BAKER HUGHES
INTEQ

Company : Stuart Petroleum Ltd
Well : Bazzard-1
Interval : 81.00 - 3463.95 meters
Created : 09/Oct/2008 1:16:42 PM

STUART PETROLEUM LIMITED

FORMATION EVALUATION LOG

Drilling Rate
ROP (m/hr)
200 | 160 | 120 | 80 | 40
WEIGHT ON BIT (klbf)
10 | 20 | 30 | 40 | 50
ROP Backup (m/hr)
400 | 360 | 320 | 280 | 240
Gamma Ray
0 — 200
API

CORE

MD meters 1:200

LITHOLOGY %

INTERPRETED LITHOLOGY

TOTAL GAS & RESISTIVITY
Total Gas %
0.1 | 1 | 10
Resistivity Deep
0.2 — 200
ohm.m

CHROMATOGRAPH
Methane ppm 0.1 — 10000
Ethane ppm 0.1 — 10000
Propane ppm 0.1 — 10000
iso-Butane ppm 0.1 — 10000
n-Butane ppm 0.1 — 10000
iso-Pentane ppm 0.1 — 10000
n-Pentane ppm 0.1 — 10000

Oil Show
P F G

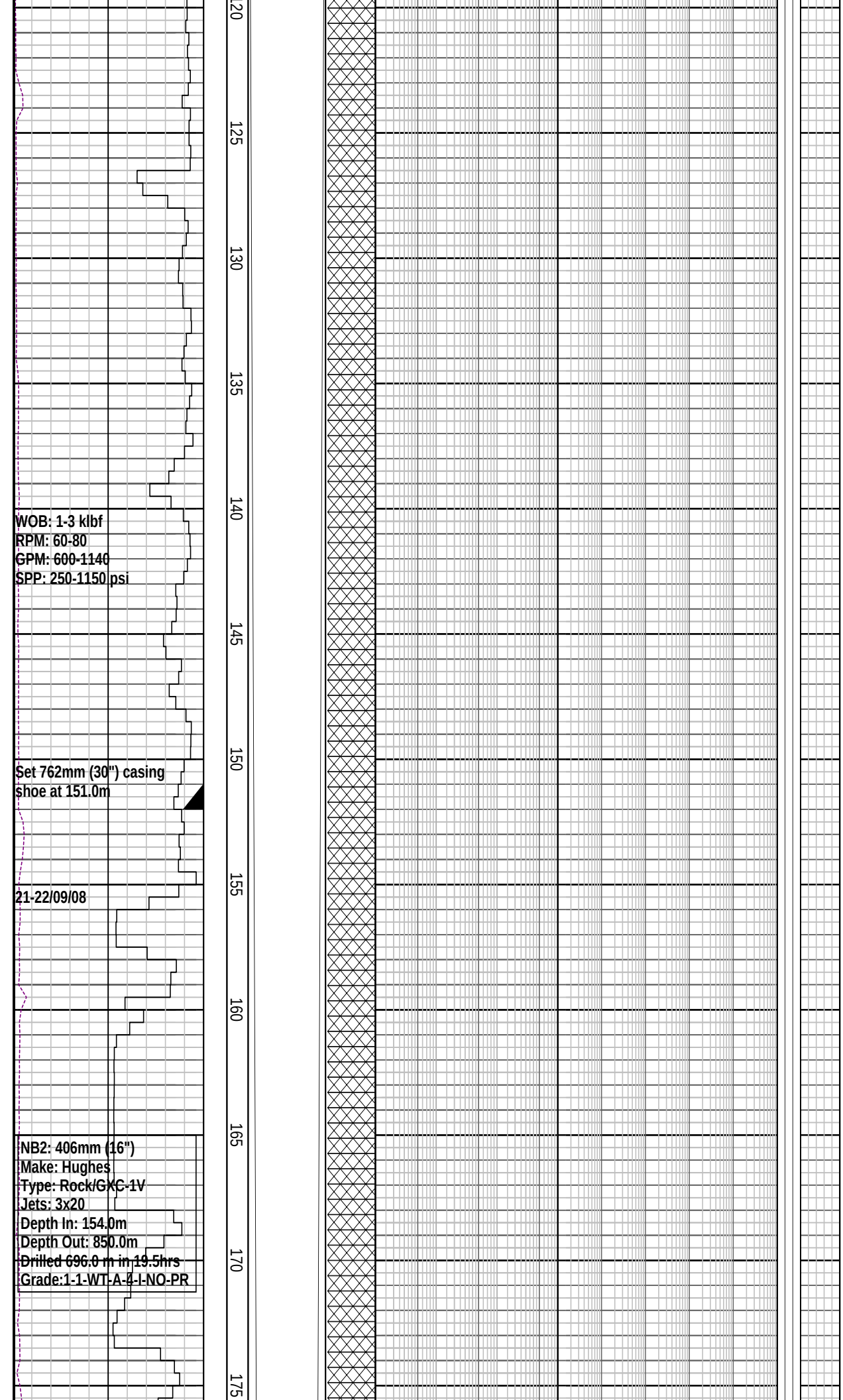
Calcimetry
CaCO3 % 0 — 100
MgCO3 % 100 — 0

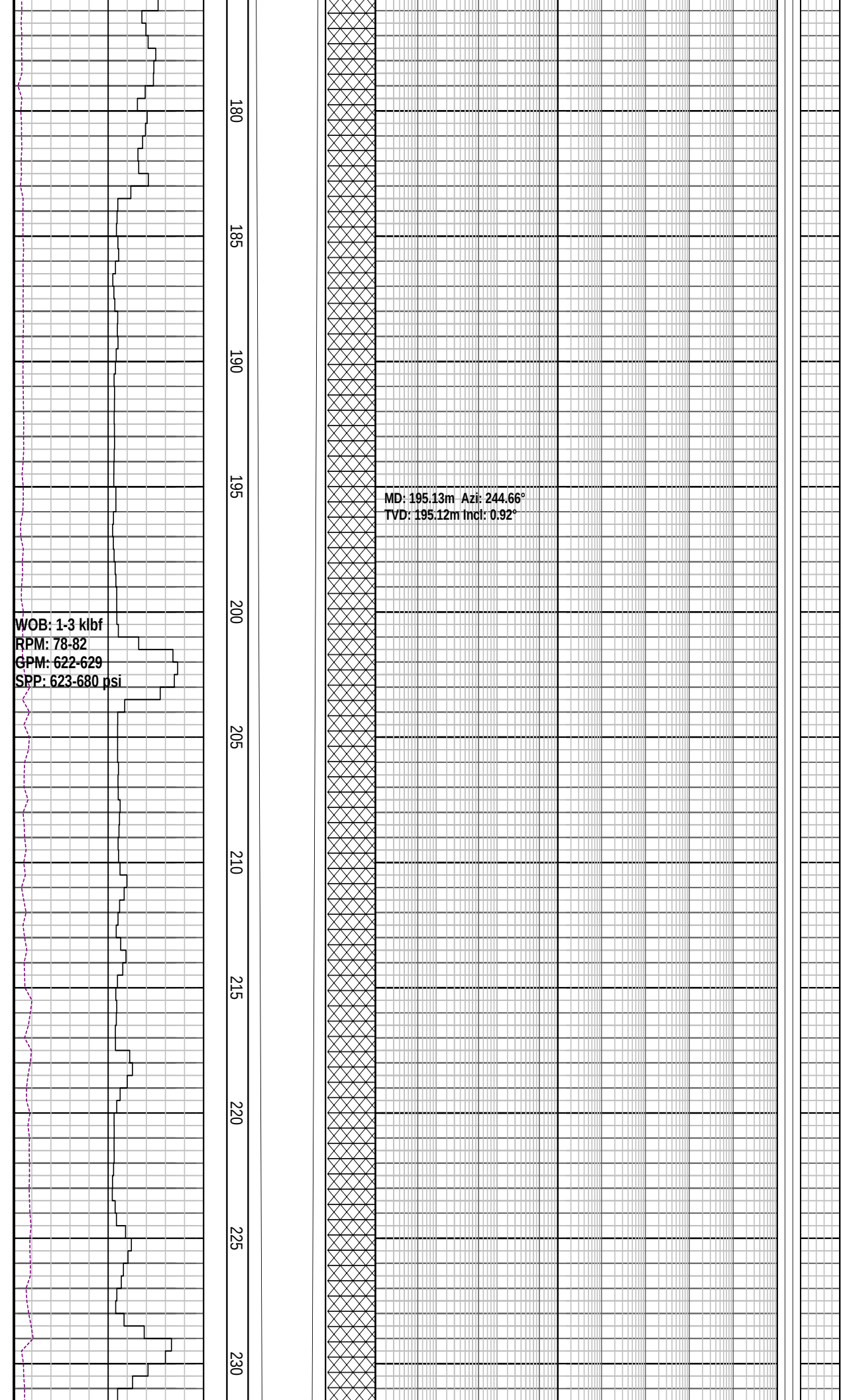
Lithology Description

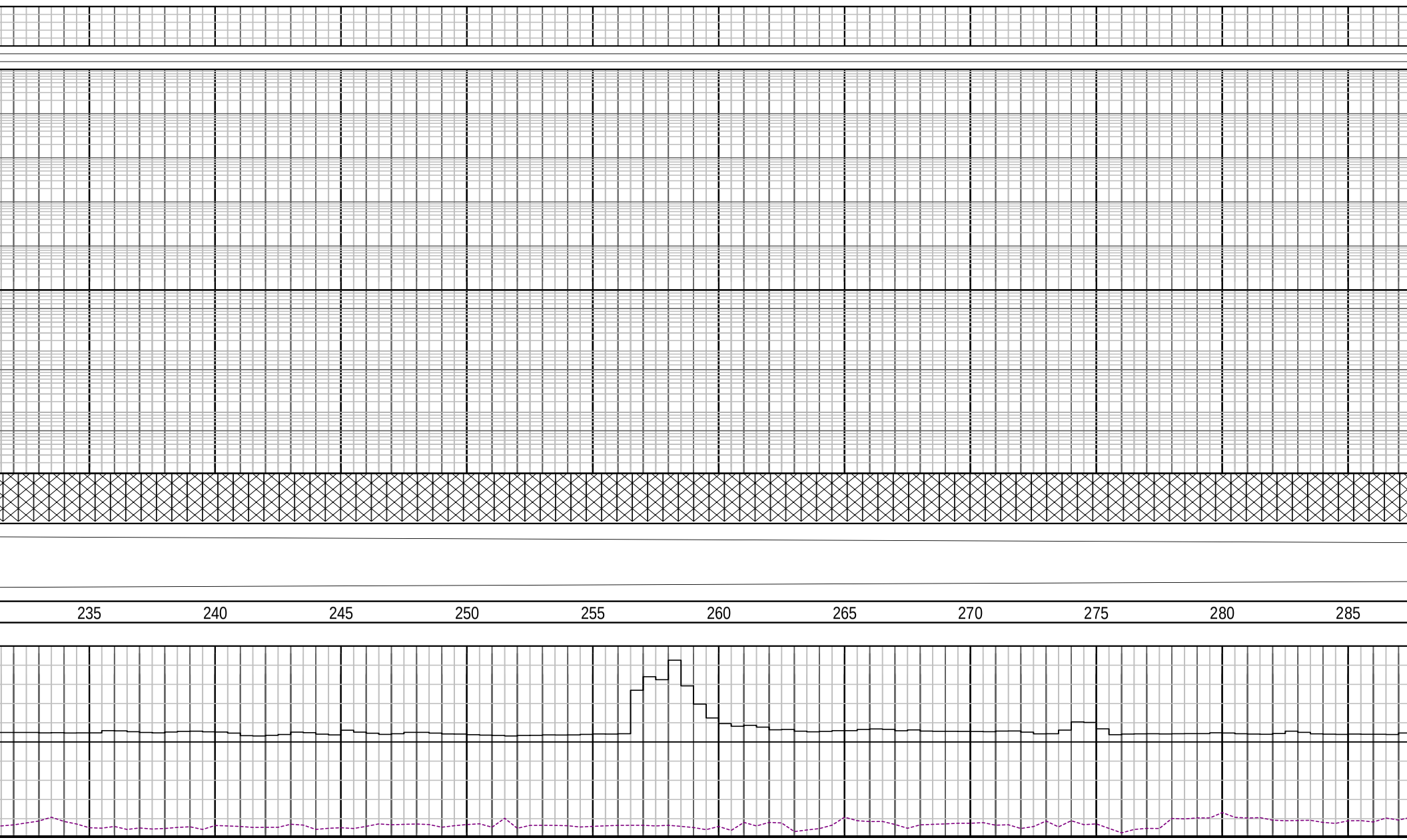
85
90
95
100
105
110
115

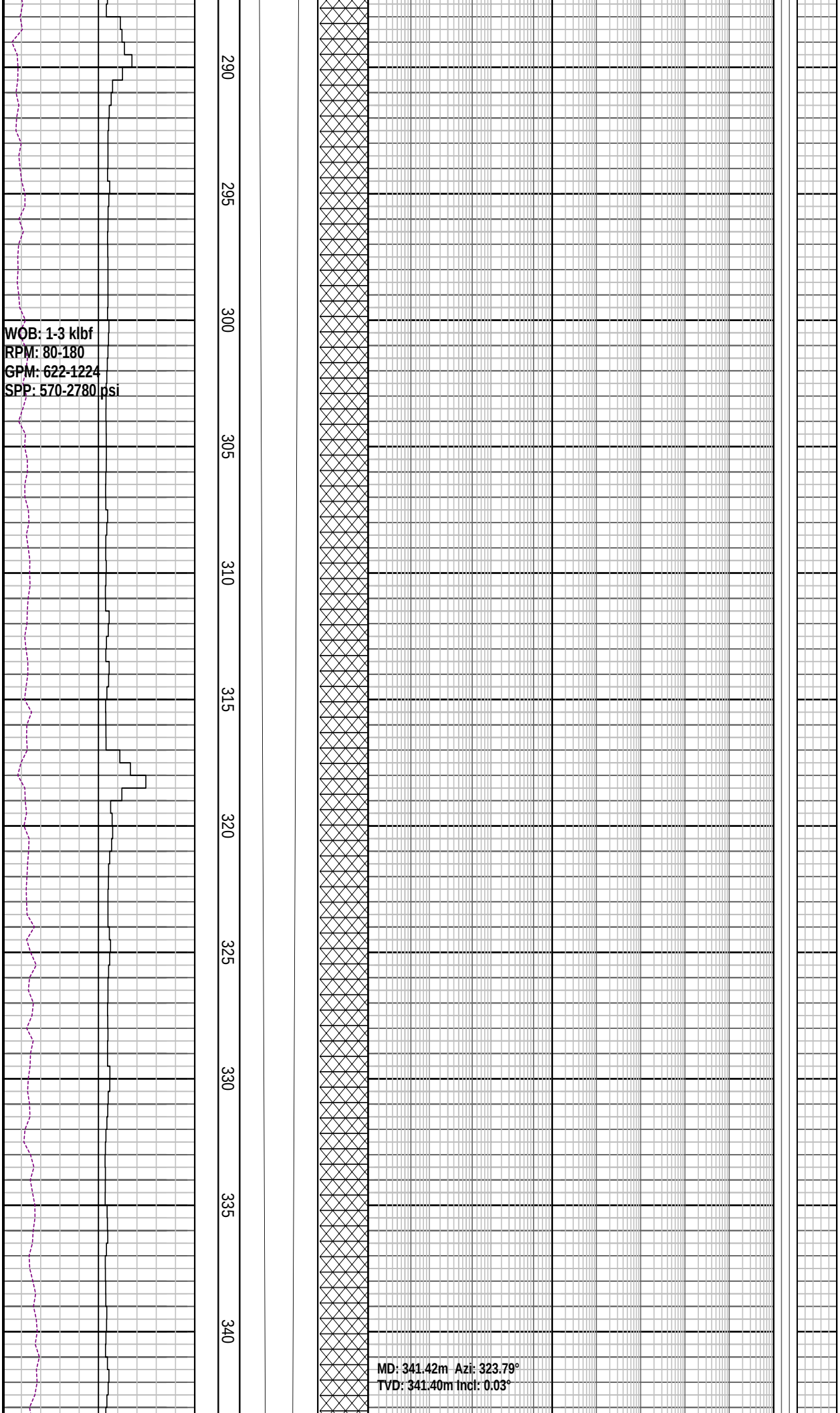
NB1: 660mm (26")
914mm (36") H/Opener
Make: Reed
Type: Rock/Y11C
Jets: 3x22, 1x16
Depth In: 106.4m
Depth Out: 154.0m
Grade:1-1-WT-A-NB-I-NO-TD

Spud Bazzard-1 @ 2330 hrs on 20/09/08

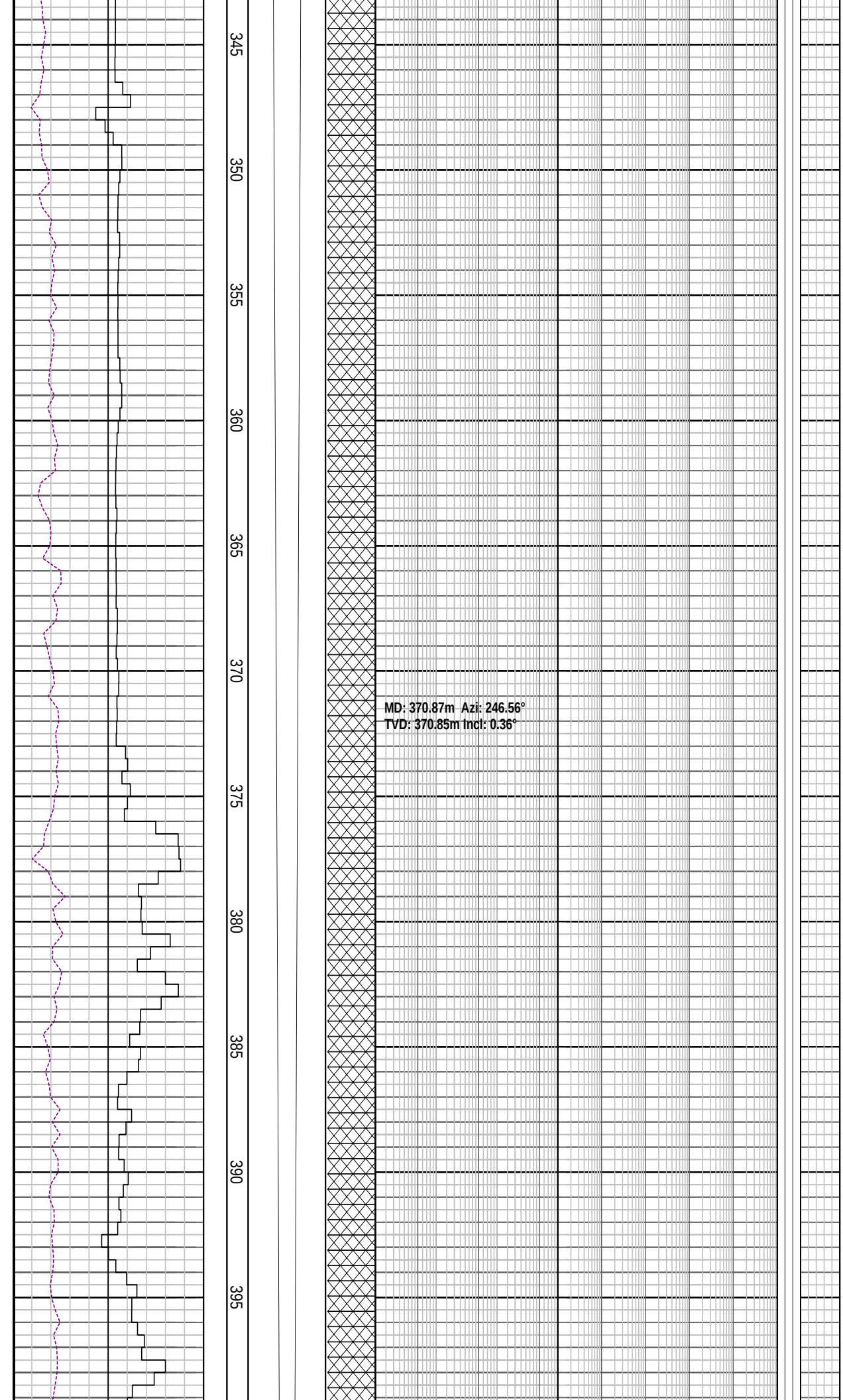

120
125
130
135
140
145
150
155
160
165
170
175
WOB: 1-3 klbf
RPM: 60-80
GPM: 600-1140
SPP: 250-1150 psi
Set 762mm (30") casing shoe at 151.0m
21-22/09/08
NB2: 406mm (16")
Make: Hughes
Type: Rock/GXC-1V
Jets: 3x20
Depth In: 154.0m
Depth Out: 850.0m
Drilled 696.0 m in 19.5hrs
Grade:1-1-WT-A-4-I-NO-PR
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m
36" Hole Section TD 154.0m

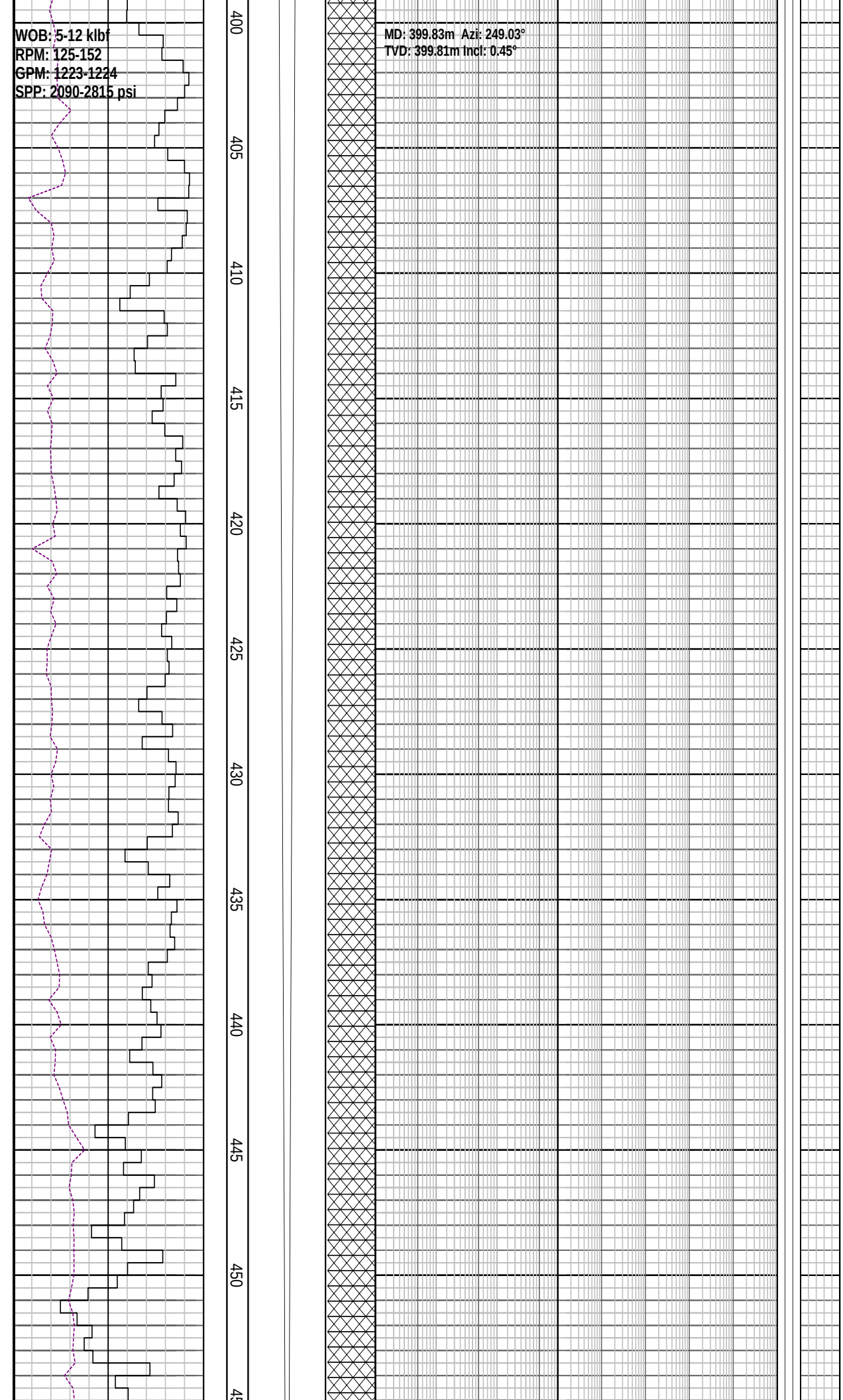

180
185
190
195
200
205
210
215
220
225
230
MD: 195.13m Azi: 244.66°
TVD: 195.12m Incl: 0.92°
WOB: 1-3 klbf
RPM: 78-82
GPM: 622-629
SPP: 623-680 psi
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m

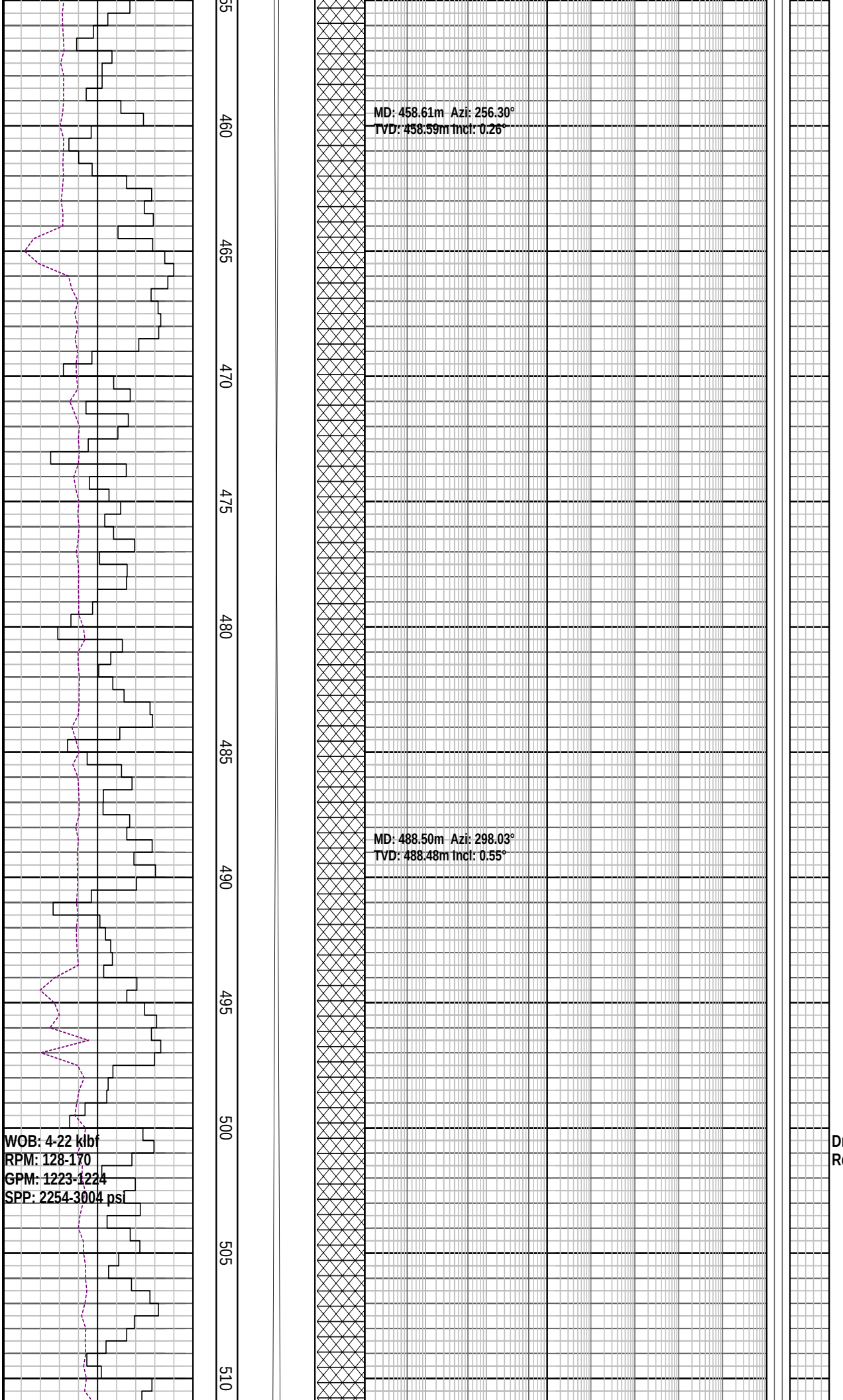

235
240
245
250
255
260
265
270
275
280
285

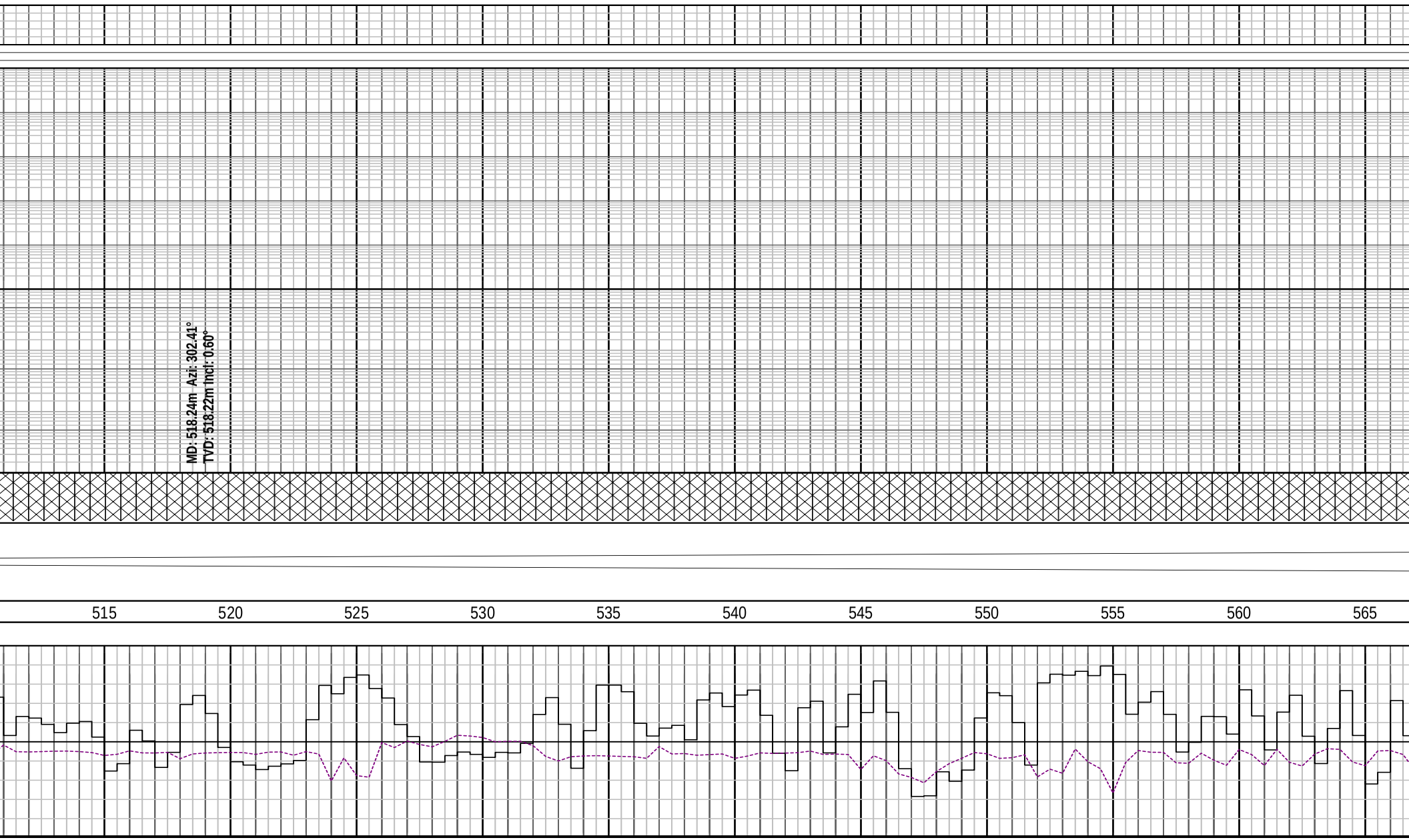


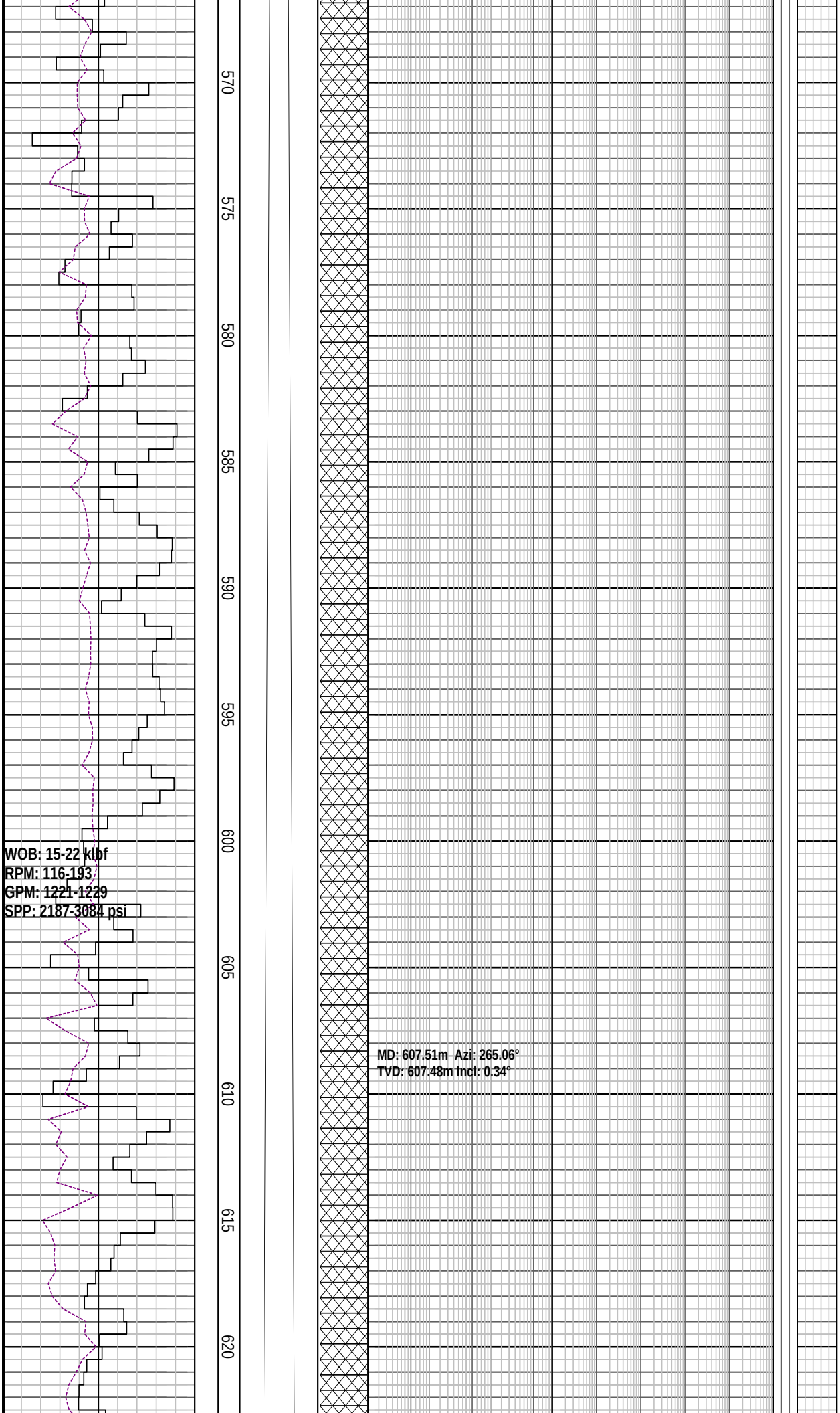
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m


