



# 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: TEBO 32-3H (HORZ. SEC./LATERAL)  
Location: SE/SW Sec. 32 T4S, R64W. Arapahoe County, CO  
License Number: API 05-005-07178  
Spud Date: 6/20/2012  
Surface Coordinates: 350'FSL, 1980'FWL, SE/SW Sec. 32, T4S, R64W,  
Arapahoe County, CO.  
Bottom Hole NS= 4325.28'  
Coordinates: EW= 97.21'  
Ground Elevation (ft): 5968' K.B. Elevation (ft): 5992'  
Logged Interval (ft): 8305' To: 11938' Total Depth (ft): 11938'  
Formation: NIOBRARA  
Type of Drilling Fluid: WATER BASE

Region: DJ BASIN  
Drilling Completed: 6/26/2012

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

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

### GEOLOGIST

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


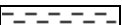

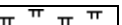
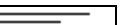
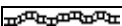




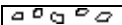







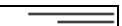

Supervision

Project Geologist: John Ostergren- Conoco/Phillips  
Drilling Engineer: Gary Hamilton- Conoco/Phillips  
Drilling Sup: Bob Strickler- Conoco/Phillips  
Company Rep: Richard Perez, Frank Holubec(Day Leads)  
Company Rep: Wes Evans, Drew Friedrichs(Night Leads)  
Well Site Safety: Rainey Schexnider, Nick Atkinson





















































Other Information

Drilling Co.--H & P, Rig #280  
Toolpusher- Lonnie Pitts, Michael Stevens  
Dir. Co.- Sperry/Haliburton  
Mud Co.- Baroid/Haliburton, Jason Kennedy

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				
	Belm		Pisolite		Feldspar		Sulphur				
	Bioclst		Plant		Ferrpel		Tuff				
	Brach		Strom		Ferr	STRINGER					
	Bryozoa	MINERAL			Glau				Anhy		
	Cephal				Gyp				Arg		
	Coral				Hvymin				Bent		
	Crin				Kaol				Coal		
	Echin				Marl		Dol		Gyp		Ls
	Fish		Minxl		Nodule		Mrst		Sltstrg		
	Foram		Phos		Pyr						
	Fossil		Salt								
	Gastro										
	Oolite										

