

SUNBURST CONSULTING

A G E O L O G Y S E R V I C E



P.O. Box 51297, Billings, MT 59105
2150 Harnish Blvd, Billings, MT 59101
(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: Richard D. Knotts #513776
Location: Rosemont 7.5' Quad; Booths Creek District; Taylor Co., West Virginia
License Number: API #:47-091-01232
Spud Date: 2 August 2011
Surface Coordinates: Latitude: 39.322022
Longitude: 80.141333
Bottom Hole Coordinates: 2,743.97' North & 1,400.31' West of Surface Location
Ground Elevation (ft): 1328
Logged Interval (ft): 6,000' To: 10,470'
Formation: Elks through Marcellus
Type of Drilling Fluid: Water Based Mud

Region: Appalachian Basin
Drilling Completed: 17 August 2011

K.B. Elevation (ft): 1343

Total Depth (ft): 10,470'

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.co




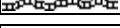
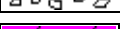

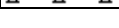
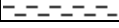








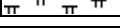

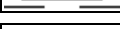
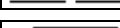
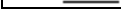



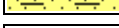

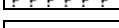
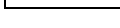
OPERATOR

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








































































GEOLOGISTS

Name: Robert McCue, Chris Adair, Anthony Mihalko, John-Reid Theriac
Company: Sunburst Consulting, Inc.
Address: P.O. Box 51297, Billings, MT 59105
 2150 Harnish Blvd, Billings, MT 59101
 (406) 259-4124; geology@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  Shcol	 Shgy  Sltst  Ss  Sssilty  Tuff  Unknown  Blank
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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
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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: Bill Ruff Teel, Jeff Lofton

TOOLPUSHER: Bruce Lambert

RIG: Savanna 640E

WV FILE#: 6733P513776 (350-02)

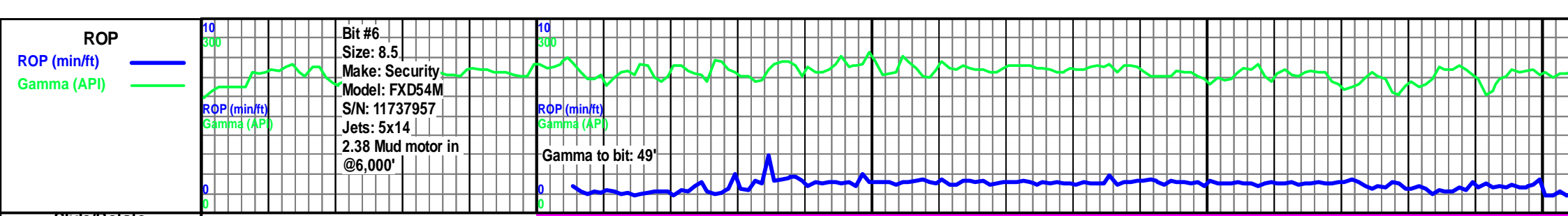
SURFACE CASING: 13 3/8" J-55, 54.5#, set to 859'

INTERMEDIATE CASING: 9 5/8" MC-50, 40#, 62 Jts, set to 2,629.5'

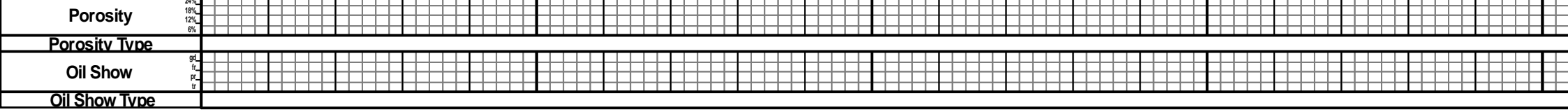
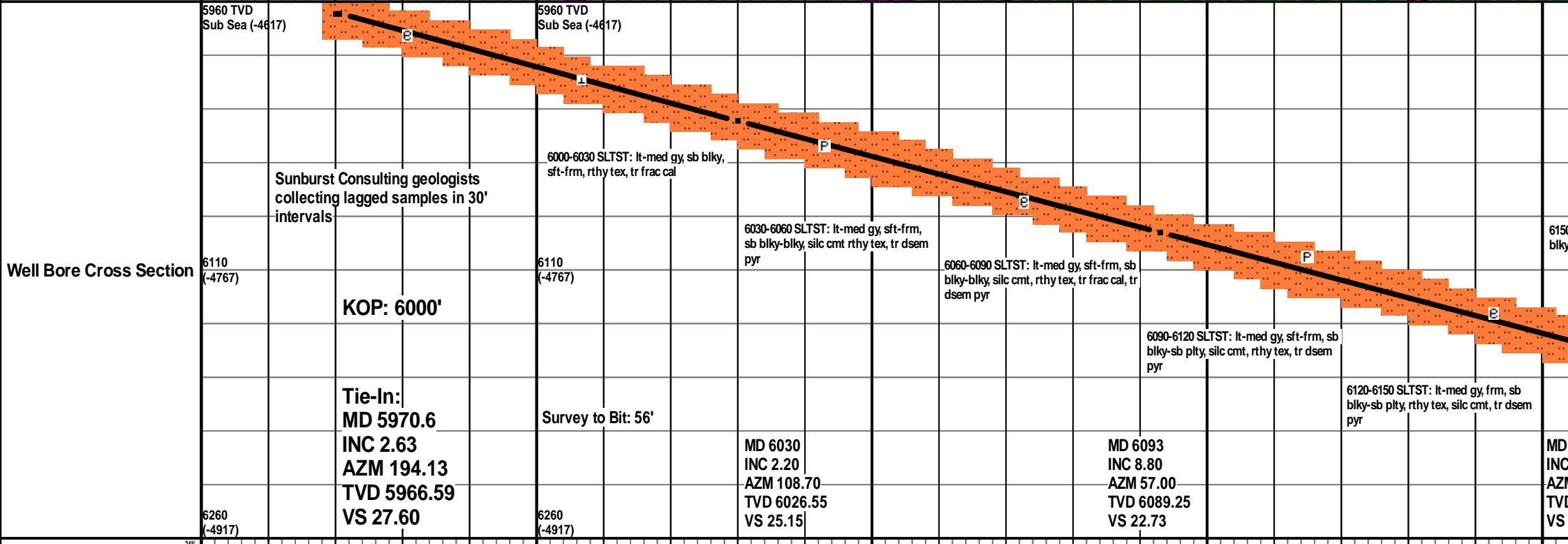
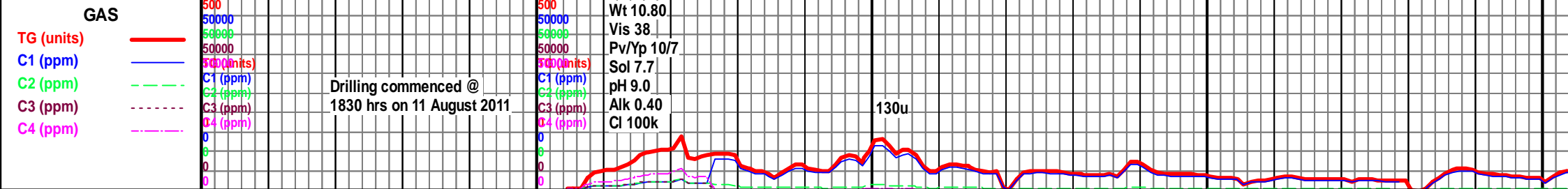
KOP: 6,000'

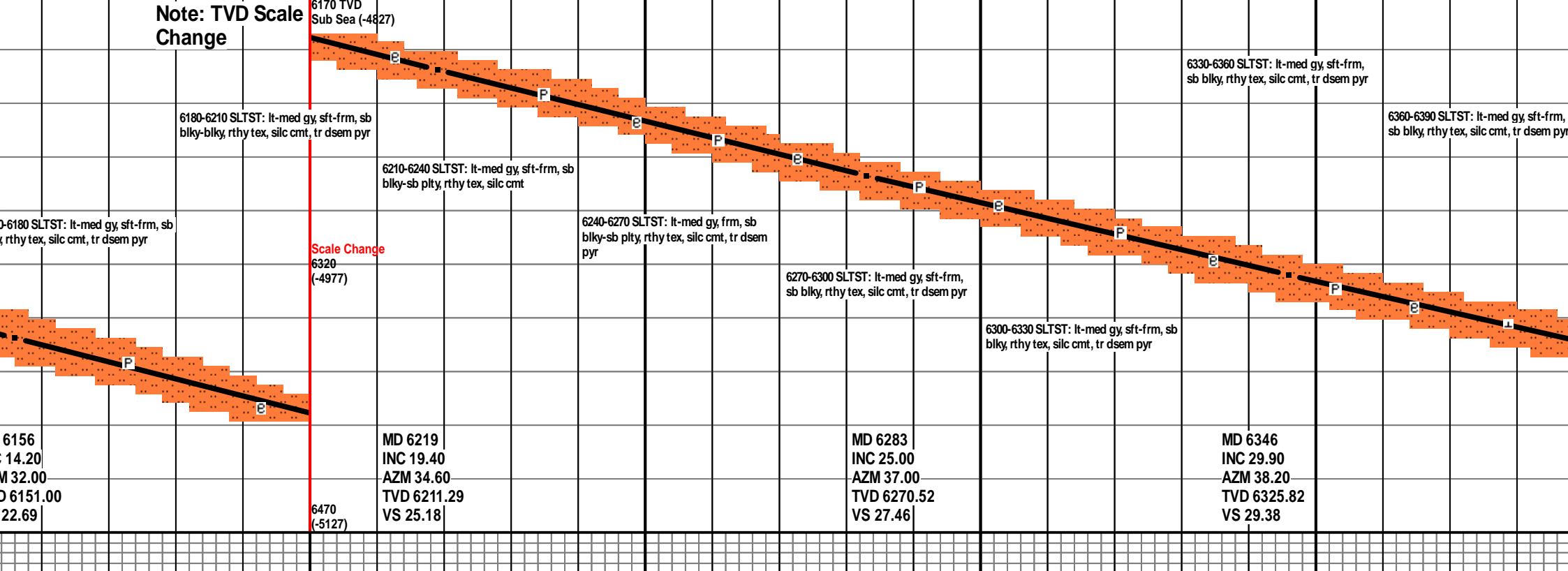
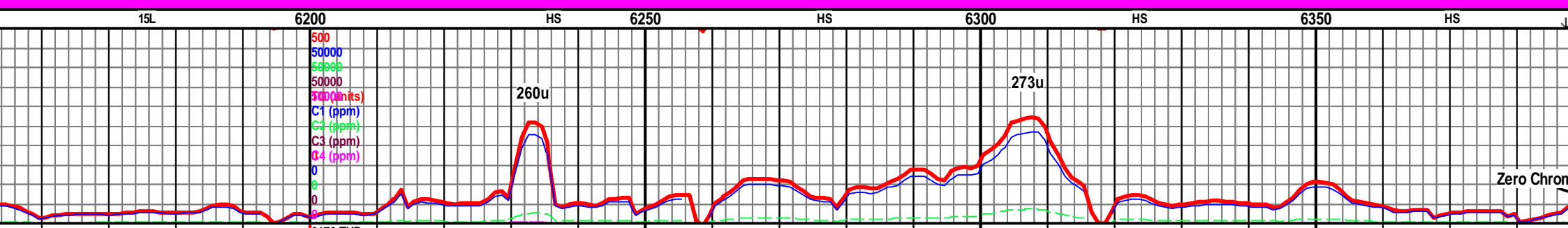
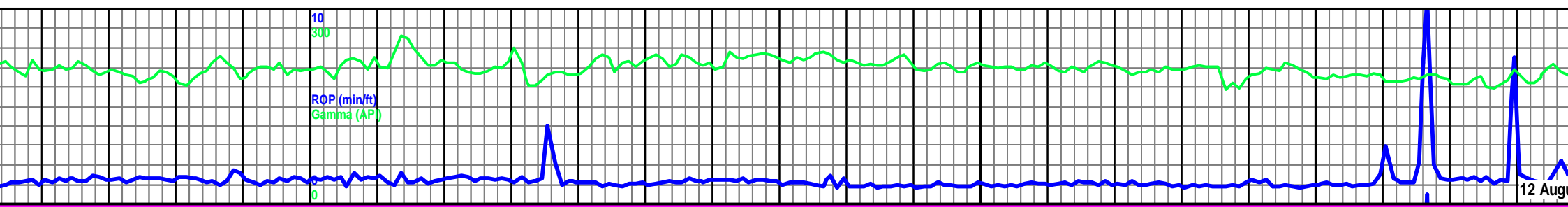
CLOSURE DIRECTION: 332.96°

