



Weatherford[®]

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

Surface Logging Systems

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

Well Name: Tebo 3-1H (Pilot Hole)
Location: NE/NE Sec. 3 T5S, R64W, Arapahoe County, CO
License Number: API- 05-005-07197
Spud Date: 11/13/2012
Surface Coordinates: 599' FNL & 400' FEL of NE/NE Sec. 3, T5S. R64W, Arapahoe County, CO
Region: DJ Basin
Drilling Completed: 11/19/2012

Bottom Hole
Coordinates:
Ground Elevation (ft): 5875' K.B. Elevation (ft): 5899'
Logged Interval (ft): 6000' To: 7983' Total Depth (ft): 7983'
Formation: Niobrara
Type of Drilling Fluid: INVERT & WATER BASE

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

OPERATOR

Company: Conoco/Phillips
Address: 550 Westlake Park Blvd. WL3-3026
P.O. Box 2197
Houston, Texas 77252

GEOLOGIST

Name: Todd Thiesse, Douglas Bower
Company: Tooke Rockies/ Weatherford SLS
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, Casey Burns(Night Leads)
Well Site Safety: Rainey Schexnider, Nick Atkinson

Comments

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

ROCK TYPES

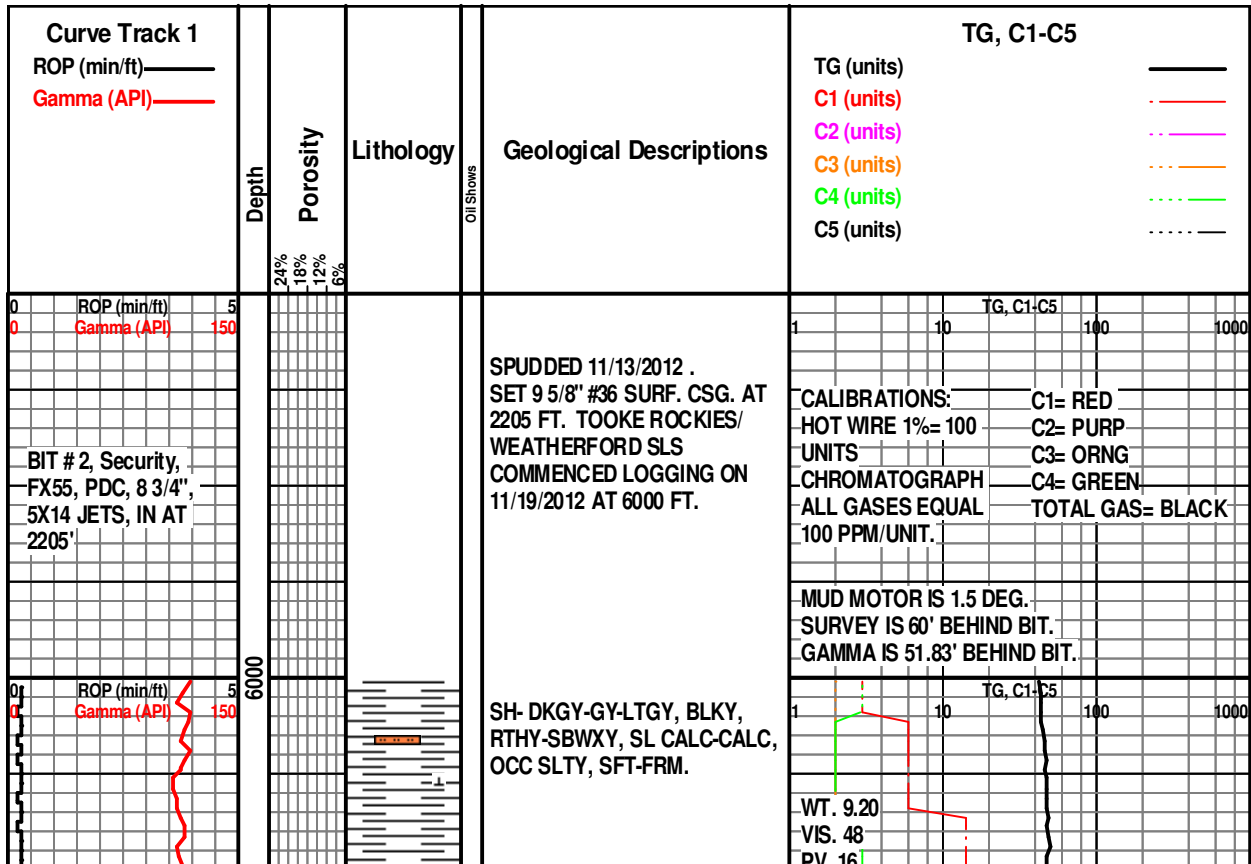
Anhy	Clyst	Gyp	Mrlst	Shgy
Bent	Coal	Igne	Salt	Sltst
Brec	Congl	Lmst	Shale	Ss
Cht	Dol	Meta	Shcol	Till

