



P.O. Box 51297
513 Hilltop Rd. Suite #5
Billings, MT 59105
(406)259-4124
(406)252-4252 fax
geology@sunburstconsulting.com
www.sunburstconsulting.com

GEOSTEERING LOG

WellSight Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Turoczy #511491
Location: Rosemount 7.5' Quad, Booths Creek District, Taylor County, WV
License Number: 47-091-01210
Spud Date: 01 March 2011
Surface Coordinates: Latitude: 39.31612 N
Longitude: 80.16288 W
Bottom Hole Coordinates: 4,298.99 North
1,593.28 West of surface location
Ground Elevation (ft): 1420 K.B. Elevation (ft): 1442
Logged Interval (ft): 7000 To: 12564 Total Depth (ft): 12564
Formation: Middlesex through Marcellus
Type of Drilling Fluid: Water based mud
Region: Appalachian Basin
Drilling Completed: 15 March 2011
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.co




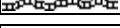
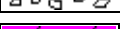

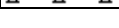
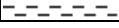








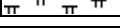

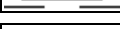
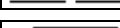
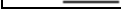



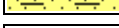

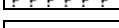
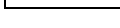
OPERATOR

Company: EQT Production Company
Address: EQT Plaza
625 Liberty Ave.
Pittsburgh, PA 15222








































































GEOLOGISTS

Name: Grigory Burton, Phillip Broache, Nick Masi
Company: Sunburst Consulting, Inc.
Address: P.O. Box 51297, 513 Hilltop Rd. Suite #5, Billings, MT 59105; (406) 259-4124;
 geology@sunburstconsulting.com;
 www.sunburstconsulting.com

ROCK TYPES

 Anhy  Arg dol  Arg ls  Bent  Brec  Calc dol  Cht	 Clyst  Coal  Congl  Dol  Dol ls  Gyp  Igne	 Ls  Meta  Mrlst  Salt  Shale  Shblk  Schol	 Shgy  Sltst  Ss  Sssilty  Tuff  Unknown  Blank
--	--	--	--

ACCESSORIES

FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite  Ostra  Pelec  Pellet  Pisolite	 Plant  Strom MINERAL  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau  Gyp	 Hvymn  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff STRINGER  Anhy  Arg  Bent  Coal  Dol	 Gyp  Ls  Mrst  Sltstrg  Ssstrg TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
---	---	--	--

OTHER SYMBOLS

INTERVALS

- None
- Core
- Dst

EVENTS

- Rft
- Sidewall
- Bit change

OIL SHOWS

- Even
- Spotted
- Ques
- Dead

POROSITY TYPE

- Earthy
- Fenest

- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

ROUNDING

- Rounded

- Subrnd
- Subang
- Angular

SORTING

- Well
- Moderate
- Poor

COMMENTS

COMPANY MAN: Ken Baun
TOOLPUSHER: Michael Case
RIG: Patterson-UTI 622

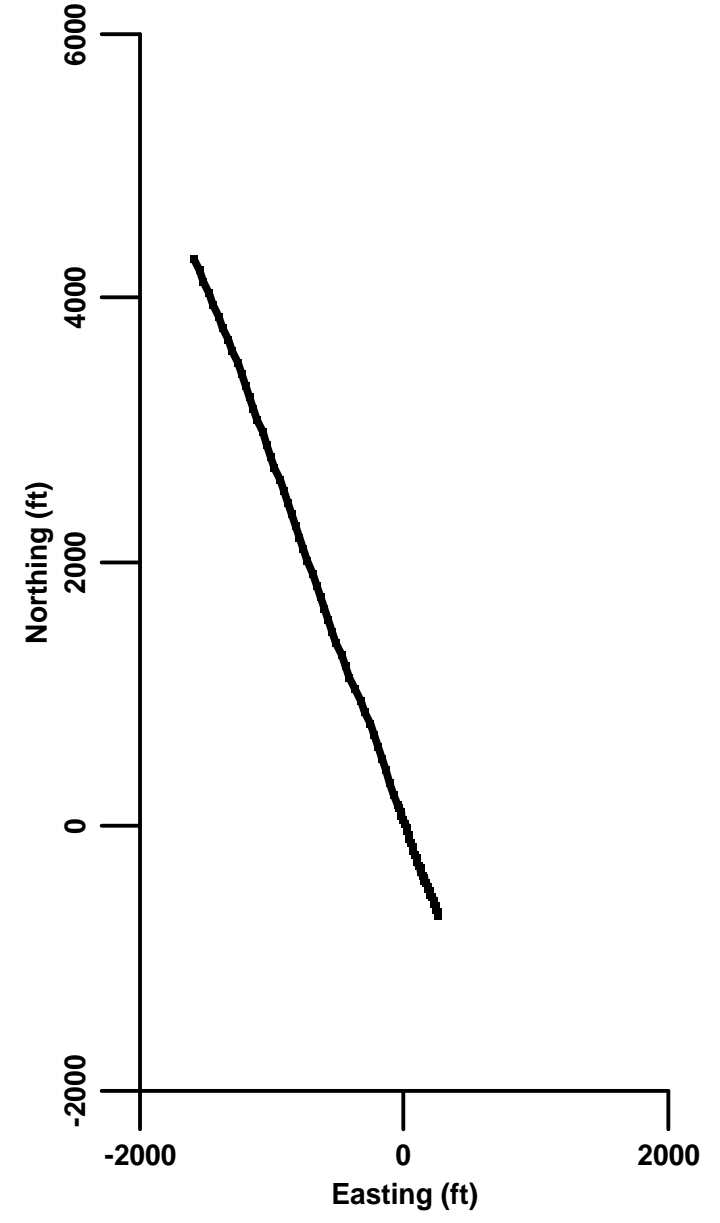
WV FILE #: 7020P511491

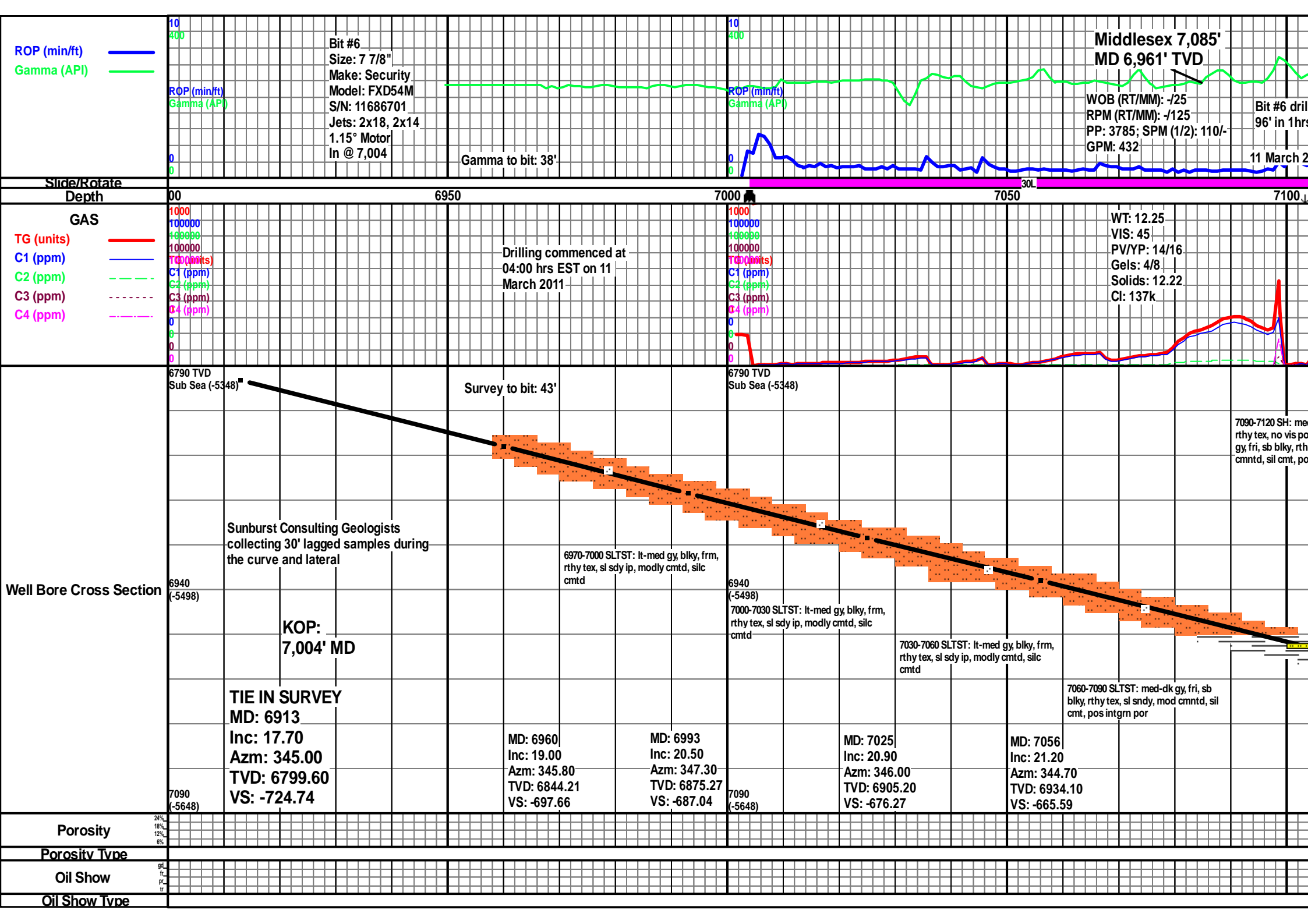
SURFACE CASING: 13 3/8", 54.5#, 22 JOINTS, SET @ 930'
INTERMEDIATE CASING: 9 5/8". 40.0#, 60 JOINTS, SET @ 2,522'

KOP: 7,047' MD

CLOSURE DIRECTION:
CLOSURE DISTANCE:

Plan





ROP (min/ft) — Blue line
Gamma (API) — Green line

Bit #6
Size: 7 7/8"
Make: Security
Model: FXD54M
S/N: 11686701
Jets: 2x18, 2x14
1.15° Motor
In @ 7,004

Middlesex 7,085'
MD 6,961' TVD

WOB (RT/MM): -125
RPM (RT/MM): -125
PP: 3785; SPM (1/2): 110/-
GPM: 432

Bit #6 drill
96' in 1hr
11 March 2

Gamma to bit: 38'

