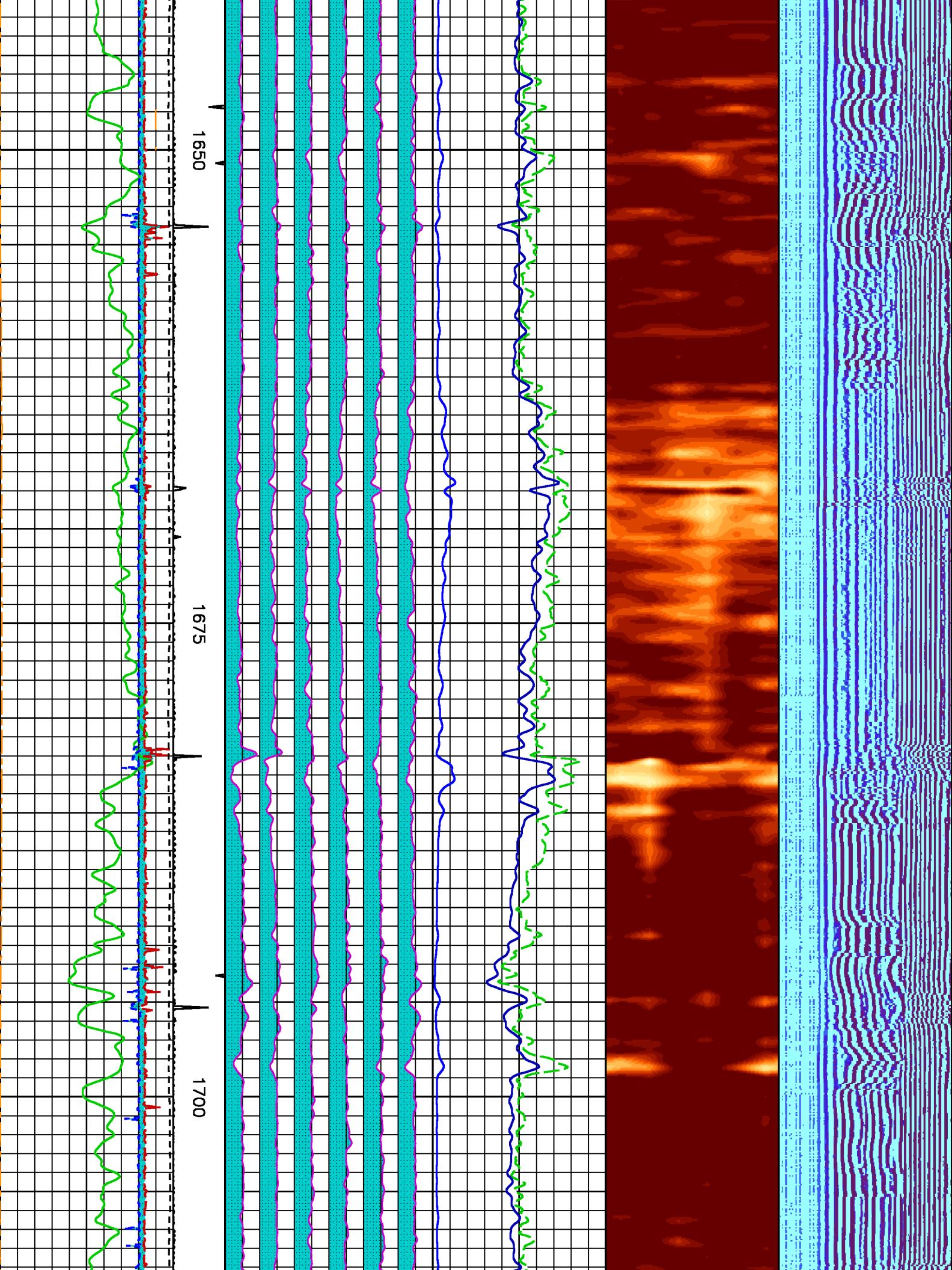


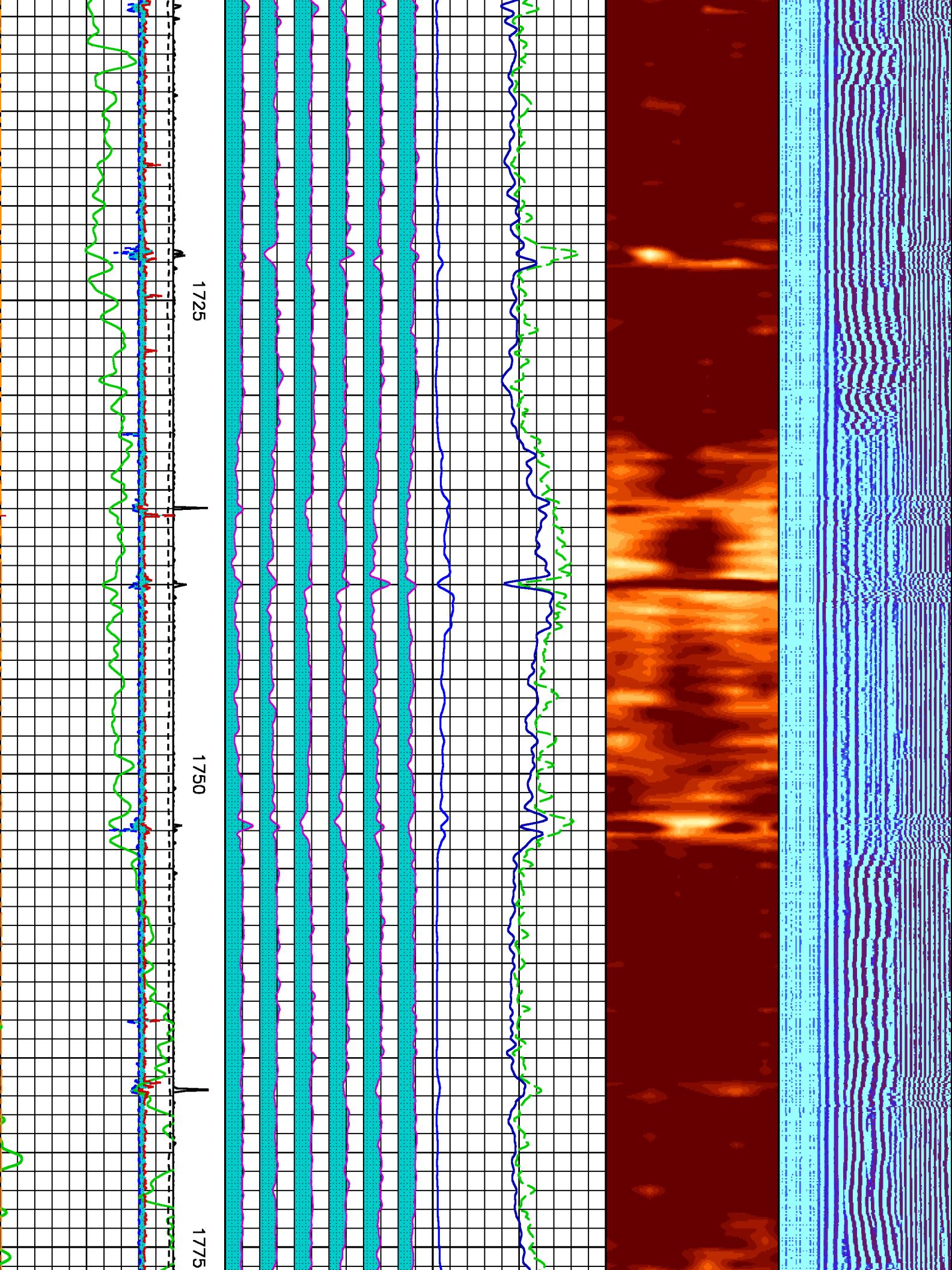


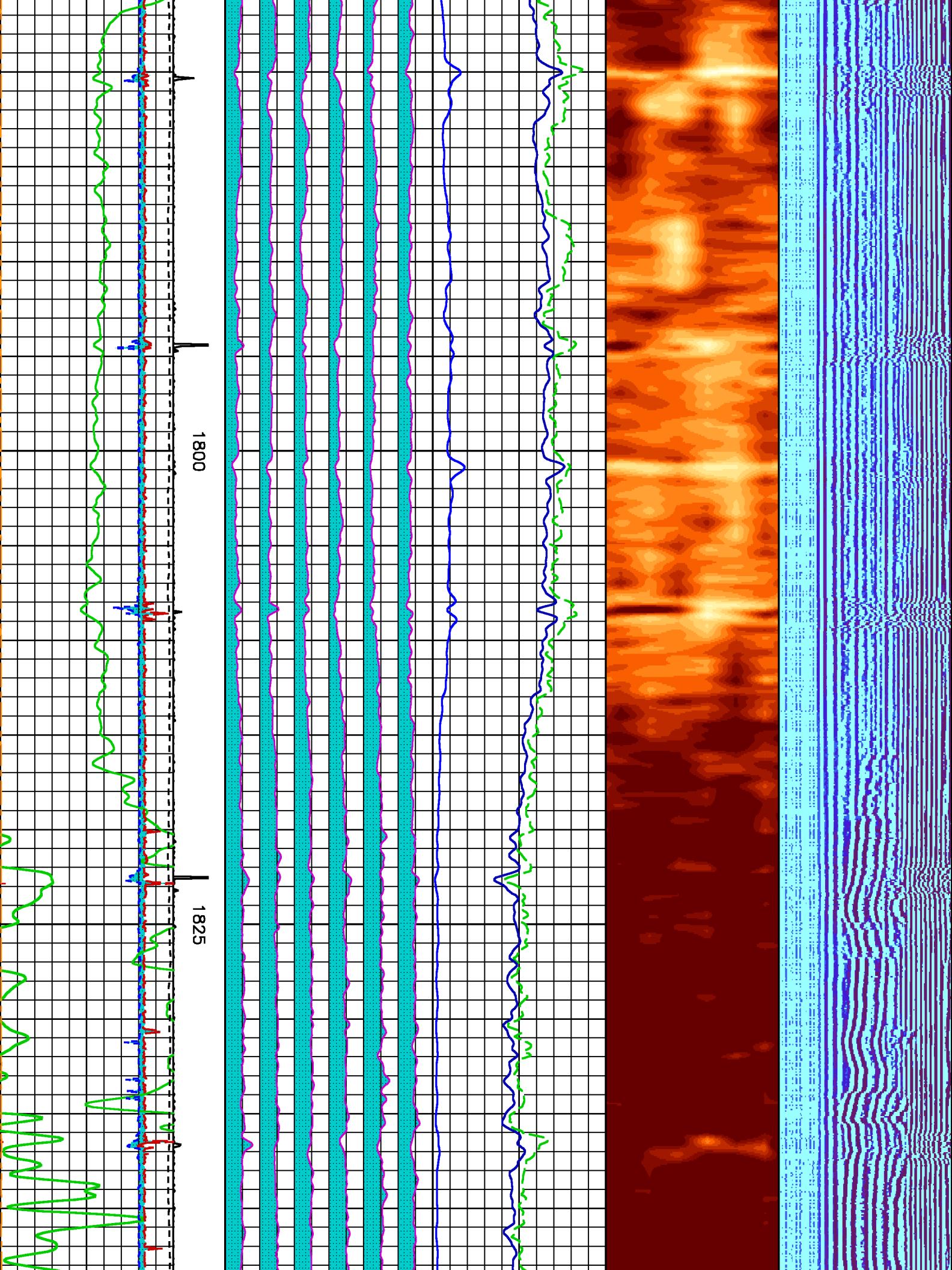


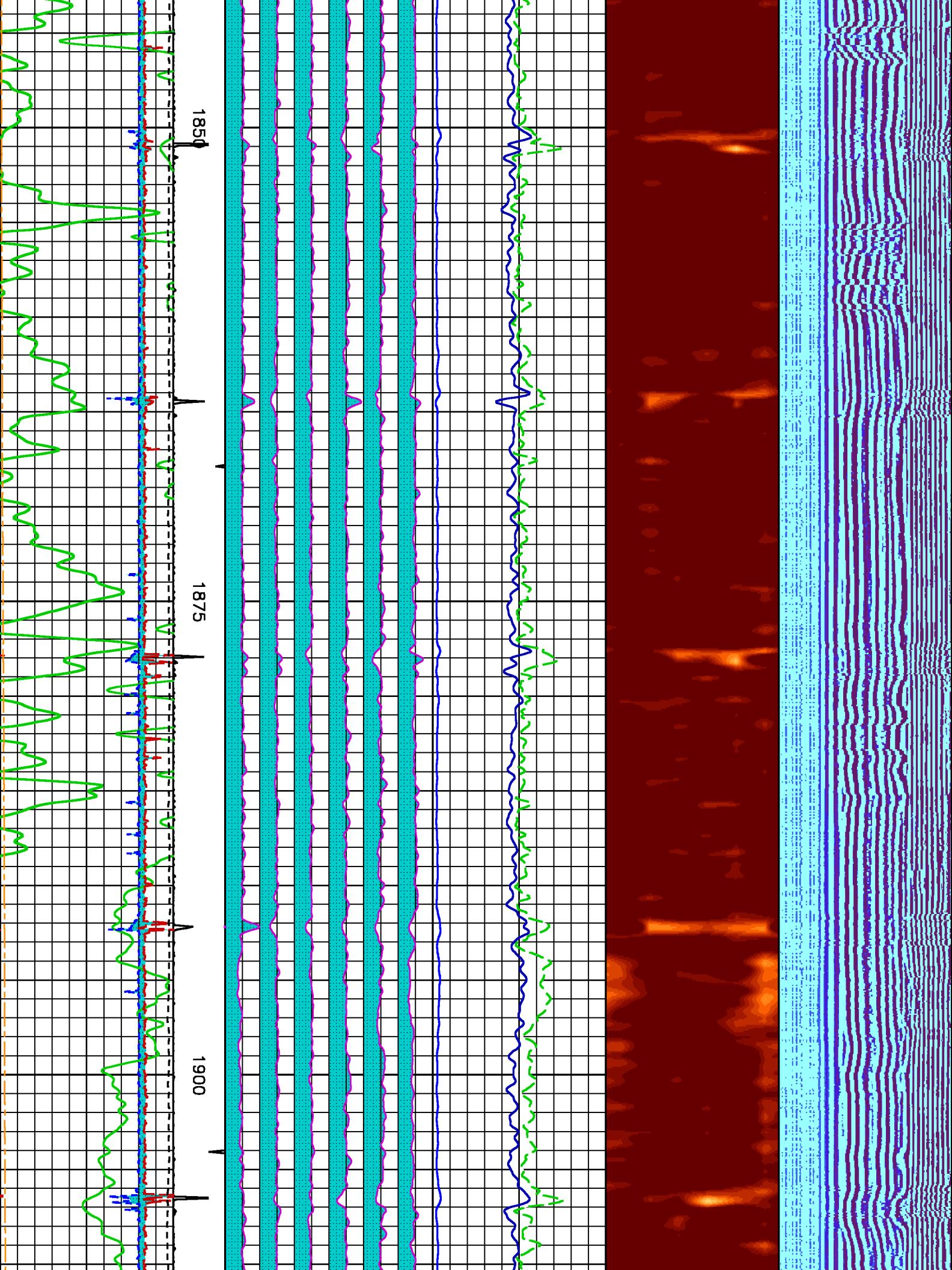


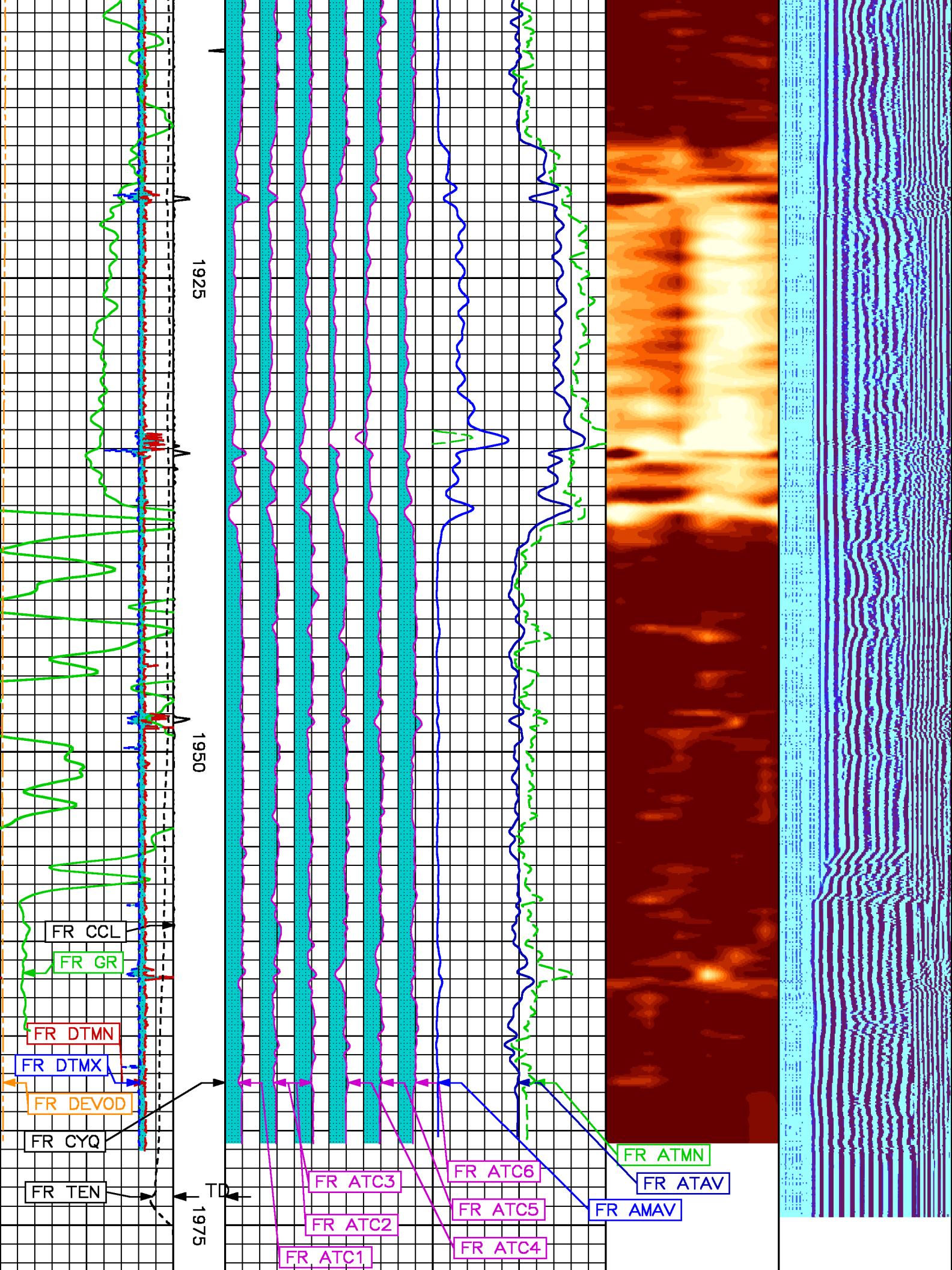


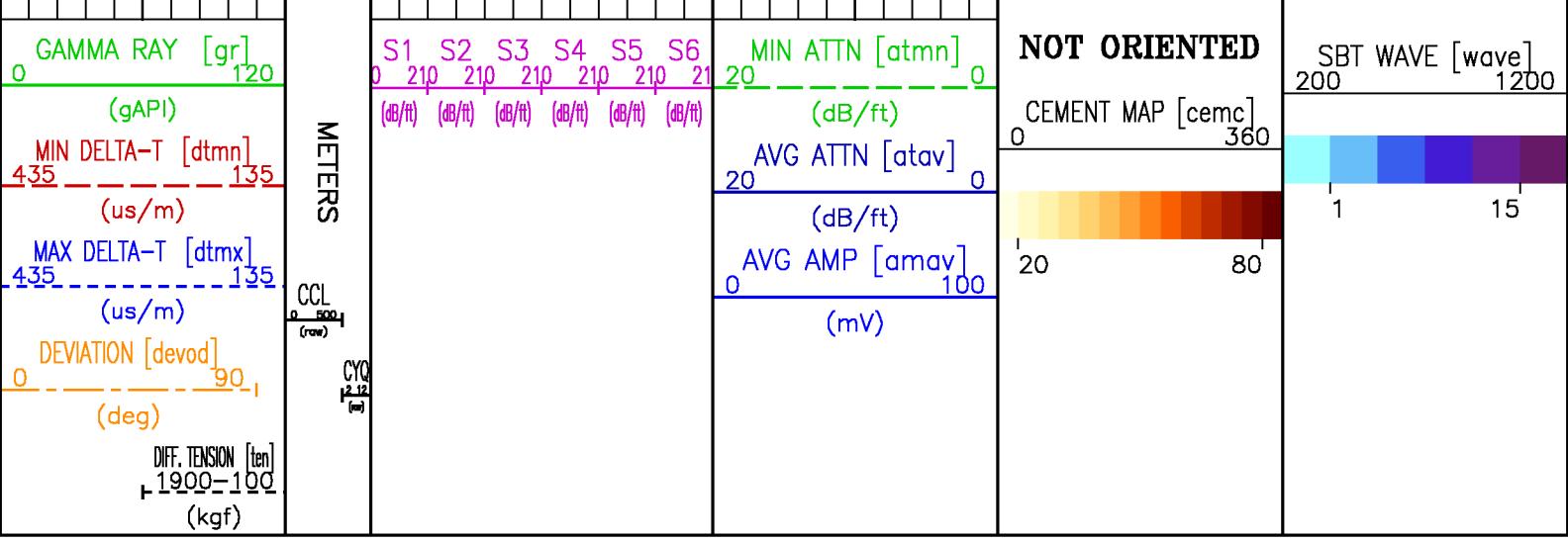












REPEAT LOG 1:240 SCALE - CS 17113 KPa

ECLIPS 6.1i Aug 06, 2010
Updates: 1,2 Patches: 3

Sat Feb 23 04:18:44 2013

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MGM/run3_ch/repeat02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 1808.150 m BOTTOM DEPTH: 1976.018 m