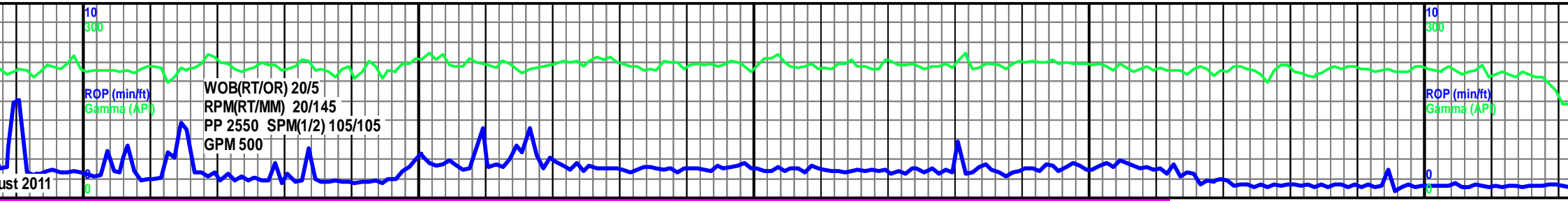
CLOSURE DISTANCE: 3,080.62'



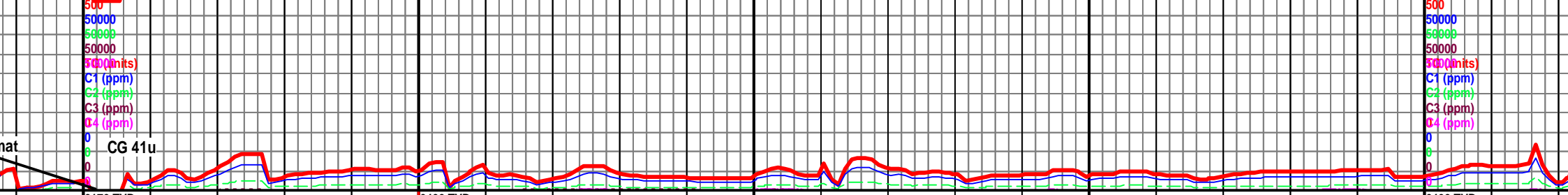
Slide/Rotate Depth



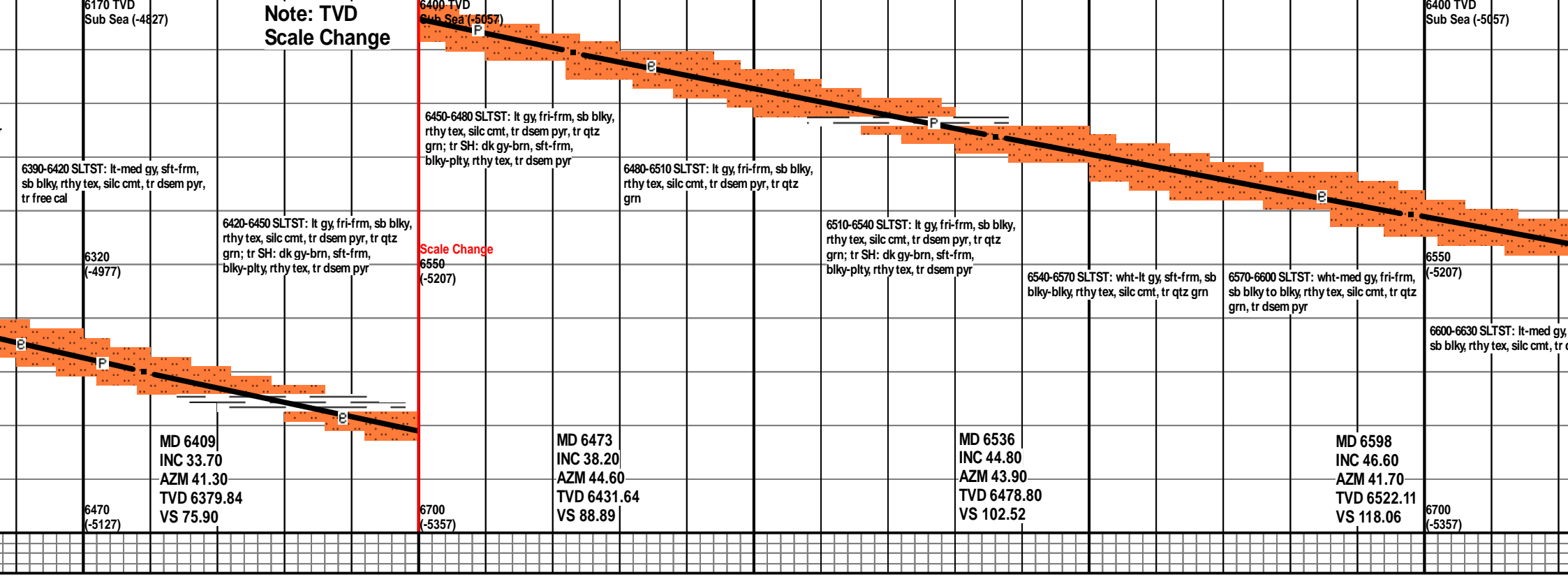




6400 HS 6450 HS 6500 30L 6550 6600



Note: TVD Scale Change



Scale Change
6550
(-5207)

MD 6409
INC 33.70
AZM 41.30
TVD 6379.84
VS 75.90

MD 6473
INC 38.20
AZM 44.60
TVD 6431.64
VS 88.89

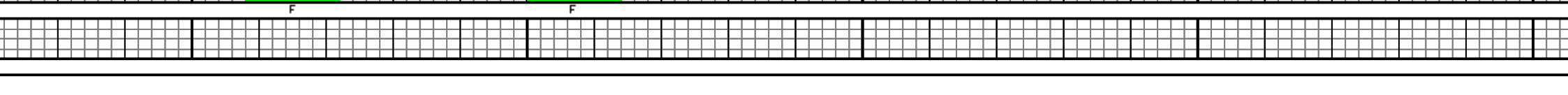
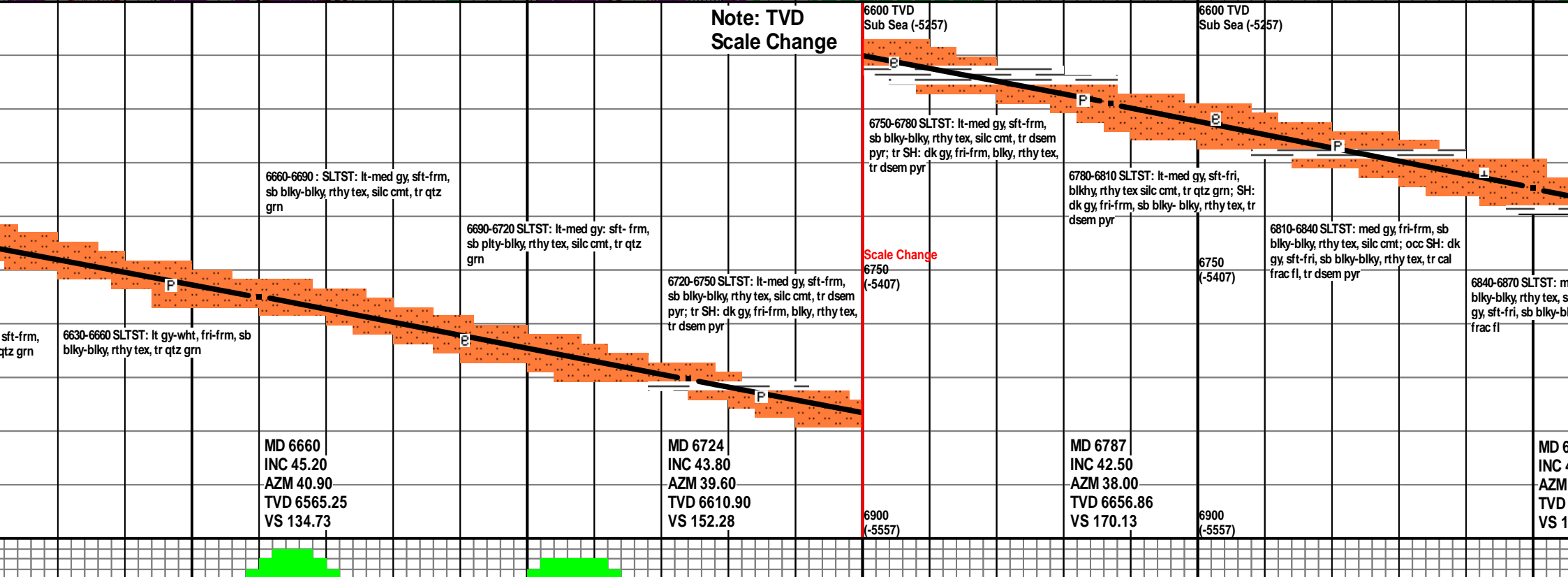
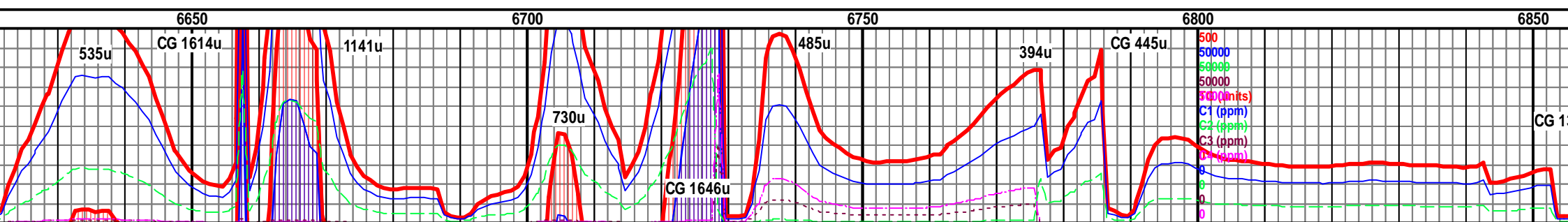
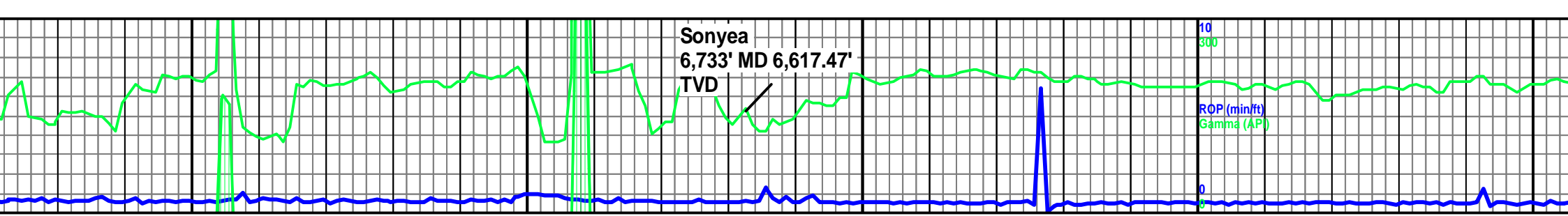
MD 6536
INC 44.80
AZM 43.90
TVD 6478.80
VS 102.52