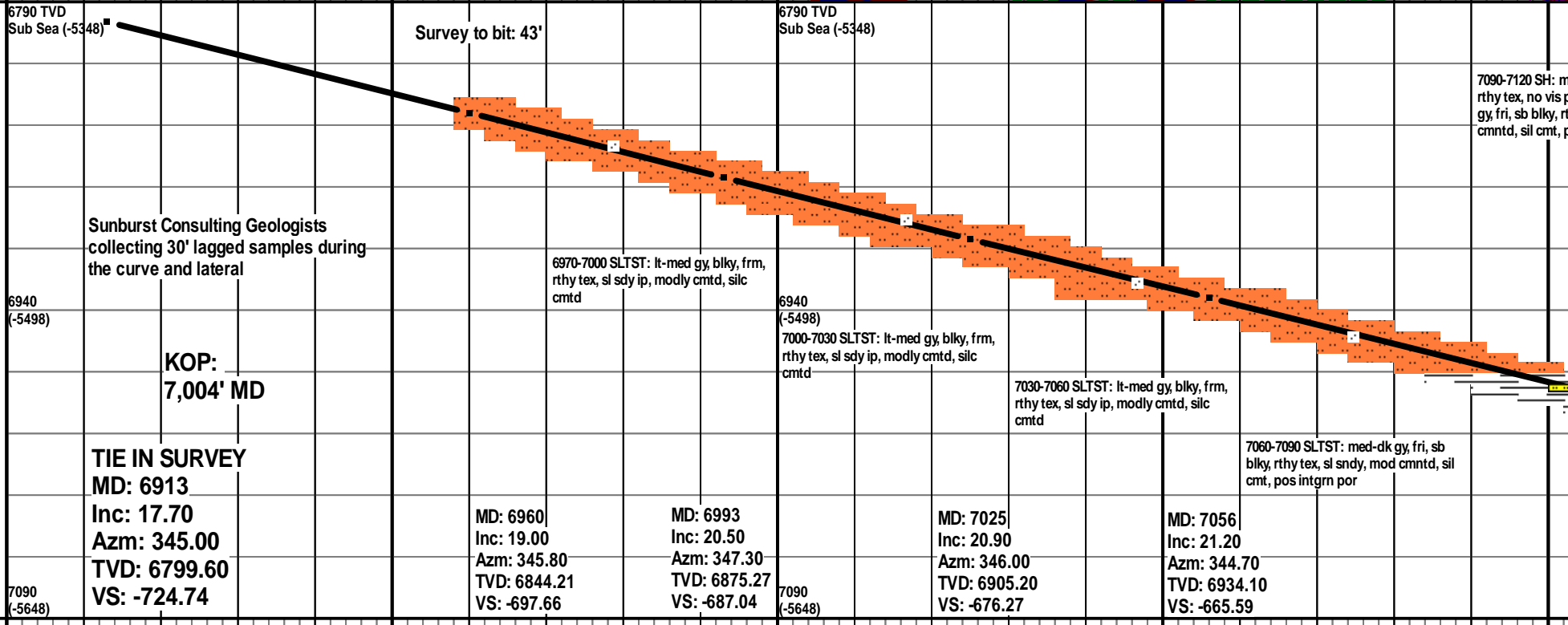
Slide/Rotate
Depth

GAS
TG (units) — Red line
C1 (ppm) — Blue line
C2 (ppm) — Green line
C3 (ppm) — Dashed line
C4 (ppm) — Purple line

Drilling commenced at
04:00 hrs EST on 11
March 2011

WT: 12.25
VIS: 45
PV/YP: 14/16
Gels: 4/8
Solids: 12.22
Cl: 137k

Well Bore Cross Section



Sunburst Consulting Geologists
collecting 30' lagged samples during
the curve and lateral

Survey to bit: 43'

KOP:
7,004' MD

TIE IN SURVEY
MD: 6913
Inc: 17.70
Azm: 345.00
TVD: 6799.60
VS: -724.74

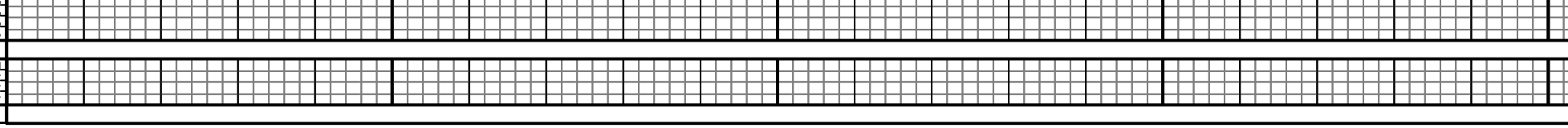
MD: 6960
Inc: 19.00
Azm: 345.80
TVD: 6844.21
VS: -697.66

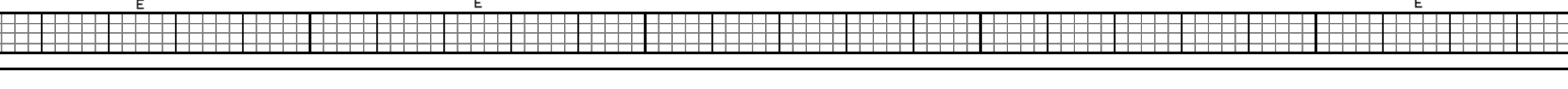
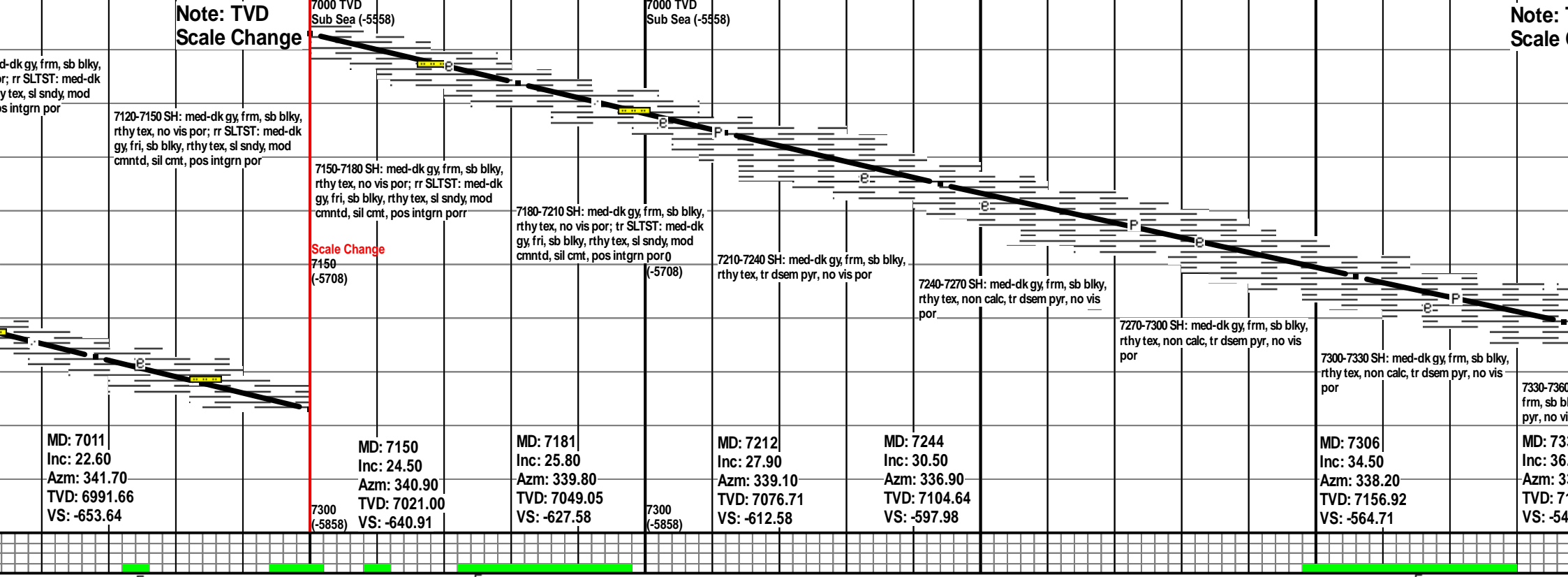
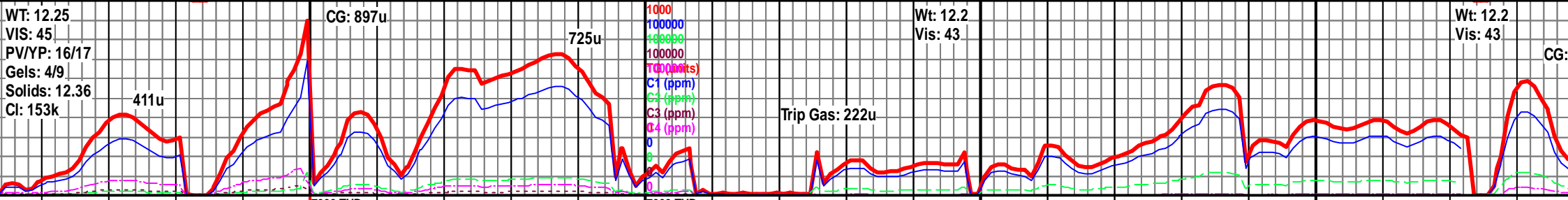
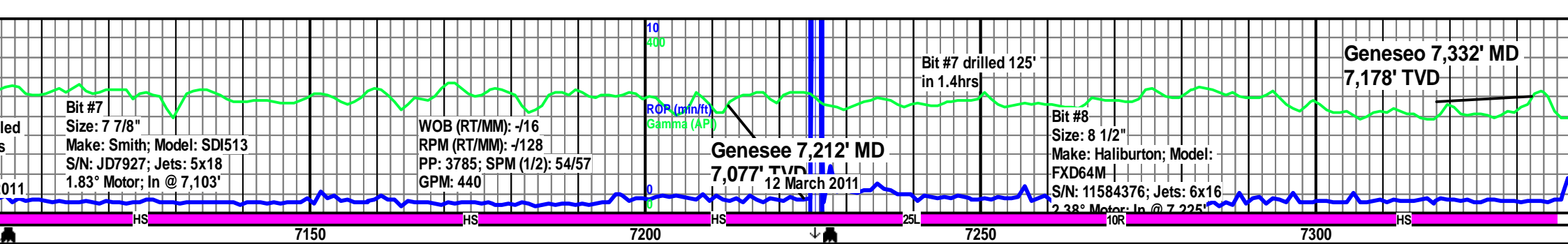
MD: 6993
Inc: 20.50
Azm: 347.30
TVD: 6875.27
VS: -687.04

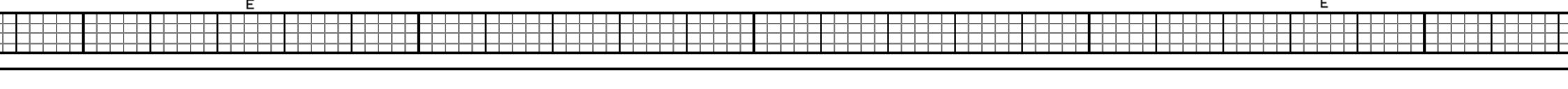
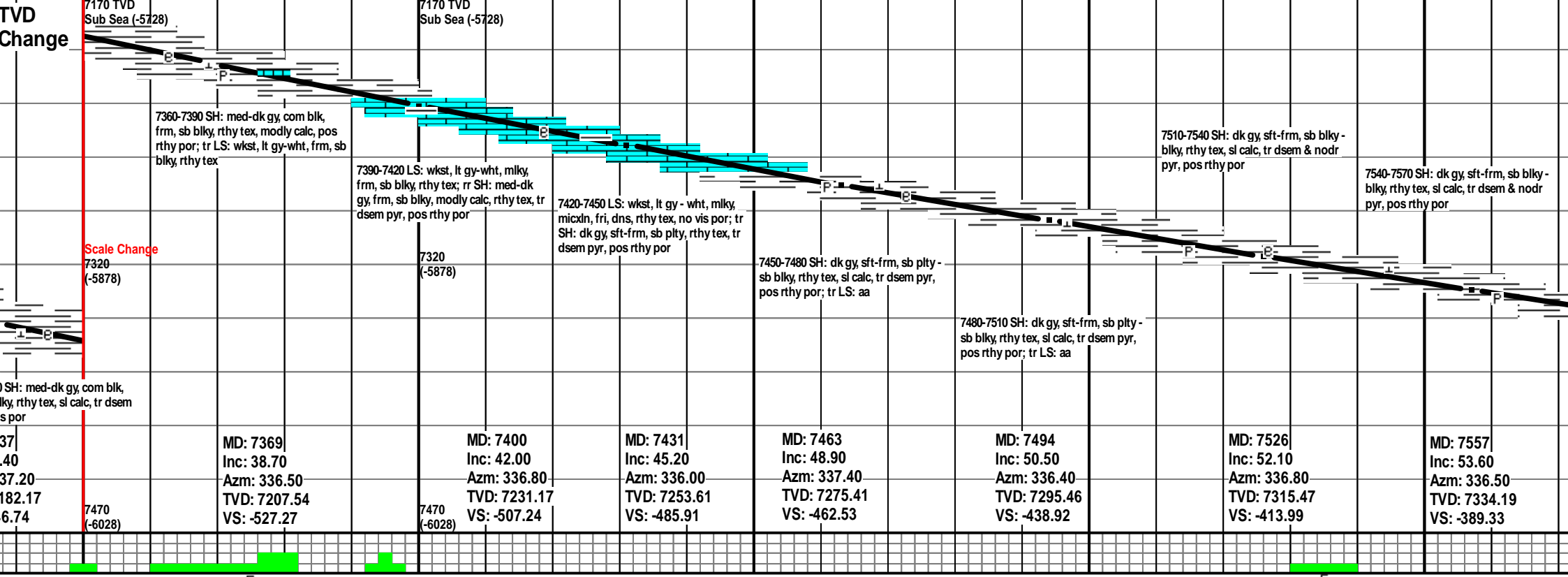
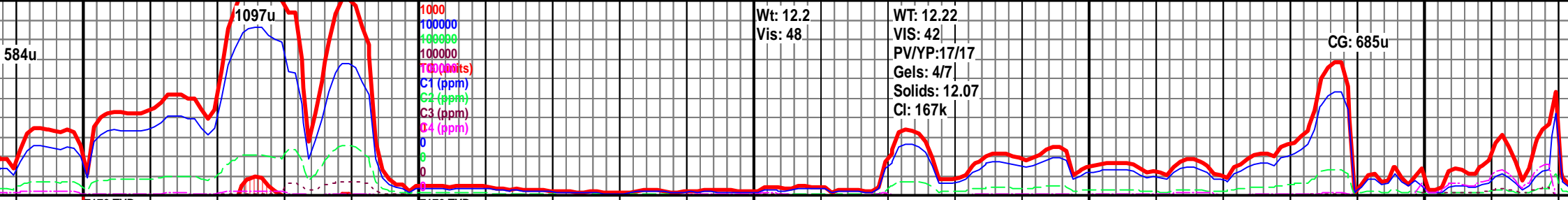
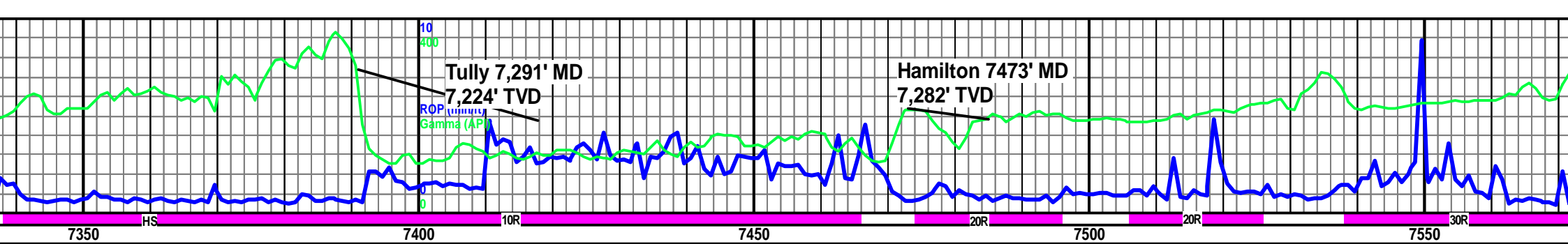
MD: 7025
Inc: 20.90
Azm: 346.00
TVD: 6905.20
VS: -676.27