345
350
355
360
365
370
375
380
385
390
395
MD: 370.87m Azi: 246.56°
TVD: 370.85m Incl: 0.36°

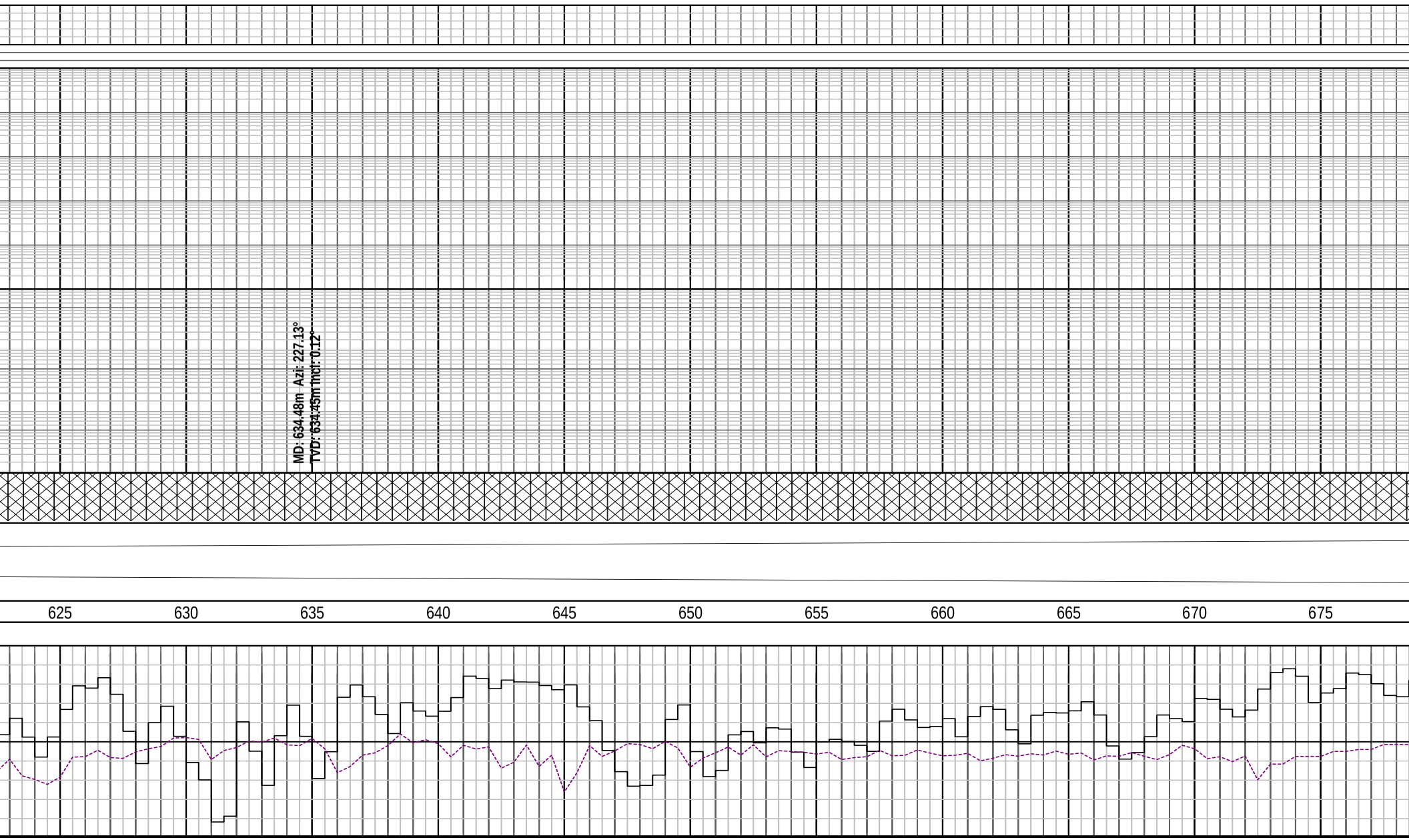

WOB: 5-12 klbf
RPM: 125-152
GPM: 1223-1224
SPP: 2090-2815 psi
400
405
410
415
420
425
430
435
440
445
450
MD: 399.83m Azi: 249.03°
TVD: 399.81m Incl: 0.45°
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m

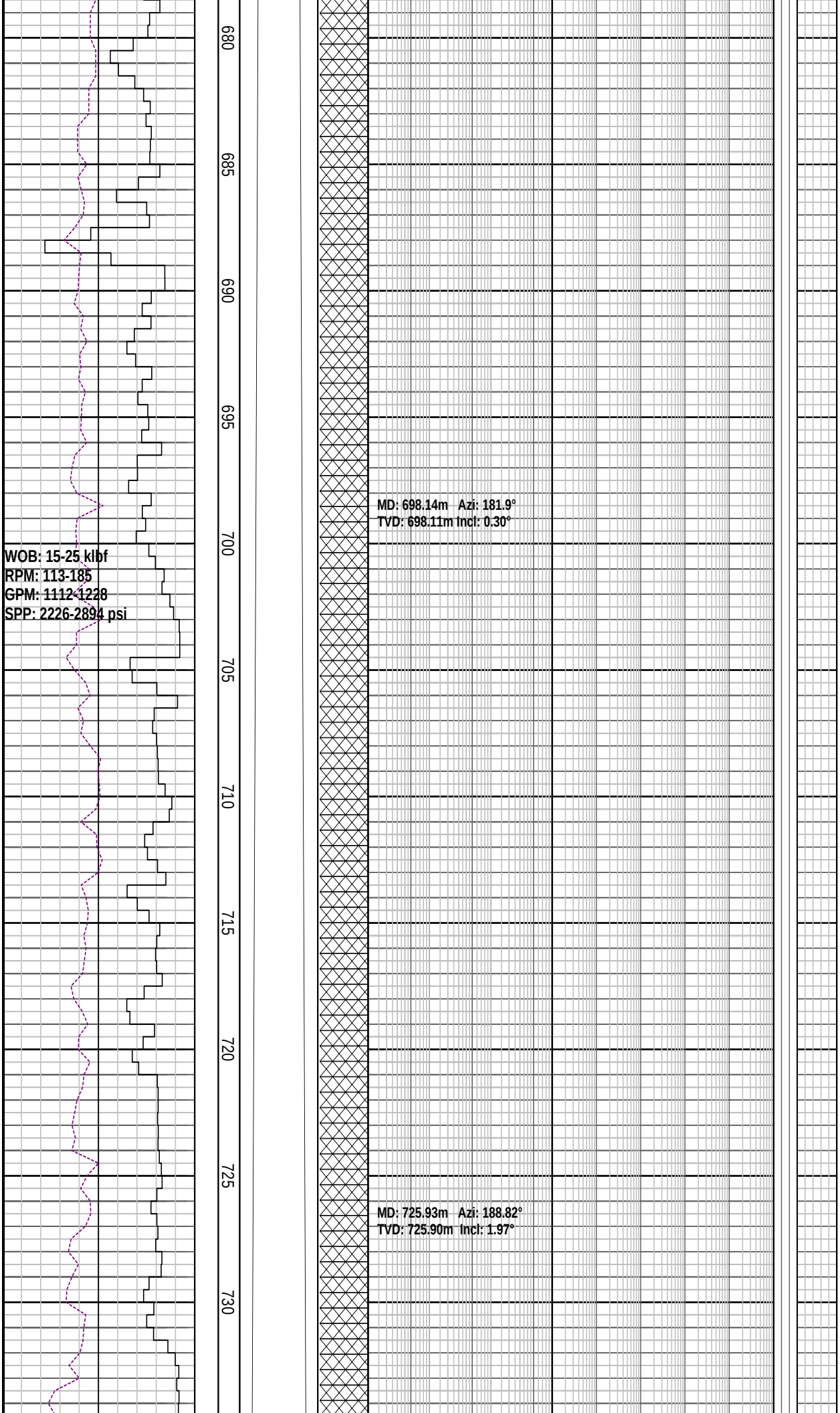

455
460
465
470
475
480
485
490
495
500
505
510
MD: 458.61m Azi: 256.30°
TVD: 458.59m Incl: 0.26°
MD: 488.50m Azi: 298.03°
TVD: 488.48m Incl: 0.55°
WOB: 4-22 klbf
RPM: 128-170
GPM: 1223-1224
SPP: 2254-3004 psi
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m


MD: 518.24m Azi: 302.41°
TVD: 518.22m Incl: 0.60°
515
520
525
530
535
540
545
550
555
560
565



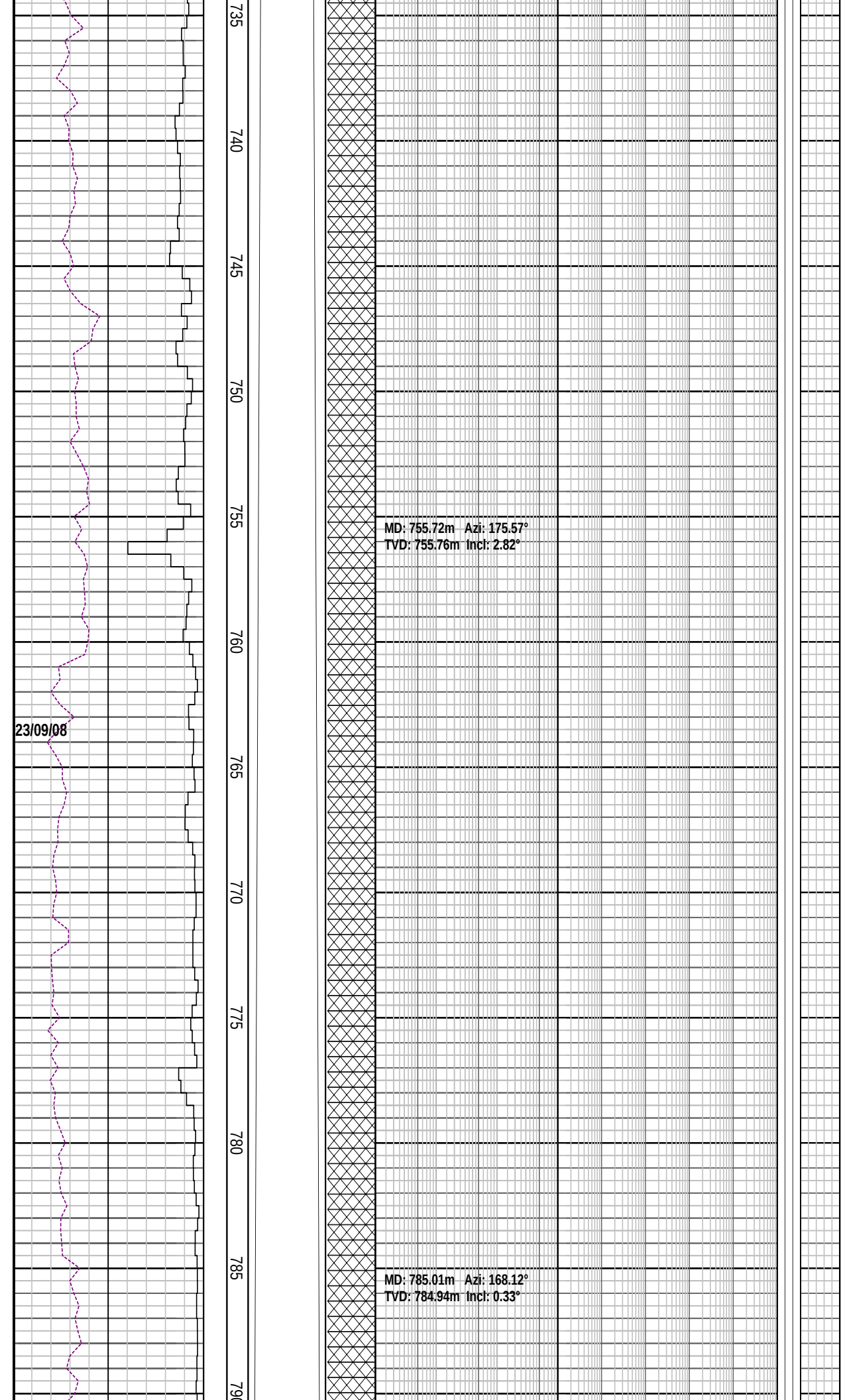
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m

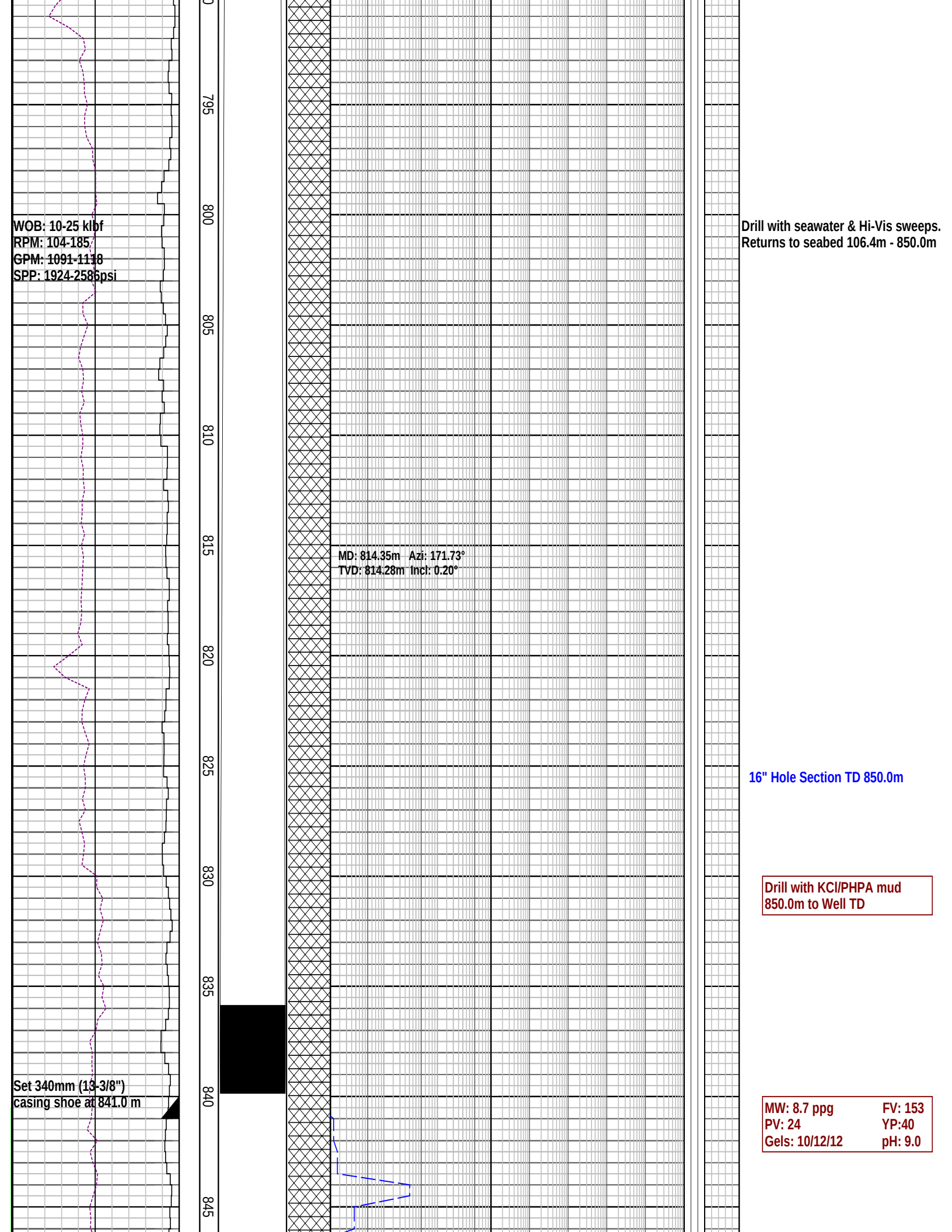

MD: 634.48m Azi: 227.13°
TVD: 634.45m Incl: 0.12°
625
630
635
640
645
650
655
660
665
670
675

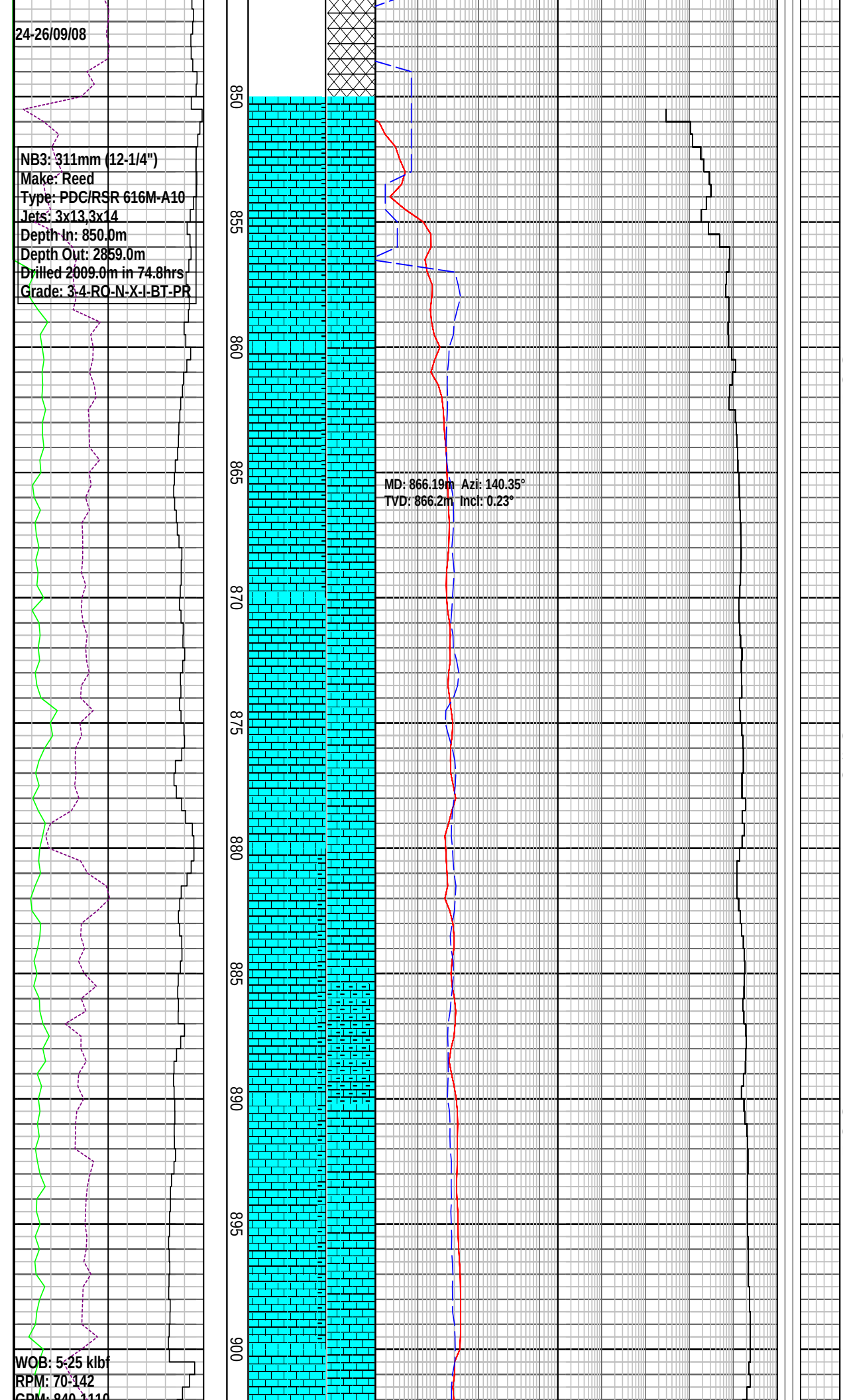


WOB: 15-25 klbf
RPM: 113-185
GPM: 1112-1228
SPP: 2226-2894 psi

Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m


735
740
745
750
755
760
765
770
775
780
785
790
23/09/08
MD: 755.72m Azi: 175.57°
TVD: 755.76m Incl: 2.82°
MD: 785.01m Azi: 168.12°
TVD: 784.94m Incl: 0.33°


795
800
805
810
815
820
825
830
835
840
845
WOB: 10-25 klbf
RPM: 104-185
GPM: 1091-1118
SPP: 1924-2586psi
MD: 814.35m Azi: 171.73°
TVD: 814.28m Incl: 0.20°
Set 340mm (13-3/8")
casing shoe at 841.0 m
Drill with seawater & Hi-Vis sweeps.
Returns to seabed 106.4m - 850.0m
16" Hole Section TD 850.0m
Drill with KCl/PHPA mud
850.0m to Well TD
MW: 8.7 ppg
FV: 153
PV: 24
YP:40
Gels: 10/12/12
pH: 9.0

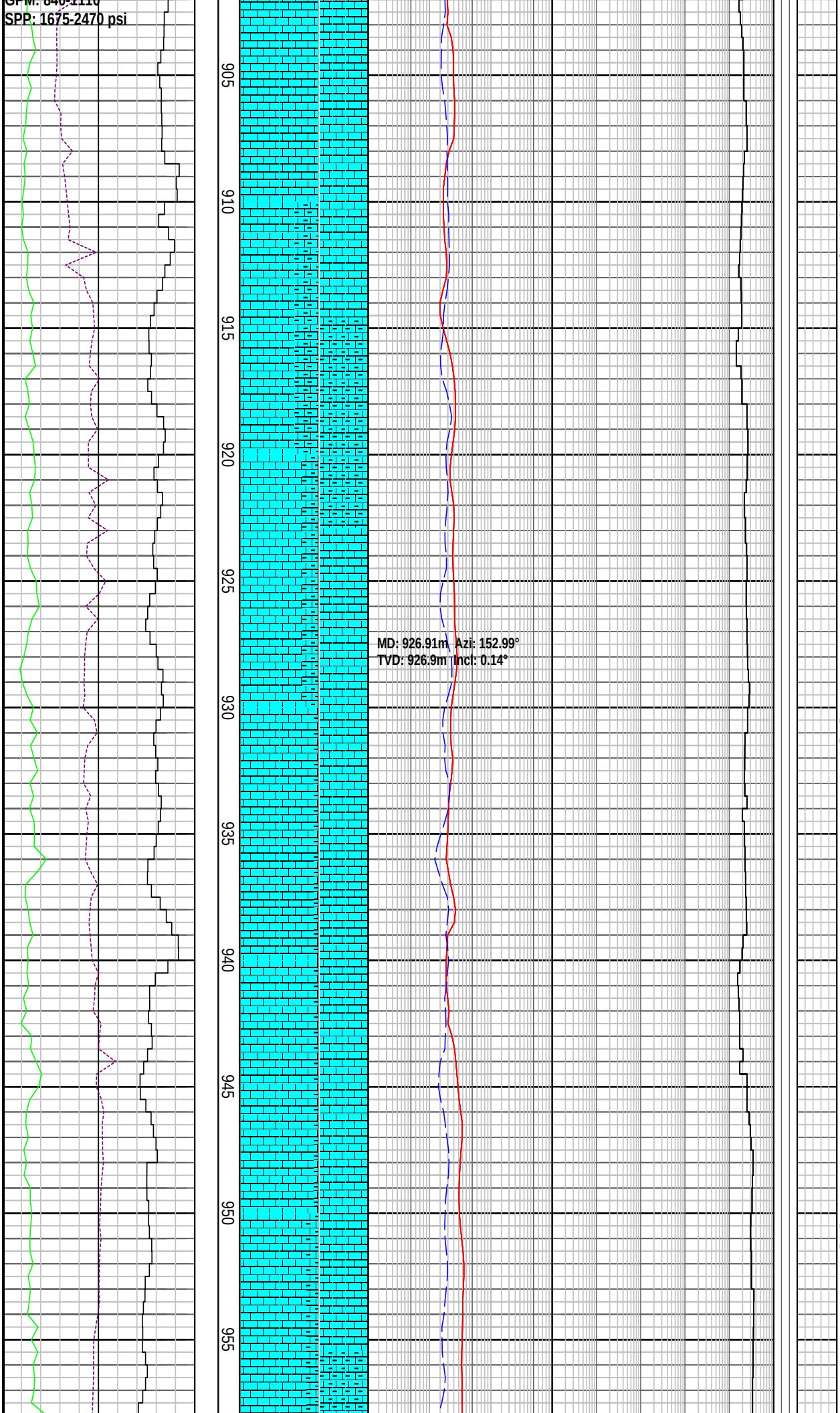


LOT @ 853.0m with 8.8 ppg
EMW: 15.06 ppg @ 900 psi

CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por

CALCARENITE: yel gy-lt olv gy, sbrndd blky, mod hd, f gr, trnsl sb ang cal

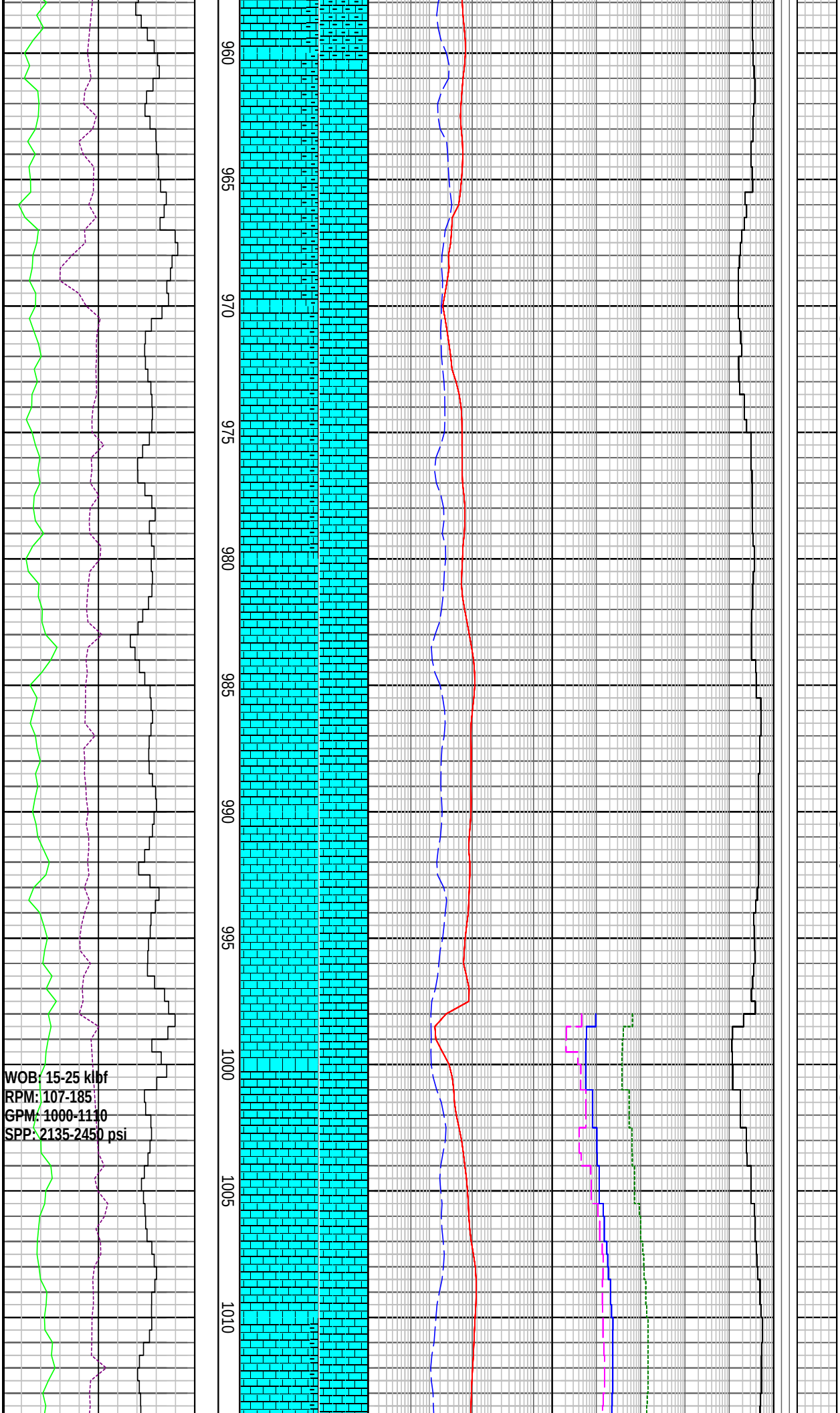
CALCULITITE : lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por

