



717 West Platte
PO BOX 435
Casper, WY 82601
307-265-2124

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

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Company: CONOCOPHILLIPS
Address: 600 N. Dairy Ashford
WL 3 3056
Houston, TX 77079


Name: TODD THIESSE, DICK WAGNER
Company: WEATHERFORD SLS/TOOKE ROCKIES
Address: PO BOX 435
CASPER, WY 82602
307.265.2124

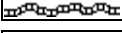
Supervision

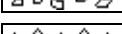
Project Geologist: Christian Marine- Conoco/Phillips
Drilling Engineer: Gary Hamilton, Ben Tolman, John Benge, James Hayes- Conoco/Phillips
Drilling Sup: Bob Strickler- Conoco/Phillips
Company Rep: Richard Perez, Wes Evans, (Day Leads)
Company Rep: Clint Valentine, Mike Weatherly (Night Leads)
Well Site Safety: Rainey Schexnider, Gerald Doty
Contact Geologist: Abby Tomkiewicz, Abby Thornton- Conoco/Phillips
Drilling & Comp. Mgr: Derly Gonzalez-Conoco/Phillips


Other Information

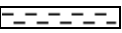
ROCK TYPES


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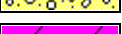
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 Brec


 Cht


 Clyst


 Coal


 Congl

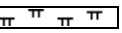
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 Gyp

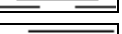
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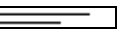
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 Mrlst


 Salt

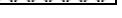
 Shale

 Shcol

 Shgy


 Sltst

 Ss

 Till


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


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 Calc


 Carb

 Chtdk


 Chtlt


 Dol


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 Ferrpel


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
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 Gyp


 Hvymin


 Kaol


 Marl


 Minxl


 Nodule

 Phos


 Pyr


 Salt

 Sandy


 Silt


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 Sulphur

 Tuff


STRINGER


 Anhy


 Arg


 Bent


 Coal


 Dol

 Gyp


 Ls


 Mrst


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 Ssstrg

TEXTURE


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
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
 Cryxln


 Earthy


 Finexln


 Grainst

 Lithogr

 Microxln

 Mudst

 Packst

 Wackest

INTERVALS

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Core

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Dst

EVENTS

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Sidewall

OIL SHOWS

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OTHER SYMBOLS

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Fracture

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Moldic

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Organic

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Pinpoint

V

Vuggy

ROUNDING

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Rounded

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Subrnd

a

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A

Angular

SORTING

W

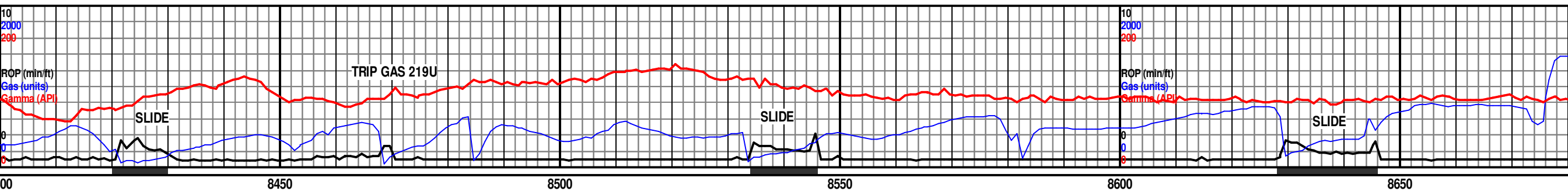
Well

M

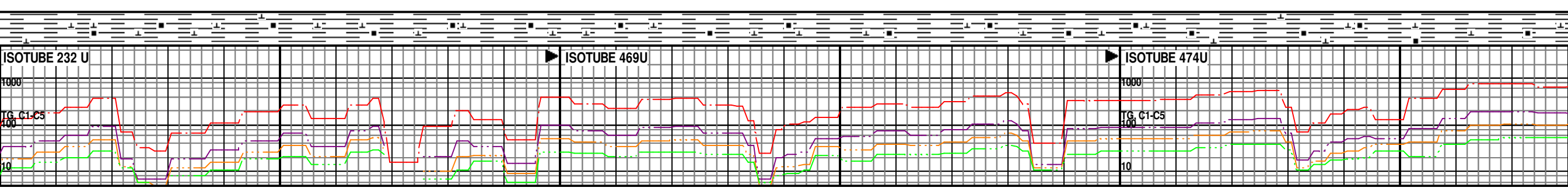
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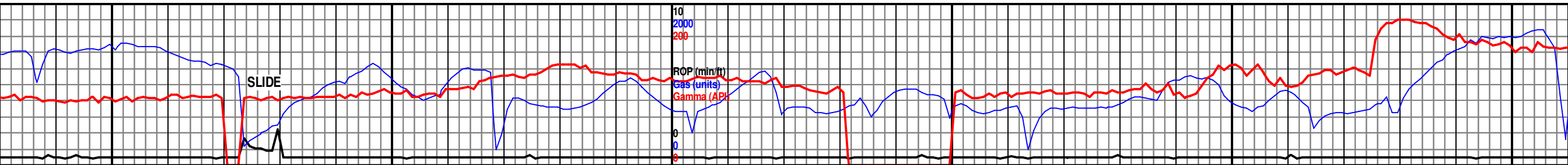
P

Poor

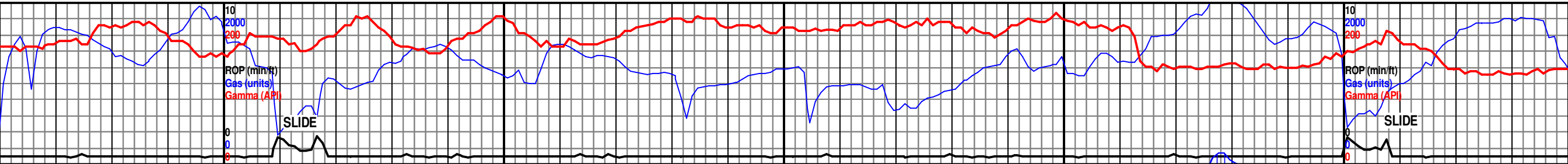


OCC SPEC, BLKY, CALC FL FRAC & T-FRM.				SH- GY- LT GY, DK GY, OCC SPEC, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY- LT GY, DK GY, OCC SPEC, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY- LT GY, DK GY, OCC SPEC, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				7920 TVD SH- GY- LT GY, DK GY, OCC SPEC, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY- LT GY, DK GY, OCC SPEC, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			
				8/10/2014				NEW BIT #4 , SECURITY, MMD54, 6", PDC, 5X16 JETS, IN AT 8468'.															
4, 6",				TRIP FOR NEW BHA/TOOLS AT 8468'.				Mud Motor is 1.25° Gamma is 52' behind bit. Survey is 64' behind bit.															
7945																7945							
WT IN 8.9H OUT 8.8H VIS IN 41 OUT 40								WT IN 9.2H OUT 9.2H VIS IN 38 OUT 35				WT. 9.0, VIS. 49, PV. 10, YP. 8, WL. 4.8, Cake. 1/32, CORR SLDS. 2.7%, MBT. 3.5ppb, pH. 9.9, Cl. 2100mg/L, LGS/HGS. 0.5/2.2 %.											
WT. 8.4, VIS. 53, PV. 13, YP. 17, WL. 20.2, Cake. 1/32, CORR SLDS. 0.4%, MBT. 3.5ppb, pH. 8.8, Cl. 1600mg/L, LGS/HGS. 0.4/0.0 %.																							
8405 MD 87.28 INC 269.38 AZM 7943.60 TVD 758.28 VS				8471 MD 88.58 INC 269.21 AZM 7945.99 TVD 823.99 VS				8566 MD 89.51 INC 269.29 AZM 7947.59 TVD 918.59 VS				8661 MD 91.24 INC 269.74 AZM 7946.97 TVD 1013.3 VS				7970							

