



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: Youngberg 10-11-1H(Pilot & Build Hole)
Location: Sec 11, T4S, R64W, Arapahoe County, CO.
License Number: API- 05-005-07211-00
Spud Date: 9/9/2013
Surface Coordinates: 1320' FSL & 255 FEL of NE/SE Sec. 11, T4S. R64W, Arapahoe County, Colorado.

Region: DJ Basin

Drilling Completed: 9/16/2013

Bottom Hole Proposed: 2211' FSL & 953' FWL, Sec. 10 T4S-R64W
Coordinates:
Ground Elevation (ft): 5673' K.B. Elevation (ft): 5697'
Logged Interval (ft): 6000' To: 7816' Total Depth (ft): 7816'
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: 600 N. Dairy Ashford
WL 3 3056
Houston, TX 77079

GEOLOGIST

Name: Todd Thiesse, Gabe Genitempo
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, Ben Tolman- Conoco/Phillips
Drilling Sup: Bob Strickler- Conoco/Phillips
Company Rep: Richard Perez, Wes Evans(Day Leads),
Company Rep: Frank Holubec, Clint Goins, Wayne Morgan, Clint Valentine, Mike Johnson, Mike Weatherly.(Night Leads)
Well Site Safety: Rainey Schexnider, James Orr
Contact Geologist: Abby Tomkiewicz- Conoco/Phillips
Drilling & Comp. Mgr: Derly Gonzalez-Conoco/Phillips

CORE

Contractor:
Core #:
Formation:
Core Interval: From: To: Cut: Recovered:
Bit type:
Size:
Coring Time:

Comments

Drilling Co.--H & P, Rig #280
Toolpusher- Mike Stevens, Josh Coleman
Dir./MWD 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		FOSSIL		Ostra		TEXTURE	
	Anhy		Algae		Pelec		Sltstrg
	Arggrn		Amph		Pellet		Ssstrg
	Arg		Belm		Pisolite		Boundst
	Bent		Bioclst		Plant		Chalky
	Bit		Brach		Strom		Cryxln
	Brecfrag		Bryozoa				Earthy
	Calc		Cephal				Finexln
	Carb		Coral				Grainst
	Chtdk		Crin				Lithogr
	Chtlt		Echin				Microxln
	Dol		Fish				Mudst
	Feldspar		Foram				Packst
	Ferrpel		Fossil				Wackest
	Ferr		Gastro				
	Glau		Oolite				

OTHER SYMBOLS

POROSITY TYPE		ROUNDING		EVENTS	
	Earthy		Rounded		Rft
	Fenest		Subrnd		Sidewall
	Fracture		Subang		
	Inter		Angular		
	Moldic				
	Organic				
	Pinpoint				