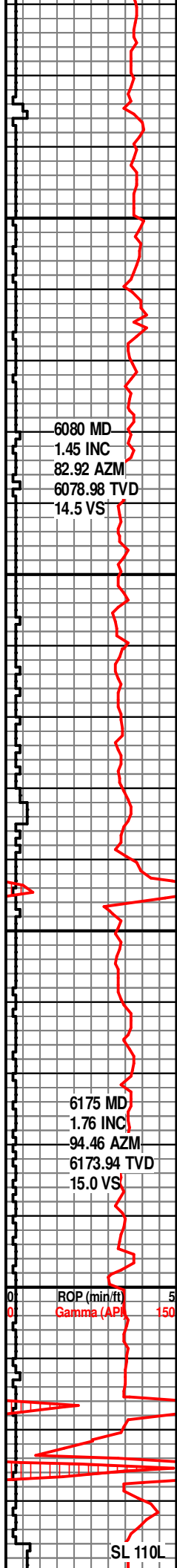
ACCESSORIES

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

OTHER SYMBOLS

POROSITY TYPE	Vuggy	ROUNDING	Spotted	EVENTS
Earthy	SORTING	Rounded	Ques	Rft
Fenest	Well	Subrnd	Dead	Sidewall
Fracture	Moderate	Subang	INTERVALS	
Inter	Poor	Angular	Core	
Moldic		OIL SHOWS	Dst	
Organic		Even		
Pinpoint				

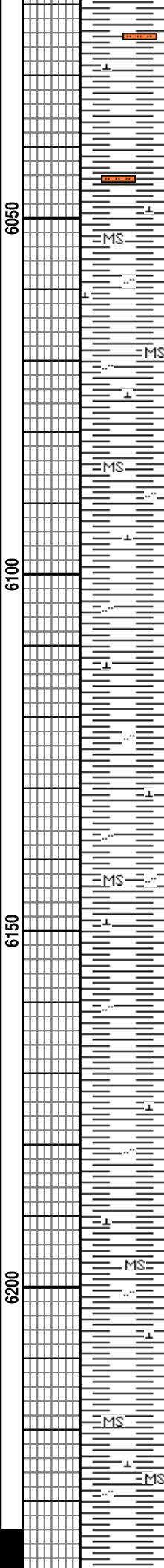




6080 MD
 1.45 INC
 82.92 AZM
 6078.98 TVD
 14.5 VS

6175 MD
 1.76 INC
 94.46 AZM
 6173.94 TVD
 15.0 VS

ROP (min/ft)
 Gamma (API)

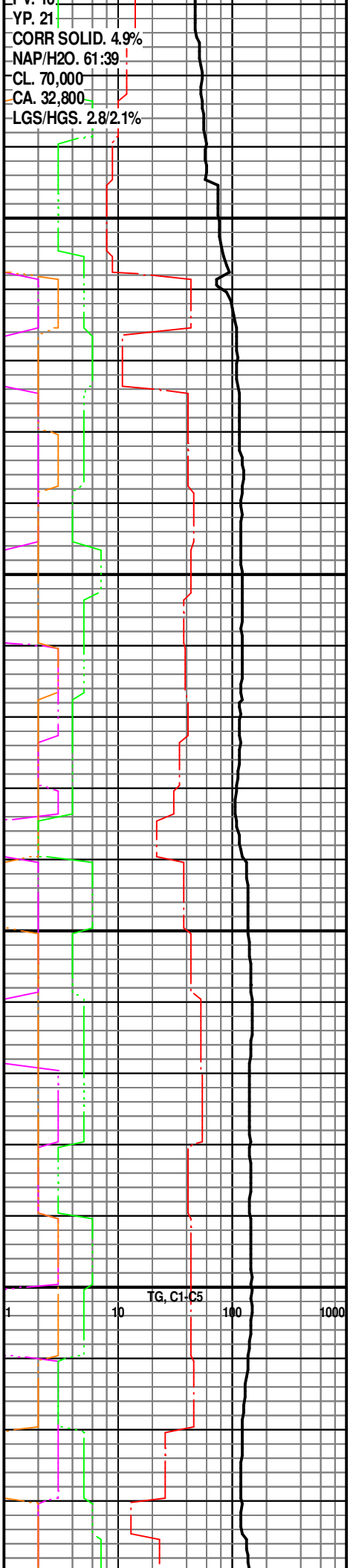


SH-DKGY-GY-LTGY, BLKY,
 RTHY-SBWXY, SL-CALC-CALC,
 OCC-SLTY, SFT-FRM.

SH-GY-LT GY, BLKY,
 RTHY-SBWXY, CALC, SLTY, V
 SFT-FRM GRDG TO MUDSTN-
 LT GY.