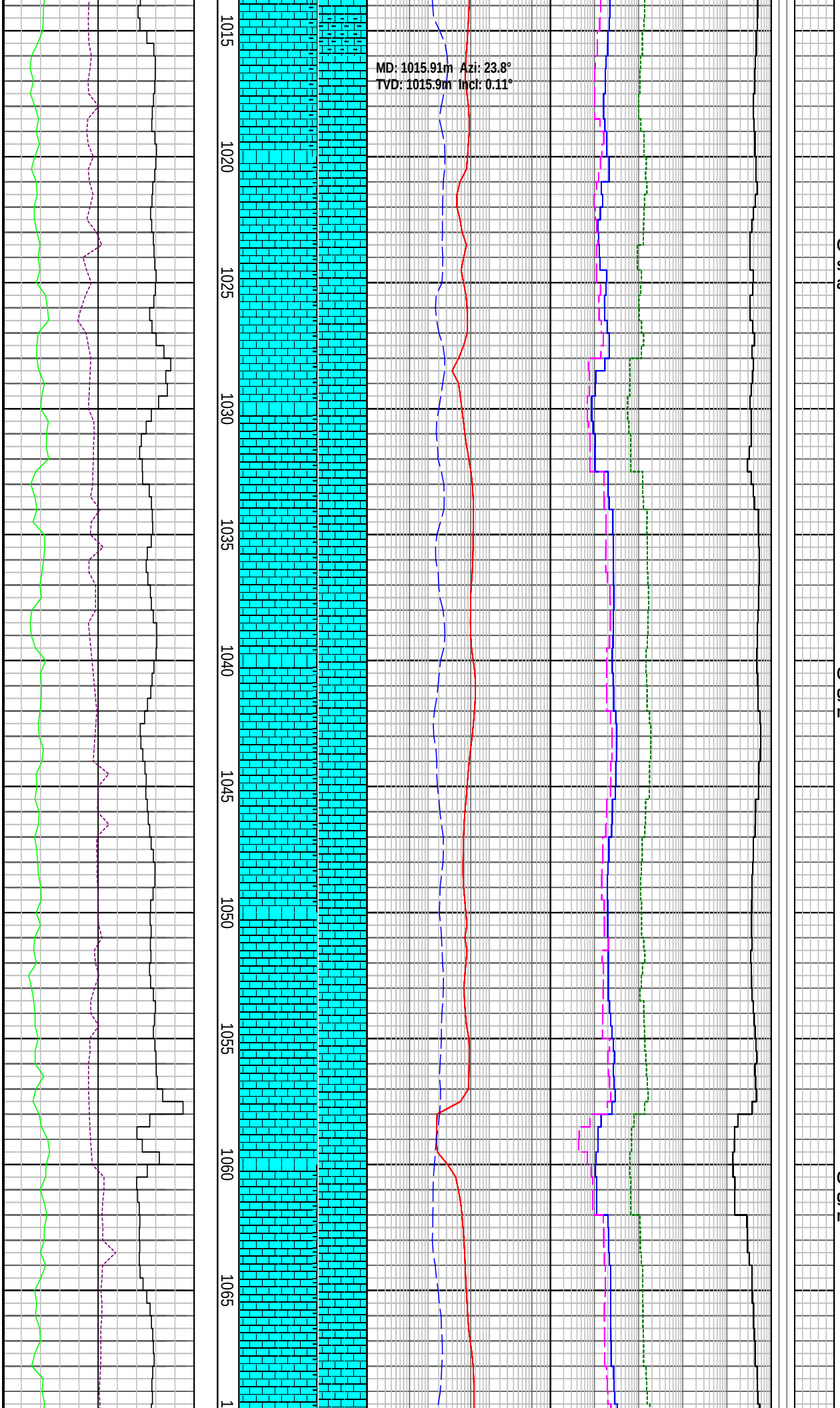


CALCARENITE : yel gy-lt olv gy, sbrndd-blky, mod hd, f gr, trnsl sb ang

CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por

CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por

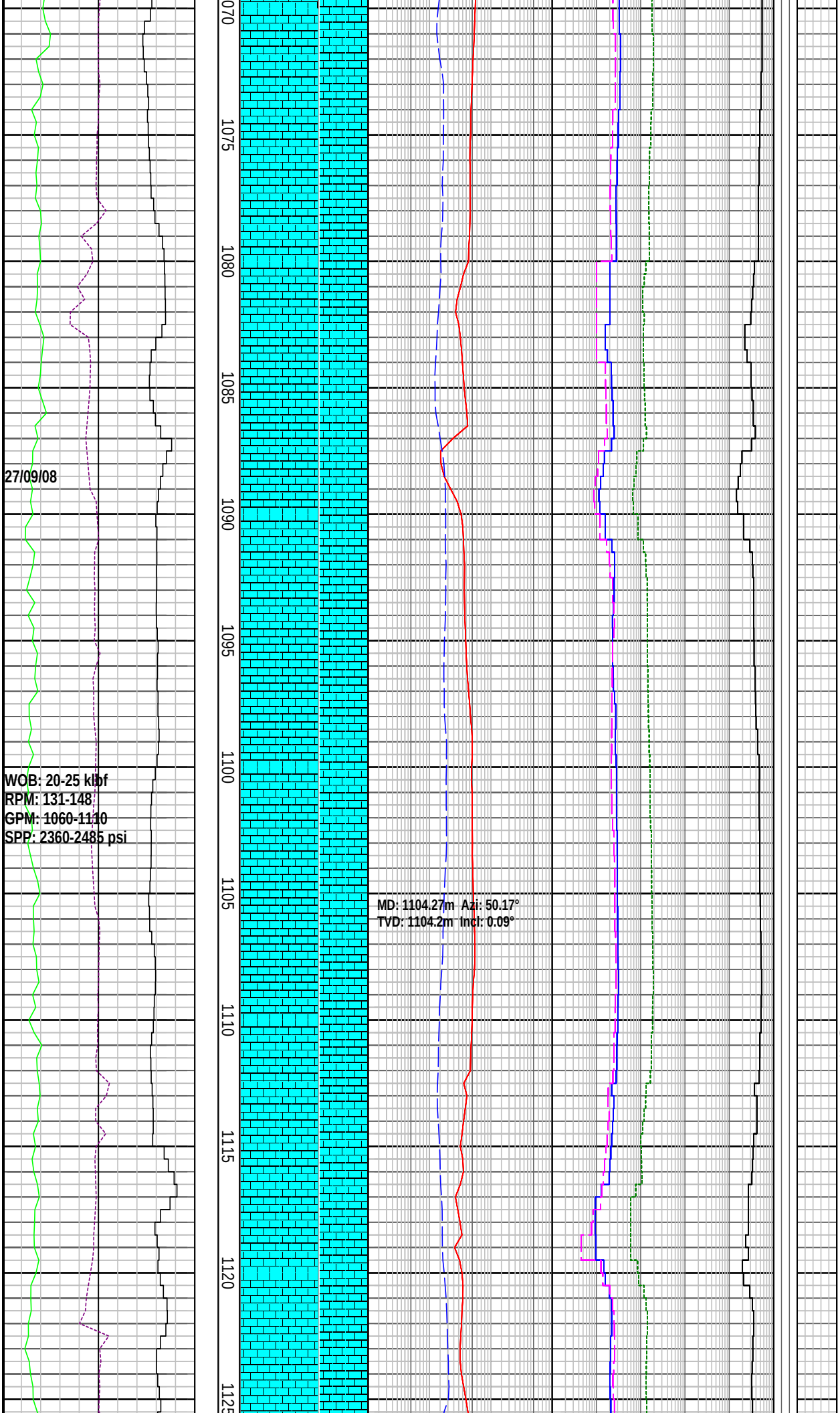

960
965
970
975
980
985
990
995
1000
1005
1010
WOB: 15-25 klbf
RPM: 107-185
GPM: 1000-1110
SPP: 2135-2450 psi
CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por
CALCARENITE : yel gy-lt olv gy, sbrndd-blky, mod hd, f gr, trnsl sb ang calc, calc cmt
CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por
MW: 8.8 ppg
FV: 70
PV: 16
YP:36
Gels: 13/20/23
pH: 8.5



CALCARENITE : yel gy-lt olv gy, sbrndd-blky, mod hd, f gr, trnsl sb ang

CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por

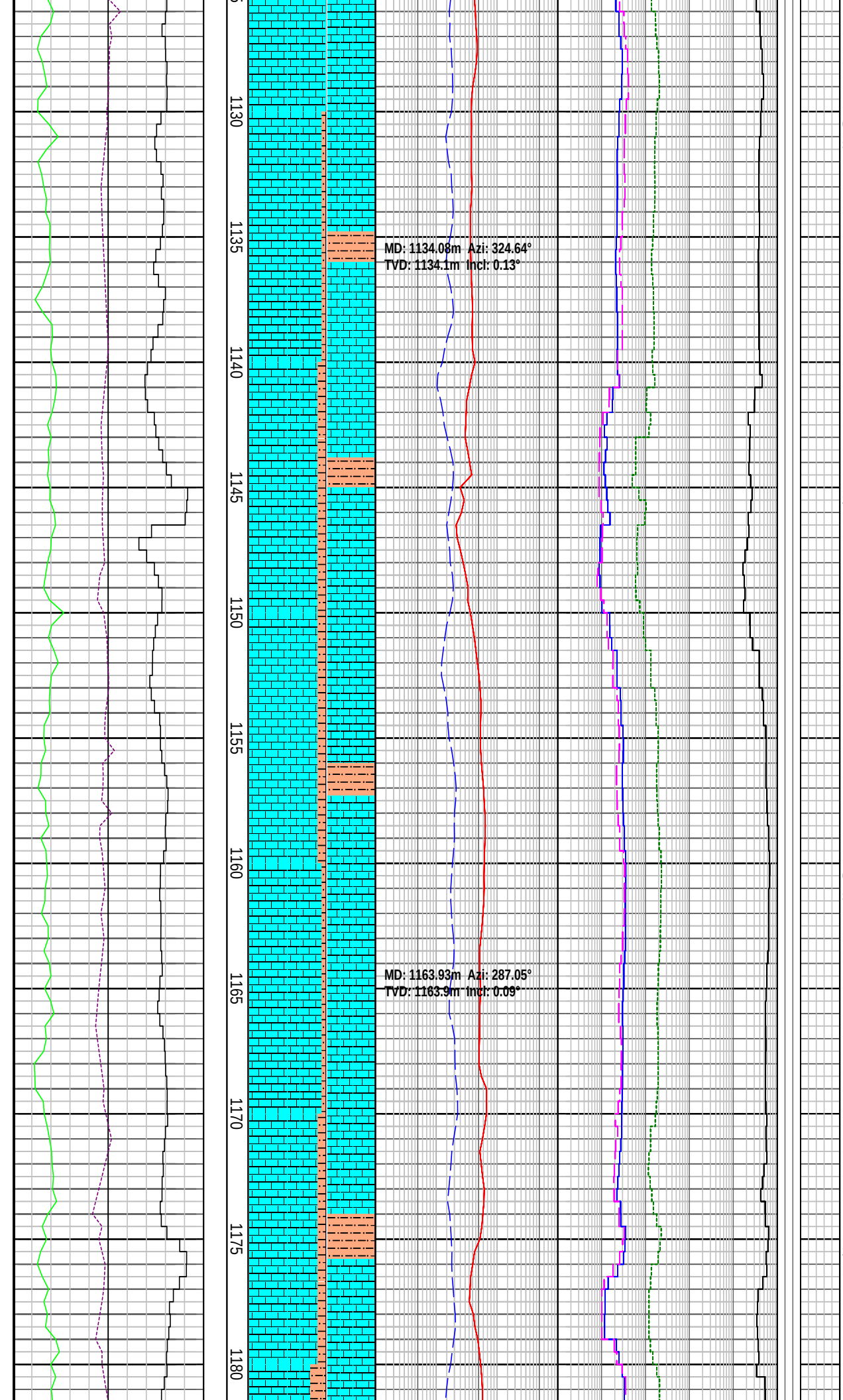
CALCULITITE lt bl gy, mod sft, ang f gr slt par, wl srt, wk calc cmt, Ls md mtrx, p vis por



CALCULITITE lt bl gy-olv gy, sft-mod sft, blky, ang f gr slt par, calc cmt, com cals slt, lam slty

CALCARENITE : lt olv gy-m gy, sbrndd-blky, mod hd, f gr, mod srt, trnsl sb ang

CALCULITITE lt bl gy-olv gy, sft-mod sft, mod hd, frm i/p, sbblky-blky, silty md, wll srt, com cals slt, lam, pr inf por

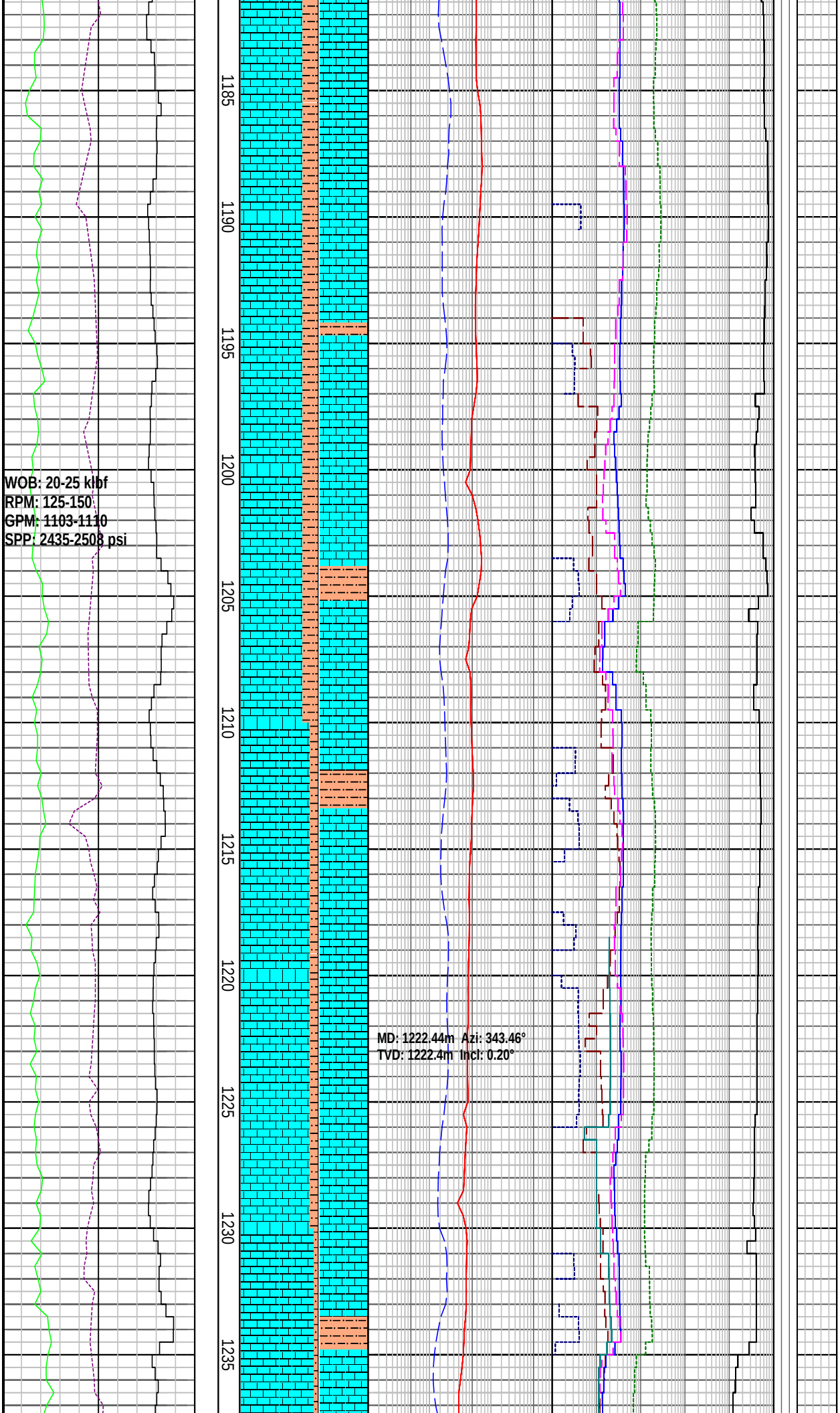


CALCULITITE lt bl gy-olv gy, sft-mod sft, mod hd, frm i/p, sbblky-blky, silty md, wll srt, com cals slt, lam, pr inf por, tr SLTST

SILTSTONE: lt brn-dk brn, frm-mod hd, blky, mod calc

CALCULITITE lt bl gy-olv gy, sft-mod sft, mod hd, frm i/p, sbblky-blky, silty md, wll srt, com cals slt, lam, pr inf por

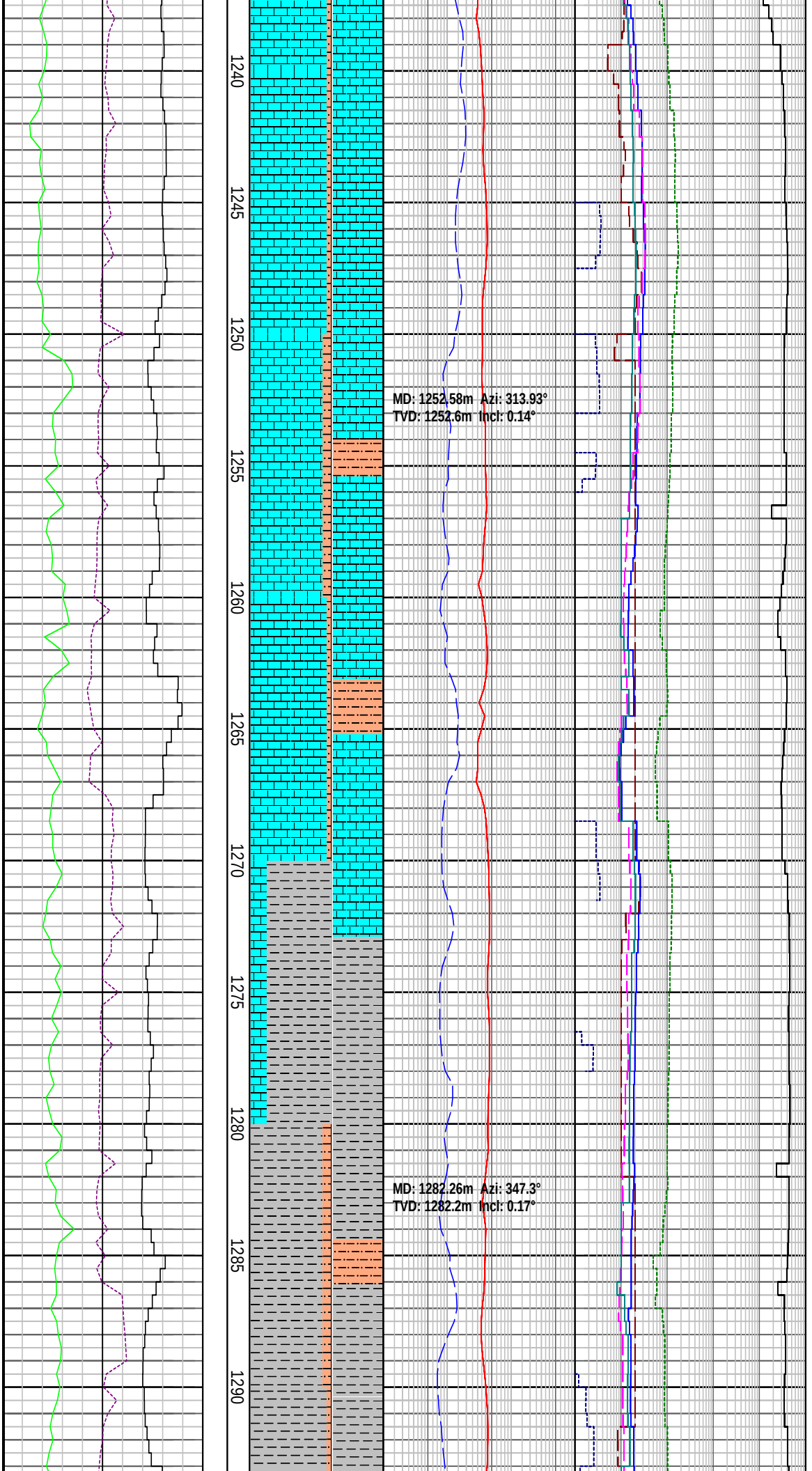
SILTSTONE: lt brn-dk brn, frm-mod hd, blky, mod calc



CALCULITITE lt bl gy-olv gy, sft-mod sft, mod hd, frm i/p, sbblky-blky, silty md, wll srt, com cals slt, com lam, pr inf por

SILTSTONE: lt brn-dk brn, frm-mod hd, blky, mod calc

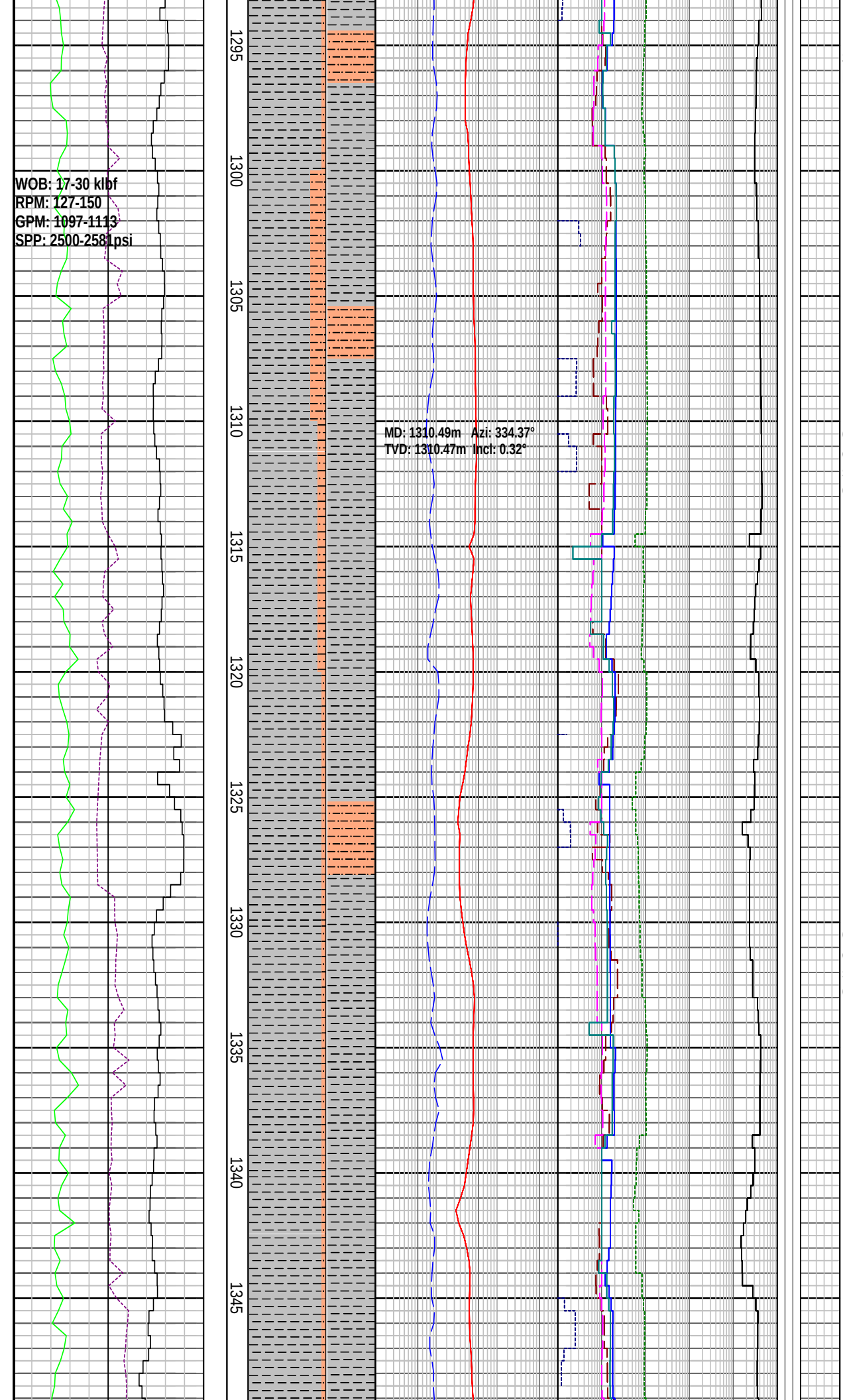
CALCULITITE lt bl gy-olv gy, sft-mod sft, mod hd, frm i/p, sbblky-blky, silty md, wll srt, com cals slt, comm lam, pr inf por

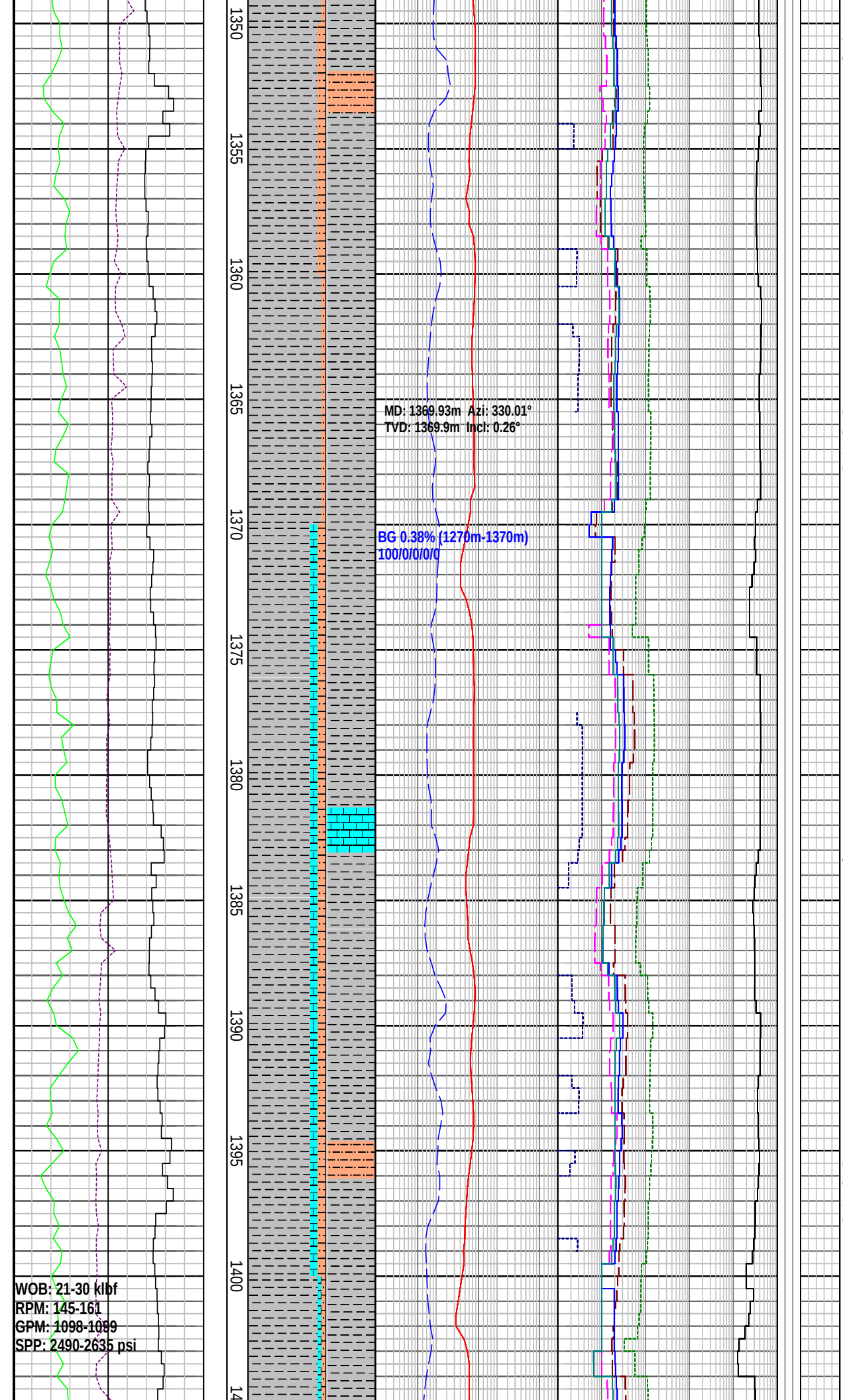


CALCULITITE: lt gy-med gy, lt bl gy-olv gy, sft-mod sft, amorp, frm i/p, sbblky-blky, disp i/p, silty md, wll srt, com lam, pr inf por

SILTSTONE: m gy-grnsh gy, frm-hd, blky, arg mod calc, tr dk gr-blk vf-med sbrndd glau

CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks


1295
1300
1305
1310
1315
1320
1325
1330
1335
1340
1345
WOB: 17-30 klbf
RPM: 127-150
GPM: 1097-1113
SPP: 2500-2581psi
MD: 1310.49m Azi: 334.37°
TVD: 1310.47m Incl: 0.32°
SILTSTONE: m gy-grnsh gy, frm-hd, blky, arg mod calc
CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to Clclt
CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to Clclt

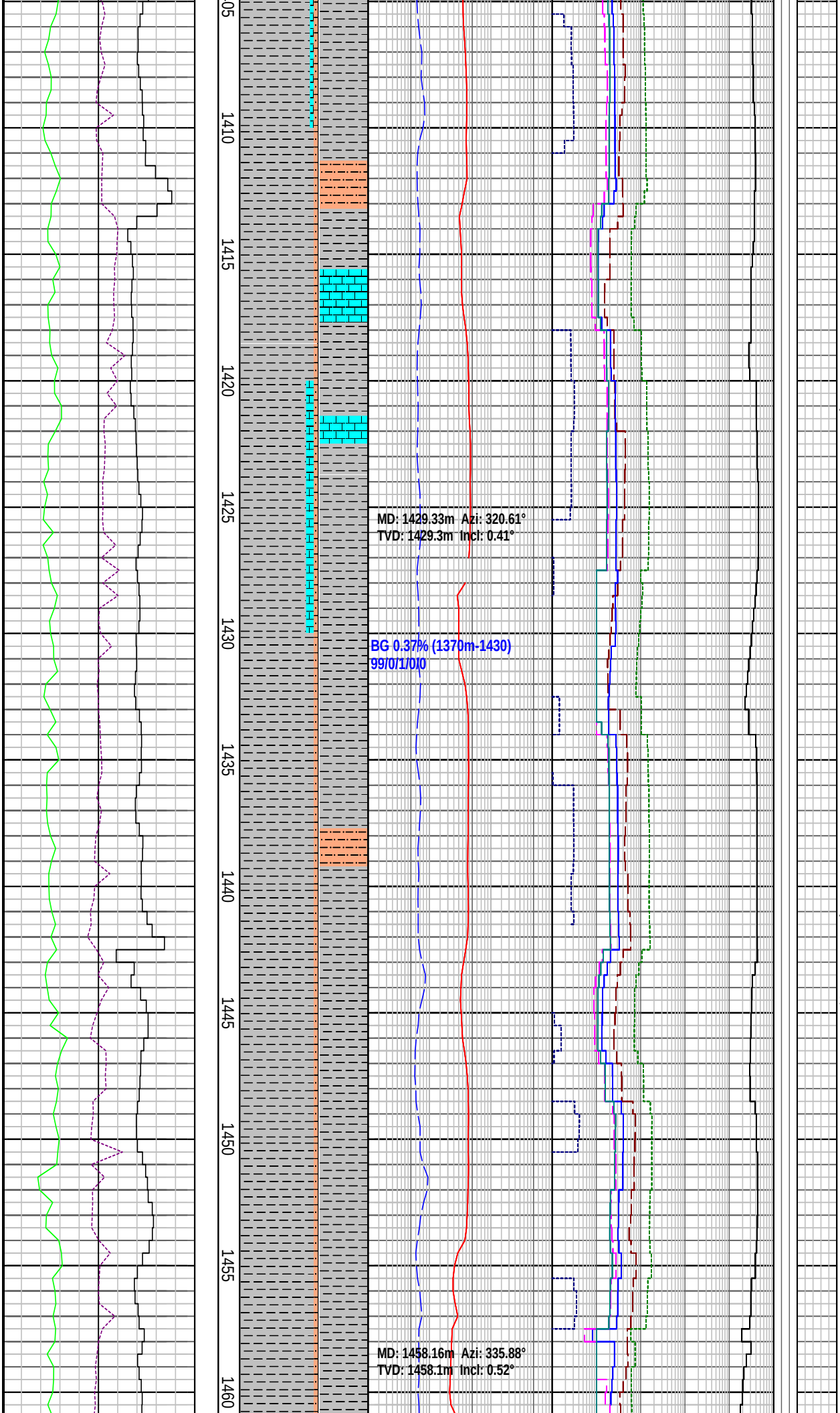


SILTSTONE: m gy-gn gy, frm-hd, blky, arg mod calc

CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to ClcIt

LIMESTONE: clr hd xln cal wh-gy sft amor LS

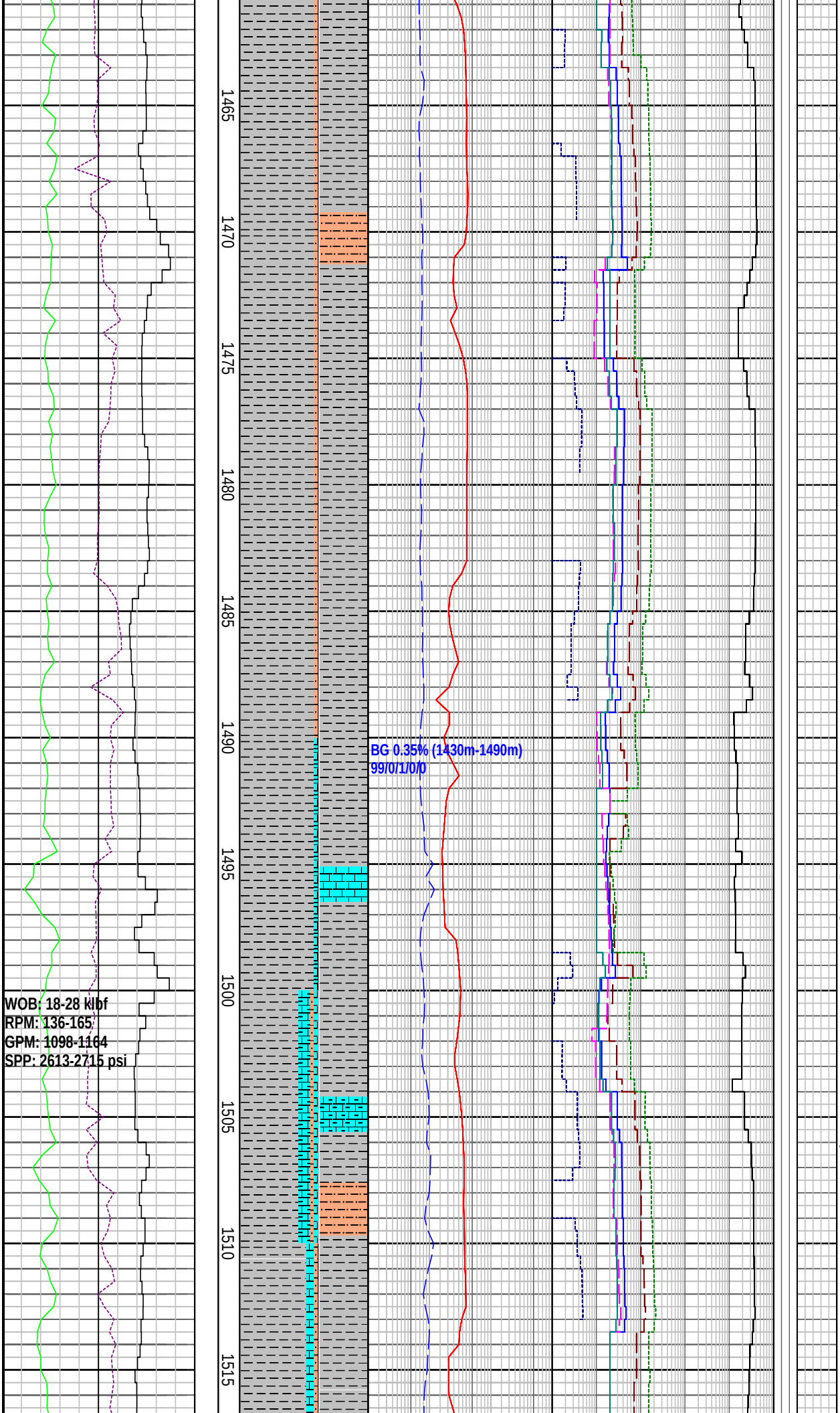
CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to ClcIt



