



Weatherford®

Surface Logging Systems

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

Tooke Rockies, Inc.
(A Weatherford Company)

884 Implement Dr.
Dickinson, ND 58601
701-227-4408

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

Well Name: State Blanca 1H(HORZ. SEC./LATERAL)
Well Id:
Location: NW/NE, Sec 12,T5S-R65W. Arapahoe County, CO
License Number: API 05-005-07220-00 Region: DJ BASIN
Spud Date: 5/16/2014 Drilling Completed: 6/25/2014
Surface Coordinates: 820' FNL & 2440' FEL of NW/NE of , Sec.12,T5S-R65W,,
Arapahoe County, CO.
Bottom Hole From SHL= 43.03'N & 7618.48'E Sec. 12, T5S-R65W,
Coordinates: Arapahoe County, CO.
Ground Elevation (ft): 5862' K.B. Elevation (ft): 5886'
Logged Interval (ft): 8030' To: 15,228' Total Depth (ft): 15,228'
Formation: NIOBRARA
Type of Drilling Fluid: INVERT/OBM

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: CONOCO/PHILLIPS Attn: Abby Tomkiewicz
Address: 600 N Dairy Ashford
ATR- 3086B
Houston, TX 77079

GEOLOGIST

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


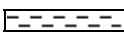

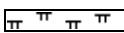
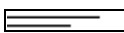
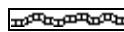


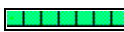

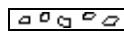


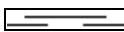

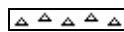


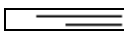

Supervision

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








































































Comments

Drilling Co.--H & P, Rig #280
 Toolpusher- , Mike Stevens, Josh Coleman
 Dir. Co.- Sperry
 Mud Co.- Baroid/Haliburton, Kevin Wolff, Chase Putnam

ROCK TYPES



	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

ACCESSORIES

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

OTHER SYMBOLS





INTERVALS

 Core
 Dst







EVENTS

 Rft
 Sidewall

OIL SHOWS

 Even
 Spotted
 Ques
 Dead

POROSITY TYPE

 Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic



Pinpoint



Vuggy

ROUNDING



Rounded



Subrnd



Subang



Angular

SORTING



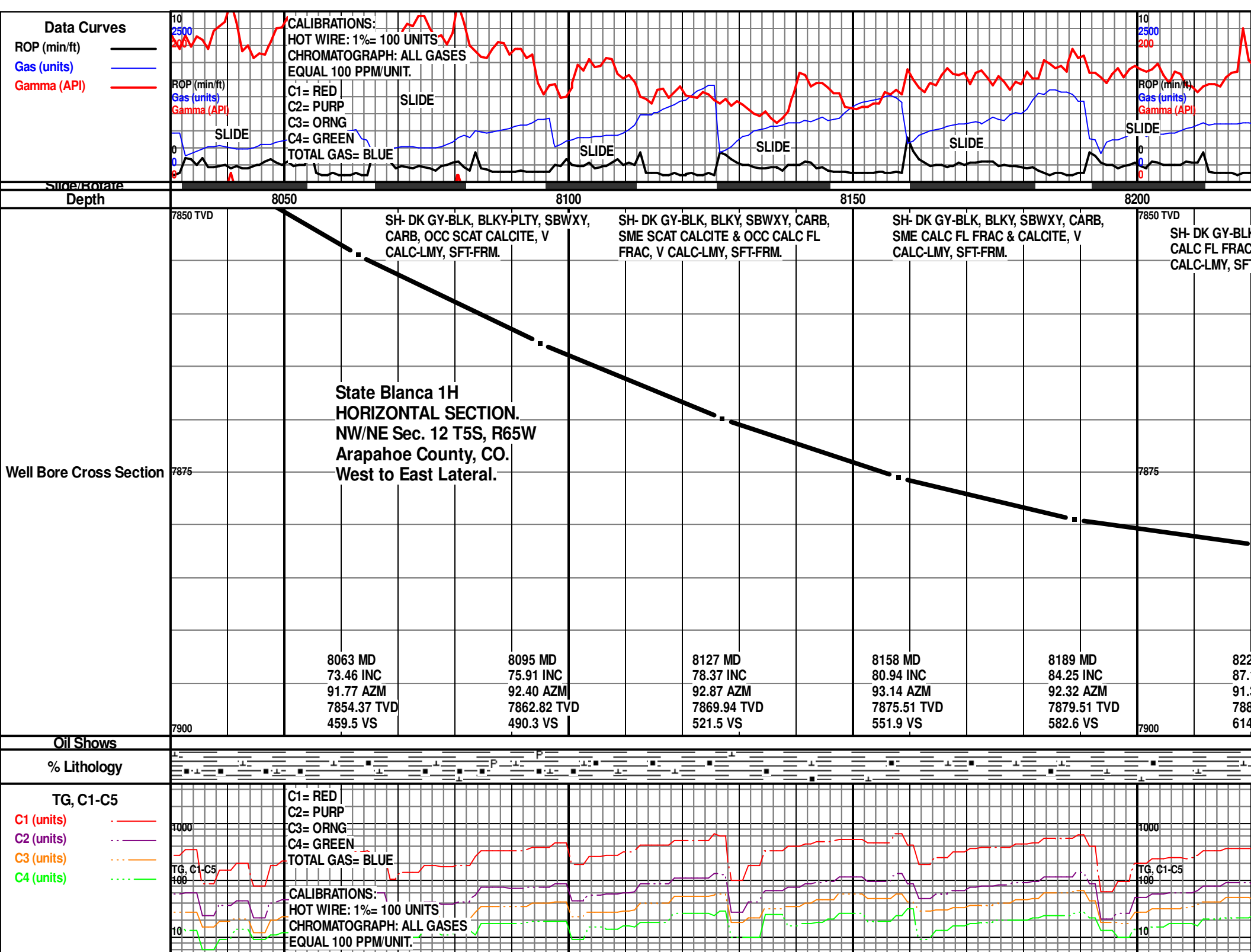
Well

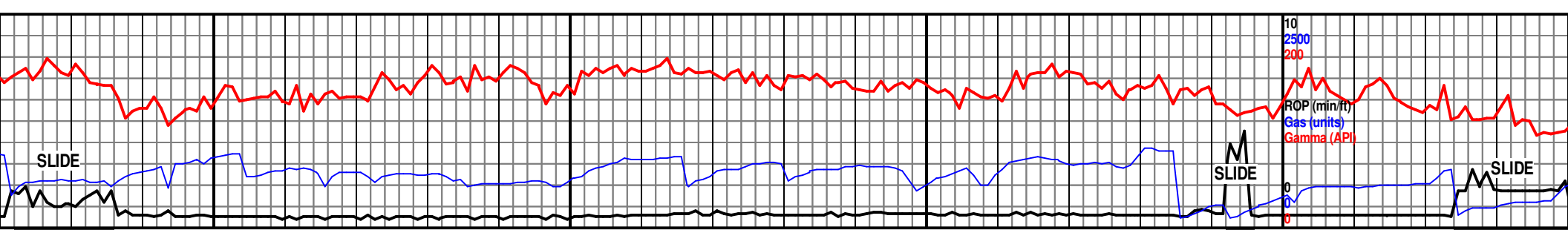


Moderate

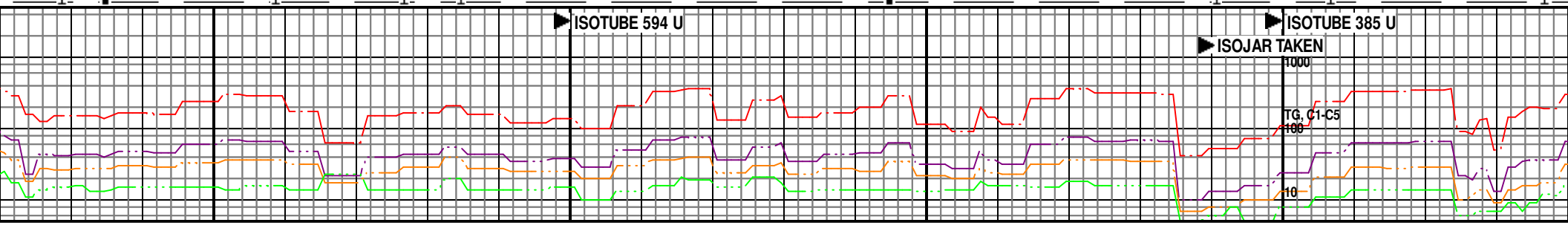


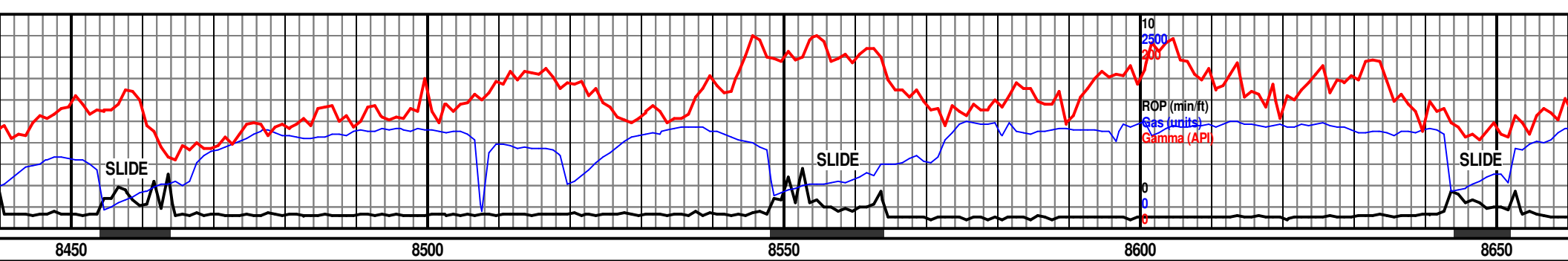
Poor



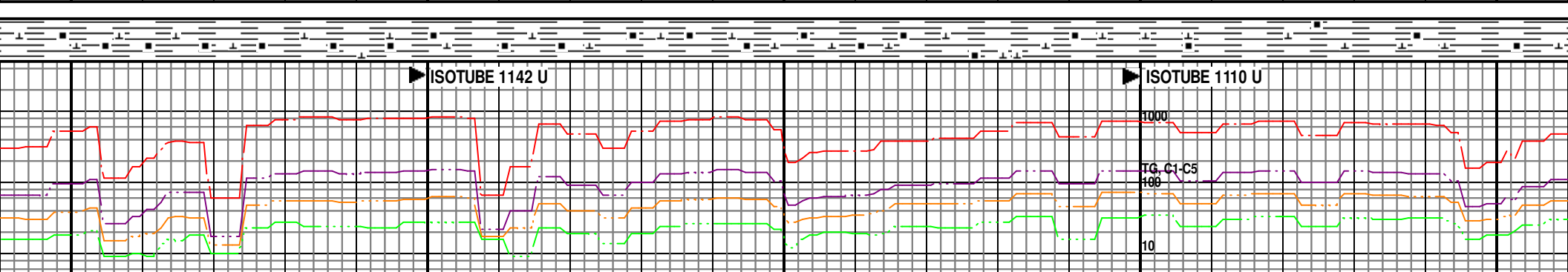


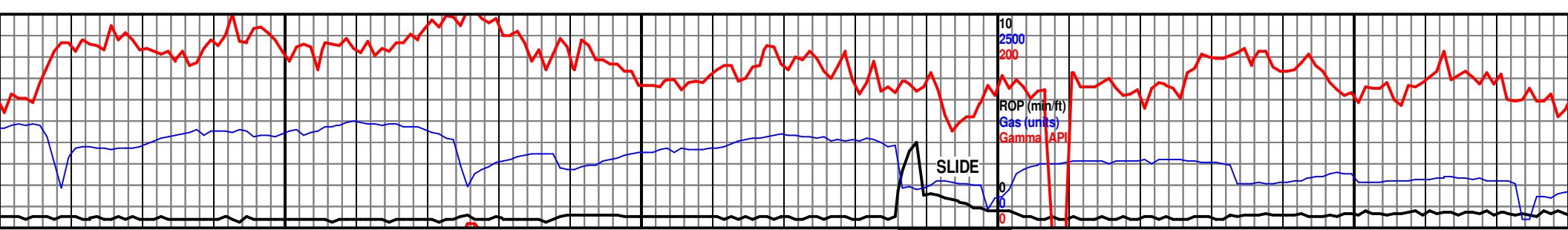
8250	8300	8350	8400
K, BLKY, SBWXY, CARB, & CALCITE, V T-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM. W/ SME BENT- LT GY-CRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM. W/ TR-NONE BENT- LT GY-CRM.
			6/19-20/2014
	WOB. 23-26K RPM. 20 SPP. 3268 SPM. 120 GPM. 540	BIT #3, RR BIT #2, SECURITY, MMD55, PDC, 8 3/4", 5X18's JETS, IN AT 2231'.	
	WT. IN 9.0, OUT. 9.0 VIS. IN 47, OUT. 44	MUD MOTOR IS 1.25°. SURVEY IS 71' BEHIND BIT. GAMMA IS 36.61' BEHIND BIT.	LANDED THE CURVE AT 8385' MD, 7883.41' TVD (Proj.) AT 07:25 PM ON 6/18/2014. TRIP FOR NEW BHA.
			7875
21 MD 16 INC 31 AZM 1.90 TVD 1.5 VS	8253 MD 88.83 INC 90.65 AZM 7883.02 TVD 646.5 VS	8321 MD 90.80 INC 90.19 AZM 7883.30 TVD 714.5 VS	8384 MD 92.53 INC 90.56 AZM 7881.47 TVD 777.4 VS
			7900



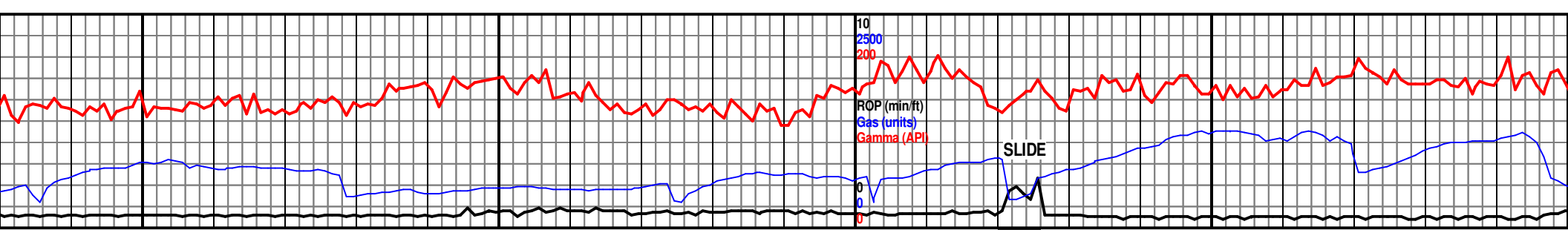


GY, BLKY-PLTY, SBWXY, CALC FL FRACS & CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	7850 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR-NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, SBWXY, CARB, FRACS & CALCITE, CALC-LMY, SFT-
WT. IN 9.2, OUT. 9.1H VIS. IN 57, OUT. 55					
				7875	
				WOB. 18-20K RPM. 66 SPP. 3521 SPM. 112 GPM. 504	
8479 MD 91.24 INC 91.65 AZM 7878.34 TVD 872.4 VS			8573 MD 90.99 INC 91.24 AZM 7876.51 TVD 966.3 VS	7900	