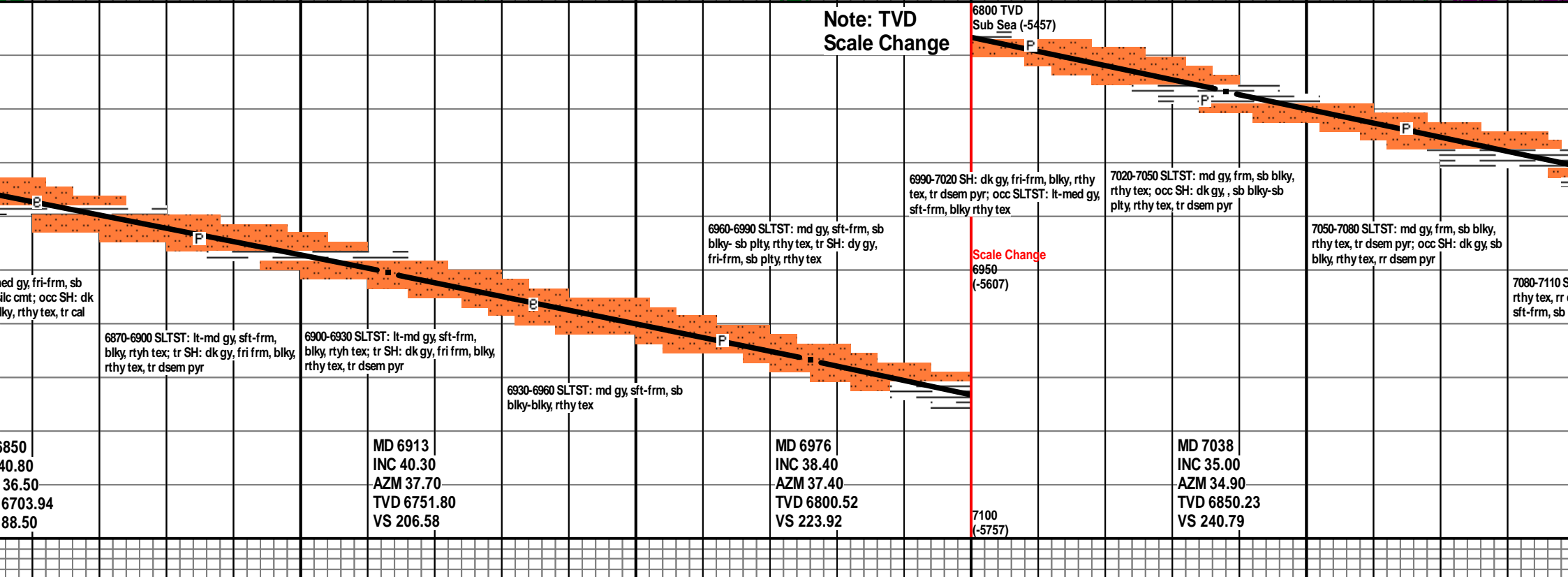
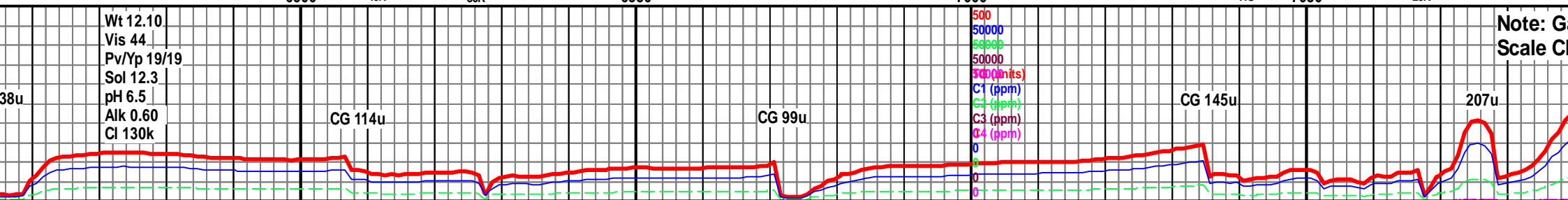
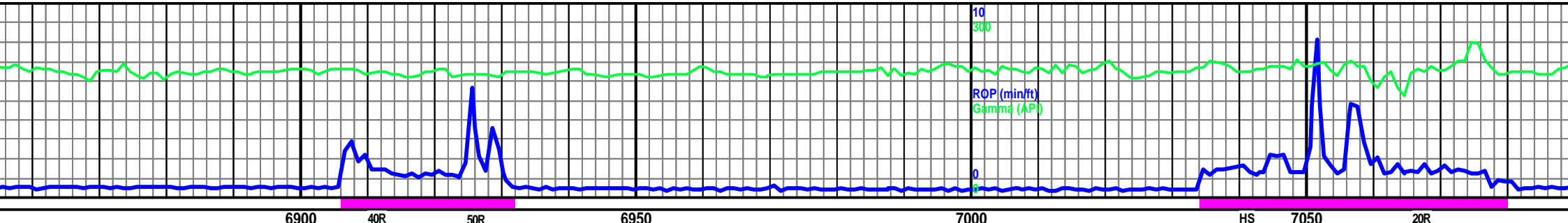
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INC 46.60
AZM 41.70
TVD 6522.11
VS 118.06

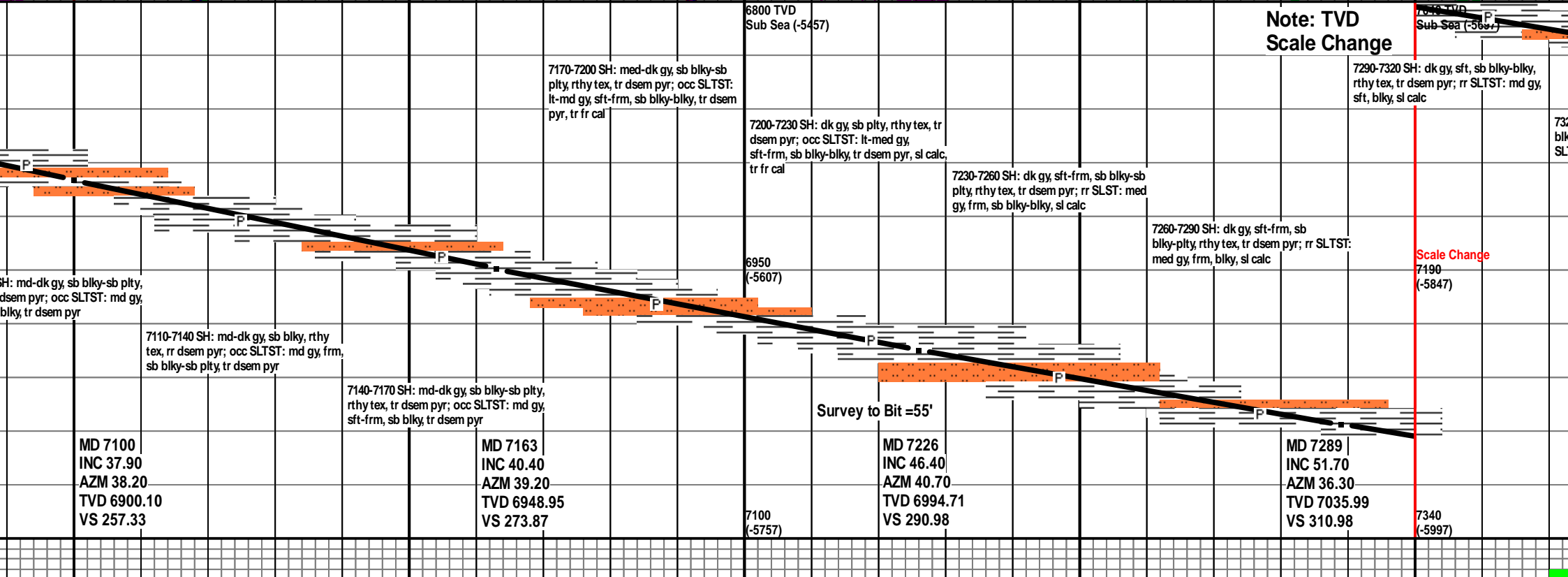
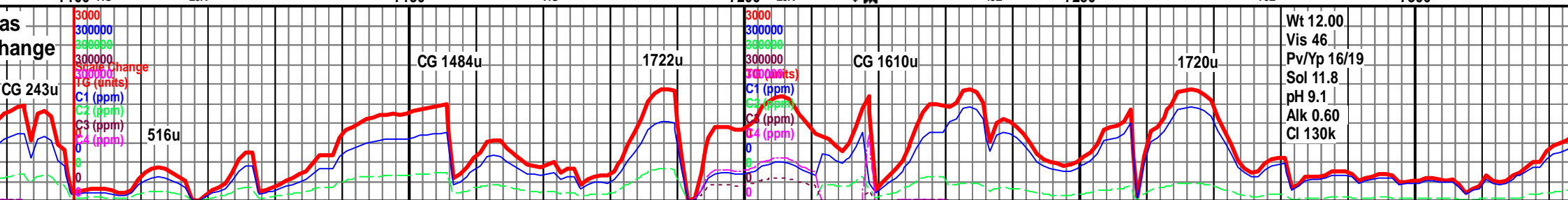
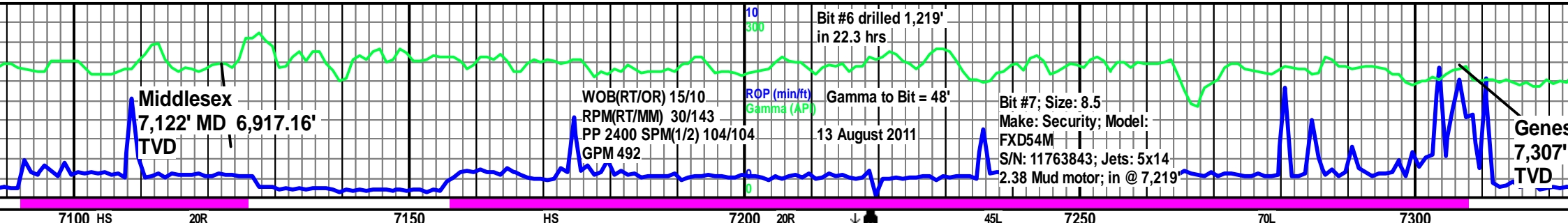
6470
(-5127)

6700
(-5357)

6700
(-5357)



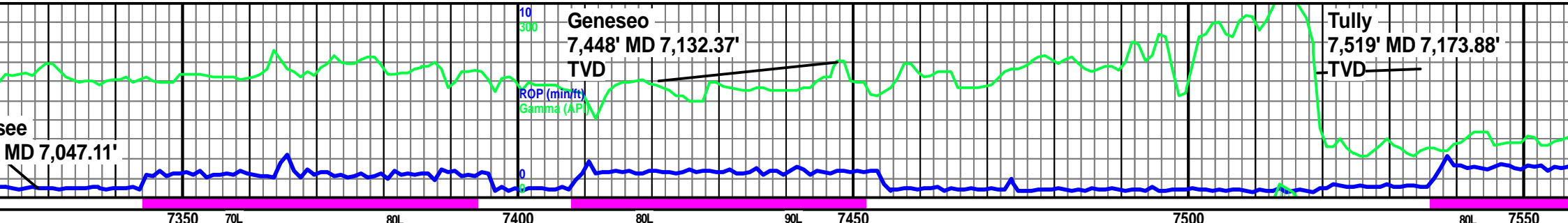




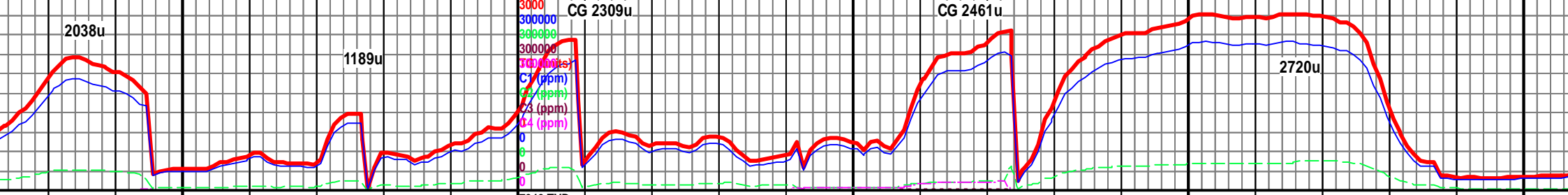
see
MD 7,047.11'