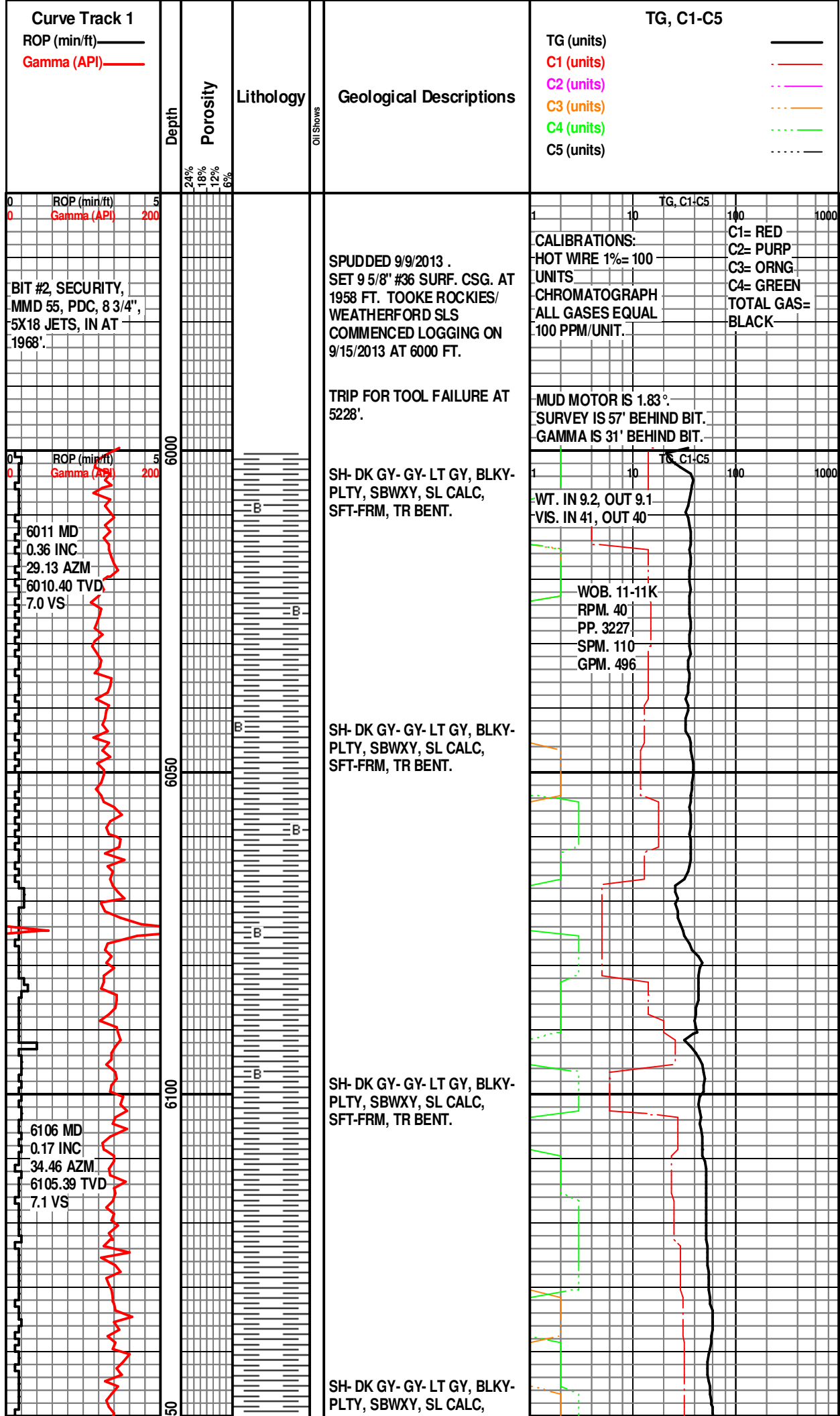
Vuggy

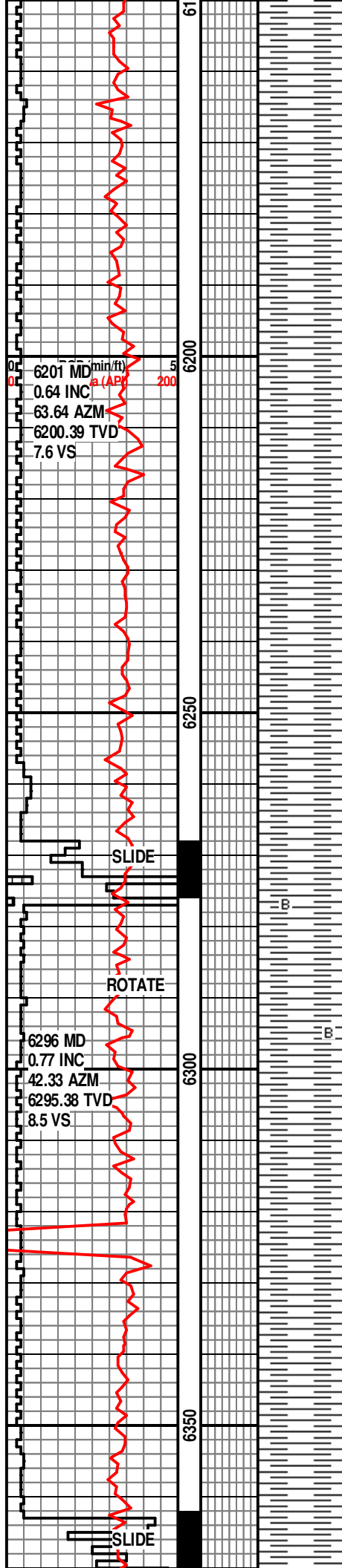
SORTING
 Well
 Moderate
 Poor

INTERVALS
 Core
 Dst

OIL SHOWS
 Even

Spotted
 Ques
 Dead





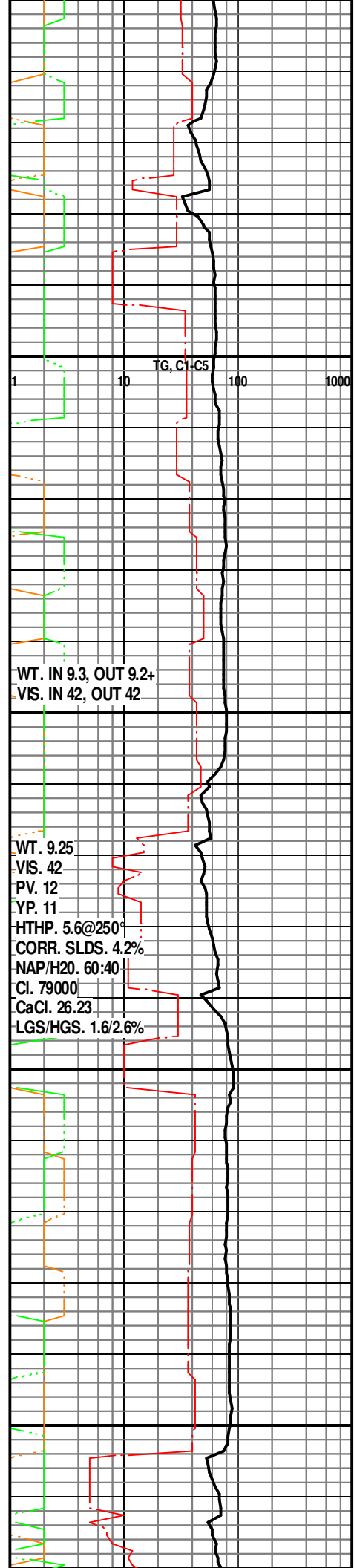
SFT-FRM.