INTERVALS

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Core

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Dst

EVENTS

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Rft

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Sidewall

OIL SHOWS

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OTHER SYMBOLS

POROSITY TYPE

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Fracture

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Inter

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Organic

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Pinpoint

V

Vuggy

ROUNDING

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Rounded

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A

Angular

SORTING

W

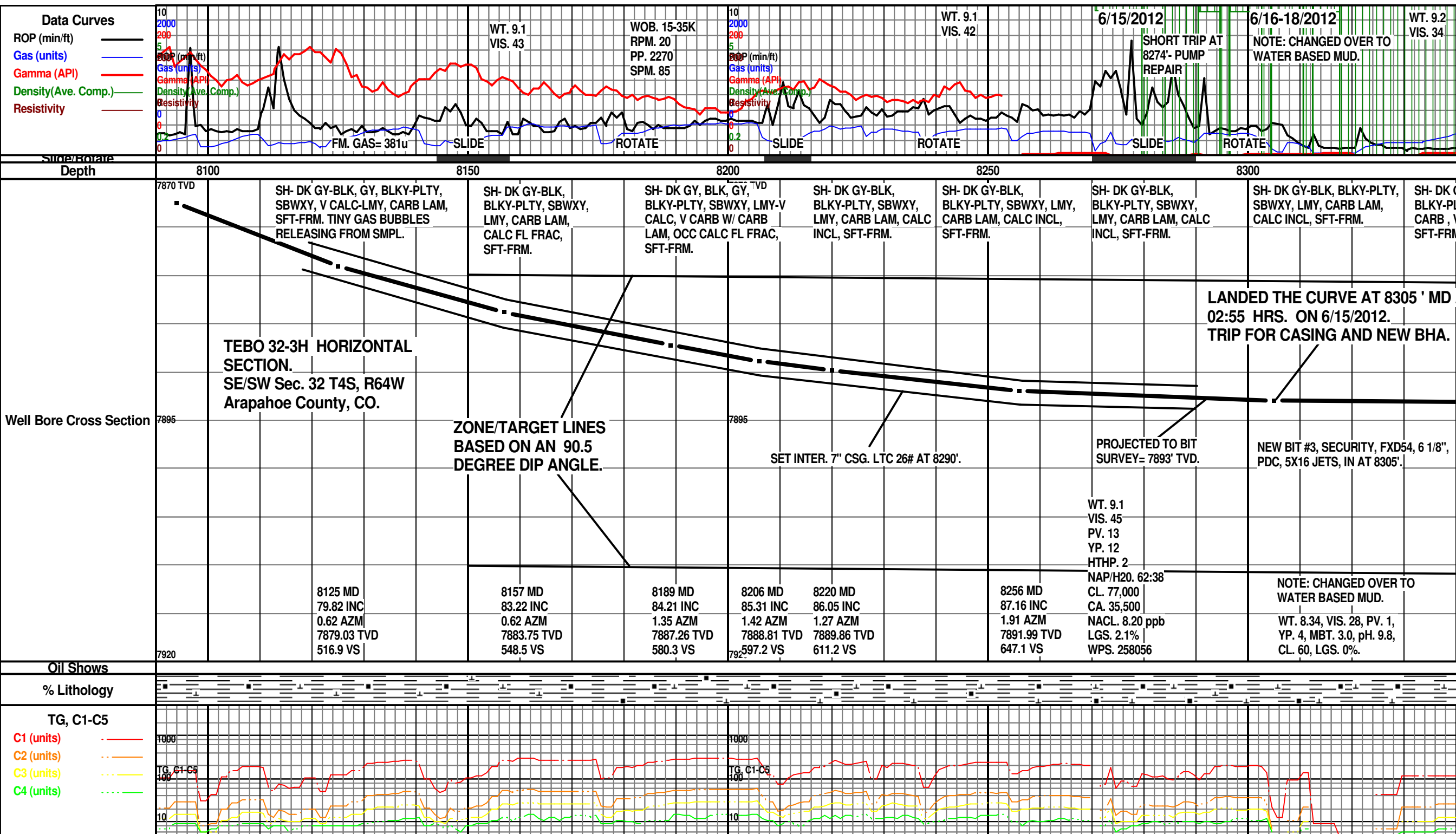
Well

M

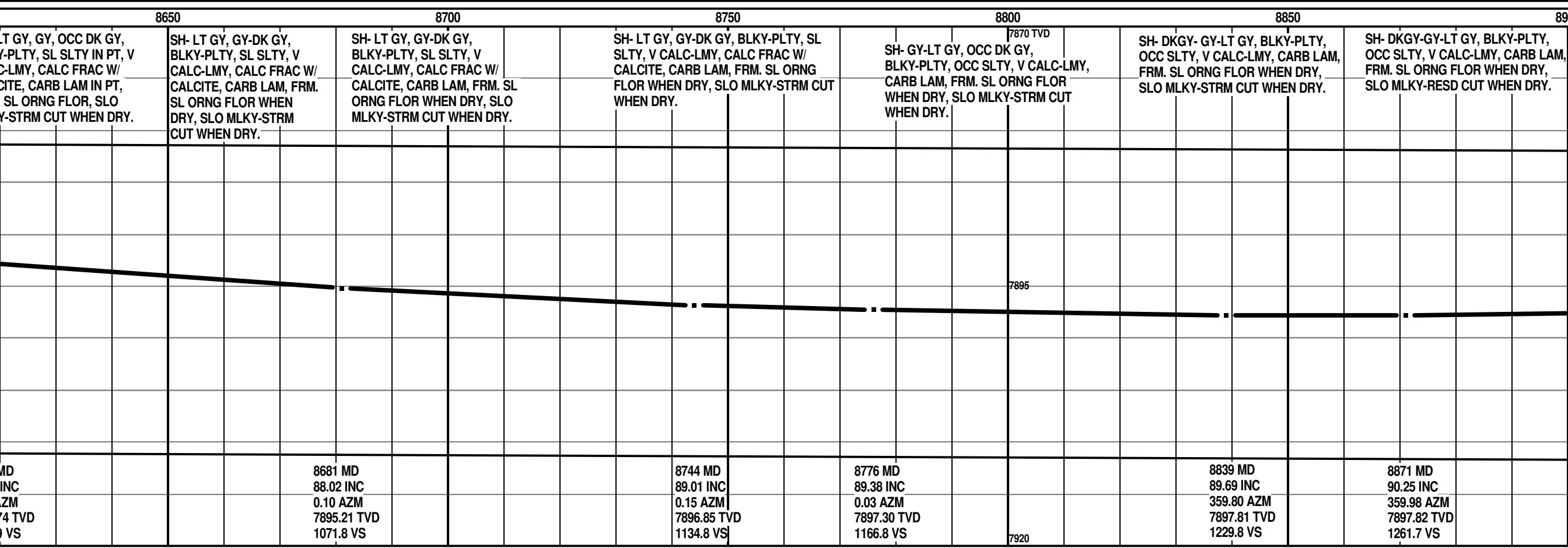
Moderate

P

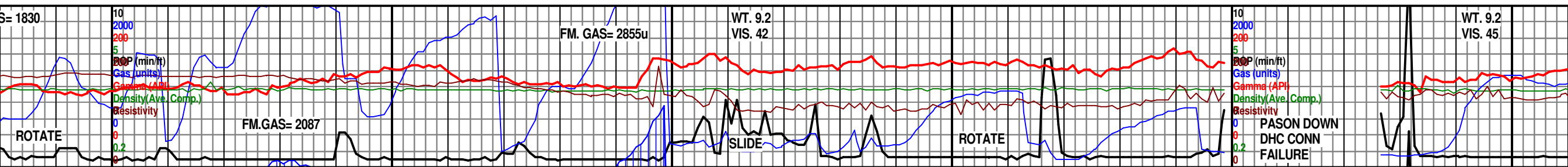
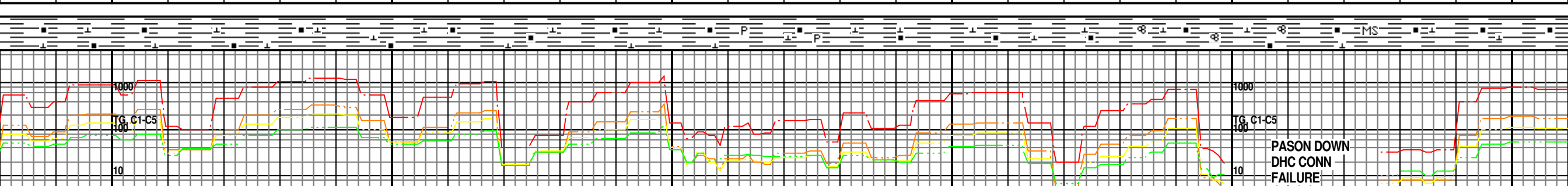
Poor