MD: 7056
Inc: 21.20
Azm: 344.70
TVD: 6934.10
VS: -665.59

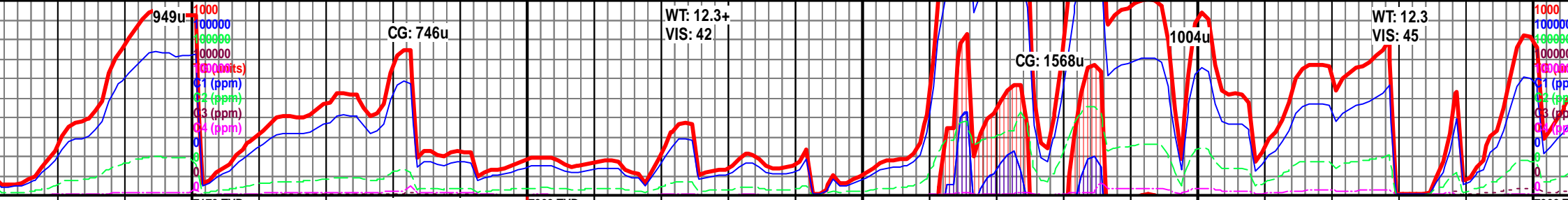
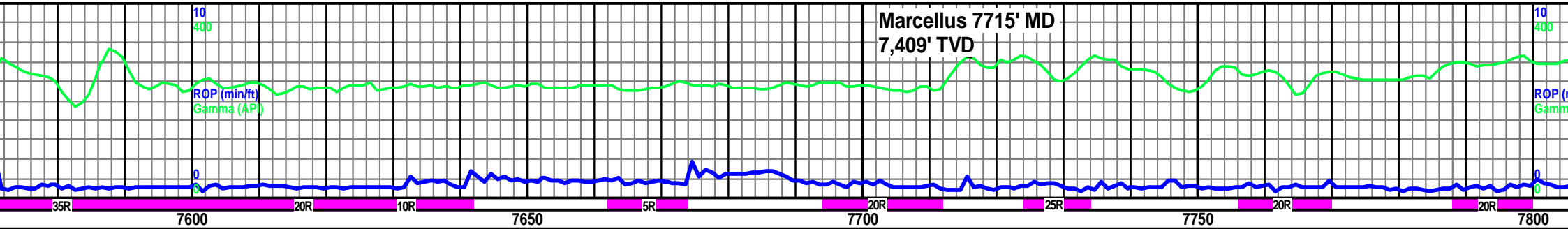
Porosity
Porosity Type
Oil Show
Oil Show Type



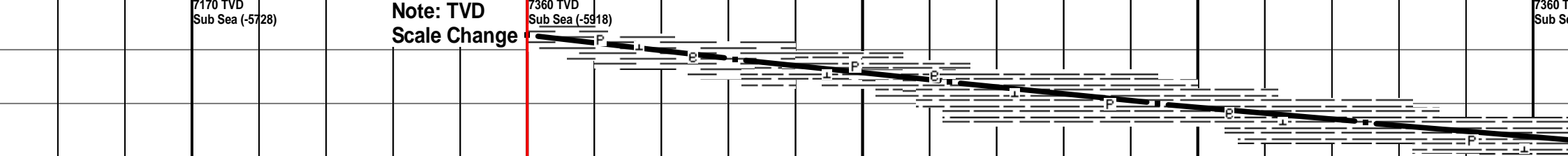




**Marcellus 7715' MD
7,409' TVD**



**Note: TVD
Scale Change**



7570-7600 SH: dk gy, tr blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7600-7630 SH: dk gy, tr blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7630-7660 SH: dk gy, tr blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7660-7690 SH: dk gy-blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7690-7720 SH: dk gy-blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7720-7750 SH: dk gy-blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7750-7780 SH: dk gy-blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
 7780-7810 SH: dk gy-blk, sft-frm, sb blkly - blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por

MD: 7587
Inc: 57.50
Azm: 338.60
TVD: 7351.16
VS: -364.62

MD: 7619
Inc: 61.80
Azm: 339.10
TVD: 7367.32
VS: -337.01

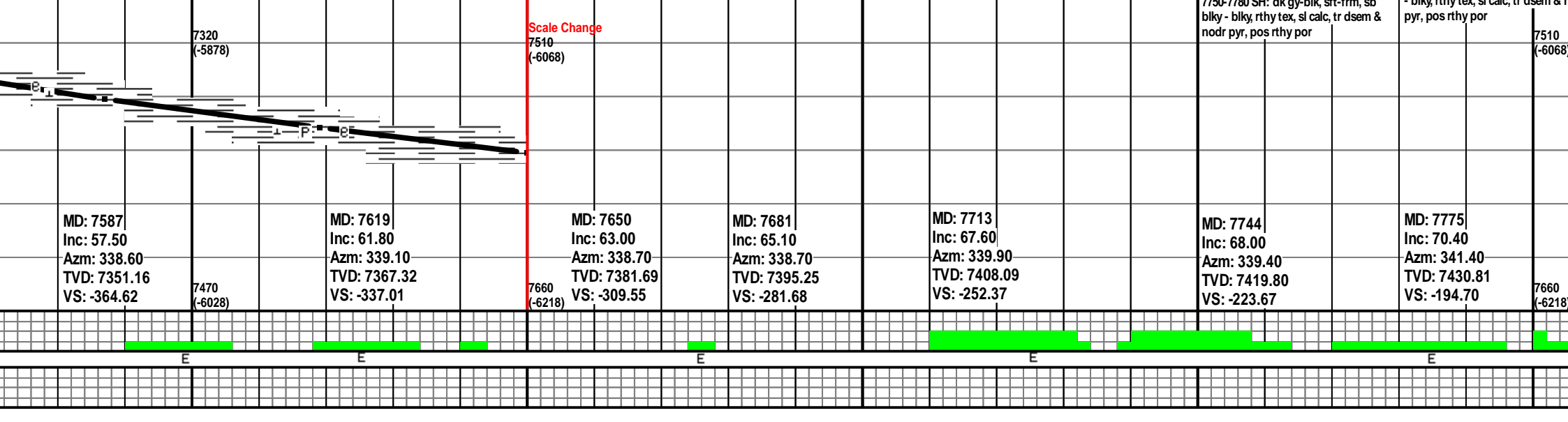
MD: 7650
Inc: 63.00
Azm: 338.70
TVD: 7381.69
VS: -309.55

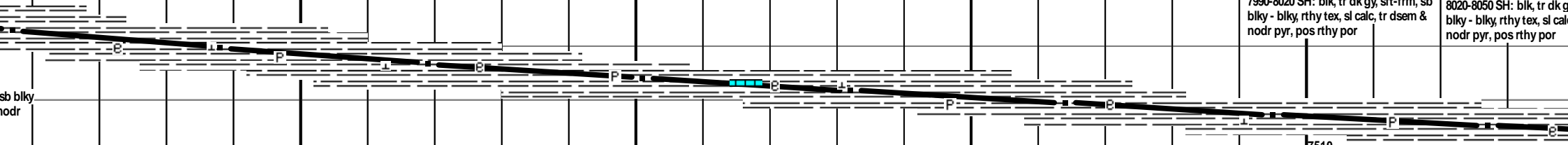
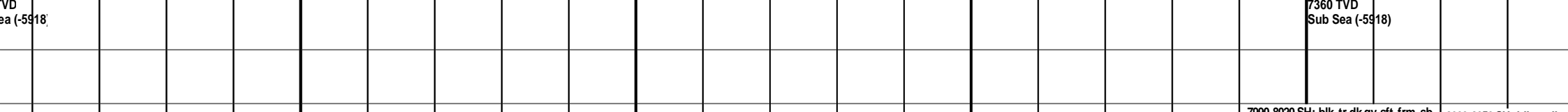
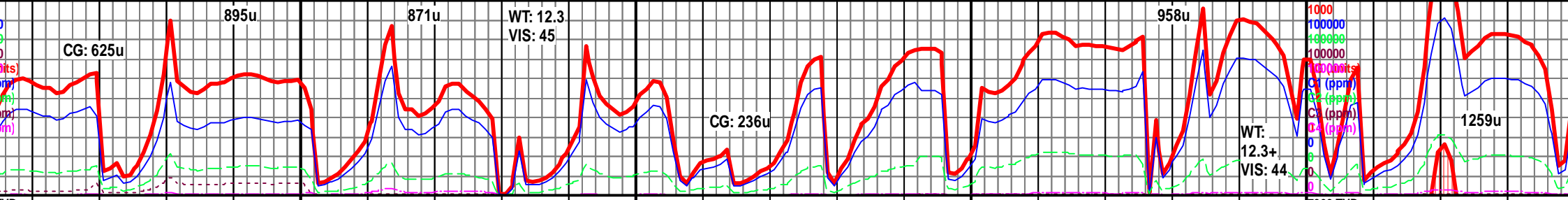
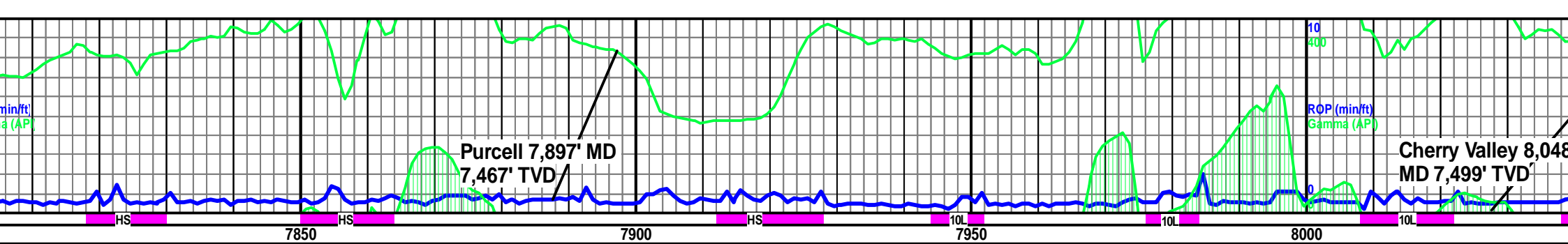
MD: 7681
Inc: 65.10
Azm: 338.70
TVD: 7395.25
VS: -281.68