Geneseo
7,448' MD 7,132.37'
TVD

Tully
7,519' MD 7,173.88'
TVD



7350 70L 80L 7400 80L 90L 7450 7500 80L 7550



7040 TVD
Sub Sea (-5697)

7350-7380 SH: dk gy, sft frm, sb
gy-blky, rthy tex, tr dsem pyr; rr
TST: md gy, sft, blk, sl calc

7350-7380 SH: dk gy, sft frm, sb
blk, blk, rthy tex, tr dsem pyr; tr
SLTST: md gy, sft, blk, sl calc, tr dsem
pyr

7380-7410 SH: dk gy-blk, sft frm, sb
blk, blk, rthy tex, tr dsem pyr; tr
SLTST: md gy, sft, sb plty-blk, sl calc,
tr fr cal, tr dsem pyr

7410-7440 SH: dk gy-blk, frm, sb
blk, blk, rthy tex, sl calc, tr dsem pyr

7190
(-5847)

7440-7470 SH: dk gy-blk, sft frm, sb
blk, sb plty, rthy tex, sl calc, tr dsem
pyr

7470-7500 SH: dk gy-blk, sft frm, sb
plty, rthy tex, sl calc, tr dsem pyr, tr free
cal

7500-7530 SH: dk gy-blk, sft frm, blk, rthy
tex, tr dsem pyr; com LS:
wkst, lt-med gy, fri

7530-7560 LS: wkst, lt-med gy, fri, rthy
tex; occ SH: dk gy-blk, sft frm, plty
rthy tex, tr dsem pyr

MD 7352
INC 52.00
AZM 32.80
TVD 7074.92
VS 334.80

7340
(-5997)

MD 7416
INC 53.70
AZM 21.30
TVD 7113.65
VS 364.91

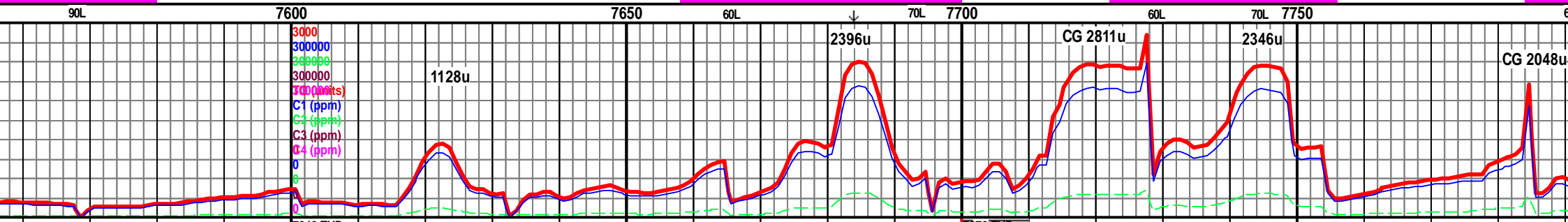
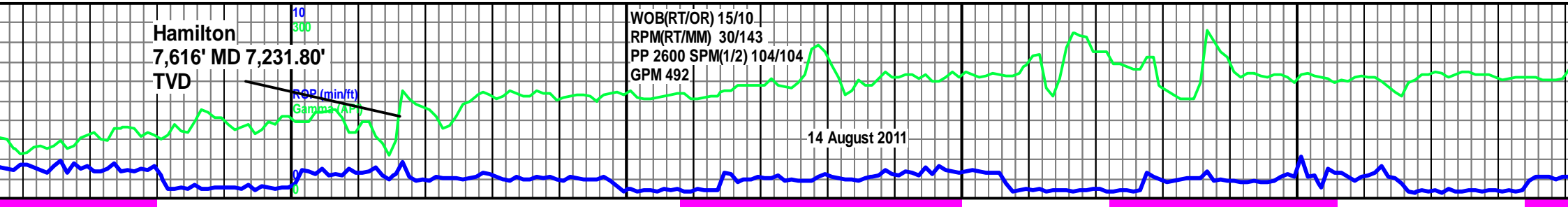
MD 7478
INC 54.70
AZM 17.90
TVD 7149.92
VS 399.65

MD 7541
INC 53.80
AZM 15.30
TVD 7186.73
VS 436.84

Hamilton
 7,616' MD 7,231.80'
 TVD

WOB(RT/OR) 15/10
 RPM(RT/MM) 30/143
 PP 2600 SPM(1/2) 104/104
 GPM 492

14 August 2011



7040 TVD
 Sub Sea (-5697)

**Note: TVD
 Scale Change**

7270 TVD
 Sub Sea (-6077)

7560-7590 LS: wkst, lt-med gy, fri, rthy
 tex; occ SH: dk gy-blk, sft-frm, sb
 plty-plty, rthy tex, tr dsem pyr

7590-7620 SH: dk gy-blk, sft-frm, sb
 plty-plty, rthy tex, sl calc, tr dsem pyr;
 occ LS: wkst, lt-md gy, fri, rthy tex

7620-7650 SH: med-dk gy, sft-frm, sb
 blk, rthy tex, sl calc, tr dsem pyr

7650-7680 SH: med-dk gy, sft-frm, sb
 blk, rthy tex, sl calc, tr dsem pyr

7680-7710 SH: med-dk gy, sft-frm, sb
 blk, rthy tex, sl calc, tr dsem pyr

7710-7740 SH: med-dk gy, sft-frm, sb
 blk, rthy tex, sl calc, tr dsem pyr

7740-7770 SH: med gy, sft-frm, sb blk,
 rthy tex, sl calc, tr dsem pyr

7770-7800 SH: med-dk gy, sft-frm, sb
 blk, rthy tex, sl calc, tr dsem pyr

7190
 (-5847)

Scale Change
 7420
 (-6077)

MD 7604
 INC 52.30
 AZM 6.60
 TVD 7224.65
 VS 476.61

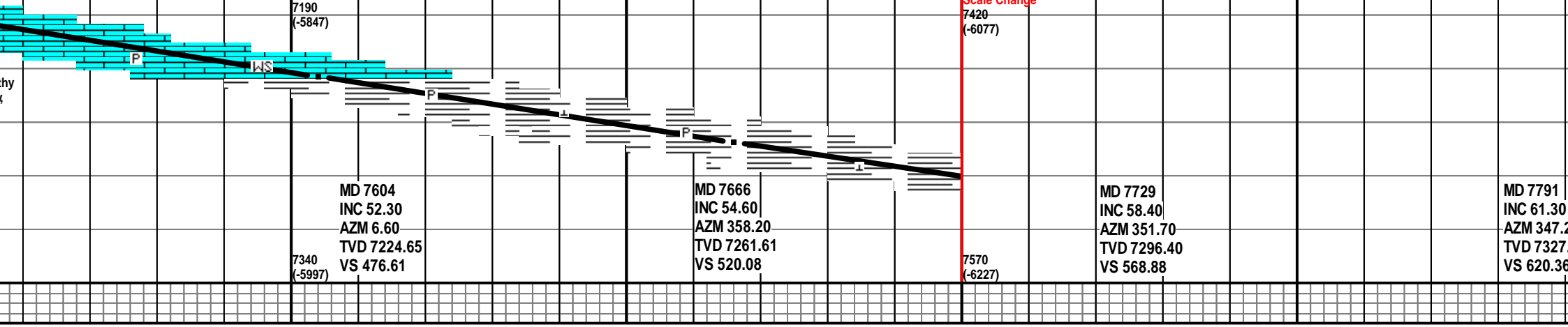
7340
 (-5997)

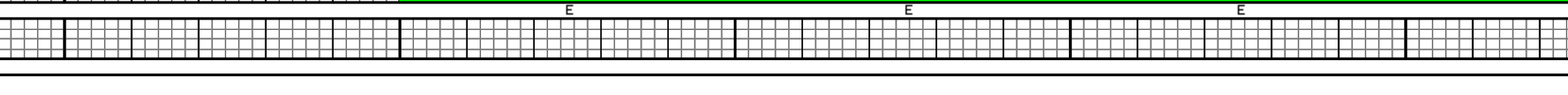
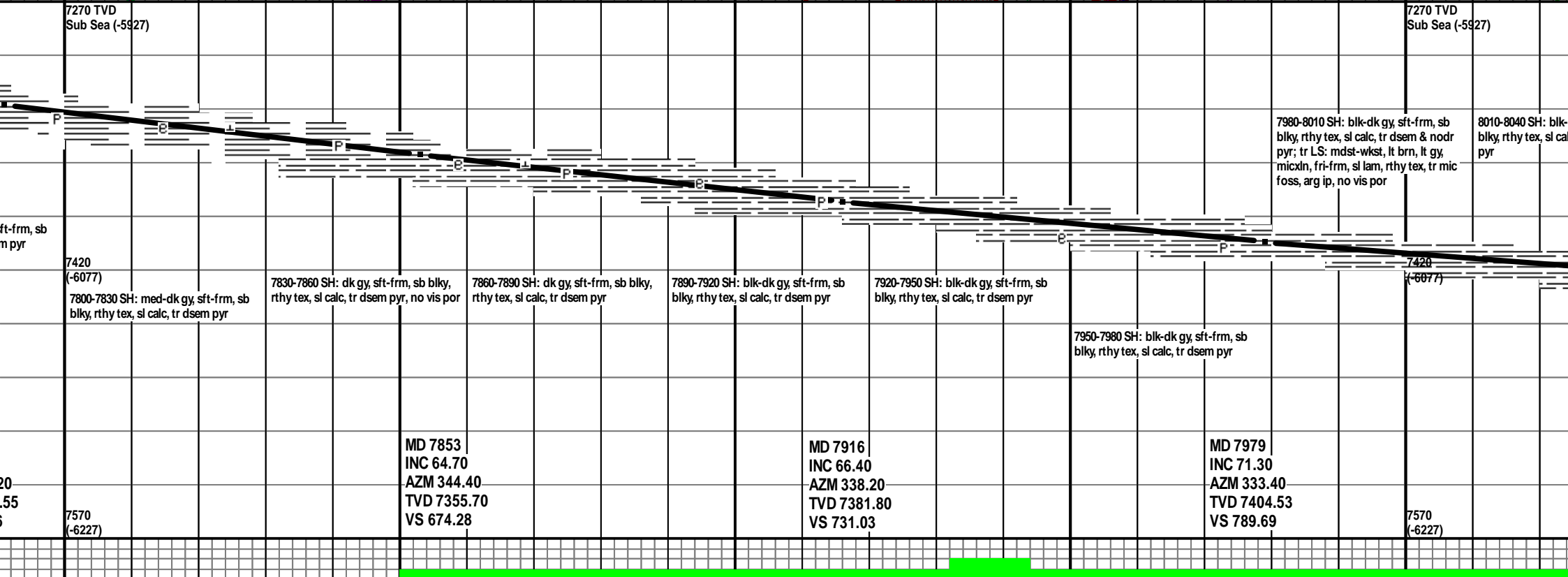
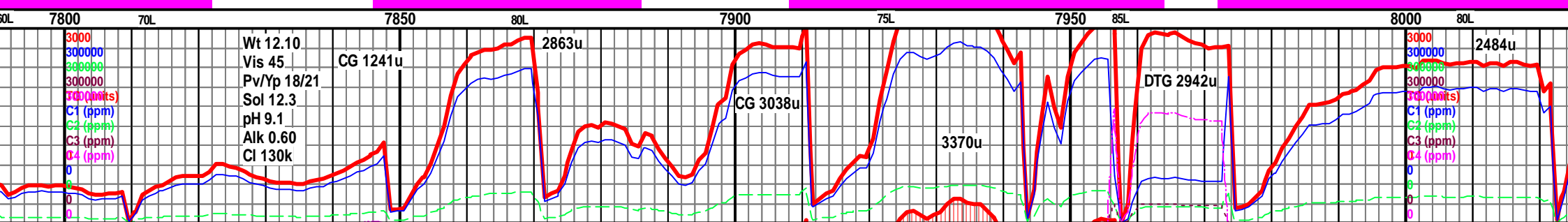
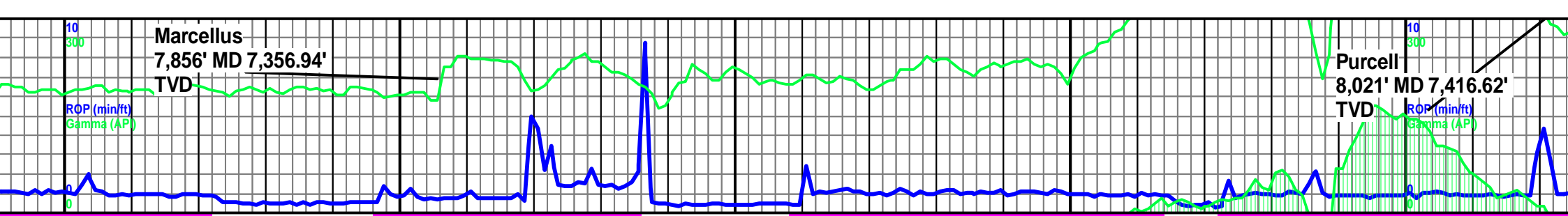
MD 7666
 INC 54.60
 AZM 358.20
 TVD 7261.61
 VS 520.08