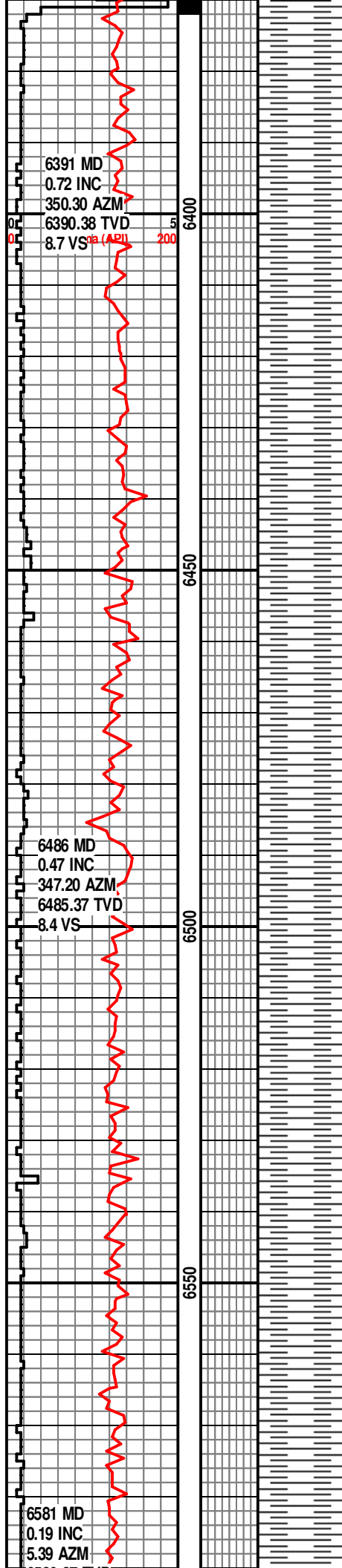
SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM, TR BENT.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.





SH- GY-LT GY, M GY,
BLKY-PLTY, SBWXY, SL-NON
CALC, SFT-FRM.