SH-GY-LT GY, BLKY,
 RTHY-SBWXY, CALC, SLTY, V
 SFT-FRM GRDG TO MUDSTN-
 LT GY.

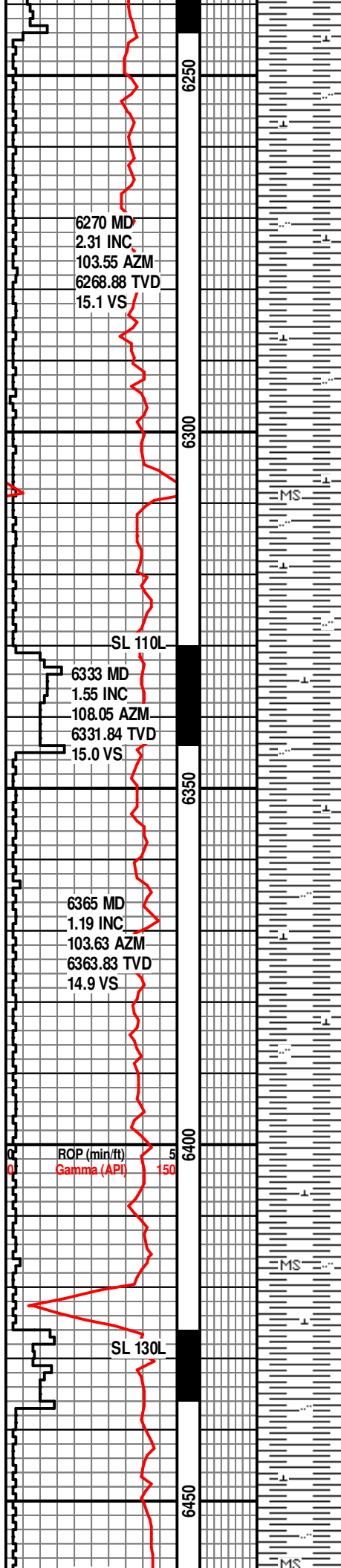
SH-GY-LT GY, BLKY,
 RTHY-SBWXY, CALC, SLTY, V
 SFT-FRM GRDG TO MUDSTN-
 LT GY.



CORR SOLID. 4.9%
 NAP/H2O. 61:39
 CL. 70,000
 CA. 32,800
 LGS/HGS. 2.8/2.1%

TG, C1-C5

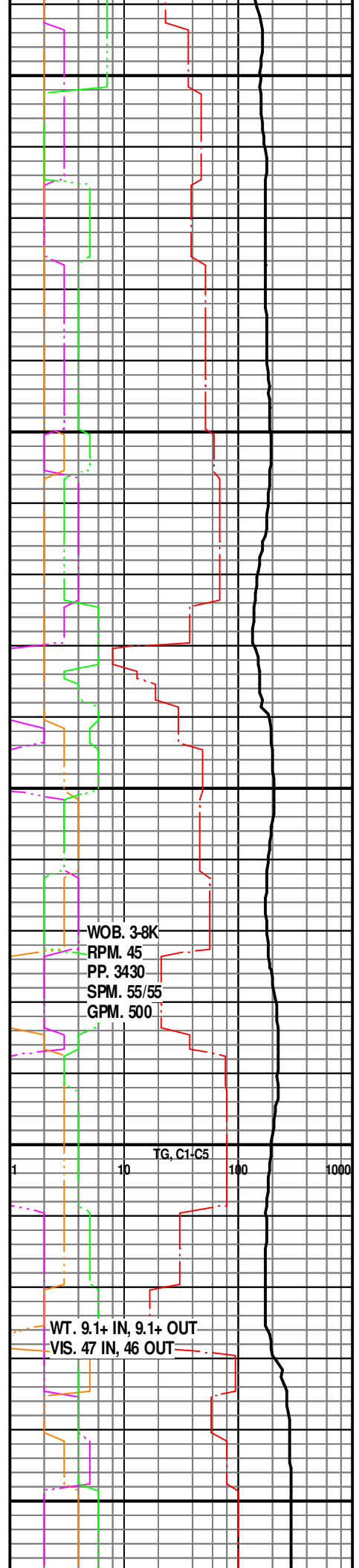
SL 110L



SH- GY-LT GY, OCC DK BRN,
BLKY-PLTY, SBWXY, SLTY IN
PT, CALC, V SFT-SFT GRDG
TO MUDSTN IN PT.

SH- GY-LT GY, OCC DK BRN,
BLKY-PLTY, SBWXY, SLTY IN
PT, CALC, V SFT-SFT GRDG
TO MUDSTN IN PT.

SH- GY-LT GY, OCC DK BRN,
BLKY-PLTY, SBWXY, SLTY IN
PT, CALC, V SFT-SFT GRDG
TO MUDSTN IN PT.