LIME STONE : dk gy, mod hd Ls, tr sh frag

LIME STONE : dk gy, mod hd Ls, tr sh frag

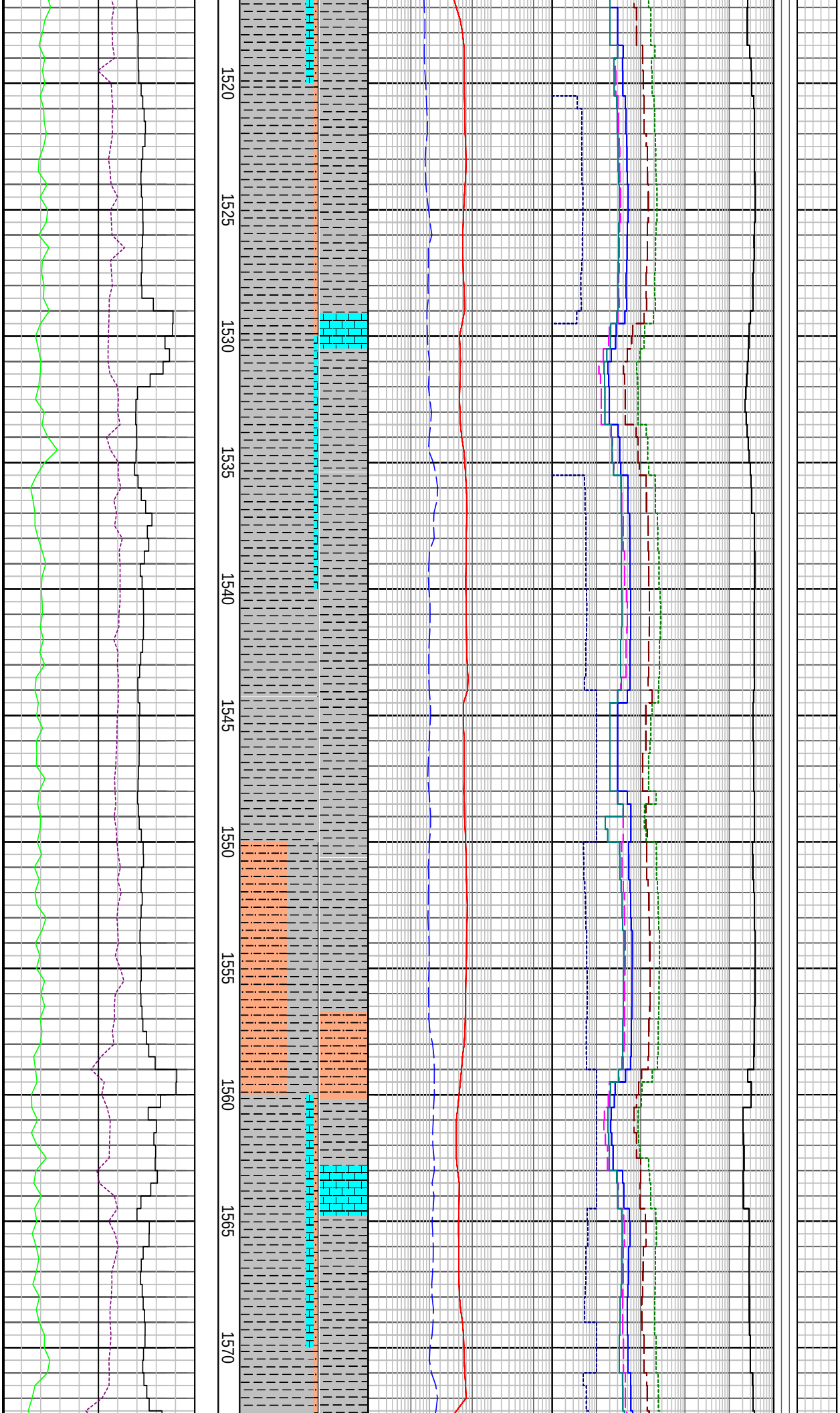
SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam



CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to Clclt

CALCARENITE : yel gy-lt olv gy, sbrndd-blky, mod hd, f gr, trnsl sb ang

LIME STONE : dk gy, mod hd Ls, tr sh frag

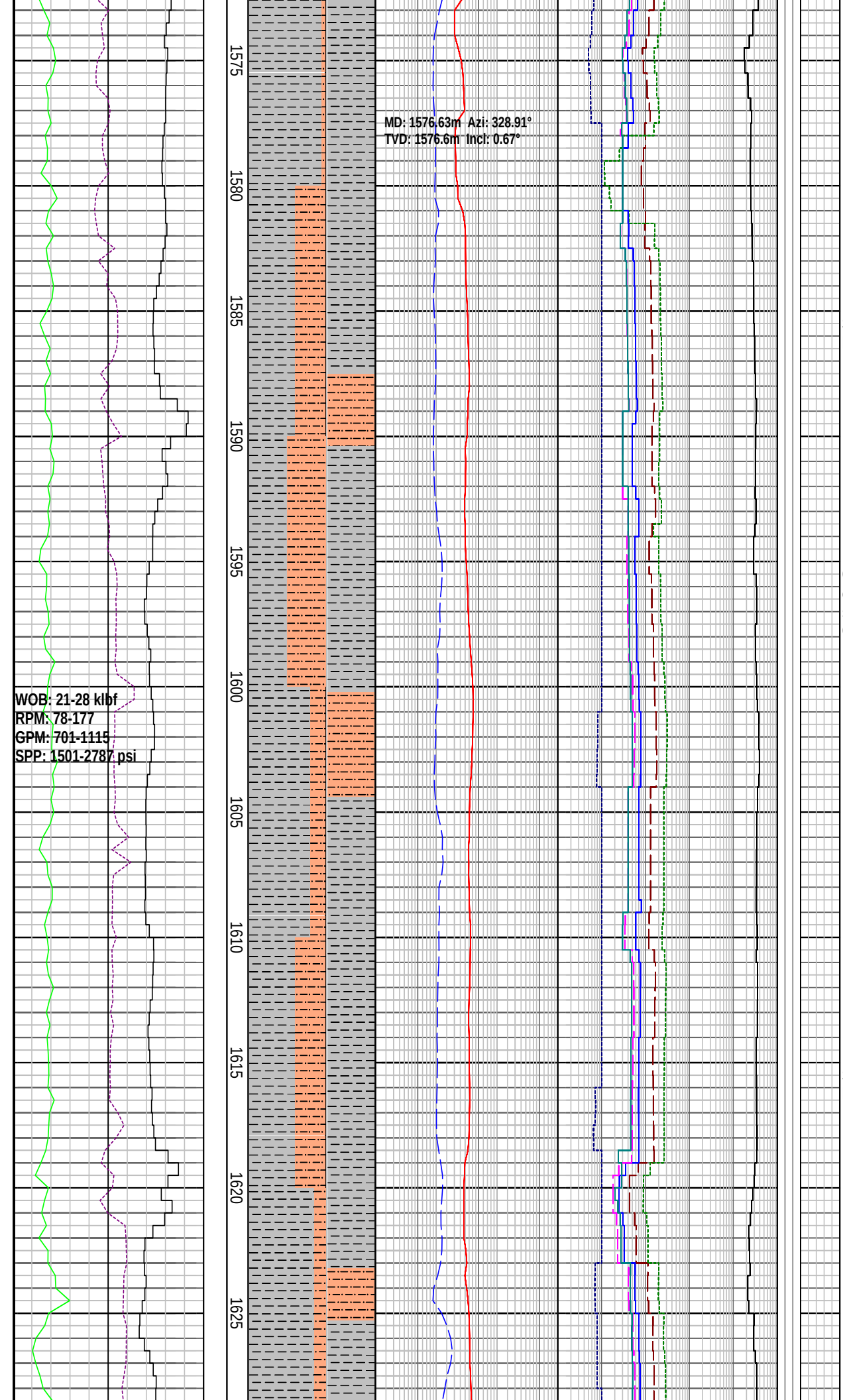


LIME STONE : gy yel, mod hd Ls, xln calc mnr wh sft amor Ls, tr shl frag

CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to Clclt

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam

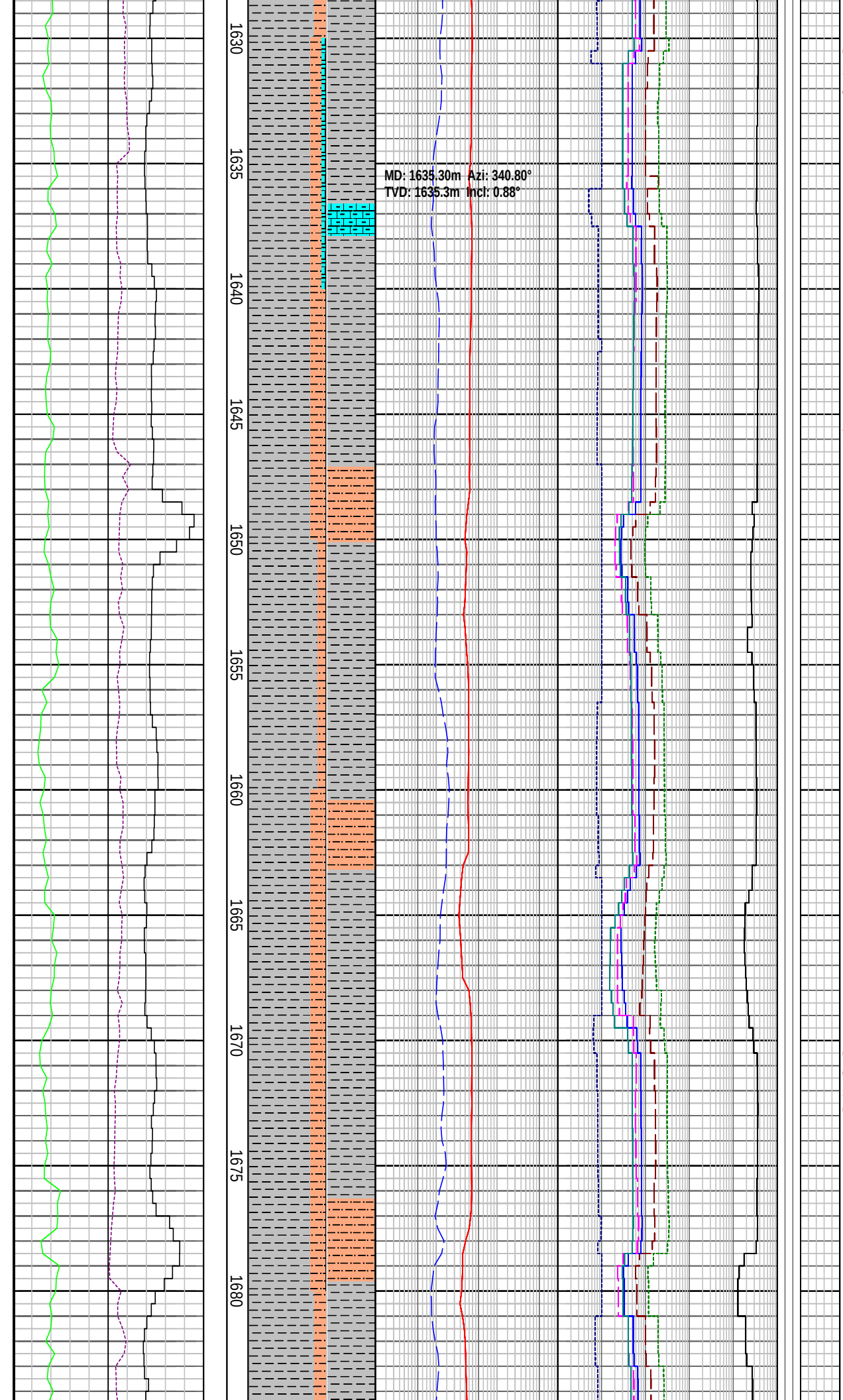
MW: 9.0 ppg	FV: 53
PV: 19	YP:32
Gels: 14/24/29	pH: 8.5



SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam

CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to Clclt

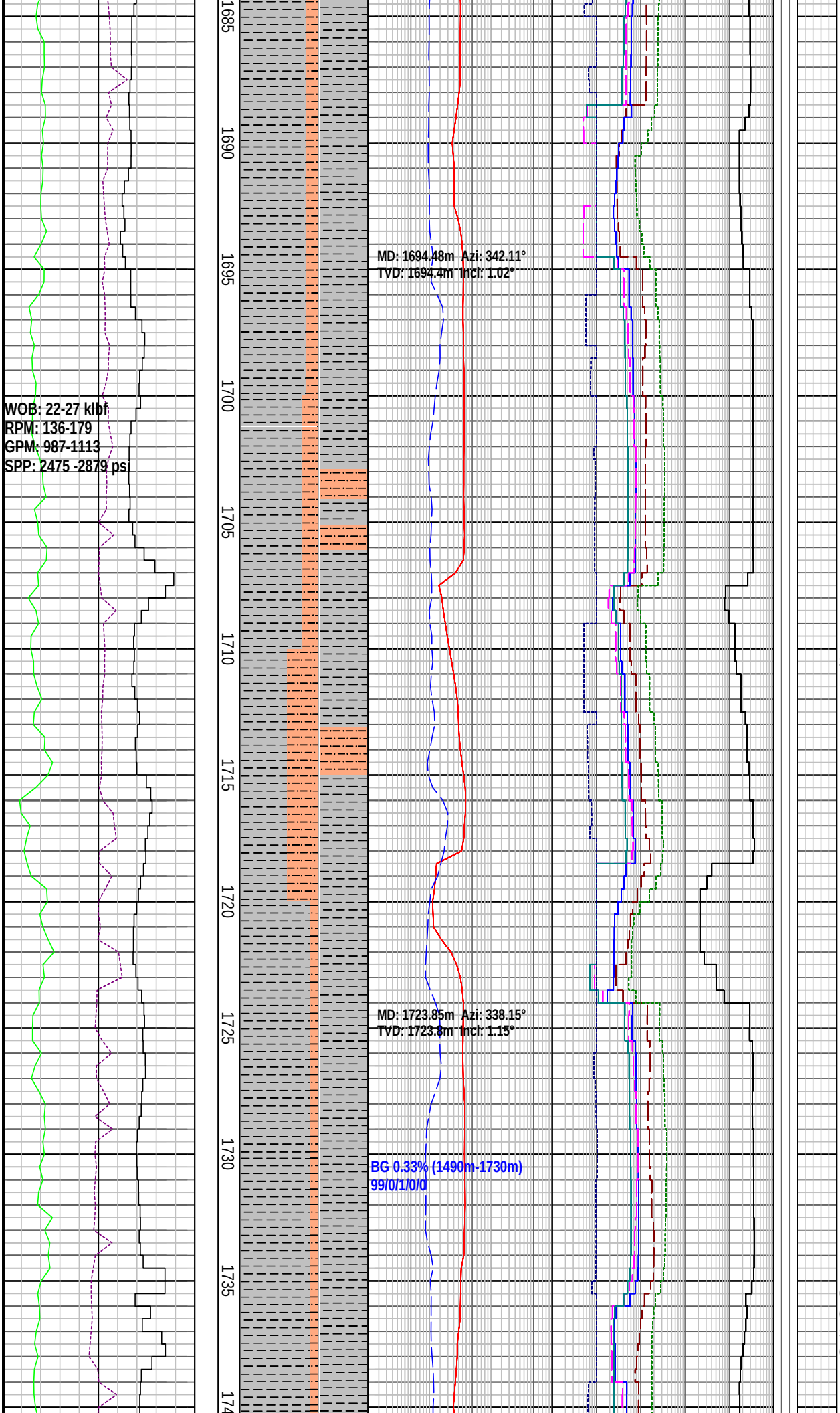
SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam



CALCARENITE : yel gy-lt olv gy, sbrndd-blky, mod hd, f gr, trnsl sb ang

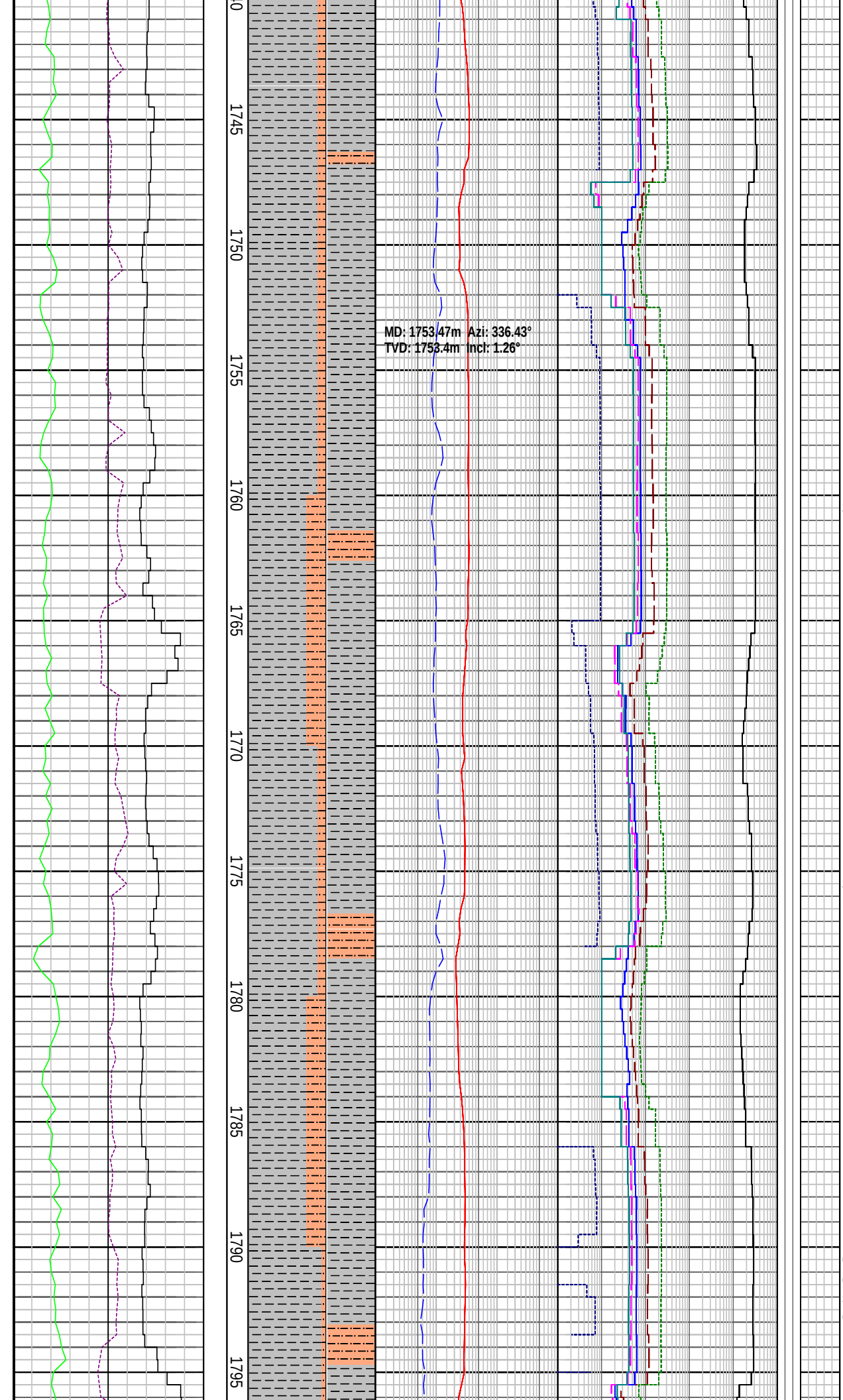
SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam

CALCAREOUS CLAYSTONE: dk gy-dk olv gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, grdg to Clclt



SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam

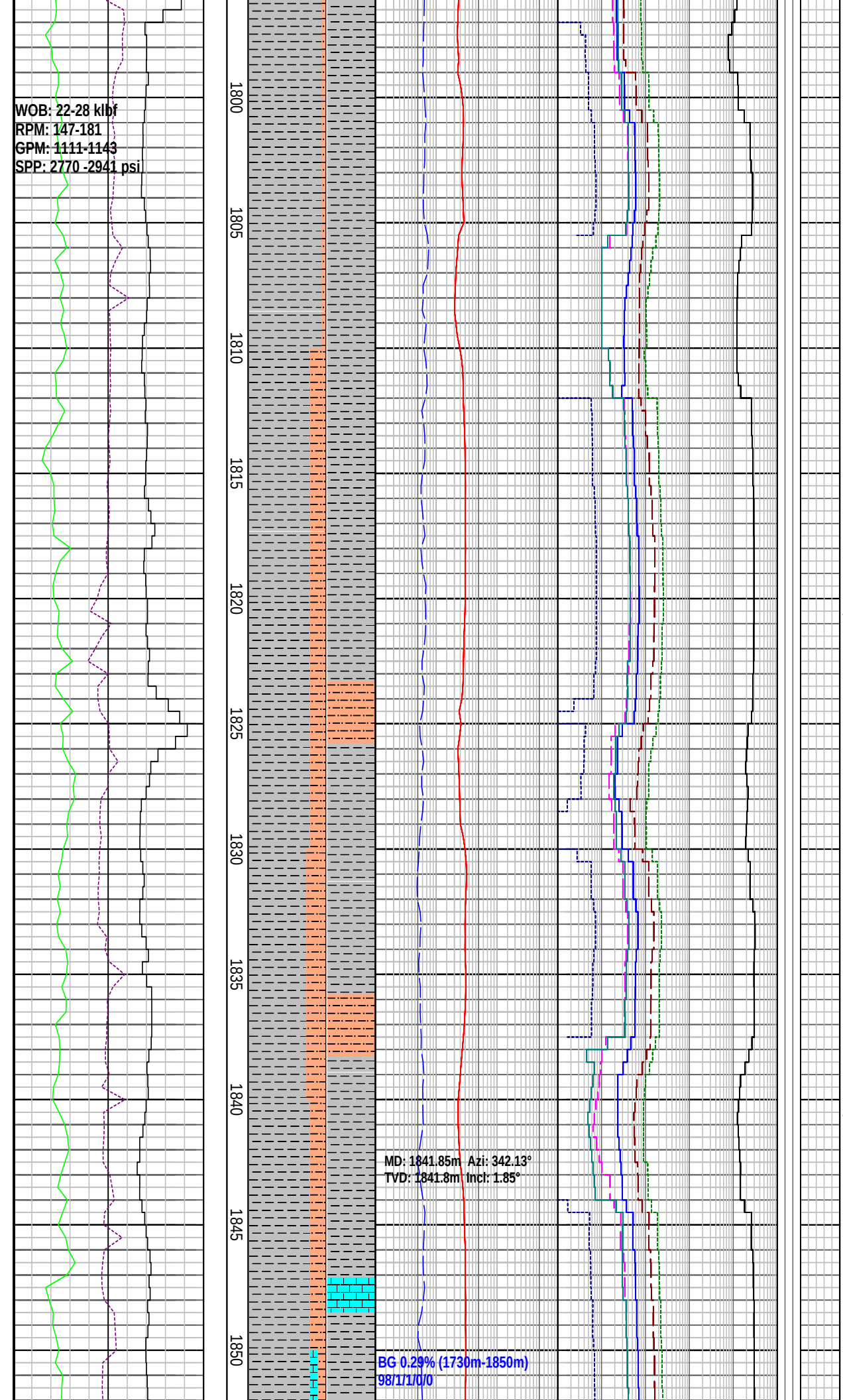
CALCAREOUS CLAYSTONE: m lt gy-m gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, com grdg to clclt



SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam, tr pyr

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam, tr pyr

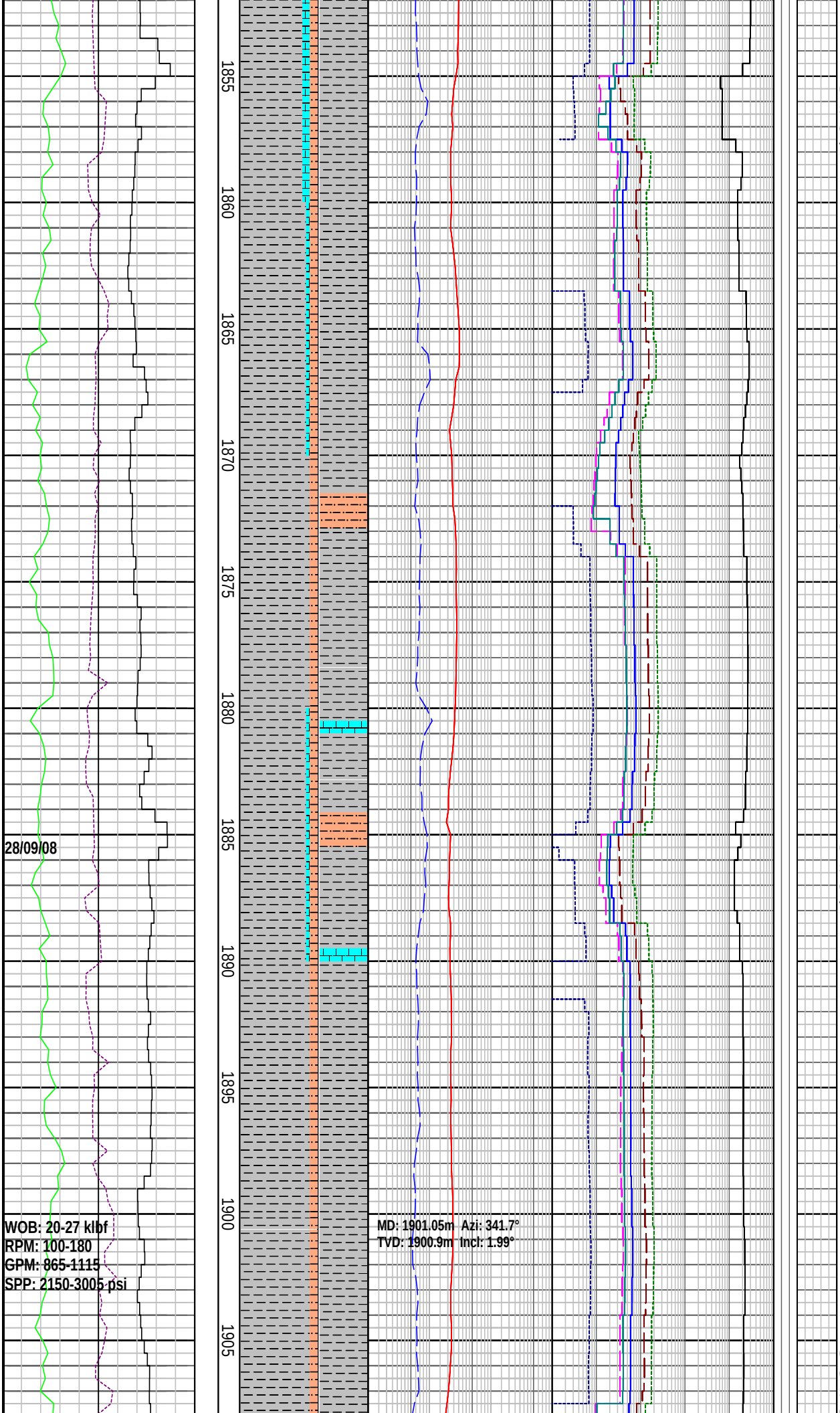
CALCAREOUS CLAYSTONE: m lt gy-m gy, sft-mod frm, sbblky-blky, sli slty, mod-hi calc, tr mic flks, com grdg to clclt



MW: 9.1 ppg FV: 57
PV: 15 YP:32
Gels: 13/22/26 pH: 8.5

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod calc, tr blk carb lam

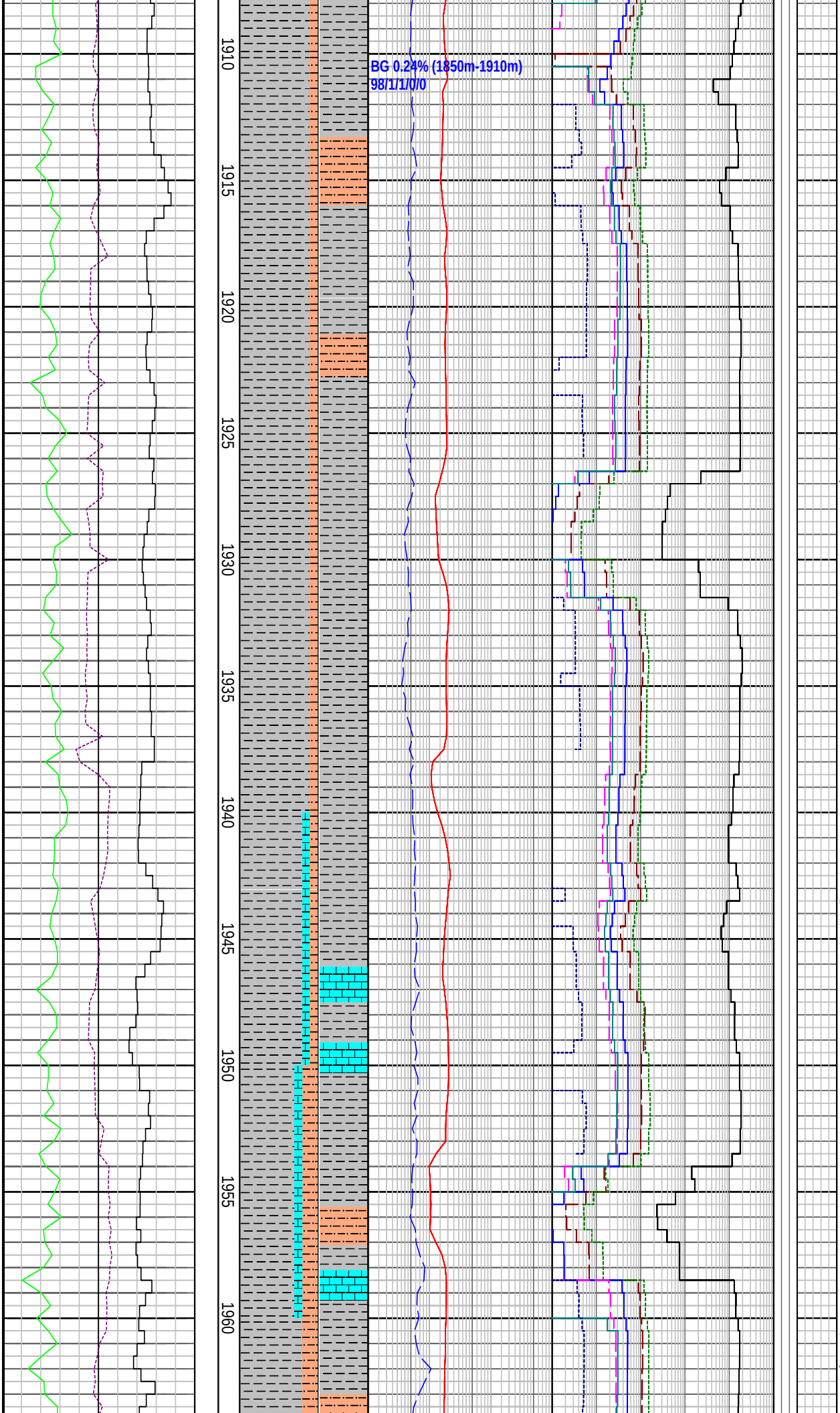


CALCARENITE: wh pl gy-gnsh gy, sbblky, sft-frm-amor hd, f gr, mod srt, opq sbang-sbrndd cak, tr com gr f-med gr glau, pr inf por

CALCAREOUS CLAYSTONE: m lt gy-m gy, mod frm, sbblky-blky, sli slty, tr carb flks, mod-hi calc, com grdg to cltct, tr foam

CALCARENITE: wh pl gy-gnsh gy, sbblky, sft-frm-amor hd, f gr, mod srt, opq sbang-sbrndd cak, tr com gr f-med gr glau, pr inf por

CALCAREOUS CLAYSTONE: med lt gy-brn gy, mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod-hi calc, grdg to clclt, tr foam