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (m) |
|------------------|-------------|------------|-------|--------------|
| GR | FILTER () | medium (1) | | TOP |
| SBT | FILTER, 2pf | medium (1) | | " " |
| | FILTER, 4pf | medium (1) | | " " |
| TENSION | FILTER () | medium (1) | | " " |

SBT PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (m) |
|------------------|---------------------------|---------|-------|--------------|
| SBT | CASING OD | 177.800 | mm | TOP |
| | CASING WT | 38.700 | kg/m | " |
| | FREE PIPE AMP. | 69.513 | mV | " |
| | FREE PIPE ATTN. | 1.193 | dB/ft | " |
| | CORR. FACTOR 1 (1424XA 1) | 1.729 | dB/ft | " |
| | CORR. FACTOR 2 (1424XA 1) | -0.041 | dB/ft | " |
| | CORR. FACTOR 3 (1424XA 1) | -0.007 | dB/ft | " |
| | CORR. FACTOR 4 (1424XA 1) | -2.031 | dB/ft | " |
| | CORR. FACTOR 5 (1424XA 1) | -0.266 | dB/ft | " |
| | CORR. FACTOR 6 (1424XA 1) | 0.616 | dB/ft | " |
| | SPACING | 0.199 | m | " |
| | SPREADING FACTOR | 4.589 | dB/ft | " |
| | CEMENT STRENGTH | 17113 | kPa | " |
| | HI CUTOFF (1424XA 1) | 9.563 | dB/ft | " |
| | LOW CUTOFF (1424XA 1) | 3.286 | dB/ft | " |

SBT NORMALIZATION RESULTS

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS |
|------------------|-----------|-------|-------|
|------------------|-----------|-------|-------|

SBT

| | | |
|---------------|--------|-------|
| CORR. FACTOR1 | 1.729 | dB/ft |
| CORR. FACTOR2 | -0.041 | dB/ft |
| CORR. FACTOR3 | -0.007 | dB/ft |
| CORR. FACTOR4 | -2.031 | dB/ft |
| CORR. FACTOR5 | -0.266 | dB/ft |
| CORR. FACTOR6 | 0.616 | dB/ft |