SH- GY-LT GY, M GY,
BLKY-PLTY, SBWXY, SL-NON
CALC, SFT-FRM.

SH- GY-LT GY, M GY,
BLKY-PLTY, SBWXY, SL-NON
CALC, SFT-FRM.

SH- GY-LT GY, M GY,
BLKY-PLTY, SBWXY, SL-NON
CALC, SFT-FRM.

SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM.

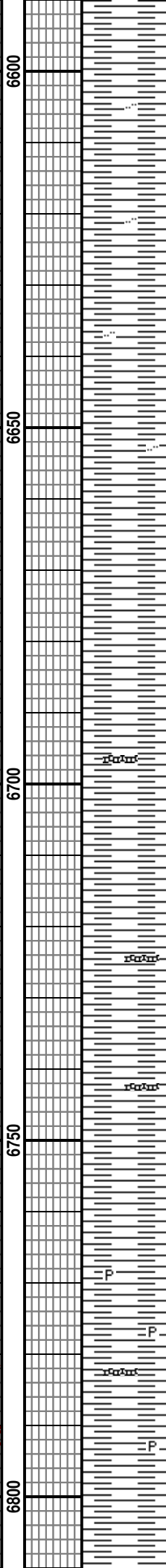
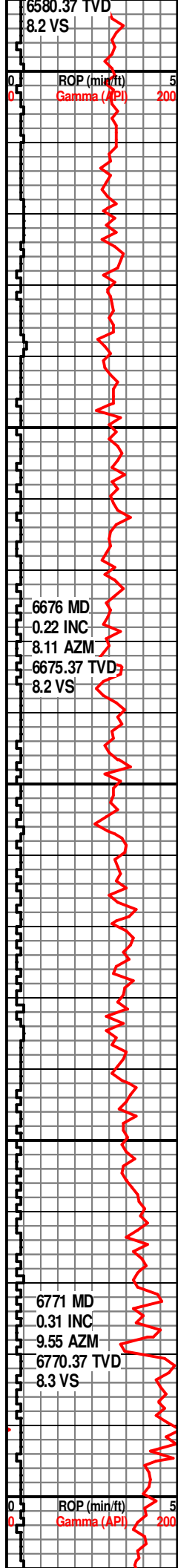
SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM.

SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM.

SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM.

SH- GY-LT GY, SME DK GY,





SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM.

SH- GY-LT GY, OCC DK BRN-M
BRN, BLKY-PLTY, SBWXY, SL
SLTY, NON-SL CALC,
SFT-FRM.

SH- GY-LT GY, OCC DK BRN-M
BRN, BLKY-PLTY, SBWXY, SL
SLTY, NON-SL CALC,
SFT-FRM.

SH- GY-LT GY, OCC DK BRN-M
BRN, BLKY-PLTY, SBWXY, SL
SLTY, NON-SL CALC,
SFT-FRM.

SH- GY-LT GY, OCC DK BRN-M
BRN, BLKY-PLTY, SBWXY,
NON-SL CALC, SFT-FRM.

SH- GY-M GY, LT GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM. W/ TR BENT-
LT GY-GN.

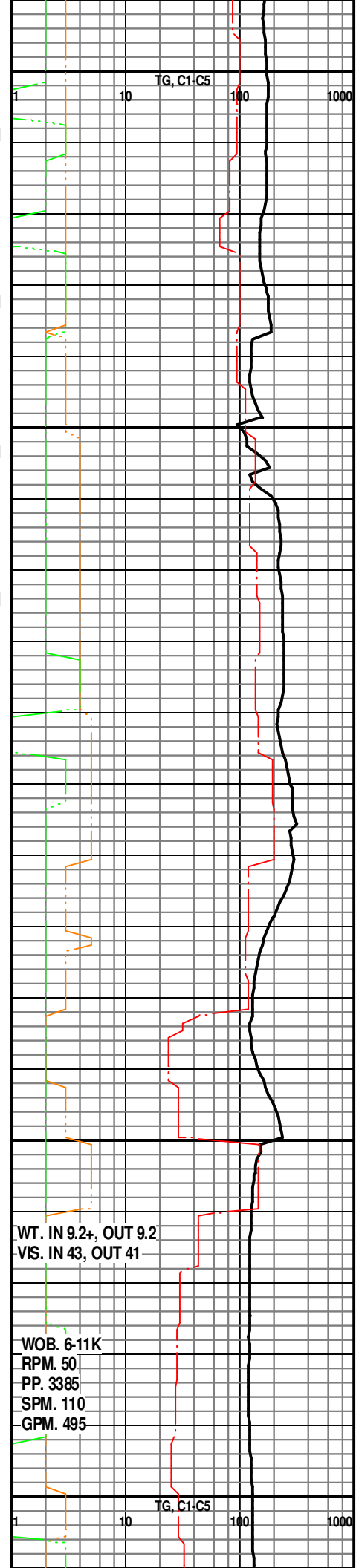
SH- GY-M GY, LT GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM. W/ TR BENT-
LT GY-GN.