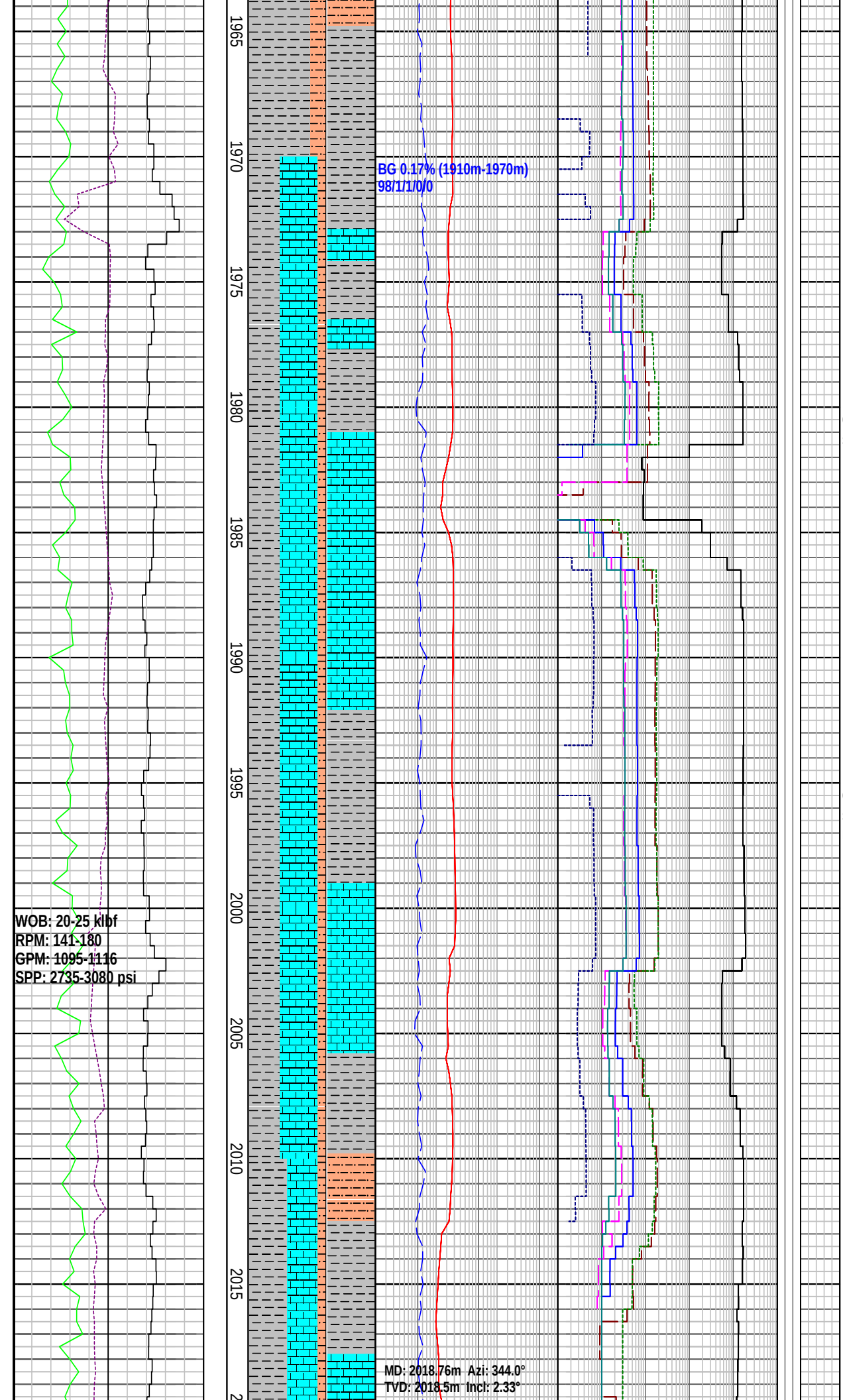


calc, grdg to clst, tr foam

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg mod-hi calc, tr blk carb lam, tr pyr

CALCARENITE: lt olv-gy, gnsh gy, sbblky agg, mod hd, v f gr, mod srt, semi trnsl-opq, sbang cal, cal cmt, pr inf por

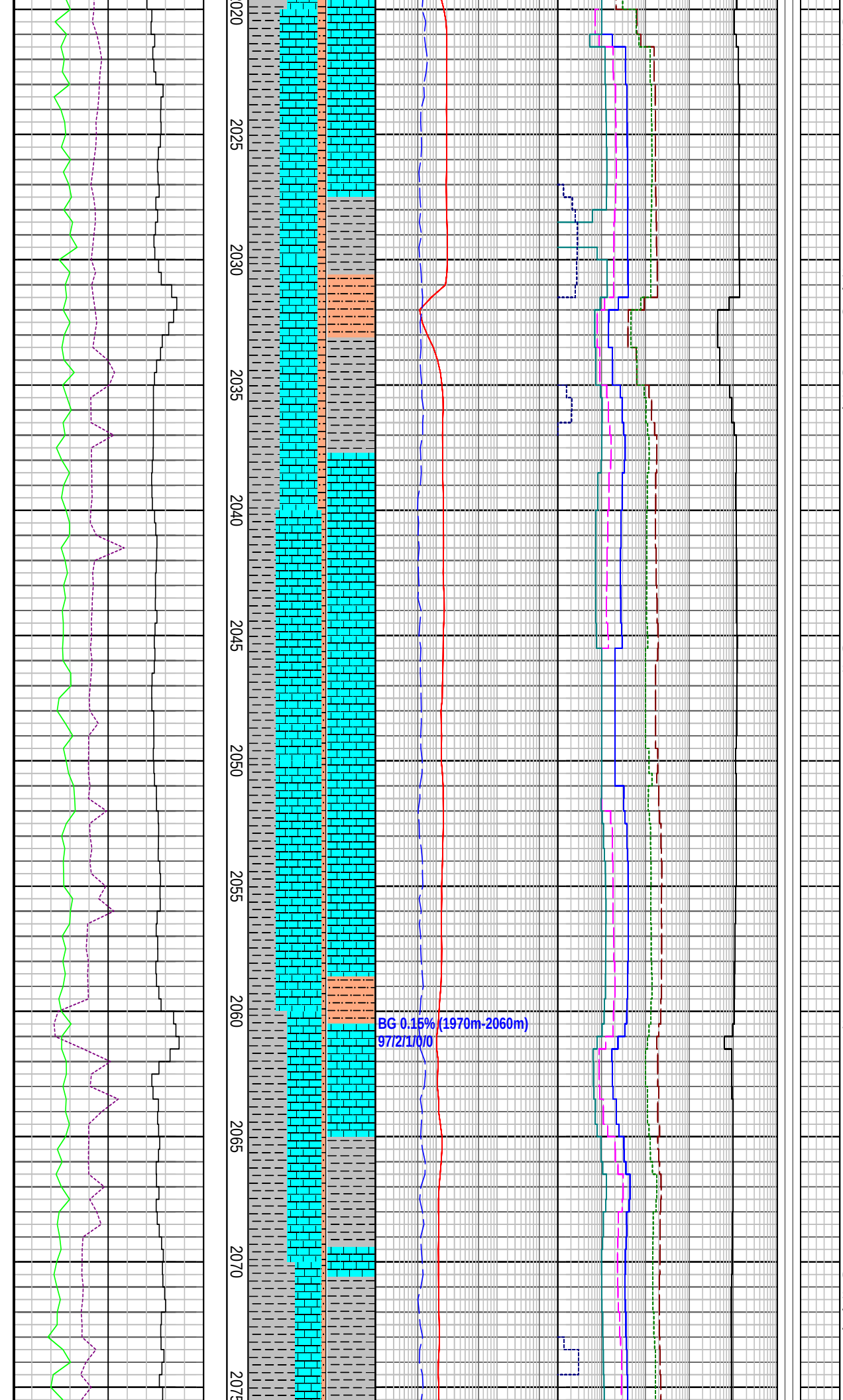
SILTSTONE: m gy-grnsh gy, frm-hd, blky arg, mod-hi calc, tr blk carb lam, tr pyr



CALCULITITE: lt olv gy-lt gy, sft-frm, sbblky, com cal slt

CLAYSTONE: m lt gy-m gy, mod frm, sbblky-blky, tr mic, tr carb flks, mod-hi calc i/p, tr foam

MW: 9.3 ppg	FV: 55
PV: 16	YP:33
Gels: 13/26/29	pH: 8.5



CALCULITITE: lt olv gy-lt gy, sft-frm, sbblky, com cal slt

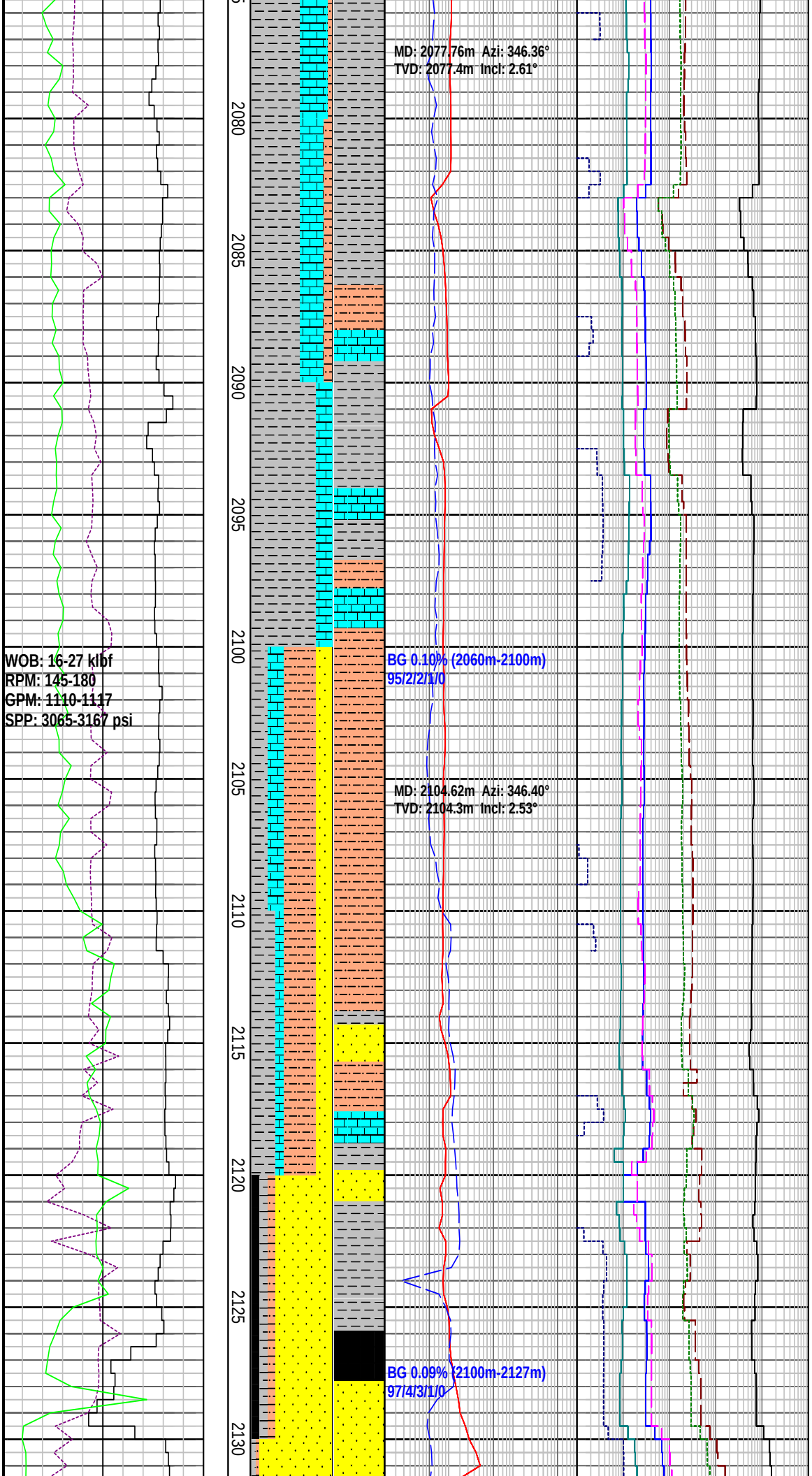
SILTSTONE: m gy-gnsh gy, sft i/p, frm-hd, blky, arg mod-hi calc, tr blk carb lam

CLAYSTONE : m lt gy-m gy, mod frm, sbblky-blky, sli slt, tr mic flks, tr carb flks, mod-hi calc, tr blk carb lam

CALCULITITE: lt olv gy-lt gy, sft-frm, sbblky, com cal slt

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg, mod-hi calc, tr blk carb lam

CLAYSTONE: m lt gy-m gy, mod frm, sbblky-blky, sli slty, tr mic, tr carb flks, mod-hi calc i/p, grdg to Clclt, tr foam



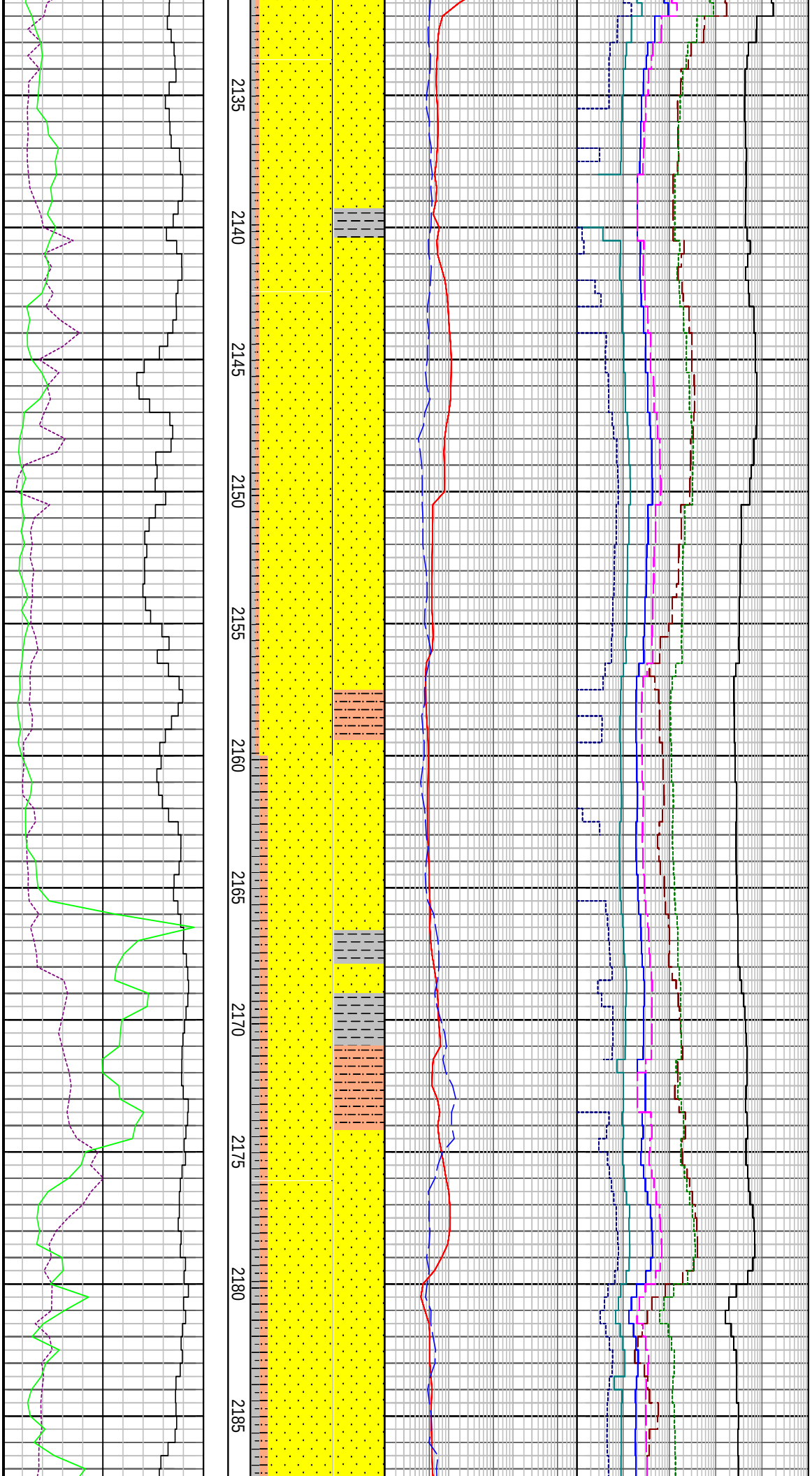
CLAYSTONE: m lt gy-m gy, mod frm, sbblky-blky, sli slty, tr mic, tr carb flks, mod-hi calc i/p, grdg to Clclt, tr foam

SILTSTONE: m gy-gnsh gy, frm-hd, blky, arg, mod-hi calc, tr blk carb lam

GLAUCONITIC SANDSTONE: wh-lt gy, gnsh gy, frm-hd, blky, v f-m, mod srt, sbsng qtz, com dk gr f-m gr, sbang-wl rndd galu in frm-hd slty mtrx w/calc cmt, pr vis por, com lse glau gr

COAL : dk brn-blk, mod hd-hd, ang, planar-conch frac

SANDSTONE: wh-lt gy, yelsh gy-mod



mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz, broken i/p, tr lse f-granule pyr, tr pyr qtz

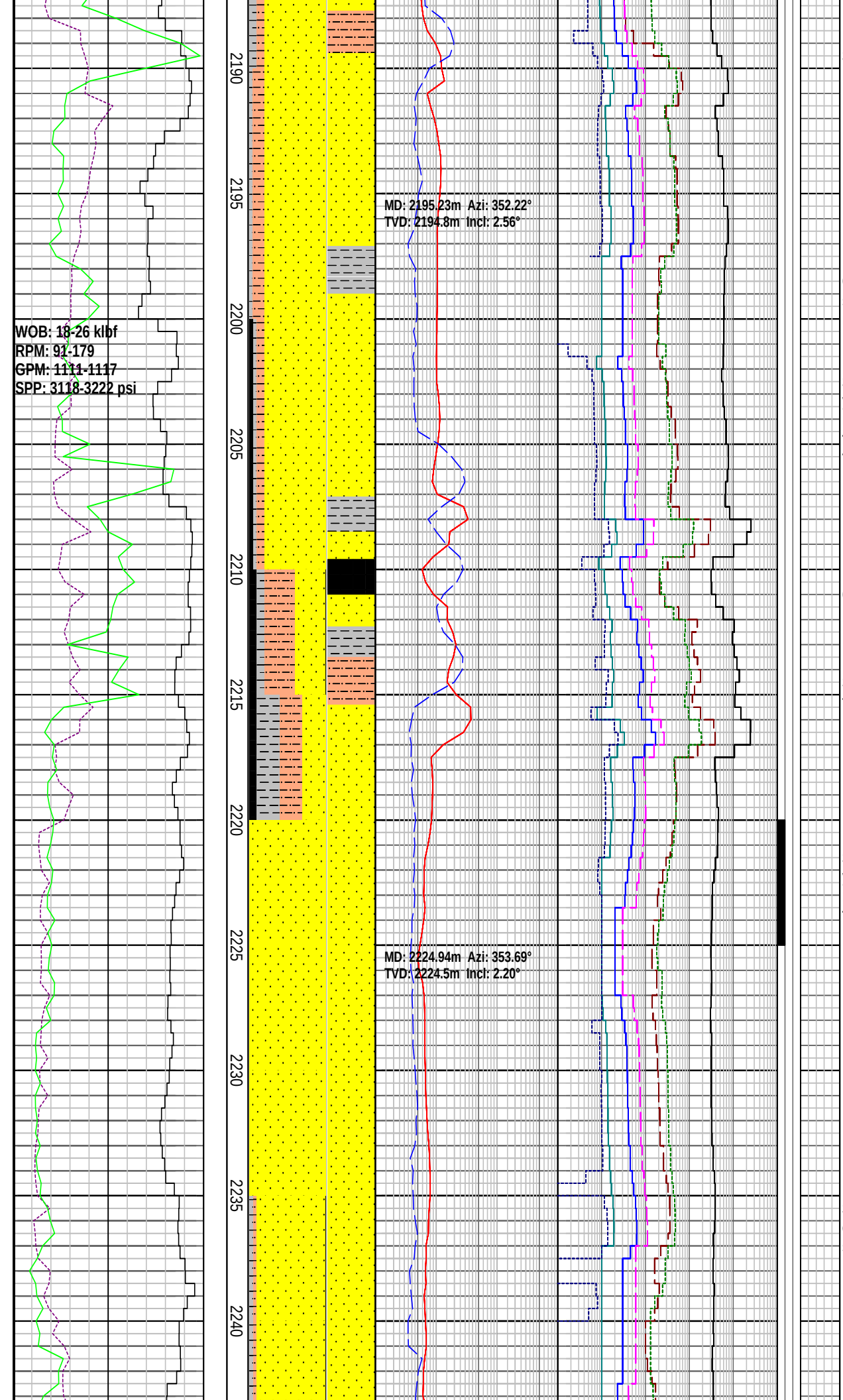
CLAYSTONE: lt-m gy, mod frm-hd, sbblky-blky, tr carb flks, tr mic flks, mod calc

SANDSTONE: wh-lt gy, lse, occ agg, f gr, m-crs granule, mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz, broken i/p, tr pyr qtz

SILTSTONE: mod brn-olv gy, frm-hd, blky, arg, n calc

CLAYSTONE: lt-m gy, mod frm-hd, sbblky-blky, tr carb flks, tr mic flks, mod calc

SANDSTONE: wh-lt gy, yelsh gy-mod yel, lse, occ agg, f gr, m-crs granule, mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz, broken i/p, tr pyr qtz



SILTSTONE: mod brn-olv gy, frm-hd, blky, arg, n calc

CLAYSTONE: lt-m gy, mod frm-hd, sbblky-blky, tr carb flks, tr mic flks, mod calc

SANDSTONE: wh-lt gy, yelsh gy-mod yel, lse, occ agg, f gr, m-crs granule, mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz, broken i/p, tr lse f-granule pyr, tr pyr qtz

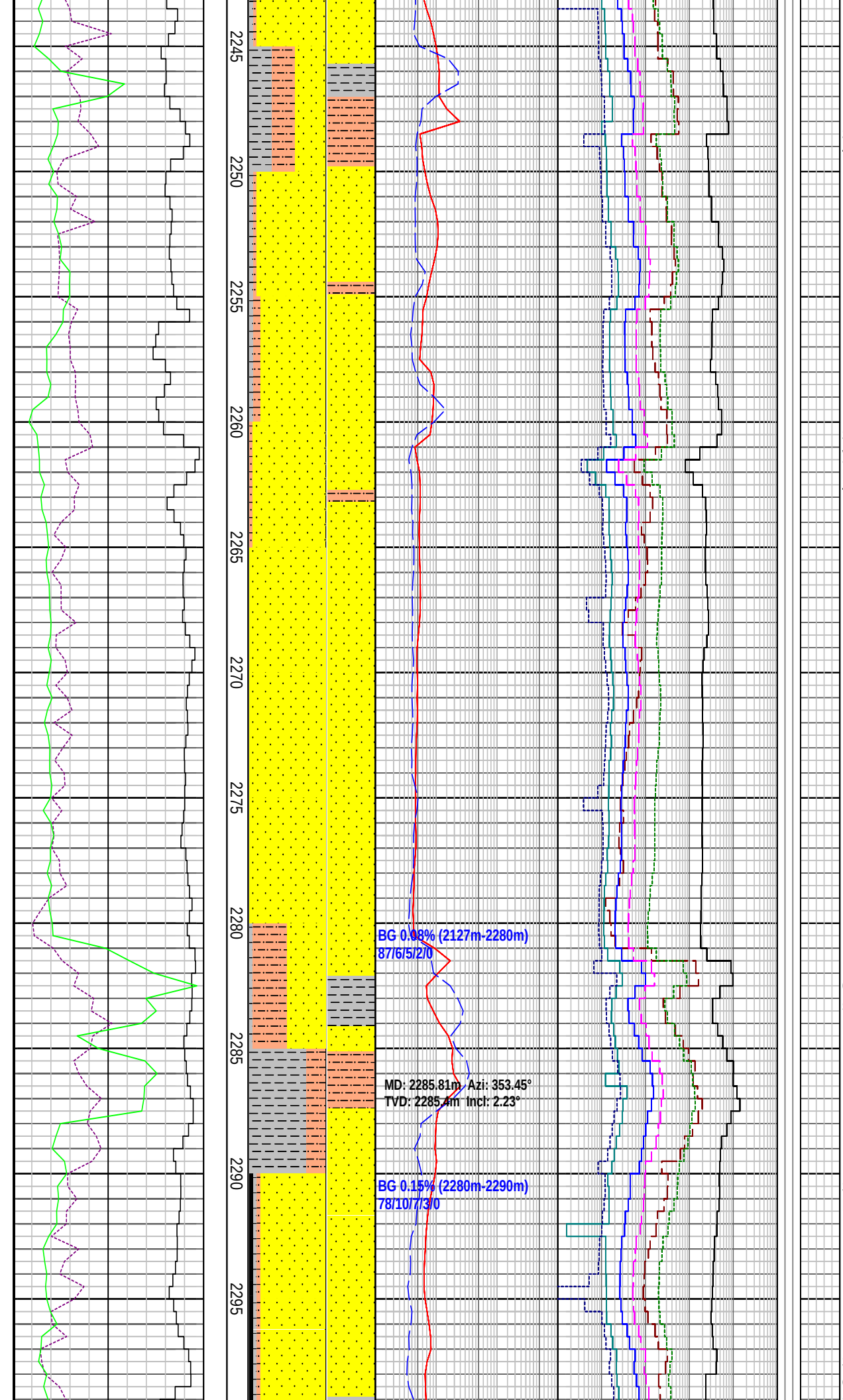
COAL : dk brn-blk, mod hd-hd, ang, planar-conch frac

SILTSTONE: mod olv brn-dk gy, frm-hd, arg-carb, n calc

SANDSTONE: wh-lt gy, yelsh gy-mod yel, lse, occ agg, f gr, m-crs granule, mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz, broken i/p, tr pyr

SHOWS (2220m-2225m):Tr mod brt yel-gr patchy fluor from vis blk liquid bitumen in silty vf sst. Very fast strmg brt grnsh wh cut fluor. Wide spotty bright gr-yel fluor resi ring,pl brn vis residue.

SANDSTONE: wh-lt gy, yelsh gy, lse, occ agg, f gr, m-crs granule, mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz broken i/p, tr pyr qtz



SILTSTONE: mod olv brn-dk gy, frm-hd, arg-carb, n calc

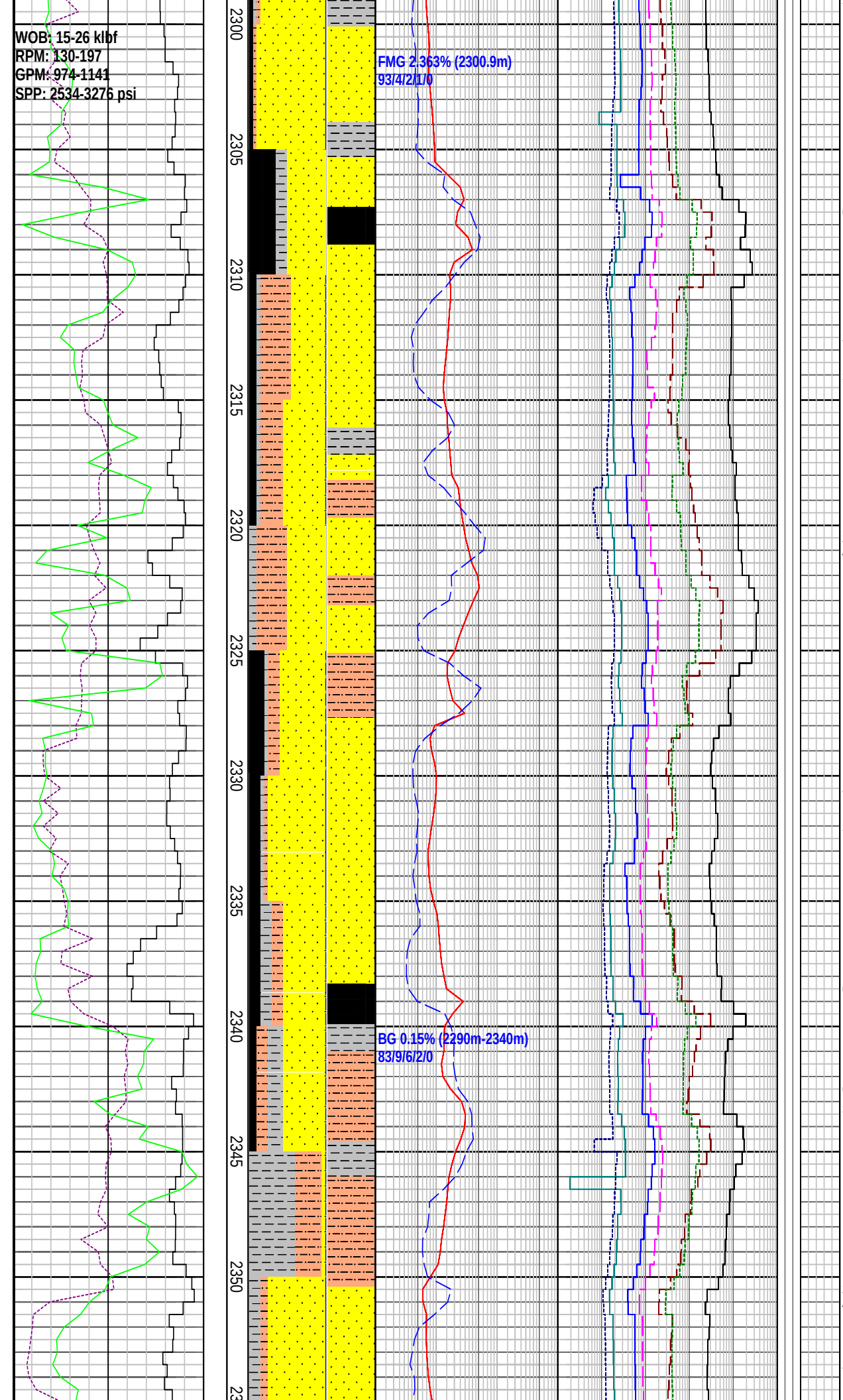
SANDSTONE: wh-lt gy, yelsh gy-mod yel, lse, occ agg, f gr, m-crs granule, mod-wl srt, sbrndd-rndd, sbsph, trnsl-fros qtz, broken i/p, tr pyr qtz

MW: 9.3 ppg	FV: 82
PV: 23	YP:38
Gels: 11/19/25	pH: 8.5

CLAYSTONE: lt-m gy, mod frm-hd, sbblky-blky, tr carb flks, tr mic flks, mod calc

SILTSTONE: mod brn-olv gy, frm-hd, blky, arg, n calc

SANDSTONE: wh-lt gy, lse, crs-granule, mod-wl srt, sbrndd-rndd, sbsph trnsl-fros qtz, broken i/p



sbsph trnsl-fros qtz, broken i/p

COAL : dk brn-blk, hd, ang, planar-conch frac

SANDSTONE: wh-lt gy, lse, m-crs, mod-wl srt, sbrndd-rndd, sbsph,trnsl-fros qtz, broken i/p

SILTSTONE: mod olv brn-dk gy, frm-hd, blky, arg-carb, n calc

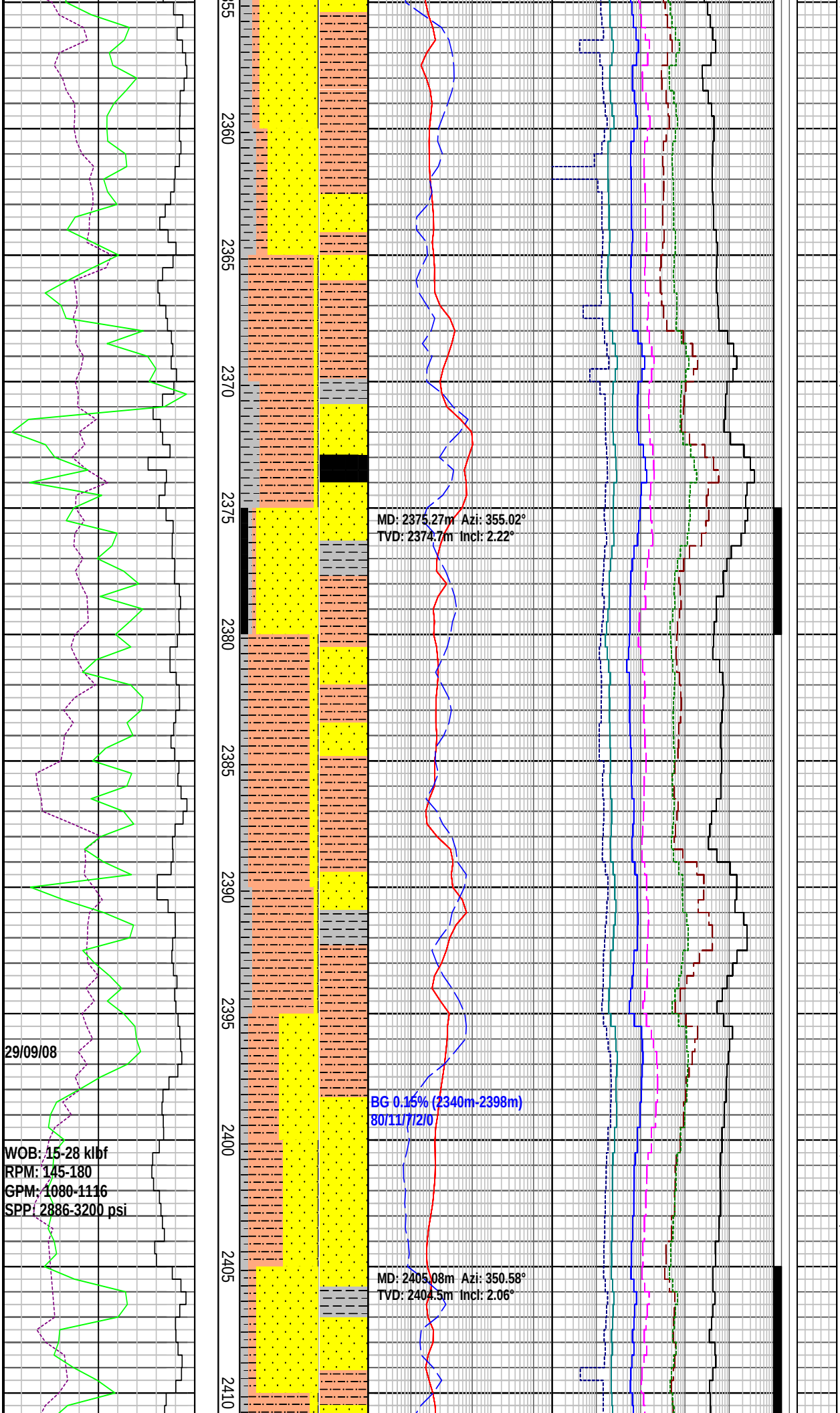
SANDSTONE: wh-lt gy, lse, m-crs, mod-wl srt, sbrndd-rndd, sbsph,trnsl-fros qtz, broken i/p