MD: 7713
Inc: 67.60
Azm: 339.90
TVD: 7408.09
VS: -252.37

MD: 7744
Inc: 68.00
Azm: 339.40
TVD: 7419.80
VS: -223.67

MD: 7775
Inc: 70.40
Azm: 341.40
TVD: 7430.81
VS: -194.70





7810-7840 SH: dk gy-blk, sft frm, sb blk - blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por

7840-7870 SH: blk, tr dk gy, sft frm, sb blk - blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por

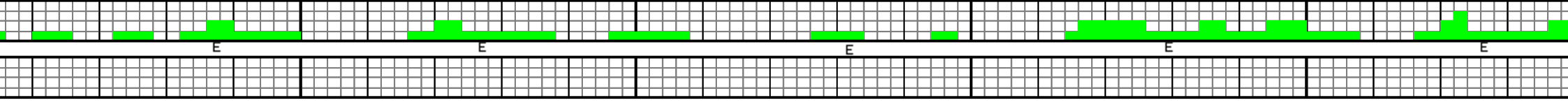
7870-7900 SH: blk, tr dk gy, sft frm, sb blk - blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por

7900-7930 SH: blk, tr dk gy, sft frm, sb blk - blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por; tr LS: wkst, lt gy-wh, micxn, fri-frm, rthy tex

7930-7960 SH: blk, tr dk gy, sft frm, sb blk - blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por

7960-7990 SH: blk, tr dk gy, sft frm, sb blk - blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por

MD: 7807 Inc: 71.60 Azm: 341.80 TVD: 7441.23 VS: -164.45	MD: 7838 Inc: 72.90 Azm: 343.00 TVD: 7450.68 VS: -134.96	MD: 7869 Inc: 73.80 Azm: 342.30 TVD: 7459.56 VS: -105.29	MD: 7901 Inc: 75.60 Azm: 342.60 TVD: 7468.00 VS: -74.45	MD: 7932 Inc: 77.90 Azm: 343.70 TVD: 7475.11 VS: -44.33	MD: 7964 Inc: 77.80 Azm: 342.30 TVD: 7481.84 VS: -13.09	MD: 7995 Inc: 78.30 Azm: 341.40 TVD: 7488.26 VS: 17.23	MD: 8027 Inc: 79.40 Azm: 340.60 TVD: 7494.45 VS: 48.62
--	--	--	---	---	---	--	--



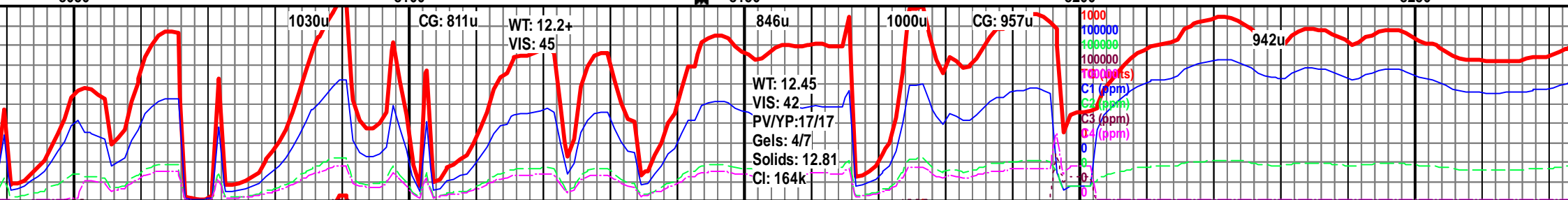
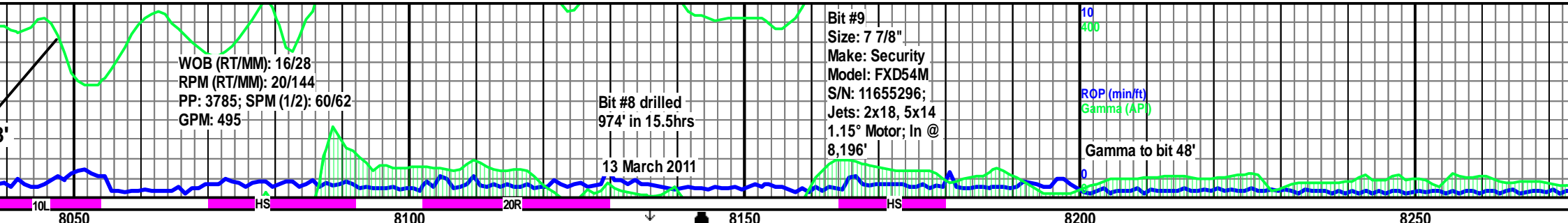
WOB (RT/MM): 16/28
 RPM (RT/MM): 20/144
 PP: 3785; SPM (1/2): 60/62
 GPM: 495

Bit #8 drilled
 974' in 15.5hrs

13 March 2011

Bit #9
 Size: 7 7/8"
 Make: Security
 Model: FXD54M
 S/N: 11655296;
 Jets: 2x18, 5x14
 1.15" Motor; In @
 8,196'

Gamma to bit 48'



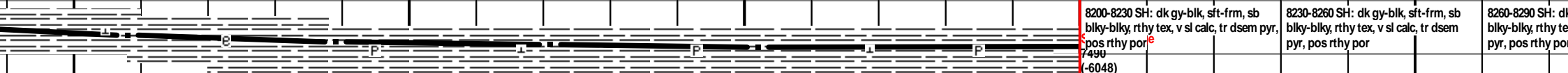
Curve Landed at 08:00
 hrs on 13 March, 2011 @
 8,196' MD 7,505' TVD

Note: TVD Scale
 Change

7440 TVD
 Sub Sea (-5998)

Survey to bit 52'

8050-8080 SH: blk, tr brn, sft-frm, sb blkly-blky, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8080-8110 SH: blk, tr brn, sft-frm, sb blkly-blky, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8110-8140 SH: blk, tr brn, sft-frm, sb blkly-blky, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8140-8170 SH: blk, tr brn, sft-frm, sb blkly-blky, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8170-8200 SH: blk, tr brn, sft-frm, sb blkly-blky, rthy tex, v sl calc, tr dsem pyr, pos rthy por
---	---	---	---	---



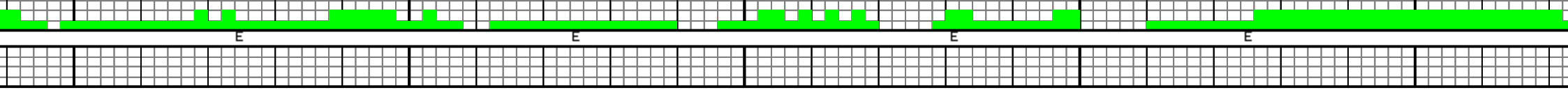
MD: 8058
 Inc: 81.50
 Azm: 340.60
 TVD: 7499.59
 VS: 79.18

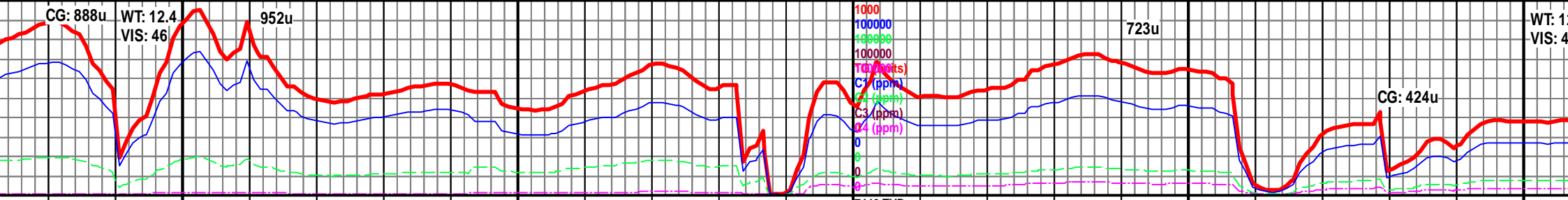
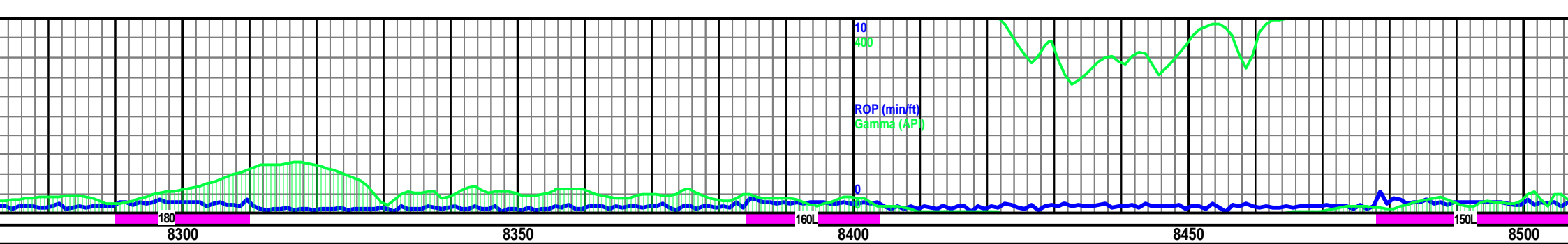
MD: 8089
 Inc: 85.20
 Azm: 341.00
 TVD: 7503.18
 VS: 109.97

MD: 8121
 Inc: 88.00
 Azm: 340.50
 TVD: 7505.08
 VS: 141.90

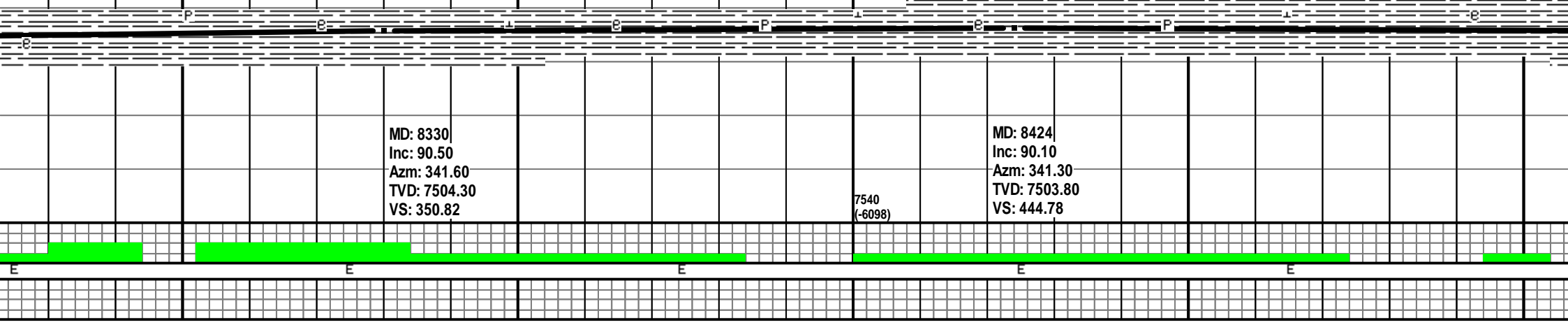
MD: 8152
 Inc: 88.90
 Azm: 341.00
 TVD: 7505.92
 VS: 172.89