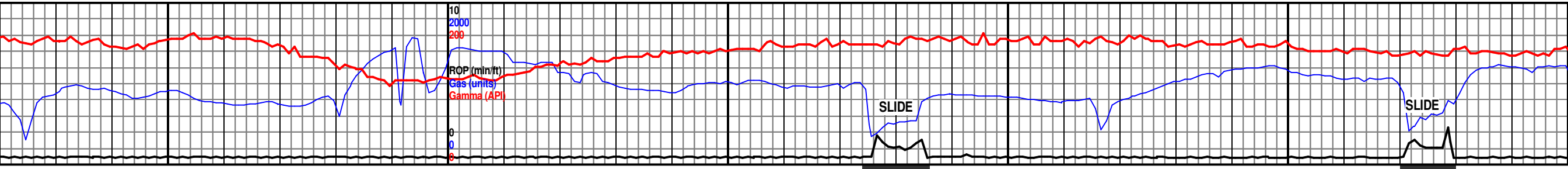




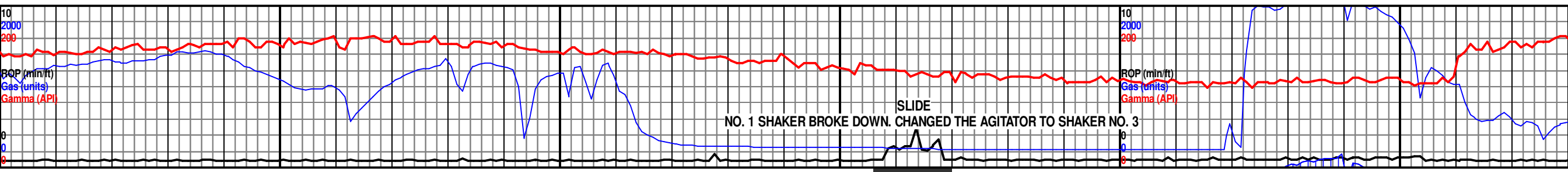
8700				8750				8800				8850				8900				8950			
C SPEC, T, ABNDT, V				SH- GY- LT GY, DK GY, OCC SPEC, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-LT GY, BLKY-PLTY, SBWXY, CARB, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-LT GY, BLKY-PLTY, SBWXY, CARB, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-LT GY, DK GY, BLKY-PLTY, SBWXY, CARB, DECR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY- SBWXY, CALCIT			



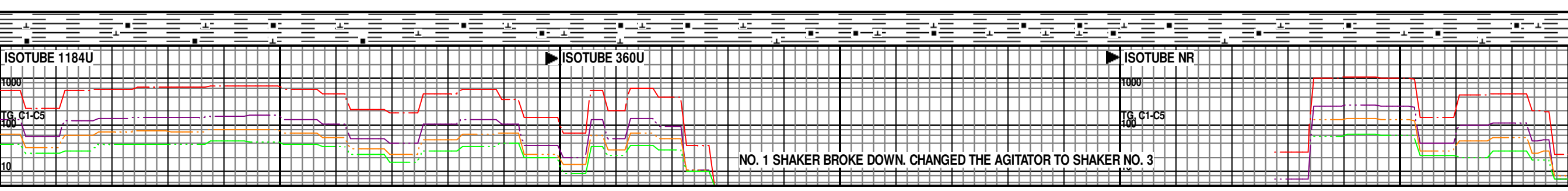
9000				9050				9100				9150				9200							
LT GY, SME DK GY, BLKY-PLTY, Y, CARB, OCC CALC FL FRAC & E, V CALC-LMY, SFT-FRM.				7920 TVD SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				7920 TVD SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.			
												X											
												CP#1, TARGET @ 1500' VS= 9148' MD, 7930'TVD.											
																</							

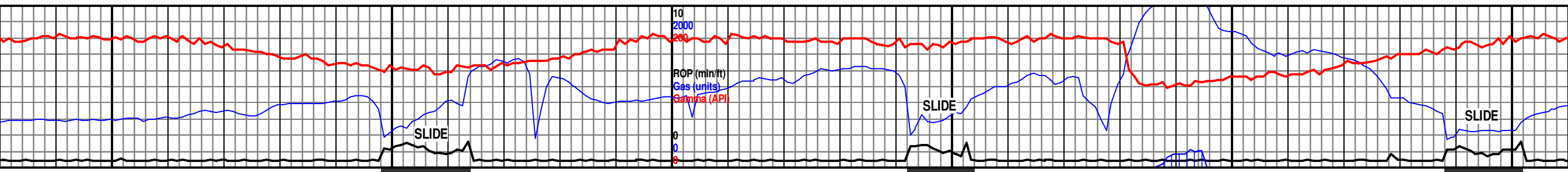


9550				9600				9650				9700				9750				9800			
E LT GY, BLKY-PLTY, TR-NO CALC FL FRAC & LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				7910 TVD SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			

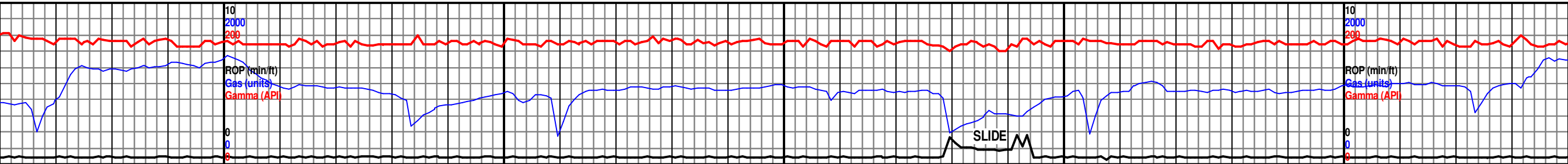


<p>00</p> <p>SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>7910</p> <p>WOB 7.3-7.8 RPM. 65 SPP. 3108 SPM. 60 GPM. 247</p> <p>00 MD 79 INC 0.54 AZM 22.68 TVD 19.4 VS</p>	<p>9850</p> <p>SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>9895 MD 91.79 INC 270.00 AZM 7919.71 TVD 2244.1 VS</p>	<p>9900</p> <p>SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>WT IN 9.1H OUT 9.1 VIS IN 39 OUT 37</p> <p>9950</p> <p>SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>WT. 9.20, VIS. 38, PV. 13, YP. 11, WL. 4.8, Cake. 1/32, CORR SLDS. 4.7%, MBT. 3.5ppb, pH. 8.7, Cl. 2300mg/L, LGS/HGS. 2.7/2.0 %.</p> <p>9990 MD 90.68 INC 269.44 AZM 7917.66 TVD 2338.8 VS</p>	<p>10000</p> <p>SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>7910 TVD</p> <p>WOB 9.1-9.7K RPM. 60 SPP. 2247 SPM. 55 GPM. 247</p> <p>10050</p> <p>SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p>
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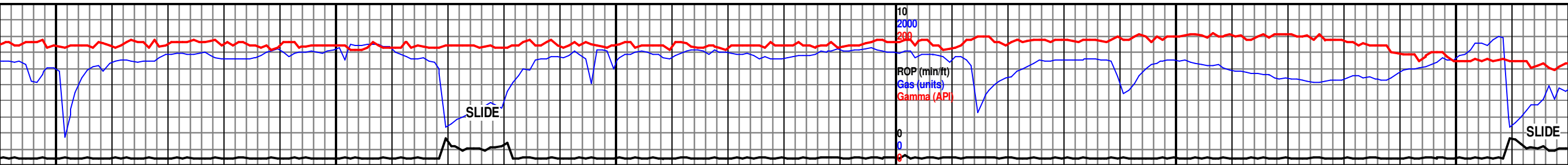




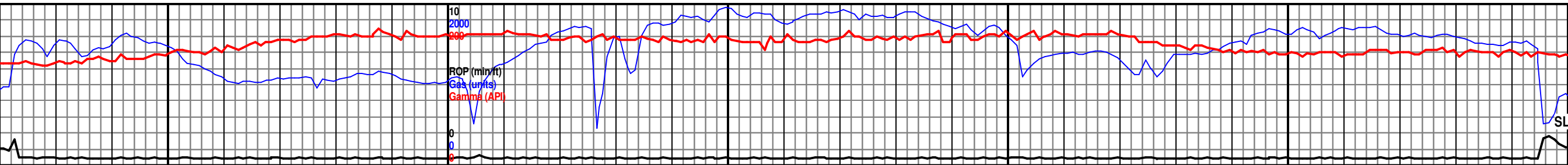
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BLKY-PLTY, FL FRAC & FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					7910 TVD SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.									
					X																																		
					CP#2, TARGET @ 2500' VS= 10152' MD, 7920'TVD.																																		
					8/11/2014																																		
					WT IN 9.1H OUT 9.1 VIS IN 39 OUT 37										7935																								



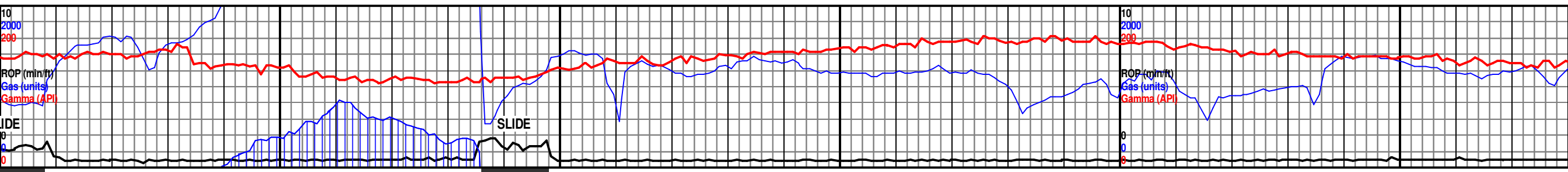
10400				10450				10500				10550				10600			
GY-DK GY, SME LT GY, BLKY-PLTY, VXY, CARB, TR-NO CALC FL FRAC ALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.			



