

Geologic Report
Aaron L. Young

Drilling Time and Sample Log

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

Well Name: Thissen 'D' # 1
API: 15-095-22322
Location: Section 24 - T28S - R6W
License Number: 5123
Spud Date: 06/06/2018
Surface Coordinates: SE - NW - NE - SE
2263' FSL & 900' FEL
Region: Kingman Co., KS
Drilling Completed: 06/14/2018
Bottom Hole Coordinates:
Ground Elevation (ft): 1437' K.B. Elevation (ft): 1444'
Logged Interval (ft): 2780' To: 4000' Total Depth (ft): 4000'
Formation: Mississippi
Type of Drilling Fluid: Chemical - Andy's

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

OPERATOR

Company: Pickrell Drilling Co., Inc.
Address: 100 S Main STE 505
Wichita, KS 67202+3738

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Pickrell Drilling Co., Inc.
Address: 100 S Main STE 505
Wichita, Kansas 67202

General Info

CONTRACTOR: Pickrell Drilling, Rig #10

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ RR	15-15-15	223	216	6.00
2	7-7/8	HA20C	14-14-14	3910	3687	91.00
3	7-7/8	HA23	14-14-14	4000	90	3.25

SURVEYS: 223'-.5, 728'-.5, 1205'-1.25, 1709'-1, 2215'-1, 2719'-1, 3910'-1, 4000'-1

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 35,000 - 38,000 lbs. on bit and approx 75-80 RPM.
Running 9 stands of collars; 532.96'
Pumping approx 850-900 psi at standpipe.

Daily Status

06/06/18 - Spud, Drilled 12 1/4" surface hole to 223', Ran 5 jts of New 8 5/8" surface casing set @ 220', cmt w/ 200 sx Common, 2% gel, 3% CC, 1/4# cellflake/sx. PD @ 8:30am 06/07/18.

06/07/18 - WOC

06/08/18 - Drilling @ 1035'

06/09/18 - Drilling @ 1865'

06/10/18 - Drilling @ 2695'

06/11/18 - Drilling @ 3354'

06/12/18 - Drilling @ 3760'

06/13/18 - DST #1 3880'-3910'

06/14/18 - DST #2 3910'-3934', TD @ 4000'

06/15/18 - P&A, 35sx @ 800', 35sx @ 400', 35sx @ 27', 25sx @ 60', 30sx in RH, 60-40 pozmix, 4% gel, 1/4# flocele/sx, PD @ 6:15PM, Plugging orders approved by Jonathon Hill

DST #1

Mississippi

3,880' - 3,910'

IF: BOB in 30 sec, built to 325"

ISI: No blow back

FF: BOB immed, GTS in 3 min, Guaged

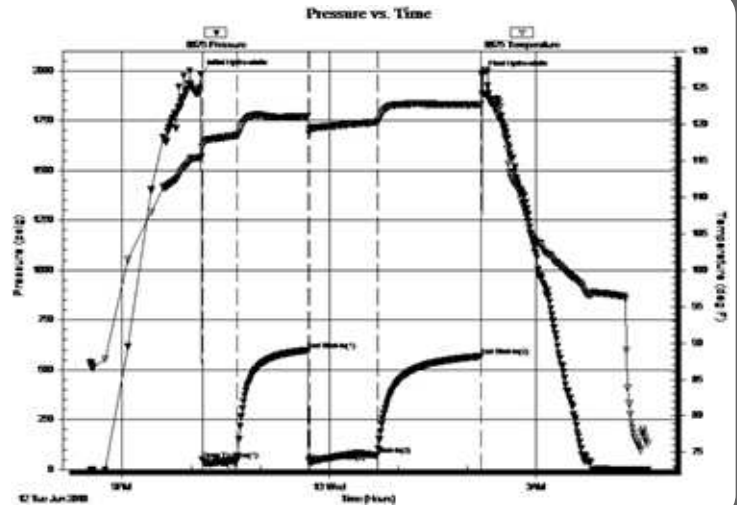
FSI: No blow back

Rec'd: 95' SGCM (5% G, 95% M), 3787' GIP

Max rate: 50 min 59.461 mcf/d

End rate: 48.83 mcf/d

SIP: 598-568#, FP: 49-48#, 39-71#, HP: 1985-1979#



DST #2

Mississippi

3,910' - 3,934'