MD: 8236
 Inc: 91.30
 Azm: 341.50
 TVD: 7505.77
 VS: 256.86





7440 TVD Sub Sea (-5998)	
8290-8320 SH: dk gy-blk, sft-frm, sb blky-blky, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8320-8350 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por
8350-8380 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8380-8410 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por
8410-8440 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8440-8470 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por
8470-8500 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8500-8530 SH: dk gy-blk, tr brn, sft-frm, blky-sb blky, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por

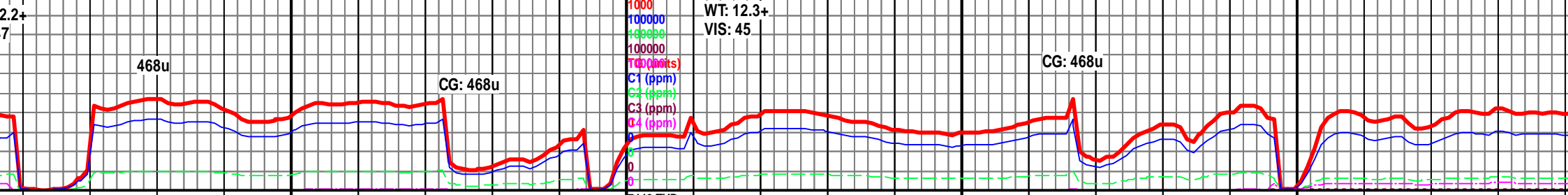
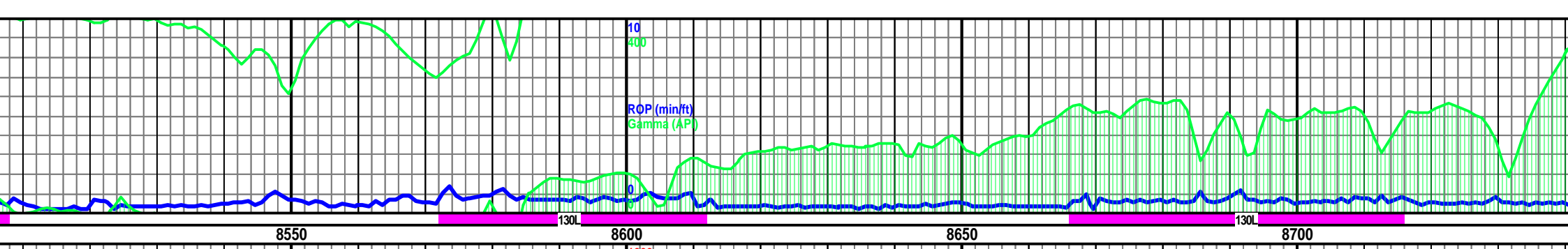


MD: 8330
Inc: 90.50
Azm: 341.60
TVD: 7504.30
VS: 350.82

MD: 8424
Inc: 90.10
Azm: 341.30
TVD: 7503.80
VS: 444.78

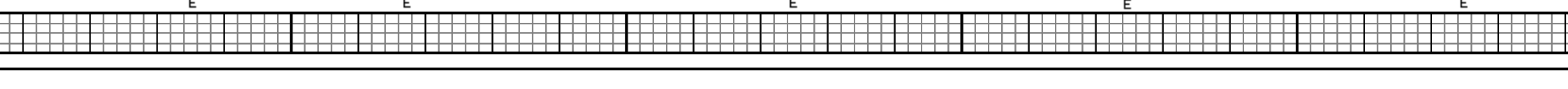
7540
(-6098)

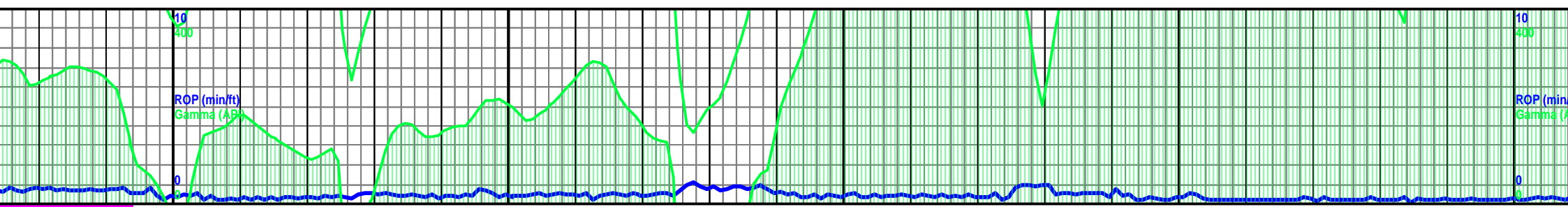
7490
(-6048)



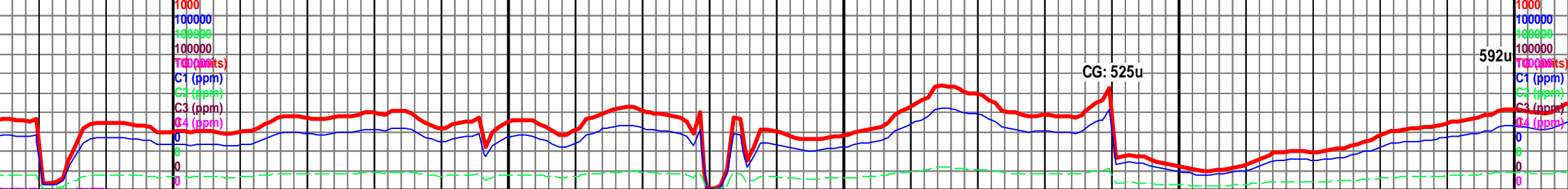
7440 TVD Sub Sea (-5998)									
8500-8530 SH: dk gy-blk, tr brn, blk-y-sb blk, tr sb plty, rthy calc, tr dsem pyr, pos rthy por	8530-8560 SH: dk gy-blk, tr brn, sft frm, blk-y-sb blk, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8560-8590 SH: dk gy-blk, tr brn, sft frm, blk-y-sb blk, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8590-8620 SH: blk, tr dk gy, sft frm, blk-y-sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	8620-8650 SH: dk gy-blk, tr brn, sft frm, blk-y-sb blk, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8650-8680 SH: dk gy-blk, tr brn, sft frm, blk-y-sb blk, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8680-8710 SH: dk gy-blk, tr brn, sft frm, blk-y-sb blk, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por	8710-8740 SH: dk gy-blk, tr brn, sft frm, blk-y-sb blk, tr sb plty, rthy tex, v sl calc, tr dsem pyr, pos rthy por		

MD: 8518 Inc: 89.40 Azm: 341.50 TVD: 7504.21 VS: 538.75				MD: 8612 Inc: 89.10 Azm: 341.00 TVD: 7505.44 VS: 632.72				MD: 8706 Inc: 89.40 Azm: 338.60 TVD: 7506.67 VS: 726.71
---	--	--	--	---	--	--	--	---





9000 9050 9100 9150 9200

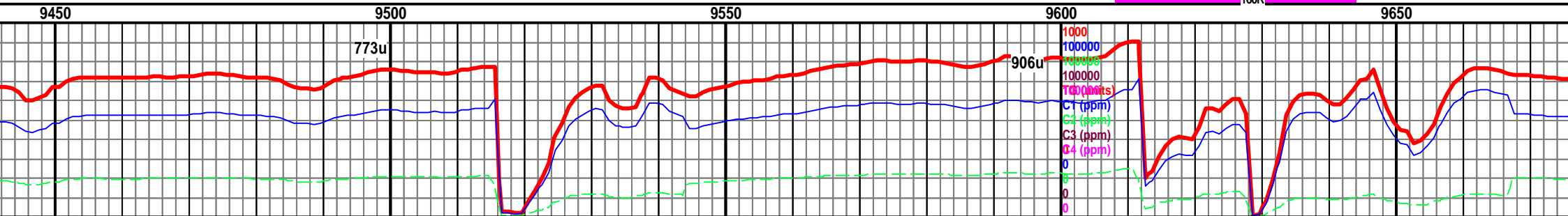
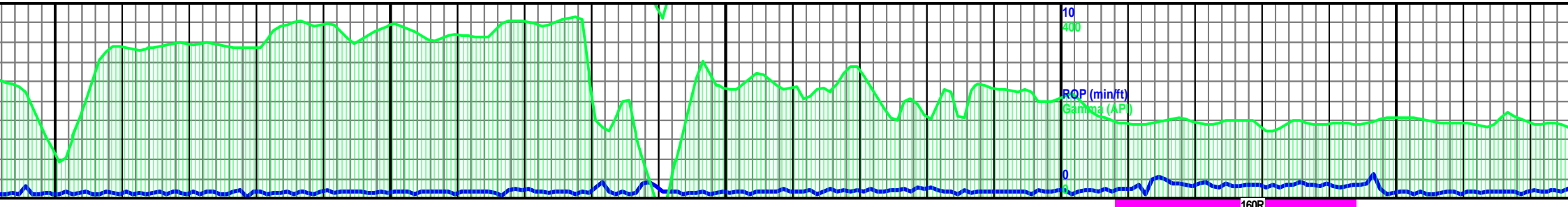


7440 TVD Sub Sea (-5998) 592u 7440 TVD Sub Sea (-6048)

8980-9010 SH: dk gy-blk, sft-frm, blkly-sb blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	9010-9040 SH: dk gy-blk, sft-frm, blkly-sb blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	9040-9070 SH: dk gy-blk, sft-frm, blkly-sb blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	9070-9100 SH: dk gy-blk, sft-frm, blkly-sb blkly, rthy tex, sl calc, tr free cal, tr dsem & nodr pyr, pos cal fl fracs, pos rthy por	9100-9130 SH: dk gy-blk, sft-frm, blkly-sb blkly, tr sb plity, rthy tex, sl calc, tr free cal, tr dsem & nodr pyr, pos cal fl fracs, pos rthy por	9130-9160 SH: dk gy-blk, sft-frm, blkly-sb blkly, tr sb plity, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	9160-9190 SH: dk gy-blk, sft-frm, blkly-sb blkly, tr sb plity, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	9190-9220 SH: dk gy-blk, sft-frm, blkly-sb blkly, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
---	---	---	--	---	--	--	---



MD: 8989 Inc: 91.60 Azm: 336.70 TVD: 7507.66 VS: 1009.45 7540 (-6098)		MD: 9083 Inc: 91.80 Azm: 336.50 TVD: 7504.87 VS: 1103.24		MD: 9177 Inc: 91.60 Azm: 335.90 TVD: 7502.08 VS: 1196.99 7540 (-6098)
--	--	--	--	--

