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## GEOSTEERING LOG

### WellSight Systems

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

Well Name: Cather #513052  
Location: Rosemont 7.5" Quadrangle, Flemington District, Taylor County, West Virginia  
License Number: 47-091-01225  
Spud Date: 1 June 2011  
Surface Coordinates: Latitude: 39.29194  
Longitude: 80.15304  
Bottom Hole Coordinates: x,xxx.xx' South & x,xxx.xx' East of Surface Location  
Ground Elevation (ft): 1183  
Logged Interval (ft): 6960  
Formation: Middlesex through Marcellus  
Type of Drilling Fluid: water based mud  
K.B. Elevation (ft): 1205  
To: 12,xxx' Total Depth (ft): 12,xxx'  
Region: Appalachian Basin  
Drilling Completed: xx June 2011

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




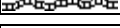
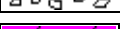

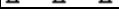
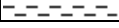








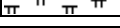

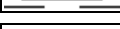
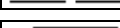
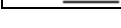



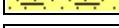

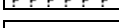
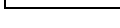
## OPERATOR

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








































































## GEOLOGISTS

**Name:** Kyle Thomas, Phillip Broache  
**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  Shcol	 Shgy  Sltst  Ss  Sssilty  Tuff  Unknown  Blank
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## ACCESSORIES

<b>FOSSIL</b>  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite  Ostra  Pelec  Pellet  Pisolite	 Plant  Strom  <b>MINERAL</b>  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  <b>STRINGER</b>  Anhy  Arg  Bent  Coal  Dol	 Gyp  Ls  Mrst  Sltstrg  Ssstrg  <b>TEXTURE</b>  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

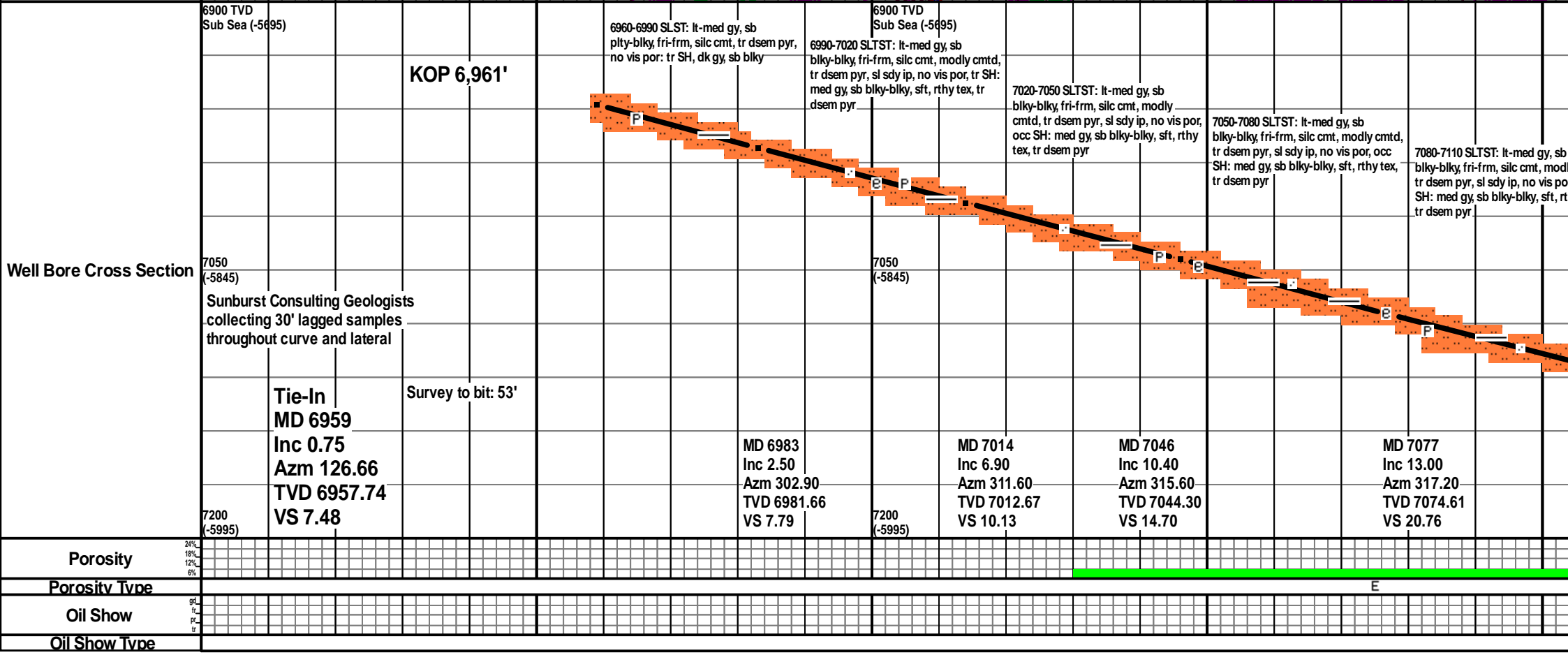
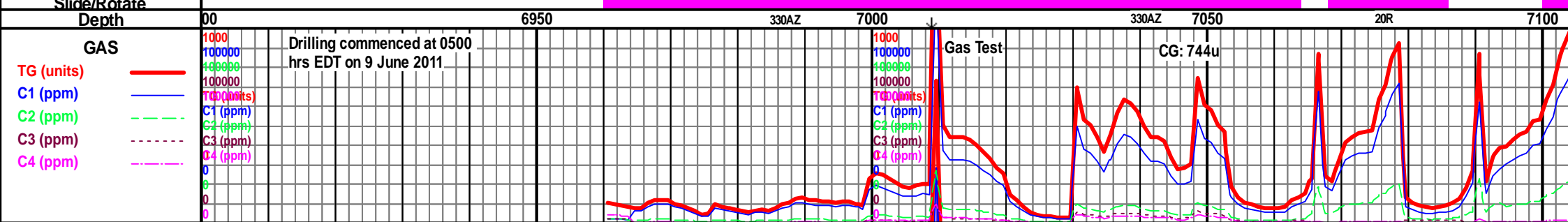
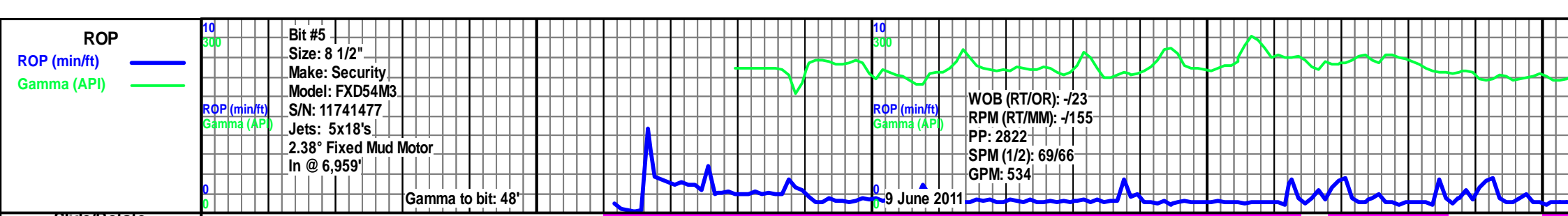
COMPANY MAN: Ken Baun, Larry XXXXXX  
TOOLPUSHER: Michael Case, Kermit Aultman Jr.  
RIG: Patterson-UTI 622

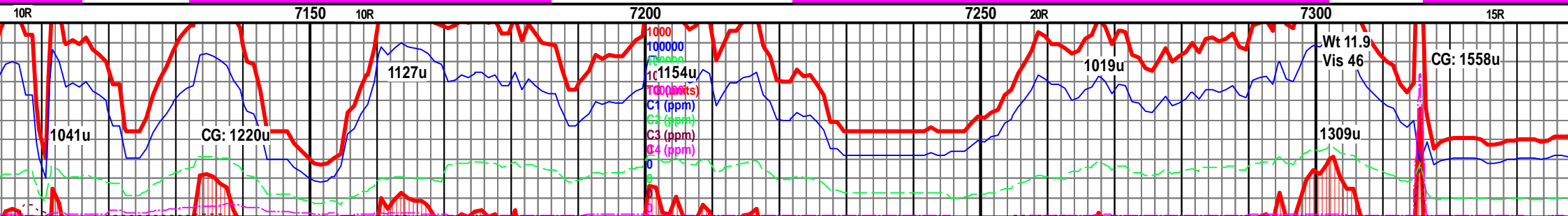
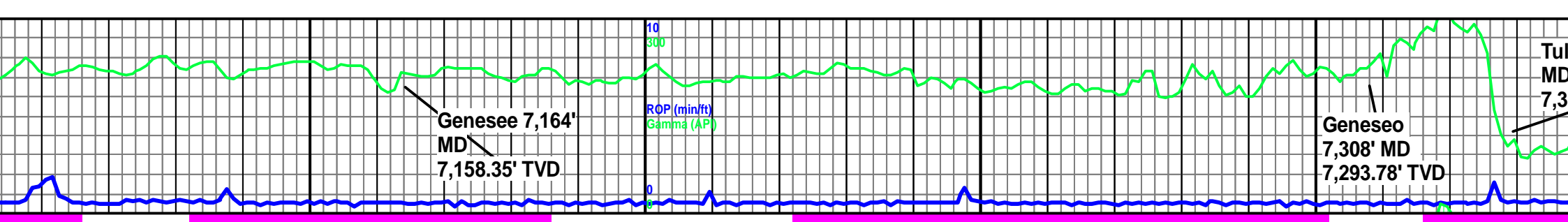
WV FILE #: 7377P513056R (329-47)

SURFACE CASING: 13 3/8" MC-50, 54.5#, 24 Joints, set to 1,057'  
INTERMEDIATE CASING: 9 5/8" J-55, 40#, 65 Joints, set to 2,847'

KOP: 6,788'

CLOSURE DIRECTION: xxxx °  
CLOSURE DISTANCE: xxxxx'