FILE: /dat1a/MGM/run3_ch/repeat02.sbt.qc.meta

CURVE DESCRIPTION REPORT

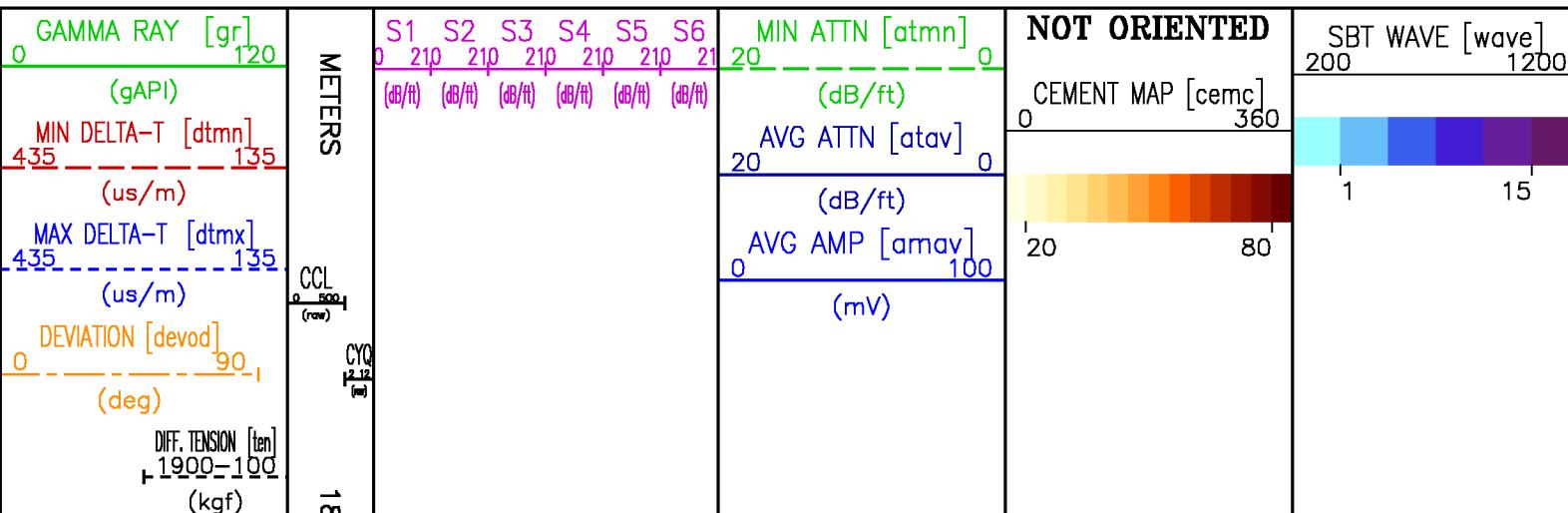
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|-----------------------|
| F1:AMAV | Feb 22 20:09:25 2013 | AVERAGE AMPLITUDE |
| F1:ATAV | Feb 22 20:09:25 2013 | AVERAGE ATTENUATION |
| F1:ATC1 | Feb 22 20:09:25 2013 | ATTENUATION PAD 1 |
| F1:ATC2 | Feb 22 20:09:25 2013 | ATTENUATION PAD 2 |
| F1:ATC3 | Feb 22 20:09:25 2013 | ATTENUATION PAD 3 |
| F1:ATC4 | Feb 22 20:09:25 2013 | ATTENUATION PAD 4 |
| F1:ATC5 | Feb 22 20:09:25 2013 | ATTENUATION PAD 5 |
| F1:ATC6 | Feb 22 20:09:25 2013 | ATTENUATION PAD 6 |
| F1:ATMN | Feb 22 20:09:25 2013 | ATTENUATION MINIMUM |
| F1:CCL | Feb 22 20:09:25 2013 | CASING COLLAR LOCATOR |
| F1:CEMC | Feb 22 20:09:25 2013 | CALIBRATED CEMENT MAP |
| F1:CYQ | Feb 22 20:09:25 2013 | CYCLE QUALITY |
| F1:DEVOD | Feb 22 20:09:25 2013 | DEVIATION |
| F1:DTMN | Feb 22 20:09:25 2013 | MINIMAL SLOWNESS |
| F1:DTMX | Feb 22 20:09:25 2013 | MAXIMAL SLOWNESS |
| F1:GR | Feb 22 20:09:25 2013 | GAMMA RAY |
| F1:TEN | Feb 22 20:09:25 2013 | DIFFERENTIAL TENSION |
| F1:WAVE | Feb 22 20:09:25 2013 | DIGITIZED WAVEFORM |