IF: BOB in 30 sec, built to 315"

ISI: No blow back

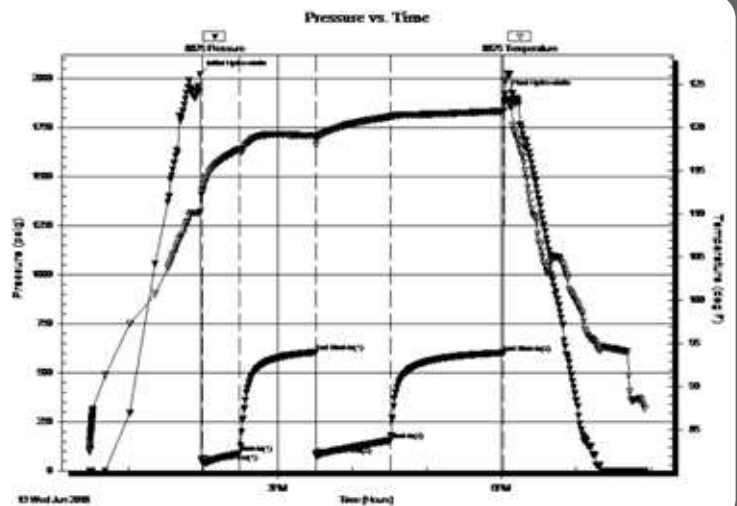
FF: BOB immed, built to 343", GTS in 22 min, TSTM

FSI: No blow back

Rec'd: 40' GOMCW (5% G, 10% O, 30% M, 55% W), 62'

OMCW (5% O, 10% M, 85% W), 186' W, 3624' GIP

SIP: 604-602#, FP: 42-89#, 80-154#, HP: 2022-1920#



ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Congl
	Dol

	Gyp
	Igne
	Lmst
	Meta
	Mrlst
	Salt
	Shale
	Shcol

	Shgy
	Sltst
	Ss
	Till
	Carb sh
	Dol
	Dtd
	Gry sh

	Sandylms
	Shale
	Sltstn
	Shlyslts
	Sltlysh
	Lms

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr



- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Silty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram



- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh



- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

INTERVALS

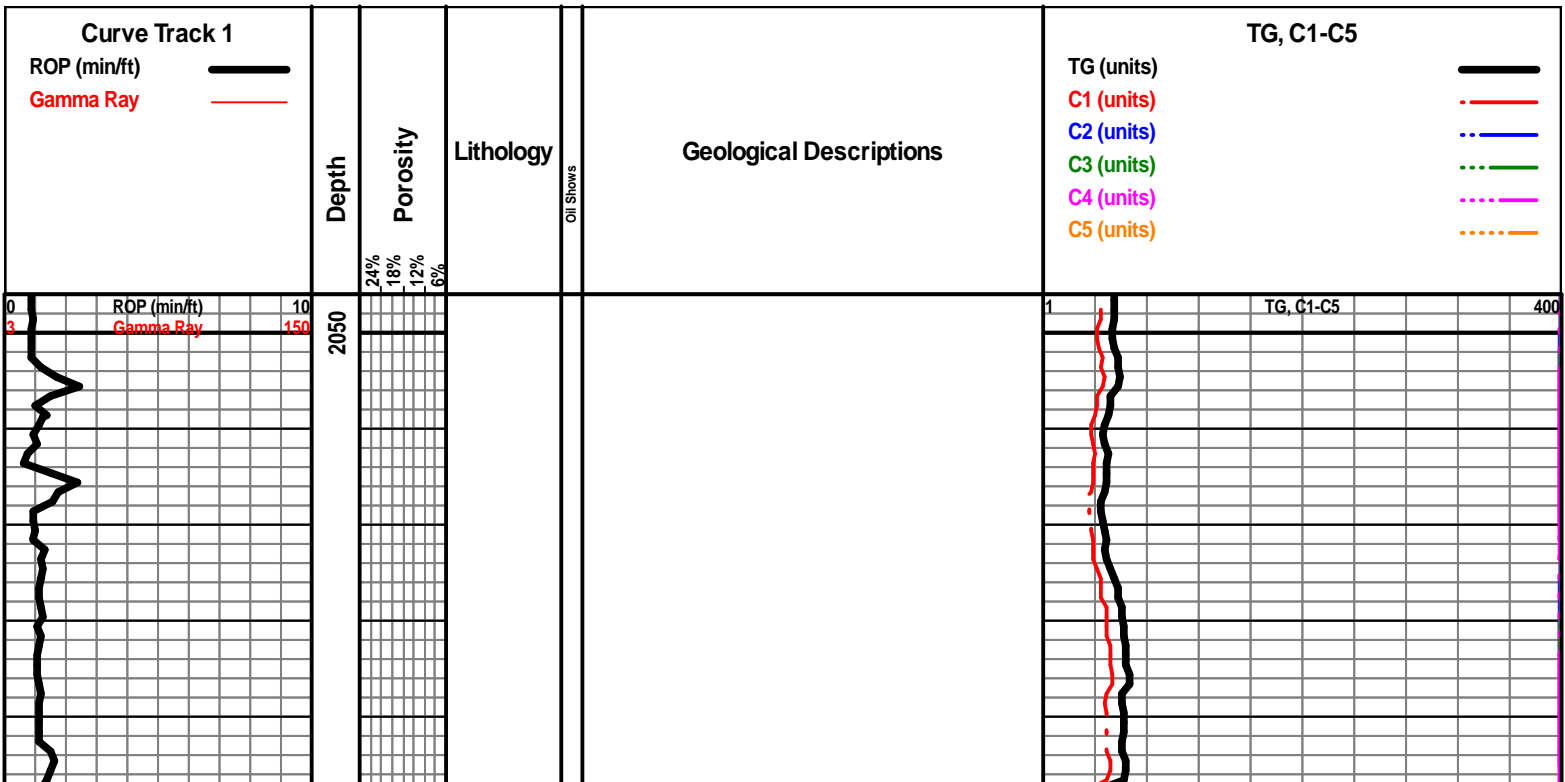
- Core
- Dst

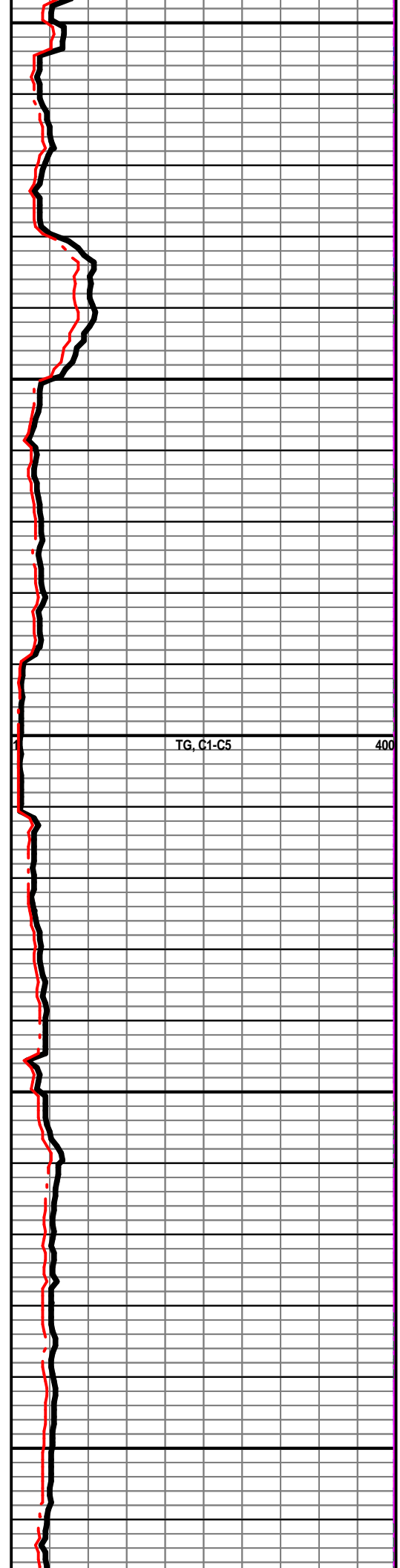
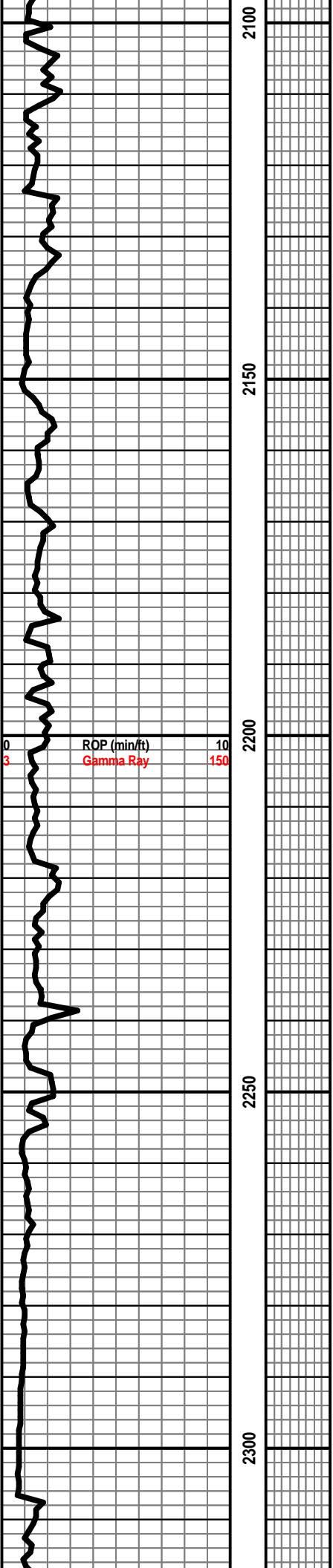