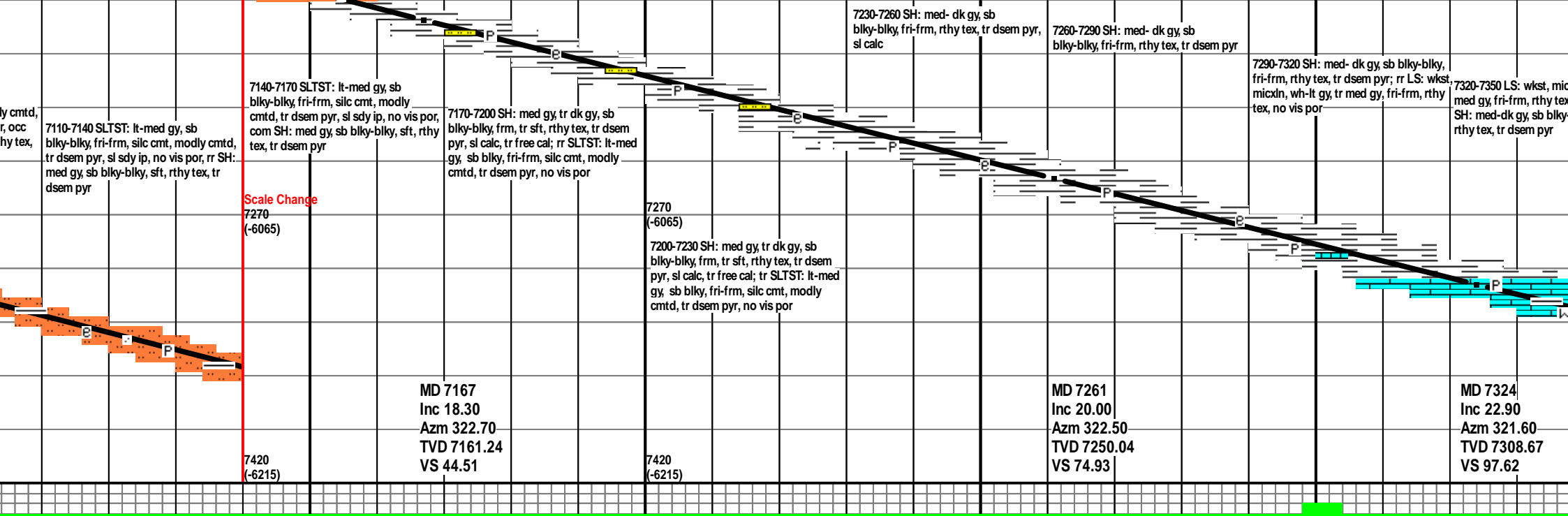




**Note: TVD Scale Change**

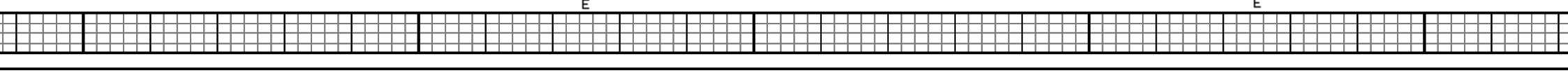
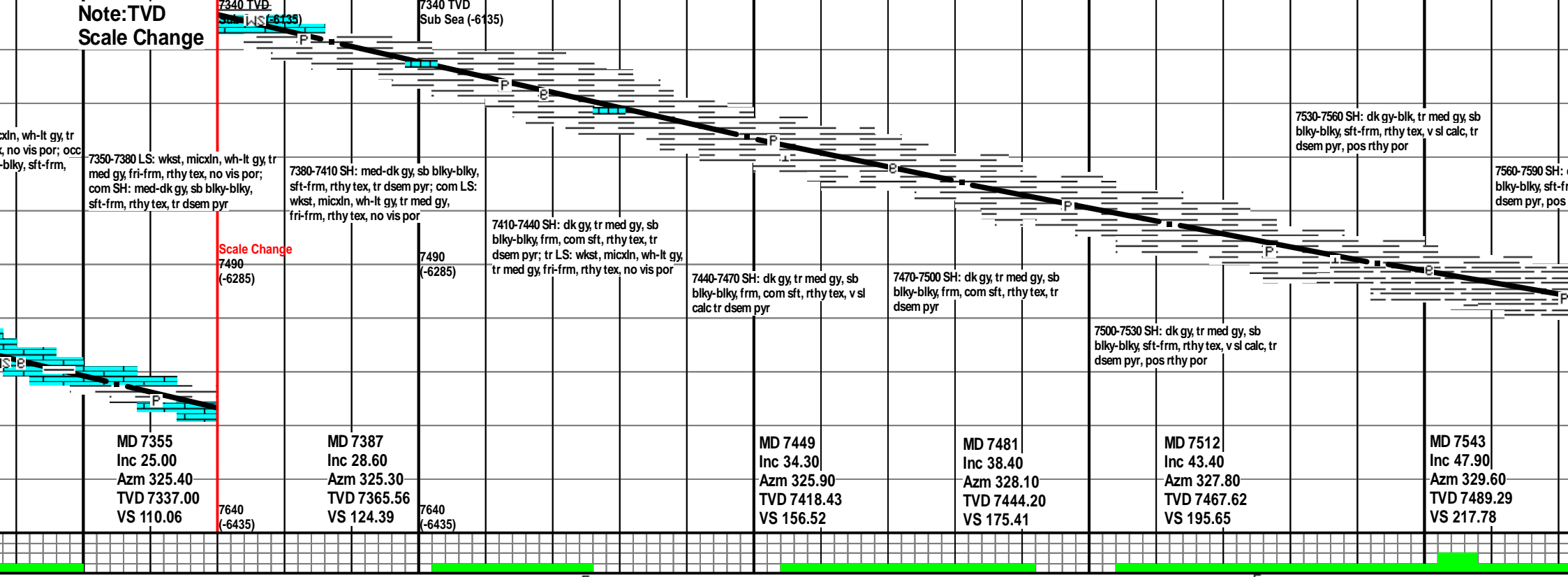
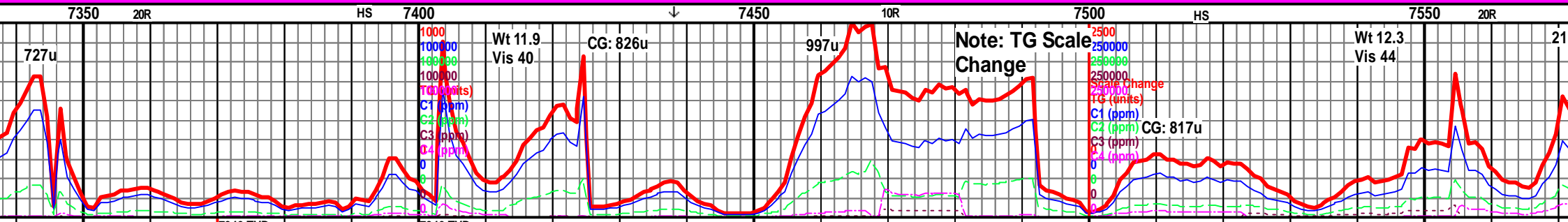
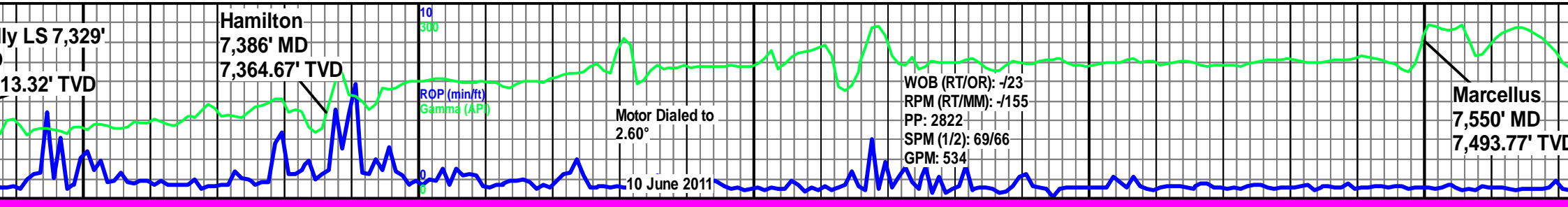
7120 TVD  
Sub Sea (-5915)

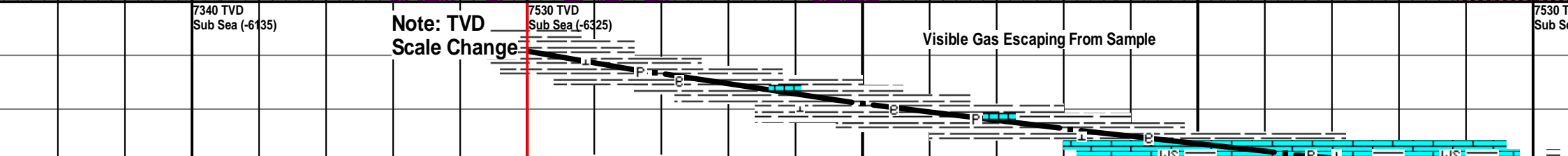
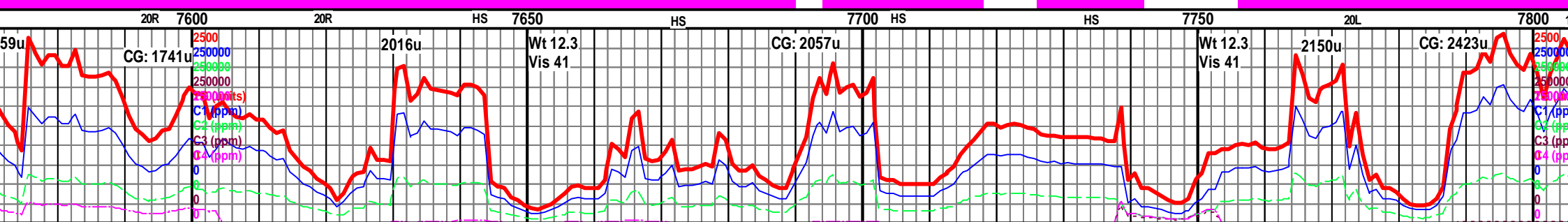
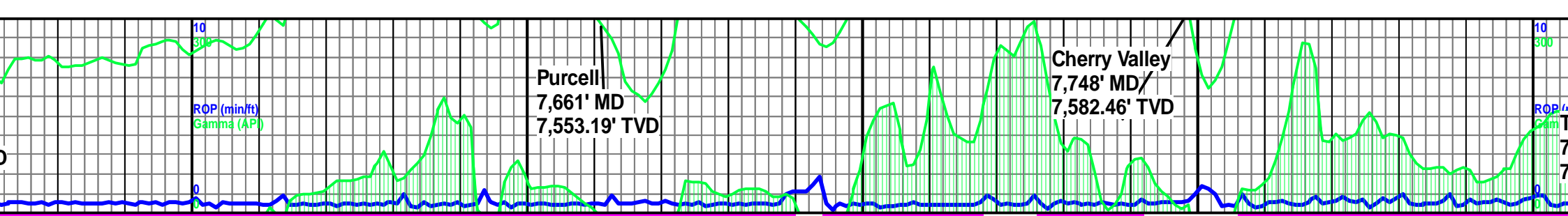
7120 TVD  
Sub Sea (-5915)