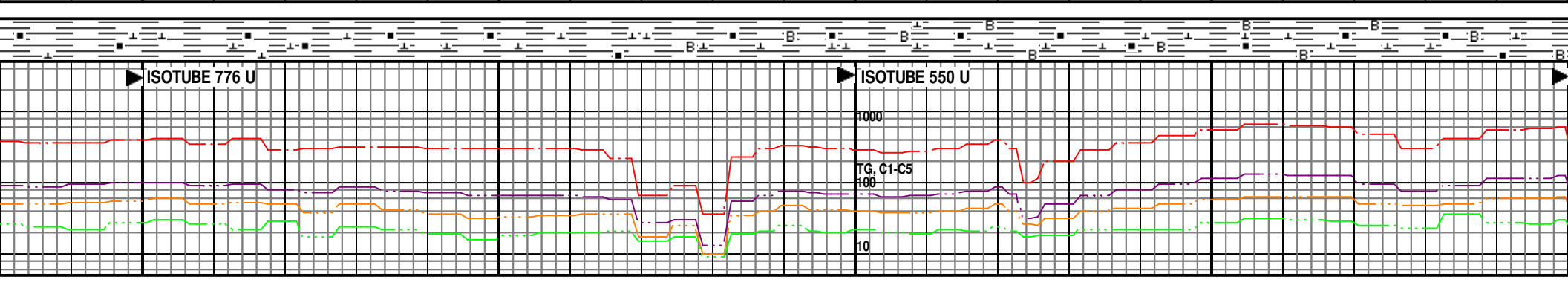


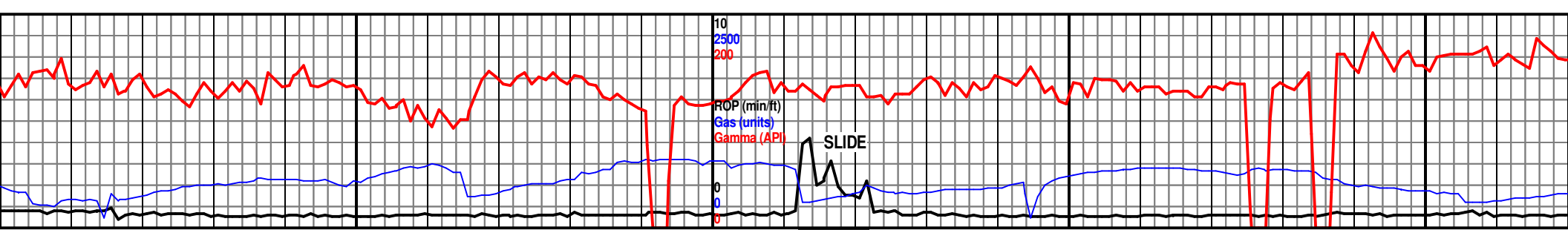


8700				8750				8800				8850			
BLKY-PLTY, NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR PYR.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR PYR.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR BENT-LT GY-GN.			

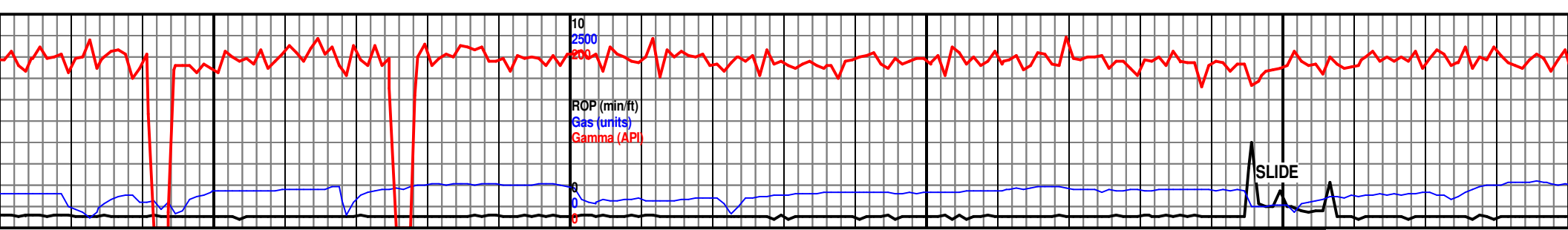


	8900	8950	9000	9050	9100
FL, LMY, LT	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR BENT- LT GY-GN, TAN.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR-SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR BENT- LT GY-TAN.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR-SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR BENT- LT GY-TAN.
1, OUT. 9.1 1, OUT. 51				WT. IN 9.1, OUT. 9.1 VIS. IN 51, OUT. 48	CP 91
OB. 16-19K M. 66 P. 3295 M. 109 M. 489					
			7875		
			7900		
		8951 MD 89.63 INC 90.98 AZM 7871.12 TVD 1344.1 VS		9046 MD 90.31 INC 91.17 AZM 7871.17 TVD 1439.0 VS	





00				9150				9200				9250				9300			
SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, INCR CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM. W/ TR BENT- LT GY-CRM.			



SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SCT CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-MOD FRM.
W/ TR BENT- LT GY-CRM.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SME CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-FRM. W/
TR BENT- LT GY-CRM.

7850 TVD
SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SME CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY-CRM, W/ TR PYR.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SME CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY-CRM, W/ TR PYR.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SCT CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY, W/ TR PYR.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SCT CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY, W/ TR PYR.

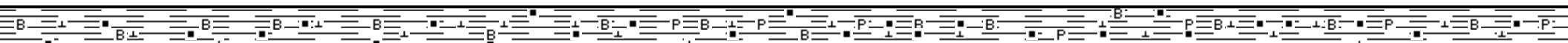
WT. IN 9.1, OUT. 9.1
VIS. IN 51, OUT. 48

WOB. 13-16K
RPM. 65
SPP. 3668
SPM. 112
GPM. 505

9330 MD
90.12 INC
91.12 AZM
7868.88 TVD
1722.9 VS

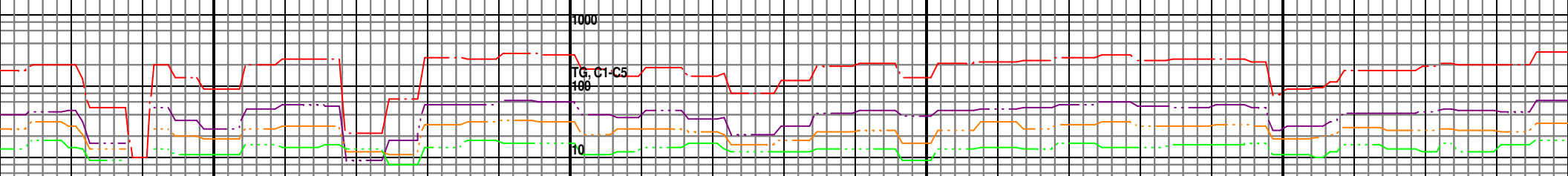
9425 MD
90.86 INC
91.91 AZM
7868.07 TVD
1817.8 VS

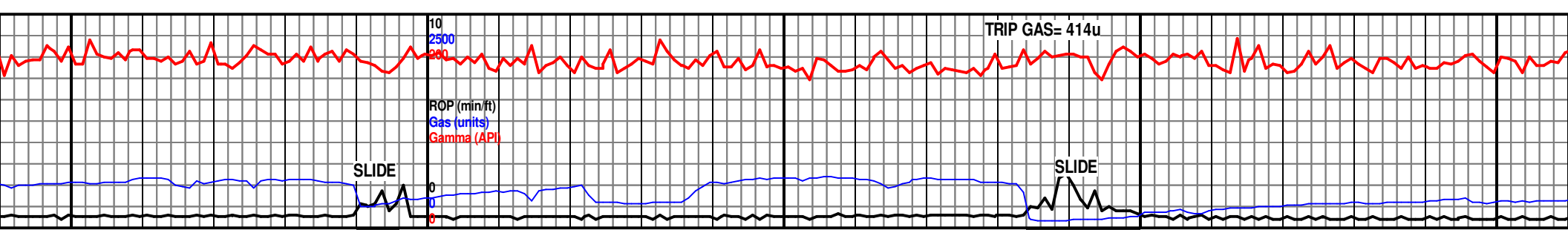
9519 MD
90.31 INC
90.61 AZM
7867.11 TVD
1911.8 VS