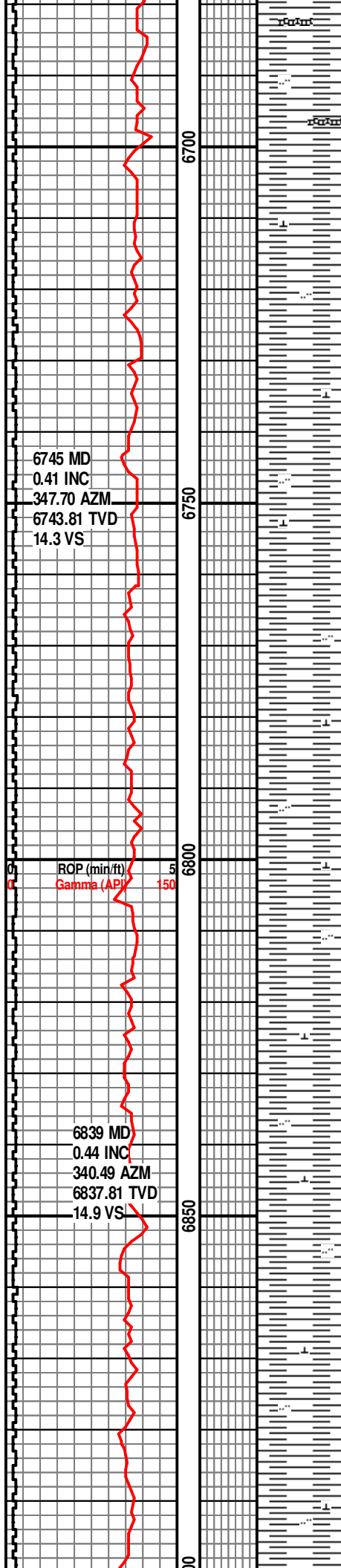


WOB. 3-8K
RPM. 45
PP. 3430
SPM. 55/55
GPM. 500

TG, C1-C5

WT. 9.1+ IN, 9.1+ OUT
VIS. 47 IN, 46 OUT

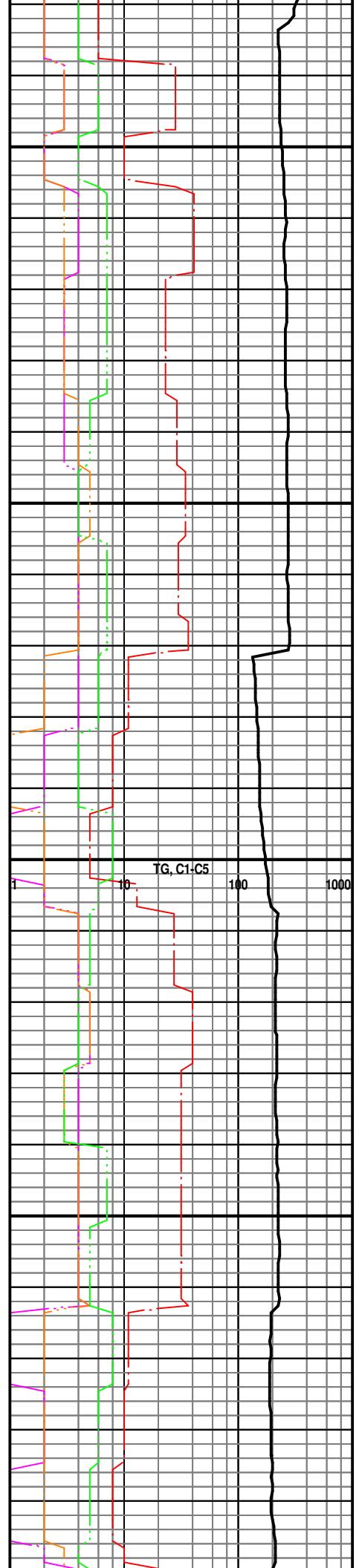
MODSIN-DK BRN: W/ BENT
WH-CRM.

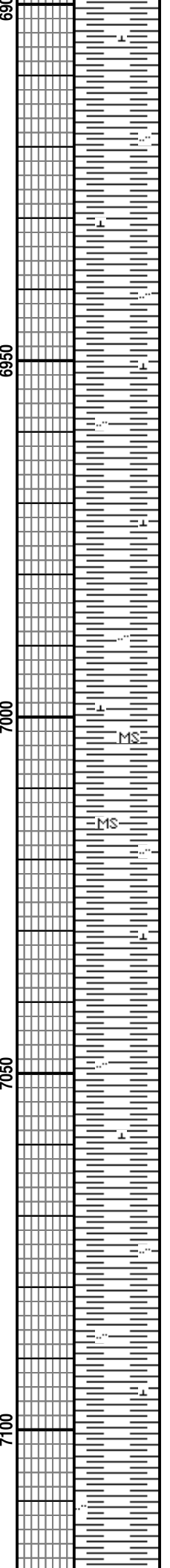
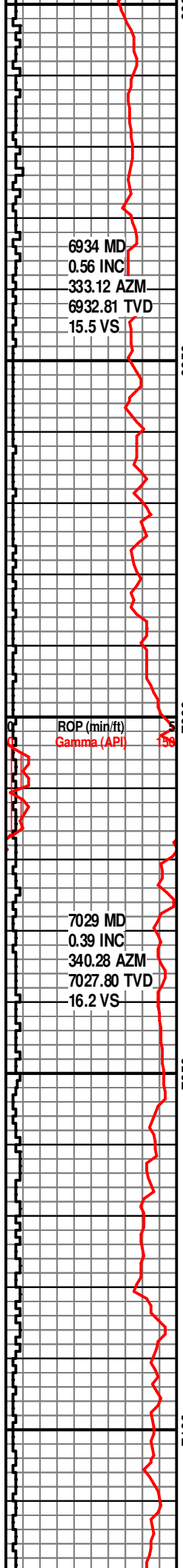