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7590-7620 SH: dk gy-blk, tr med gy, sb blk, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

7620-7650 SH: dk gy-blk, tr med gy, sb blk, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

7650-7680 SH: blk, tr dk gy & brn, sb blk, rthy tex, v calc, tr dsem pyr, pos rthy por; tr LS: wkst, micxn, med gy & brn, fri-fr, rthy tex, no vis por

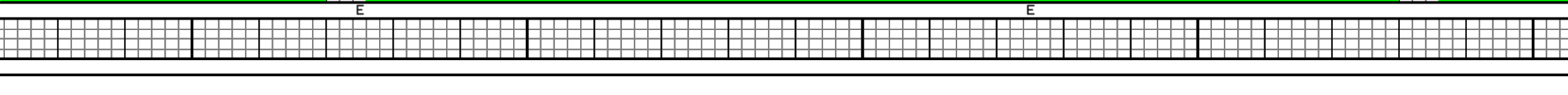
7680-7710 SH: blk, tr dk gy & brn, sb blk, rthy tex, v calc, tr dsem pyr, pos rthy por

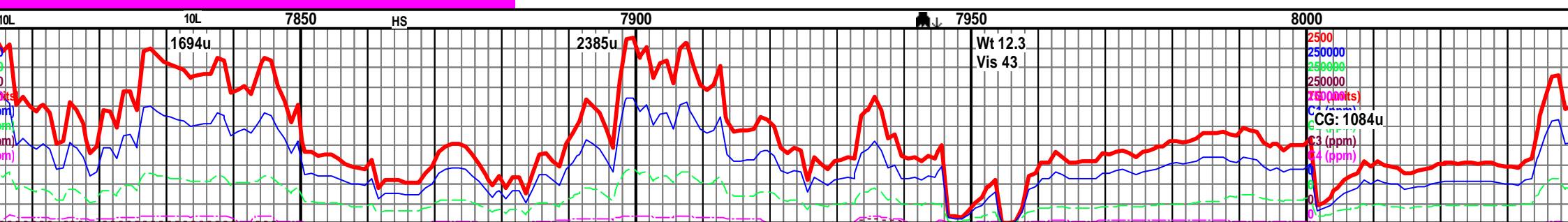
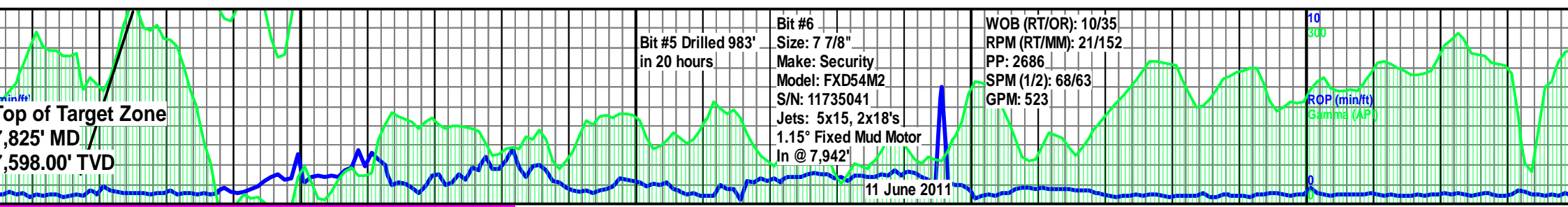
7710-7740 SH: blk, tr dk gy & brn, sb blk, rthy tex, v calc, tr dsem pyr, pos rthy por; tr LS: wkst, micxn, med gy & brn, fri-fr, rthy tex, no vis por

7740-7770 LS: wkst, micxn, med gy & brn, fri-fr, rthy tex, no vis por; com SH: blk, sb blk, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

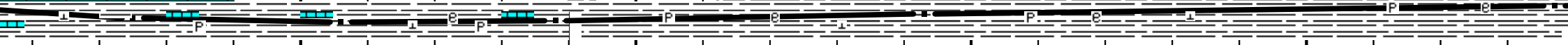
7770-7800 LS: wkst, micxn, med gy & brn, fri-fr, rthy tex, no vis por; com SH: blk, sb blk, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

MD 7575 Inc 52.60 Azm 332.50 TVD 7509.75 VS 242.36	MD 7606 Inc 57.40 Azm 335.00 TVD 7527.52 VS 267.73	MD 7637 Inc 62.30 Azm 336.70 TVD 7543.09 VS 294.47	MD 7669 Inc 67.90 Azm 336.20 TVD 7556.56 VS 323.40	MD 7700 Inc 69.70 Azm 336.90 TVD 7567.77 VS 352.21	MD 7731 Inc 72.80 Azm 337.00 TVD 7577.73 VS 381.45	MD 7763 Inc 74.90 Azm 337.00 TVD 7586.63 VS 412.07	MD 7794 Inc 79.30 Azm 334.40 TVD 7593.55 VS 442.21
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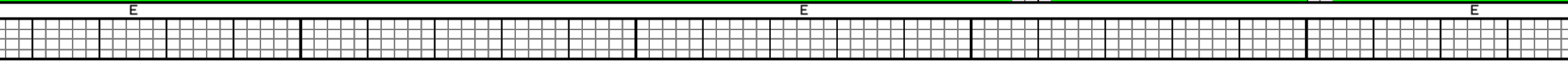




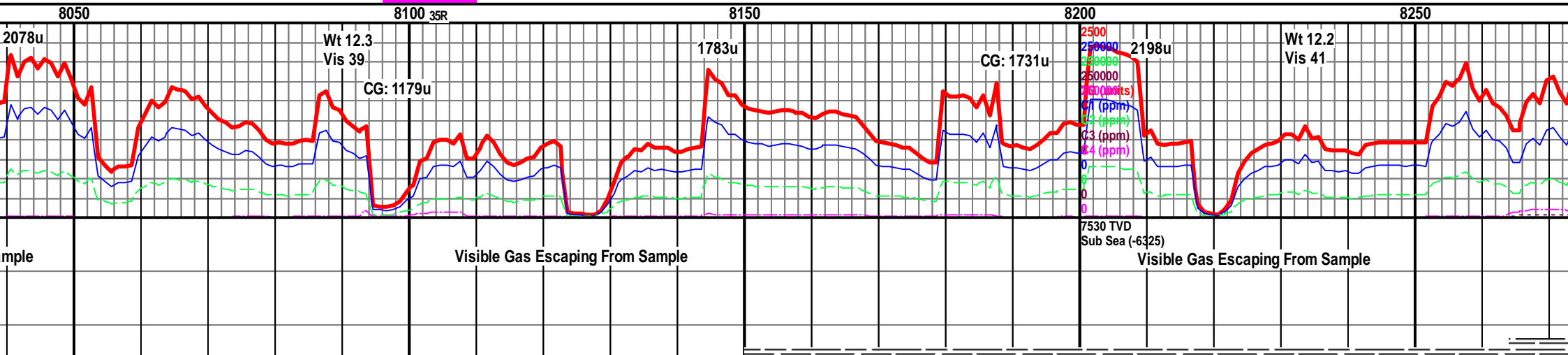
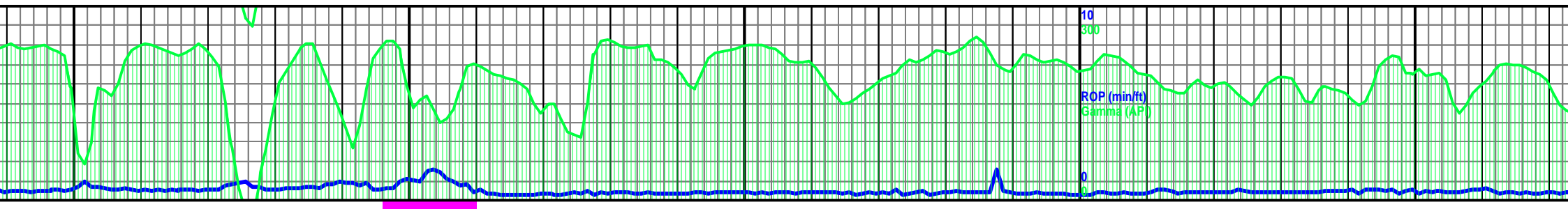
Visible Gas Escaping From Sample  
 Visible Gas Escaping From Sample  
 Visible Gas Escaping From Sample



7830-7860 SH: blk, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por; occ LS: wkst, micxn, med gy & brn, fri-frm, rthy tex, no vis por	7860-7890 SH: blk, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por; tr LS: wkst, micxn, med gy & brn, fri-frm, rthy tex, no vis por	7890-7920 SH: blk, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, pos rthy por; tr LS: wkst, micxn, med gy & brn, fri-frm, rthy tex, no vis por	7920-7950 SH: blk, occ dk gy & brn, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	7950-7980 SH: blk, occ dk gy & brn, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	7980-8010 SH: blk, occ dk gy & brn, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8010-8040 SH: blk, occ dk gy & brn, sb blkly- blkly, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por
MD 7825 Inc 84.20 Azm 332.20 TVD 7598.00 VS 472.87	MD 7856 Inc 90.00 Azm 331.50 TVD 7599.57 VS 503.82	MD 7888 Inc 92.60 Azm 330.80 TVD 7598.84 VS 535.80	MD 7943 Inc 92.20 Azm 329.00 TVD 7596.54 VS 590.72			MD 8037 Inc 91.40 Azm 327 TVD 759 VS 684.4