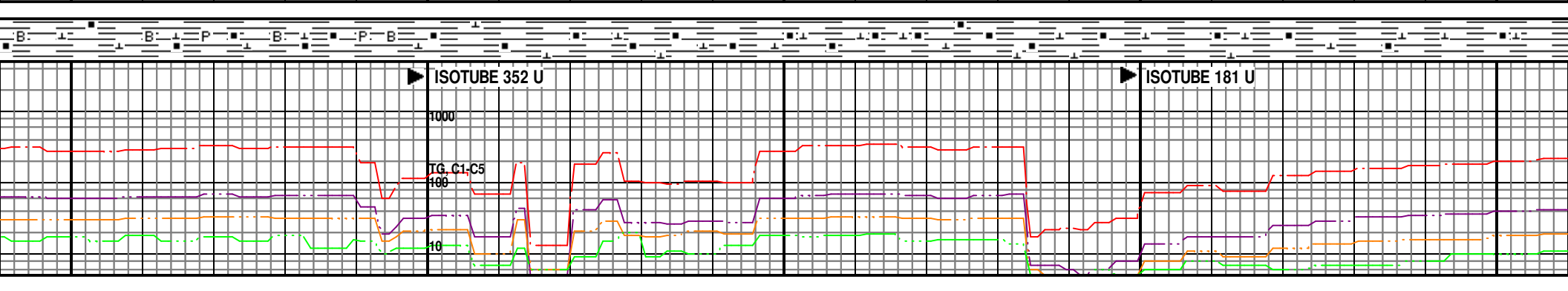
▶ ISOTUBE 484 U

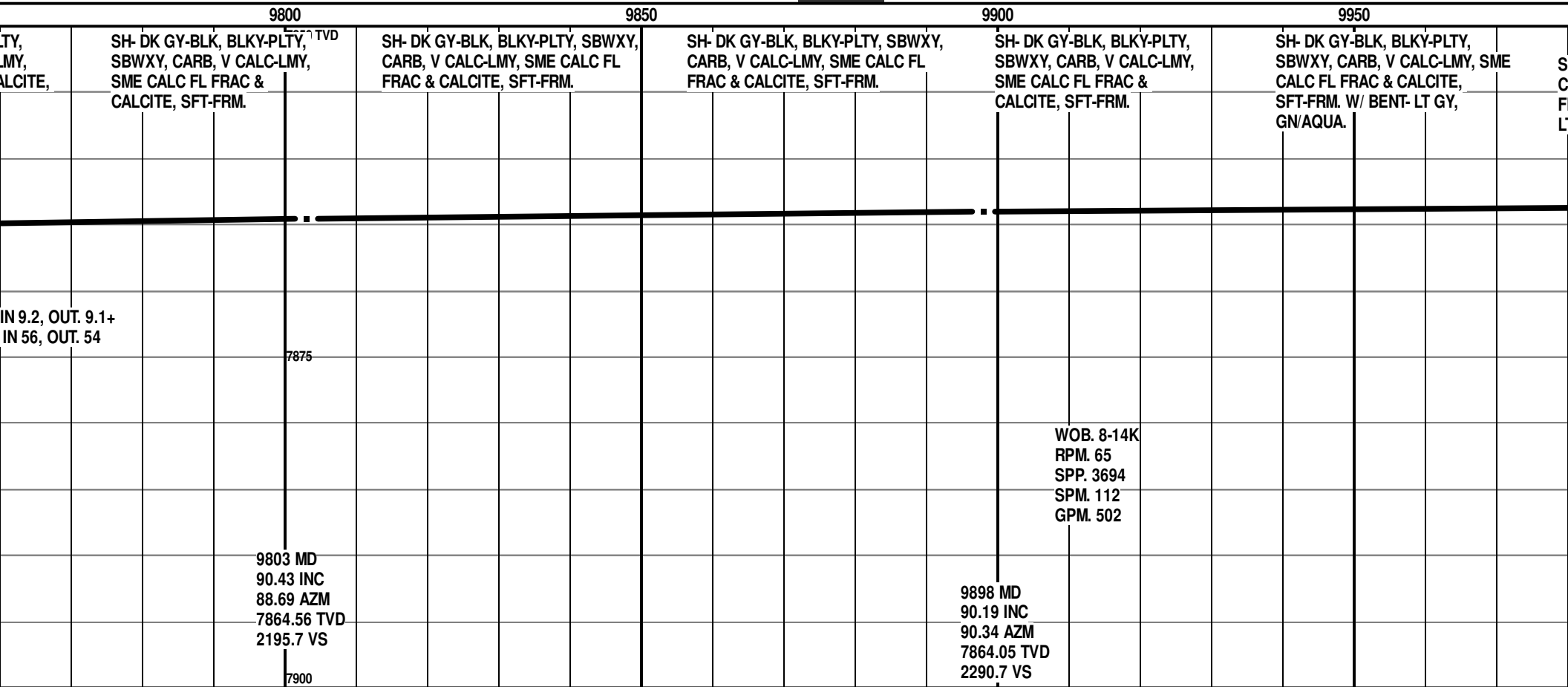
▶ ISOTUBE 268 U

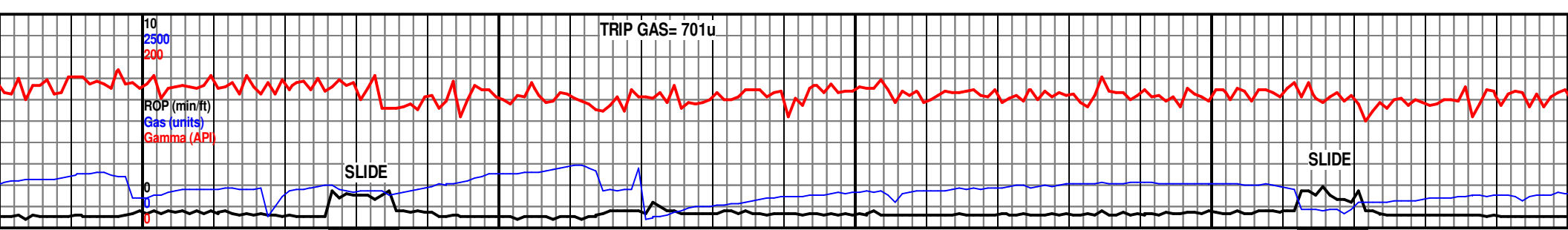




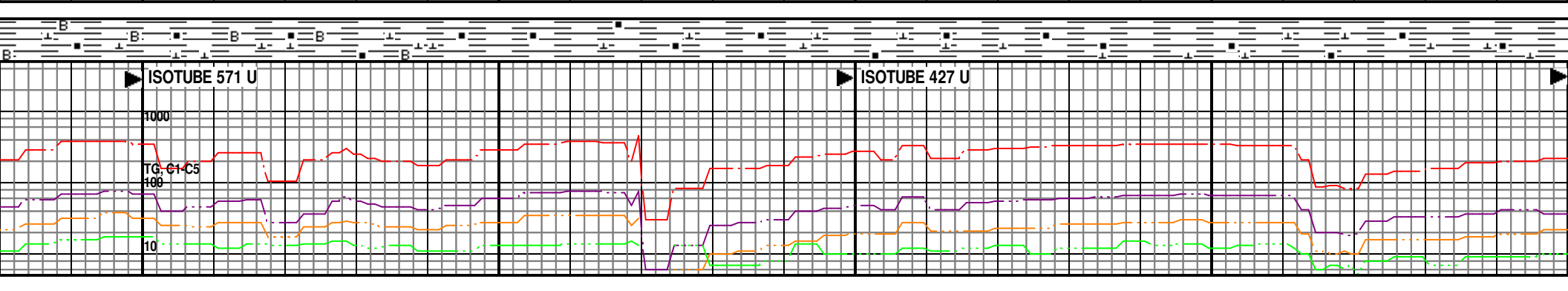
9550	9600	9650	9700	9750
SH- BLK-DK GY, BLKY-PLTY, SBWXY, L FRACS & L FRA, SFT-FRM. W/ TR PYR.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM. W/ TR-NONE BENT- LT GY-CRM, W/ TR PYR.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.
6/21/2014 TRIP OUT TO RESET HWDP IN BHA AT 9684'.				
<div>CP#2, TARGET @ 2000' VS= 9607' MD, 7868' TVD.</div>				
<div>WT. 9.1 VIS. 51 PV. 16 YP. 31 HTHP. 5.6@250° CORR SLDS. 5.9% NAP/H2O. 62:38% Cl. 76000 mg/L Ca. 30800 mg/L CACl2. 29.85 ppb LGS/HGS. 5.8/0.1 % EXCESS LIME. 1.23 ppb ELEC. 406 V</div>				
<div>9614 MD 90.68 INC 91.69 AZM 7866.29 TVD 2006.8 VS</div>				
<div>9709 MD 90.49 INC 89.84 AZM 7865.32 TVD 2101.7 VS</div>				

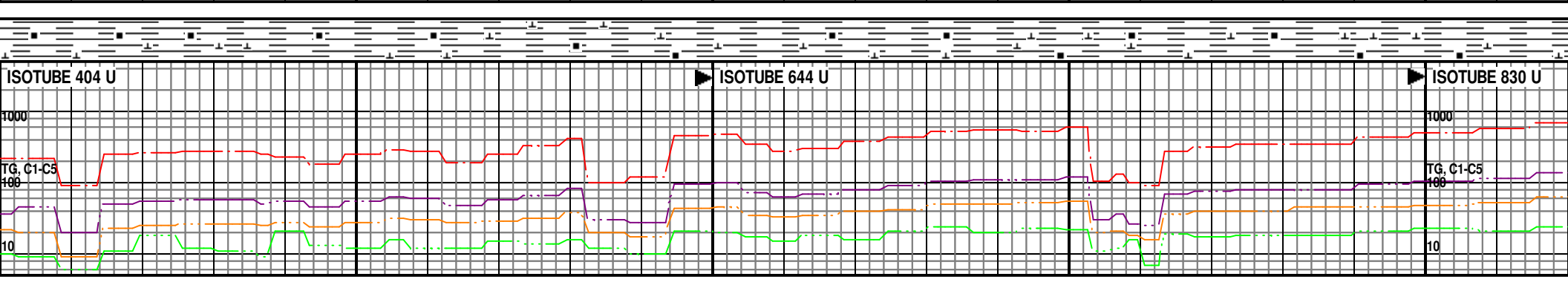
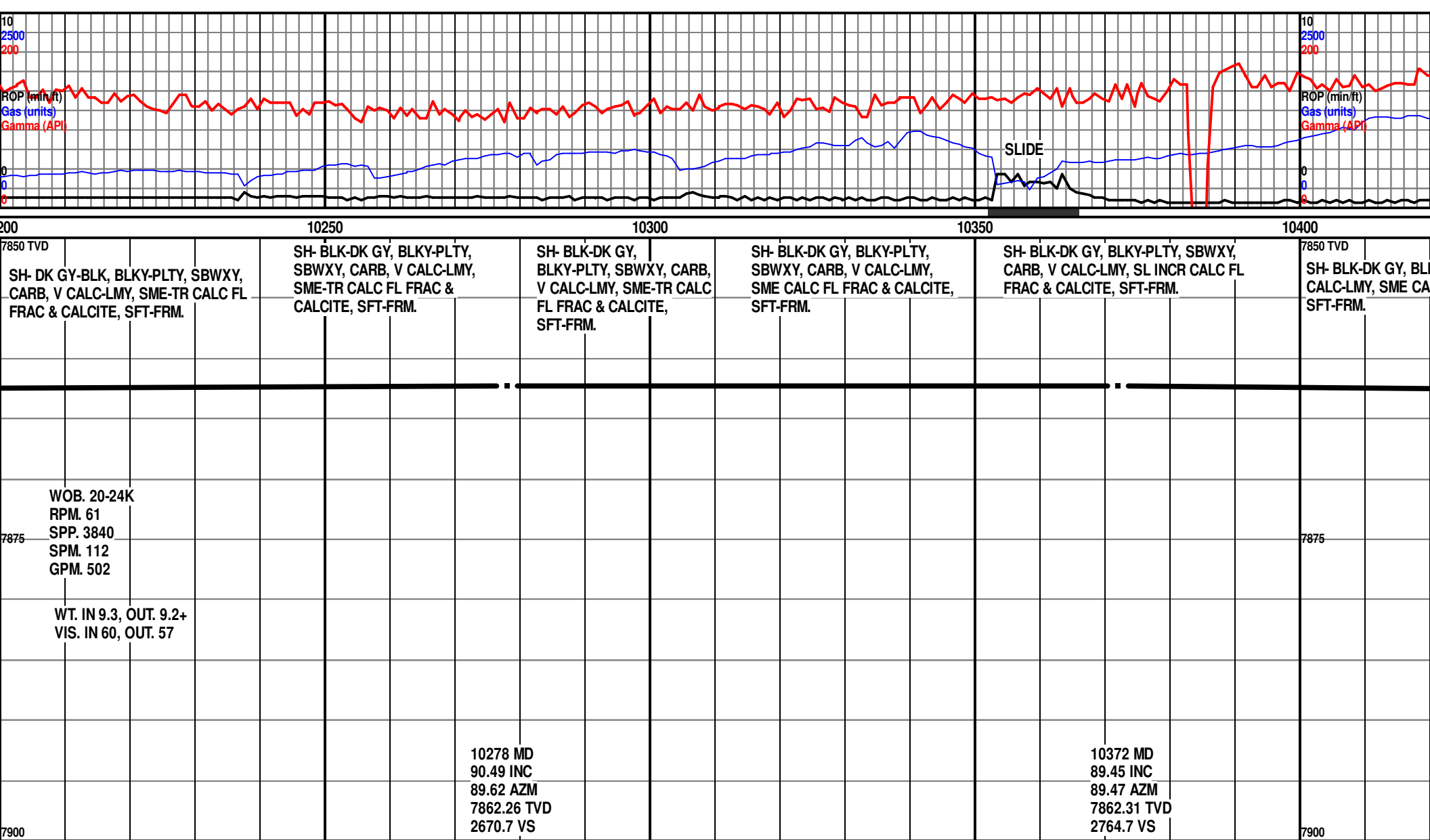


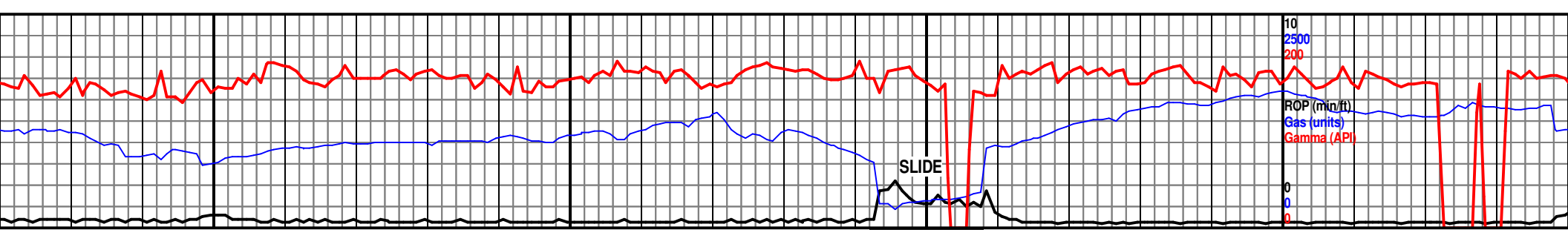




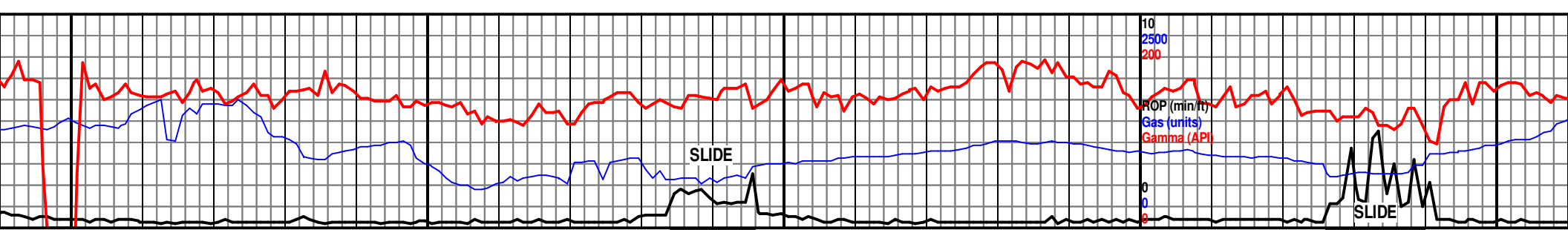
10000	10050	10100	10150	10200
H- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM. W/ BENT- LT GY, GN/AQUA.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM. W/ BENT- LT GY, GN/AQUA.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME CALC FL FRAC & CALCITE, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME-TR CALC FL FRAC & CALCITE, SFT-FRM.
TRIP OUT FOR NEW MUD MOTOR AT 10070'.				
6/22/2014				
X				
CP#3, TARGET @ 2500' VS= 10,107' MD, 7865'TVD.				
BIT #4, RR(RE-RUN) BIT #2, SECURITY, MMD55, PDC, 8 3/4", 5X18's JETS, IN AT 2231'.				
MUD MOTOR IS 1.50°.				
SURVEY IS 74' BEHIND BIT.				
GAMMA IS 41.73' BEHIND BIT.				
9993 MD 90.31 INC 90.89 AZM 7863.64 TVD 2385.7 VS	WT. 9.3 VIS. 65 PV. 16 YP. 31 HTHP. 3.2@250° CORR SLDS. 6.6% NAP/H2O. 64.36% Cl. 75500 mg/L Ca. 30400 mg/L CACI2. 29.46 ppb LGS/HGS. 5.6/1.1 % EXCESS LIME. 1.8 ppb ELEC. 472 V			10183 MD 89.81 INC 89.80 AZM 7862.51 TVD 2575.7 VS
7875	10088 MD 90.62 INC 90.12 AZM 7862.86 TVD 2480.7 VS			



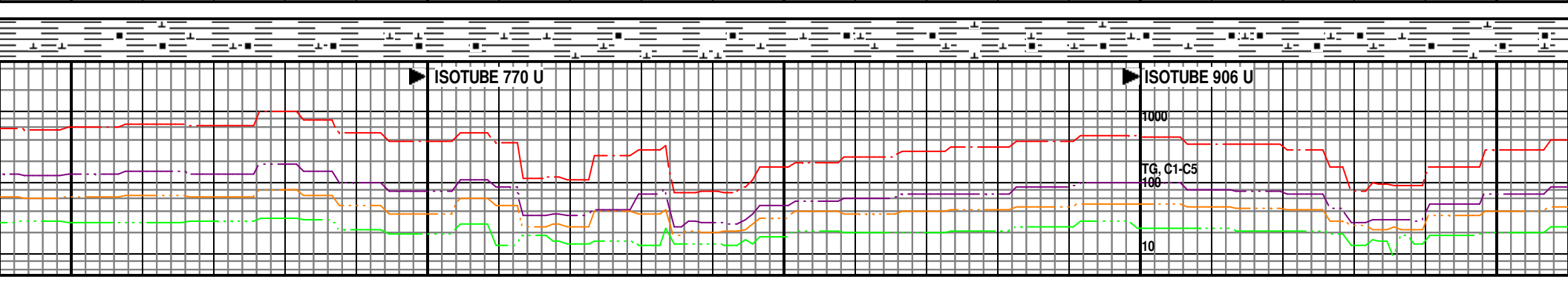


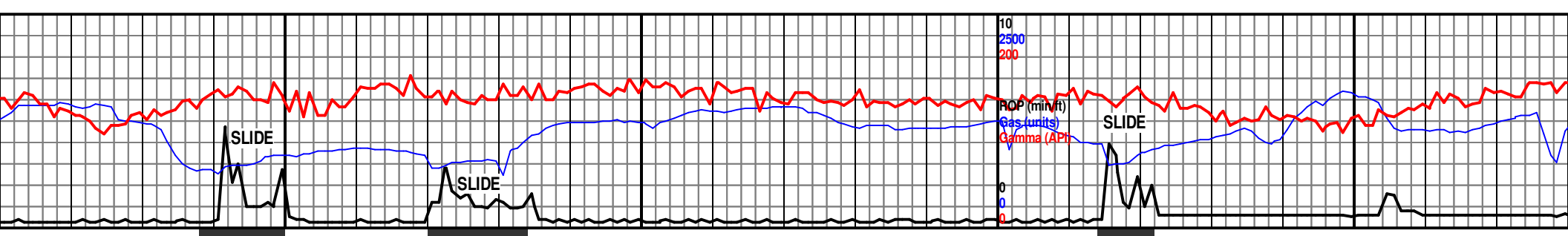


10450				10500				10550				10600							
KY-PLTY, SBWXY, CARB, V LC FL FRAC & CALCITE,				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, SME-TR CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC & CALCITE, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC & CALCITE, SFT-FRM.				SH- DK GY-BLK, PLTY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC & CALCITE, SFT-FRM.			