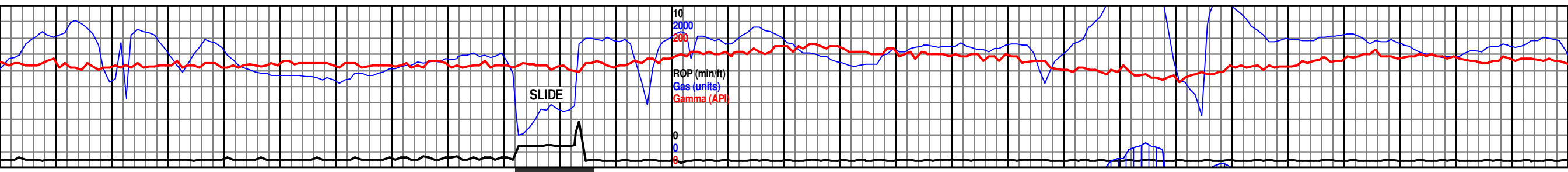
10650					10700					10750					10800					10850					10900				
SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.					7910 TVD SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				



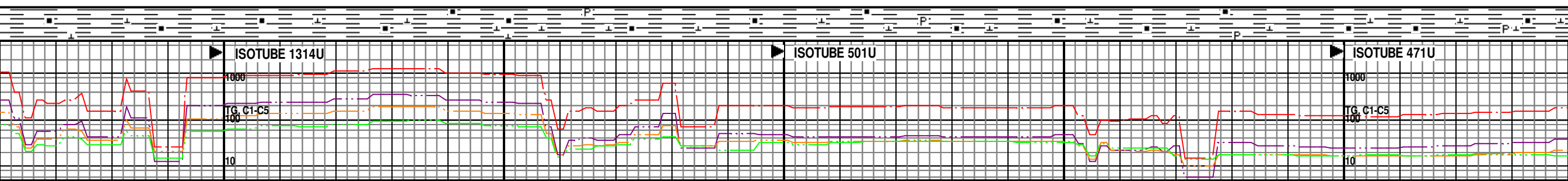
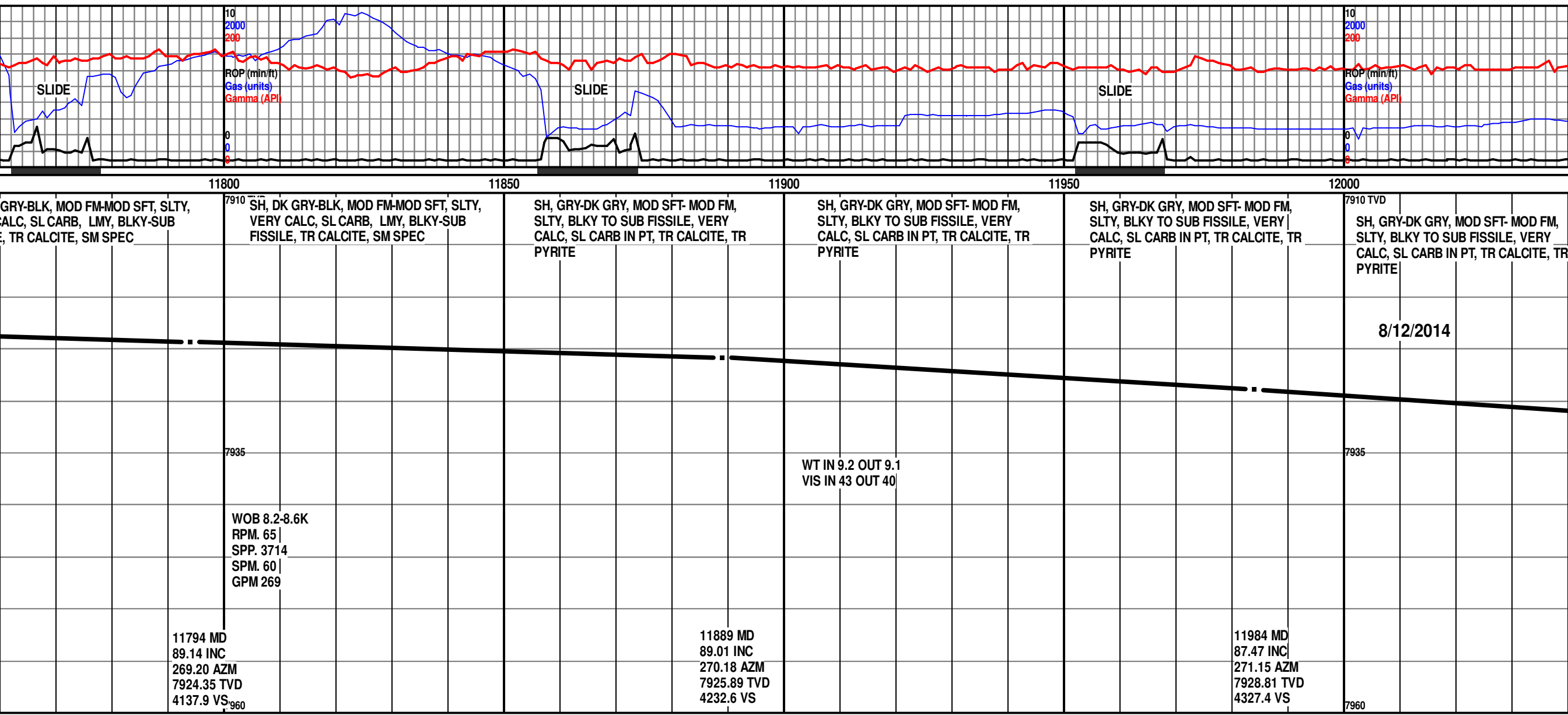
10950					11000					11050					11100					11150					11200									
LT GY, BLKY-PLTY, NO CALC FL FRAC & LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					7910 TVD SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, BLKY-PLTY, SBWXY, CARB, SLTY IN PT, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, BLKY-PLTY, SBWXY, CARB, SLTY IN PT, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.					SH- GY-DK GY, BLKY-PLTY, SBWXY, CARB, SLTY IN PT, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				
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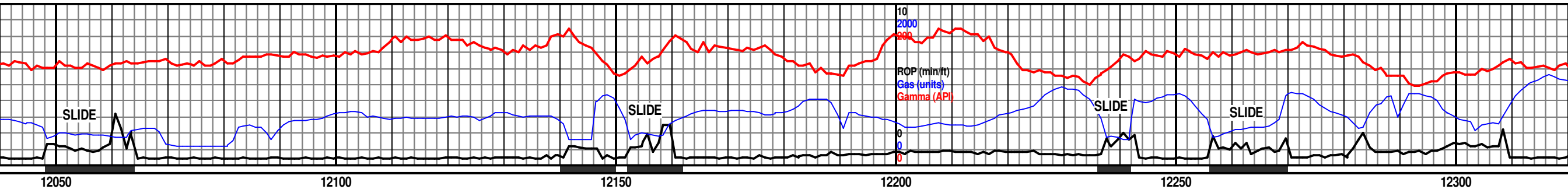


200				11250				11300				11350				11400				11450			
7910 TVD SH- DK GY-GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, SLTY IN PT, V CALC-LMY, SFT-FRM.				SH- DK GY-GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, SLTY IN PT, V CALC-LMY, SFT-FRM.				SH- DK GY-GY, BLKY-PLTY, SBWXY, CARB, SL INCR CALC FL FRAC & CALCITE, SLTY IN PT, V CALC-LMY, SFT-FRM.				SH- DK GY-GY, BLKY-PLTY, SBWXY, CARB, SL INCR CALC FL FRAC & CALCITE, SLTY IN PT, V CALC-LMY, SFT-FRM.				7910 TVD SH- DK GY-GY, BLKY-PLTY, SBWXY, CARB, SL INCR CALC FL FRAC & CALCITE, SLTY IN PT, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SME LT GY, SBWXY, CARB, TR-NO CALC CALCITE, V CALC-LMY, SFT PYR.			