SH- GY-M GY, LT GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM. W/ TR BENT-
LT GY-GN.

SH- GY-M GY, LT GY, OCC DK
BRN, BLKY-PLTY, SBWXY, SL
SLTY IN PT, SL CALC,
SFT-FRM. W/ TR PYR.

SH- GY-M GY, LT GY,
BLKY-PLTY, SBWXY, NON-SL
CALC, SFT-FRM. W/ TR BENT-
LT GY-GN & PYR.

SH- GY-M GY, LT GY, OCC DK



[illegible]

SH- GY- LT GY, SME DK GY,
BLKY- PLTY, SBWXY, SL
CALC, SFT- FRM, TR BENT.

WT. IN 9.2+, OUT 9.2
VIS. IN 45, OUT 43

WOB. 3-7K
RPM. 0 & 20
PP. 3182
SPM. 110
GPM. 495

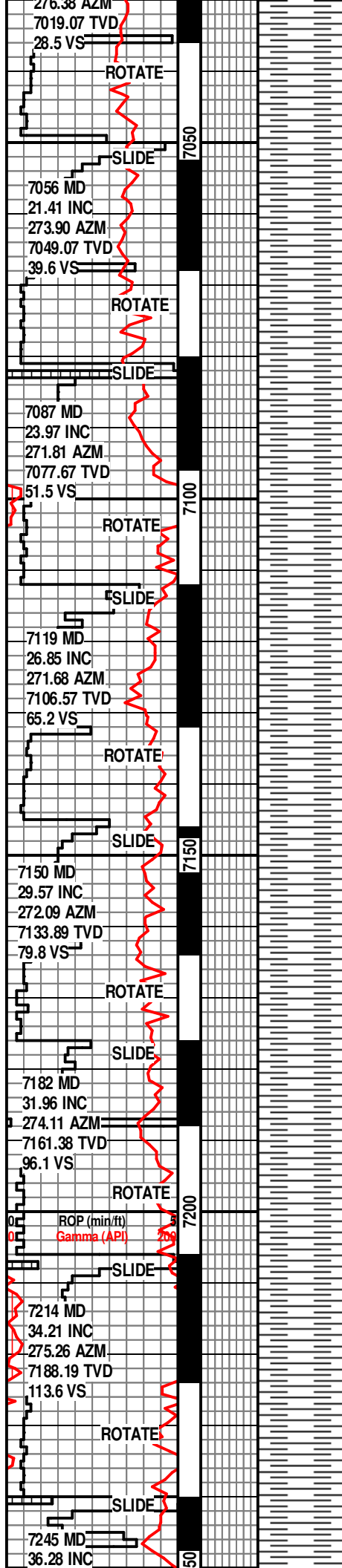
WT. IN 9.2+, OUT 9.2+
VIS. IN 42, OUT 43

TG, C1-C5

1

10 100 1000

WOB. 3-7K
RPM. 0 & 20
PP. 3448
SPM. 111
GPM. 500



SH- GY-LT GY, SME DK GY,
BLKY-PLTY, SBWXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM, TR BRN CLYST.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.

9/16/2013

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.