10650	10700	10750	10800	10850
SH- DK GY-BLK, BLKY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC & CALCITE, SFT-FRM.	SH- DK GY-BLK, BLKY, SBWXY, CARB, V CALC-LMY, TR CALC FL FRAC & CALCITE, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.
WT. IN 9.2H, OUT. 9.2 VIS. IN 58, OUT. 57				
10657 MD 91.30 INC 91.42 AZM 7861.07 TVD 3049.6 VS			WOB. 25-27K RPM. 70 SPP. 4027 SPM. 112 GPM. 501	
10752 MD 90.99 INC 91.15 AZM 7859.17 TVD 3144.6 VS			10847 MD 91.67 INC 91.25 AZM 7856.97 TVD 3239.5 VS	





DK GY, BLKY-PLTY, SBWXY, IE CALC FL FRACS & V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY, SBWXY, CARB, SME CALC FL FRACS, SCT CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, S CARB, OCC CALC FL FRAC & C V CALC-LMY, SFT-FRM.
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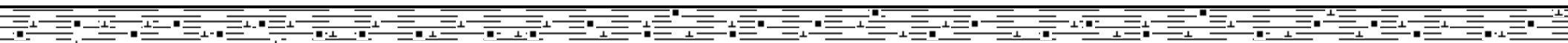
WT. IN 9.2, OUT. 9.3
VIS. IN 57, OUT. 62

10942 MD
89.38 INC
92.07 AZM
7856.10 TVD
3334.4 VS

7875

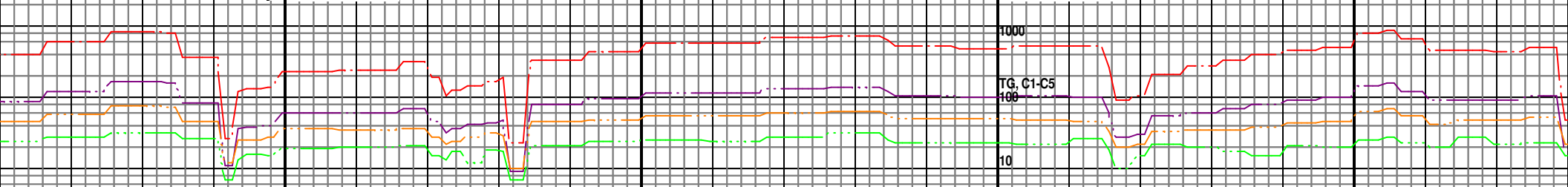
7900

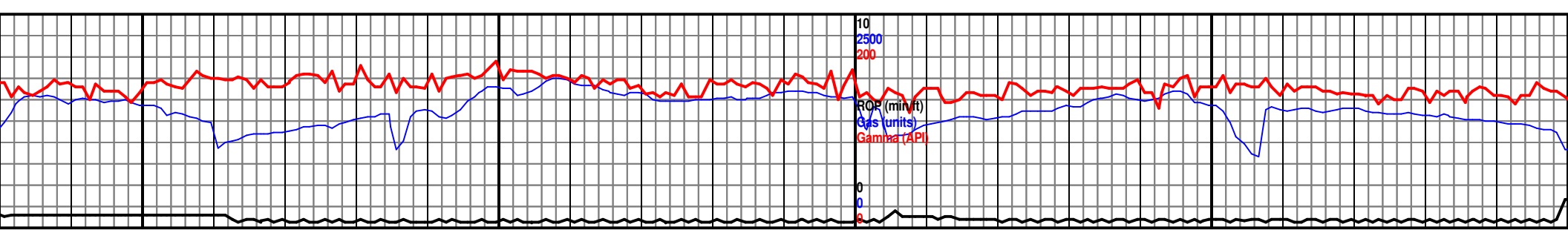
11036 MD
89.20 INC
91.90 AZM
7857.26 TVD
3428.4 VS



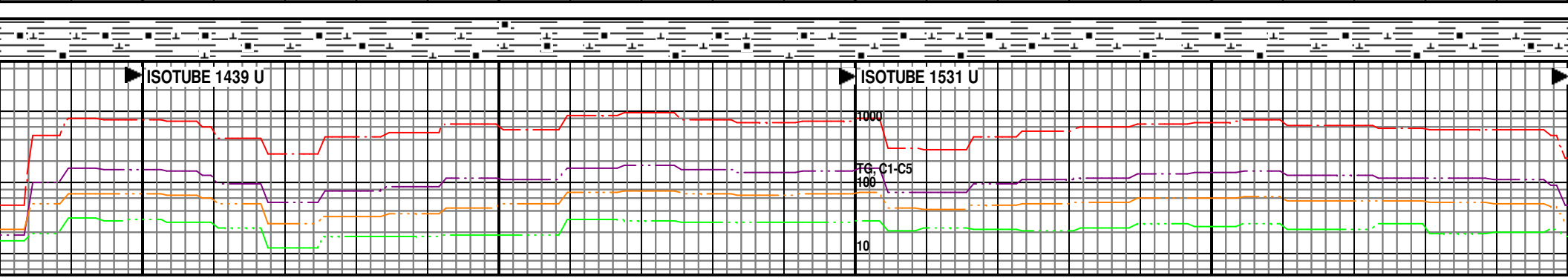
▶ ISOTUBE 842 U

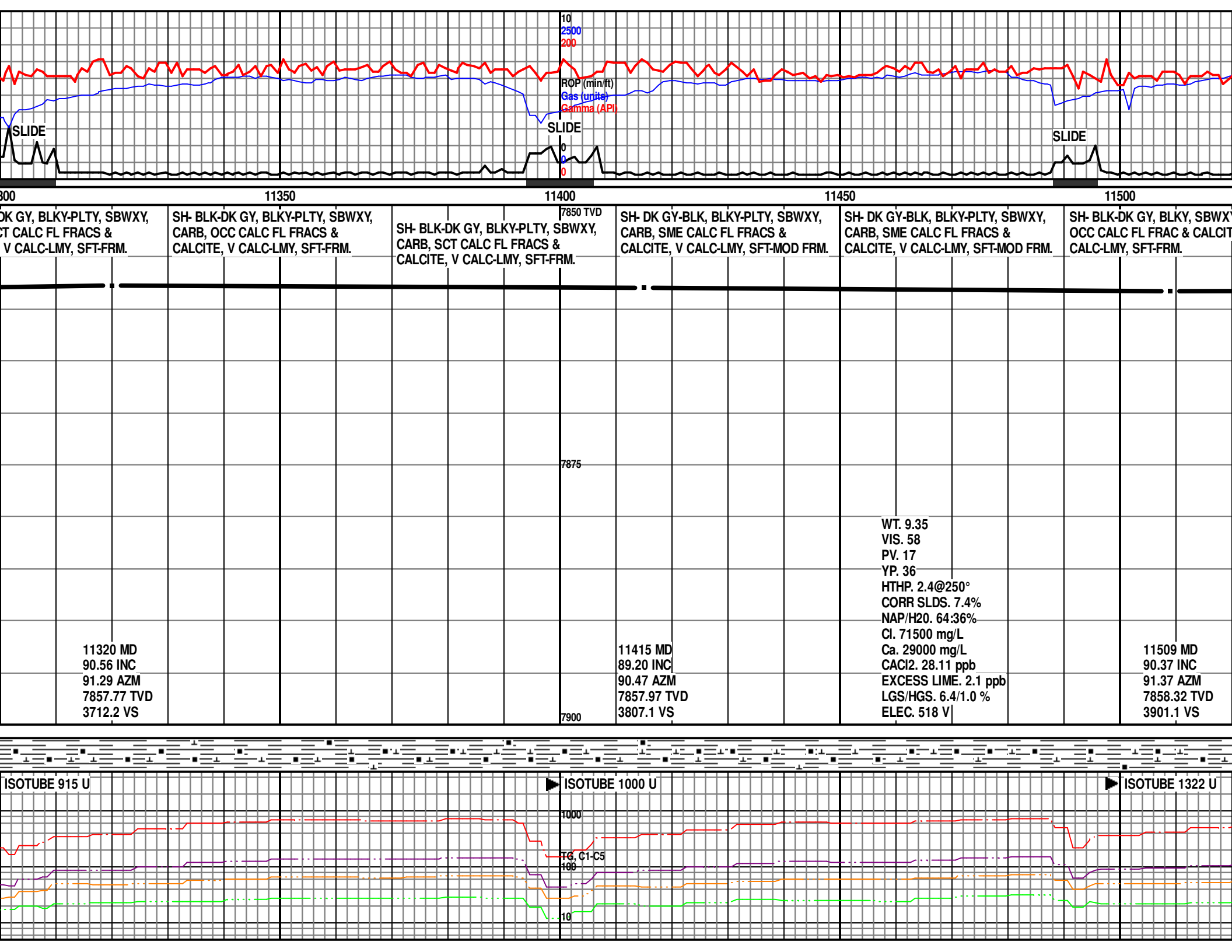
▶ ISOTUBE 1248 U

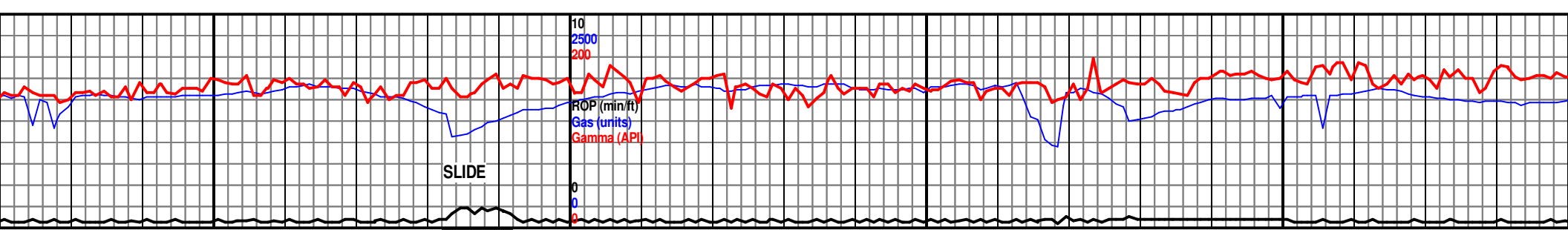




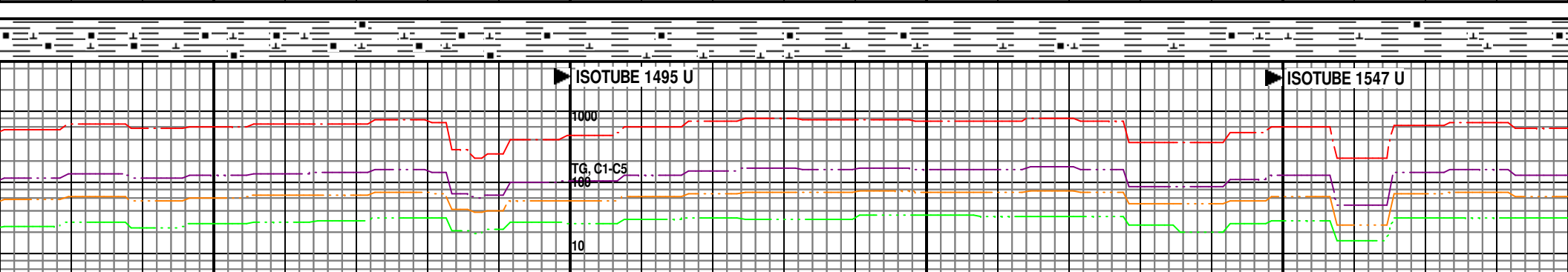
11100		11150		11200		11250		11300
BWXY, CALCITE,	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-MOD FRM.	7850 TVD	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-MOD FRM.
<div data-bbox="241 527 283 576" data-label="Text">X</div> <div data-bbox="136 600 514 690" data-label="Text">CP#5, TARGET @ 3500' VS= 11,108' MD, 7862' TVD.</div> <div data-bbox="325 738 472 787" data-label="Text">6/23/2014</div> <div data-bbox="126 876 283 1023" data-label="Text">WOB. 19-21K RPM. 70 SPP. 3934 SPM. 112 GPM. 504</div> <div data-bbox="1186 747 1428 820" data-label="Text">WT. IN 9.3H, OUT. 9.3H VIS. IN 58, OUT. 54</div> <div data-bbox="420 1088 567 1234" data-label="Text">11131 MD 89.51 INC 92.02 AZM 7858.33 TVD 3523.3 VS</div> <div data-bbox="1333 1088 1491 1234" data-label="Text">11226 MD 90.31 INC 91.69 AZM 7858.48 TVD 3618.2 VS</div>								