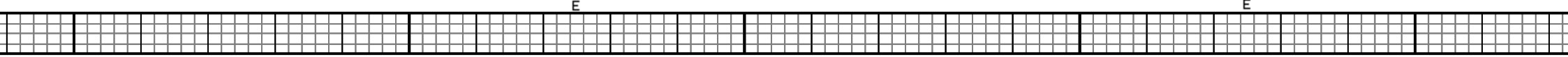


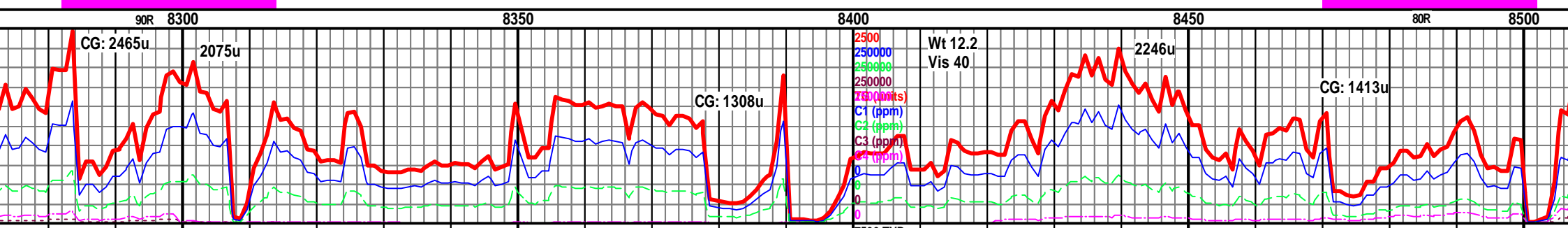
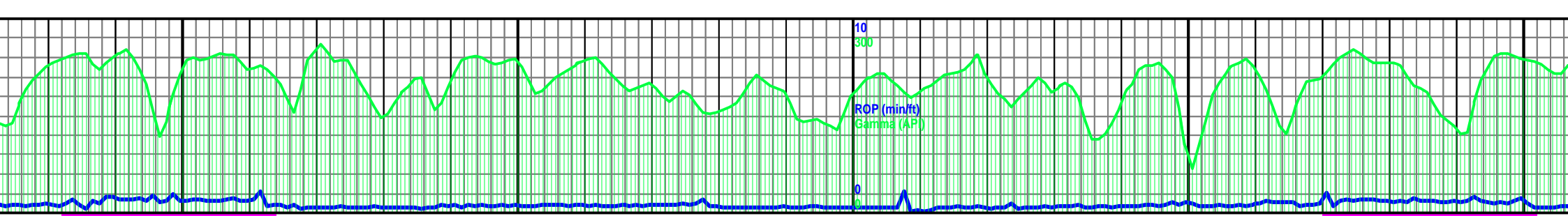




8040-8070 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8070-8100 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8100-8130 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8130-8160 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8160-8190 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8190-8220 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8220-8250 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8250-8280 SH: blk, occ dk gy & brn, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por
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			MD 8132 Inc 92.80 Azm 328.70 TVD 7590.10 VS 779.18				MD 8226 Inc 92.00 Azm 327.90 TVD 7586.17 VS 872.90
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Visible Gas Escaping From Sample

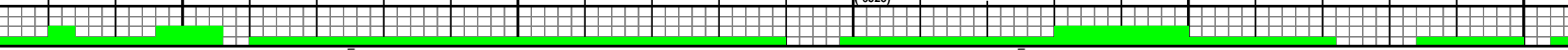
Visible Gas Escaping From Sample



brn, sb calc, tr	8280-8310 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	8310-8340 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	8340-8370 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	8370-8400 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	7630 (-6425)	8400-8430 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	8430-8460 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	8460-8490 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por	8490-8520 SH: blk, occ dk gy, tr brn, sb blkly-bkly, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

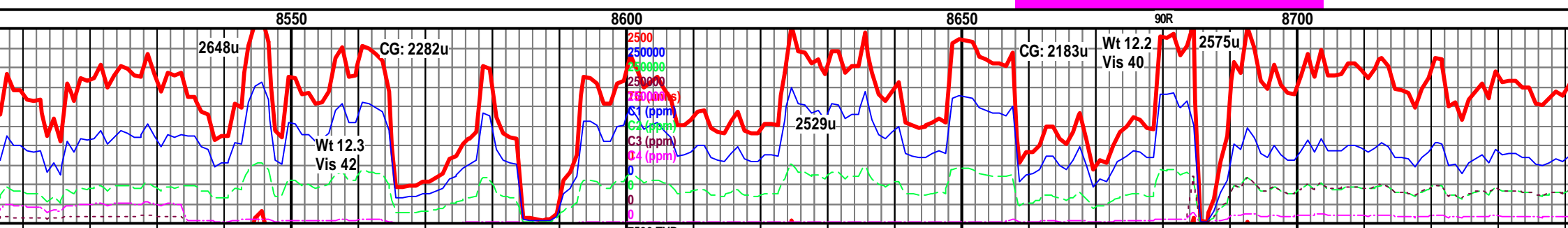
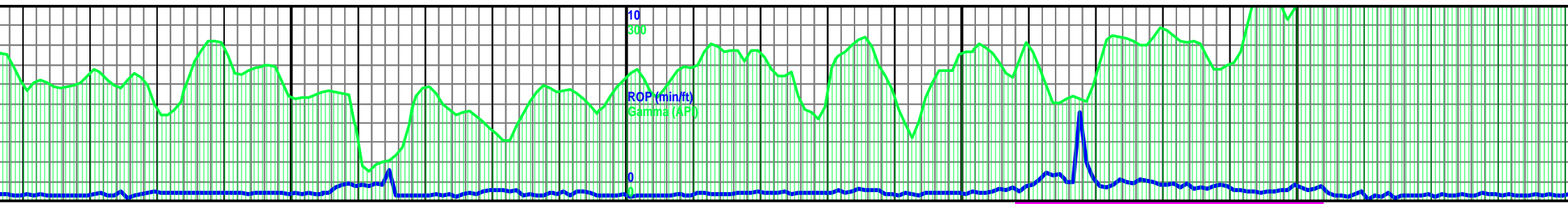
MD 8320  
Inc 92.70  
Azm 329.70  
TVD 7582.31  
VS 966.67

MD 8414  
Inc 91.60  
Azm 329.00  
TVD 7578.79  
VS 1060.50

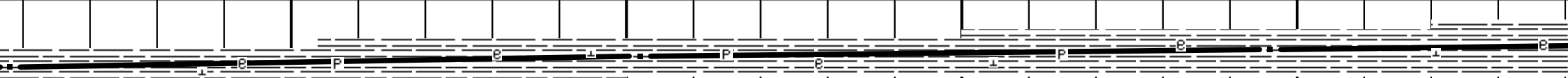


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Visible Gas Escaping From Sample



8520-8550 SH: blk, occ dk gy, tr brn, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

8550-8580 SH: blk, occ dk gy, tr brn, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

8580-8610 SH: blk, occ dk gy, tr brn, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem & nodr pyr, pos rthy por

8610-8640 SH: dk gy-blk, tr brn, sb blk-y-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por

8640-8670 SH: dk gy-blk, tr brn, sb blk-y-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por

8670-8700 SH: dk gy-blk, tr brn, sb blk-y-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por

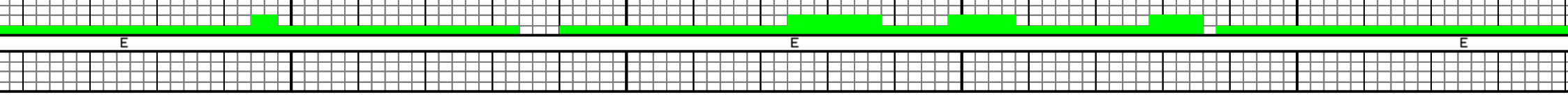
8700-8730 SH: dk gy-blk, tr brn, sb blk-y-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por

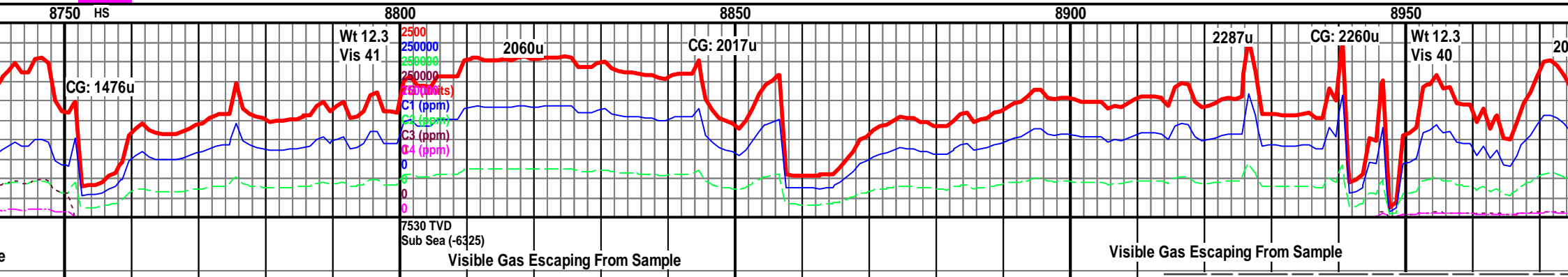
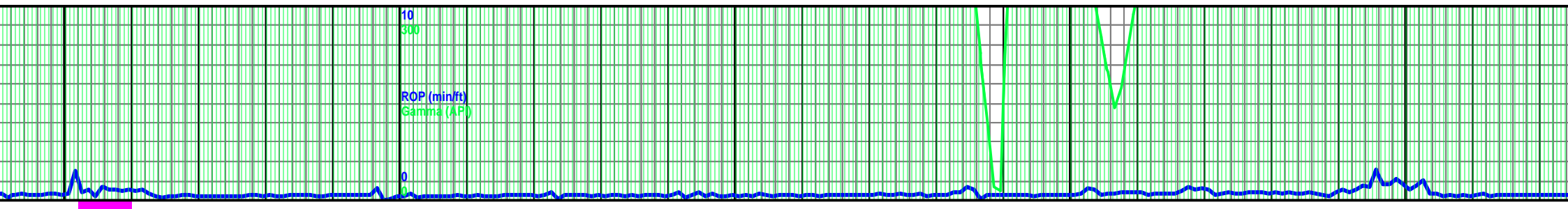
8730-8760 SH: blk-y-blky, sft-frm, rthy tex, pos rthy por