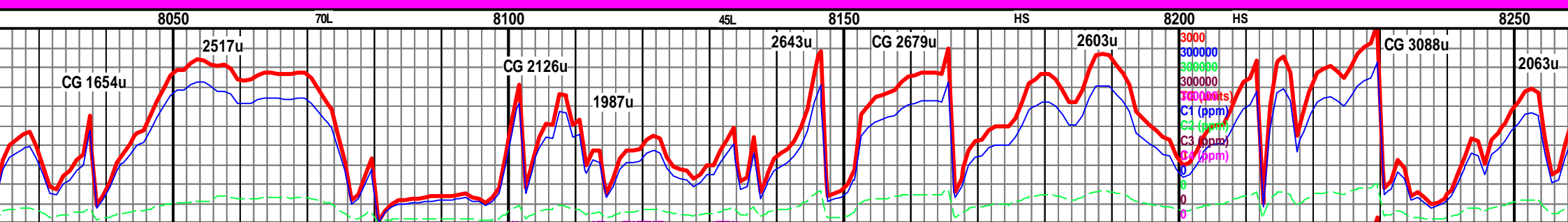
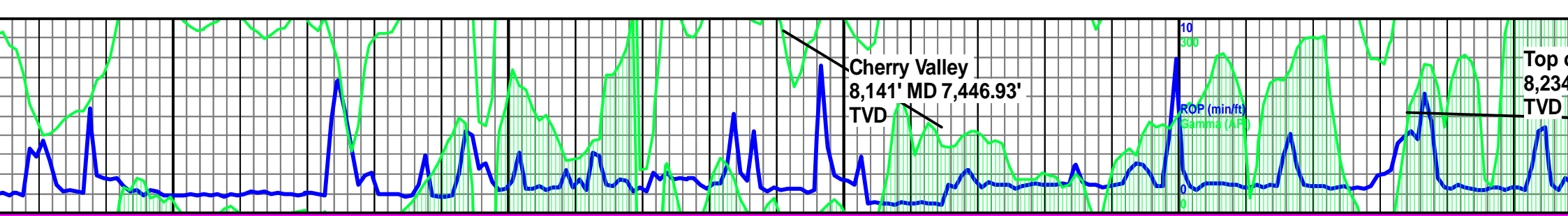
7570
 (-6227)

MD 7729
 INC 58.40
 AZM 351.70
 TVD 7296.40
 VS 568.88

MD 7791
 INC 61.30
 AZM 347.20
 TVD 7327.00
 VS 620.36







7270 TVD
Sub Sea (-5927)

7420
(-6077)

7570
(-6227)

Visi

dk gy, sft frm, sb
ic, tr dsem & nodr

8040-8070 SH: blk-dk gy, sft frm, sb
blk, rthy tex, sl calc, tr dsem & nodr
pyr

8070-8100 SH: blk-dk gy, sft frm, sb
blk-bly, rthy tex, sl calc, tr dsem &
nod pyr

8100-8130 SH: blk-dk gy, sft frm, sb
blk-bly, rthy tex, sl calc, tr dsem &
nod pyr

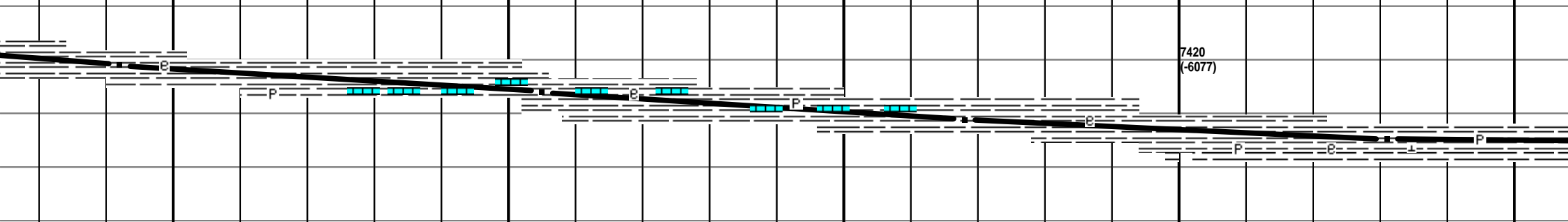
8130-8160 LS: wkst, micxn, fri frm, rthy
tex; com SH: blk-dk gy, sft frm, sb blk,
rthy tex, sl calc, tr dsem pyr

8160-8190 SH: blk, sft, sb blk-ply, rthy
tex, sl calc, tr dsem & nod pyr

8190-8220 SH: blk, sft frm, sb blk-splt,
rthy tex, sl calc, tr dsem pyr

8220-8250 SH: blk, sft frm, sb ply-ply,
rthy tex, sl calc, tr dsem pyr

8250-8280
ply, rthy t



MD 8042
INC 75.30
AZM 332.40
TVD 7422.66
VS 849.82

MD 8105
INC 76.00
AZM 320.70
TVD 7438.28
VS 909.87

MD 8168
INC 76.20
AZM 318.00
TVD 7453.42
VS 969.21

MD 8231
INC 84.00
AZM 316.60
TVD 7464.24
VS 1028.82

E E E E E E

of Target
' MD 7,464.35'

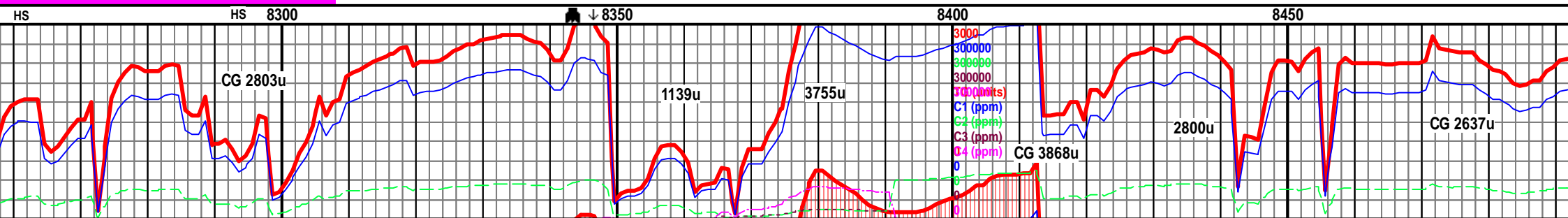
WOB(RT/OR) 15/10
RPM(RT/MM) 30/143
PP 2600 SPM(1/2) 105/105
GPM 492

Bit #8; Size: 7 7/8"
Make: Security; Model:
FXD54M
S/N: 11809651; Jets: 2x18,
5x12
Ga.1.15 Mud motor; in @ 8,348'

10
300
ROP (min/ft)
Gamma (API)

Bit #7 drilled
1,129' in 23 hrs

15 August 2011



ble Gas Escaping from Samples			Note: TVD Scale Change					Visible Gas Escaping from Samples
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SH: blk, sft-frm, sb blkly-sb tex, sl calc, tr dsem & nod pyr	8280-8310 SH: blk, sft-frm, sb blkly-pty, rthy tex, sl calc, tr dsem & nod pyr, tr fr cal	8310-8340 SH: blk, sft-frm, sb blkly-pty, rthy tex, sl calc, tr dsem & nod pyr, tr fr cal	8340-8370 SH: blk, sft-frm, sb blkly-pty, rthy tex, sl calc, tr dsem pyr, tr fr cal	8370-8400 SH: blk, sft, sb blkly-splt, rthy tex, sl calc, tr dsem pyr, tr fr cal	8400-8430 SH: blk, sft-frm, sb blkly-sb pty, rthy tex, sl calc, tr dsem & nod pyr, tr fr cal	8430-8460 SH: blk, sft-frm, sb blkly-sb pty, rthy tex, sl calc, tr dsem & nod pyr, tr fr cal	8460-8490 SH: blk, sb blkly-sb pty, rthy tex, sl calc, tr dsem pyr, tr fr cal	8490-8520 SH: blk, sb blkly-sb pty, rthy tex, sl calc, tr dsem pyr, tr fr cal
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Curve landed at 8,348' MD
7,464.48' TVD @ 0545 hrs EDT on
15 August 2011

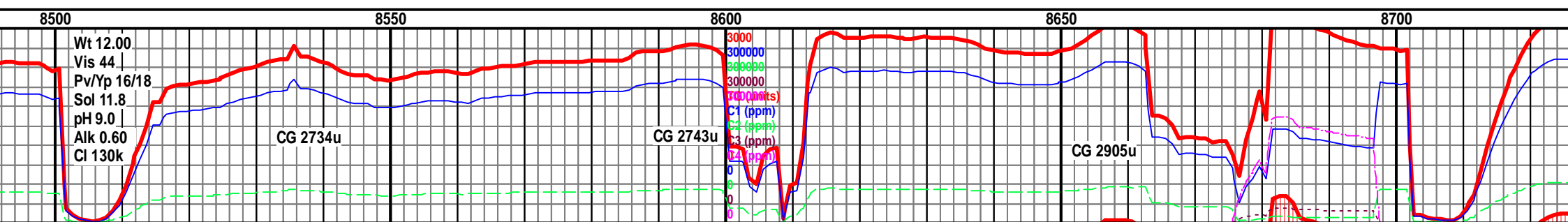
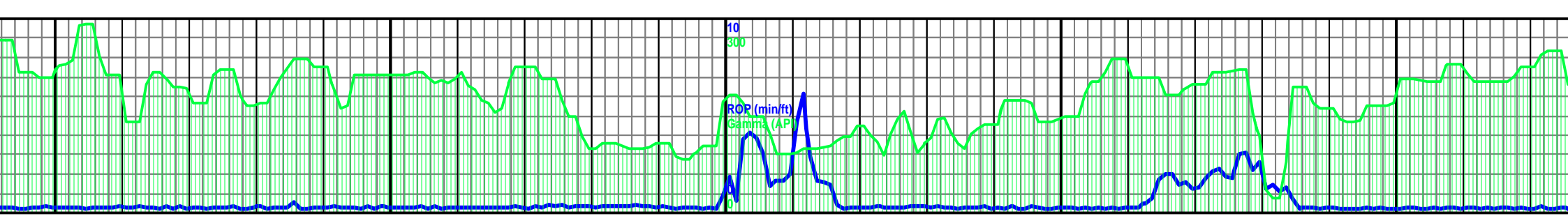
Survey to Bit =55'