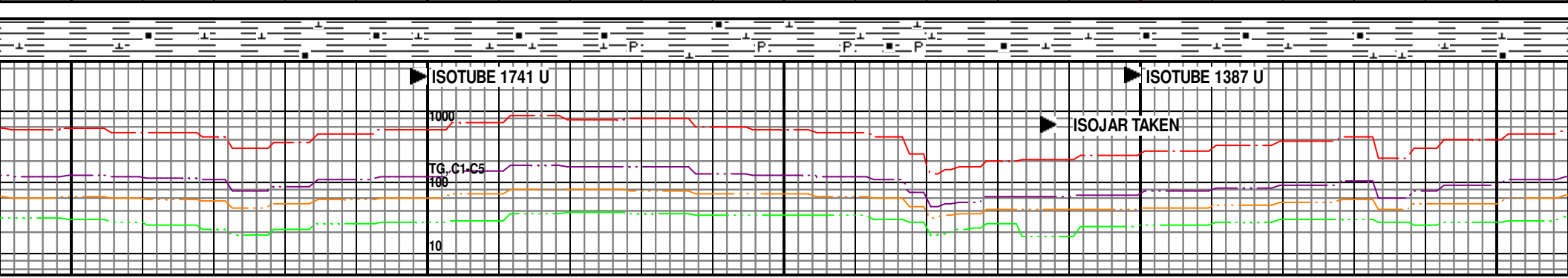
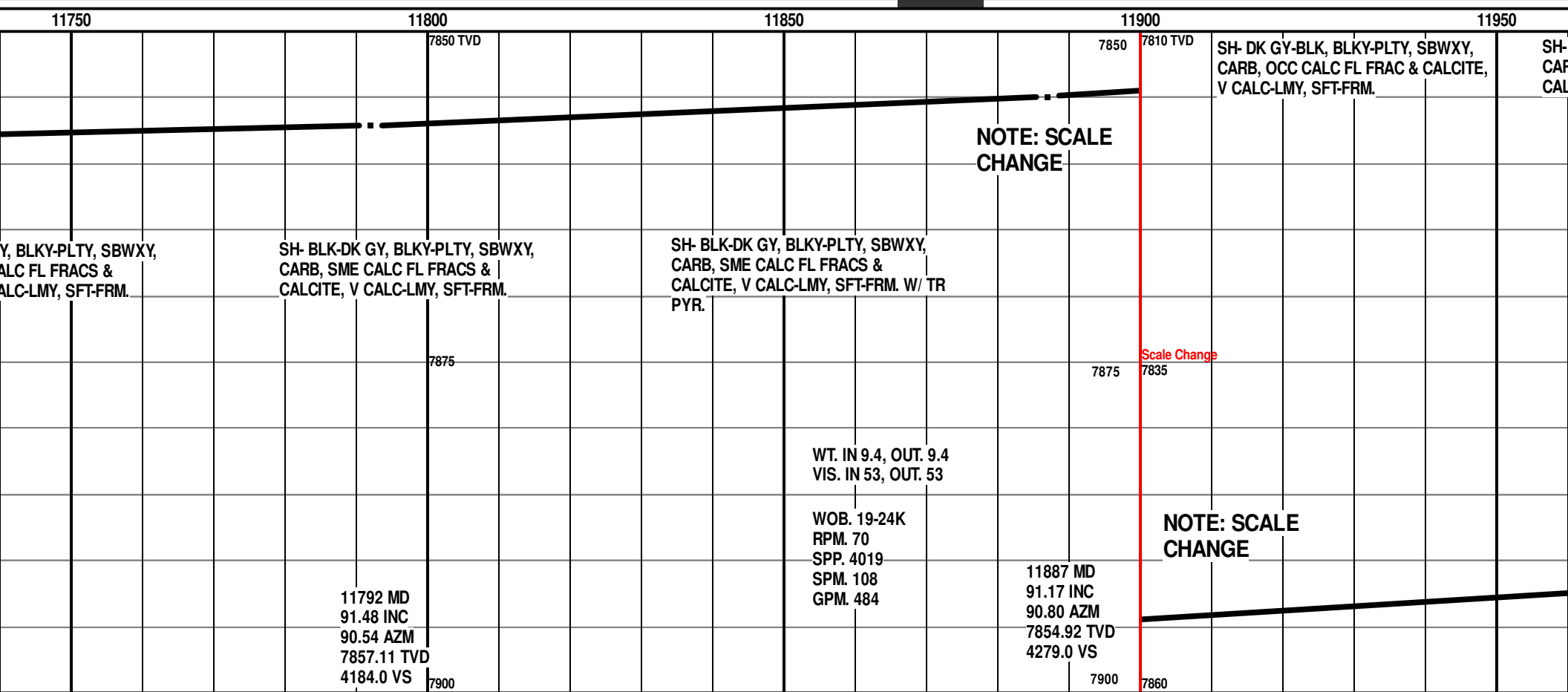
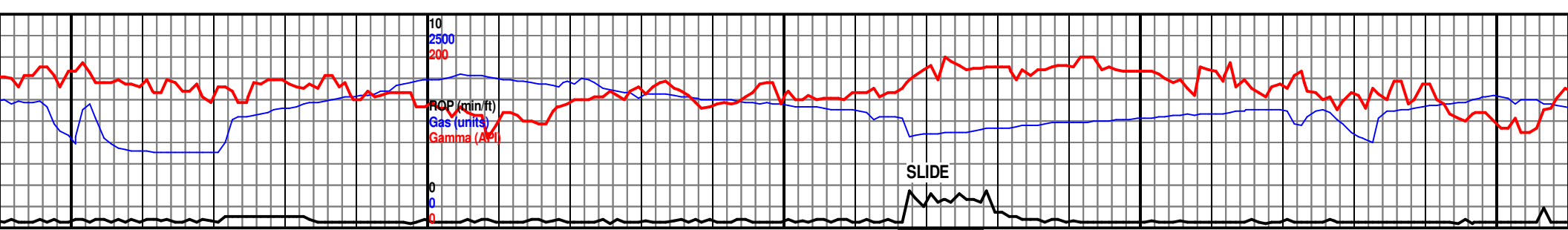


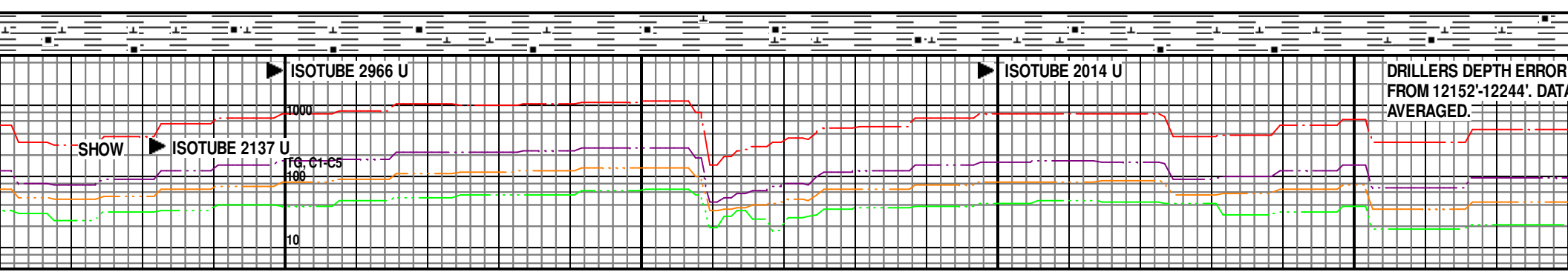
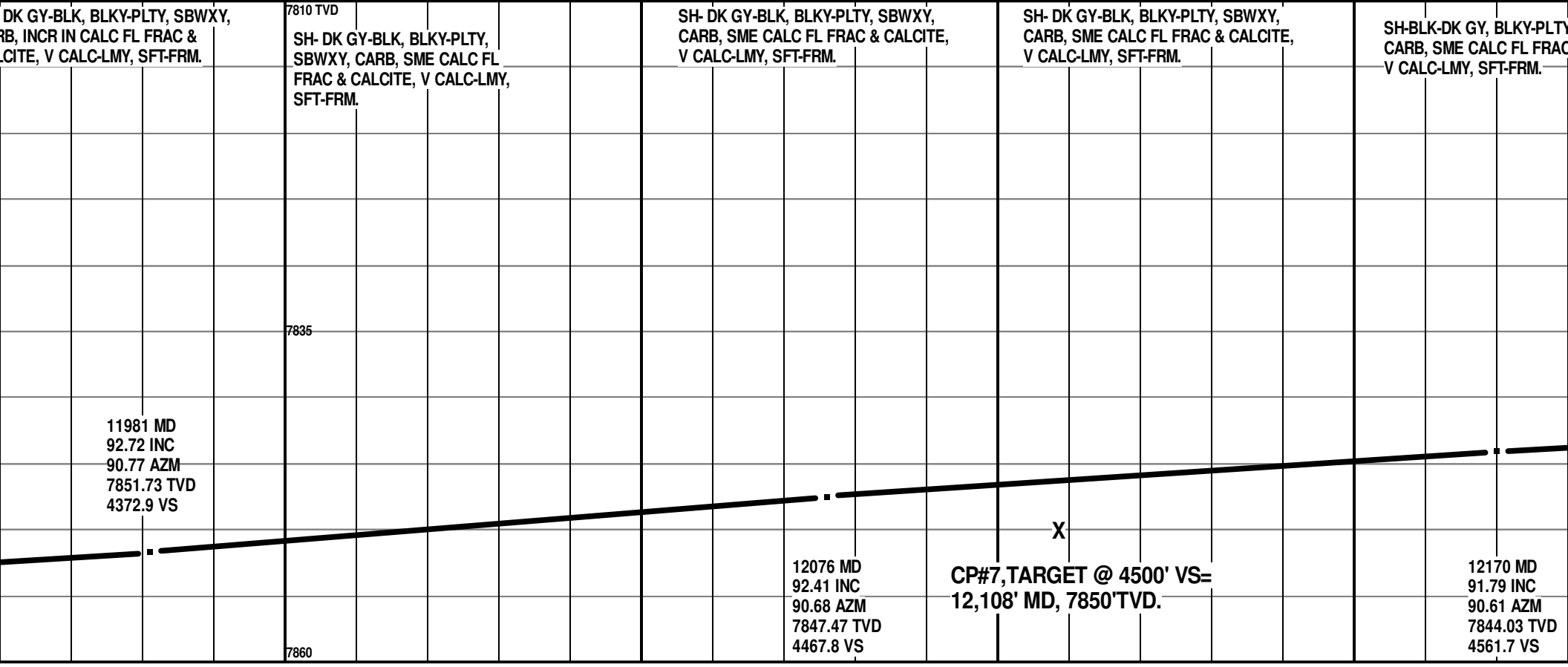
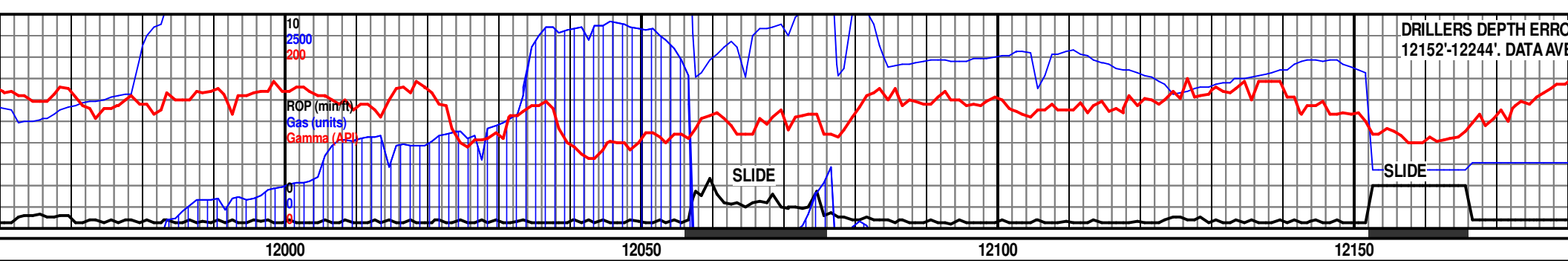