COAL : dk brn-blk, hd, ang, planar-conch frac

CLAYSTONE: lt gy- m gy, mod frm, sbblky-blky, sli slt, tr mic, tr carb flks, mod calc

SILTSTONE: mod olv brn-dk gy, frm-hd, blky, arg-carb, n calc

SANDSTONE: wh-lt gy, lse, m-crs, mod-wl srt, sbrndd-rndd,



sbsph,trnsl-fros qtz, broken i/p

SANDSTONE: wh-lt gy, lse, m-crs, mod-wl srt, sbrndd-rndd, sbsph,trnsl-fros qtz, broken i/p

SILTSTONE: mod olv brn-dk gy, frm-hd, blky, arg-carb, n calc

MW: 9.5 ppg	FV: 58
PV: 18	YP:31
Gels: 12/20/23	pH: 8.5

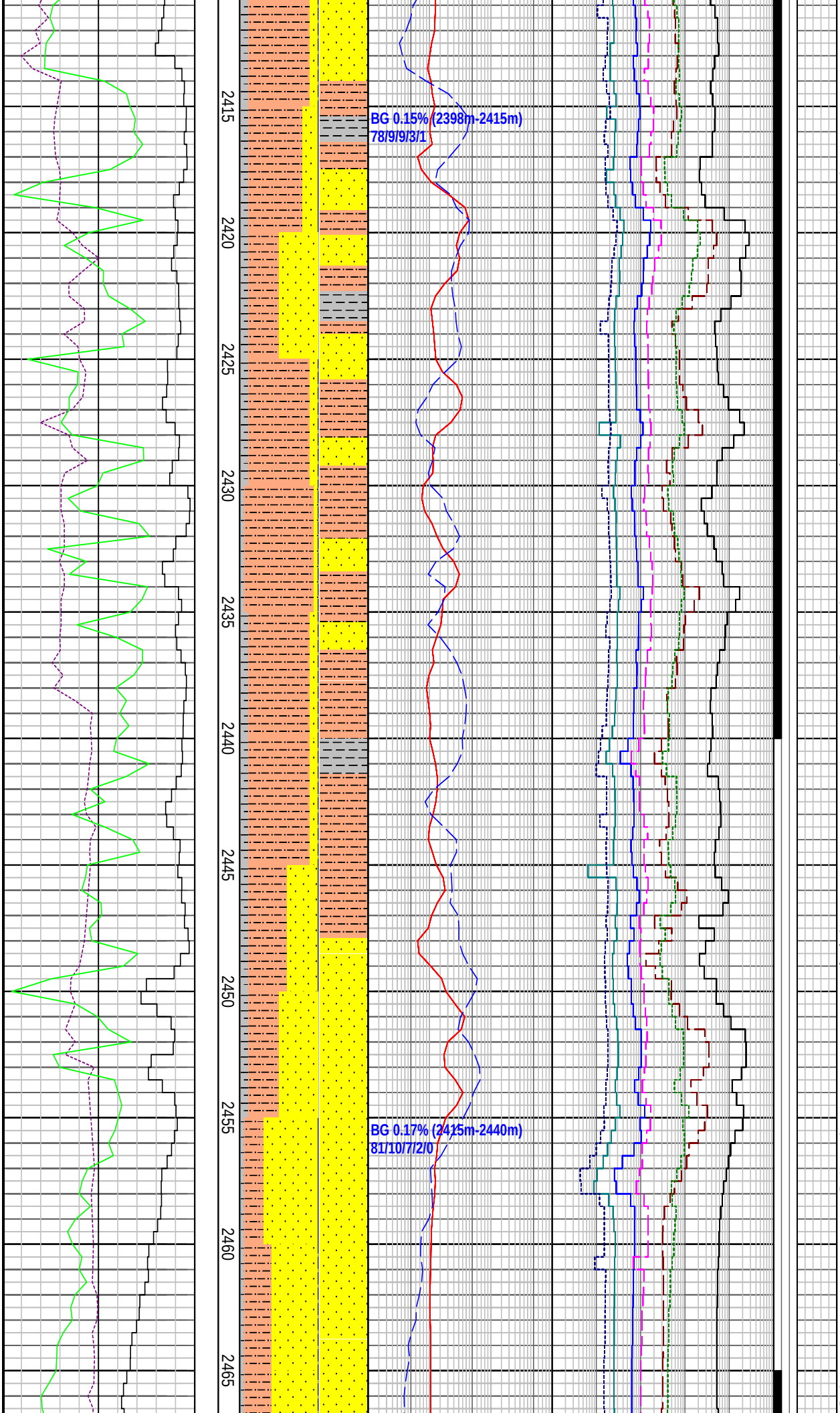
SANDSTONE: gysh yel-mod olv brn, agg v f sd, wl srt, with wh-lt gy, lse, m-crs-granule, mod srt, sbrndd-rndd, sbsph trnsl-fros qtz, broken i/p

SHOWS (2375m-2380m): Tr mod brt gr-yel pinpoint fluor in sltst. Slow blooming dull bl-wh cut fluor. pl bl-gr mod wide spotty fluor residual ring, nil vis residue.

SILTSTONE: mod olv brn-dk gy, frm-hd, blky, arg-carb, n calc

SANDSTONE: lt-m gy lse f lower-crs lower, dom m sd, pr srt, sbang-sbrndd clr-frs qtz, tr xln pyr, tr qtz granules, tr brn gy v f hd sltst, tr calc m sst. tr qtz granules, tr calc m sst, tr xln pyr

SHOWS (2405m-2440m): Tr (2% at 2430m) dull to mod brt pinkish yel pinpoint fluor in slyst. Slow(fast at 2425m) blooming dull to mod brt bl wh cut fluor.Thin dull to mod brt bl-wh fluor resid ring, ni vis residue.



SANDSTONE: lt-m gy lse f lower-crs lower, dom m sd, pr-mod srt, sbang-sbrndd clr-frs qtz,

SILTSTONE: mod olv brn-dk gy, frm-hd i/p, blky, arg, glau i/p, n calc

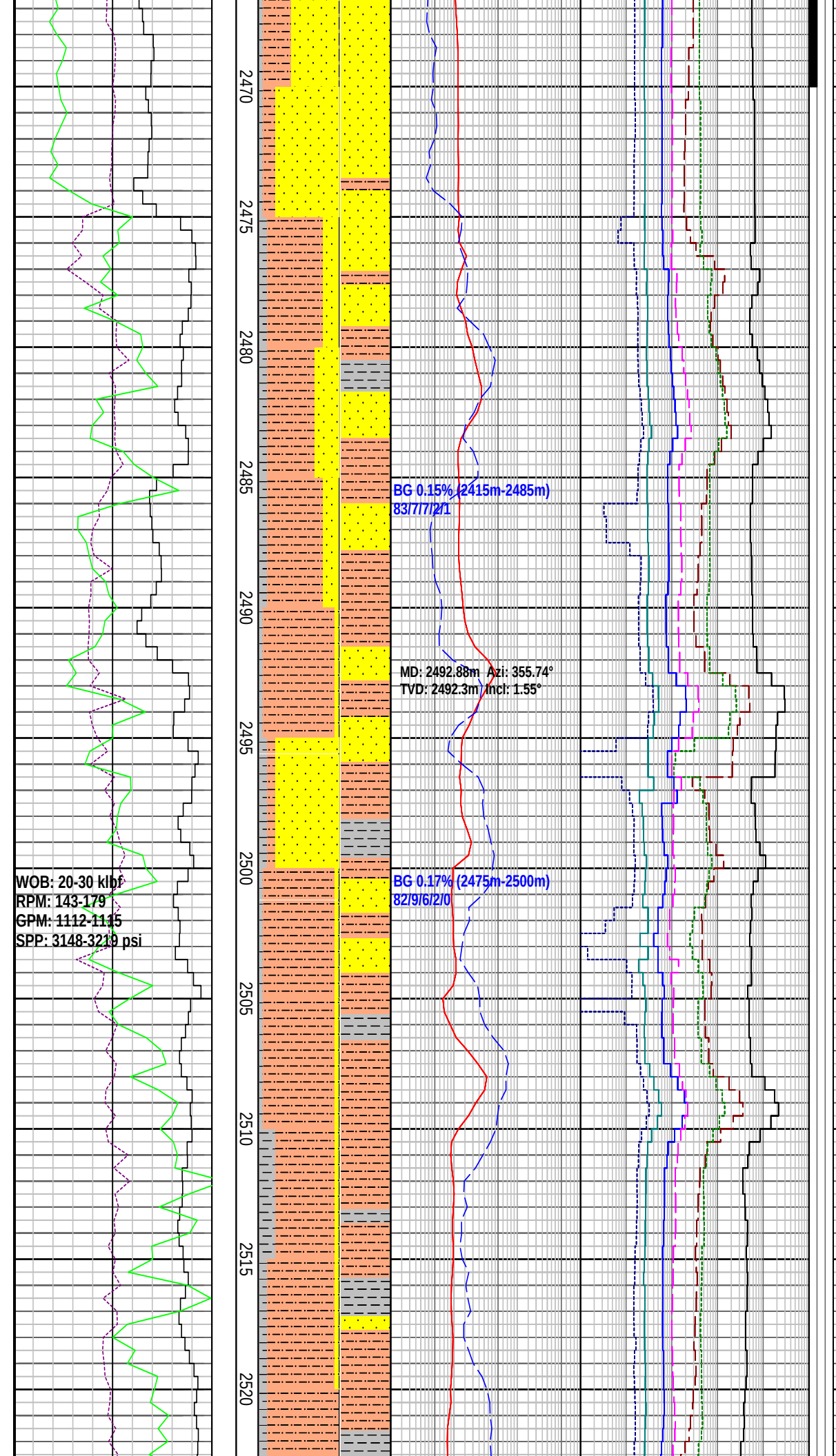
SANDSTONE: lt-m gy lse f lower-crs lower, dom m sd, pr-mod srt, sbang-sbrndd clr-frs qtz, tr qtz granules, tr calc m sst, tr xln pyr

MW: 9.5 ppg	FV: 53
PV: 17	YP:30
Gels: 11/22/26	pH: 8.5

SILTSTONE: mod olv brn-m gy, frm-mod hd, blky, arg-carb calc, tr mic flks, tr carb lam, n calc

SANDSTONE: lt-m gy lse f lower-crs lower, dom m sd, pr-mod srt, sbang-sbrndd clr-frs qtz, tr qtz granules, tr calc m sst, tr xln pyr

SANDSTONE: wh-lt gy, lse, f-crs, tr granule, dom m wl srt, sbrndd-rndd,



sbsph trnsp-fros qtz, in places broken, com sft wh-lt gy amor n calc rock flour, tr pyr clus cmt gr

SHOWS (2465m-2470m): tr 2% dull yel org pinpoint fluor in sltst, mod fast blooming dull bl-wh cut fluor,

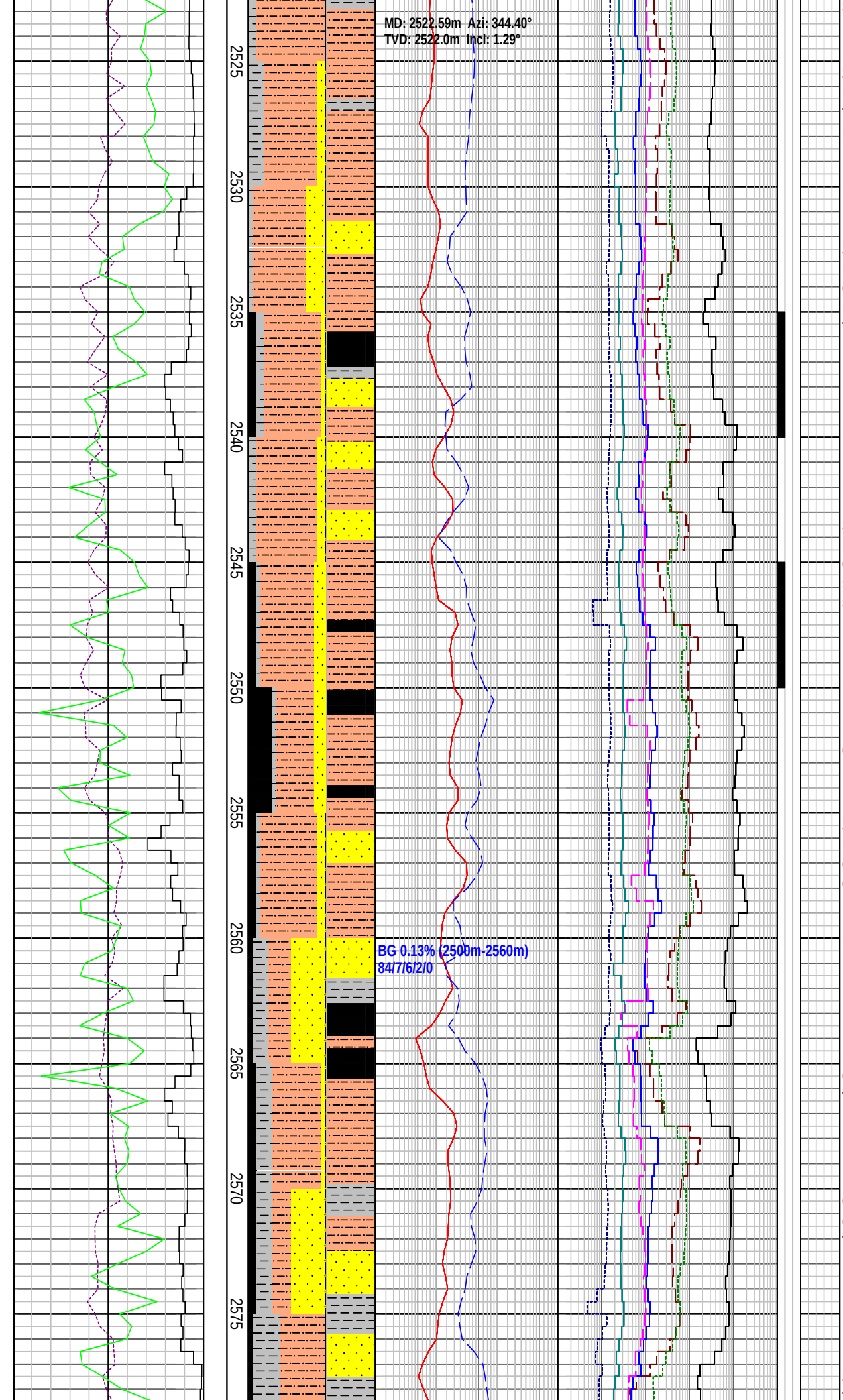
Thin dull to mod brt bl-wh fluor resid ring.

SILTSTONE: mod olv brn-m gy, frm-mod hd, blky, arg-carb n calc, tr mic flks, tr carb lam

SANDSTONE: lt-m brnsh gy, frm-mod hd, v f lower-upper sst, wl srt sbang qtz, tr mic slty mtrx, com carb lam, with mnr lse v f-m sd, tr qtz granules

CLAYSTONE: lt gy- m gy, sft-mod frm, disp i/p, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SILTSTONE: mod olv brn-m gy, frm-mod hd, blky, arg-carb, tr coal frag, n calc, com pl-gy frm sli sandy



sltst, tr mic flks, tr carb lam

SANDSTONE: lt-m brnsh gy, frm-mod hd, v f-f, wl srt, sbrndd-rndd, mod srt, tr mic slty mtrx, com carb lam, n calc, inf vis por, tr xln pyr

SANDSTONE: lt-m brnsh gy, frm-mod hd, v f lower-upper sst, wl srt sbang qtz, tr mic in slty mtrx, wkly cmt, mod srt, com carb lam, with mnr lse v f-m sd, tr xln pyr

SHOWS (2535m-2540m): tr brt grsh-yel pinpoint fluor in calcareous clyst, slow blooming mod brt bl-wh cut fluor, thin dull bl-wh fluor residual ring, nil vis residue.

SANDSTONE: lt-m brnsh gy, frm-mod hd, v f lower-upper sst, wl srt sbang qtz, tr mic in slty mtrx, wkly cmt, mod srt, com carb lam, with mnr lse v f-m sd, tr xln pyr

SHOWS (2545m-2550m): tr brt gr-wh pinpoint fluor in coal(resin), slow blooming mod brt bl-wh cut fluor, wide brt bl-gr fluor residual ring, nil vis residue.

COAL: dk brn-blk, hackly-conc frac

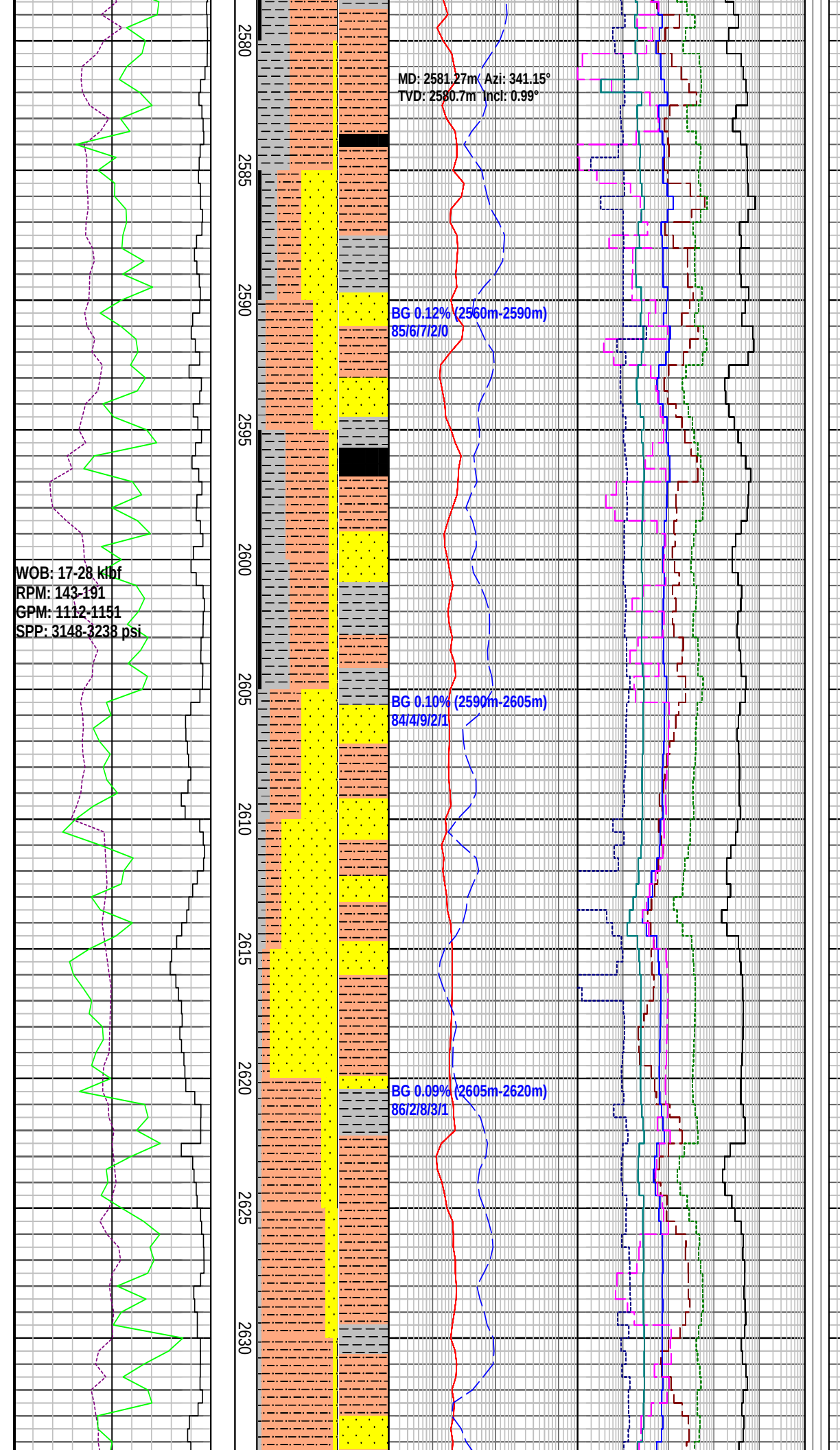
SANDSTONE: lt-m brnsh gy, frm-mod hd, v f lower-upper sst, wl srt sbang qtz, tr mic in slty mtrx, wkly cmt, com carb lam

MW: 9.5 ppg	FV: 58
PV: 19	YP:31
Gels: 12/24/29	pH: 8.5

COAL: dk brn-blk, frm, hackly-conch frag

CLAYSTONE: lt gy- m gy, sft-mod frm, disp i/p, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SILTSTONE: mod olv brn-m gy, frm-mod hd, blky, arg-carb, tr coa



frag, n calc, com pl-gy frm sli sandy sltst, tr mic flks, tr carb lam

COAL: dk brn-blk, frm, hackly-conch frag

CLAYSTONE: lt gy- m gy, sft-mod frm, disp i/p, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

COAL: dk brn-blk, frm, hackly-conch frag

CLAYSTONE : lt-m gy, sft-mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

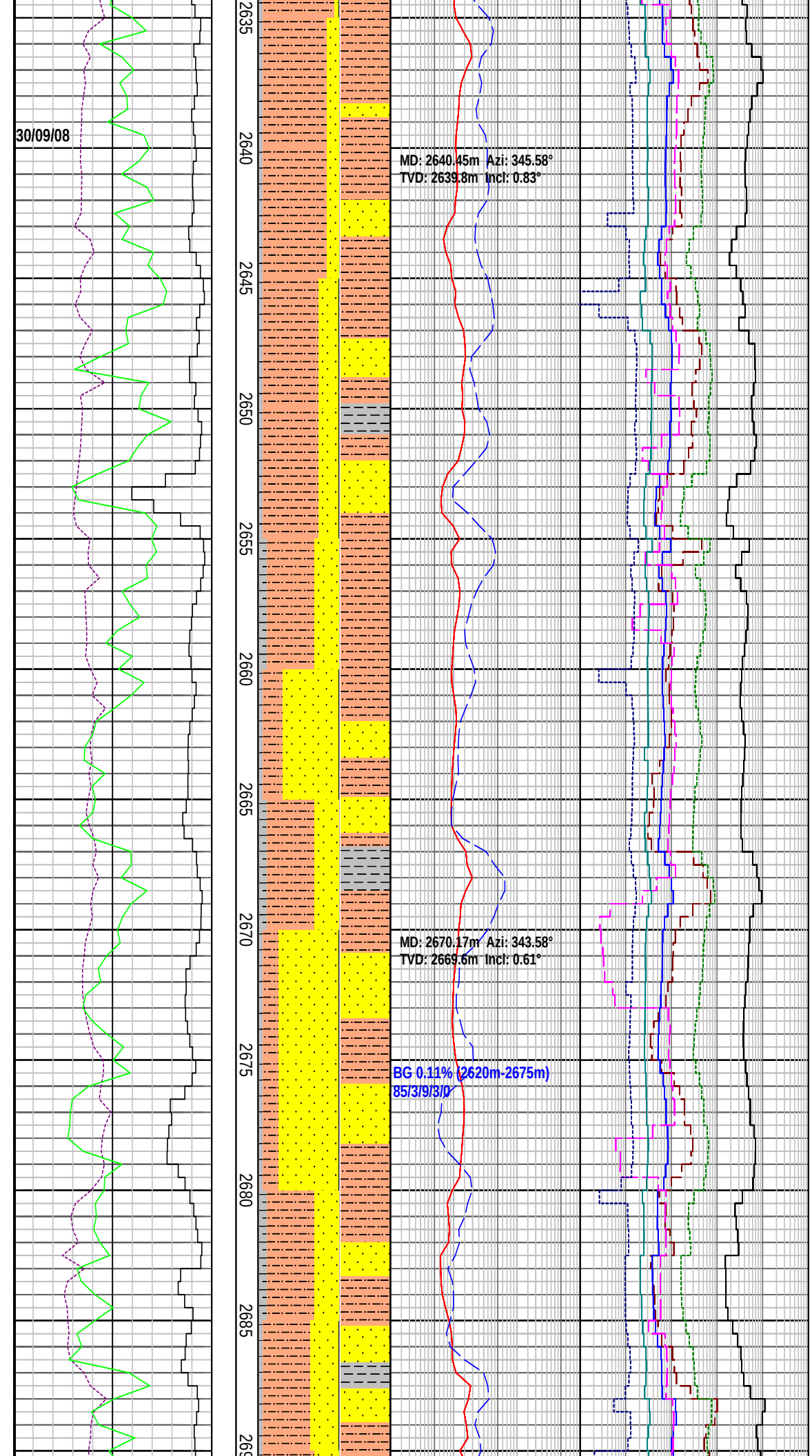
SANDSTONE: wh-v lt gy, pred lse with occ agg, m-crs with mnr granule, mod-wl srt, sbang-sbrndd clr-fros qtz, tr pyr, tr musc flks, tr coal

SANDSTONE: v lt gy-m brnsh gy, frm-mod hd, v f lower-upper sd, f sst i/p, wl srt sb ang qtz, tr mic in slty mtrx, wk sil cmt, com carb lam, with com lse v f-f sd, mod srt, sbrndd, tr pyr granules

SILTSTONE: mod olv brn-mod gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr sst, tr mic, tr com pl gy frm sli sandy sltst, tr mic flks, tr carb lam

MW: 9.4 ppg	FV: 57
PV: 17	YP:32
Gels: 13/26/30	pH: 8.5

SANDSTONE: v lt gy-m brnsh gy, frm-mod hd, v f lower-upper sd, f sst i/p, wl srt sb ang qtz, tr mic in slty



mtrx, wk sil cmt, com carb lam, with com lse v f-f sd, mod srt, sbrndd, tr pyr granules

SILTSTONE: mod olv brn-mod gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr sst, tr mic, tr com pl gy frm sli sandy sltst, tr mic flks, tr carb lam

SANDSTONE: v lt gy-m brnsh gy, frm-mod hd, v f lower-upper sd, f sst i/p, wl srt sb ang qtz, tr mic in slty mtrx, wk sil cmt, com carb lam

SILTSTONE: mod olv brn-mod gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr sst, tr mic, tr com pl gy frm sli sandy sltst, tr mic flks, tr carb lam

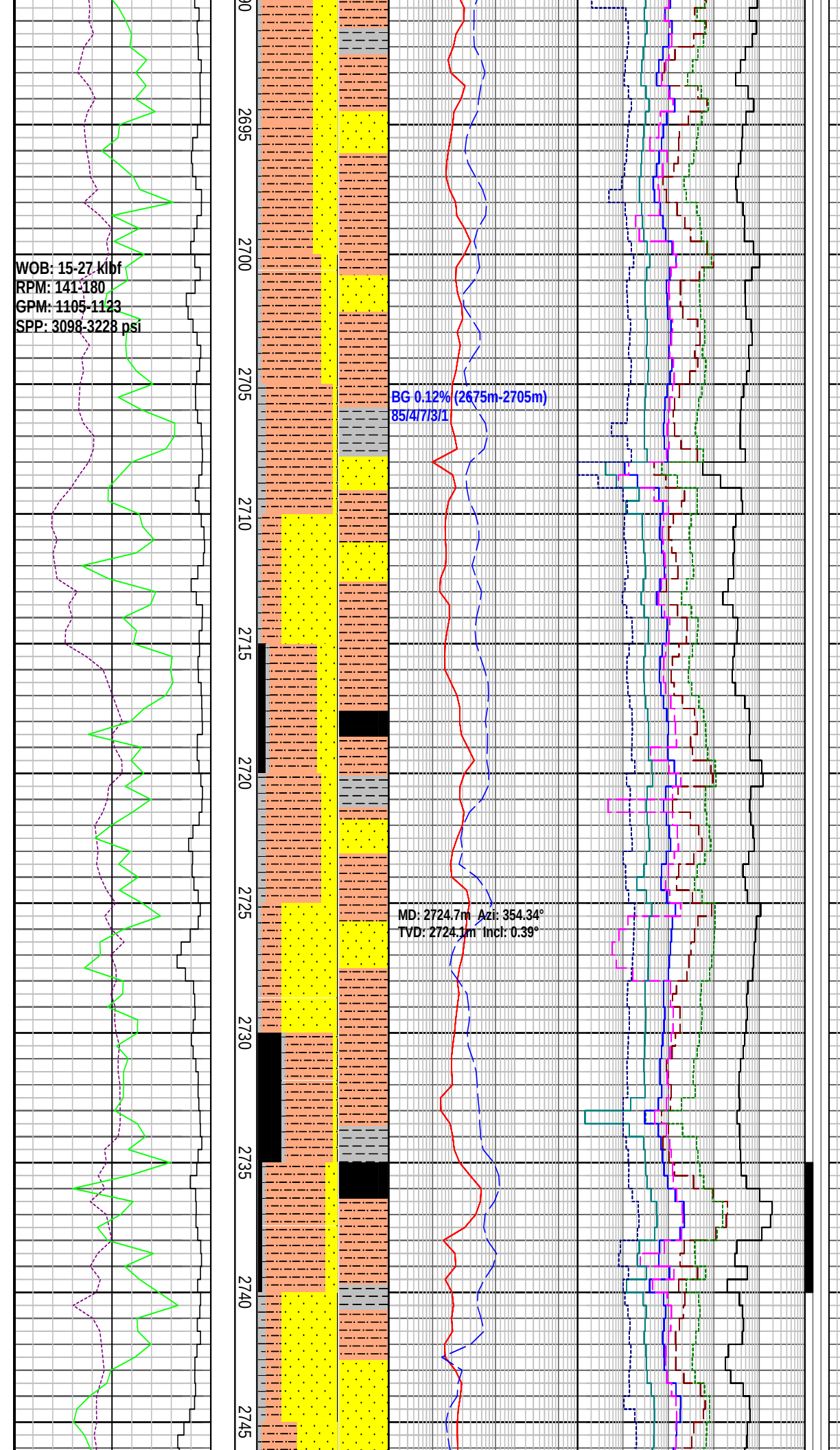
CLAYSTONE : lt-m gy, sft-mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SANDSTONE: lt gy-m brnsh gy, frm-mod hd, v f lower-upper sd, f sst i/p, wl srt sb ang qtz, tr mic in slty mtrx, wk sil cmt, com carb lam, with com lse v f-f sd, mod srt, sbrndd, tr pyr granules

SILTSTONE: mod olv brn-mod gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr sst, tr mic, tr com pl gy frm sli sandy sltst, tr mic flks, tr carb lam

CLAYSTONE : lt-m gy, sft-mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SILTSTONE: mod olv brn-mod gy,



frm-hd, arg-carb, n calc, tr coal frag mnr pyr, tr sst, tr mic, tr com pl gy frm sli sandy sltst, tr mic flks, tr carb lam

SANDSTONE:wh-pl gy lse v f-m sd, dom f, mod srt, sbrndd qtz, comm v lt gy-lt-m brnsh gy, frm-mod hd, v f lw sst, wl srt sbang qtz tr mic slty mtrx

SILTSTONE: pl-mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, frm sli sandy sltst, tr mic flks

CLAYSTONE : lt-m gy, mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SANDSTONE:v lt gy-lt-med brnsh gy, frm-mod hd, v f lower to f sst, wl srt sbrndd qtz, tr mic in slty mtrx, wlky sil cmt, com carb lam, tr pyr, p vis por, com wh-pl gy lse v f-m sd, dom f, mod, tr qtz

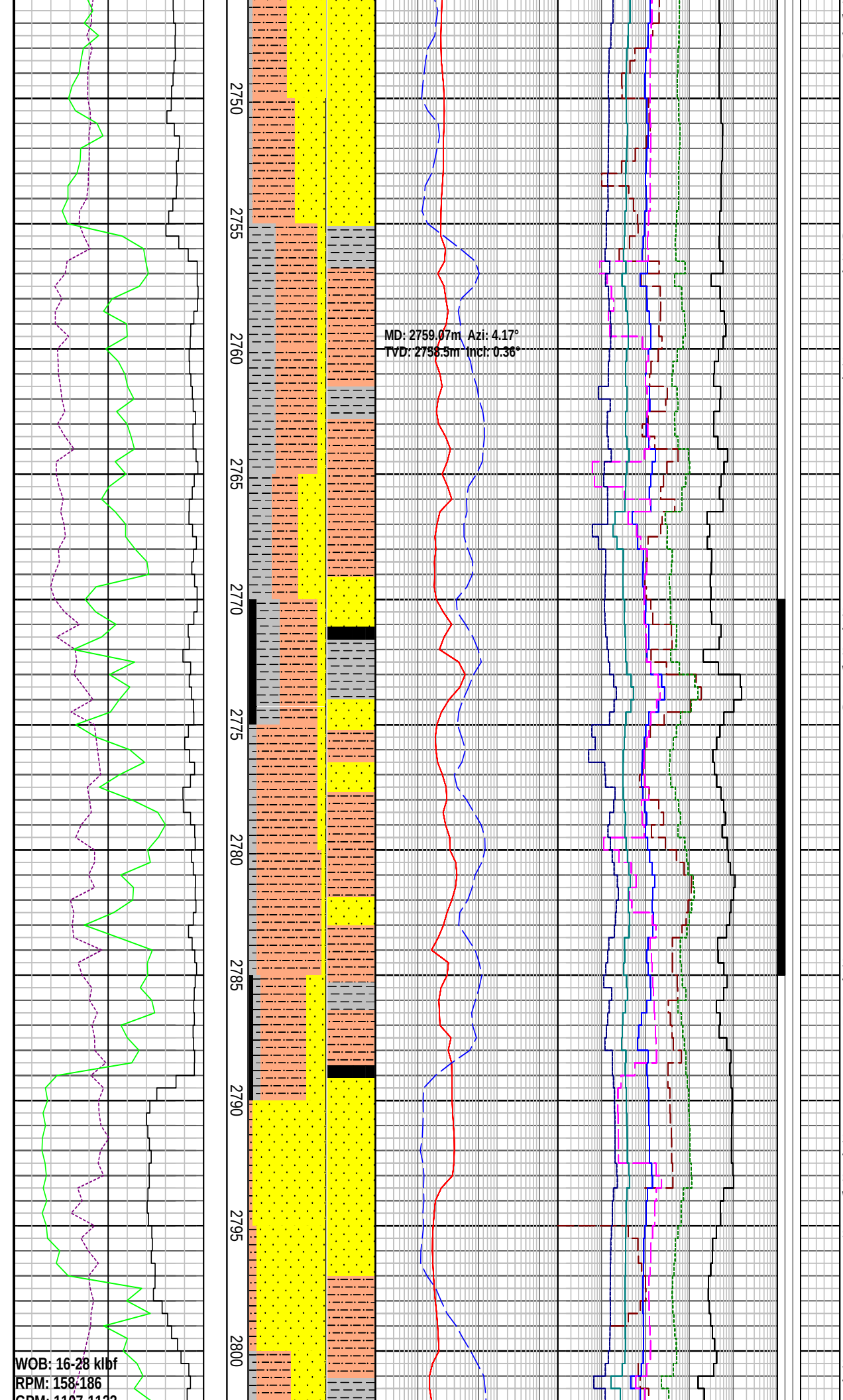
COAL: dk brn-blk, frm, conch frac

SILTSTONE: pl-mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr pl gy, frm sli sandy sltst, tr mic flks

CLAYSTONE : lt-m gy, mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SHOW(2735m): tr yel-gr fluor associated with coal resins. v slow blooming bl-wh cut fluor. Dull pl bl-wh residual ring.