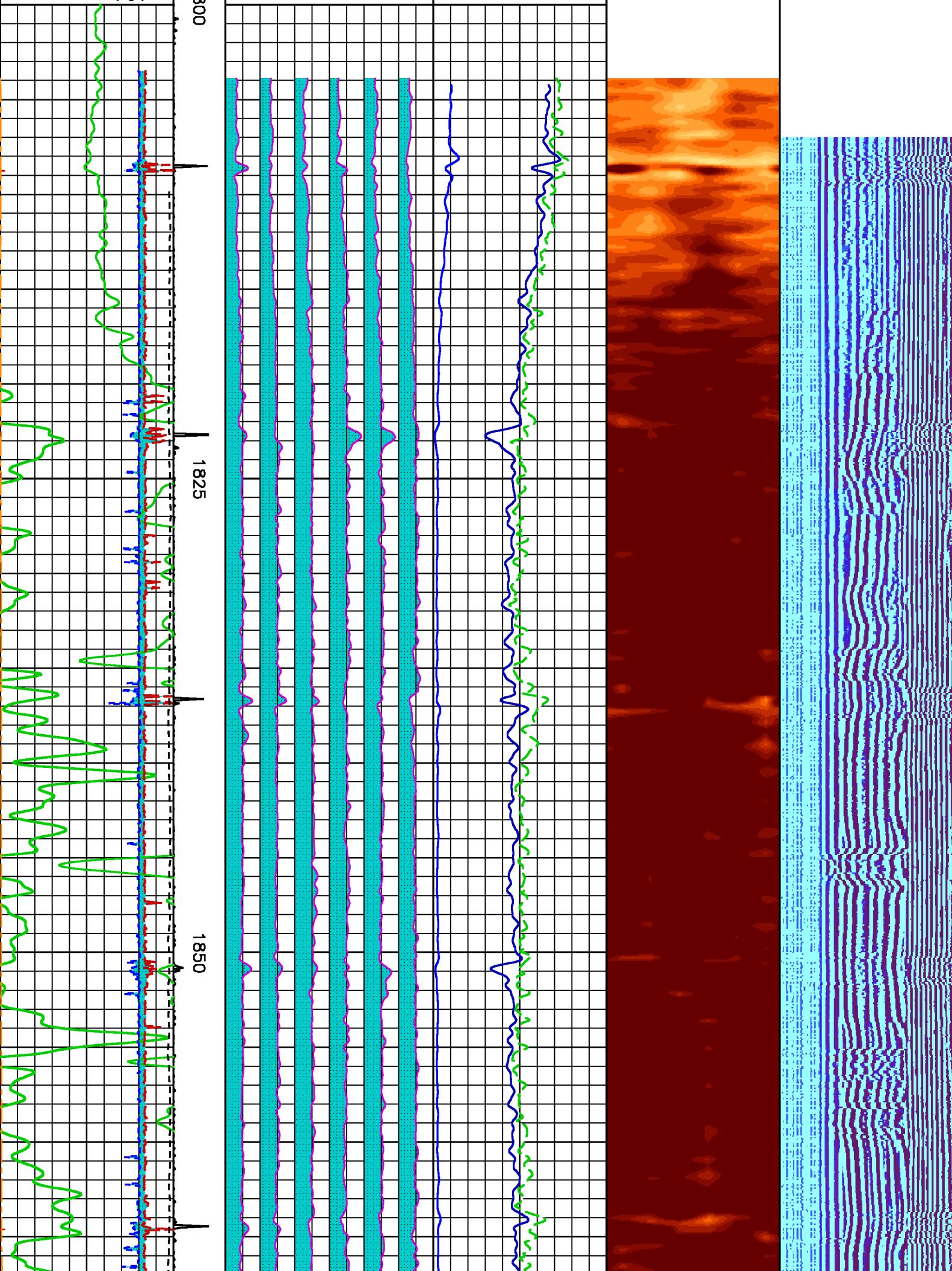
CURVE MEASURE POINT OFFSET

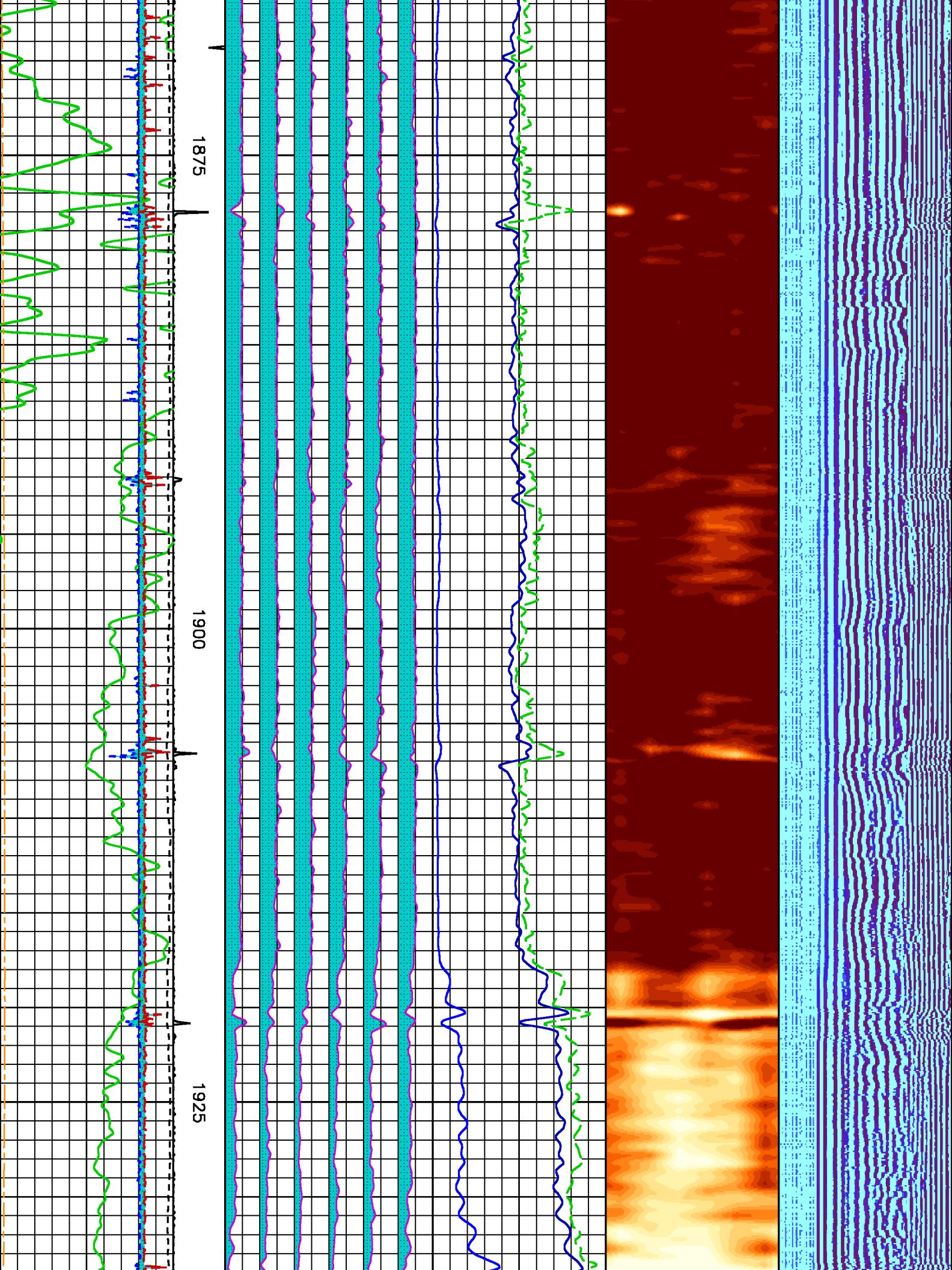
| CURVE | OFFSET (m) |
|-------|------------|-------|------------|-------|------------|-------|------------|
| AMAV | 6.02 | ATC3 | 6.02 | ATMN | 6.02 | DTMN | 6.02 |
| ATAV | 6.02 | ATC4 | 6.02 | CCL | 14.33 | DTMX | 6.02 |
| ATC1 | 6.02 | ATC5 | 6.02 | CYQ | 6.02 | GR | 11.81 |
| ATC2 | 6.02 | ATC6 | 6.02 | DEVOD | 6.02 | TEN | 0.00 |