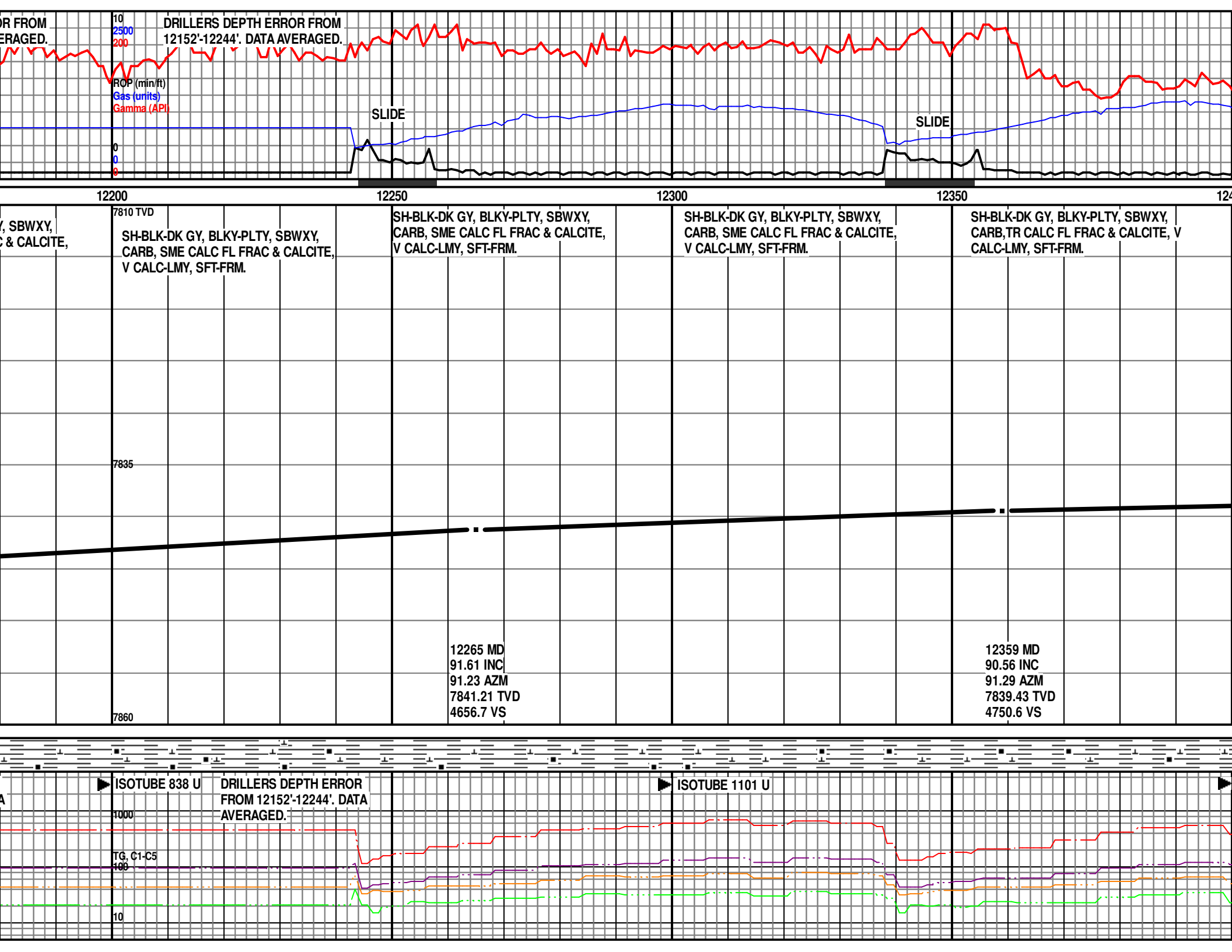


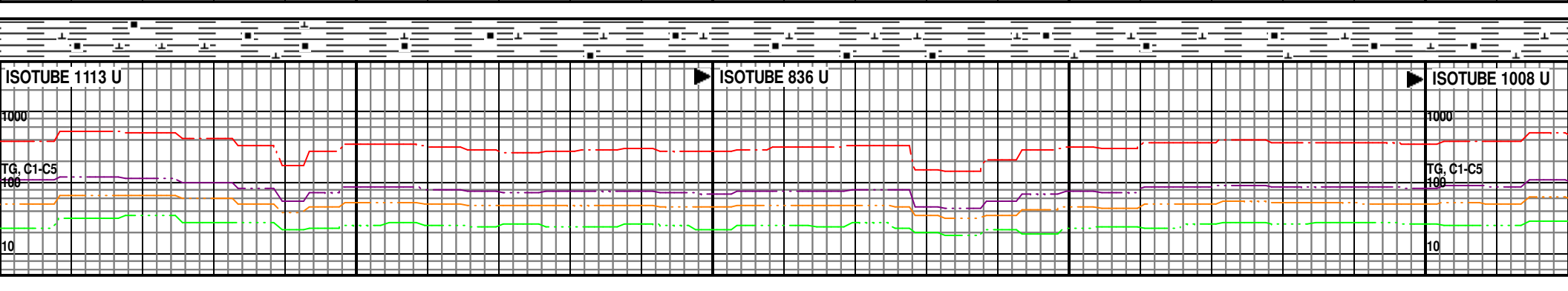
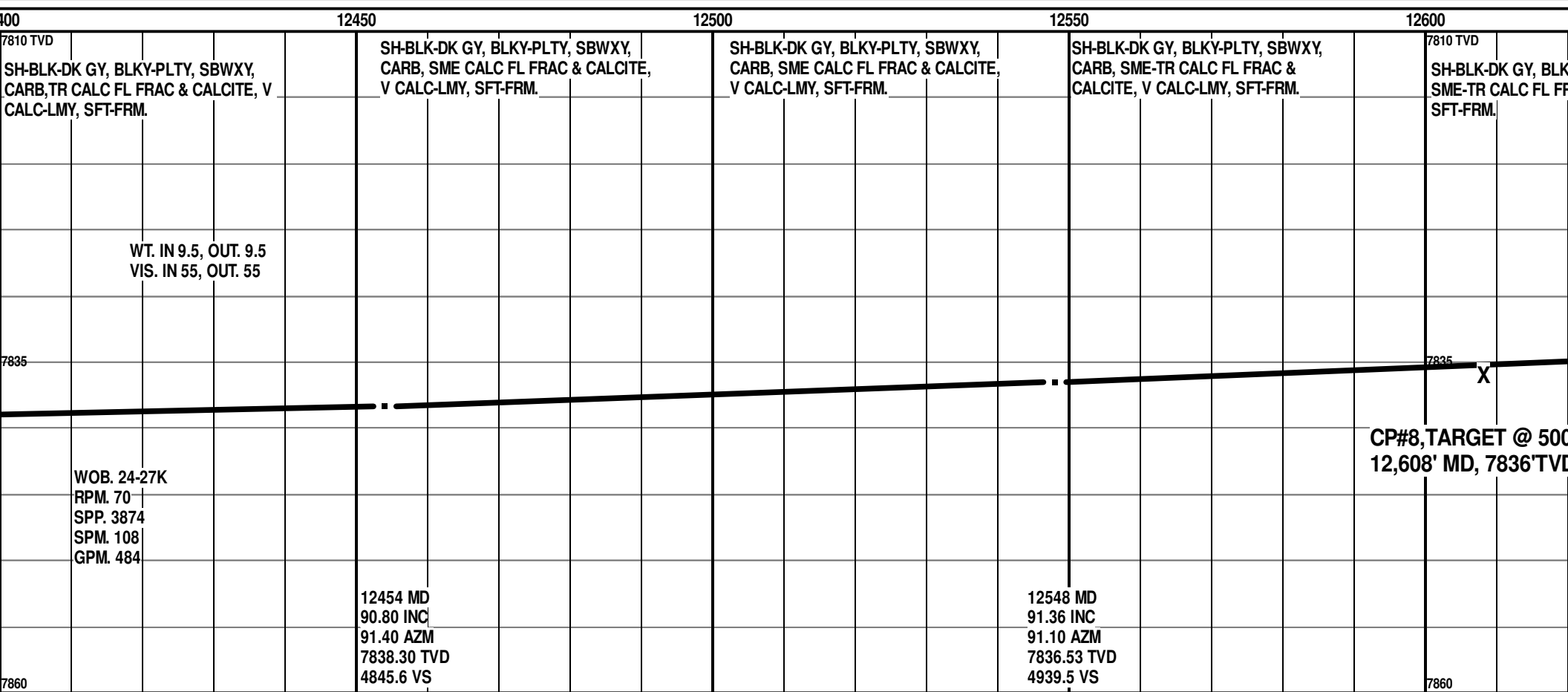
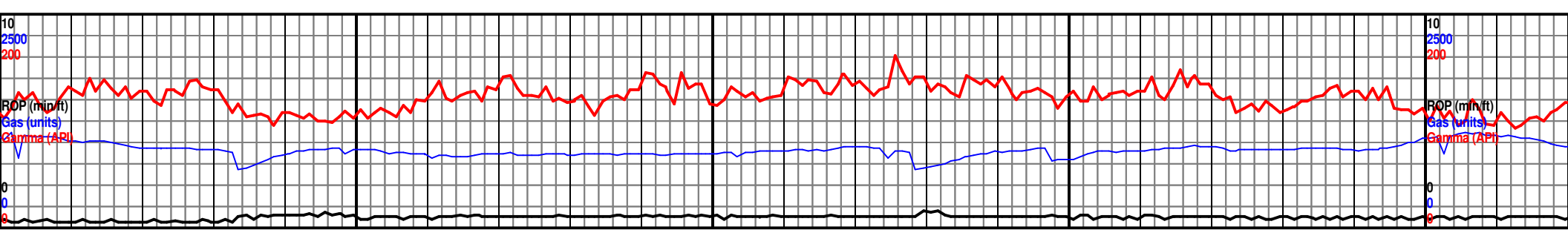
11550				11600				11650				11700			
Y, CARB, E, V				7850 TVD											
SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.				X											
				CP#6, TARGET @ 4000' VS= 11,608' MD, 7856'TVD.											
				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, LTL-NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, LTL-NO CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.			
WT. IN 9.3, OUT. 9.3 VIS. IN 58, OUT. 54				7875											
				11604 MD 89.81 INC 91.17 AZM 7858.17 TVD 3996.1 VS								11698 MD 90.00 INC 90.55 AZM 7858.33 TVD 4090.1 VS			
				7900											

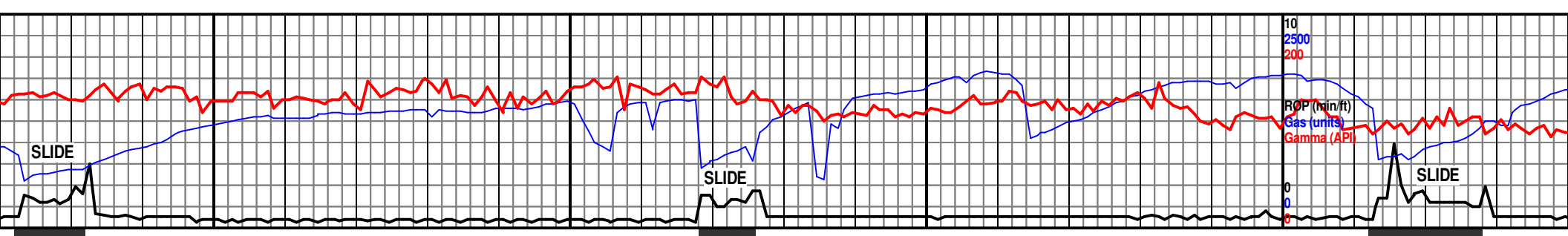












12650

12700

12750

12800

Y-PLTY, SBWXY, CARB,
RAC & CALCITE, V CALC-LMY,

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, TR CALC FL FRACS & CALCITE,
V CALC-LMY, SFT-MOD FRM.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SME CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-MOD FRM.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, SME CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-MOD FRM.

SH- BLK-DK GY, BLKY-PLTY, SBWXY,
CARB, TR CALC FL FRACS & CALCITE,
V CALC-LMY, SFT-FRM.

SH- DK GY-BLK, BLKY-PLTY, S
CARB, OCC CALC FL FRACS &
CALCITE, V CALC-LMY, SFT-FR

00' VS=
D.

WOB. 19-22K
RPM. 70
SPP. 3988
SPM. 108
GPM. 485

12643 MD
91.11 INC
91.36 AZM
7834.49 TVD
5034.5 VS

12737 MD
91.48 INC
91.35 AZM
7832.36 TVD
5128.4 VS

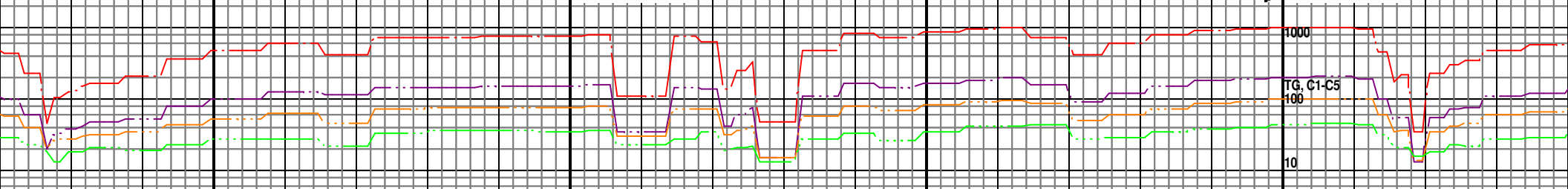
12832 MD
90.68 INC
90.93 AZM
7830.57 TVD
5223.4 VS

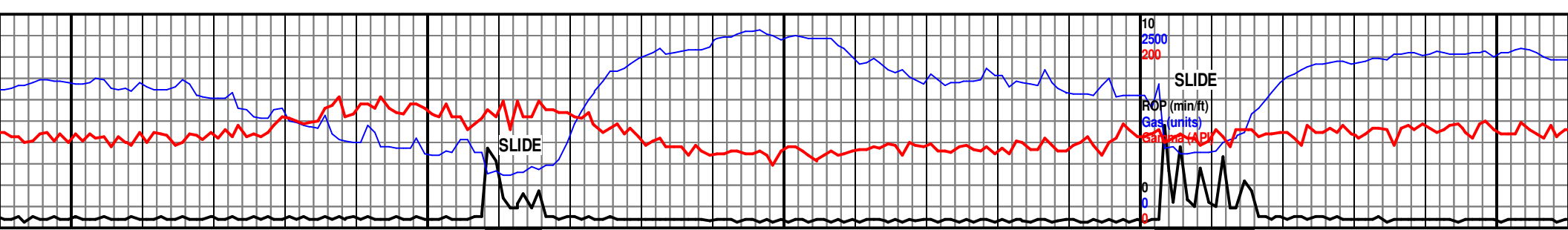
7835

7860

▶ ISOTUBE 1450 U

▶ ISOTUBE 1787 U





12850	12900	12950	13000	13050
BWXY, & RM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.
WT. IN 9.5H, OUT. 9.5 VIS. IN 54, OUT. 54				

10
2500
200
ROP (min/ft)
Gas (units)
Gamma (API)

SLIDE

SLIDE

7810 TVD

7835

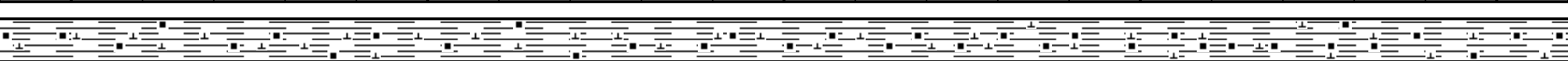
WOB. 24-26K
RPM. 70
SPP. 4058
SPM. 108
GPM. 482

12926 MD
90.62 INC
90.81 AZM
7829.50 TVD
5317.3 VS

13021 MD
90.00 INC
91.32 AZM
7828.99 TVD
5412.3 VS

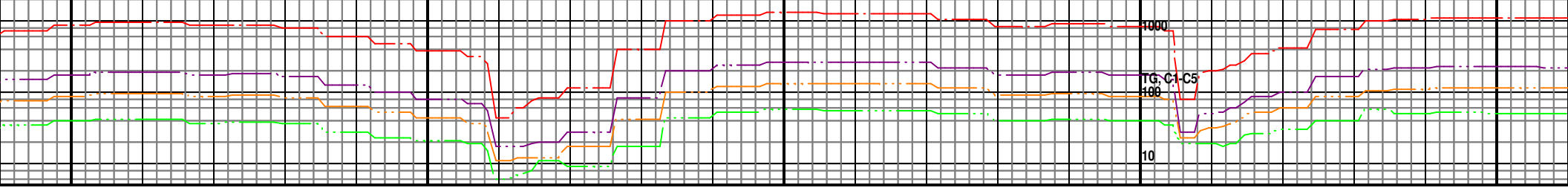
WT. 9.5
VIS. 54
PV. 20
YP. 34
HTHP.
CORR.
NAP/H2
Cl. 740
Ca. 300
CACI2.
LGS/H2
EXCES
ELEC.