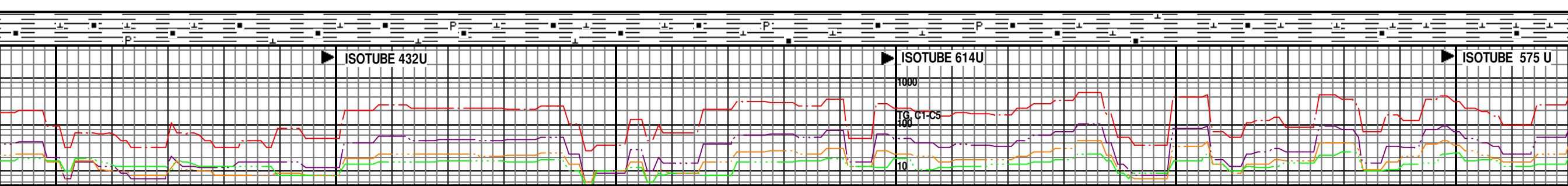


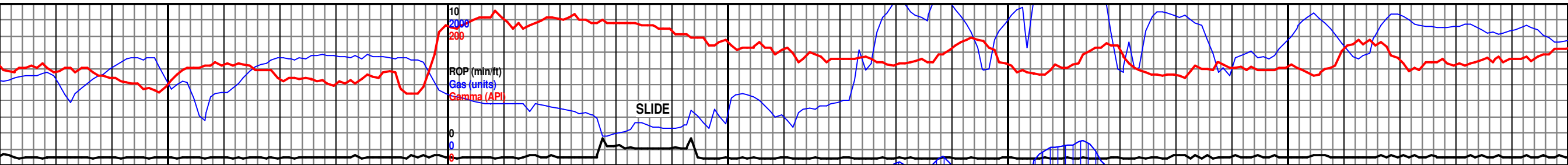
11500				11550				11600				11650				11700				11750							
BLKY-PLTY, C FL FRAC & -FRM. W/ TR				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				SH, DK GRY-BLK, MOD FM-MOD SFT, SLTY, VERY CALC, LMY, BLKY-SUB FISSILE, TR CALCITE, TR PYRITE				SH, DK GRY-BLK, MOD FM-MOD SFT, SLTY, VERY CALC, LMY, BLKY-SUB FISSILE, TR CALCITE, TR PYRITE				SH, DK GRY-BLK, MOD FM-MOD SFT, SLTY, VERY CALC, LMY, BLKY-SUB FISSILE, TR CALCITE, TR PYRITE				SH, DK GRY-BLK, MOD FM-MOD SFT, SLTY, VERY CALC, SL CARB, LMY, BLKY-SUB FISSILE, TR CALCITE, SM SPEC				SH, DK GRY-BLK, MOD FM-MOD SFT, SLTY, VERY CALC, LMY, BLKY-SUB FISSILE, TR CALCITE, TR PYRITE			



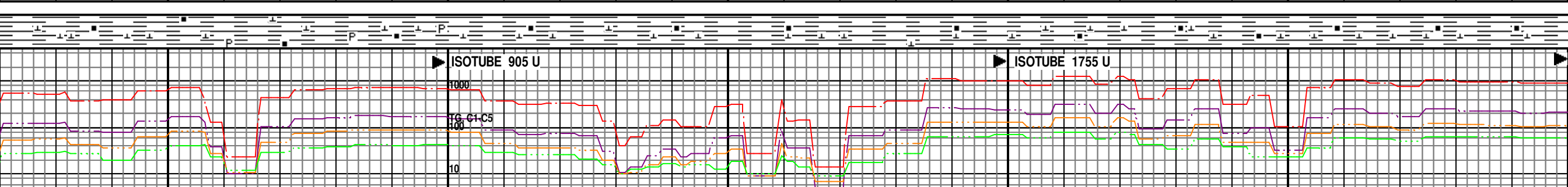


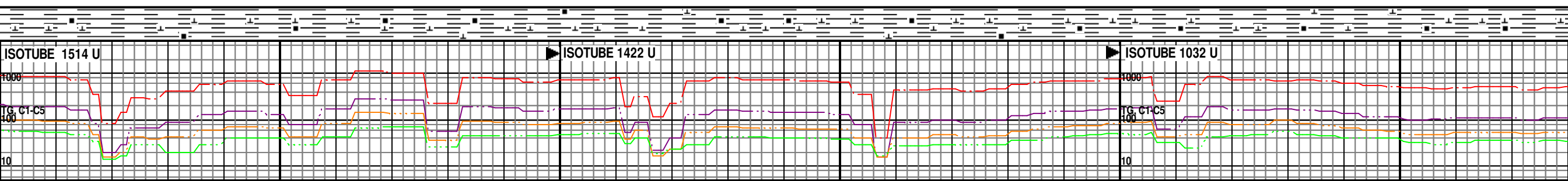
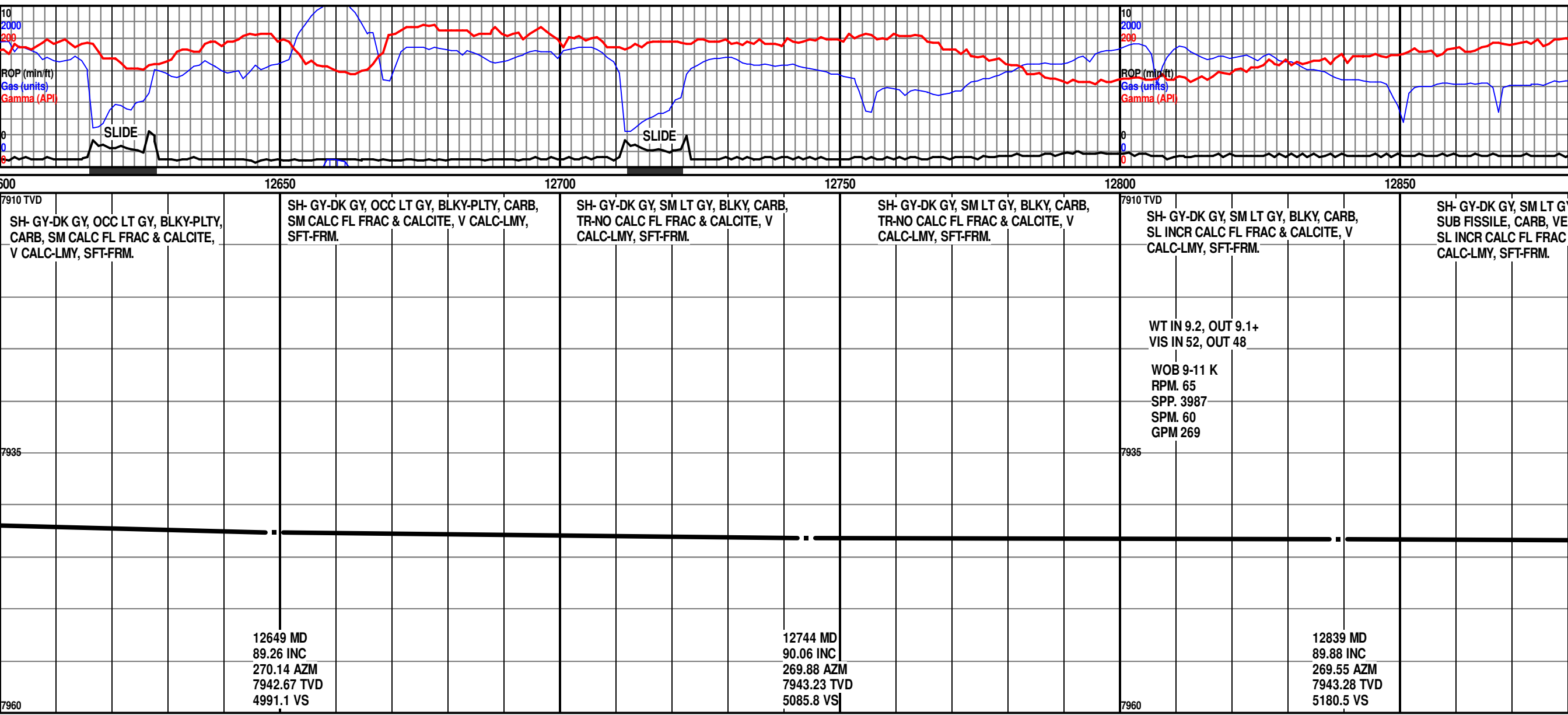
<p>SH, GRY-DK GRY, MOD SFT- MOD FM, SLTY, BLKY TO SUB FISSILE, VERY CALC, SL CARB IN PT, TR CALCITE, TR PYRITE</p> <p>WT. 9.20, VIS. 43, PV. 13, YP. 14, WL. 5.0, Cake. 1/32, CORR SLDS. 5.7%, MBT. 7.0 ppb, pH. 8.3, Cl. 2500mg/L, LGS/HGS. 4.6/1.1 %.</p> <p>WOB 6.4K RPM. 65 SPP. 3666 SPM. 60 GPM 267</p> <p>12079 MD 88.21 INC 271.12 AZM 7932.39 TVD 4422.2 VS</p>	<p>SH, GRY-DK GRY, MOD SFT- MOD FM, SLTY, BLKY TO SUB FISSILE, VERY CALC, SL CARB IN PT, TR CALCITE, TR PYRITE</p> <p>WT IN 9.1 OUT 9.1 VIS IN 41 OUT 41</p>	<p>SH, GRY-DK GRY, MOD SFT- MOD FM, SLTY, BLKY TO SUB FISSILE, VERY CALC, SL CARB IN PT, TR CALCITE, TR PYRITE</p> <p>CP#4, TARGET @ 4500' VS= 12157' MD, 7930'TVD.</p> <p>X</p> <p>12174 MD 88.39 INC 271.30 AZM 7935.20 TVD 4517.0 VS</p>	<p>7910 TVD</p> <p>SH, GRY-DK GRY, MOD SFT- MOD FM, SLTY, BLKY TO SUB FISSILE, VERY CALC, SL CARB IN PT, TR CALCITE, TR PYRITE</p> <p>7935</p> <p>7960</p>	<p>SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>12269 MD 88.95 INC 270.56 AZM 7937.41 TVD 4611.8 VS</p>	<p>SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p>
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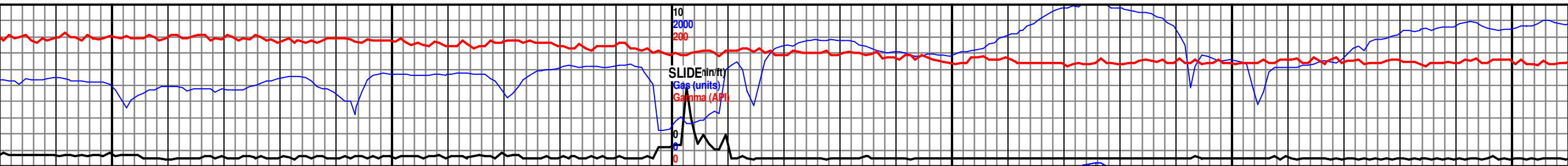