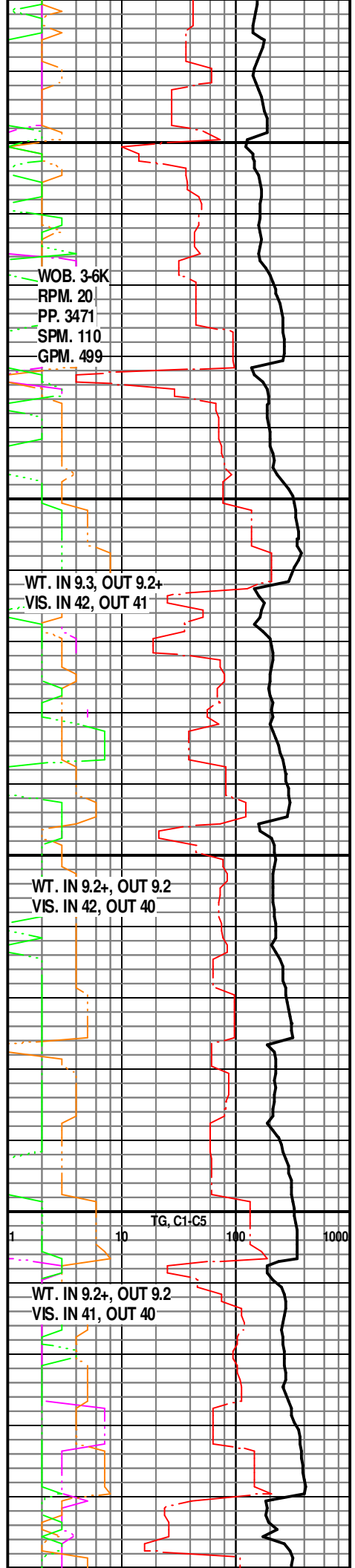
SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY, SL CALC,
SFT-FRM.

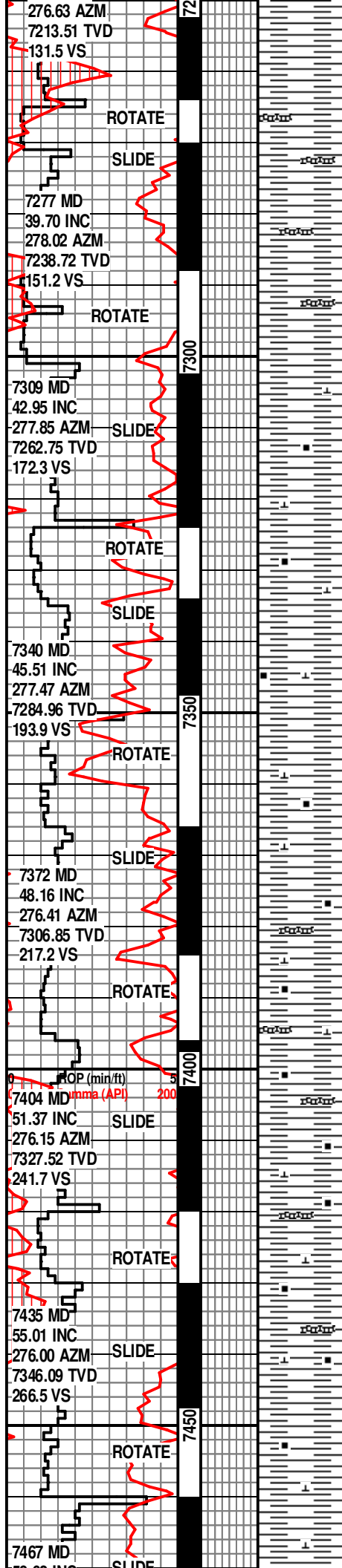
SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY- WXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY- WXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY- WXY, SL CALC,
SFT-FRM.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY- WXY, SL CALC,
SFT-FRM.





EST. SMPL TOP OF SHARON SPGS. AT 7254'MD 7221'TVD,

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY- WXY, SL CALC,
SFT-FRM, TR BENT.

SH- DK GY- GY- LT GY, BLKY-
PLTY, SBWXY- WXY, SL CALC,
SFT-FRM, TR BENT.

EST SMPL TOP OF NIOBRARA AT 7312'MD, 7264' TVD.