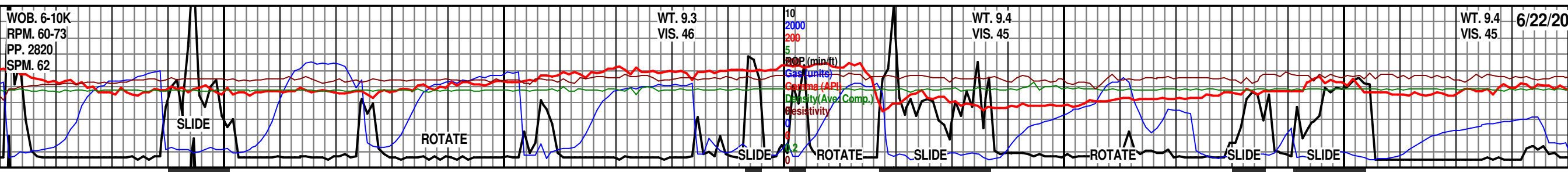
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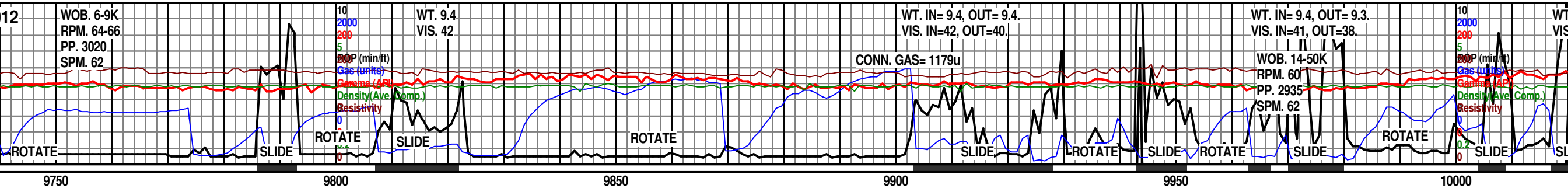