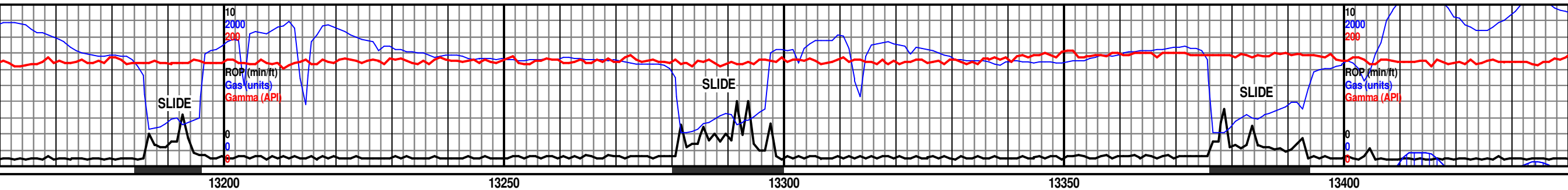
12350	12400	12450	12500	12550	12600
OCC LT GY, BLKY-PLTY, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.	7910 TVD SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-LT GY, SM DK GY, BLKY-PLTY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-LT GY, SM DK GY, BLKY-PLTY, CARB, TR-SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-LT GY, SM DK GY, BLKY-PLTY, CARB, TR-SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.
			WT IN 9.1+, OUT 9.1+ VIS IN 47, OUT 45 WOB 5-7 K RPM. 65 SPP. 3952 SPM. 60 GPM 269		
	12364 MD 88.70 INC 270.51 AZM 7939.35 TVD 4706.6 VS	7935 7960	12459 MD 89.88 INC 271.29 AZM 7940.53 TVD 4801.4 VS		12554 MD 89.14 INC 270.81 AZM 7941.34 TVD 4896.3 VS



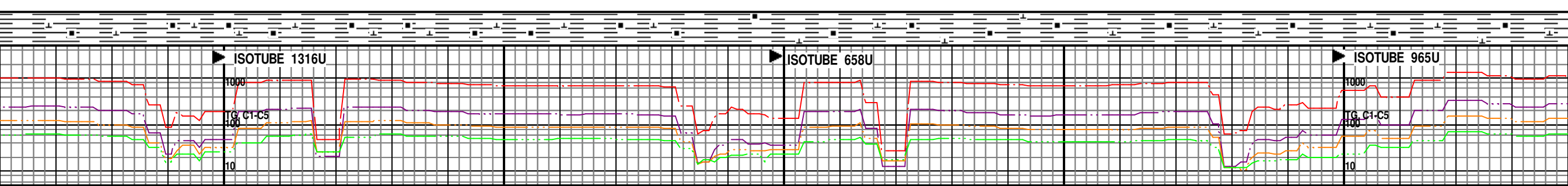


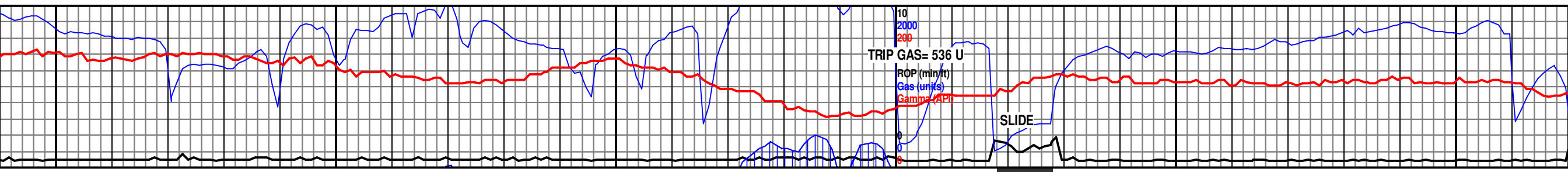


12900				12950				13000				13050				13100				13150																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Y, BLKY TO RY CALC, LMY, & CALCITE, V				SH- GY-DK GY, SM LT GY, BLKY TO SUB FISSILE, CARB, VERY CALC, LMY, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SM LT GY, BLKY TO SUB FISSILE, CARB, VERY CALC, LMY, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				7910 TVD SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

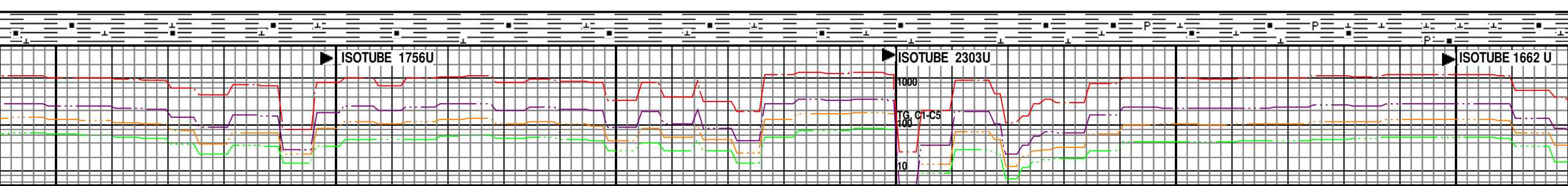


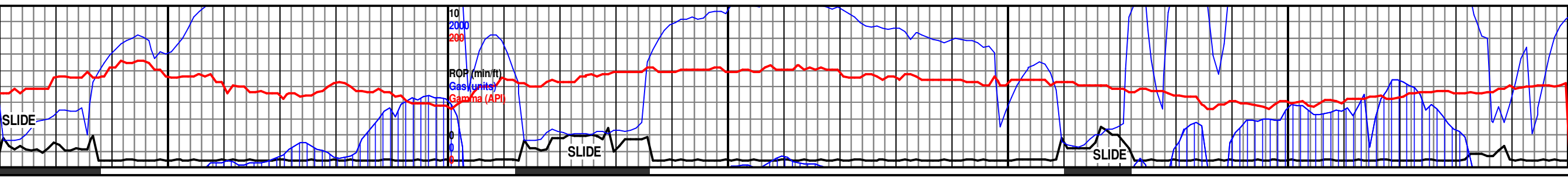
<p>SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p>	<p>7910 TVD</p> <p>SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>WT. 9.20, VIS. 48, PV. 18, YP. 15, WL. 4.5, Cake. 1/32, CORR SLDS. 5.7%, MBT. 10.0 ppb, pH. 8.0, Cl. 2700mg/L, LGS/HGS. 4.6/1.1 %.</p> <p>13219 MD 89.01 INC 269.81 AZM 7948.20 TVD 5559.2 VS</p>	<p>7935 TVD</p> <p>SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>WT IN 9.2 OUT 9.1 VIS IN 48 OUT 47</p> <p>8/13/2014</p> <p>Scale Change</p> <p>NOTE SCALE CHANGE</p> <p>13313 MD 89.07 INC 270.65 AZM 7949.77 TVD 5653.0 VS</p>	<p>SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>WOB 8.7-10.2K RPM. 69-71 SPP. 3862 SPM. 57 GPM 254</p>	<p>SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p> <p>13408 MD 87.78 INC 270.27 AZM 7952.38 TVD 5747.7 VS</p>	<p>7935 TVD</p> <p>SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.</p>
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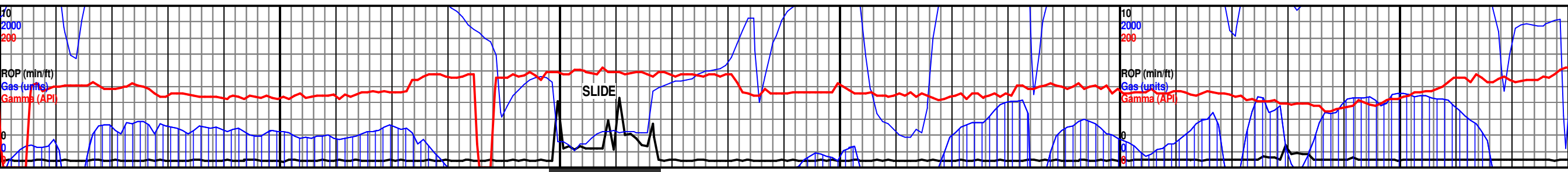