MD 8508  
Inc 93.30  
Azm 332.80  
TVD 7574.77  
VS 1154.37

MD 8602  
Inc 91.40  
Azm 329.50  
TVD 7570.91  
VS 1248.27

MD 8696  
Inc 91.40  
Azm 333.40  
TVD 7568.61  
VS 1342.22

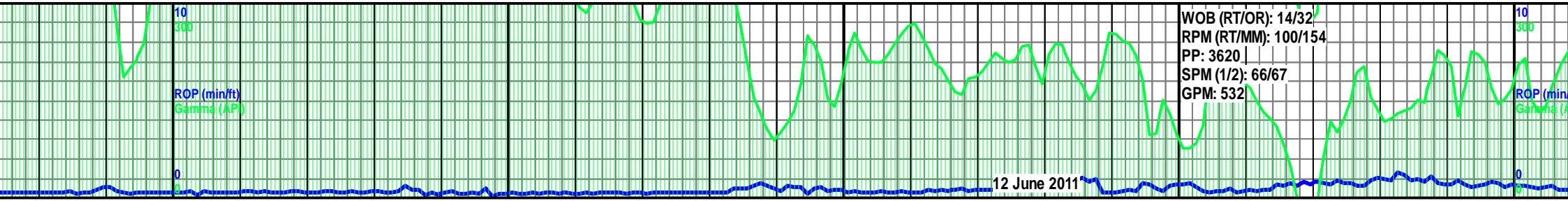




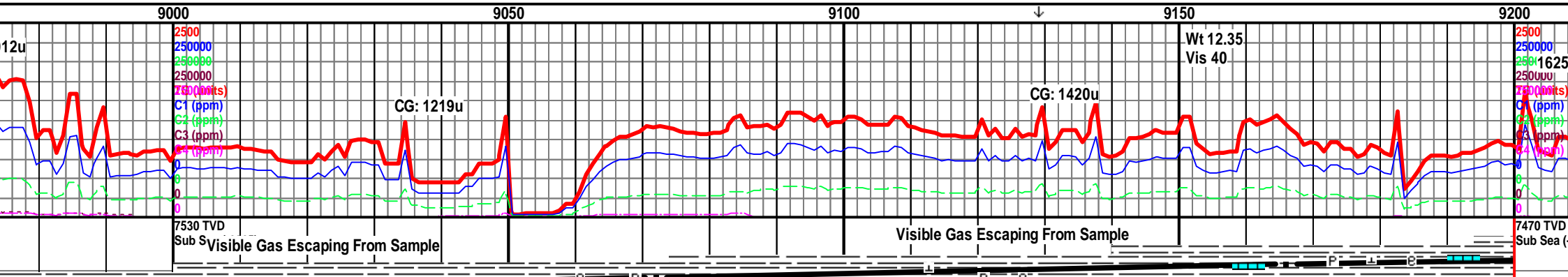
7530 TVD Sub Sea (-6325) Visible Gas Escaping From Sample

: dk gy-blk, tr brn, sb frm, rthy tex, sl calc, tr s rthy por	8760-8790 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8790-8820 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8820-8850 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8850-8880 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8880-8910 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8910-8940 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8940-8970 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por	8970-8990 SH: dk gy-blk, tr brn, sb blky-blky, sft-frm, rthy tex, sl calc, tr dsem pyr, pos rthy por
	MD 8790 Inc 92.10 Azm 334.00 TVD 7565.74 VS 1436.13				MD 8884 Inc 92.00 Azm 333.80 TVD 7562.38 VS 1530.02			

E E



WOB (RT/OR): 14/32  
RPM (RT/MM): 100/154  
PP: 3620  
SPM (1/2): 66/67  
GPM: 532

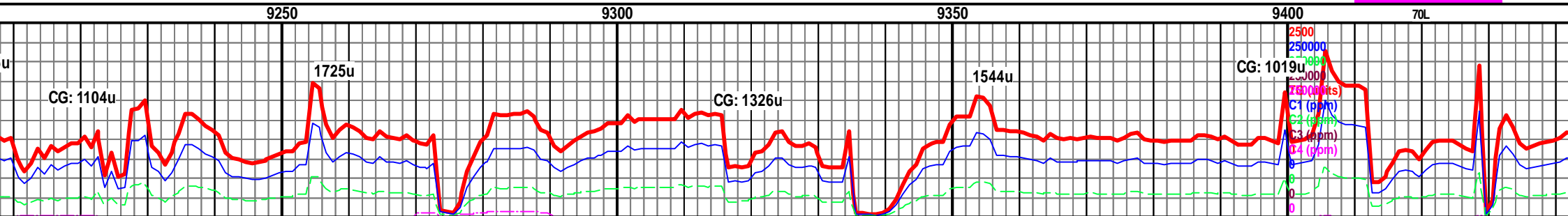
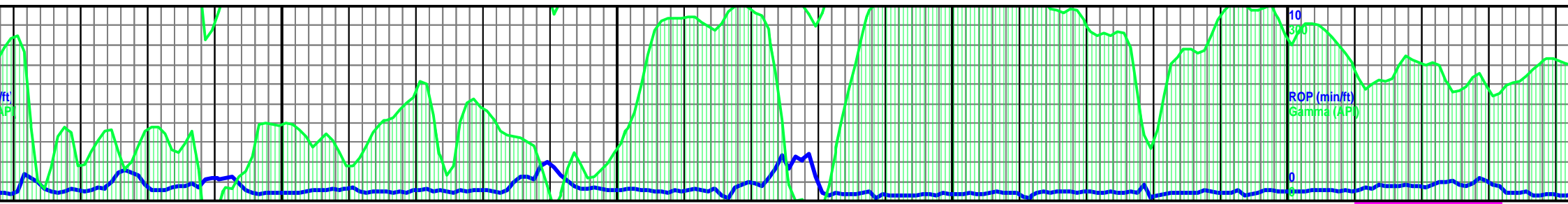


Wt 12.35  
Vis 40

<p>9000 SH: dk gy-blk, tr brn, sb blk, sft frm, rthy tex, sl calc, tr dsem &amp; nodr pyr, pos rthy por</p>	<p>7630 (-6425) 9000-9030 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem pyr, pos rthy por</p>	<p>9030-9060 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem pyr, pos rthy por</p>	<p>9060-9090 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem &amp; nodr pyr, pos rthy por</p>	<p>9090-9120 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem pyr, pos rthy por</p>	<p>9120-9150 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem &amp; nodr pyr, tr free calc, tr calc fld fracs, pos rthy por; tr LS: wkst, micln, med gy &amp; brn, fri frm, rthy tex, no vis por</p>	<p>9150-9180 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem &amp; nodr pyr, tr free calc, tr calc fld fracs, pos rthy por; tr LS: wkst, micln, med gy &amp; brn, fri frm, rthy tex, no vis por</p>	<p>9180-9210 SH: dk gy-blk, sb blk, sft frm, rthy tex, sl calc, tr dsem &amp; nodr pyr, tr free calc, tr calc fld fracs, pos rthy por; tr LS: wkst, micln, med gy &amp; brn, fri frm, rthy tex, no vis por</p>
<p>MD 8978 Inc 93.30 Azm 334.20 TVD 7558.04 VS 1623.86</p>	<p>7730 (-6525)</p>		<p>MD 9078 Inc 93.30 Azm 334.50 TVD 7552.62 VS 1717.62</p>			<p>MD 9166 Inc 92.70 Azm 334.80 TVD 7547.70 VS 1811.39</p>	<p>7570 (-6365)</p>

Note: TVD Scale Change

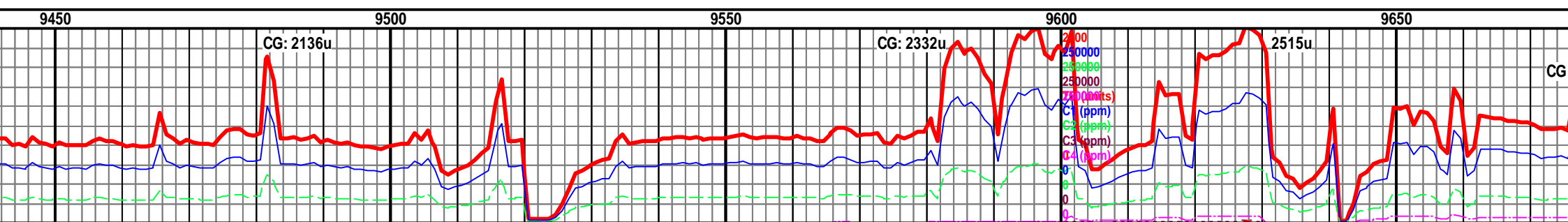
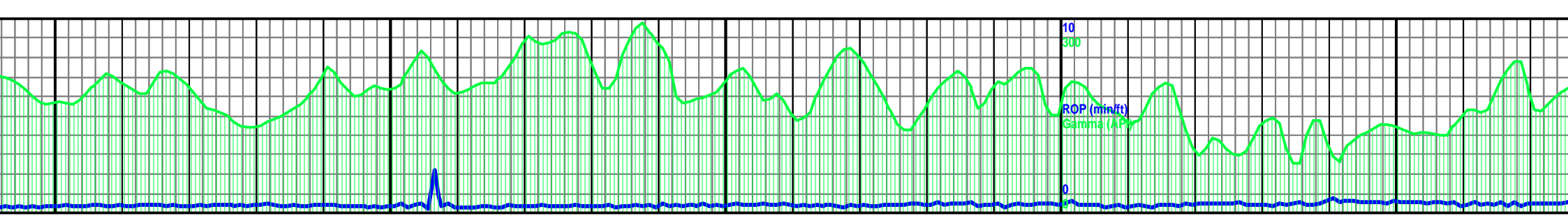
Scale Change  
7520 (-6315)