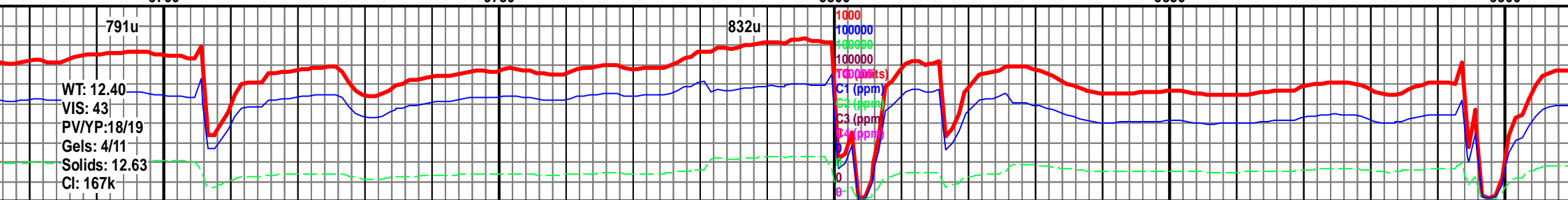
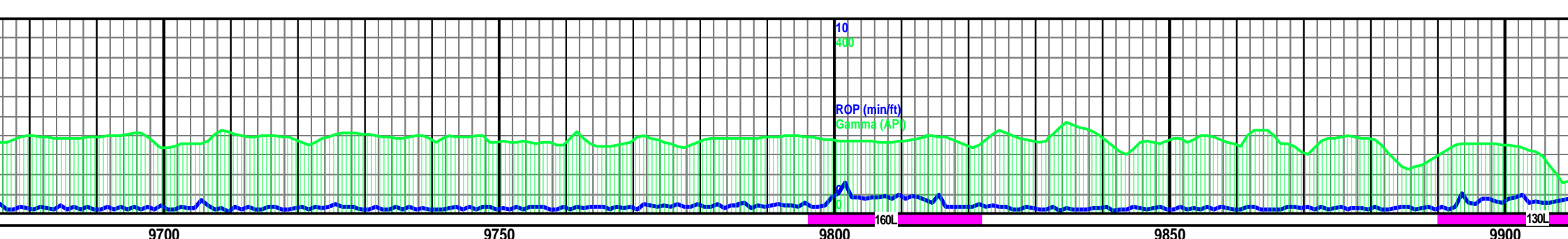


dk gy-blk, sft frm, rthy tex, sl calc, tr dsem por	9460-9490 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9490-9520 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9520-9550 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9550-9580 SH: dk gy-blk, sft, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9580-9610 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9610-9640 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9640-9670 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9670-9700 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9700-9730 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9730-9760 SH: dk gy-blk, sft frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por



	MD: 9461 Inc: 92.10 Azm: 339.80 TVD: 7492.75 VS: 1480.70			MD: 9555 Inc: 92.10 Azm: 340.00 TVD: 7489.30 VS: 1574.64		7540 (-6098)		MD: 9649 Inc: 90.30 Azm: 340.40 TVD: 7487.34 VS: 1668.61		



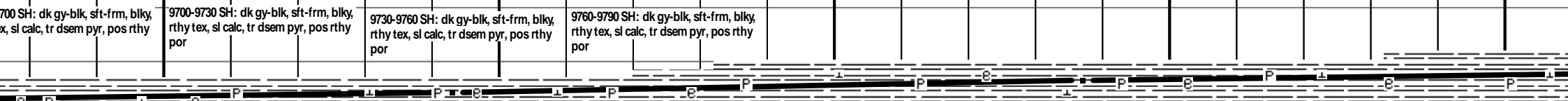


700-9700 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

9700-9730 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

9730-9760 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

9760-9790 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por



7496
(-6048)

9790-9820 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

9820-9850 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

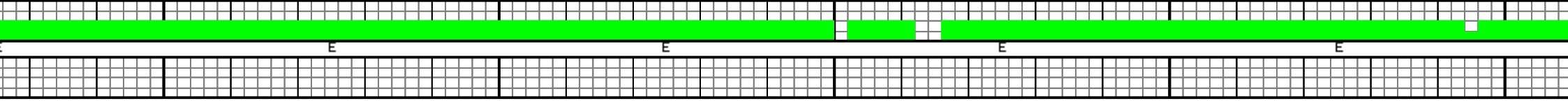
9850-9880 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

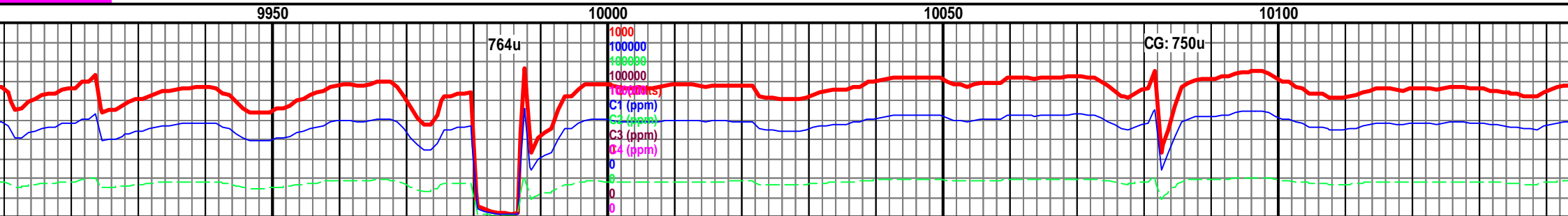
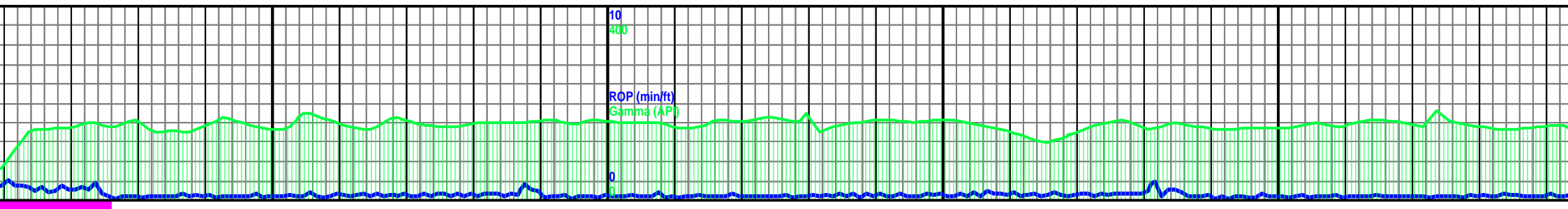
9880-9910 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por

MD: 9743
Inc: 91.50
Azm: 341.10
TVD: 7485.86
VS: 1763.59

MD: 9837
Inc: 91.40
Azm: 341.40
TVD: 7483.48
VS: 1856.54

7540
(-6098)





7440 TVD
Sub Sea (-5998)



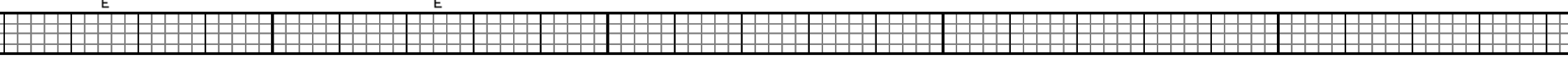
9910-9940 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9940-9970 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	9970-10000 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	10000-10030 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	10030-10060 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	10060-10090 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	10090-10120 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	10120-10150 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por
---	---	--	---	---	---	---	---

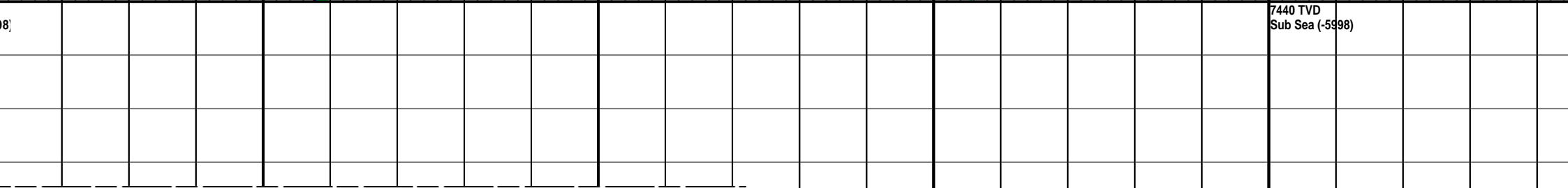
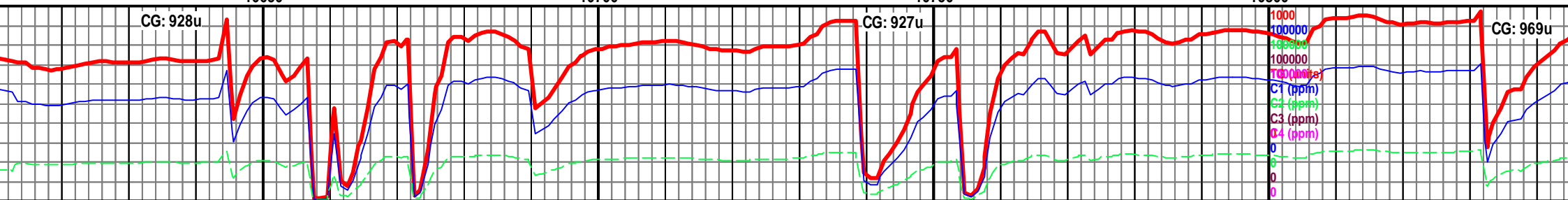
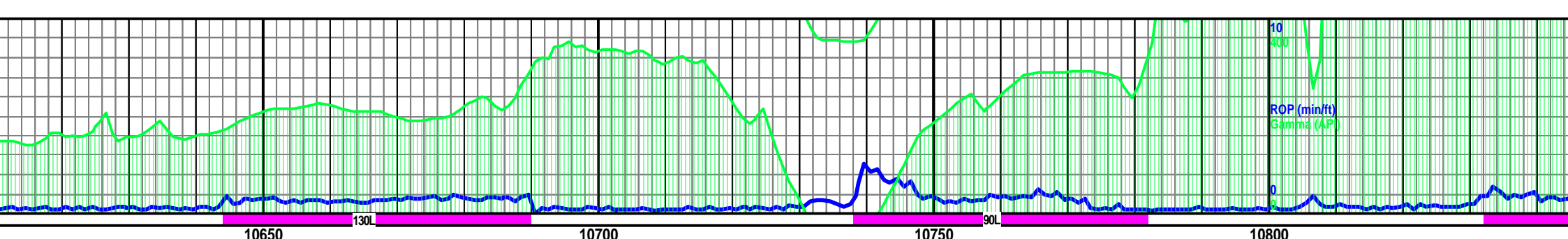
MD: 9931
Inc: 90.30
Azm: 340.40
TVD: 7482.09
VS: 1950.51

MD: 10025
Inc: 90.10
Azm: 340.60
TVD: 7481.76
VS: 2044.51

MD: 10119
Inc: 90.70
Azm: 341.30
TVD: 7481.10
VS: 2138.49

7540 (-6098)





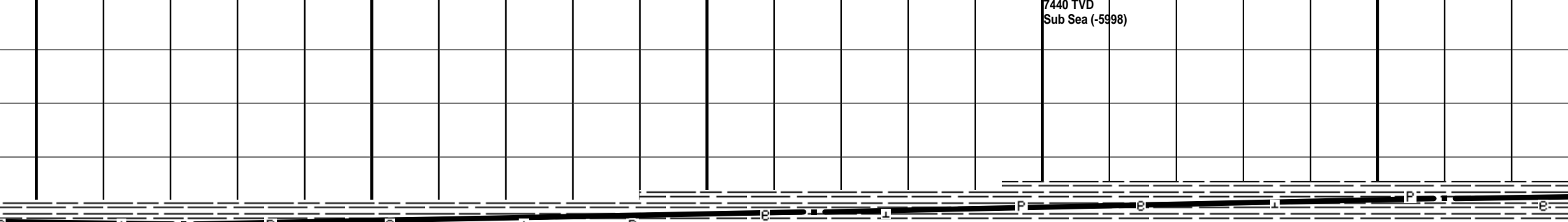
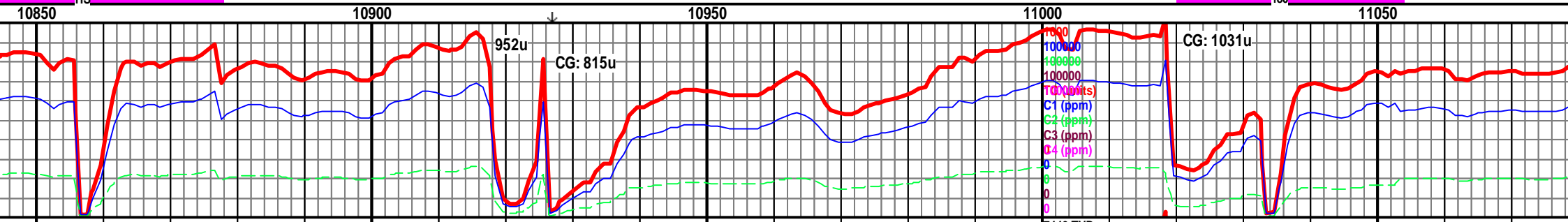
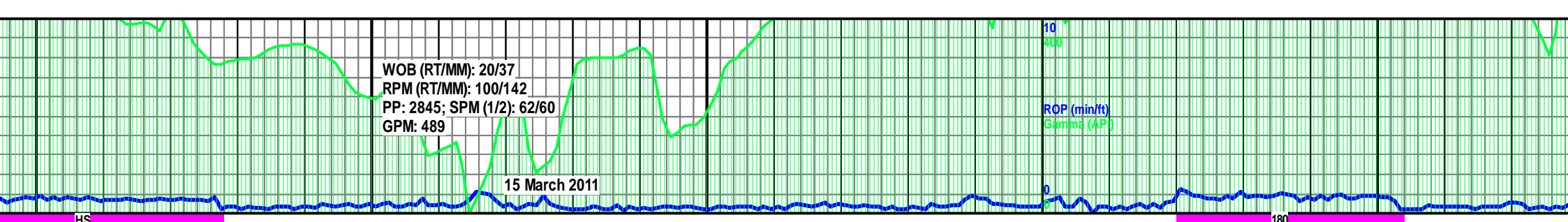
SH: dk gy-blk, tr brn, sb plty, rthy tex, v sl calc, tr pyr, pos rthy por	10630-10660 SH: dk gy-blk, tr brn, sft frm, blk sb plty, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	10660-10690 SH: dk gy-blk, tr brn, sft frm, blk sb plty, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	10690-10720 SH: dk gy-blk, tr brn, sft frm, blk sb plty, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	10720-10750 SH: dk gy-blk, tr brn, sft frm, blk sb plty, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	10750-10780 SH: dk gy-blk, tr brn, sft frm, blk sb plty, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	10780-10810 SH: dk gy-blk, sft frm, blk sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	10810-10840 SH: dk gy-blk, sft frm, blk sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	10840-10870 SH: dk gy-blk, sft frm, blk sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
---	--	--	--	--	--	---	---	---