13450	13500	13550	13600	13650	13700
SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SL INCR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, SM LT GY, BLKY, CARB TO VERY CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.	SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.
WT IN 9.2 OUT 9.2 VIS IN 44 OUT 44		WT IN 9.1H OUT 9.0 VIS IN 46 OUT 45 WOB 7.2-8.9K RPM. 59-61 SPP. 3923 SPM. 56 GPM 254	8/14/2014 TRIP OUT OF THE HOLE TO RE-ARRANGE HWDP & PICK UP NEW MOTOR AND TOOLS AT 13600'.		
		WT. 9.30, VIS. 44, PV. 14, YP. 11, WL. 4.4, Cake. 1/32, CORR SLDS. 6.7%, MBT. 8.4 ppb, pH. 9.0, Cl. 2700mg/L, LGS/HGS. 5.9/0.8 %.	Bit # 4 RR Security, MMD54, 6", 5x16 jets, in @ 13,600' Mud Motor is 1.25° Gamma is 52.26' behind bit Survey is 63' behind bit		
	13503 MD 87.78 INC 270.20 AZM 7956.07 TVD 5842.4 VS	13555 MD 87.46 INC 269.92 AZM 7958.23 TVD 5894.2 VS	7935 TVD 7960 7985	13648 MD 87.47 INC 270.04 AZM 7962.34 TVD 5986.9 VS	

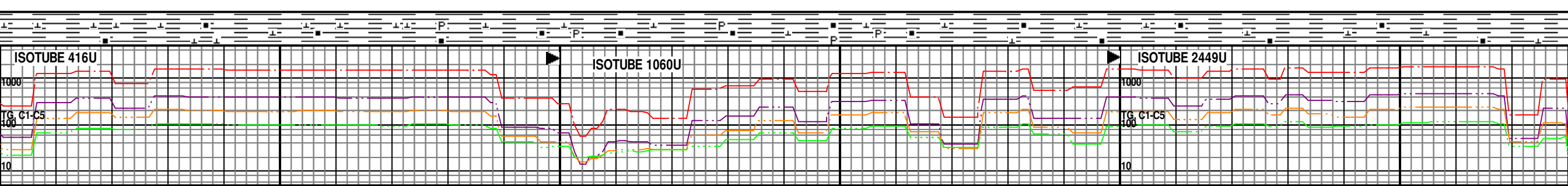


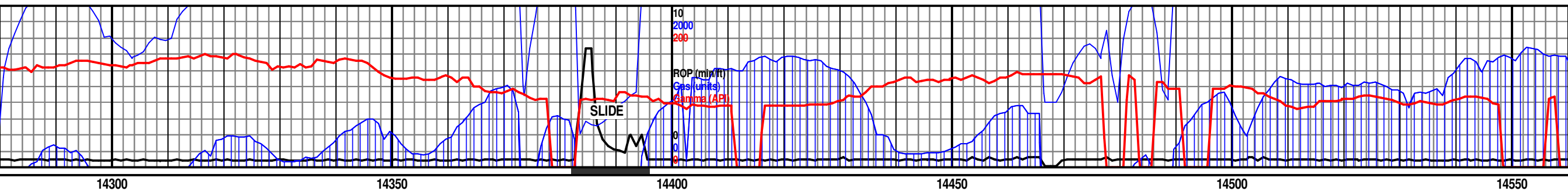


13750				13800				13850				13900				13950				14000			
OCC LT GY, BLKY-PLTY, TR-NO CALC FL FRAC & CALC-LMY, SFT-FRM. W/ TR				SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				7935 TVD SH- GY-DK GY, OCC LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			
																					</		

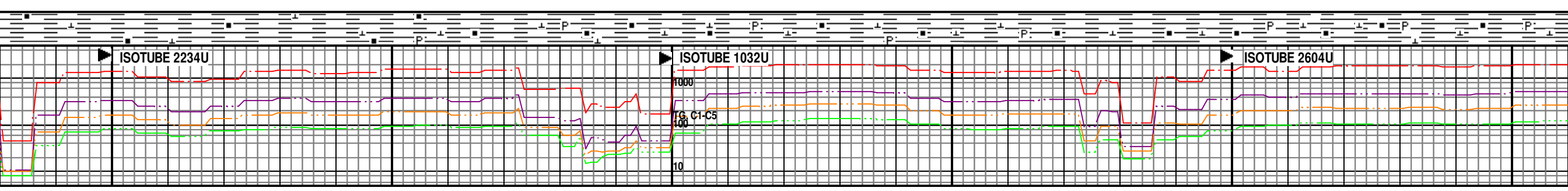


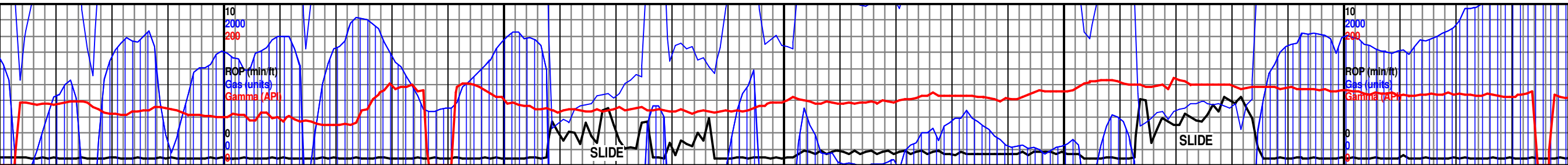
7935 TVC SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	14050 SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. LESS CALCITE, TR PYRITE AND FINELY DISS PYRITE IN THE SH	14100 SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. TR CALCITE	14150 SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. TR CALCITE	14200 7935 TVC SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. TR CALCITE	14250 7965 TVC SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. TR CALCITE
	WT IN 9.2 OUT 9.1H VIS IN 40 OUT 40		WOB 8.7-9.9K RPM. 69-71 SPP. 4011 SPM. 56 GPM 250		
14026 MD 90.06 INC 270.05 AZM 7970.04 TVD 6363.8 VS		14121 MD 88.64 INC 270.61 AZM 7971.12 TVD 6458.6 VS	CP # 6, TARGET @ 6500' VS= 14162' MD, 7975' TVD X	14216 MD 88.15 INC 270.54 AZM 7973.77 TVD 6553.4 VS	NOTE SCALE CHANGE 7965 TVC Scale 7990 8015