SH- DK GY-GY, BLKY-PLTY,
SBWXY, V CALC, CARB,
W/CARB LAM, SFT-FRM.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM. W/ TR
BENT- WH-BRN.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM. W/ TR
BENT- LT GY.

SH- DK GY, BLK, SME M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM.

SH- DK GY, BLK, SME M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, SFT-FRM.

WT. 9.25
VIS. 40
PV. 12
YP. 17
HTHP. 4.4@250°
CORR. SLDS. 5.5%
NAP/H2O. 64:36
Cl. 77000
CaCl. 18.61
LGS/HGS. 3.6/2.0%

WT. IN 9.2, OUT 9.2
VIS. IN 40, OUT 40

ISOTUBE 330 U

ISOTUBE 344 U

ISOTUBE 503 U

ISOTUBE 610 U

ISOTUBE 657 U

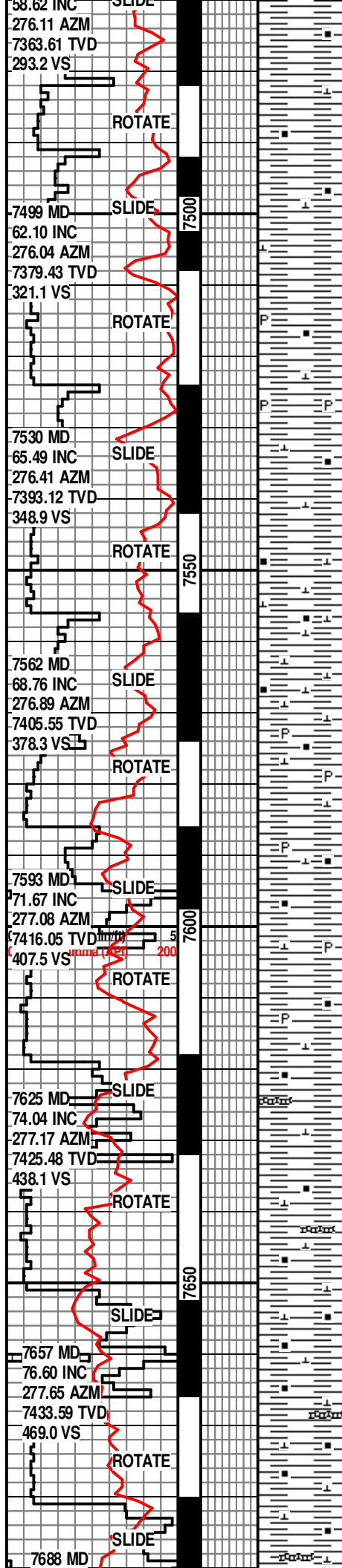
ISOTUBE 662 U

ISOTUBE 550 U

ISOTUBE 548 U

ISOTUBE 604 U

WT. IN 9.2, OUT 9.2
VIS. IN 40, OUT 40



SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB &
CARB LAM IN PT, V CALC-LMY,
SFT-FRM.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB &
CARB LAM IN PT, V CALC-LMY,
SFT-FRM.

SH- DK GY-BLK, M GY,
BLKY-PLTY, SBWXY, CARB &
CARB LAM IN PT, V CALC-LMY,
SFT-FRM. W/ TR PYR.

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

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

SH- DK GY, BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, TR CALC FL FRAC
& CALCITE, SFT-FRM. W/ TR
PYR.