MD: 10684
Inc: 88.20
Azm: 340.10
TVD: 7477.40
VS: 2703.20

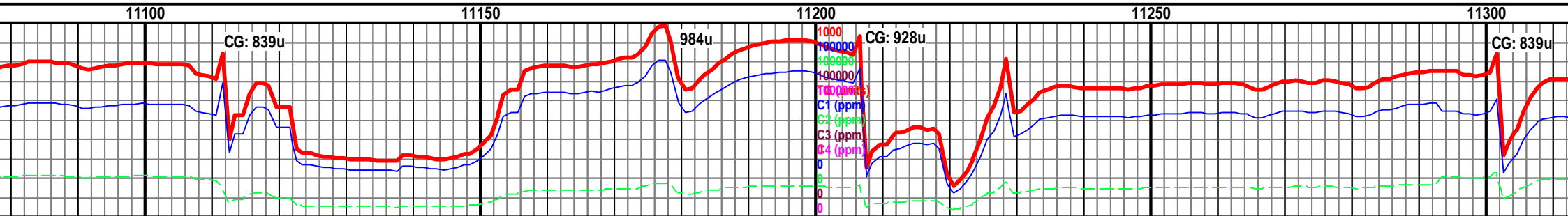
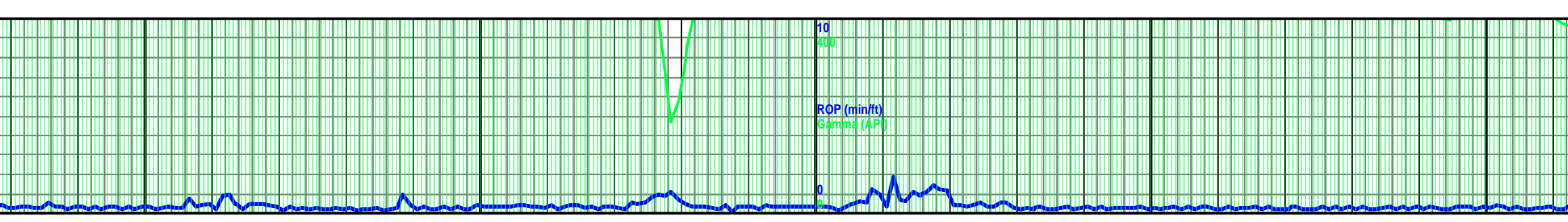
MD: 10778
Inc: 87.50
Azm: 338.00
TVD: 7480.93
VS: 2797.11

7490
(-6048)

7540
(-6098)

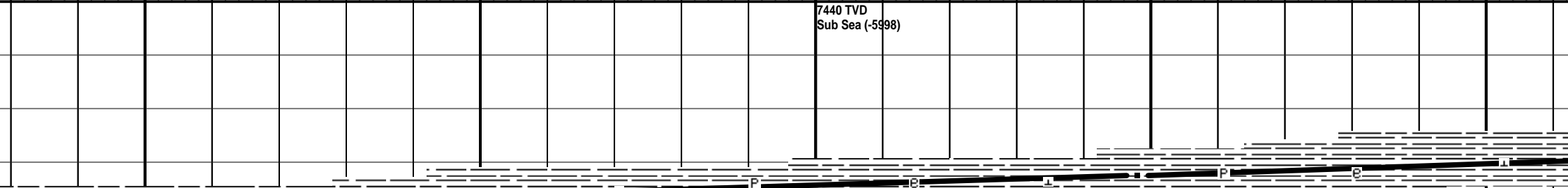


10870-10870 SH: dk gy-blk, sft-frn, sb blk, rthy tex, sl calc, tr dsem & pyr, pos rthy por	10870-10900 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	10900-10930 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	10930-10960 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	10960-10990 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	10990-11020 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11020-11050 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11050-11080 SH: dk gy-blk, sft-frn, blk, sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
	MD: 10872 Inc: 90.50 Azm: 337.70 TVD: 7482.57 VS: 2891.02			MD: 10966 Inc: 92.40 Azm: 339.00 TVD: 7480.19 VS: 2984.95			MD: 11060 Inc: 90.50 Azm: 339.70 TVD: 7477.81 VS: 3078.90

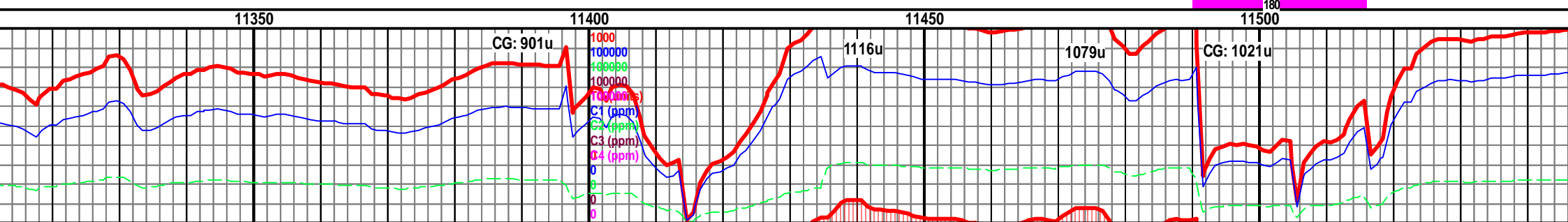
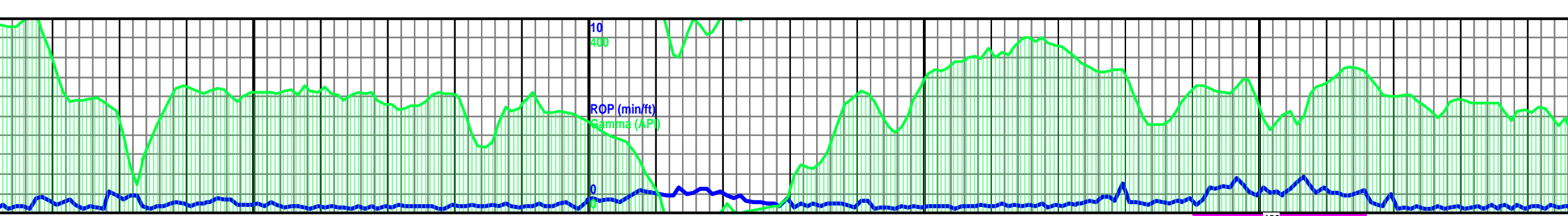


1000
 10000
 100000
 1000000
 TVD (mths)
 C1 (ppm)
 C2 (ppm)
 C3 (ppm)
 C4 (ppm)

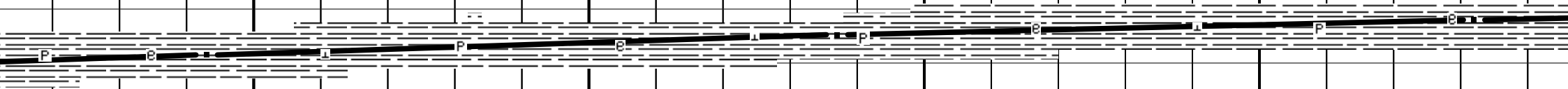
7440 TVD
Sub Sea (-5998)



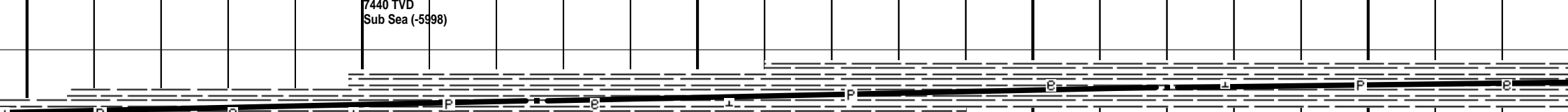
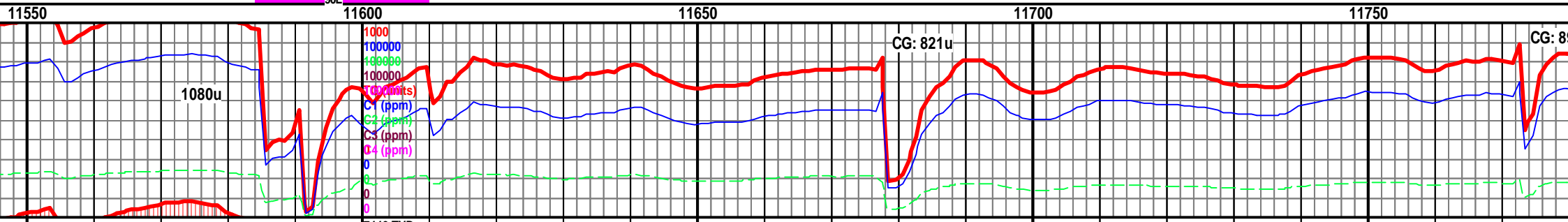
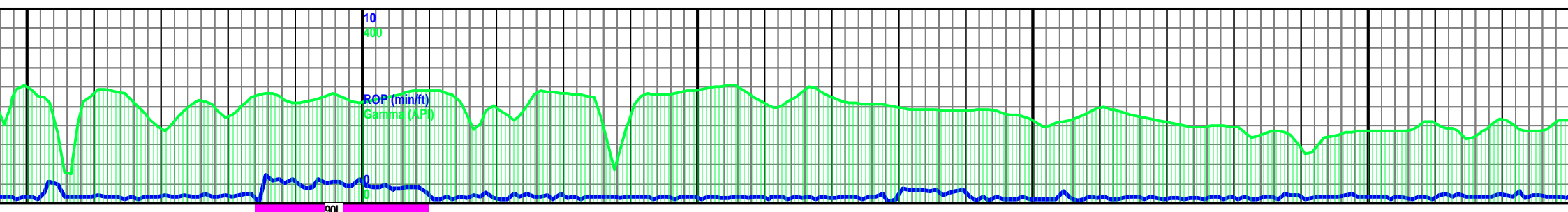
11080-11110 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11110-11140 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11140-11170 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11170-11200 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11200-11230 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11230-11260 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11260-11290 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11290-11320 SH: dk gy-blk, sft-frm, blk-y-sb blk-y, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	
		MD: 11154 Inc: 91.80 Azm: 340.80 TVD: 7475.92 VS: 3172.88		7490 (-6048)		MD: 11248 Inc: 92.50 Azm: 341.50 TVD: 7472.40 VS: 3266.79		7540 (-6098)