SH- GY-LT GY, SME DK
BRN-DK GY, BLKY-PLTY,
SBWXY, SLTY IN PT, CALC, V
SFT-OCC FRM.

SH- GY-LT GY, SME DK
BRN-DK GY, BLKY-PLTY,
SBWXY, SLTY IN PT, CALC, V
SFT-OCC FRM.

SH- GY-LT GY, SME DK

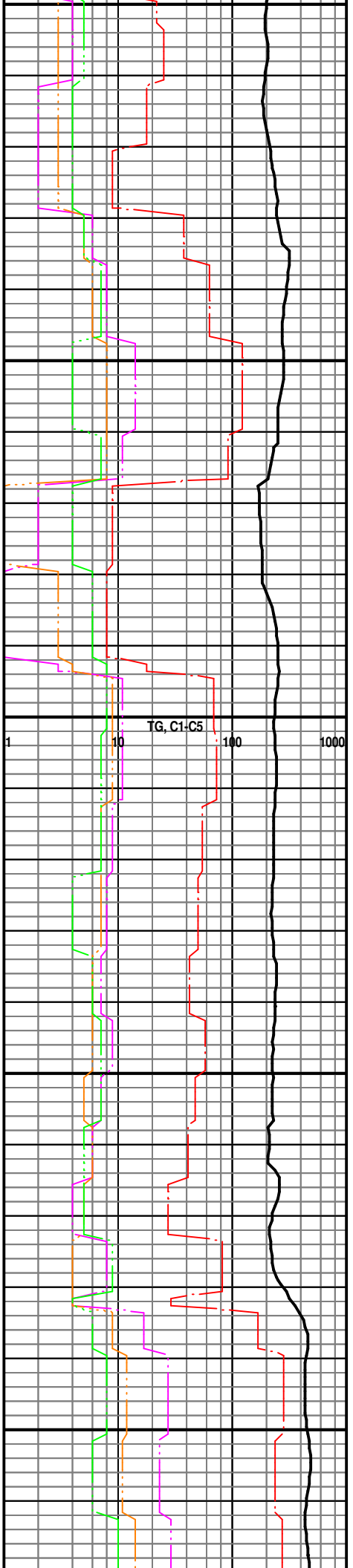


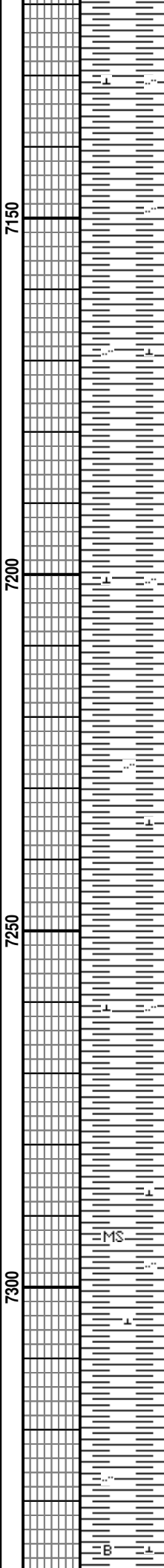
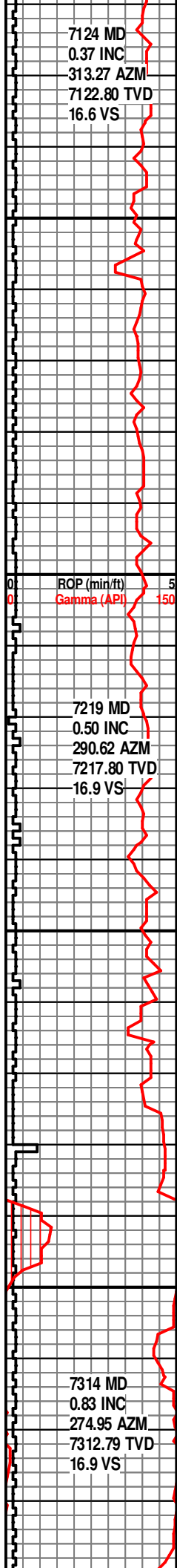


SH- GY-LT GY, SME DK BRN-DK GY, BLKY-PLTY, SBWXY, SLTY IN PT, CALC, V SFT-OCC FRM.