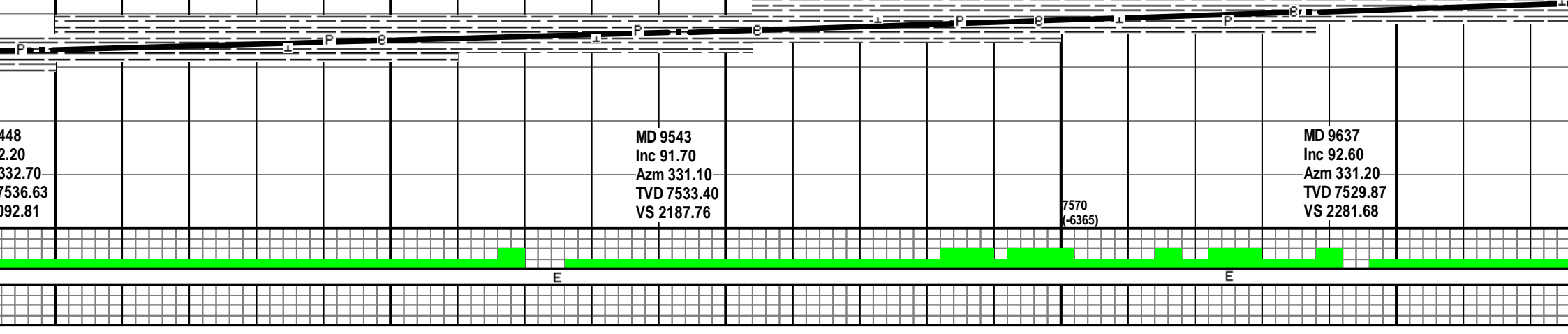
Visible Gas Escaping From Sample

9210-9240 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9240-9270 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9270-9300 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free calc, tr calc fld fracs, pos rthy por; rr LS: wkst, micxn, med gy & brn, fri-frm, rthy tex, no vis por	9300-9330 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9330-9360 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9360-9390 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9390-9420 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9420-9450 SH: dk gy-blk, sb blkly-blky, sft-frm, rthy tex, modly calc, tr dsem pyr, tr free calc, rthy por
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MD 9260 Inc 92.60 Azm 335.50 TVD 7543.36 VS 1905.15	MD 9354 Inc 91.70 Azm 335.10 TVD 7539.83 VS 1998.93	MD 9400 Inc 91.70 Azm 335.10 TVD 7539.83 VS 1998.93
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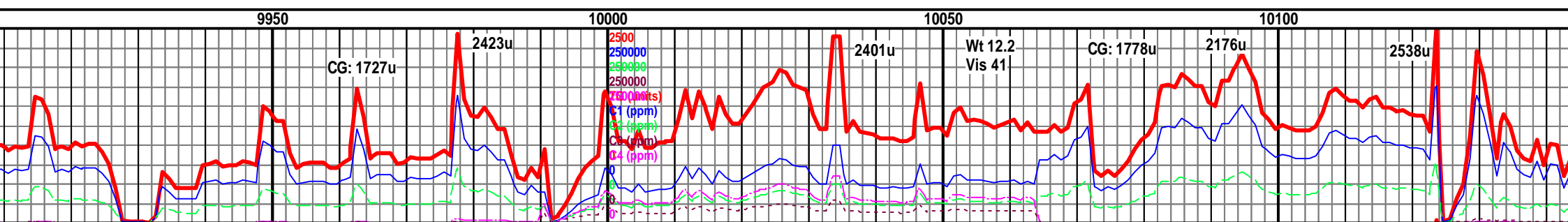
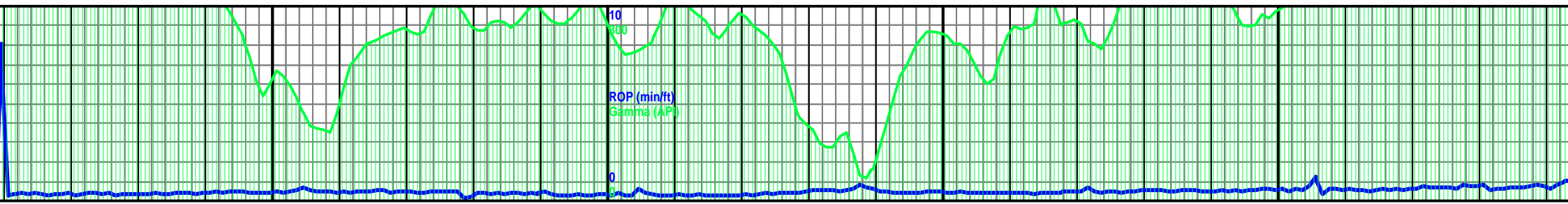


			Visible Gas Escaping From Sample			Visible Gas Escaping From Sample				
9450-9480 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9480-9510 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9510-9540 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9540-9570 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9570-9600 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9600-9630 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9630-9660 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9660-9690 SH: dk gy-blk, sb blk-ylk, sft frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por			

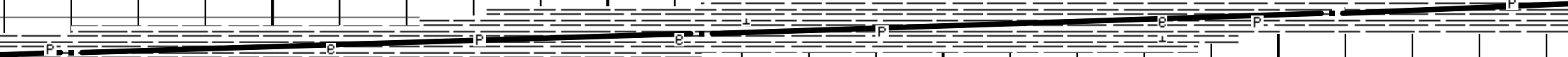




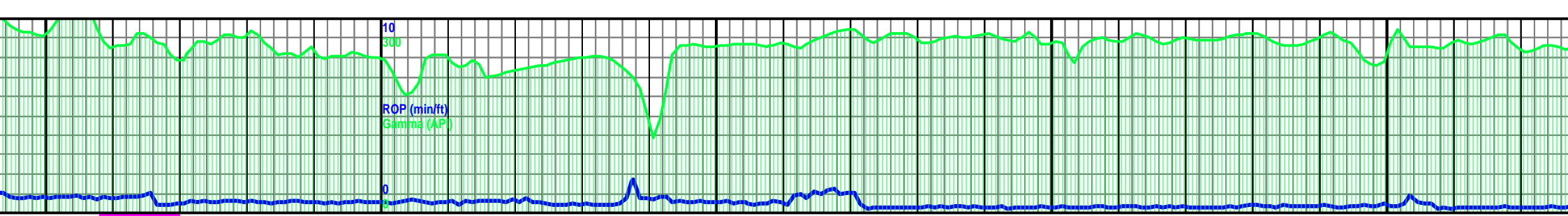




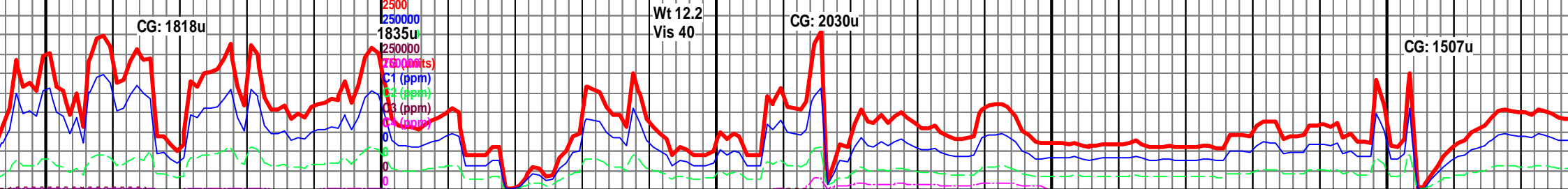
Visible Gas Escaping From Sample	Visible Gas Escaping From Sample	Visible Gas Escaping From Sample
9930-9960 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9960-9990 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, modly calc, tr dsem & nodr pyr, tr free calc, pos rthy por	9990-10020 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem pyr, tr free cal, pos rthy por
10020-10050 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem pyr, tr free cal, pos rthy por	10050-10080 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem pyr, tr free cal, pos rthy por	10080-10110 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem pyr, tr free cal, pos rthy por
10110-10140 SH: dk gy-blk, sb blk-y-blky, sft-frm, rthy tex, v sl calc, tr dsem pyr, tr free cal, pos rthy por		



MD 9920 Inc 92.20 Azm 330.20 TVD 7516.54 VS 2564.31	MD 10014 Inc 92.00 Azm 331.10 TVD 7513.10 VS 2658.22	MD 10108 Inc 92.80 Azm 331.00 TVD 7509.16 VS 2752.12
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10150 170R 10200 10250 10300 10350



2500  
230000  
1835u  
250000  
ZSO (mils)  
C1 (ppm)  
C2 (ppm)  
C3 (ppm)  
C4 (ppm)  
C5 (ppm)

Wt 12.2  
Vis 40

7470 TVD  
Sub Sea (-6265)  
Visible Gas Escaping From Sample



10140-10170 SH: dk gy-blk, sb  
-bly, sft-frm, rthy tex, v sl calc, tr  
m pyr, tr free cal, pos rthy por

10170-10200 SH: dk gy-blk, sb  
bly-bly, sft-frm, rthy tex, v sl calc, tr  
dsem pyr, tr free cal, pos rthy por

10200-10230 SH: dk gy-blk, sb  
bly-bly, sft-frm, rthy tex, v sl calc, tr  
dsem pyr, tr free cal, pos rthy por

10230-10260 SH: dk gy-blk, sb bly-bly,  
sft-frm, rthy tex, v sl calc, tr dsem pyr,  
tr free cal, pos rthy por

10260-10290 SH: blk, tr dk gy & brn, sb  
bly-bly, sft-frm, rthy tex, sl calc, tr  
dsem pyr, tr free cal, pos rthy por

10290-10320 SH: blk, tr dk gy & brn, sb  
bly-bly, sft-frm, rthy tex, sl calc, tr  
dsem pyr, tr free cal, pos rthy por

10320-10350 SH: blk, tr dk gy & brn, sb  
bly-bly, sft-frm, rthy tex, sl calc, tr  
dsem pyr, tr free cal, pos rthy por

10350-10380 SH: blk, tr dk gy & brn,  
bly-bly, sft-frm, rthy tex, sl calc, tr  
dsem pyr, tr free cal, pos rthy por