SANDSTONE: v lt gy-lt-med brnsh gy, frm-mod hd, v f lower to upper sst, wl srt sbrndd qtz, tr mic in slty mtrx



srt sbrndd qtz, tr mic in slty mtrx, wlky sil cmt, com carb lam, tr pyr, pr vis por, with lse v f-m sd, tr qtz granules

CLAYSTONE : lt-m gy, mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, mod calc

SILTSTONE: pl-mod olv brn-med gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr pl-gy frm sli sandy sltst, tr mic flks

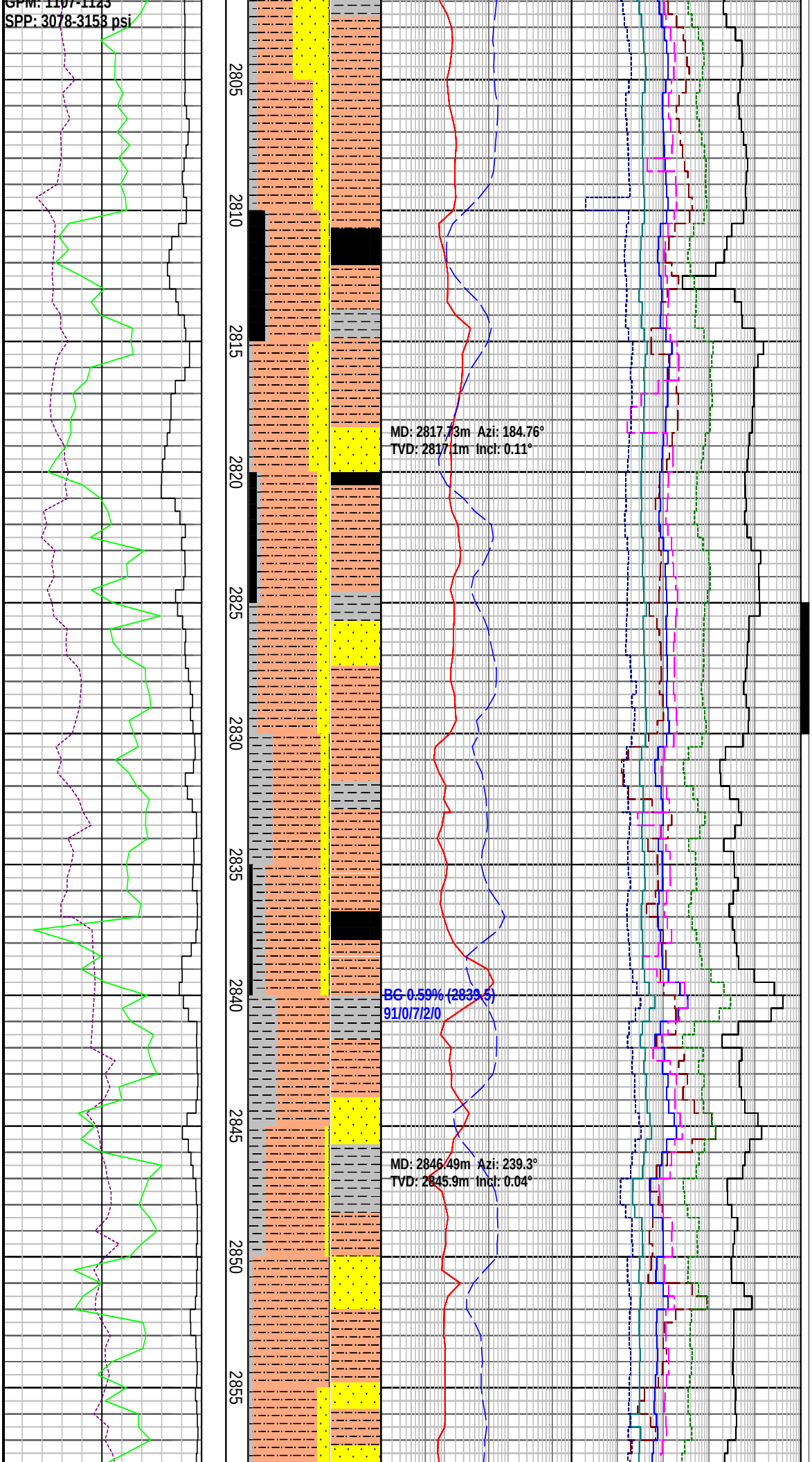
SANDSTONE: v lt gy-lt-med brnsh gy, frm-mod hd, v f lower to f sst, wl srt sbrndd qtz and tr mic in slty mtrx, wlky sil cmt, com carb lam, tr pyr, pr vis por, with lse v f-med sd, tr qtz granules

SHOW(2770m-2785m): tr yel-gr fluor associated with coal resins. v slow blooming bl-wh cut fluor. Dull pl bl-wh residual ring.

SILTSTONE: pl-mod olv brn-med gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr pl-gy frm sli sandy sltst, tr mic flks

SANDSTONE: v lt gy-lt-med brnsh gy, frm-mod hd, v f lower to f sst, wl srt sbrndd qtz and tr mic in slty mtrx, wlky sil cmt, com carb lam, tr pyr, pr vis por, com wh-pl gy lse v f-med sd, tr qtz

SILTSTONE:mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag,



mnr pyr, tr pl gy frm sli sandy sltst, tr mic flks, tr carb lam

COAL: dk brn-blk, ang, hackly-conch frac, dull-brt banded

SILTSTONE:mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr pl gy frm sli sandy sltst, tr mic flks, tr carb lam

COAL: dk brn-blk, ang, hackly-conch frac, dull-brt banded

SILTSTONE: pl-mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr pl gy, frm sli sandy sltst, tr mic flks

SANDSTONE: v lt gy, lse, v f-f m sd, dom f, mod srt, sbrndd-sbang, 10% agg yel gy sil cmt, tr p, tr coal

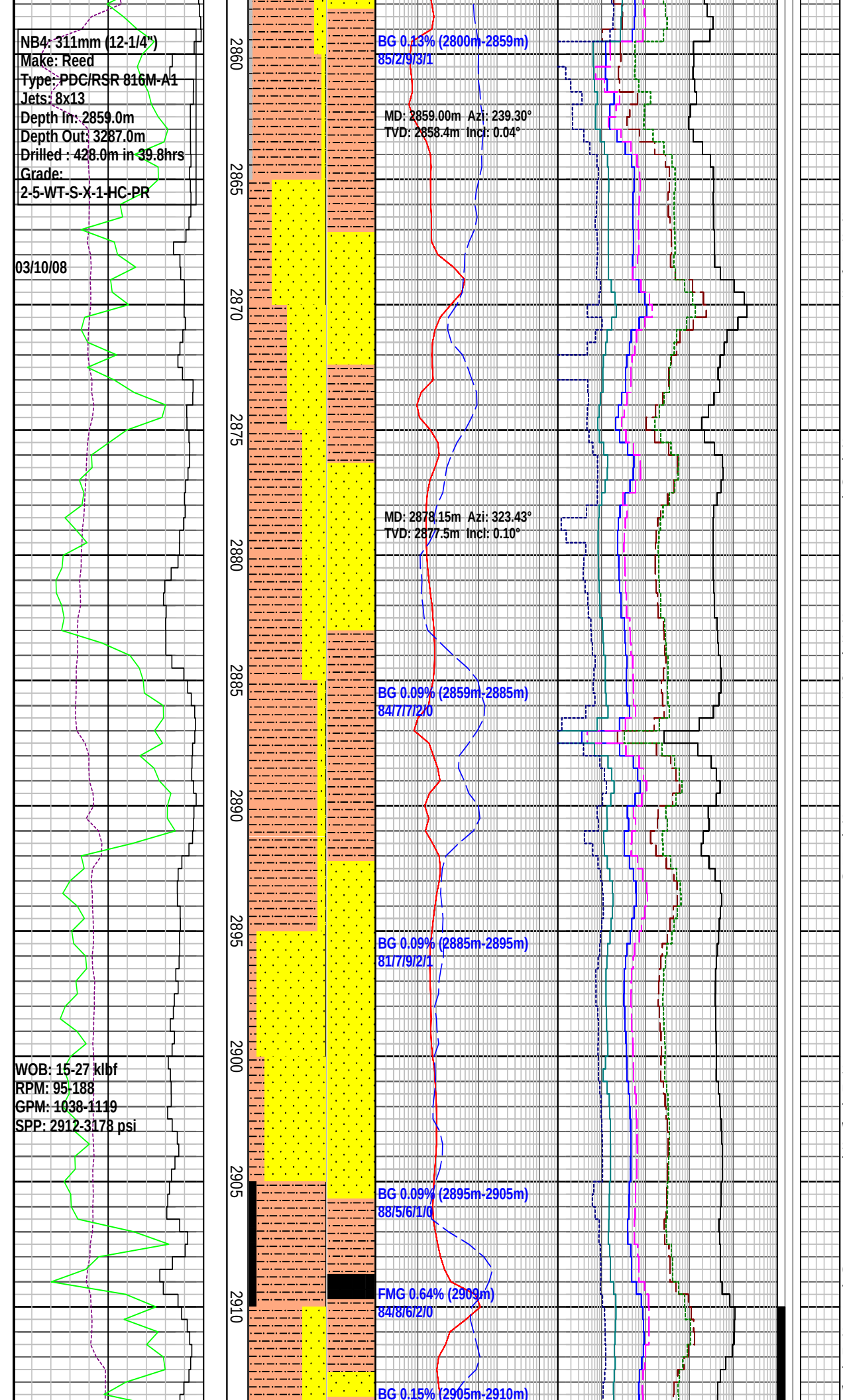
SHOWS (2825m-2830m): tr yel-gr pinpoint fluor associated with siltstone , v slow blooming bl-wh cut fluor, bl-wh fluor residual ring, nil vis residue.

COAL: dk brn-blk, ang, hackly-conch frac, dull-brt banded

CLAYSTONE : lt-m gy, mod frm, sbblky-blky, sli slty, tr mic flks, tr carb flks, tr carb flks, mod calc

SANDSTONE: v lt-gy-lt-m brnsh gy, frm-mod hd, v f lower-upper sst, wl srt, sbang-sbrndd qrtz and tr mic in slty mtrx,wlky sil cmt, com carb lam with mnr lse v f-med sd

SILTSTONE:mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag, mnr pyr, tr pl gy frm sli sandy sltst, tr mic flks, tr carb lam



Bit Trip @2859.0m

MW: 9.8 ppg	FV: 54
PV: 15	YP:29
Gels: 11/19/27	pH: 8.5

SANDSTONE wh-pl gy f-m agg, mod srt, sbang-sbrndd qtz in mnr sil mtrx, mnr sil cmt, frm-hd, tr carb frag, nil vis por, with abun lse f-m mod srt sbrndd qtz gr, tr calc frag, tr lse

SANDSTONE: v lt-gy-lt-m brnsh gy, frm-mod hd, v f lower-upper sst, opq v crs qtz, wl srt, sbang-sbrndd qrtz and tr mic in slty mtrx, wlky sil cmt, tr coal

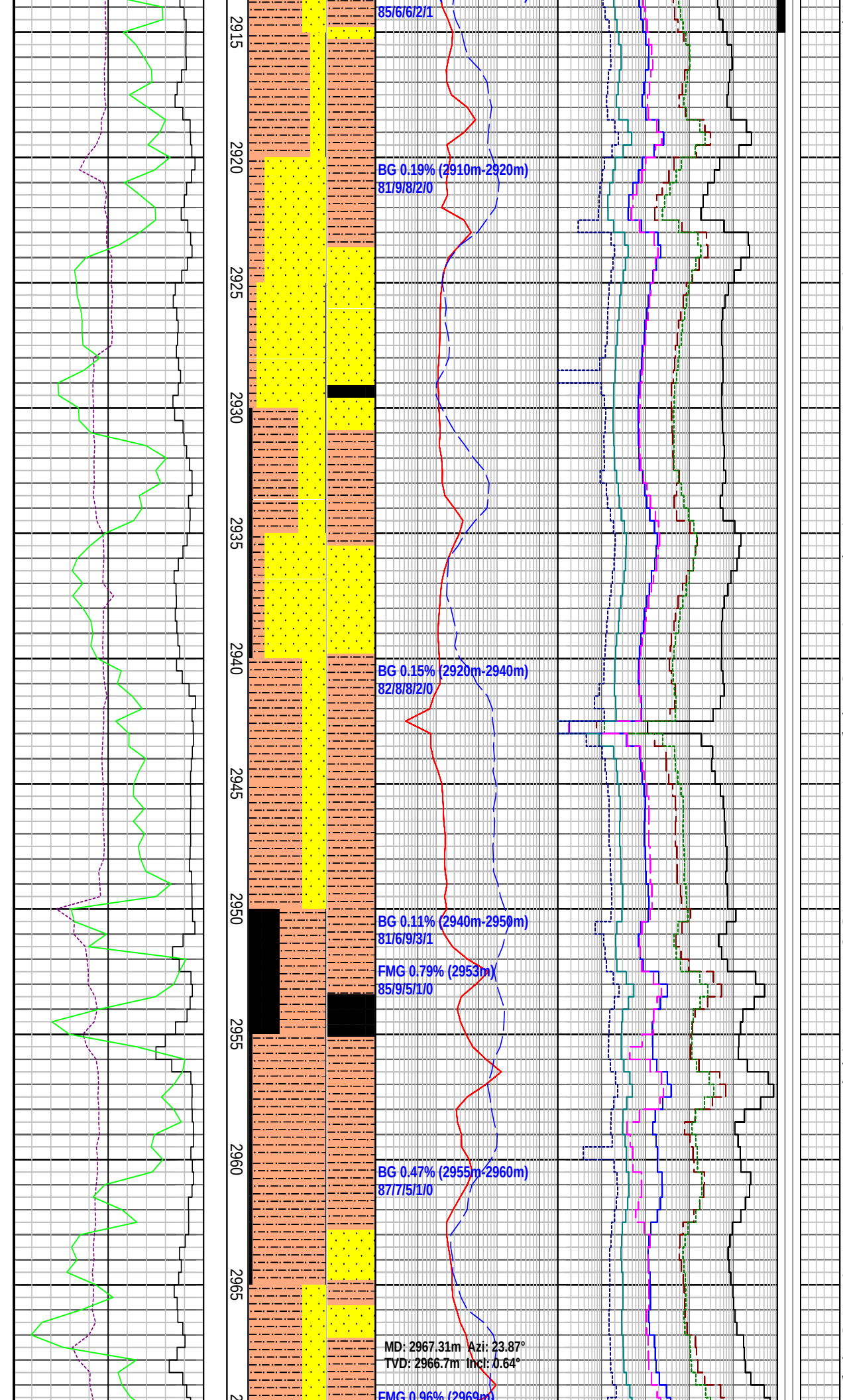
SANDSTONE: wh-pl gy agg, v f-f, wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr py cry, with com wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz in com slty mtrx, mnr sil cmt,

SILTSTONE:mod olv brn-m gy, frm-hd, arg-carb, n calc, tr coal frag, tr pl gy frm sli sandy sltst, tr mic flks, tr carb lam, com pyr with glau

SANDSTONE: lse m-granule dom m upper mod srt sbrndd qtz gr, tr musc flks, tr calc frag, tr pyr cry, with mnr wh-pl gy-yelsh gy f-crs agg, mod srt, sbang-sbrndd qtz in mnr slty mtr tr pyr cmt, tr carb frag, nil vis por.

COAL:dk brn-blk, frm, blky, conch frac

SANDSTONE: lse m-granule dom m upper mod srt sbrndd qtz gr, tr musc flks, tr calc frag, tr pyr cry, with mnr wh-pl gy-yelsh gy f-crs agg, mod srt,



sbang-sbrndd qtz in mnr slty mtrx
tr pyr cmt, tr carb frag, nil vis por.

SHOWS (2910m-2915m): tr dull grsh-yel pinpoint fluor in silty vf sst, slow blooming mod brt bl-wh cut fluor, mod thick brt-wh fluor residual ring, nil vis residue.

SANDSTONE: lse f-m dom f upper-m lower wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr py cry, with com wh-pl gy m sst agg, wl srt,sbang-sbrndd qtz in om slty mtrx, mnr sil cmt,

SILTSTONE:lt brn-m brnsh gy, frm-hd, mod hd i/p, arg-carb, n calc, mnr pyr, tr pl gy frm sli sandy sltst, tr mic flks

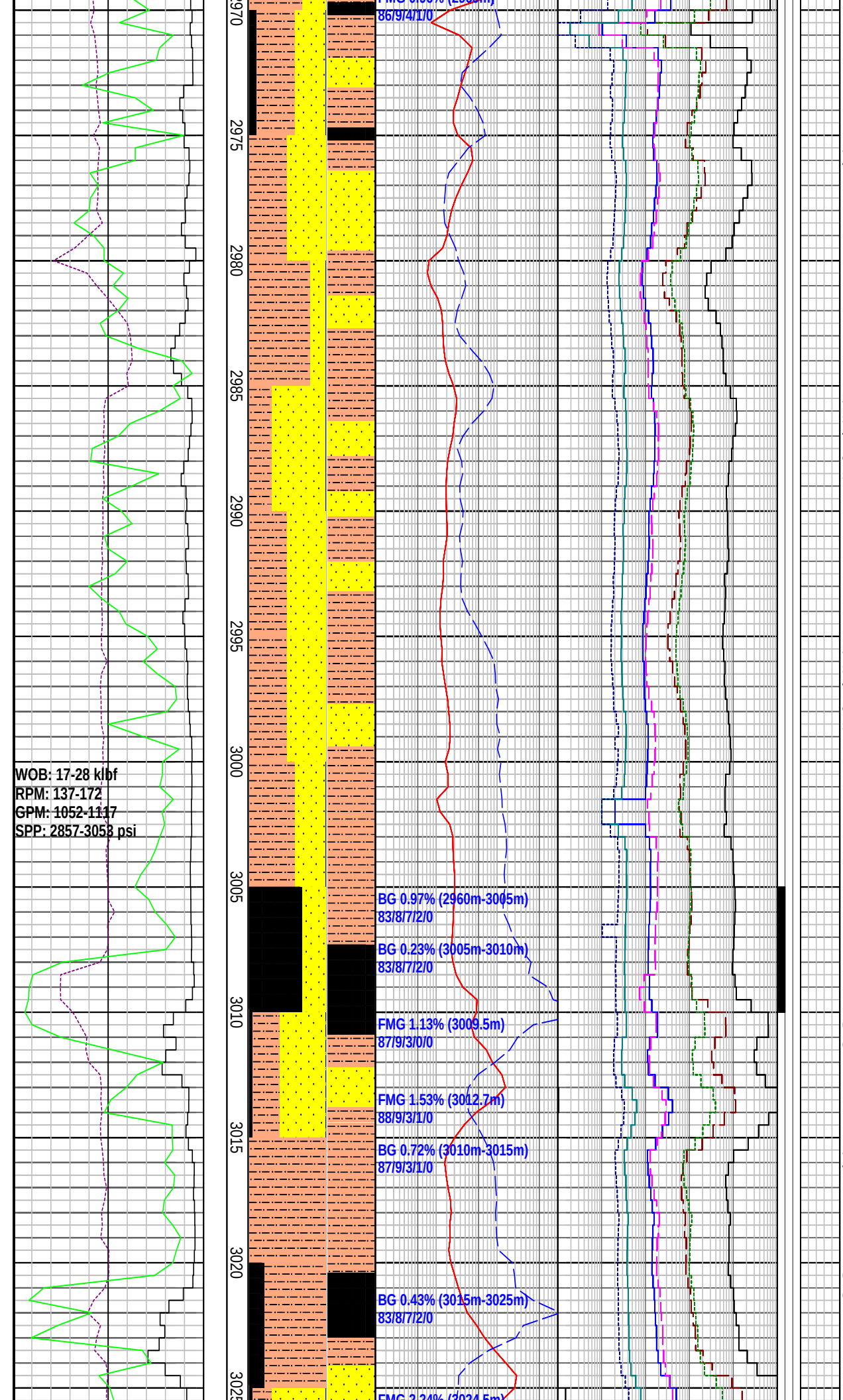
SANDSTONE:lse f-m dom f upper-m lower wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr py cry, with com wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz in com slty mtrx, mnr sil cmt, fri-frm, tr carb frag, pr vis por, mnr sft wh rock flour

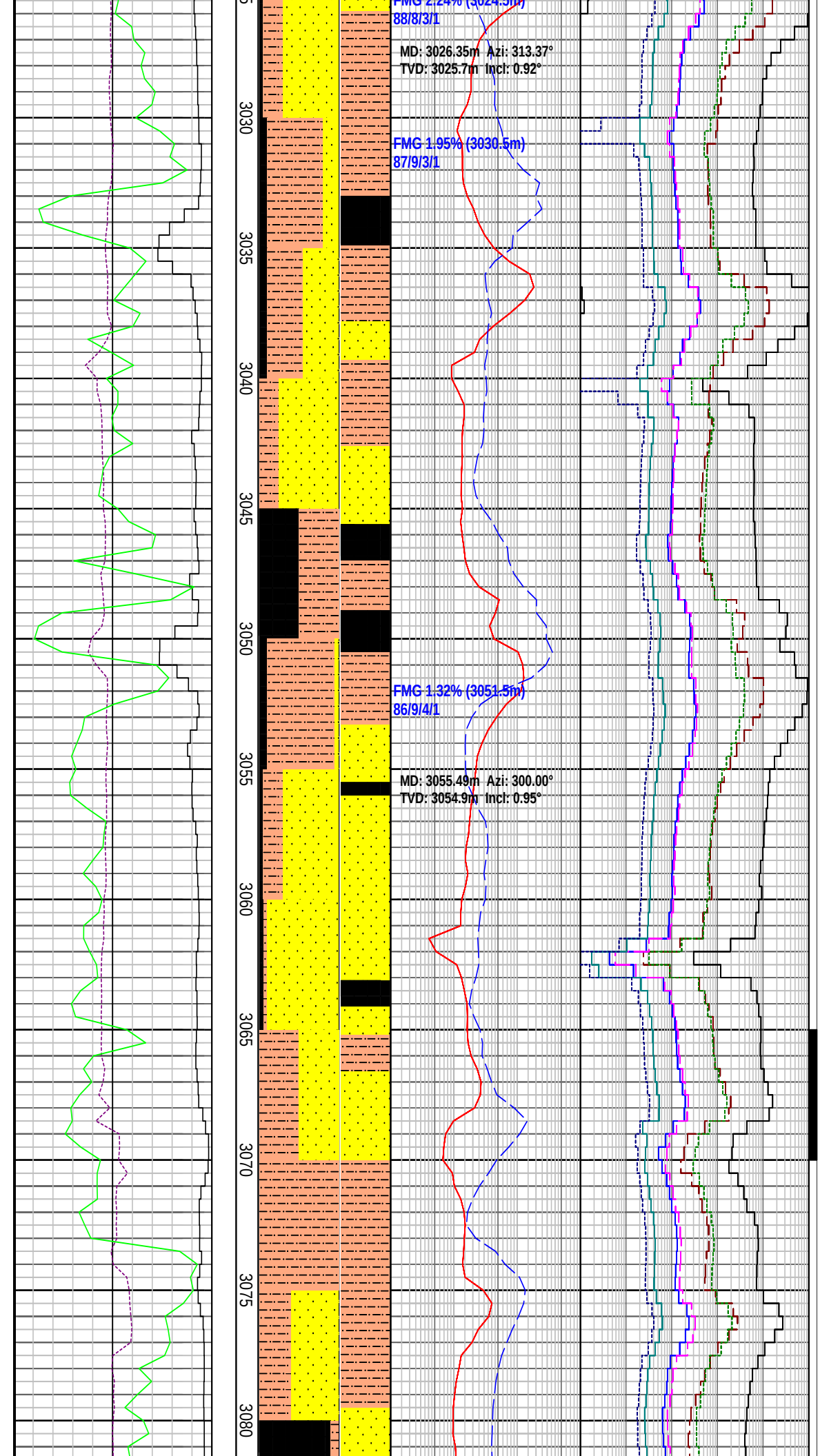
MW: 10.5 ppg	FV: 56
PV: 14	YP:37
Gels: 14/21/27	pH: 8.5

COAL : blk, frm-hd, brt bndd, conc-planar frac

SILTSTONE: lt-mod olv brn-m gy, frm-hd, arg-carb, n calc, com pl gy frm stly sandy sst, tr mic flks

SANDSTONE:lse f-m dom f upper-m lower wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr py cry, with com wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz in com slty mtrx, mnr sil cmt, fri-frm, tr carb frag, pr vis por, mnr sft wh rock flour


2970
2975
2980
2985
2990
2995
3000
3005
3010
3015
3020
3025
WOB: 17-28 klbf
RPM: 137-172
GPM: 1052-1117
SPP: 2857-3053 psi
86/9/4/1/0
SILTSTONE: dkgy-brn gy,m brn gy, frm-hd, mod hd i/p, blky, n calc, mnr pyr, tr mic flks, grdg to sst
SANDSTONE: wh-pl gy agg, v f-f, wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr py cry, with com wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz in com slty mtrx, mnr sil cmt
SANDSTONE: wh-pl gy agg, v f-f, wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr py cry, with com wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz in com slty mtrx, mnr sil cmt
BG 0.97% (2960m-3005m)
83/8/7/2/0
BG 0.23% (3005m-3010m)
83/8/7/2/0
SHOWS (3005m-3010m): tr mod brt yel pinpoint fluor in sltst and coal mod fast blooming mod brt bl-wh cut fluor thin-wide mod brt-brt gr-bl fluor residual ring, nil vis residual
FMG 1.13% (3009.5m)
87/9/3/0/0
COAL : blk, frm-hd, brt bndd, conc-planar frac
FMG 1.53% (3012.7m)
88/9/3/1/0
BG 0.72% (3010m-3015m)
87/9/3/1/0
SILTSTONE: dkgy-brn gy,m brn gy, frm-hd, mod hd i/p, blky, n calc, mnr pyr, tr mic flks, grdg to sst
BG 0.43% (3015m-3025m)
83/8/7/2/0
COAL : blk, frm-hd, brt bndd, conc-planar frac



SANDSTONE: wh-pl gy agg, v f-f, wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr pyr cry, with mnr wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz in com slty mtrx, mnr sil cmt

COAL : blk, frm-hd, brt bndd, conc-planar frac

SANDSTONE: wh-pl gy agg, v f-f, wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr pyr cry, with mnr wh-pl gy m sst agg, wl srt, sbang-sbrndd qtz com slty mtrx, mnr sil cmt, tr carb

COAL : blk, frm-hd, brt bndd, conc-planar frac

SILTSTONE: dk brn-brn blk, frm-hd blky, argi to carb, tr c seg, mnr pyr

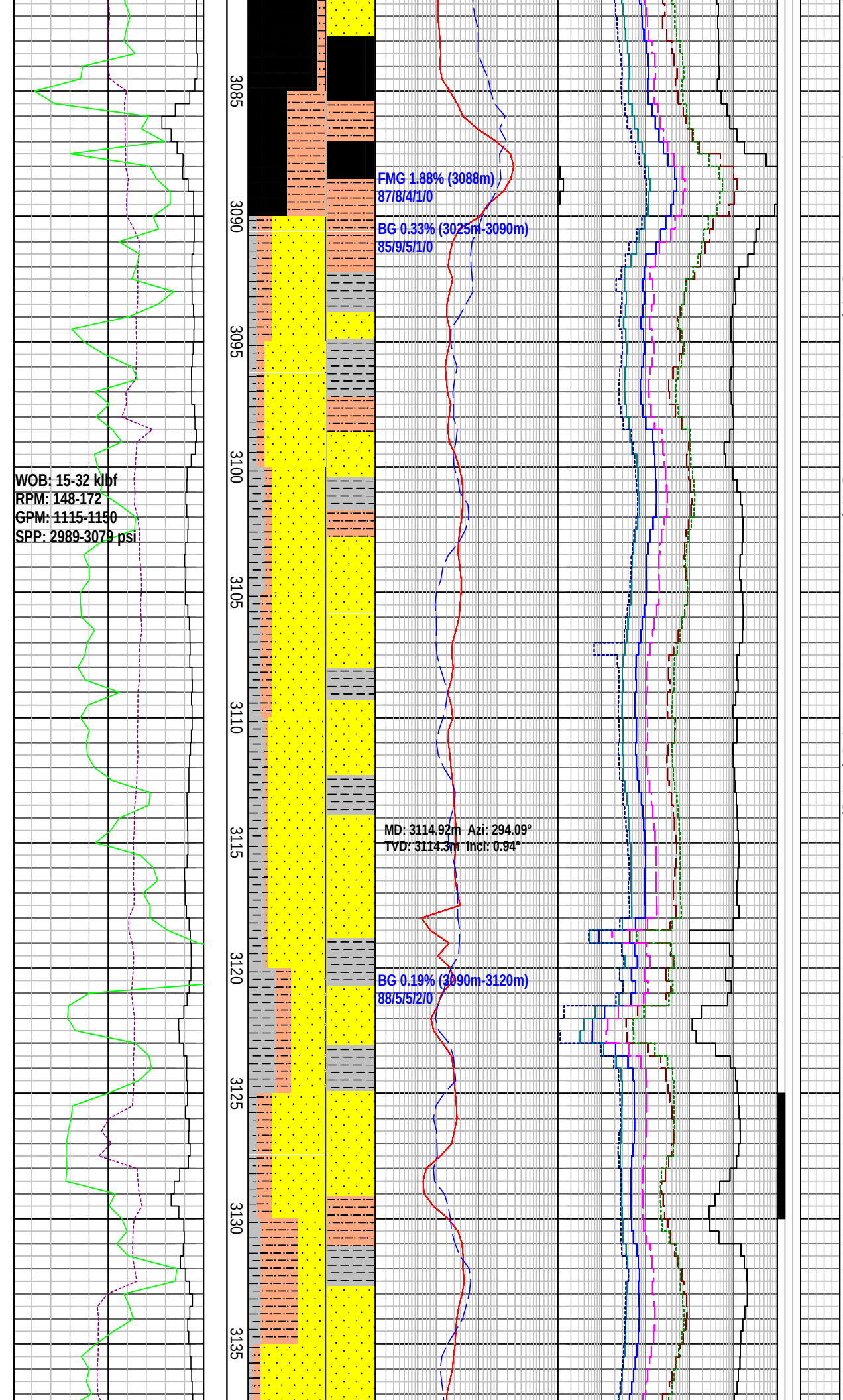
SILTSTONE: dk brn-brn blk, frm-hd blky, argi to carb, n calc, tr c seg, mnr pyr

SANDSTONE: wh-pl gy agg, v f-f, wl srt sbrndd qtz gr, tr fspr, tr musc flks, tr pyr cry, with mnr wh-pl gy m sst agg, wl srt, sbang-sbrndd carb mtrx, mod to hd Dol cmt, tr coal

SHOWS (3065m-3070m): 5% v dull grsh yel pinpoint fluor in f sst v slow blooming v dull bl wh cut fluor,thin dull bl wh fluor residual ring, nil vis residue