7860

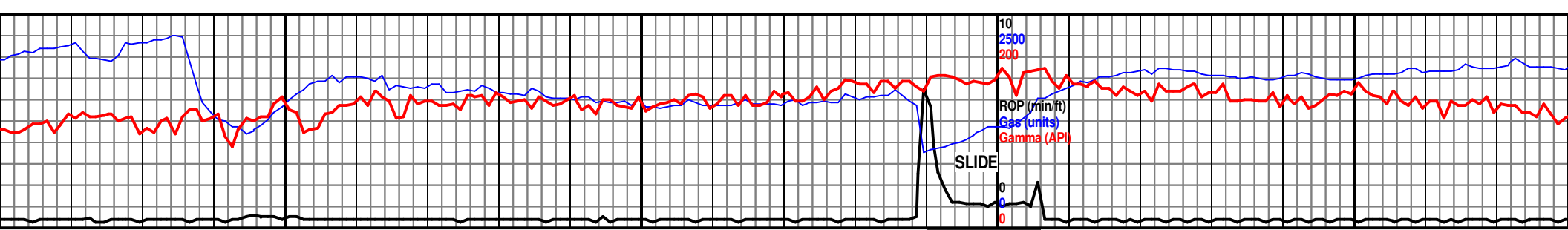


▶ ISOTUBE 1049 U

▶ ISOTUBE 1546 U

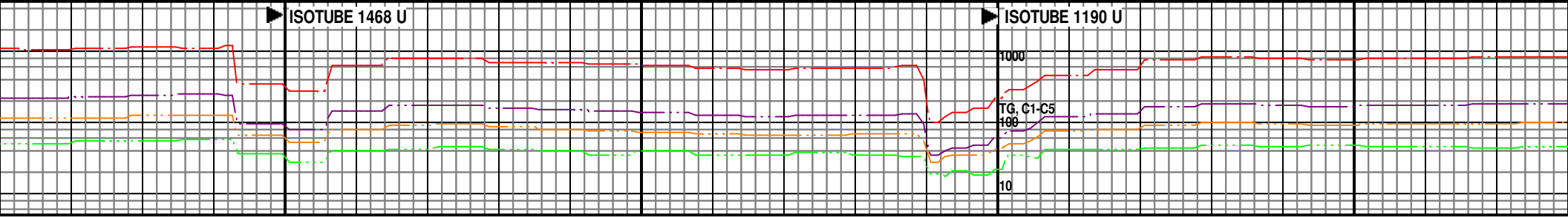


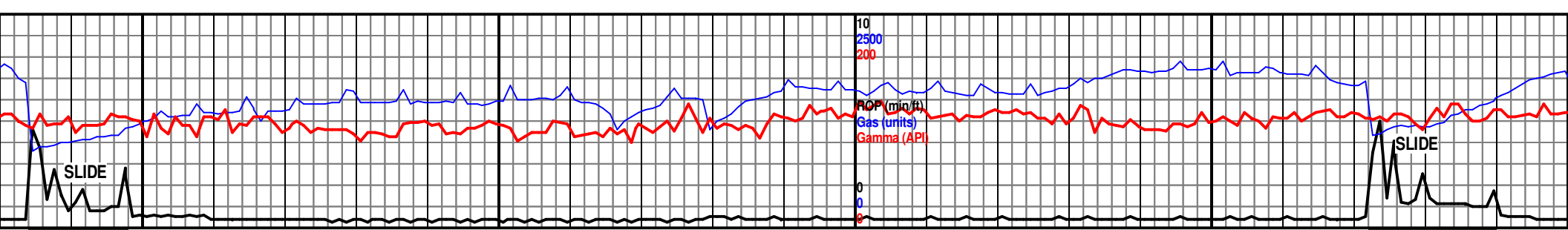
1000
100
10
TG, C1-C5



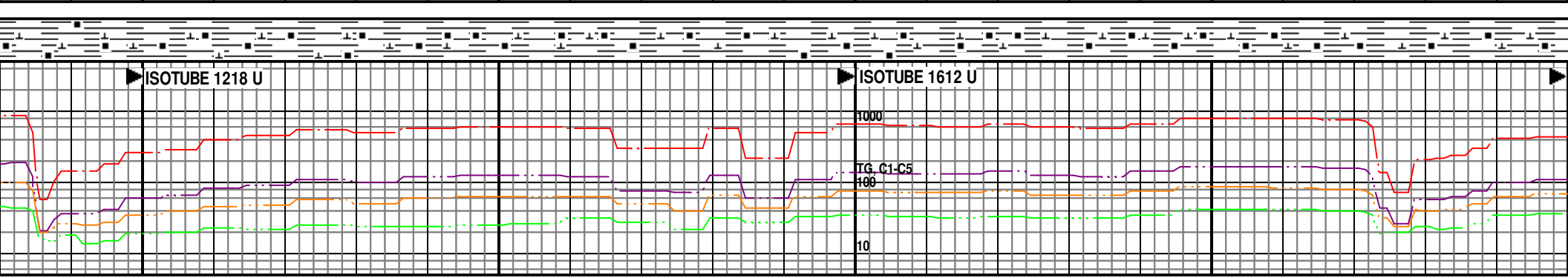
OK GY, BLKY-PLTY, SBWXY, OCC CALC FL FRACS & CALCITE, V Y, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.
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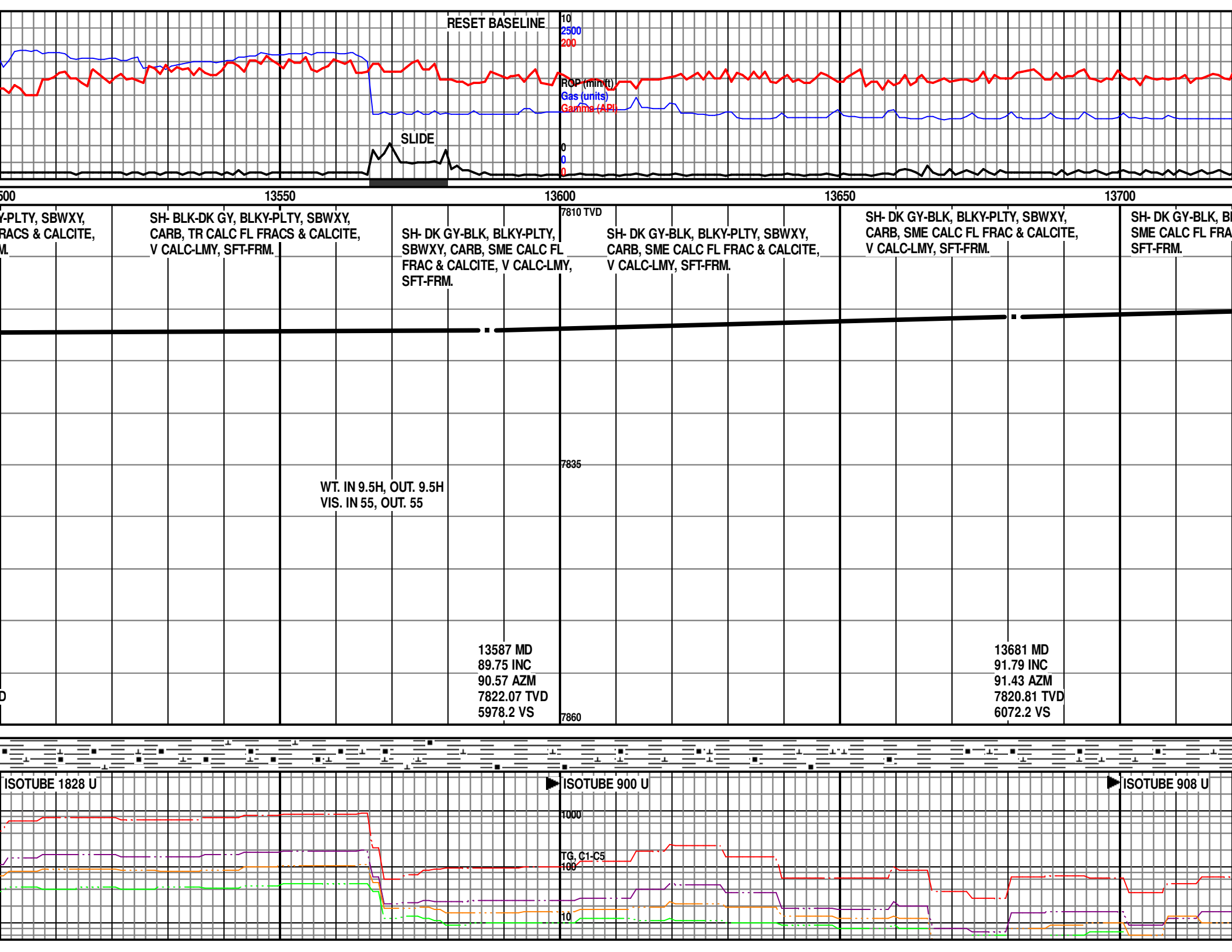
<p>6/24/2014</p> <p>X</p> <p>CP#9, TARGET @ 5500' VS= 13,109' MD, 7829'TVD.</p> <p>WT. IN 9.5H, OUT. 9.5H VIS. IN 55, OUT. 55</p> <p>4.0@250° SLDS. 8.2% 20. 66:34% 100 mg/L 1000 mg/L 29.08 ppb GS. 6.6/1.6 % GS LIME. 1.36 ppb 524 V</p>	<p>13115 MD 91.30 INC 91.25 AZM 7827.92 TVD 5506.3 VS</p>		<p>7810 TVD</p> <p>7835</p> <p>7860</p>	<p>13210 MD 90.74 INC 89.89 AZM 7826.23 TVD 5601.2 VS</p>	
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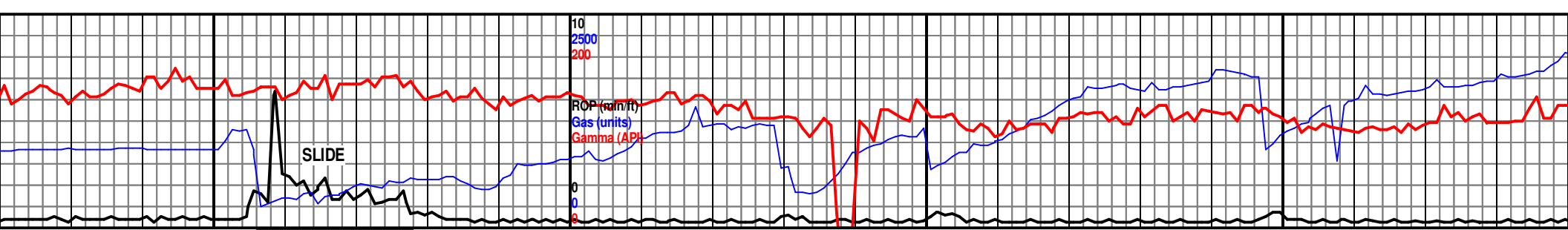




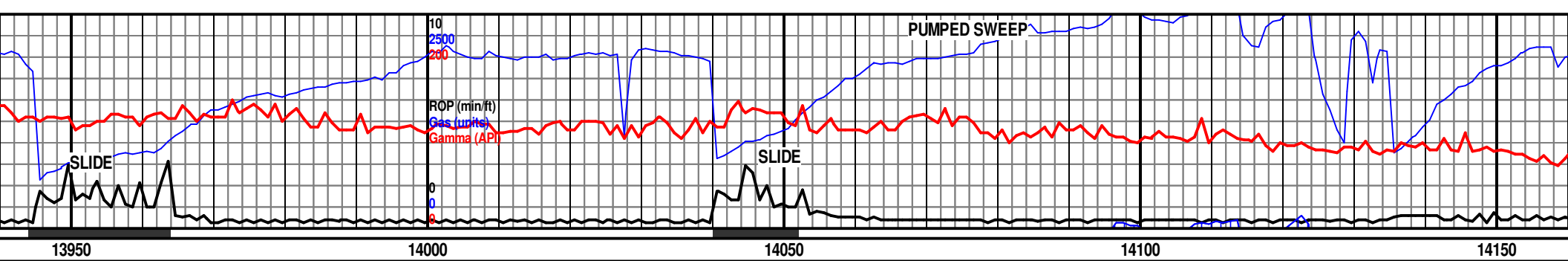
13300	13350	13400	13450	13500
KY-PLTY, SBWXY, L FRACS & LMY, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR-SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.
13304 MD 90.31 INC 90.09 AZM 7825.37 TVD 5695.2 VS			13398 MD 91.48 INC 89.91 AZM 7823.90 TVD 5789.2 VS	13493 MD 90.49 INC 90.18 AZM 7822.27 TVD 5884.2 VS



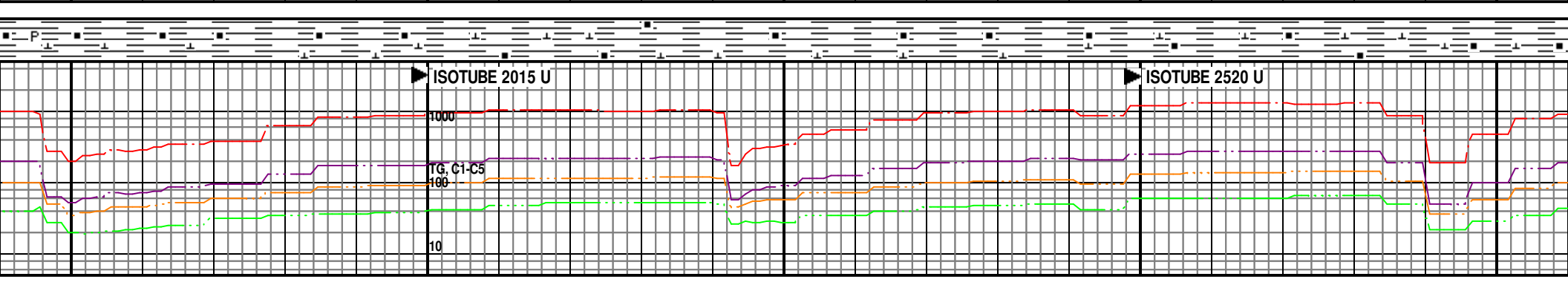


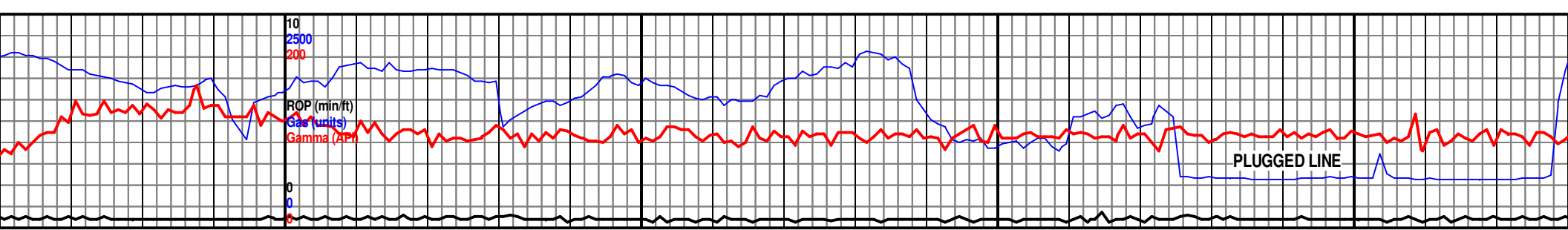


13750				13800				13850				13900											
LKY-PLTY, SBWXY, CARB, C & CALCITE, V CALC-LMY,				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				7810 TVD SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.				SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM. W/ TR PYR.				SH- DK GY-BLK, BLKY-PLTY, CARB, TR CALC FL FRAC & CALC-LMY, SFT-FRM. W/ TR PYR.			
																</							