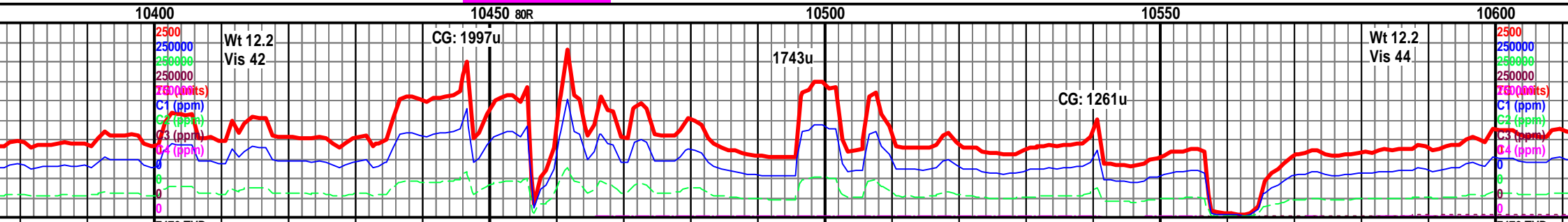
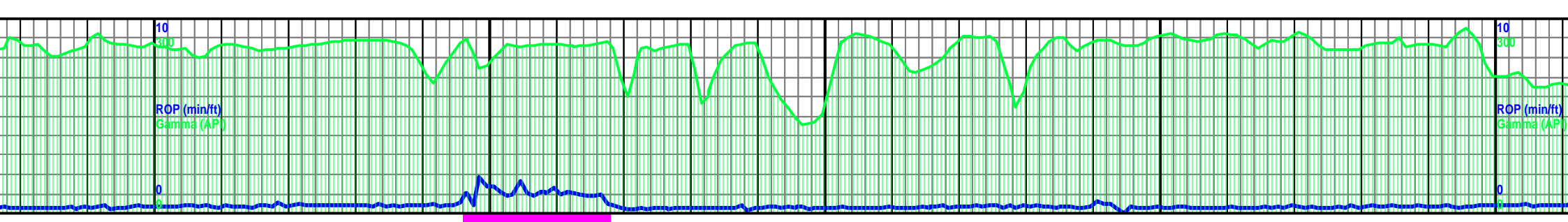
7520  
(-6315)

MD 10202  
Inc 93.00  
Azm 330.70  
TVD 7504.41  
VS 2845.98

7570  
(-6365)

MD 10296  
Inc 92.10  
Azm 330.60  
TVD 7500.22  
VS 2939.86



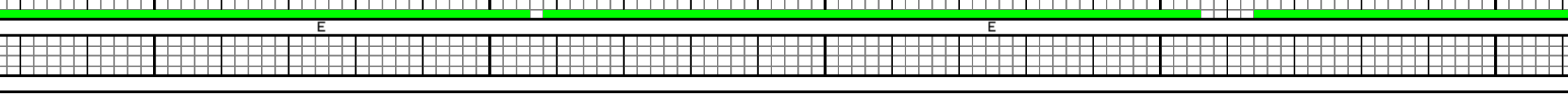


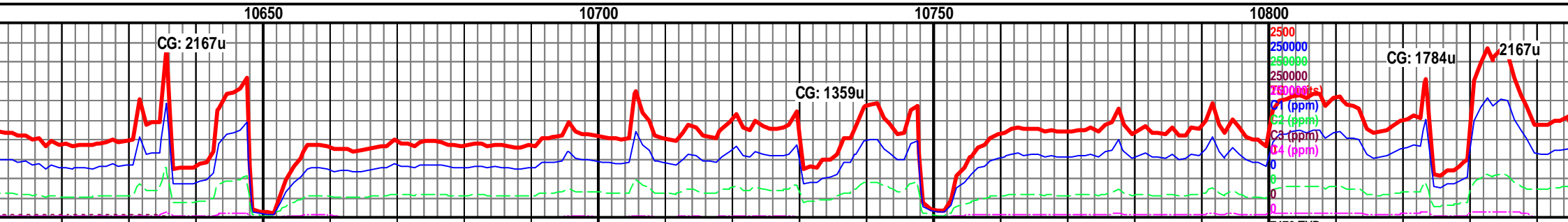
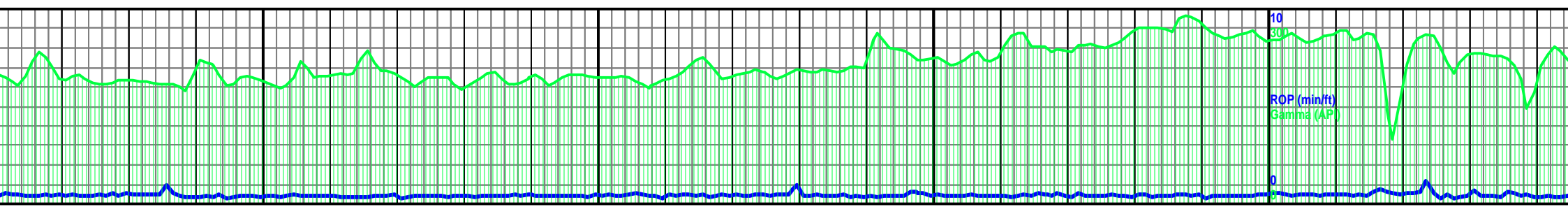
7470 TVD  
Sub Sea (-6265)  
Visible Gas Escaping From Sample



7520 (-6315)	10380-10410 SH: blk, tr dk gy & brn, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr free cal, pos rthy por	10410-10440 SH: blk, tr dk gy & brn, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr free cal, pos rthy por	10440-10470 SH: blk, tr dk gy & brn, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr free cal, pos rthy por	10470-10500 SH: blk, tr dk gy & brn, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr free cal, pos rthy por	10500-10530 SH: blk, tr dk gy & brn, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr free cal, pos rthy por	10530-10560 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10560-10590 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10590-10620 SH: dk gy-blk, blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por
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MD 10390 Inc 91.50 Azm 330.30 TVD 7497.27 VS 3033.78	MD 10485 Inc 91.50 Azm 332.00 TVD 7494.78 VS 3128.73	MD 10579 Inc 92.00 Azm 332.70 TVD 7491.91 VS 3222.69
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Visible Gas Escaping From Sample



10620-10650 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10650-10680 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10680-10710 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10710-10740 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10740-10770 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10770-10800 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10800-10830 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	10830-10860 SH: dk gy-blk, sb blk-ly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por
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MD 10673  
Inc 91.60  
Azm 332.60  
TVD 7488.96  
VS 3316.63

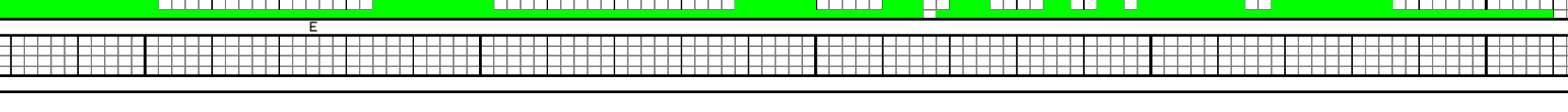
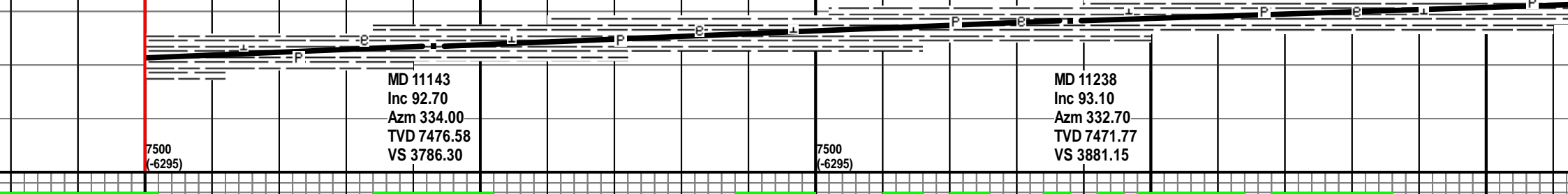
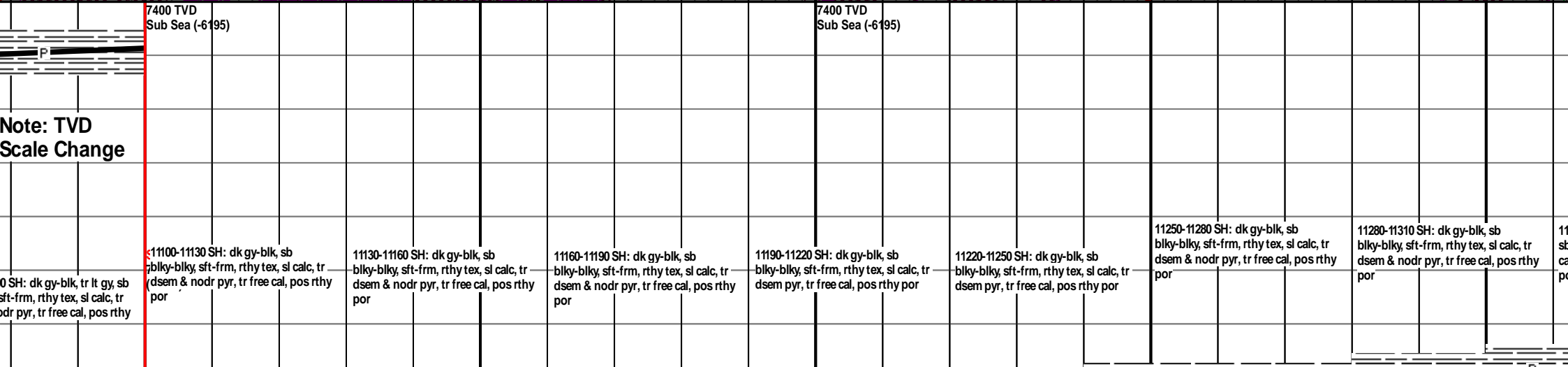
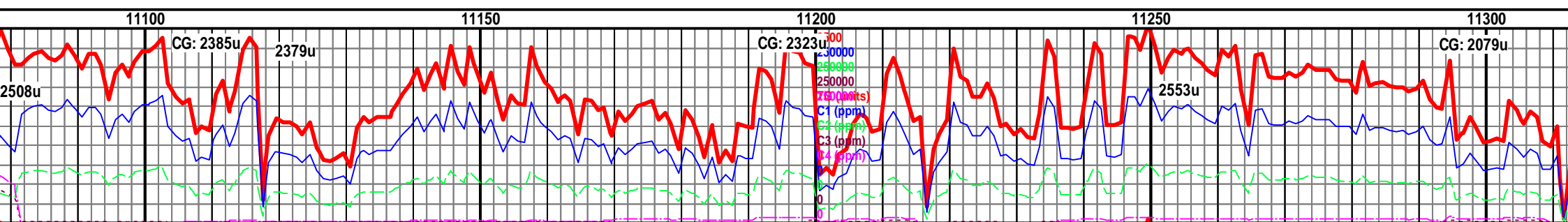
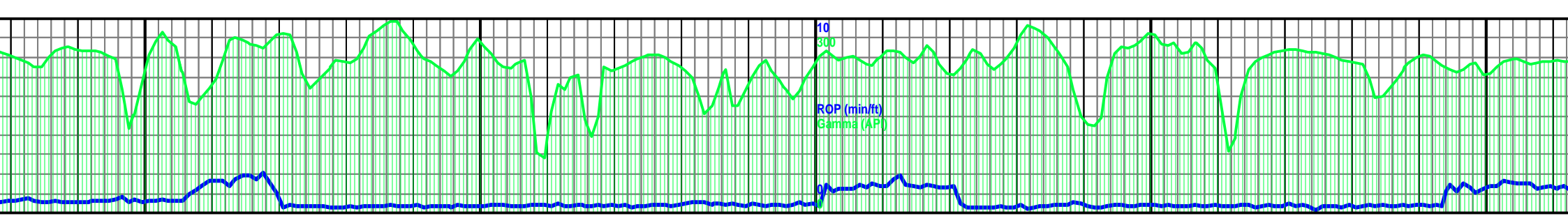
MD 10767  
Inc 90.70  
Azm 331.90  
TVD 7487.07  
VS 3410.61