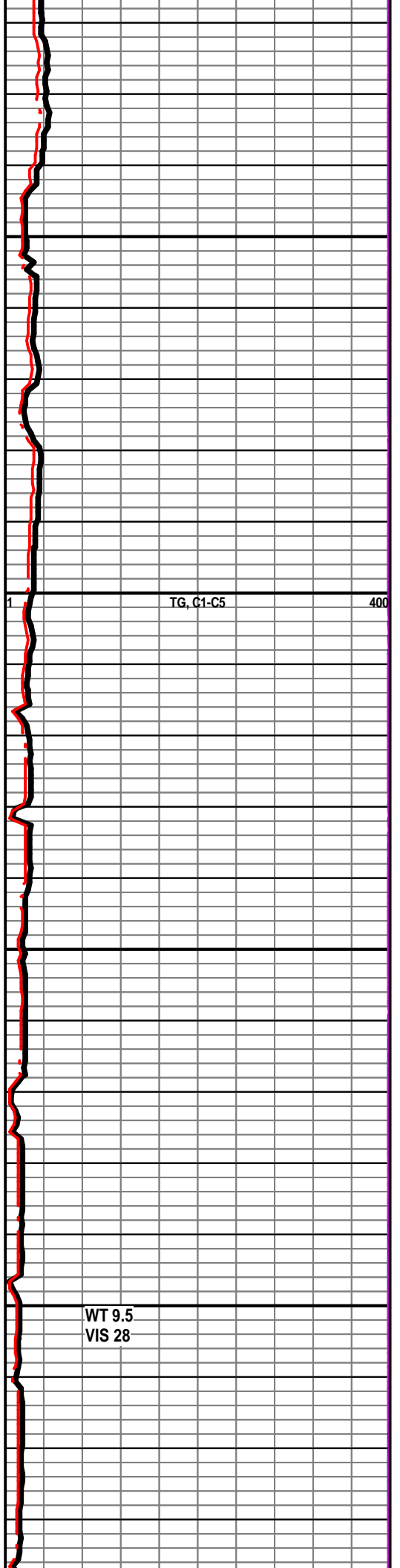
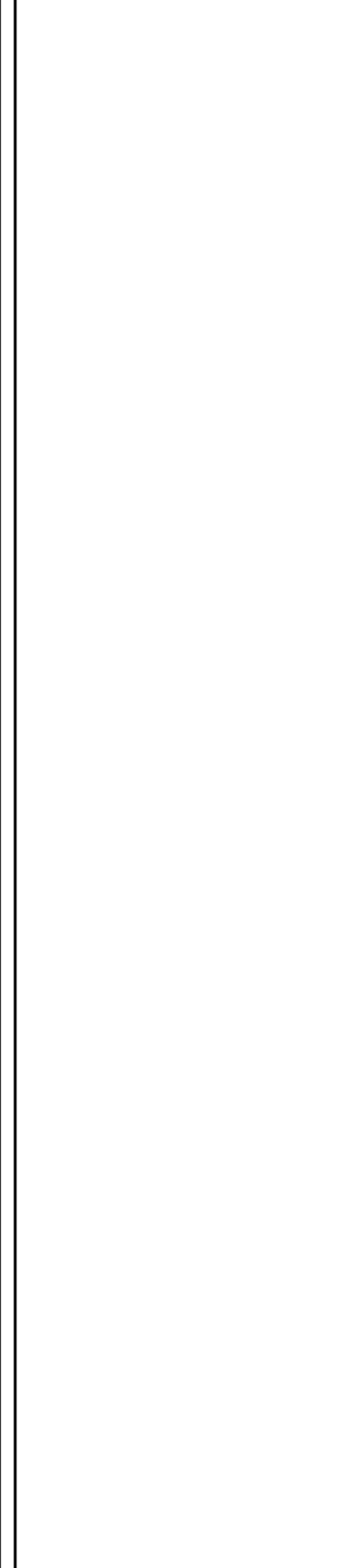
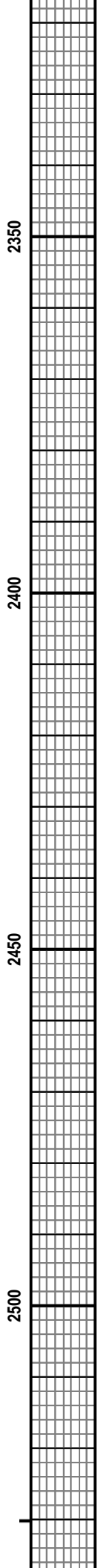
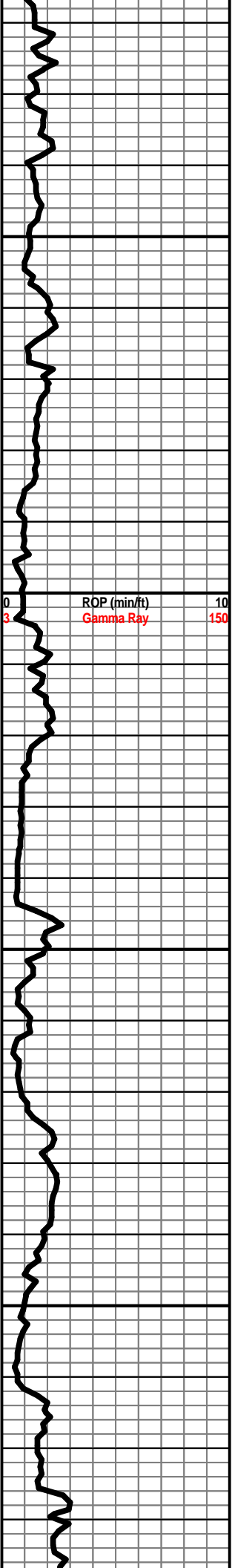
Dst