SH- GY-LT GY, SME DK GY, BLKY-PLTY, SBWXY, OCC SLTY IN PT, CALC, SFT-FRM.

SH- GY-LT GY, SME DK GY, BLKY-PLTY, SBWXY, OCC SLTY IN PT, CALC, SFT-FRM.

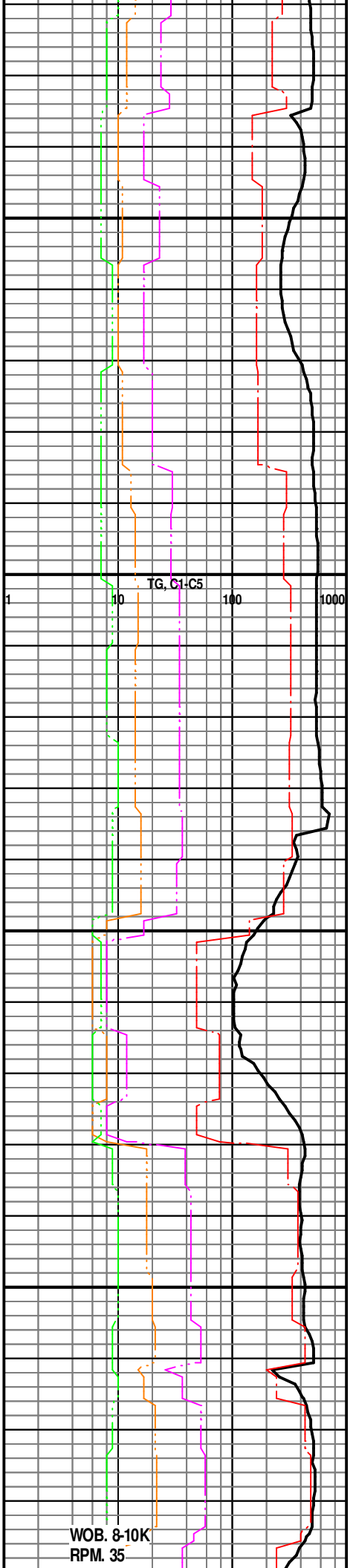




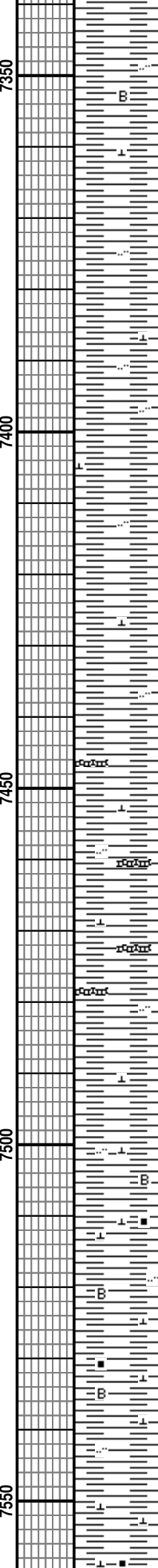
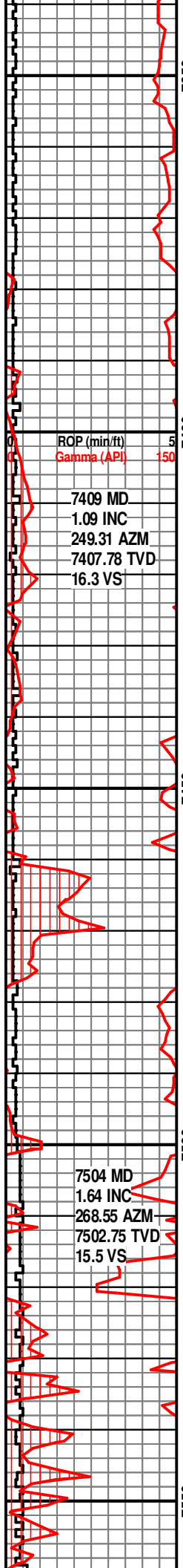
SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, OCC
SLTY IN PT, CALC, SFT-FRM.

SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, OCC
SLTY IN PT, CALC, SFT-FRM.

SH- GY-DK GY, LT GY,
BLKY-PLTY, SBWXY, CALC, TR
CARB, SLTY IN PT, SFT-FRM.



WOB. 8-10K
RPM. 35



SH- GY-DK GY, LT GY,
BLKY-PLTY, SBWXY, CALC, TR
CARB, SLTY IN PT, SFT-FRM.
W/ TR BENT- WH.