MD 8294
INC 91.70
AZM 314.70
TVD 7466.60
VS 1088.77

MD 8358
INC 92.80
AZM 314.40
TVD 7464.09
VS 1149.33

MD 8420
INC 93.20
AZM 312.90
TVD 7460.85
VS 1207.64

MD 8483
INC 92.70
AZM 309.90
TVD 7457.60
VS 1266.02



Visible Gas Escaping from Samples

7400 TVD
Sub Sea (-6057)

Visible Gas Escaping from Samples

490-8520 SH: blk, sb blk-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr

8520-8550 SH: blk, sb blk-bkly, sft, rthy tex, sl calc, tr dsem pyr, tr fr cal

8550-8580 SH: blk, sb sbk-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr fr cal

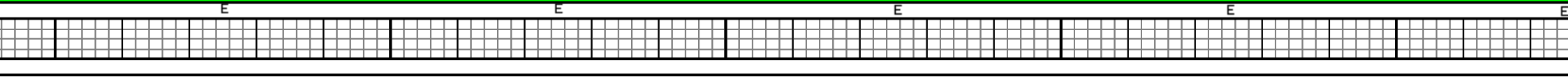
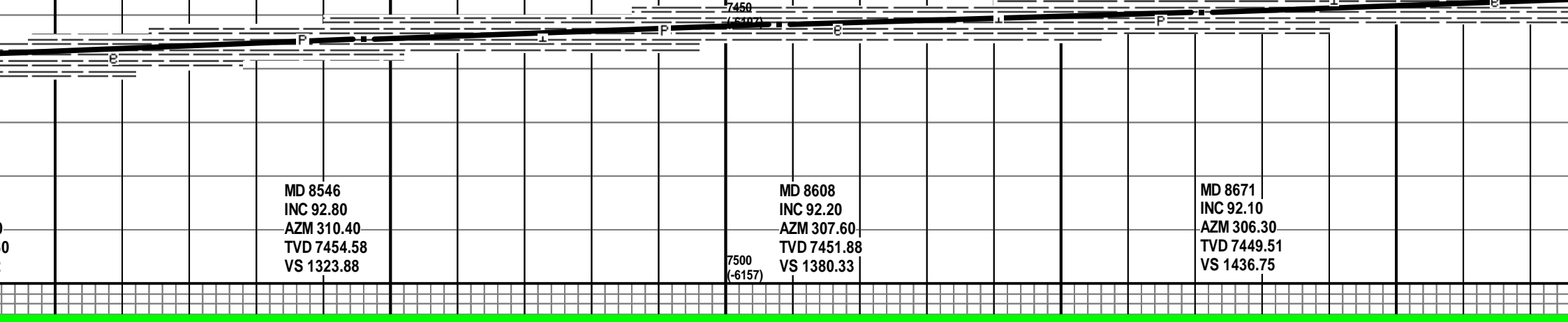
8580-8610 SH: blk, sb blk-bkly, sft, rthy tex, sl calc, tr dsem pyr, tr fr cal

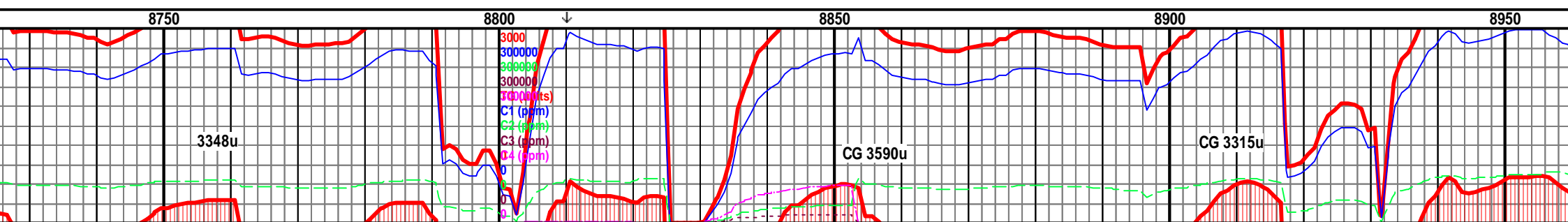
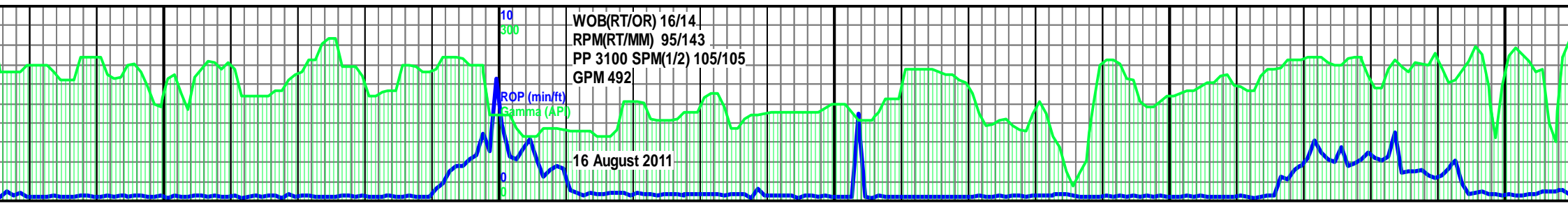
8610-8640 SH: blk, sft-frm, sb blk-bkly, rthy tex, sl calc, tr dsem pyr, tr fr cal

8640-8670 SH: blk, sft-frm, sb blk-bkly, rthy tex, sl calc, tr dsem pyr, tr fr cal

8670-8700 SH: blk, sft-frm, sb blk, rthy tex, sl calc, tr dsem & nod pyr, tr fr cal

8700-8730 SH: blk, sft-frm, sb blk, rthy tex, sl calc, tr dsem & nod pyr, tr fr cal





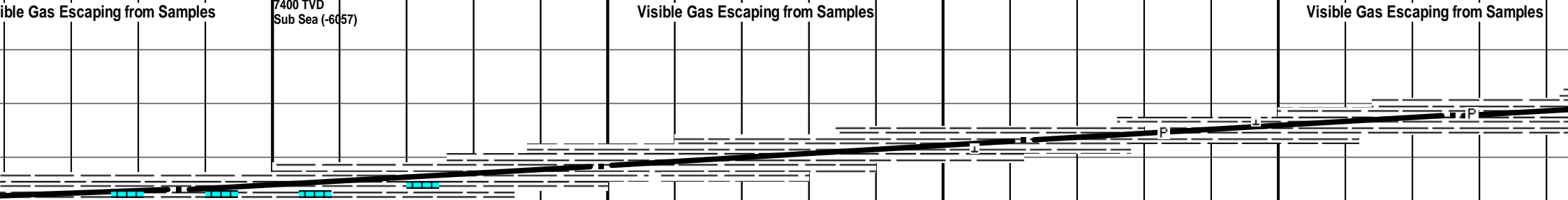
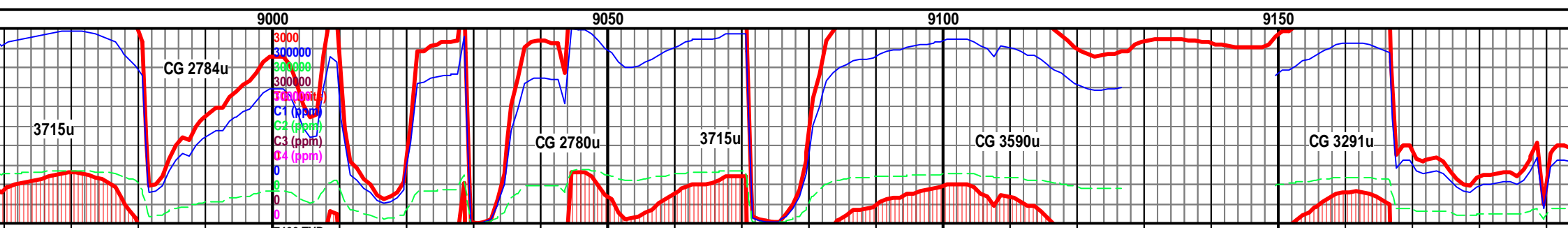
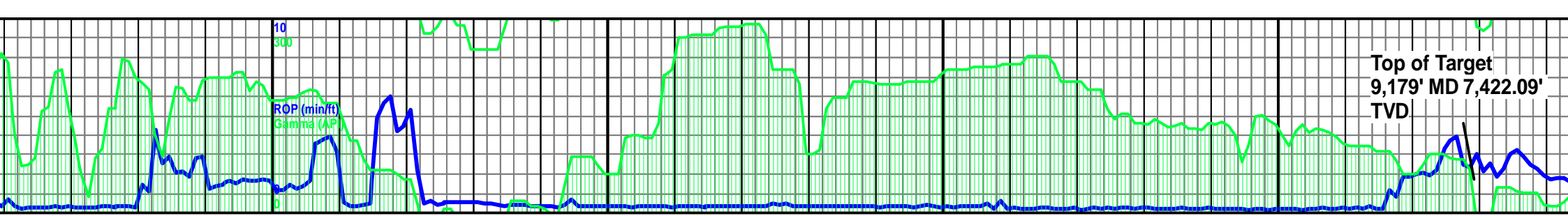
Visible Gas Escaping from Samples

	8730-8760 SH: blk, sft, sb blk-y-bkly, rthy tex, sl calc, tr dsem & nodr pyr, tr fr cal	8760-8790 SH: blk, sft, sb blk-y-bkly, rthy tex, sl calc, tr dsem & nodr pyr, tr fr cal	8790-8820 SH: blk, dk gy, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nodr pyr, pos rthy por	8820-8850 SH: blk, dk gy, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por	Visible Gas Escaping from Samples	Visible Gas Escaping from Samples	Visible Gas Escaping from Samples
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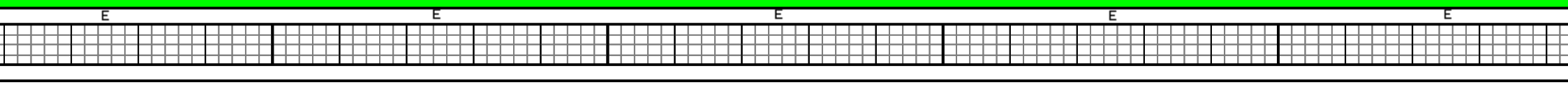


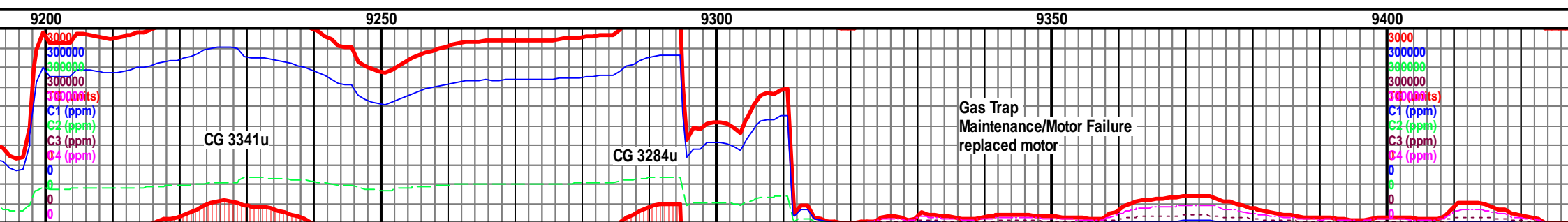
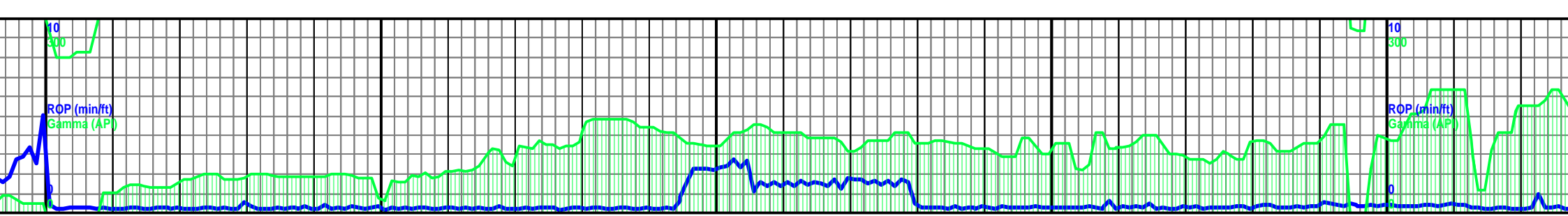
MD 8735 INC 92.70 AZM 306.80 TVD 7446.83 VS 1493.85	MD 8798 INC 93.20 AZM 305.60 TVD 7443.59 VS 1549.87	7450 (-6107) 7500 (-6157)	8850-8880 SH: blk, dk gy, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por; tr LS: mdst-wkst, lt-med gy, micxn, fri-frm, sl lam, rthy tex, tr mic fos, no vis por	MD 8861 INC 92.00 AZM 304.30 TVD 7440.73 VS 1605.26	8880-8910 SH: blk, dk gy, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por	8910-8940 SH: blk, dk gy, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por	MD 8924 INC 91.70 AZM 304.00 TVD 7438.70 VS 1660.26	8940-8970 SH: blk, dk gy, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por
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E E E E