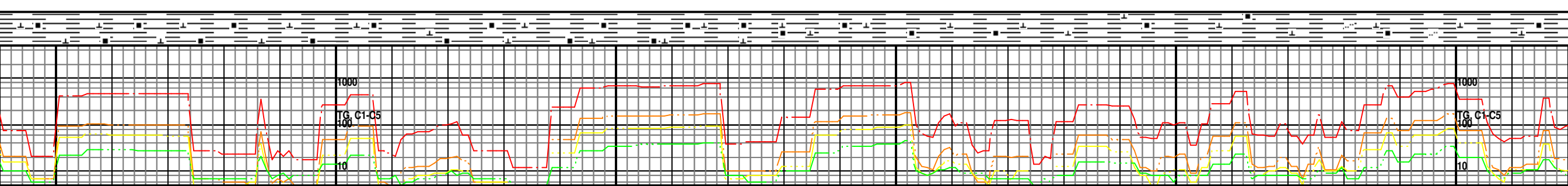
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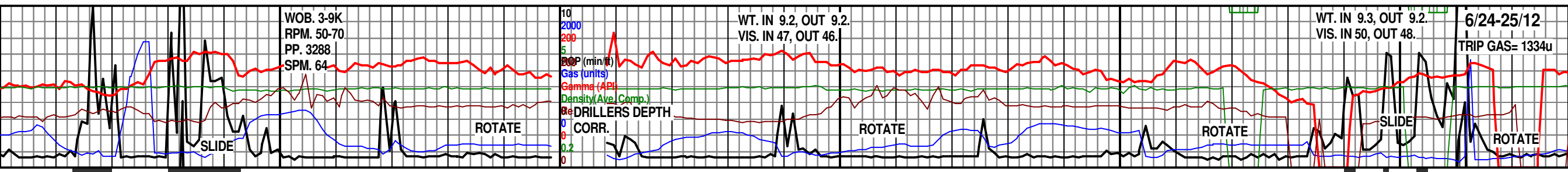
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GY, SME GY/BRN, Y, V CALC-LMY, C W/ CALCITE, M, SFT-FRM, TR OR, SLO MLKY CUT Y. YEL HALO.				SH- GY-LT GY, SME GY/BRN, BLKY-PLTY, V CALC-LMY, INCR CALC FRAC W/ CALCITE, CARB LAM, SFT-FRM, TR ORNG FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				SH- GY-LT GY, SME GY/BRN, BLKY-PLTY, V CALC-LMY, INCR CALC FRAC W/ CALCITE, CARB LAM, SFT-FRM, TR ORNG FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				SH- LT GY-GY, BLKY-PLTY, SLTY, V CALC-LMY, CALC FRAC/CALCITE, CARB LAM, V SFT IN PT GRDG TO MUDSTN, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				7870 TVD SH- DK GY-GY-LTGY, BLKY-PLTY, SLTY, V CALC-LMY, CALC FRAC/CALCITE, CARB LAM, V SFT- FRM, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				SH- DK GY-GY-LTGY, BLKY-PLTY, SLTY, V CALC-LMY, CALC FRAC/CALCITE, CARB LAM, V SFT- FRM, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, TR ORNG FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, TR ORNG FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.				SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, TR ORNG FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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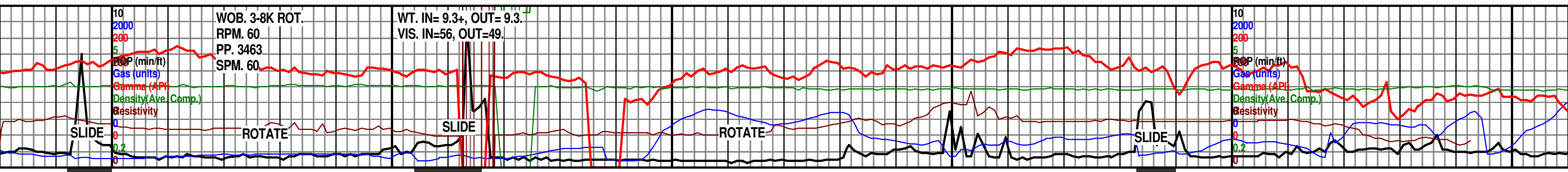
-GY-LT GY, Y, V CALC-LMY, CALC ALCITE, CARB LAM, NO FLOR, SLO MLKY N DRY. YEL HALO.									
SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.									
SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.									
SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.									
SH- DKGY-GY-LT GY, BLKY-PLTY, V CALC-LMY, CALC FRAC / CALCITE, CARB LAM, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY. YEL HALO.									
SH- GY, LT GY, BLKY-PLTY, CALC FRAC, CALCITE, V CALC-LMY, CARB LAM, ABNDT LUBRA BEADS, SFT-FRM. NO FLOR, SLO MLKY CUT WHEN DRY.									
SH- GY, LT GY, SME DK GY, BLKY-PLTY, CALC-LMY, CARB LAM, CALC FRAC W/ CALCITE, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY.									
POOR SMPL, MOSTLY LUBRA BEADS AND SOME SH-AA.									
SH- LT GY, GY-DK GY, BLKY-PLTY, SL SLTY, V CALC-LMY, CALC FRAC W/ CALCITE, CARB LAM. FRM. NO FLOR, SLO MLKY-STRM CUT WHEN DRY.									
SH- LT GY, GY-DK GY, BLKY-PLTY, S CALC-LMY, C W/ CALCITE, C FRM. NO FLOR MLKY-STRM C DRY.									
9757 MD 89.63 INC 359.52 AZM 7898.90 TVD 2147.0 VS									
9821 MD 89.57 INC 0.97 AZM 7899.35 TVD 2211.0 VS									
9852 MD 89.94 INC 0.46 AZM 7899.48 TVD 2242.0 VS									
9895 MD 90.37 INC 0.45 AZM 7899.37 TVD 2285.0 VS									
9916 MD 89.81 INC 0.87 AZM 7899.33 TVD 2306.0 VS									
9956 MD 88.64 INC 1.40 AZM 7899.87 TVD 2346.0 VS									
10011 MD 89.20 INC 1.76 AZM 7900.91 TVD 2401.0 VS									
WT. 9.4, VIS. 44, PV. 16, YP. 16, WL. 4.3, FC. 2/32, MBT. 9.0, pH. 9.5, CL. 1400, LGS/HGS. 1.3/3.4%									