SH- GY-DK GY, LT GY,
BLKY-PLTY, SBWXY, CALC, TR
CARB, SLTY IN PT, SFT-FRM.
W/ TR BENT- WH.

SH- GY-DK GY, BLKY-PLTY,
SBWXY, INCR CALC, OCC
SLTY, TR CARB LAM,
SFT-FRM. W/ BENT- CRM-WH.

EST. SMPL. TOP OF
NIOBRARA AT 7501'.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, INCR CARB LAM,
INCR CALC, SFT-FRM. W/ SME
BENT- TAN-WH.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, INCR CARB LAM,
INCR CALC, SFT-FRM.

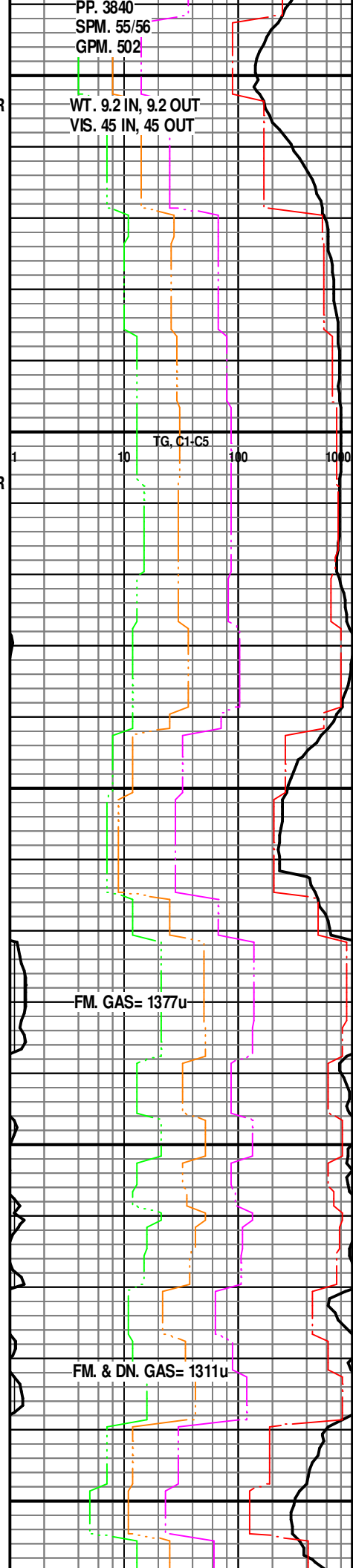
PP. 3840
SPM. 55/56
GPM. 502

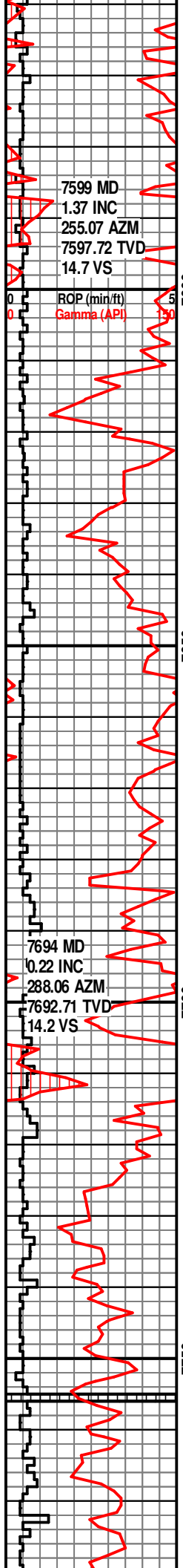
WT. 9.2 IN, 9.2 OUT
VIS. 45 IN, 45 OUT

TG, C1-C5

FM. GAS= 1377u

FM. & DN. GAS= 1311u





7599 MD
1.37 INC
255.07 AZM
7597.72 TVD
14.7 VS

ROP (min/ft)
Gamma (API)

7694 MD
0.22 INC
288.06 AZM
7692.71 TVD
14.2 VS

B MARL

SH- DK GY, GY, BLKY-PLTY,
SBWXY, CARB IN PT, V CALC,
SFT-FRM.

C CHALK

SH- GY-DK GY, BLKY-PLTY,
SBWXY, CARB, INCR SLTY,
SME CALC NOD, V CALC, TR
PYR, SFT-FRM.

SH- GY-DK GY, BLKY-PLTY,
SBWXY, CARB, INCR SLTY,
SME CALC NOD, V CALC,
SFT-FRM.