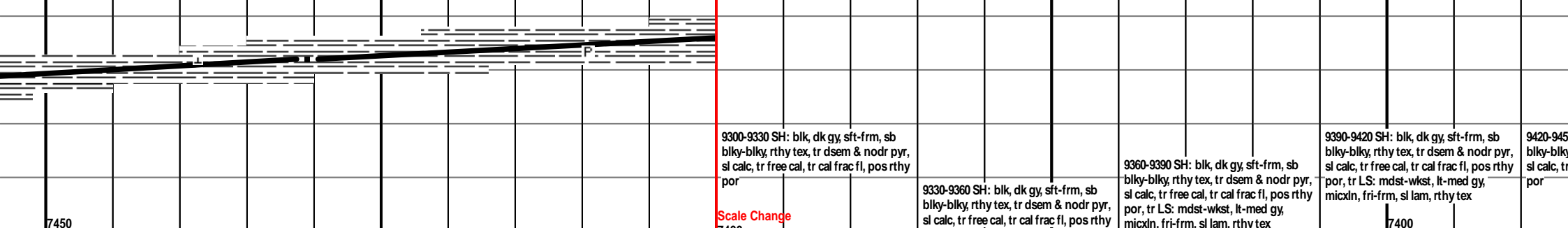


<p>8970-9000 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por; tr LS: mdst-wkst, lt-med gy, micxn, fri-frm, sl lam, rthy tex, tr mic fos, tr spy cal, no vis por</p>	<p>9000-9030 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, tr cal frac fl, pos rthy por; tr LS: mdst-wkst, lt-med gy, micxn, fri-frm, sl lam, rthy tex, tr mic fos, tr spy cal, no vis por</p>	<p>9030-9060 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por</p>	<p>9060-9090 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por</p>	<p>9090-9120 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por</p>	<p>9120-9150 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por</p>	<p>9150-9180 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por</p>	<p>9180-9210 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por</p>
<p>MD 8986 INC 93.30 AZM 305.60 TVD 7435.98 VS 1713.47</p>	<p>MD 9049 INC 94.60 AZM 307.00 TVD 7431.64 VS 1769.47</p>			<p>MD 9112 INC 94.20 AZM 305.90 TVD 7426.81 VS 1825.52</p>		<p>MD 9176 INC 93.90 AZM 306.30 TVD 7422.29 VS 1882.30</p>	





7400 TVD Sub Sea (-6057) Note: TVD Scale Change 7350 TVD Sub Sea (-6007) Visible Gas Escaping from Samples 7350 TVD Sub Sea (-6007)



9210-9240 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por

9240-9270 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por

9270-9300 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por

9300-9330 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por

9330-9360 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por, tr LS: mdst-wkst, lt-med gy, micxln, fri-frm, sl lam, rthy tex

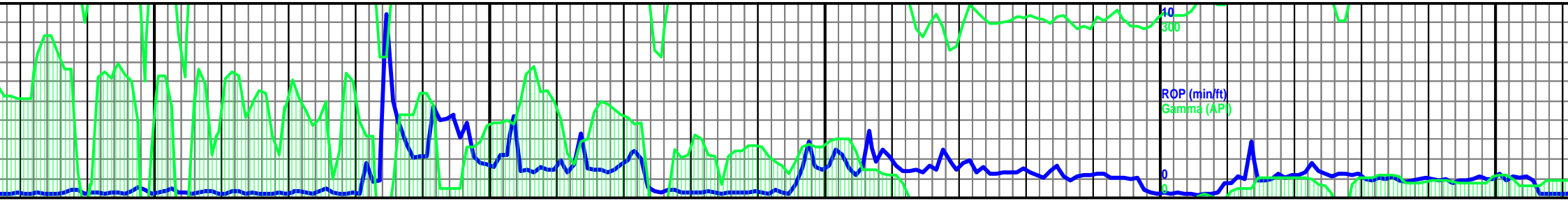
9360-9390 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por, tr LS: mdst-wkst, lt-med gy, micxln, fri-frm, sl lam, rthy tex

9390-9420 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por, tr LS: mdst-wkst, lt-med gy, micxln, fri-frm, sl lam, rthy tex

9420-9450 SH: blk, dk gy, sft-frm, sb blk-ly-bkly, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por

7450 (-6057)	MD 9239 INC 93.90 AZM 307.90 TVD 7418.01 VS 1938.70	7450 (-6107)	MD 9302 INC 93.50 AZM 308.70 TVD 7413.94 VS 1995.68	7450 (-6107)	MD 9365 INC 92.50 AZM 309.50 TVD 7410.64 VS 2053.07	7450 (-6107)	MD 9410 INC 92.50 AZM 309.50 TVD 7410.64 VS 2053.07
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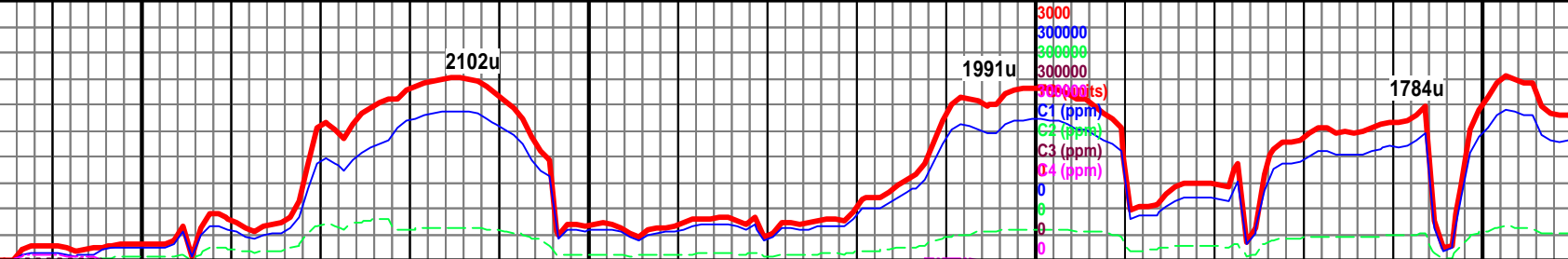




9450 9500 9550 9600 9650

Gas Trap
Maintenance/Motor Failure
replaced motor

Wt 12.20
Vis 46
Pv/Yp 21/24
Sol 12.6
pH 9.0
Alk 0.60
Cl 135K



Visible Gas Escaping from Samples

7350 TVD
Sub Sea (-6007)

Visible C

0 SH: blk, dk gy, sft-frm, sb rthy tex, tr dsem & nodr pyr, tr free cal, tr cal frac fl, pos rthy por
 9450-9480 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por
 9480-9510 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem pyr, sl calc, tr fr cal
 9510-9540 SH: blk, dk gy, sft, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr fr cal
 9540-9570 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr fr cal
 9570-9600 SH: blk, dk gy, sft-frm, sb blkly-blky, rthy tex, tr dsem & nodr pyr, sl calc, tr free cal, tr cal frac fl, pos rthy por

7400
(-6057)

28
.00
08.50
408.17
10.45

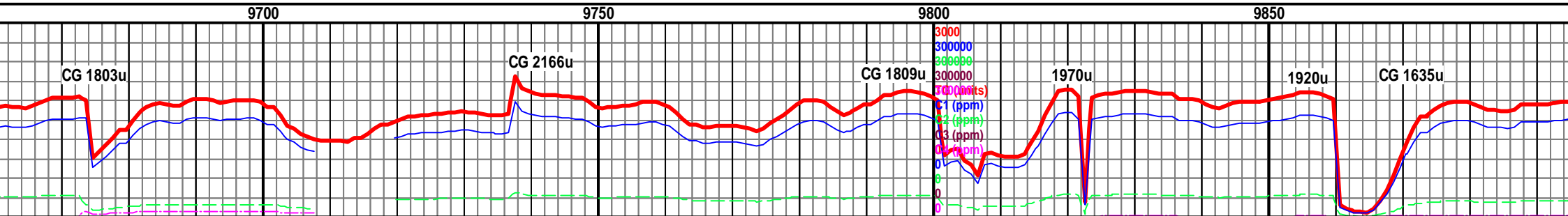
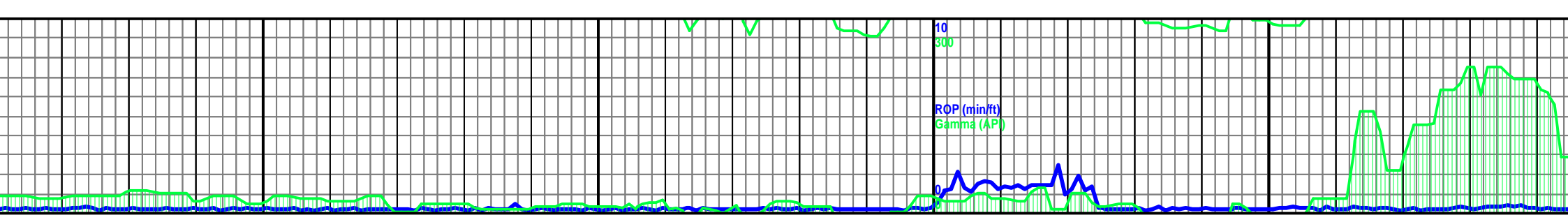
MD 9492
INC 91.40
AZM 307.70
TVD 7406.27
VS 2168.34

MD 9555
INC 91.70
AZM 309.30
TVD 7404.57
VS 2225.51

MD 9619
INC 91.90
AZM 312.20
TVD 7402.56
VS 2284.58

7450
(-6107)

E E E E



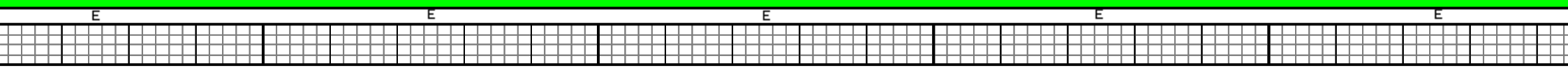
Gas Escaping from Samples Visible Gas Escaping from Samples Visible Gas Escaping from Samples

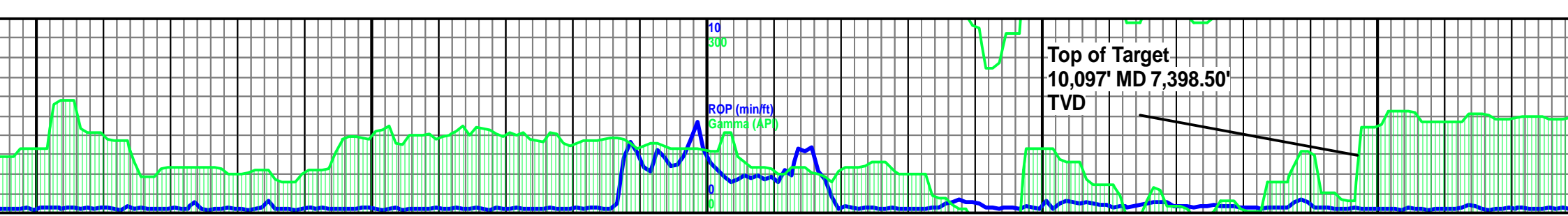
7350 TVD
Sub Sea (-6007)