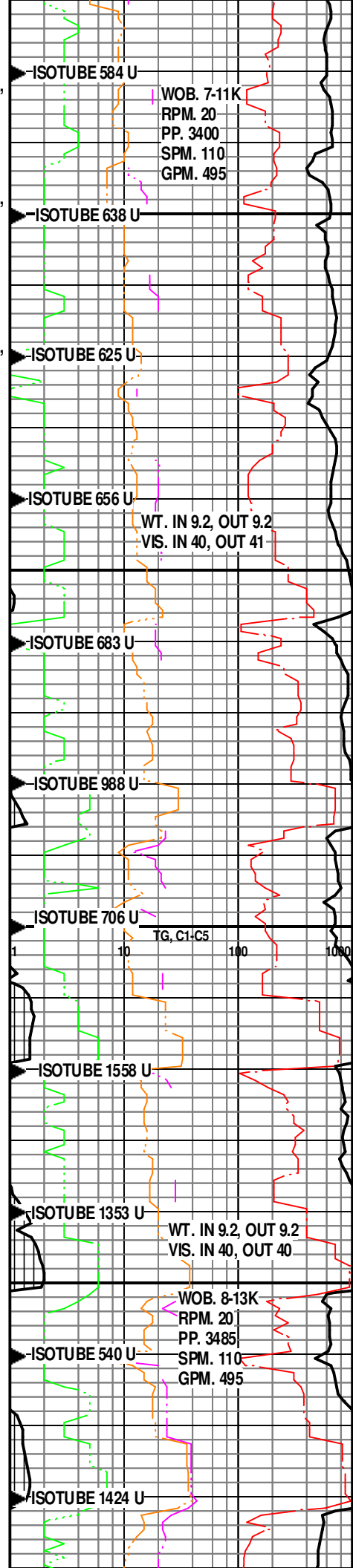
SH- DK GY, BLK, M GY,
BLKY-PLTY, SBWXY, CARB, V
CALC-LMY, TR CALC FL FRAC
& CALCITE, SFT-FRM. W/ TR
PYR.

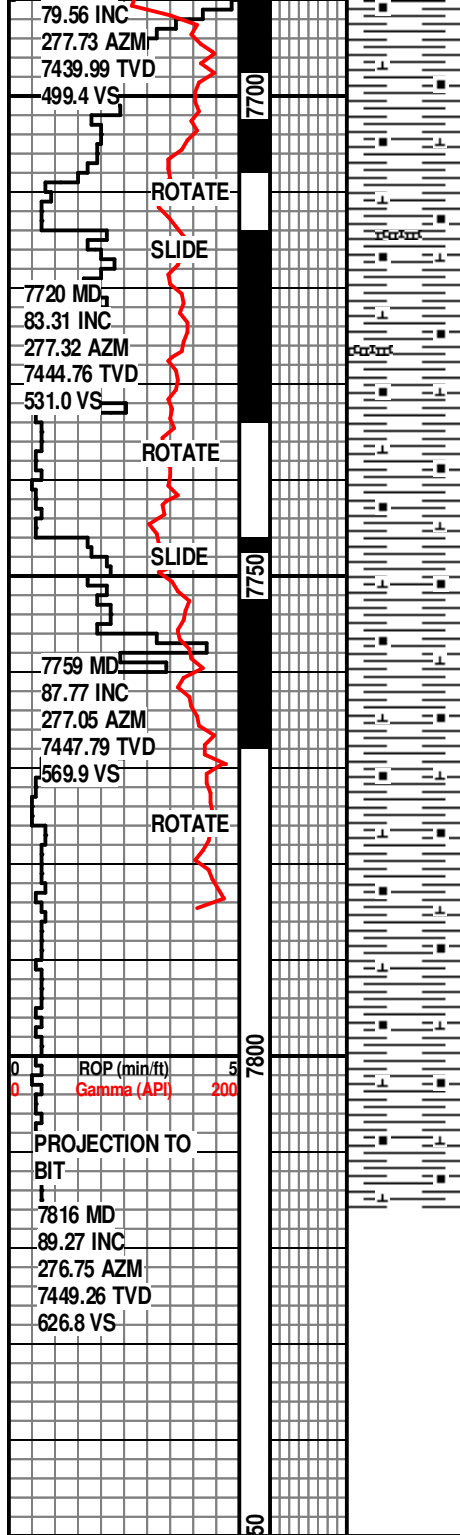
SH- BLK-DK GY, SME M GY,
BLKY-PLTY, SBWXY, CARB,
SME CALC FL FRAC &
CALCITE, V CALC-LMY,
SFT-FRM. W/ TR BENT- LT GY.

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

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

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





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

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

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

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

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

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

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

**TD BUILD SECTION
AT 7816' MD ON
9/16/2013 AT 2210
HRS.
DRILLERS DEPTH.**

Please refer to the horizontal
log for the remainder of the
well.