D CHALK

D MARL

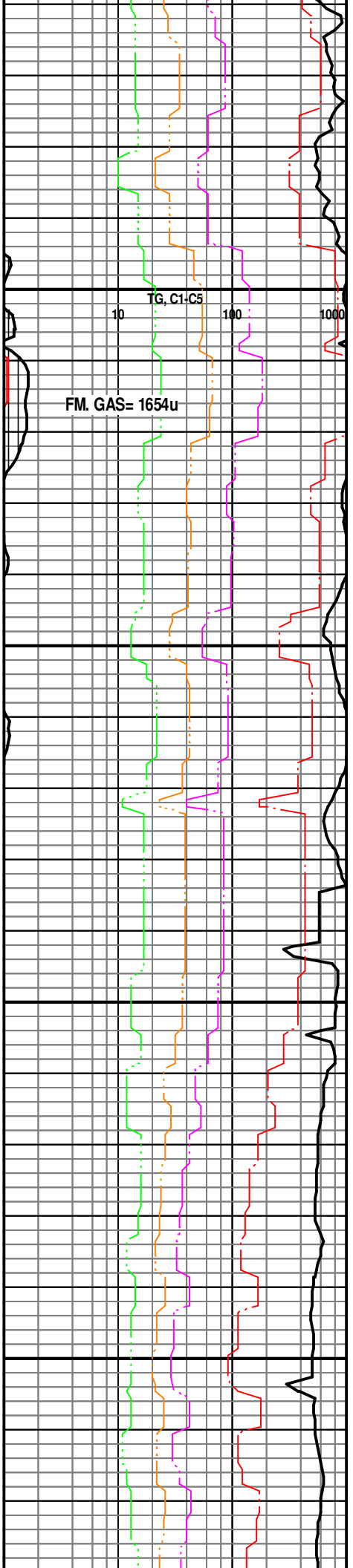
SH- GY-DK GY, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC NOD, V CALC, SFT-FRM.

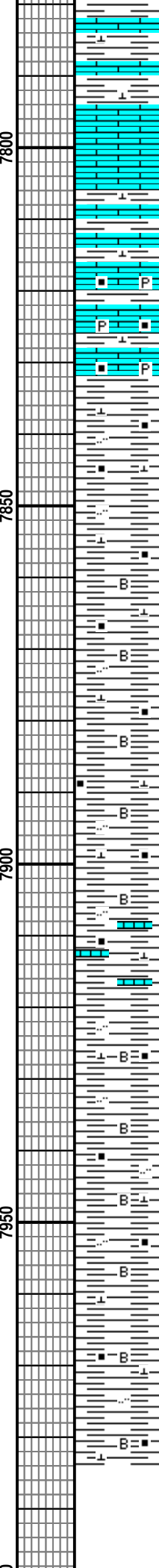
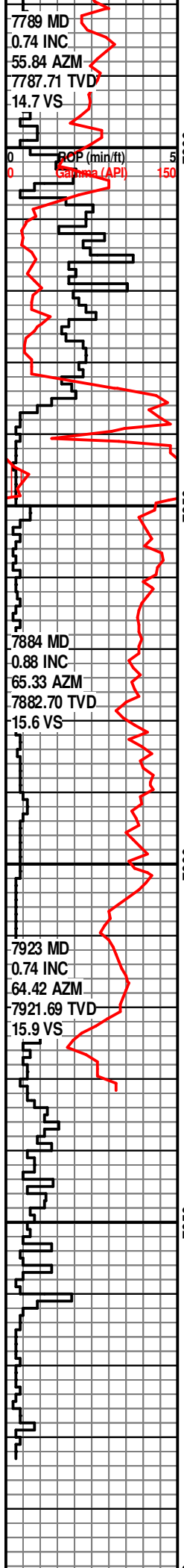
SH- GY-DK GY, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC NOD, V CALC, SFT-FRM.

LS-LT GY, GY, SME TAN,
MICXL, SFT-FRM, DNS, INTBD
SH.

TG, C1-C5
10 100 1000

FM. GAS= 1654u





SH- GY-DK GY, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC NOD, V CALC, SFT-FRM.

**EST. SMPL. TOP OF
FORT HAYS AT 7794'.**

LS-WH, CRM, SME TAN, MICXL,
SFT-FRM, DNS, INTBD SH.

LS-WH, CRM, TAN, MICXL,
SFT-FRM, DNS, SME CARB
LAM, TR PYR, TR SH.

CARLILE

SH-DK GY-BLK, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC FRAG, V CALC, MOD
FRM-FRM.

SH-DK GY-BLK, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC FRAG, V CALC, MOD
FRM-FRM. TR BENT- CRM.

SH-DK GY-BLK, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC FRAG, V CALC, MOD
FRM-FRM. TR BENT - CRM.

SH-DK GY-BLK, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC FRAG, V CALC, MOD
FRM-HD. TR LS- CRM.

SH-DK GY-BLK, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC FRAG, V CALC, MOD
FRM-FRM. TR BENT - CRM.

SH-DK GY-BLK, BLKY-PLTY,
SBWXY, CARB, SLTY, OCC
CALC FRAG, V CALC, MOD
FRM-FRM. TR BENT - CRM,
TAN.

**TD PILOT HOLE AT
7983' ON 11/19/2012
AT 2158 HRS.
DRILLERS DEPTH.**

Please refer to the build and