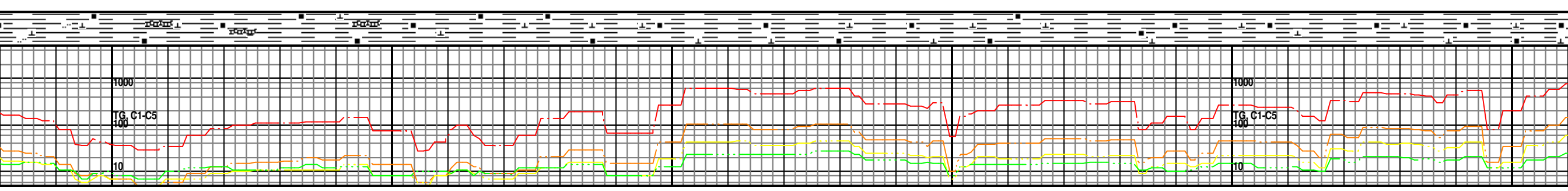


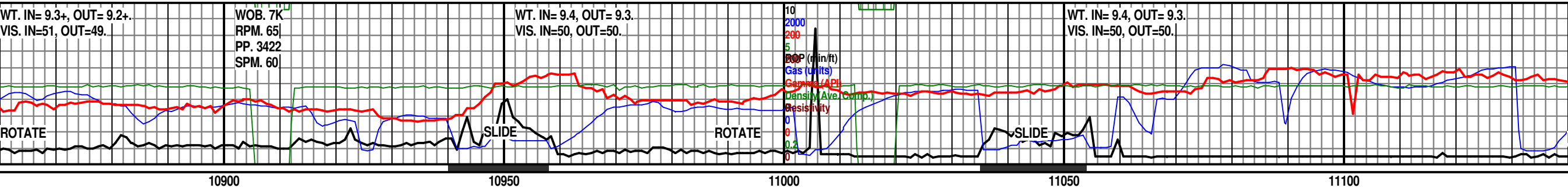


10300				10350				10400				10450				10500				10550							
SH- GY-DK GY, BLKY-PLTY, CARB LAM, V CALC-LMY, ABNDT CALC FRAC W/ CALCITE-WH, SFT-FRM, SLO MLKY CUT WHEN DRY, NO FLOR. TR BENT-GY/GN.				SH- GY-DK GY, BLKY-PLTY, CARB LAM, V CALC-LMY, ABNDT CALC FRAC W/ CALCITE-WH, SFT-FRM, SLO MLKY CUT WHEN DRY, NO FLOR.				SH- DK GY-GY, BLKY-PLTY, INCR CARB LAM, V CALC-LMY, DECR CALC FRAC & CALCITE, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY-GY, BLKY-PLTY, INCR CARB LAM, V CALC-LMY, DECR CALC FRAC & CALCITE, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY, GY, BLKY-PLTY, CARB LAM, V CALC-LMY, SME CALC FRAC & CALCITE, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY, GY, BLKY-PLTY, CARB LAM, V CALC-LMY, SME CALC FRAC & INCR AMT CALCITE, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- GY- BLKY-PLTY, CARB LAM, V CALC-LMY, SME CALC FRAC & INCR AMT CALCITE, SFT-FRM, NO FLOR, SLO MLKY CUT WHEN DRY.			