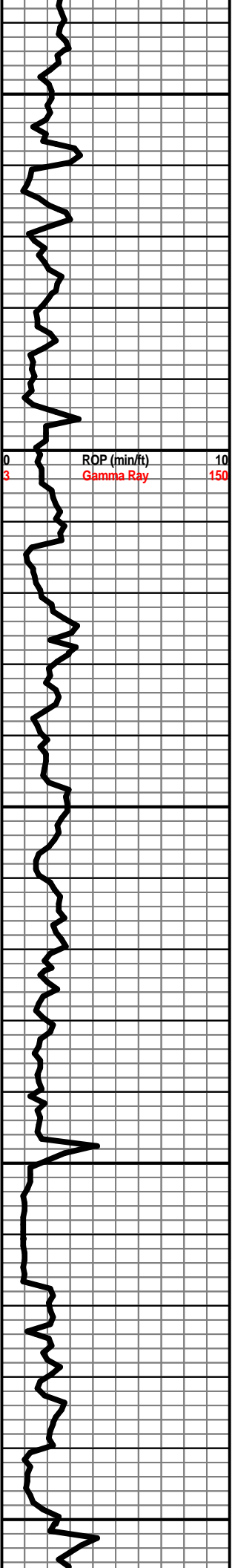
EVENTS

- Rft
- Sidewall
- Conn









2550

2600

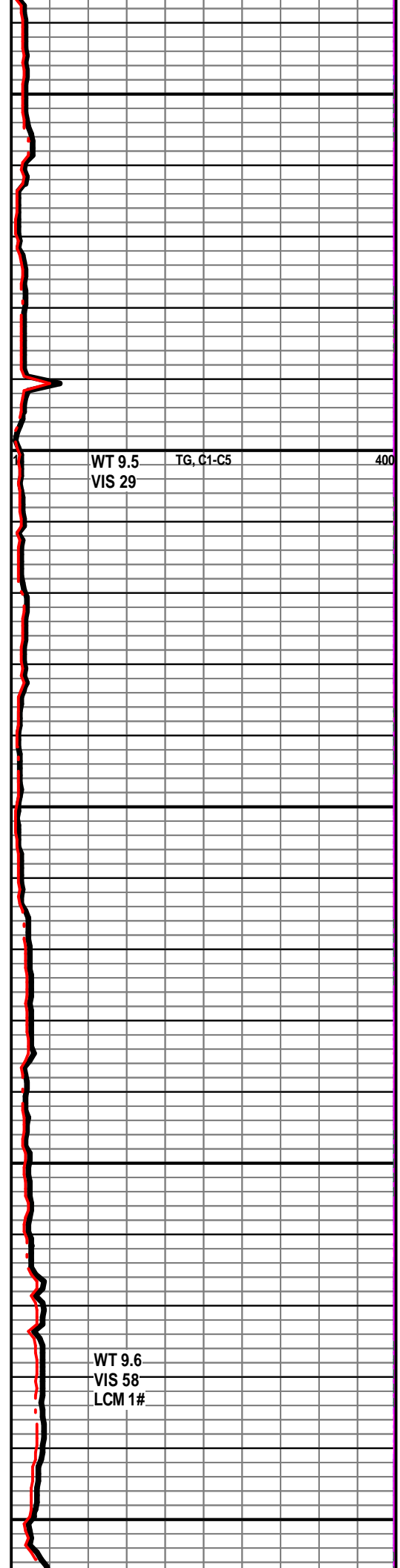
2650