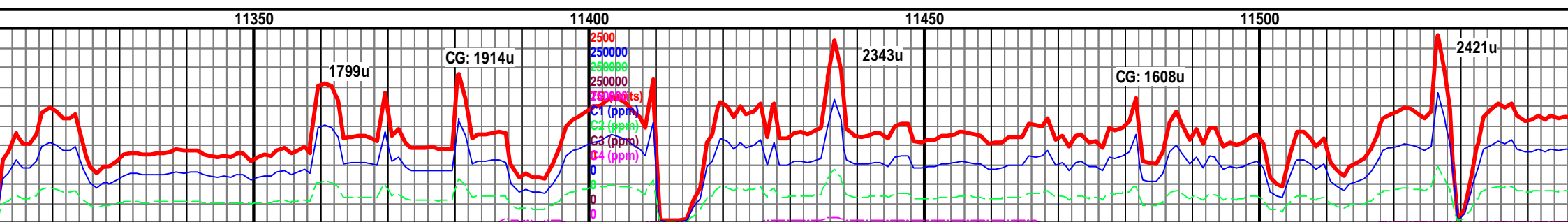
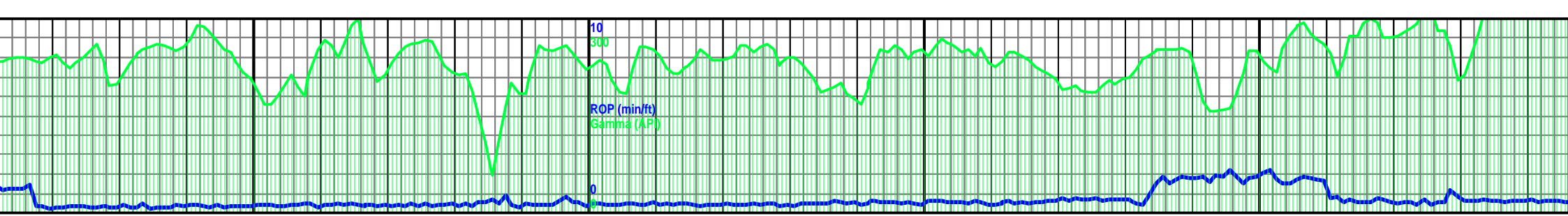
7520  
(-6315)

7570  
(-6365)

E E E







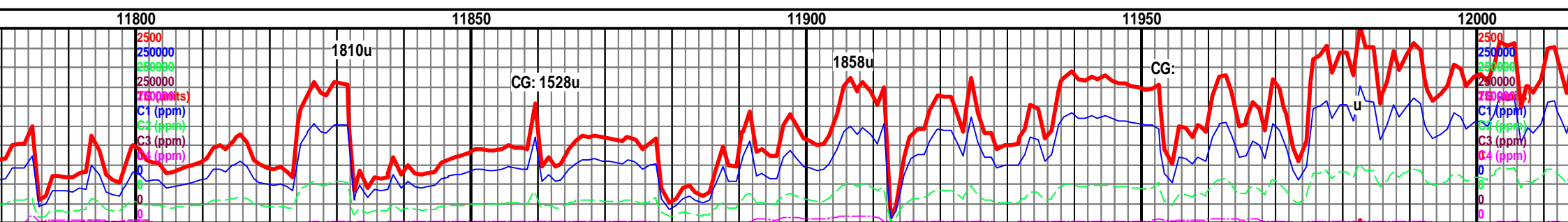
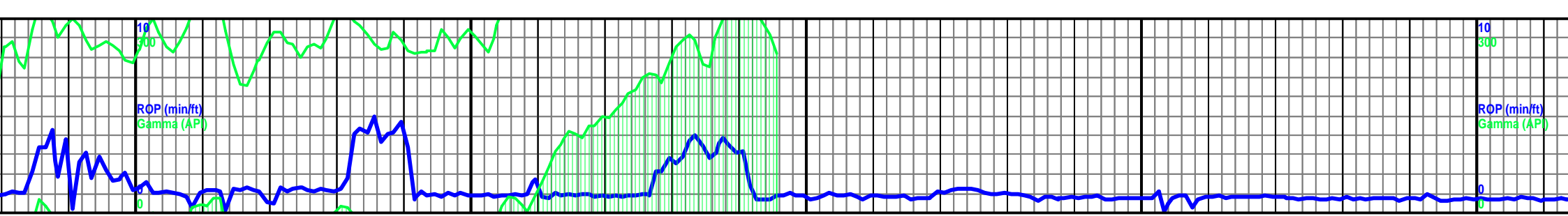
11350		11400		11450		11500	
11310-11340 SH: dk gy-blk, tr lt gy, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por		11340-11370 SH: dk gy-blk, tr lt gy, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por		11370-11400 SH: dk gy-blk, tr lt gy, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por		11400-11430 SH: dk gy-blk, tr brn, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	
				11430-11460 SH: dk gy-blk, tr brn, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por		11460-11490 SH: dk gy-blk, tr brn, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	
						11490-11520 SH: dk gy-blk, tr brn, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	
						11520-11550 SH: dk gy-blk, tr brn, sb blk-ly-blky, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	



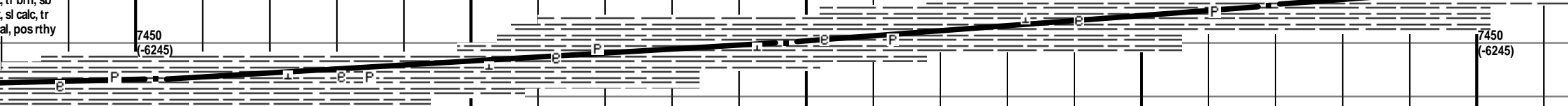
MD 11332 Inc 91.60 Azm 332.60 TVD 7467.92 VS 3975.06	7500 (-6295)	MD 11426 Inc 93.20 Azm 333.30 TVD 7463.98 VS 4068.96	MD 11520 Inc 90.10 Azm 332.90 TVD 7461.27 VS 4162.89
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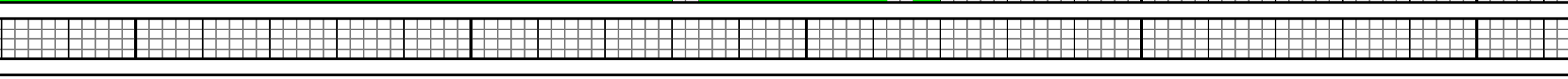




11790-11820 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, tr cal fld fracs, pos rthy por; rr LS: wkst, micxn, med gy & brn, fri-frm, rthy tex, no vis por	11820-11850 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, tr cal fld fracs, pos rthy por	11850-11880 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, tr cal fld fracs, pos rthy por	11880-11910 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, tr cal fld fracs, pos rthy por	11910-11940 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, tr cal fld fracs, pos rthy por	11940-11970 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, pos rthy por	11970-12000 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem pyr, tr free cal, tr cal fld fracs, pos rthy por	12000-12029 SH: dk gy-blk, sb blk-ly-bkly, sft-frm, rthy tex, sl calc, tr dsem & nodr pyr, tr free cal, tr cal fld fracs, pos rthy por
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7500 (-6295)	MD 11803 Inc 92.50 Azm 333.30 TVD 7456.81 VS 4445.81	MD 11897 Inc 95.70 Azm 333.10 TVD 7450.09 VS 4539.53	MD 11969 Inc 95.50 Azm 332.90 TVD 7443.07 VS 4611.18	7500 (-6295)
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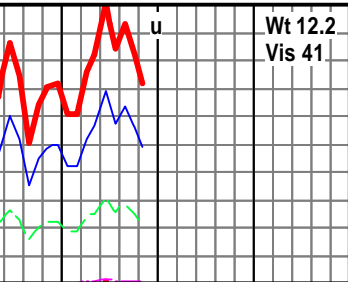


WOB (RT/OR): 22/44  
RPM (RT/MM): 100/151  
PP: 3923  
SPM (1/2): 67/64  
GPM: 520

14 June 2011

12050

12



Wt 12.2  
Vis 41

Total Depth of 12029 MD  
reached @ 0600 EDT on  
14 June 2011

dk gy-blk, sb  
rthy tex, sl calc, tr  
tr free cal, pos rthy

**Bottom Hole Location:  
4128.11' North & 2185.43'  
West of Surface Location**



**Projection to Bit:**  
MD 12029  
Inc 95.50  
Azm 332.80  
TVD 7437.32  
VS 4670.90