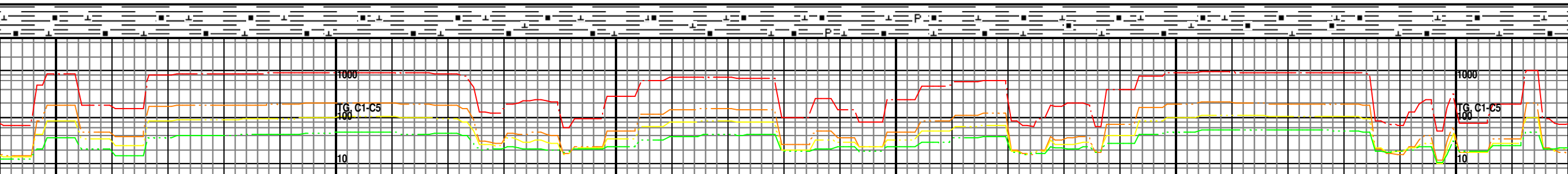
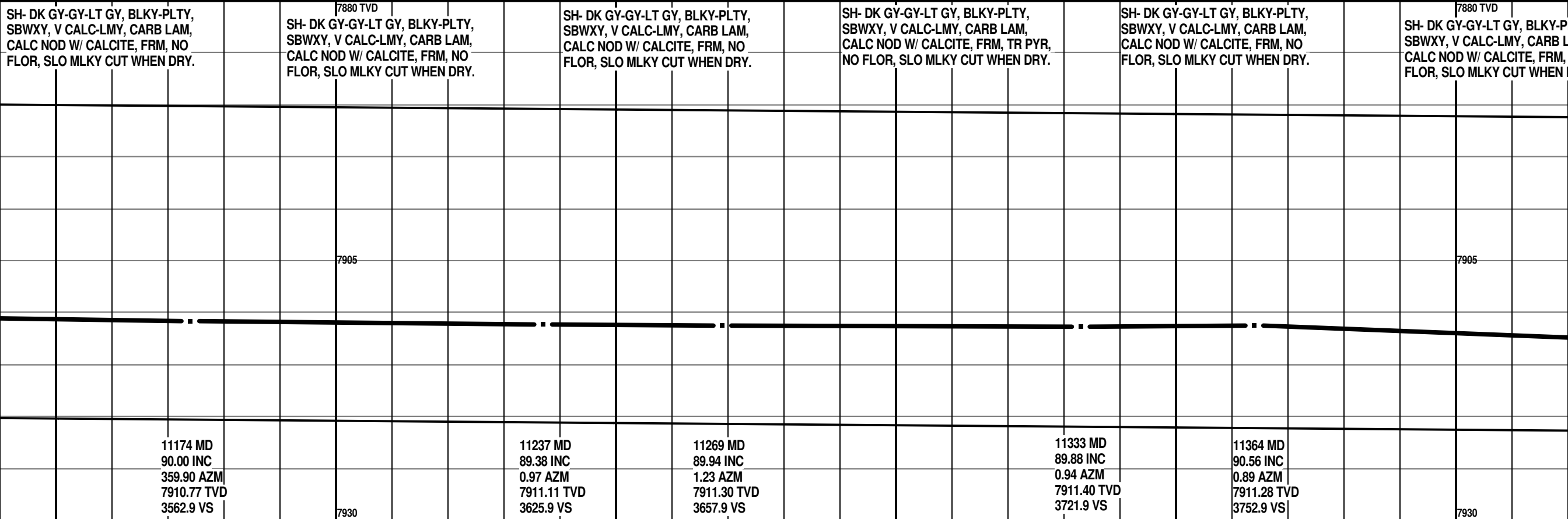


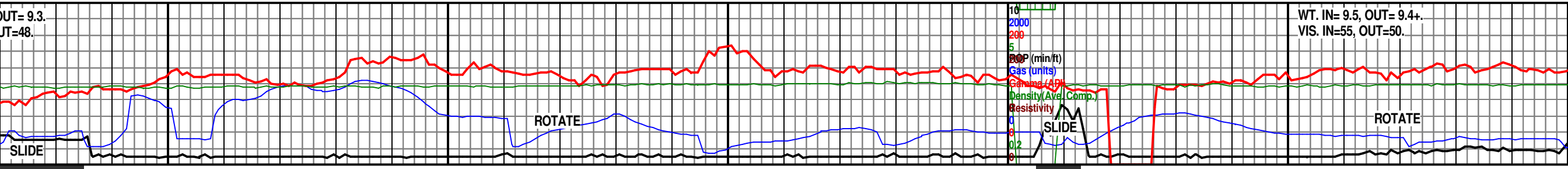
10600					10650					10700					10750					10800					10850				
DK GY, LTGY, SBWXY, LAM, LMY/V CALC, FRAC & CALCITE, V IN PT, SFT-FRM, R, SLO MLKY WHEN DRY.					SH- DK GY-GY, BLKY-PLTY, SBWXY, CARB LAM, INCR CALC NOD/FRAC, SME CALCITE, SFT-FRM, NO FLOR, MLKY CUT WHEN DRY. ABNDT MNRL FLOR.					SH- LT GY, GY-DK GY, BLKY-PLTY, SBWXY, SL LTGY, V CALC-LMY, CALC FRAC W/ CALCITE, CARB LAM, FRM. NO FLOR, SLO MLKY CUT WHEN DRY.					SH- GY-DK GY, LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD, W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.					SH- GY-DK GY, LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD, W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.					SH- GY-DK GY, LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD, W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				
V MOTOR/BIT, FT.					NOTE: SCALE CHANGE																								
RITY, 5X16																													
ND BIT. IND BIT.																													
7870 TVD					7880 TVD					7880 TVD					7880 TVD					7880 TVD					7880 TVD				
10604 MD 89.38 INC 4.01 AZM 7910.53 TVD 2993.0 VS					10699 MD 89.32 INC 2.74 AZM 7911.61 TVD 3088.0 VS					10731 MD 89.51 INC 2.55 AZM 7911.94 TVD 3119.9 VS					10794 MD 90.31 INC 2.06 AZM 7912.04 TVD 3182.9 VS														
7920					7930					7930					7930					7930					7930				