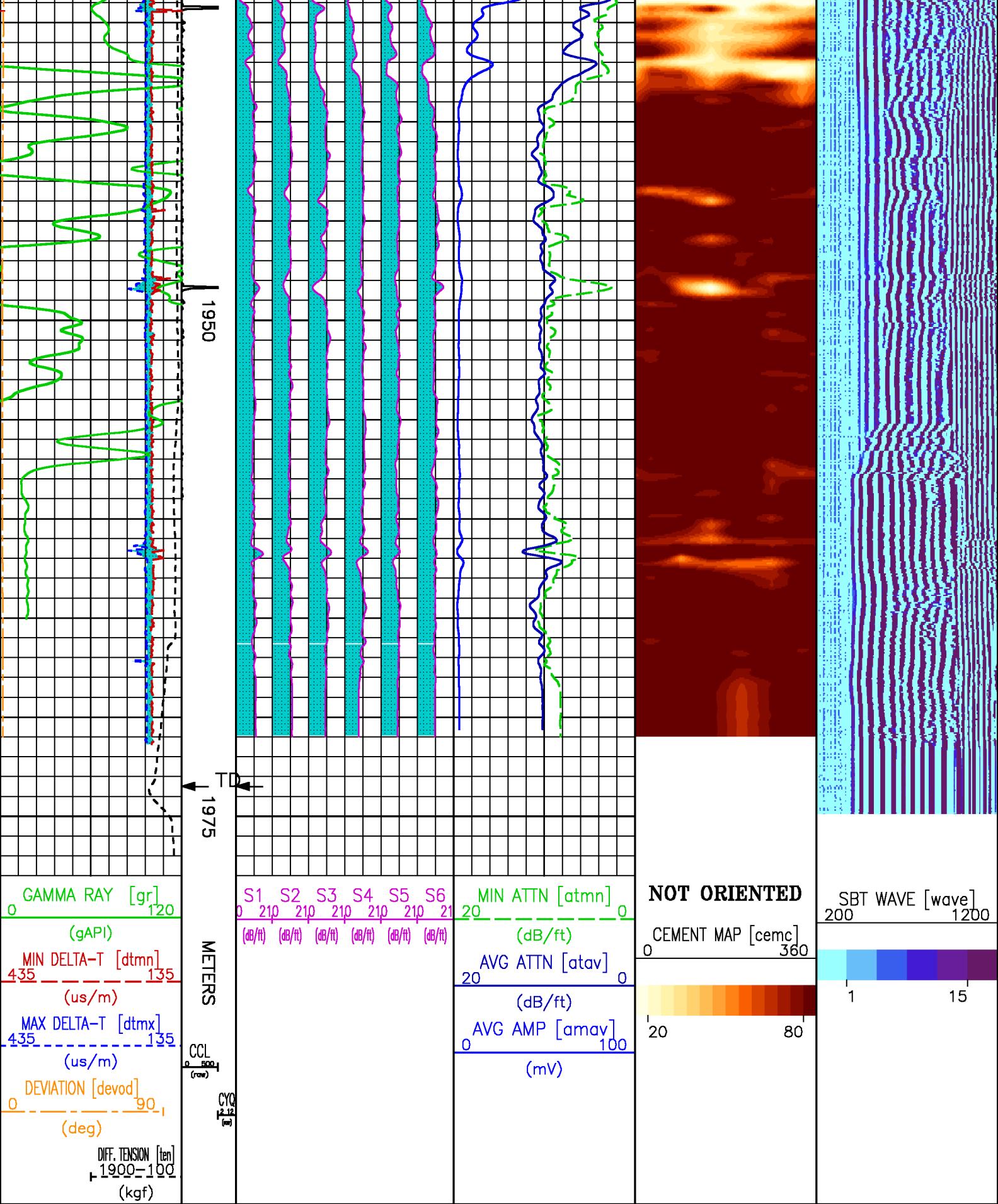
Presentation : sysa:/dat1a/MGM/run3_ch/sbtmon-no-rb_rpt2.pdf [1:240 Scale]
 Plot Interval : 1800 – 1977.39 Meters

Data File 1 : F1 : sysa:/dat1a/MGM/run3_ch/repeat02.aff
 Created On : Feb 22 20:09:25 2013
 Company : MGM ENERGY CORP
 Well : MGM SHELL EAST MACKAY I-78
 Field : EAST MACKAY
 File Interval : 1795.2 – 1977.39 Meters
 Oct : m331d









CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/MGM/run3_ch/m331d_sbt.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1339XA 12616995

DATE/TIME PERFORMED: Sat Jan 26 15:58:04 2013

UNIT #: 5753XB 10108816 CALB JIG #: 4702NK DA-479

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | CR DIFF (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | CALBRTR (gAPI) |
|----|-----------------------|--------------------------|--------------------|-------|----------------------|-------------------------|-------------------|
| GR | 33.91 | 195.91 | 162.0 | 0.926 | 31.40 | 181.40 | 150 |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1339XA 12616995

DATE/TIME PERFORMED: Sat Jan 26 16:00:15 2013

UNIT #: 5753XB 10108816 VERI JIG #: 4702NK DA-479

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|-----------------------|--------------------------|-------|----------------------|-------------------------|-----------------|
| GR | 35.13 | 200.29 | 0.926 | 32.53 | 185.45 | 152.92 |

RB PRIMARY CALIBRATION SUMMARY

TOOL #: 1424XA 120950

DATE/TIME PERFORMED: Sat Jan 26 15:45:33 2013

UNIT #: 5753XB 10108816

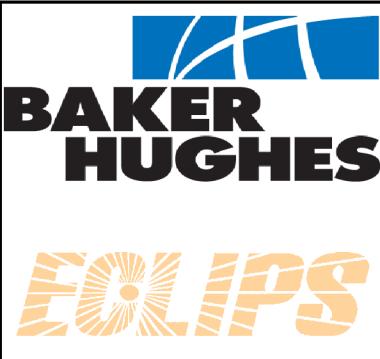
| | X-ATT (raw) | Y-ATT (raw) | OFFSET (deg) | X-MAX | Y-MAX | RB (deg) |
|-------|----------------|----------------|-----------------|-------|-------|-------------|
| PAD 2 | -109.4 | -422.7 | | | | 0.00 |
| PAD 3 | -431.6 | -110.4 | | | | 61.14 |