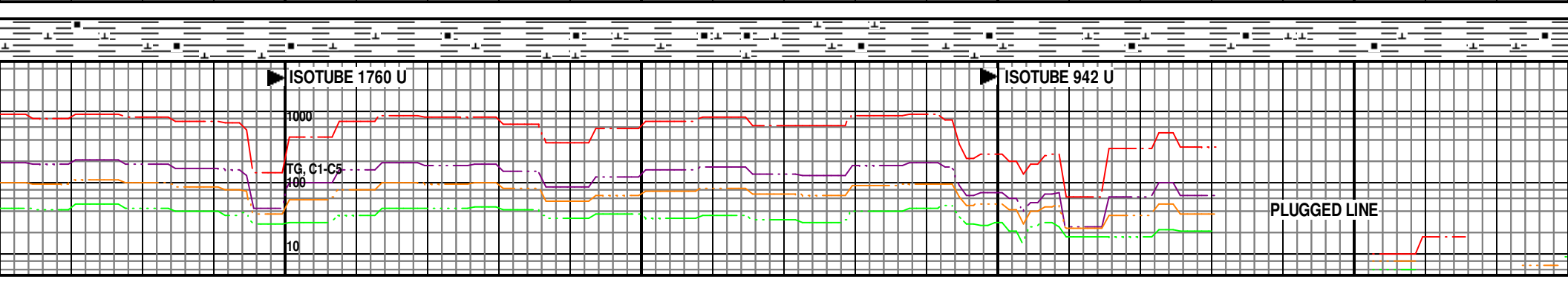


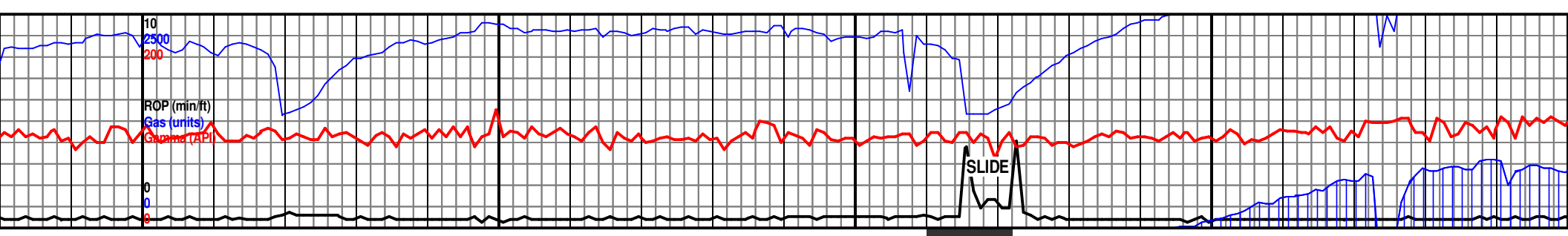
SBWXY, CALCITE, V YR.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	7810 TVD SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- I CARB V CA
<div data-bbox="1449 584 1837 706">X CP#10,TARGET @ 6500' VS= 14,109' MD, 7824'TVD.</div> <div data-bbox="1480 779 1627 917">WOB. 22-24K RPM. 70 SPP. 3968 SPM. 104 GPM. 468</div> <div data-bbox="1491 950 1701 1006">WT. IN 9.6, OUT. 9.6 VIS. IN 53, OUT. 53</div>					
	<div data-bbox="189 1088 325 1226">13965 MD 89.44 INC 91.47 AZM 7819.39 TVD 6356.1 VS</div>	<div data-bbox="1092 1088 1228 1226">14059 MD 88.64 INC 91.75 AZM 7820.97 TVD 6450.0 VS</div>			<div data-bbox="1995 1088 2100 1226">14154 MD 89.07 INC 91.79 AZM 7822.87 T 6544.9 VS</div>



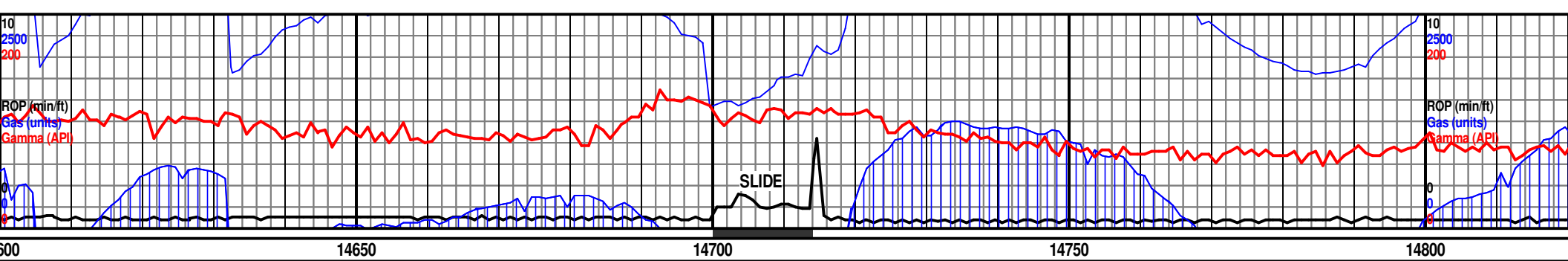


14200		14250		14300		14350	
DK GY-BLK, BLKY-PLTY, SBWXY, B, SME CALC FL FRAC & CALCITE, LC-LMY, SFT-FRM.		SH- DK GY-BLK, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.		SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.		SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	
7810 TVD							
7835							
7860		14248 MD 89.38 INC 91.63 AZM 7824.14 TVD 6638.9 VS				14342 MD 89.81 INC 91.33 AZM 7824.80 TVD 6732.8 VS	

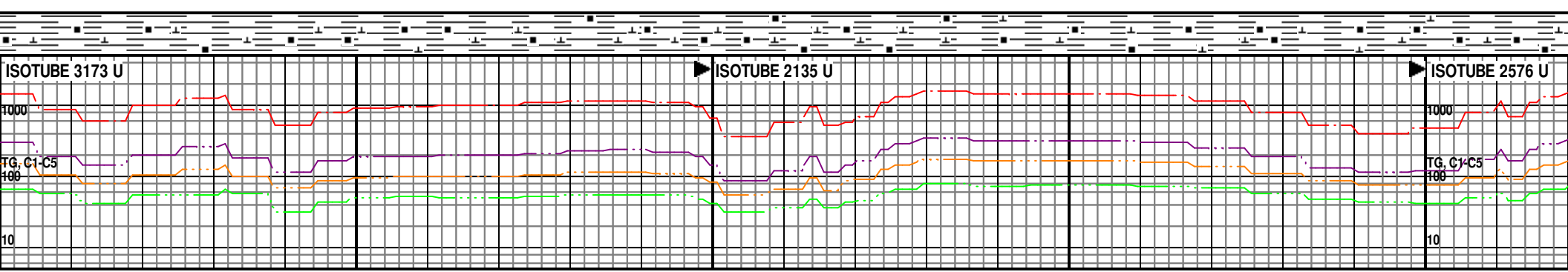


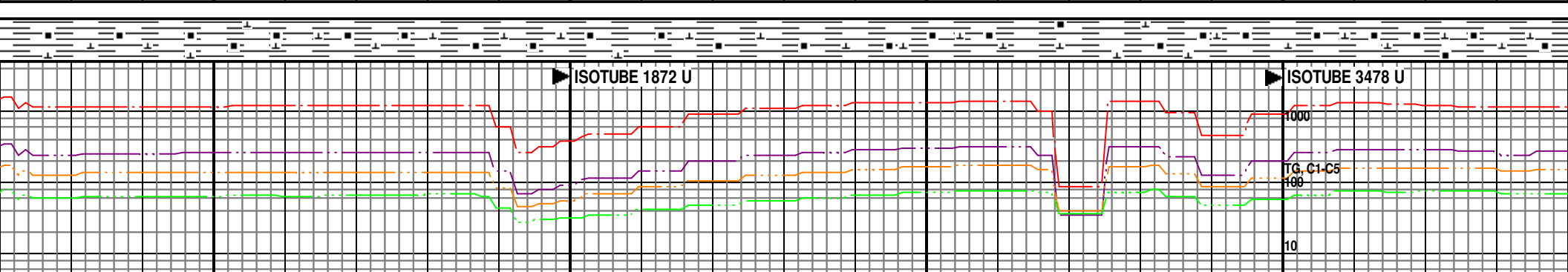
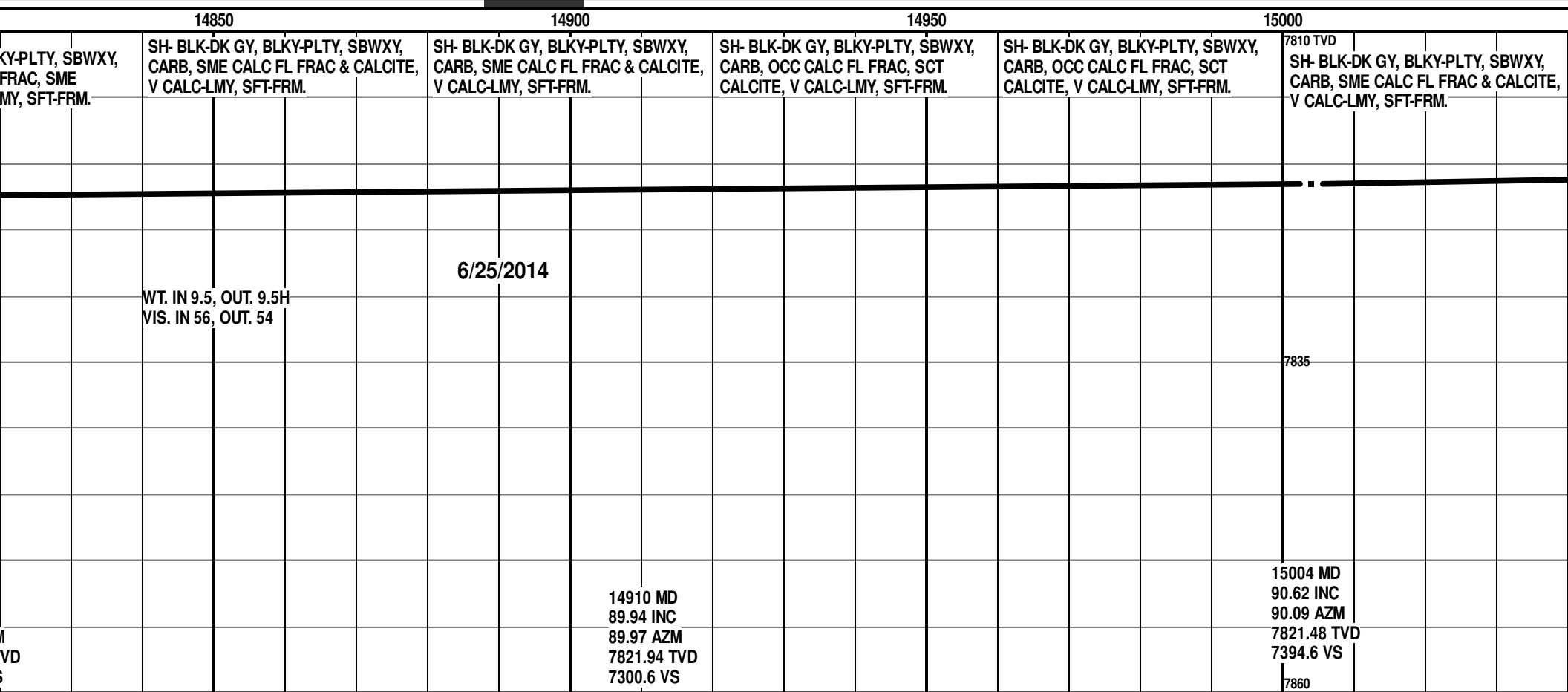


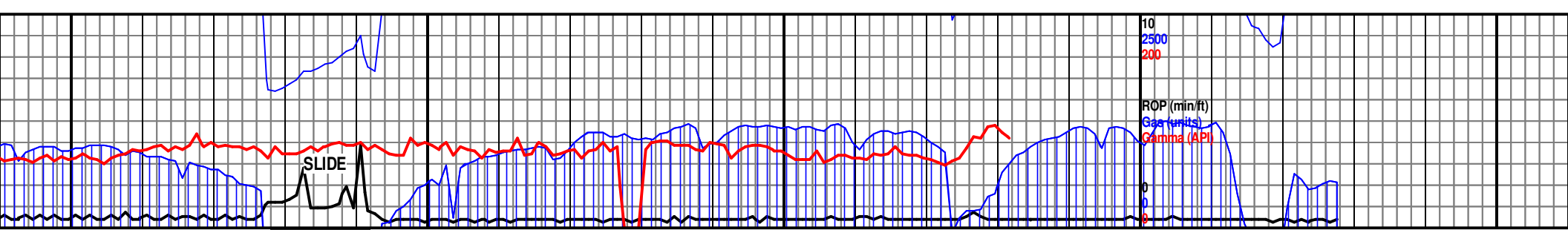
14400				14450				14500				14550				14600																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Y, BLKY-PLTY, B, SME CALC FL FRACS & V CALC-LMY,				7810 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.				SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRACS & CALCITE, V CALC-LMY, SFT-MOD FRM.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								



7810 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC, SCT CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRAC, SME CALCITE, V CALC-LMY, SFT-FRM.	7810 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, TR CALC FL FRACS & CALCITE, V CALC-LMY, SFT-FRM.
WOB. 24-27K RPM. 70 SPP. 4035 SPM. 104 GPM. 468					
14626 MD 90.68 INC 91.55 AZM 7823.37 TVD 7016.7 VS			14721 MD 89.94 INC 90.59 AZM 7822.86 TVD 7111.6 VS		14815 MD 90.62 INC 90.53 AZM 7822.40 TVD 7205.6 VS







15050	15100	15150	15200	15250
SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SME CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, OCC CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.	7810 TVD SH- BLK-DK GY, BLKY-PLTY, SBWXY, CARB, SCT CALC FL FRAC & CALCITE, V CALC-LMY, SFT-FRM.
				X
				CP#11, TD TARGET @ 7618' VS= 15,228' MD, 7818'TVD.
WOB. 20-24K RPM. 70 SPP. 3980 SPM. 104 GPM. 468				
WT. IN 9.5, OUT. 9.5H VIS. IN 55, OUT. 53				
				7835
				REACHED TD AT 15228' MD, 7818.80' TVD(PROJ.) ON 6/25/2014 AT 03:59AM. DRILLERS DEPTH.
				Proj. to bit survey.
15099 MD 90.31 INC 89.55 AZM 7820.71 TVD 7489.6 VS				15228 MD 90.99 INC 90.03 AZM 7818.80 TVD 7618.6 VS
				7860