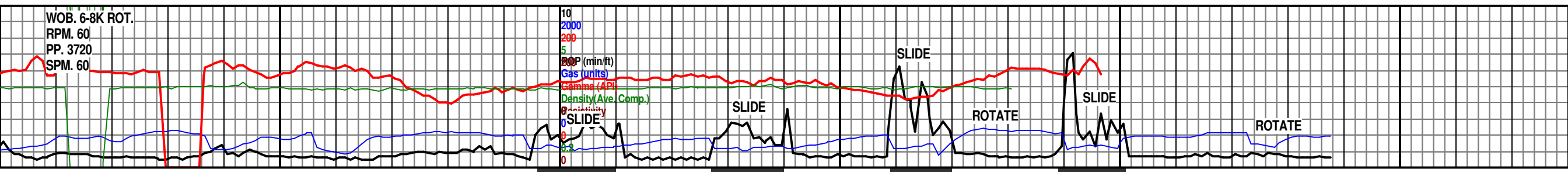


SH- DK GY, BLKY-PLTY, SBWXY, V LMY, CARB LAM, ABNDT CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY-GY, LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY-GY, LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY-GY-LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- DK GY-GY-LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.			





11450				11500				11550				11600				11650				11700			
LTY, AM, NO DRY.				SH- DK GY-GY-LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY				SH- DK GY-GY-LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY-WXY, V CALC-LMY, INCR CARB LAM, CALC NOD W/ INCR CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY, BRI YEL HALO.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY-WXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY, BRI YEL HALO.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY-WXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY, BRI YEL HALO.			
				WT. 9.3, VIS. 48, PV. 21, YP. 15, WL. 3.2, FC. 1/32, MBT. 10.0, pH. 9.8, CL. 1900, LGS/HGS. 1.6/3.1%.								11554 MD 87.16 INC 0.19 AZM 7917.93 TVD 3942.6 VS				11620 MD 88.58 INC 0.16 AZM 7920.38 TVD 4008.6 VS				NOTE: TARGET LINES BASED ON AN 90.5° DIP THROUGHOUT HORZ. SECTION.			



700				11750				11800				11850				11900				11950			
SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM THU OUT, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY, BRI YEL HALO.				SH- GY-DK GY, SME LT GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM THU OUT, CALC NOD W/ CALCITE, FRM, NO FLOR, SLO MLKY CUT WHEN DRY, BRI YEL HALO.				7880 TVD SH- DK GY, GY, BLKY-PLTY, SBWXY, V CALC-LMY, CARB LAM, CALC NOD W/ CALCITE, FRM, SLO MLKY CUT WHEN DRY, BRI YEL HALO.				SH- DK GY, GY, BLKY-PLTY, SBWXY, V CALC-LMY, INCR CARB LAM, CALC NOD W/ CALCITE, FRM, SLO MLKY CUT WHEN DRY, BRI YEL HALO.				SH- DK GY, GY, BLKY-PLTY, SBWXY, V CALC-LMY, INCR CARB LAM, CALC NOD W/ CALCITE, FRM, SLO MLKY CUT WHEN DRY, BRI YEL HALO.							