9660-9690 SH: blk, sft, sb blk-ly-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr cal frac fl, tr free cal
 9690-9720 SH: blk, sft, sb blk-ly-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr cal frac fl, pos rthy por
 9720-9750 SH: blk, sft, sb blk-ly-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr free cal
 9750-9780 SH: blk, sft, sb blk-ly-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr free cal
 9780-9810 SH: blk, sft, sb blk-ly-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr free cal
 9810-9840 SH: blk, sft, sb blk-ly-sb plty, rthy tex, sl calc, tr dsem pyr, tr free cal, tr cal frac fl
 9840-9870 SH: blk, sft, sb blk-ly-sb plty, rthy tex, sl calc, tr dsem pyr, tr free cal, tr cal frac fl
 9870-9900 SH: blk, sft-frm, sb blk-ly-bkly, rthy tex, sl calc, tr dsem pyr, tr free cal

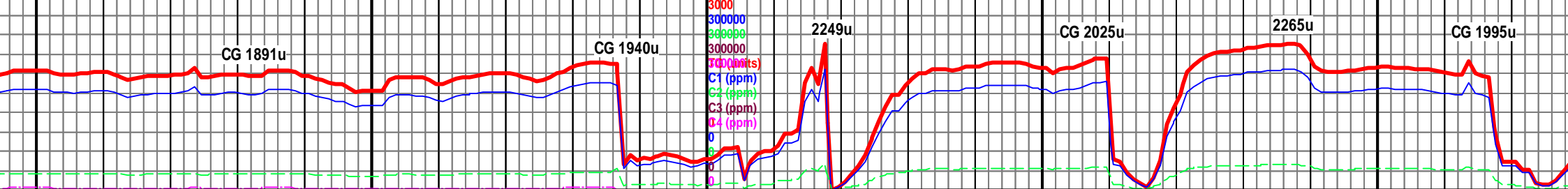


MD 9681 INC 91.50 AZM 314.40 TVD 7400.72 VS 2342.82	MD 9744 INC 91.40 AZM 313.60 TVD 7399.12 VS 2402.26	MD 9808 INC 90.70 AZM 313.20 TVD 7397.95 VS 2462.44	MD 9871 INC 90.10 AZM 312.40 TVD 7397.51 VS 2521.45
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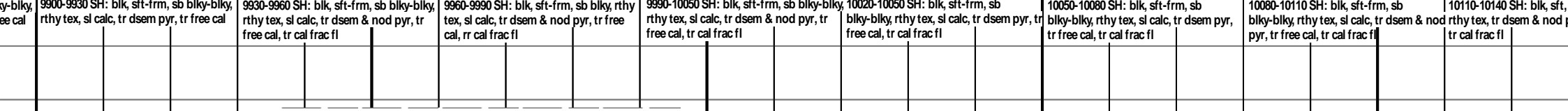


9900 9950 10000 10050 10100



Visible Gas Escaping from Samples

9900-9930 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, sl calc, tr dsem pyr, tr free cal
 9930-9960 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr free cal, tr cal frac fl
 9960-9990 SH: blk, sft-frm, sb blk-y, rthy tex, sl calc, tr dsem & nod pyr, tr free cal, rr cal frac fl
 9990-10050 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr free cal, tr cal frac fl
 10020-10050 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, sl calc, tr dsem pyr, tr free cal, tr cal frac fl
 10050-10080 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, sl calc, tr dsem pyr, tr free cal, tr cal frac fl
 10080-10110 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, sl calc, tr dsem & nod pyr, tr free cal, tr cal frac fl
 10110-10140 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nod pyr, tr cal frac fl

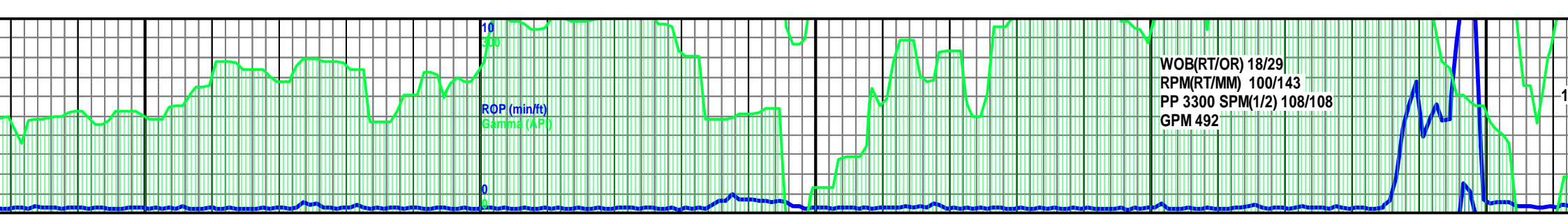


7350 TVD Sub Sea (-6007)

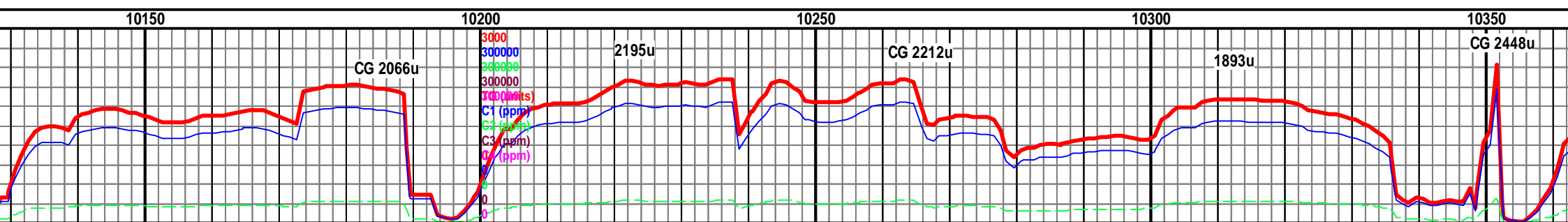
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	MD 9933 INC 90.10 AZM 311.70 TVD 7397.40 VS 2579.24		MD 9996 INC 89.70 AZM 313.30 TVD 7397.51 VS 2638.13	7450 (-6107)		MD 10059 INC 89.40 AZM 313.40 TVD 7398.01 VS 2697.35			MD 10110 INC 89.40 AZM 313.40 TVD 7398.01 VS 2750.00
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E E E E E E



WOB(RT/OR) 18/29
 RPM(RT/MM) 100/143
 PP 3300 SPM(1/2) 108/108
 GPM 492



Visible Gas Escaping from Samples			7350 TVD Sub Sea (-6007)	Visible Gas Escaping from Samples			Visible	
sb blk-y-bkly, pyr, tr free cal,	10140-10170 SH: blk, sft, sb blk-y-bkly, rthy tex, tr dsem & nod pyr, tr free cal, tr cal frac fl	10170-10200 SH: blk, sft, sb blk-y-bkly, rthy tex, tr dsem & nod pyr, tr free cal, tr cal frac fl	10200-10230 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nod pyr, tr free cal, tr cal frac fl	10230-10260 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nod pyr, tr free cal	10260-10290 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, tr dsem & nod pyr, tr free cal, tr cal frac fl	10290-10320 SH: blk, sft-frm, sb blk-y, rthy tex, tr dsem pyr, tr free cal, tr cal frac fl	10320-10350 SH: blk, sft-frm, sb blk-y-bkly, rthy tex, tr dsem pyr, tr free cal, tr cal frac fl	10350-10380 SH: blk-y-bkly, rthy tex, tr dsem pyr, tr free cal, tr cal frac fl

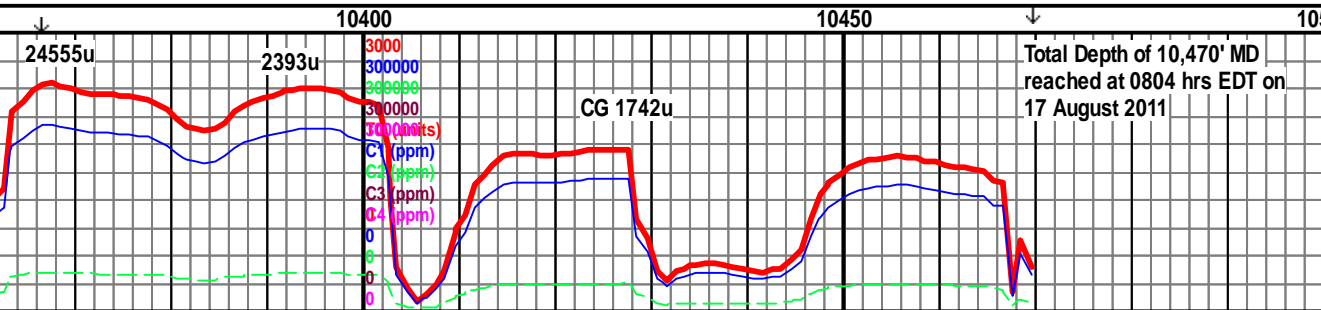
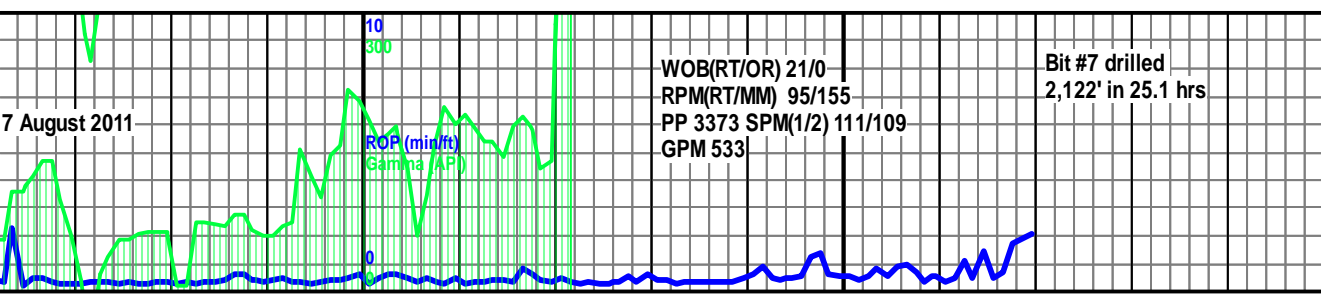
<p>22 10 2.80 98.83 6.48</p>			<p>MD 10185 INC 89.10 AZM 312.80 TVD 7399.82 VS 2815.48</p>	<p>7450 (-6107)</p>	<p>MD 10248 INC 88.20 AZM 312.30 TVD 7401.30 VS 2874.38</p>	<p>MD 10311 INC 87.90 AZM 312.00 TVD 7403.45 VS 2933.11</p>
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E E E E

7 August 2011

WOB(RT/OR) 21/0
RPM(RT/MM) 95/155
PP 3373 SPM(1/2) 111/109
GPM 533

Bit #7 drilled
2,122' in 25.1 hrs



Total Depth of 10,470' MD
reached at 0804 hrs EDT on
17 August 2011

Gas Escaping from Samples

7350 TVD
Sub Sea (-6007)

0-10380 SH: blk, sft-frm, sb ex, tr dsem pyr, tr free	10380-10410 SH: blk, sft-frm, sb blk-ylky, rthy tex, tr dsem pyr, tr free cal, tr cal frac fl	10410-10440 SH: blk, sft-frm, sb blk-ylky, rthy tex, tr dsem pyr, tr free cal, tr cal frac fl	10440-10470 SH: blk, sft-frm, sb blk-ylky, rthy tex, tr dsem pyr, tr free cal, tr cal frac fl
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Bottom Hole Location:
2,743.97' North & 1,400.31' West
of Surface Location



MD 10374 INC 88.30 AZM 311.50 TVD 7405.54 VS 2991.68	7450 (-6107)	MD 10415 INC 88.10 AZM 311.10 TVD 7406.83 VS 3029.68	Projection to Bit: MD 10470 INC 88.10 AZM 311.10 TVD 7408.65 VS 3080.57
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