MW: 10.0 ppg	FV: 48
PV: 19	YP:36
Gels: 12/21/26	pH: 9.0

COAL : blk, frm-hd, brt bndd, conc-planar frac



conc planar frac

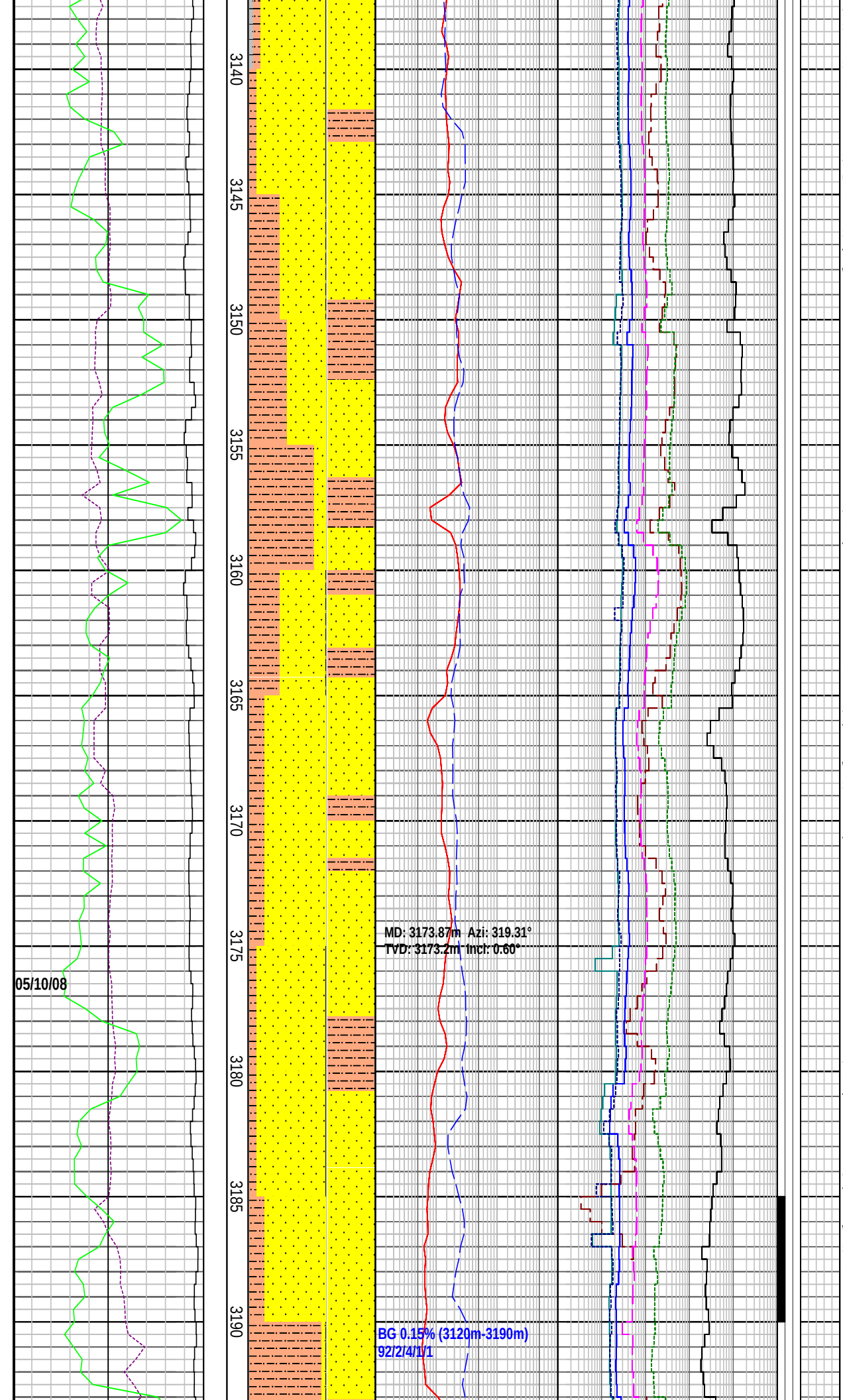
SILTSTONE: dk brn-brn blk, frm-hd, blky, argi to carb, n calc, tr c seg, mnr pyr

CLAYSTONE: lt-m gy, mod sft, sbblky-blky, sli sil, tr mic flks, tr carb flks, mod calc

CLAYSTONE: lt-m gy, mod sft, sbblky-blky, sli sil, tr mic flks, tr carb flks, mod calc

SANDSTONE: lse f-granule dom crs (upper) mod srt sbrndd qtz gr, tr flds, tr musc flks, tr pyr cry, wh-pl gy f-m sst agg, wl srt, sbang-sbrndd qtz in com slty carb mtrx, tr pyr cmt
tr carb frag, pr vis por, mnr sft wh rock flour inf to be sst, tr coal

SHOWS (3125m-3130m):tr v dull grsh yel pinpoint fluor in f sltst v slow blooming v dull bl wh cut fluor, thin mod brt bl wh fluor residual ring, nil vis residue



SANDSTONE:lse f-granule dom crs pr srt sbang qtz gr, tr flds, tr musc flks, rr wh-pl gy f-m sst agg, mod srtd, subang-sbrndd qtz in com slty carb mtrx, mod sil cmt

SANDSTONE:lse f-granule dom crs (lower) pr srt sbang qtz gr, tr flds, tr musc flks, rr wh-pl gy f-m sst agg, mod srtd, subang-sbrndd qtz in com slty carb mtrx, mod sil cmt, fri-fr tr carb frag, pr vis por, mod abund sft wh rock flour inf- from sst, tr coal.

SILTSTONE: dk brn-brnsh blk, frm-hd, blky, arg-carb, tr v f sd i/p, tr coal frag, tr pyr clay

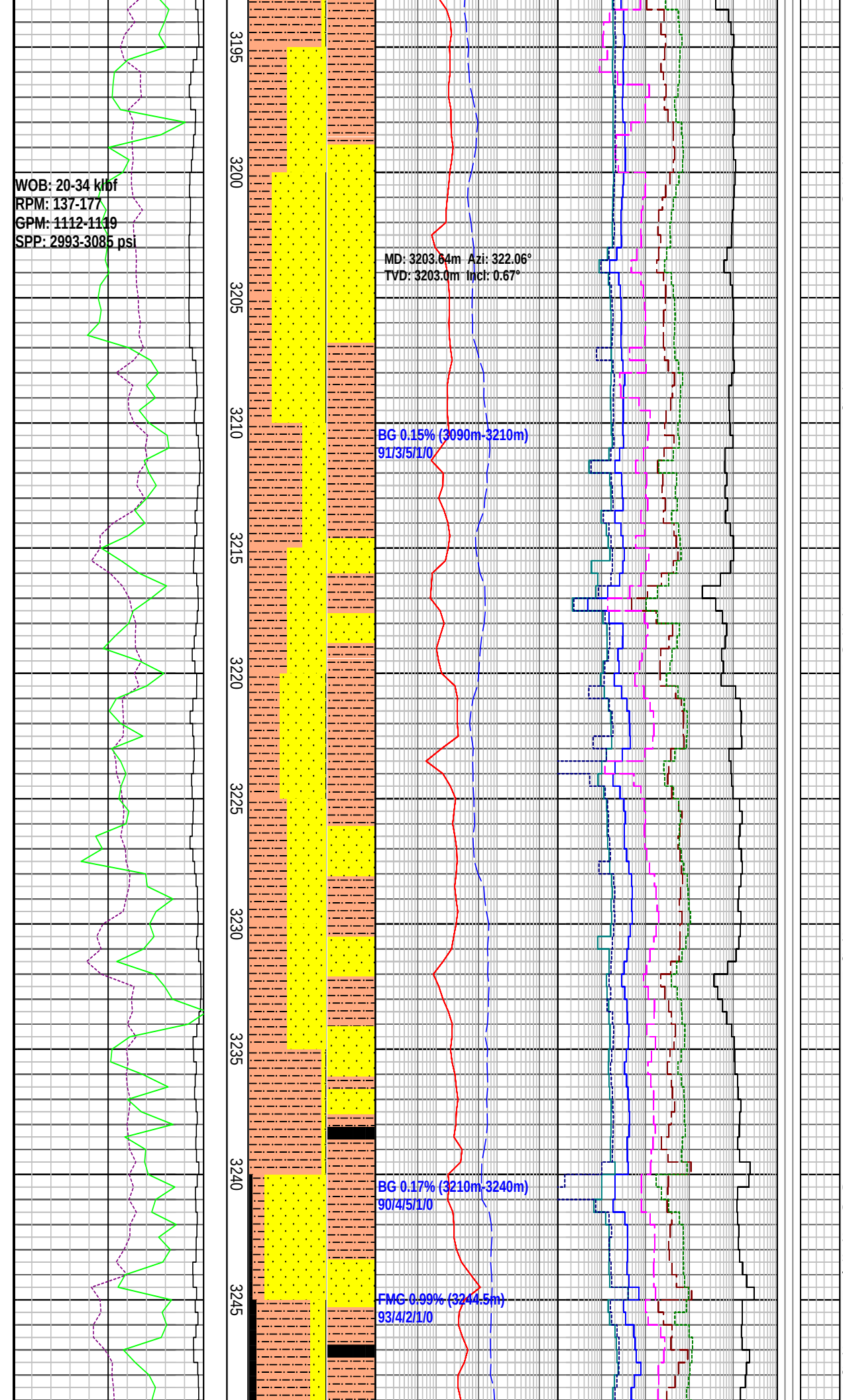
MW: 10.0 ppg	FV: 49
PV: 19	YP:39
Gels: 14/23/29	pH: 9.0

SANDSTONE:wh-lt gy, m gy, lse f-granule dom crs (lower) pr srt sbang qtz gr, tr crs gr, tr flds, tr musc flks, rr wh-pl gy f-m sst agg, mod srtd, subang-sbrndd qtz in com slty carb mtrx, mod sil cmt, fri-frm, tr carb frag, pr vis por, mod abund sft wh rock flour inf- from sst, tr coal.

MW: 10.0 ppg	FV: 48
PV: 16	YP:40
Gels: 20/26/30	pH: 8.5

SILTSTONE: dk brn-brnsh blk, frm-hd, blky, arg-carb, tr v f sd i/p, tr coal frag, tr pyr clay

SANDSTONE:wh-lt gy, m gy, lse f-granule dom crs (lower) pr srt sbang qtz gr, tr crs gr, tr flds, tr musc flks, rr wh-pl gy f-m sst agg, mod srtd, sbang-sbrndd qtz in com slty carb mtrx, mod sil cmt, fri-frm, tr carb frag, pr vis por, mod abnd sft wh rock flour inf- from sst, tr coal.



SHOWS (3185m-3190m): tr brt grsh yel pinpoint fluor in f sltst slow blooming mod brt bl wh cut fluor, wide mod brt bl wh fluor residual ring, v pl yel vis residue

SANDSTONE:pl gy-wh, lse f-m sd, wl srt,sbang-sbrndd qtz, tr fspr, tr mic, tr coaly frag, frm-hd agg, with slty mtrx

SILTSTONE: dk brn gy, frm-hd, blky, arg-carb, tr v f sd, tr carb frag, mnr-com pyr clay

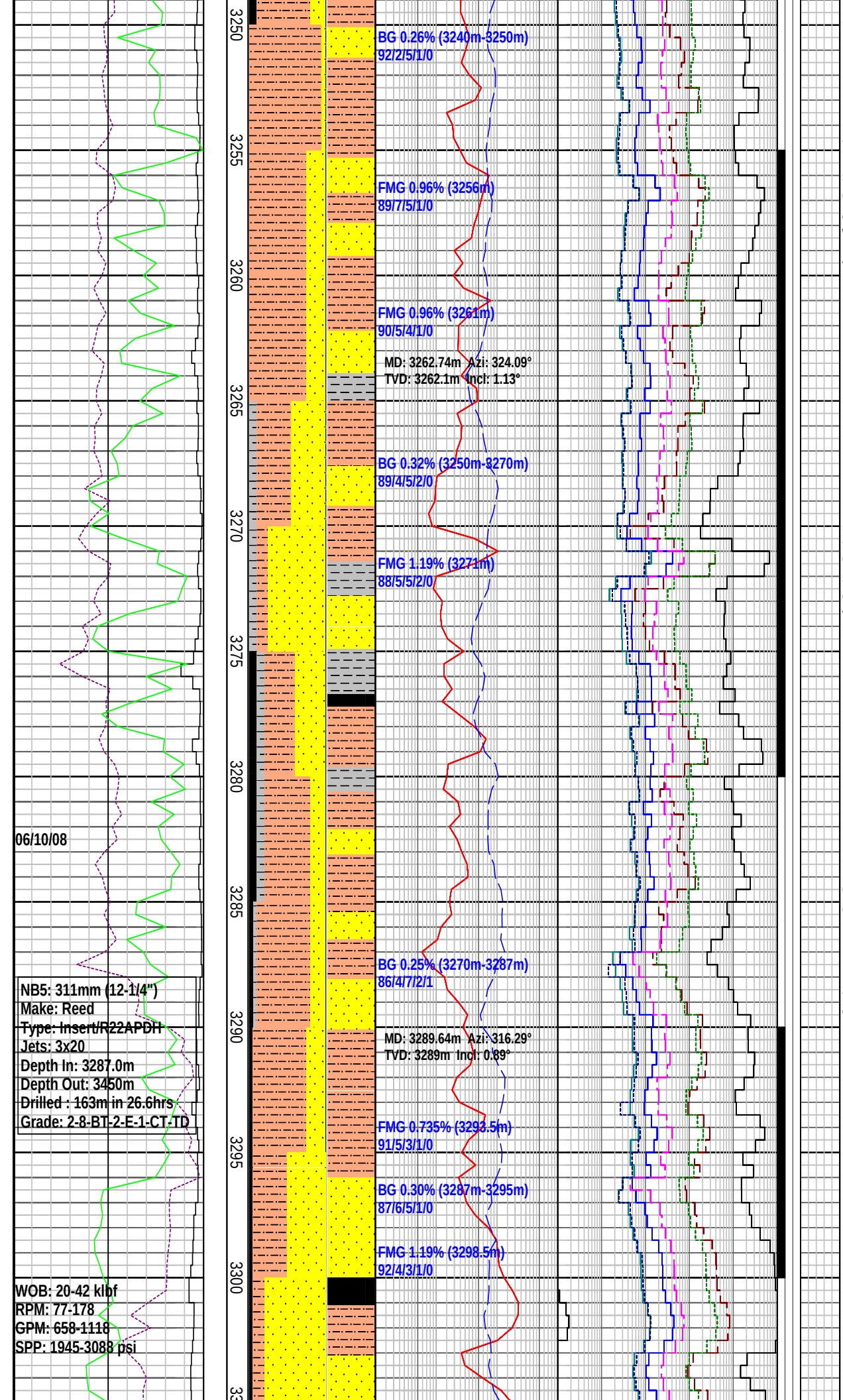
SANDSTONE:pl gy-wh, lse f-m sd, wl srt,sbang-sbrndd qtz, tr fspr, tr mic, tr coaly frag, frm-hd agg, with slty mtrx, mod sil cmt, tr pyr

SILTSTONE: dk brn gy, frm-hd, blky, arg-carb, tr v f sd, tr carb frag, mnr-com pyr clay

COAL : blk, frm-hd, brt bndd, conc-planar frac

SANDSTONE:pl gy-wh, lse f-m sd, wl srt,sbang-sbrndd qtz, tr felds, tr mic, tr coaly frag, frm-hd agg, with slty mtrx, mod sil cmt, tr pyr, tr titanite

SILTSTONE: dk brn gy, frm-hd, blky, arg-carb, tr v f sd, tr carb frag, mnr-com pyr clay



MW: 10.0 ppg FV: 48
PV: 16 YP:43
Gels: 14/26/30 pH: 8.5

SANDSTONE:pl gy-wh lse f-crs, dom m lower sand, mod-wl srt, sbang-sbrndd qtz, tr fspr, tr mic, tr coaly frag, mod abund frm-hd m sand agg with slty mtrx, mod sil cmt, mnr wh-pl gy
rock flour interpreted to be derived from sst

SHOWS (3255m-3265m): mod brt gn-yel associated with m sst, slow-mod fast blooming, dull-mod brt bl-wh cut with wide faint bl-wh residual ring

SHOWS (3265m-3270m): tr mod brt gn-yel associated with wh gn rock fluor (sst), v slow to mod slow blooming bl wh cut flour.Dull and patchy bl wh residual ring

SANDSTONE:pl gy-wh lse v f-crs, dom m lower sand, mod-wl srt, sbang-sbrndd qtz, tr fspr, tr mic, tr coaly frag, tr qtz granules, mod abund frm-hd m sand agg with slty mtrx, mod sil cmt, mnr wh-pl gy rock flour interpreted to be derived from sst

SHOWS (3270m-3280m): 5% mod brt gn-yel associated with cmt m sst, slow-mod fast blooming mod brt bl wh bl cut flour, wide patchy mod brt bl wh residual ring

MW: 10.0 ppg FV: 52
PV: 13 YP:40
Gels: 21/26/29 pH: 8.5

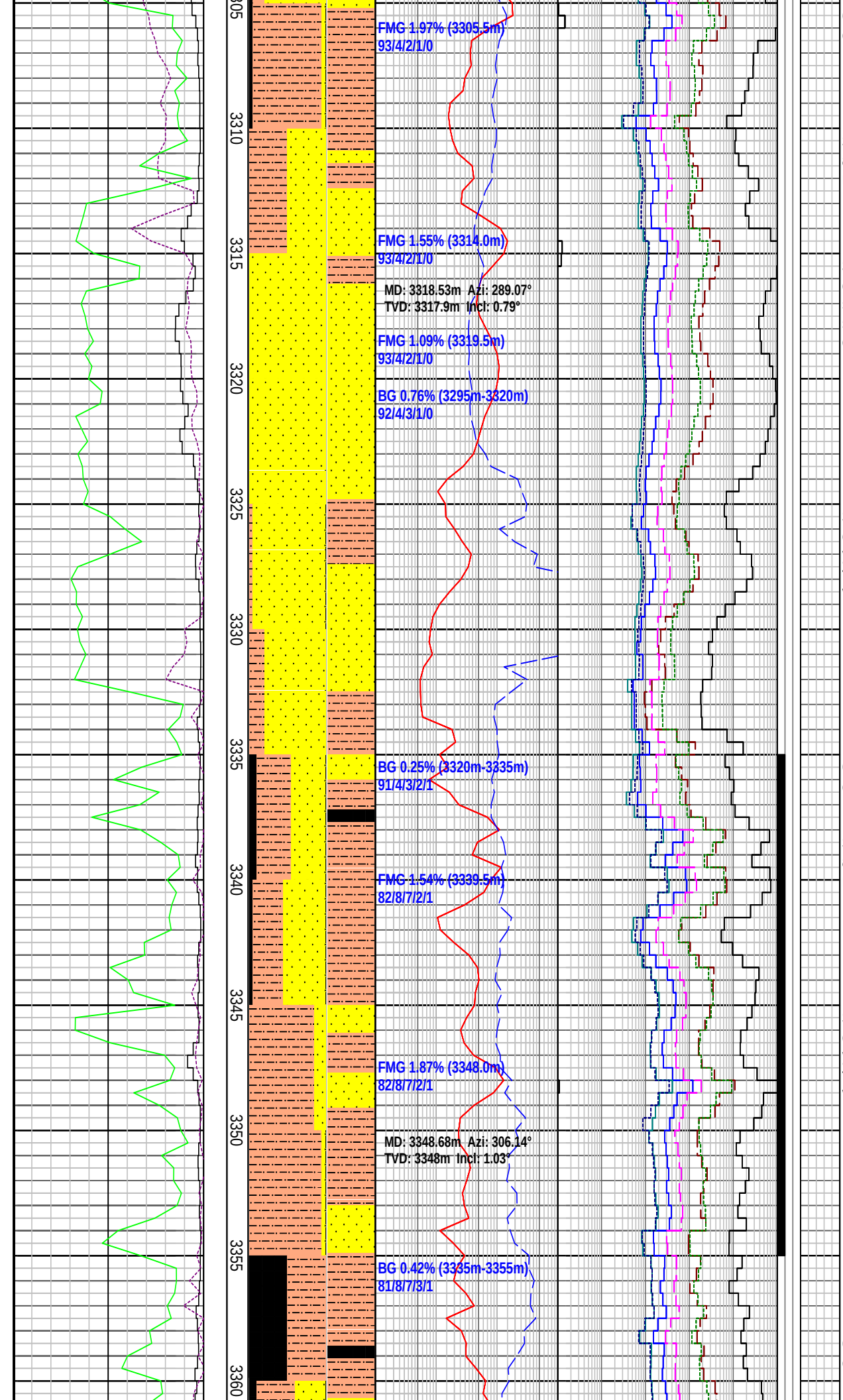
COAL : blk, frm-hd, brt bndd, conc-planar frac

Bit Trip @3287.0m

SILTSTONE: dk brn gy, frm-hd, blky, arg-carb, tr v f sd, tr carb frag, mnr-com pyr clay

SHOWS (3288m-3295m): tr- 2% dull gnsh yel pinpoint fluor in f sst, mod fast streaming brt bl wh cut fluor, wide brt bl-wh fluor residual ring, no vis residue

SHOWS (3295m-3300m): 5% dull brt gn-yel associated with cmt m sst, nil cut flour



COAL : blk, frm-hd, brt bndd, conc-planar frac

SILTSTONE: dk brn gy, frm-hd, blky, arg-carb, tr v f sd, tr carb frag, mnr-com pyr clay

SANDSTONE: wh-lt gy-wh, frm-hd wl cmt, dom m u sand, mod-wl srt, sbang-sbrndd qtz, tr fspr, tr mic, sli sil, tr qtz granules, clr-wh sil cmt, tr carb gran, tr intgran pyr, pr vis p

SANDSTONE: wh-lt gy-wh, lse, m - crs, m-gran crs sd u,5%-10% dusky yel, pr-mod srt, sbang-sbrndd qtz, tr fspr, tr qtz granules, tr carb gran, pr vis por

MW: 10.0 ppg	FV: 48
PV: 15	YP:40
Gels: 16/24/29	pH: 8.5

COAL : blk, frm-hd, brt bndd, conc-planar frac

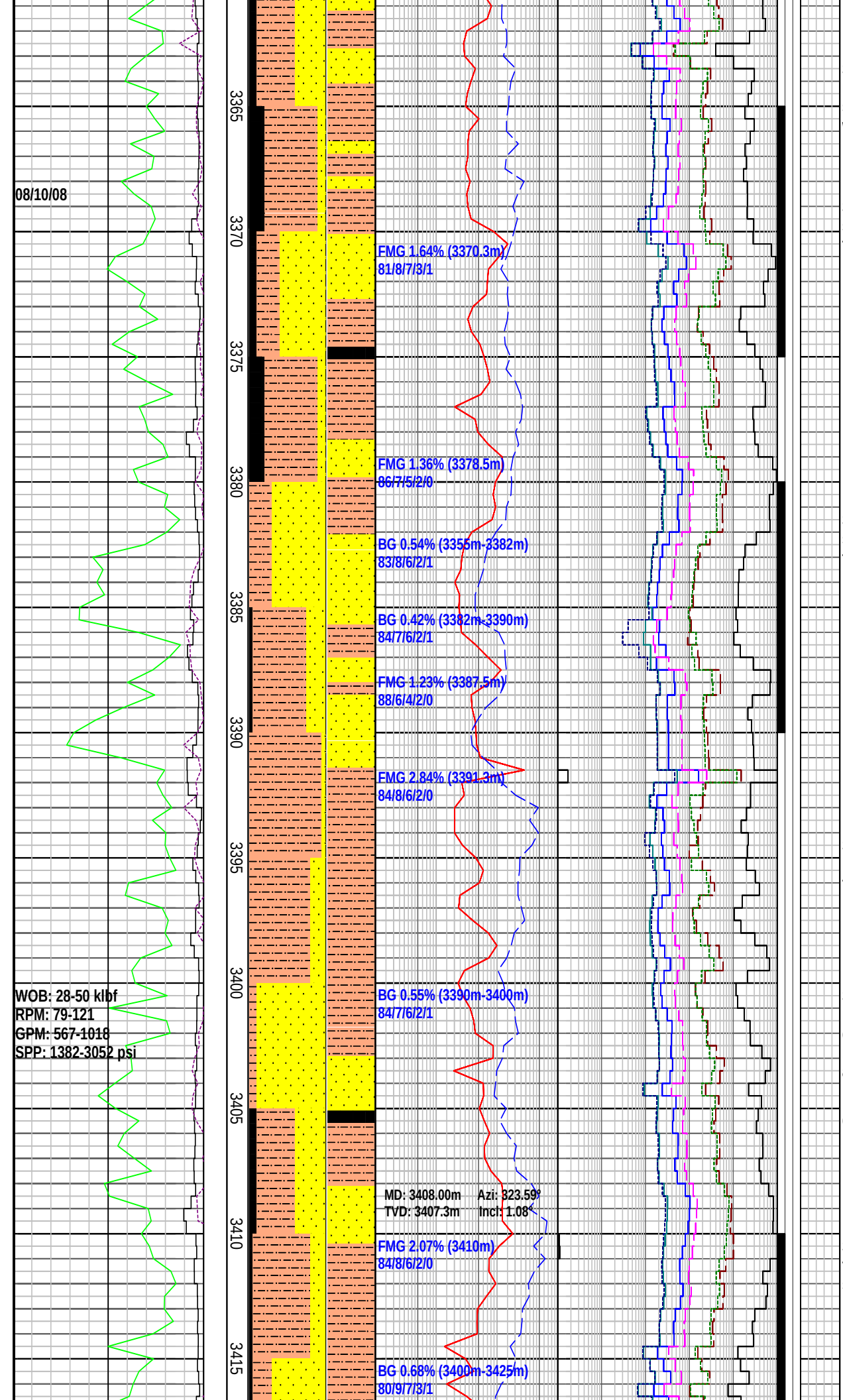
SILTSTONE: dk brn gy, frm-hd, blky, arg-carb, tr v f sd, tr carb frag, mnr-com pyr clay

MW: 10.0 ppg	FV: 49
PV: 13	YP:40
Gels: 21/26/29	pH: 8.5

SANDSTONE: wh-lt gy-wh, lse, m - crs, m-gran crs sd u,5%-10% dusky yel, pr-mod srt, sbang-sbrndd qtz, tr fspr, tr qtz granules, tr carb gran, pr vis por

SHOWS (3310m-3355m): Tr - 2% dull yel-gn pinpoint fluor associated with wl cmt m sst, v slow blooming dull bl-wh cut fluor dull faint bl-wh fluor residual ring, no vis residue

COAL : dk gy-blk, frm-hd, dirty, conc-planar frac



SANDSTONE: wh-lt gy, lse, m - crs, m-gran crs sd, pr-mod srt, sbang-sbrndd qtz, tr fspr, tr carb gr, wlky sil cmt, tr pyr nod, pr vis por

SANDSTONE: yelsh gy, lse, f-m lower sand, mod srt, frm-hd, sbang-sbrndd, tr carb frag, sil cmt agg, pr vis por

SHOWS (3365m-3375m): Tr - 2% dull yel-gn pinpoint fluor associated with wl cmt m sst, v slow blooming dull bl-wh cut fluor dull faint bl-wh fluor residual ring, no vis residue

SANDSTONE: yelsh gy, lse, f-m lower sand, mod srt, frm-hd, sbang-sbrndd, tr carb frag, sil cmt agg, pr vis por

SHOWS (3380m-3390m):Tr dull-brt gnsh wh live oil fluor on m sst,v fast streaming brt bl gn cut fluor,wide dull gn fluor residual ring, no vis residue
Also at 3295m, 3340m, 3355m, 3370m

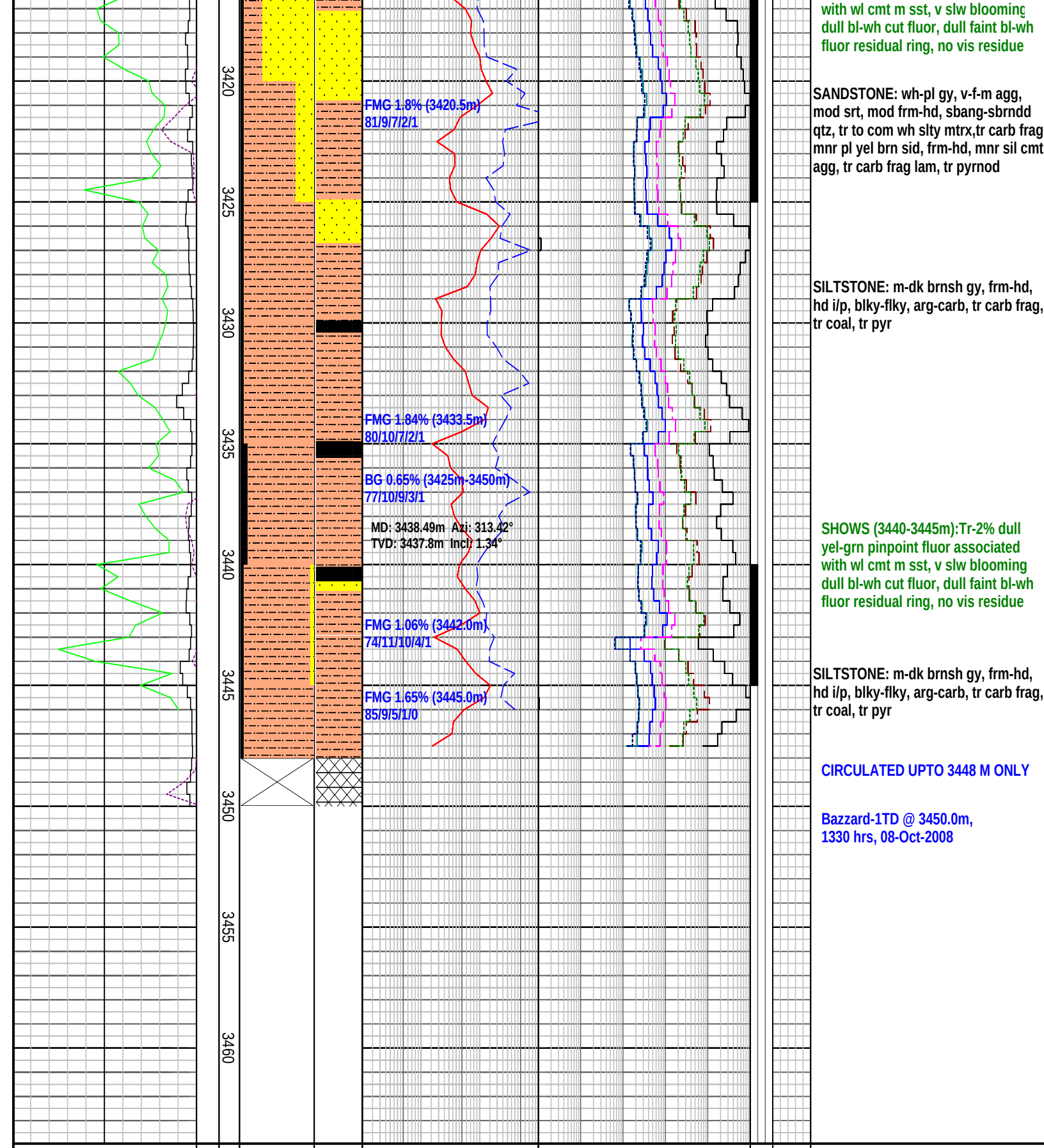
SILTSTONE: m-dk brnsh gy, frm-hd, blky-flky, arg-carb, tr v f sd, tr carb frag, tr pyr

SANDSTONE: wh-pl gy, v-f-m agg, mod srt, mod frm-hd, sbang-sbrndd qtz, tr to com wh slty mtrx,tr carb frag mnr pl yel brn sid, frm-hd, mnr sil cmt agg, tr carb frag lam,pr vis por

COAL : blk, dull and dirty

SILTSTONE: m-dk gy, gr-brnsh gy, frm-hd, blky-flky, arg, grdg to hd v f sst i/p, tr carb frag

SHOWS (3410-3425m):Tr-2% dull yel-grn pinpoint fluor associated



FORMATION EVALUATION LOG

Drilling Rate
ROP (m/hr)
200 | 160 | 120 | 80 | 40
WEIGHT ON BIT (klbf)
10 | 20 | 30 | 40 | 50
ROP Backup (m/hr)
400 | 360 | 320 | 280 | 240
Gamma Ray
0 200

CORE

MD meters 1:200

LITHOLOGY %

INTERPRETED LITHOLOGY

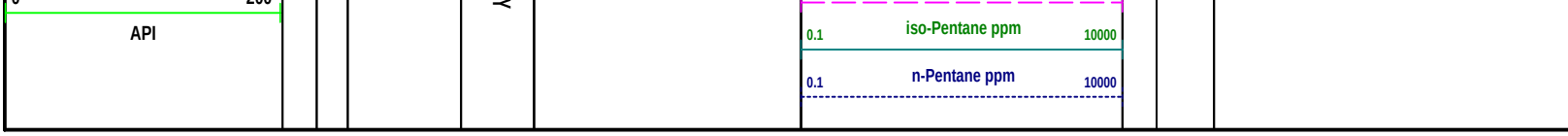
TOTAL GAS & RESISTIVITY
Total Gas %
0.1 | 1 | 10
Resistivity Deep
0.2 200
ohm.m

CHROMATOGRAPH
0.1 Methane ppm 10000
0.1 Ethane ppm 10000
0.1 Propane ppm 10000
0.1 iso-Butane ppm 10000
0.1 n-Butane ppm 10000

Oil Show
P F G

Calcimetry
CaCO3 %
0 100
MgCO3 %
100 0

Lithology Description


0
200
API
0.1
iso-Pentane ppm
10000
0.1
n-Pentane ppm
10000