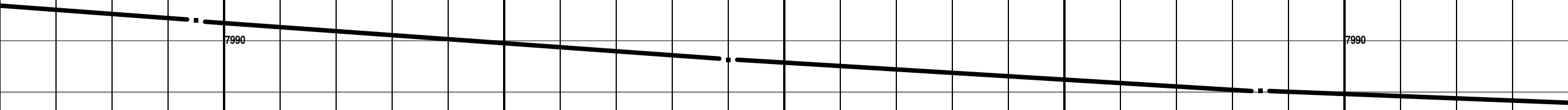


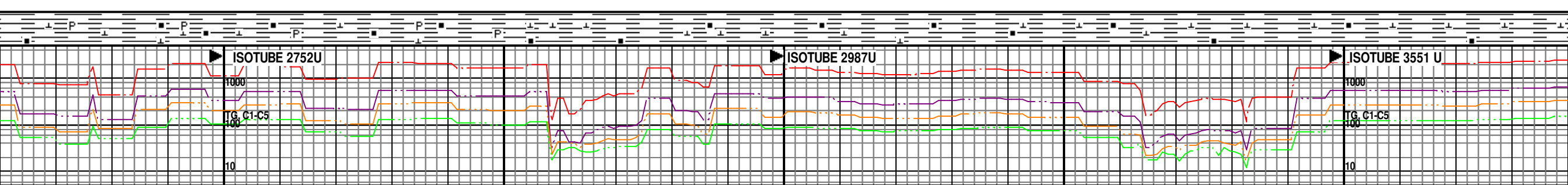


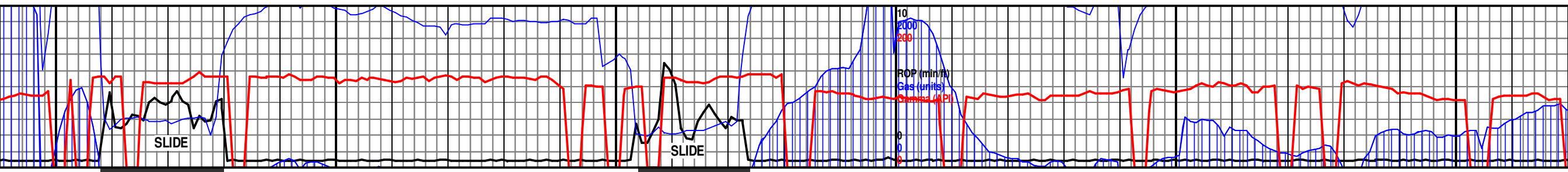
14300		14350		14400		14450		14500		14550	
VD GY, RB, TR-LTL E, V CALCITE		SH- DK GY- GY, SME LT GY, BLKY-PLTY, SBWXY, CARB, TR-LTL CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. TR CALCITE		SH- DK GY- GY, MOD FM, SLTY, CARB, VERY CALC, BLKY- SUB FISSILE W/SH, LT GRY, MOD FM, MOTTLED, VERY CALC, LMY IN PT, SL PYRITIC IN PT, TR PYRITE		SH- DK GY- GY, MOD FM, SLTY, CARB, VERY CALC, BLKY- SUB FISSILE W/SH, LT GRY, MOD FM, MOTTLED, VERY CALC, LMY IN PT, TR PYRITE		SH- DK GY- GY, MOD FM, SLTY, CARB, VERY CALC, BLKY- SUB FISSILE W/SH, LT GRY, MOD FM, MOTTLED, VERY CALC, LMY IN PT, TR PYRITE		SH- DK GY- GY, MOD FM, SLTY, CARB, VERY CALC, BLKY- SUB FISSILE W/SH, LT GRY, MOD FM, MOTTLED, VERY CALC, LMY IN PT, TR PYRITE	
				8/15/2014							
NOTE SCALE CHANGE						WOB 9.5-11.2K RPM. 54-56 SPP. 3775 SPM. 53 GPM 237				WT IN 9.2H OUT 9.1H VIS IN 42 OUT 42	
Change											
				WT. 9.20, VIS. 40, PV. 14, YP. 11, WL. 4.5, Cake. 1/32, CORR SLDS. 6.7%, MBT. 8.4 ppb, pH. 8.0, Cl. 2600mg/L, LGS/HGS. 6.7/0.0 %.							
14311 MD 87.65 INC 270.56 AZM 7977.25 TVD 6648.1 VS				14405 MD 87.96 INC 270.11 AZM 7980.85 TVD 6741.8 VS				14500 MD 87.96 INC 270.06 AZM 7984.23 TVD 6836.5 VS			
				8015							



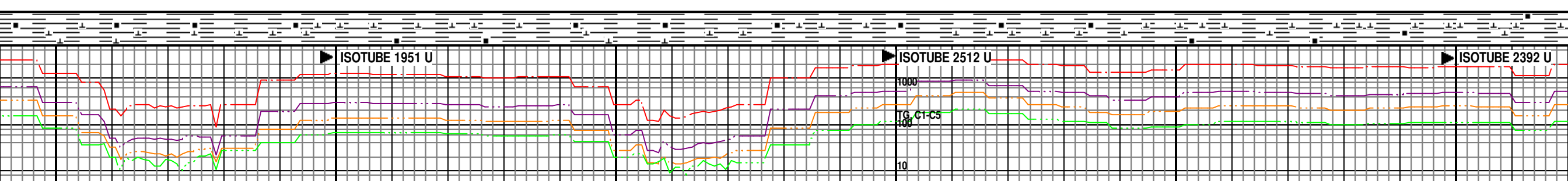


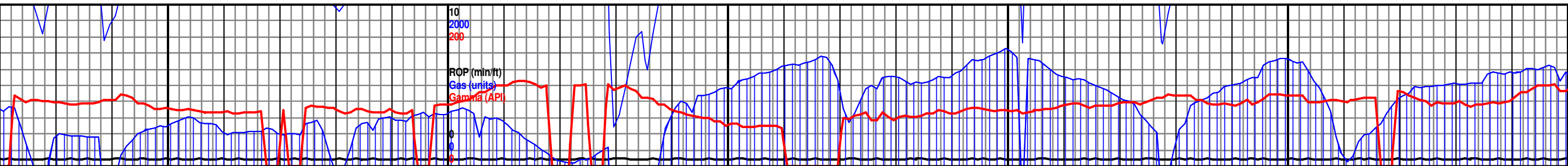
14600				14650				14700				14750				14800							
DK GY- GY, MOD FM, SLTY, CARB, V CALC, BLKY- SUB FISSILE W/SH, RY, MOD FM, MOTTLED, VERY C, LMY IN PT, TR PYRITE				SH- DK GY- GY, MOD FM, SLTY, CARB, VERY CALC, BLKY- SUB FISSILE W/SH, LT GRY, MOD FM, MOTTLED, VERY CALC, LMY IN PT, TR PYRITE				SH- DK GY- GY, MOD FM, SLTY, CARB, VERY CALC, BLKY- SUB FISSILE W/SH, LT GRY, MOD FM, MOTTLED, VERY CALC, LMY IN PT, TR PYRITE				SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB IN PT, ABNDT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB IN PT, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB IN PT, CALC FL FR. CALCITE, V CALC-LMY, SFT-FRM.			
												WT IN 9.2 OUT 9.0 VIS IN 42 OUT 42											
																							
14595 MD 87.40 INC 270.61 AZM 7988.06 TVD 6931.2 VS								14690 MD 88.02 INC 271.29 AZM 7991.86 TVD 7026.0 VS								14785 MD 88.33 INC 270.63 AZM 7994.88 TVD 7120.8 VS							
8015																				8015			



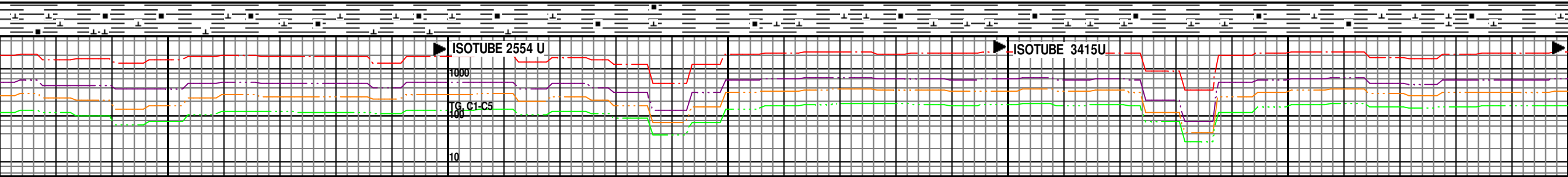


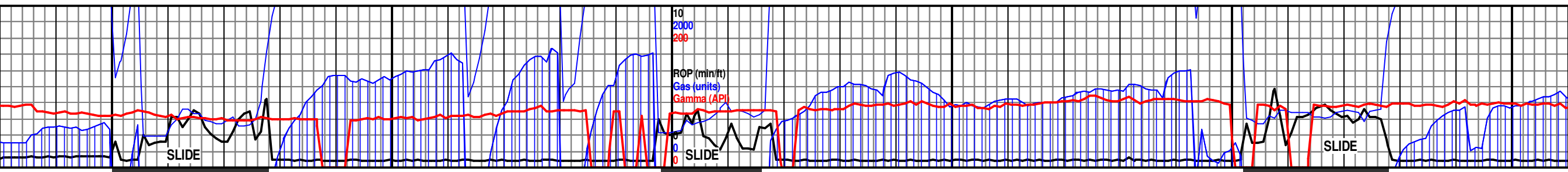
14850	14900	14950	15000	15050	15100
AC &	SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB IN PT, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB IN PT, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- GY- LT GY, DK GY, OCC SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.
	WT IN 9.3 OUT 9.3 VIS IN 45 OUT 45				WOB 11-14K RPM. 65 SPP. 3805 SPM. 53 GPM 237
	14880 MD 89.32 INC 269.90 AZM 7996.83 TVD 7215.5 VS		14975 MD 90.25 INC 270.27 AZM 7997.19 TVD 7310.3 VS	15070 MD 90.62 INC 270.99 AZM 7996.46 TVD 7405.1 VS	



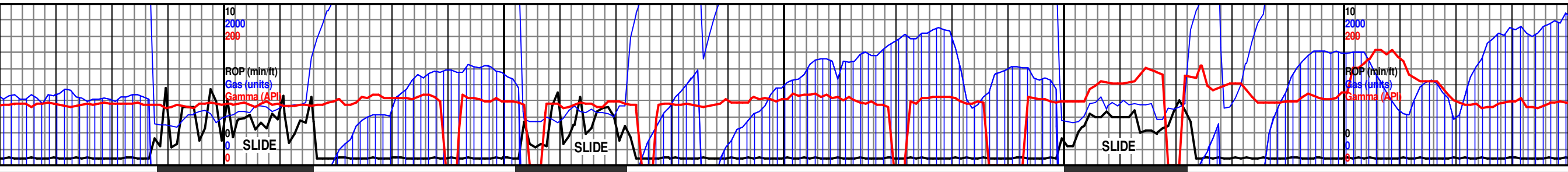


15150			15200			15250			15300			15350			15400
SH- GY- LT GY, DK GY, SME SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			SH- GY- LT GY, DK GY, SME SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			SH- GY- LT GY, DK GY, SME SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			SH- GY- LT GY, DK GY, SME SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			SH- GY- LT GY, DK GY, SME SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.			SH- GY- LT GY, DK GY, SME SPEC/MOTL, BLKY, SBWXY, CARB, CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.
WT IN 9.3 OUT 9.1 VIS IN 44 OUT 44												WT IN 9.2 OUT 9.2 VIS IN 40 OUT 39			
CP # 7, TARGET @ 7500' VS= 15165' MD, 7995' TVD															
X															
15165 MD 90.74 INC 271.38 AZM 7995.34 TVD 7499.9 VS			7965 TVD 7990			15260 MD 90.68 INC 271.66 AZM 7994.16 TVD 7594.8 VS						15355 MD 90.99 INC 271.67 AZM 7992.78 TVD 7689.7 VS			
8015															