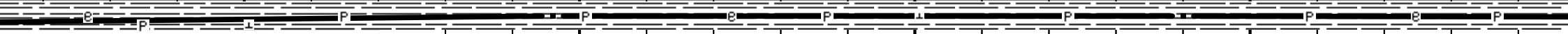
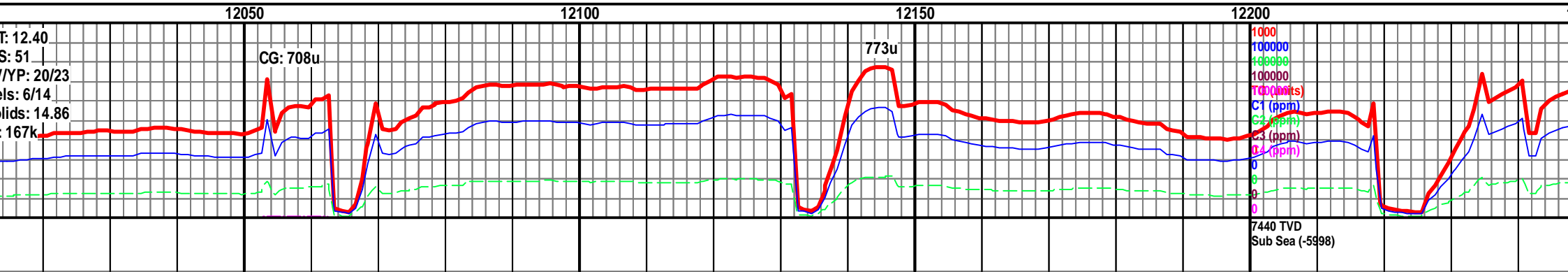
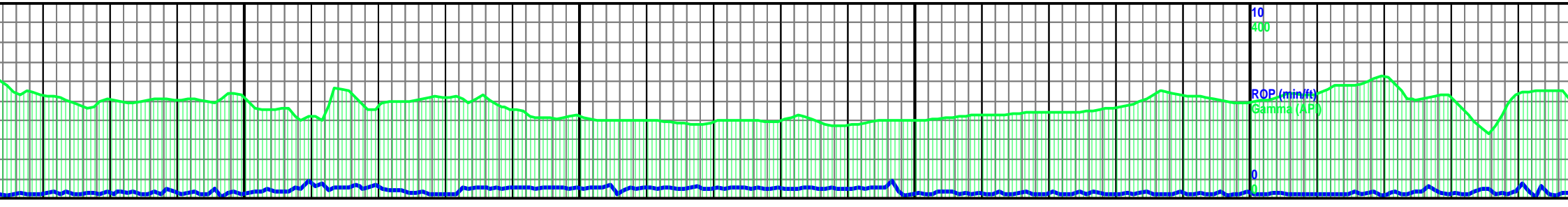
7440 TVD
Sub Sea (-5998)



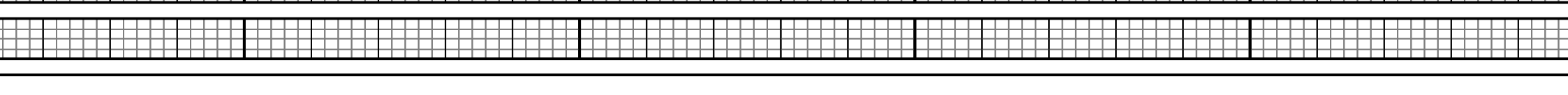
-frm, r dsem &	11320-11350 SH: dk gy-blk, sft-frm, blk-ly-sb blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	11350-11380 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	7490 (-6048)	11380-11410 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11410-11440 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	7540 (-6098)	11440-11470 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem& nodr pyr, pos rthy por	11470-11500 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11500-11530 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11530-11560 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por
MD: 11343 Inc: 92.10 Azm: 341.10 TVD: 7468.58 VS: 3361.69					MD: 11437 Inc: 92.50 Azm: 340.80 TVD: 7464.81 VS: 3455.60					MD: 11532 Inc: 91.00 Azm: 340.60 TVD: 7461.91 VS: 3550.55

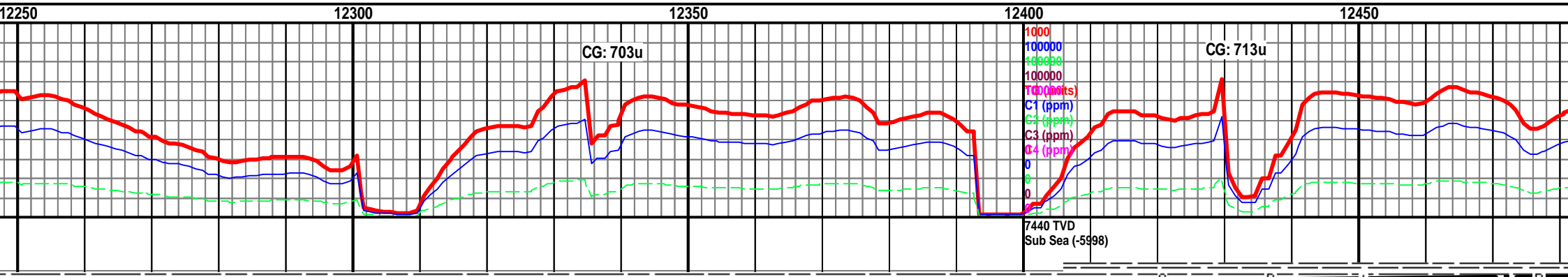
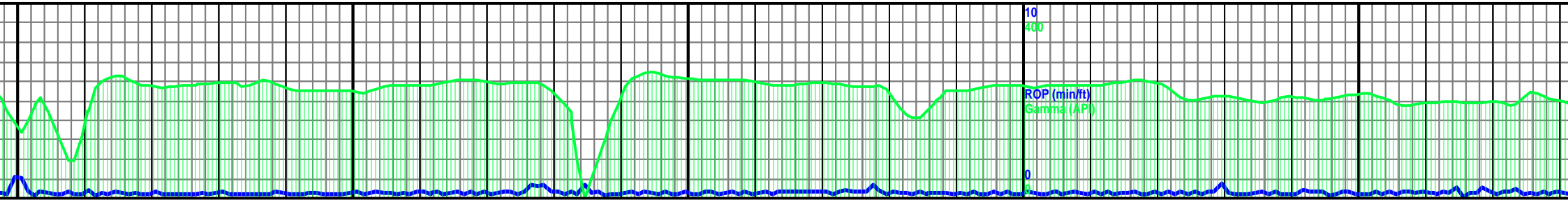


y-blk, sft-frm, tr dsem pyr, pos	11560-11590 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11590-11620 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11620-11650 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11650-11680 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, tr free cal, pos rthy por	11680-11710 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11710-11740 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11740-11770 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	11770-11800 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por
		7490 (-6048)						
		7540 (-6098)						
			MD: 11626 Inc: 91.80 Azm: 339.40 TVD: 7459.61 VS: 3644.52				MD: 11720 Inc: 91.30 Azm: 338.70 TVD: 7457.07 VS: 3738.47	



12000-12040 SH: dk gy-blk, frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12040-12070 SH: dk gy-blk, frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12070-12100 SH: dk gy-blk, sft-frm, blk, rthy tex, calc ip, tr dsem pyr, pos rthy por	12100-12130 SH: dk gy-blk, sft-frm, blk, rthy tex, calc ip, tr dsem pyr, pos rthy por	12130-12160 SH: dk gy-blk, sft-frm, blk, rthy tex, calc ip, tr dsem pyr, pos rthy por	12160-12190 SH: dk gy-blk, sft-frm, sb blk, rthy tex, calc ip, tr dsem pyr, pos rthy por	12190-12220 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por	12220-12250 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por
7440 TVD Sub Sea (-5998)						7490 (-6048)	
MD: 12096 Inc: 9030 Azm: 337.40 TVD: 7452.93 VS: 4114.17					MD: 12190 Inc: 89.60 Azm: 336.30 TVD: 7453.04 VS: 4208.02	7540 (-6098)	





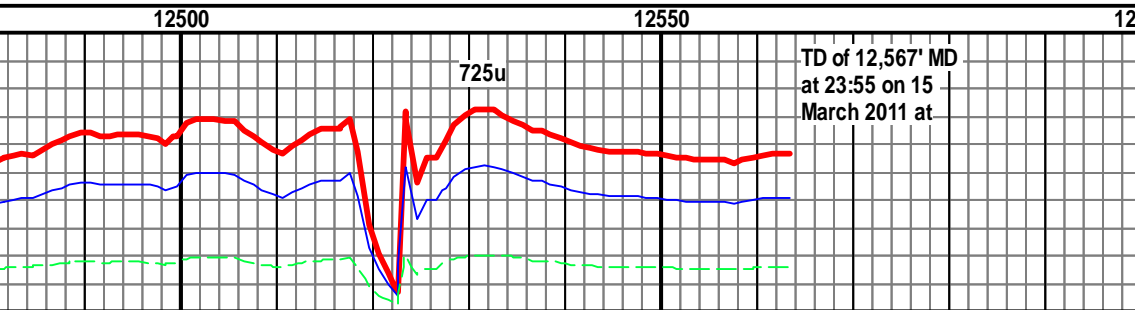
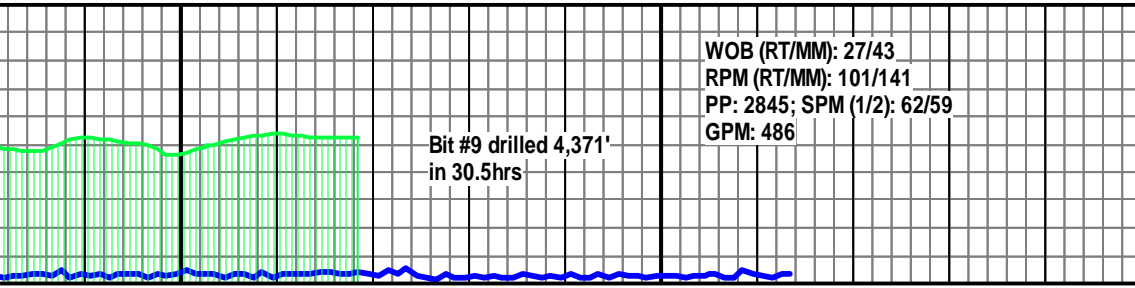
12250-12280 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12280-12310 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12310-12340 SH: dk gy-blk, sft-frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por; tr LS: mdst, med gy-mlky, micxn, dns, no vis por	12340-12370 SH: dk gy-blk, frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12370-12400 SH: dk gy-blk, frm, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12400-12430 SH: dk gy-blk, frm-sft, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12430-12460 SH: dk gy-blk, frm-sft, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por	12460-12490 SH: dk gy-blk, frm-sft, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por		

MD: 12284
 Inc: 90.10
 Azm: 337.20
 TVD: 7453.28
 VS: 4301.87

MD: 12378
 Inc: 91.00
 Azm: 338.30
 TVD: 7452.38
 VS: 4395.79

7540
 (-6098)

MD: 12472
 Inc: 90.30
 Azm: 337.9
 TVD: 7451.
 VS: 4489.7



rm-sft, n pyr, pos
 12490-12520 SH: dk gy-blk, frm-sft, blk, rthy tex, sl calc, tr dsem pyr, pos rthy por
 12520-12550 SH: dk gy-blk, sft, blk, rthy tex, calc ip, tr dsem pyr, pos rthy por

Bottom Hole Location:
 4,298.99' North and
 1,593.28' West of
 surface location

Projection to Bit
 MD: 12567
 Inc: 90.30
 Azm: 337.90
 TVD: 7450.82
 VS: 4298.99

00
 31
 3