SBT PRIMARY CALIBRATION SUMMARY

TOOL #: 1424XA 120950

DATE/TIME PERFORMED: Sat Jan 26 15:43:18 2013

| | PAD 1 | PAD 2 | PAD 3 | PAD 4 | PAD 5 | PAD 6 |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NOISE LEVEL | 1.2 10.0 | 2.0 10.0 | 2.6 10.0 | 1.8 10.0 | 1.4 10.0 | 2.0 10.0 |
| PAD SENS | 359.8 150.0 | 295.6 150.0 | 287.6 150.0 | 313.0 150.0 | 239.7 150.0 | 321.0 150.0 |

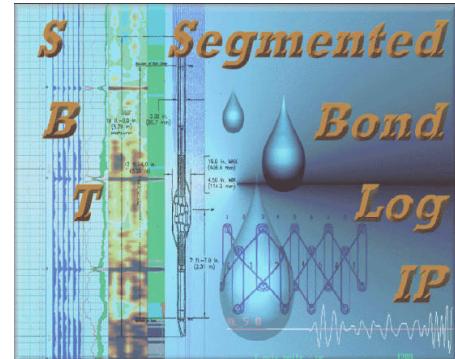


| | | |
|--------------------------------------|---|--|
| COMPANY WELL FIELD PROVINCE | MGM ENERGY CORP MGM SHELL EAST MACKAY I-78 EAST MACKAY NORTHWEST TERRITORIES | FILE NO: API NO: |
| LOCATION: | ELEVATIONS: KB 161.20 M DF GL 155.00 M | UID: 3001786450125 30 LICENSE: 1202 |
| LAT 64.795 N LONG 125.722 W | DATE 22-FEB-2013 | |



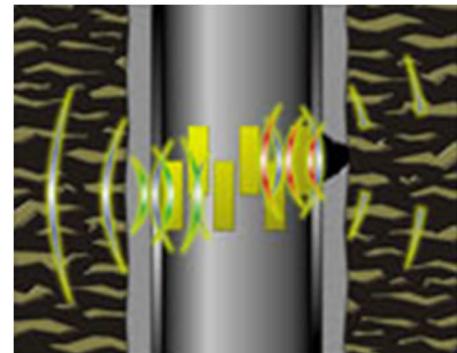
Cement Bond Log Report

Company Name: MGM ENERGY CORP
Well Name: MGM SHELL EAST MACKAY I-78
UWI: 3001786450125 30
License: 1202



Service Order Number: 215447

Log date: 22-Feb-2013



Prepared By: A. Kotov

Report Date: 25-Feb-2013



BAKER HUGHES WIRELINE SYSTEMS
1000, 401 - 9th Avenue S.W., Calgary, AB T2P 3C5
Phone (403) 537-3400 Fax (403) 537-3767

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| CASING DATA | | | | |
|--------------|------------------|-------|-------------|-----------|
| Size [mm] | Weight [kg/m] | Grade | From [m] | To [m] |
| 244.5 | 59.5 | N/A | SURFACE | 401.8 |
| 177.8 | 38.7 | I-80 | SURFACE | 1978.5 |

In making interpretations of logs, our employees will give the customer the benefit of their best judgment. But since all interpretations are based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. Baker Hughes 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.

1. Logs ran:

- Segmented Bond Log Tractor/(SBT)/Gamma Ray (GR)/Casing Collar Locator (CCL)
(Log interval 1971m- 390m)

2. Purpose:

- To determine cement quality behind the 177.8 mm casing string.

3. Comments:

- Main and repeat passes logged with no wellhead pressure.
- The cement map normalized for cement compressive strength of 5419 kPa for interval 390m-1412.
- The cement map normalized for cement compressive strength of 17113 kPa for interval 1412m-1971m.

4. Interpretation:

| <u>From</u> | <u>To</u> | <u>Bond</u> | <u>Remarks</u> |
|-------------|-----------|--------------|---|
| 1971 | 1931 | Very Good | Dominating excellent bond cement. |
| 1931 | 1920 | Fair to Poor | Fair bond cement, possible channeling |
| 1920 | 1816 | Excellent | Dominating excellent bond cement. |
| 1816 | 1776 | Good to Fair | Equal mix of good and bond cement. |
| 1776 | 1753 | Excellent | Only excellent bond cement. |
| 1753 | 1733 | Good Fair | Alternating good and fair cement. |
| 1733 | 1692 | Excellent | Homogeneous interval, excellent bond cement only. |
| 1692 | 1675 | Good | Averages to good bond cement. |
| 1675 | 1662 | Fair | Fair bond cement. |

| | | | |
|------|------|--------------|---|
| 1662 | 1513 | Good | Primarily good bond cement |
| 1513 | 1508 | Fair | Range of poor bond cement over good bond interval. |
| 1508 | 1412 | Good to Fair | Alternating good and fair bond cement. |
| 1412 | 1380 | Very Good | Mostly excellent bond cement. |
| 1380 | 1291 | Fair | Mostly fair bond cement, isolated poorly bonded ranges. |
| 1291 | 1250 | Fair to Poor | Equal mix of fair and poor bond cement. |
| 1250 | 1213 | Fair | Averages to fair bond cement. |
| 1213 | 1171 | Good to Fair | Alternating good and fair bond cement. |
| 1171 | 1081 | Fair to Poor | Fair bond cement with segmental poorly bonded ranges. |
| 1081 | 1071 | Fair | Fair bond cement. |
| 1071 | 1062 | Fair to Poor | Fair bond cement with segmental poorly bonded ranges. |
| 1062 | 1017 | Fair | Fair bond cement. |
| 1017 | 956 | Fair to Poor | Fair bond cement with possible channeling. |
| 956 | 881 | Fair | Fair bond cement. |
| 881 | 876 | Fair to Poor | Fair bond cement with possible channeling. |
| 876 | 762 | Fair | Fair bond cement. |
| 762 | 752 | Good to Fair | Mix of good and fair bond cement. |
| 752 | 619 | Fair | Fair bond cement. |
| 619 | 609 | Fair to Poor | Fair bond cement with possible channeling. |
| 609 | 552 | Fair | Fair bond cement. |

552 540 Fair to Poor Fair bond cement with possible channeling.

540 390 Fair Fair bond cement.

Notes:

- Attenuation values at collars are not valid and may appear as poor bond or excellent bond, these should be ignored.
- Definition of micro-annulus size is relative and not pertaining to absolute values.