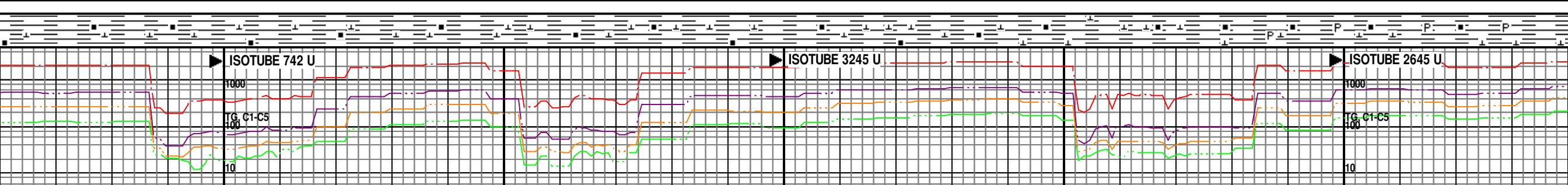


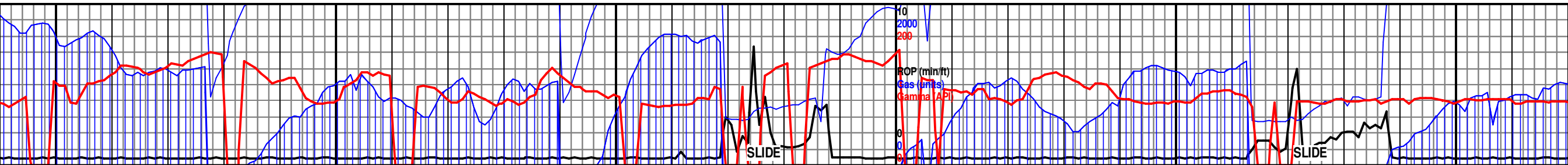


15700				15750				15800				15850				15900				15950			
SBWXY, RAC,				SH: GY, LT-GY, DK-GY, BLKY, SBWXY, CARB, V/CALC, SM CALC FL FRAC, SFT-FRM				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.			
P. 9, WL. S. 7.1%, 300mg/L,				WT IN 9.2+ OUT 9.2 VIS IN 44 OUT 41								WOB 11-14K RPM. 65 SPP. 3877 SPM. 53 GPM 237				WT IN 9.2+ OUT 9.2+ VIS IN 41 OUT 41							

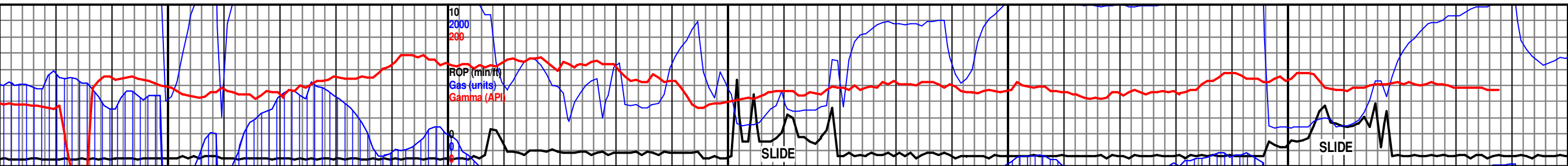


DK GY, SME LT GY, OCC MOTL, LT, SBWXY, CARB, V CALC-LMY, L FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, CALC FL FRAC & CALCITE, SFT-FRM.				SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, DEC IN CALC FL FRAC & CALCITE, SFT-FRM. W/ TR PYR.			
				WT IN 9.2, OUT 9.1+ VIS IN 40, OUT 39								CP # 8, TARGET @ 8500' VS= 16167' MD, 7995' TVD X							
16019 MD 89.44 INC 267.86 AZM 8004.40 TVD 8352.3 VS								16114 MD 89.75 INC 267.09 AZM 8005.08 TVD 8446.7 VS				16209 MD 91.05 INC 265.91 AZM 8004.41 TVD 8540.8 VS							

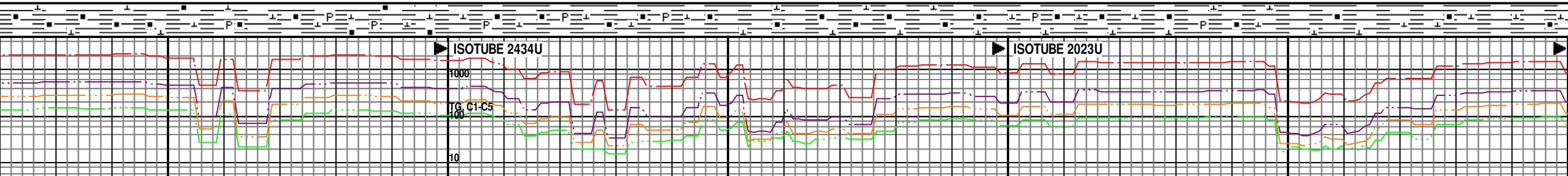


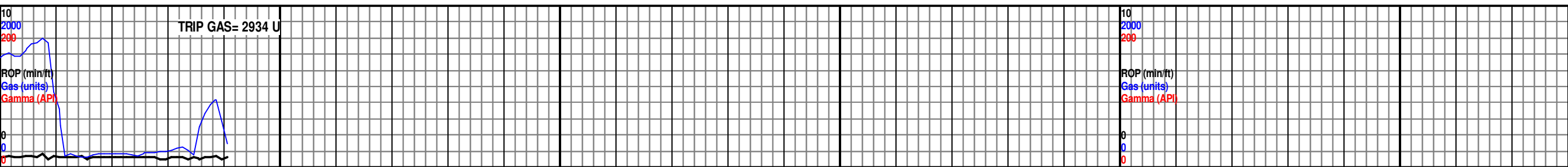


16250					16300					16350					16400					16450					16500									
	SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, DECR IN CALC FL FRAC & CALCITE, SFT-FRM.					SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC SFT-FRM.					SH- GY-DK GY, SME LT GY, OCC MOTL, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC SFT-FRM.					7965 TVD SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR CALC FL FRAC, SFT-FRM					SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR CALC FL FRAC, SFT-FRM					SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR CALC FL FRAC, SFT-FRM								
WT IN 9.2, OUT 9.05 VIS IN 41, OUT 41																				WOB 12.7K RPM. 65 SPP. 3929 SPM. 53 GPM 238					WT IN 9.2+, OUT 9.1+ VIS IN 42, OUT 43									
															7990																			

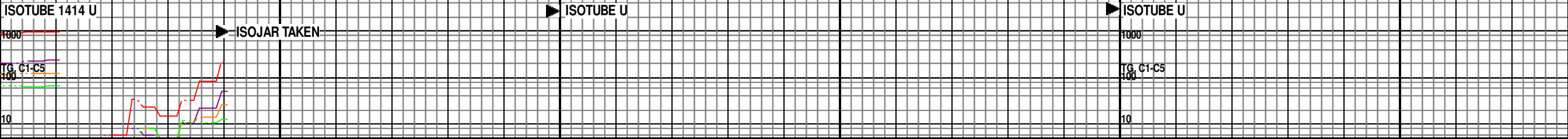
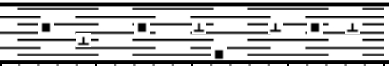


16550	16600	16650	16700	16750	16800
GY, BLKY, SM PLTY, ALC, TR CALC FL	SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR CALC FL FRAC, TR PYR, SFT-FRM	SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR CALC FL FRAC, TR PYR, SFT-FRM	SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR CALC FL FRAC, SFT-FRM	SH: GY, LT-GY, DK-GY, BLKY, SM PLTY, SBWXY, CARB, V/CALC, TR PYR, SFT-FRM	SH: GY-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR-NO CALC FL FRAC & CALCITE, SFT-FRM.
		<div data-bbox="1266 548 1411 578">08/17/2014</div> <div data-bbox="1188 630 1400 678">WT IN 9.2+, OUT 9.1+ VIS IN 42, OUT 43</div>			
	16589 MD 91.73 INC 268.16 AZM 8001.39 TVD 8917.2 VS	7990	16684 MD 90.74 INC 268.97 AZM 7999.35 TVD 9011.7 VS		





16800				16850				16900				16950				17000				17050			
7965 TVD																7965 TVD							
SH- GY-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR-NO CALC FL FRAC & CALCITE, SFT-FRM.																							
8/18/2014																							
KELLY HOSE BROKE AT 16841' DOWN FOR REPAIRS. SHORT TRIP INTO CASING.																							
MWD TOOLS FAILED UPON REACHING BOTTOM.																							
7990																7990							
EARLY TD OF LATERAL SECTION AT 16841' MD, 7999' TVD(Proj.) ON 8/17/2014 AT 5:30AM.																							
Proj. to bit survey.																							
16841 MD 89.50 INC 268.97 AZM 7999.02 TVD 9168.0 VS																							
8015																8015							



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