2700

2750

ROP (min/ft)
Gamma Ray

0
3
10
150

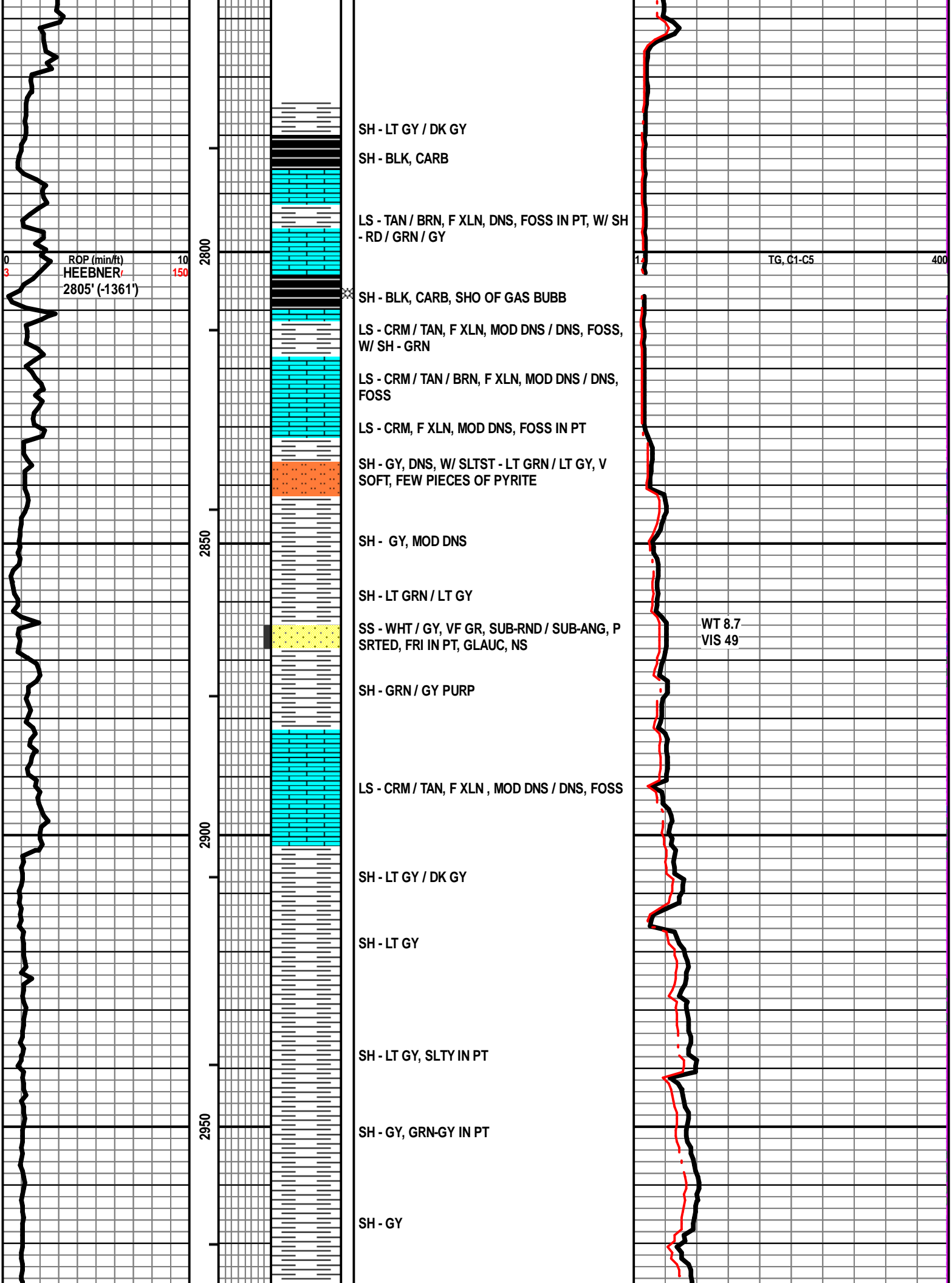


WT 9.5
VIS 29

TG, C1-C5

400

WT 9.6
VIS 58
LCM 1#



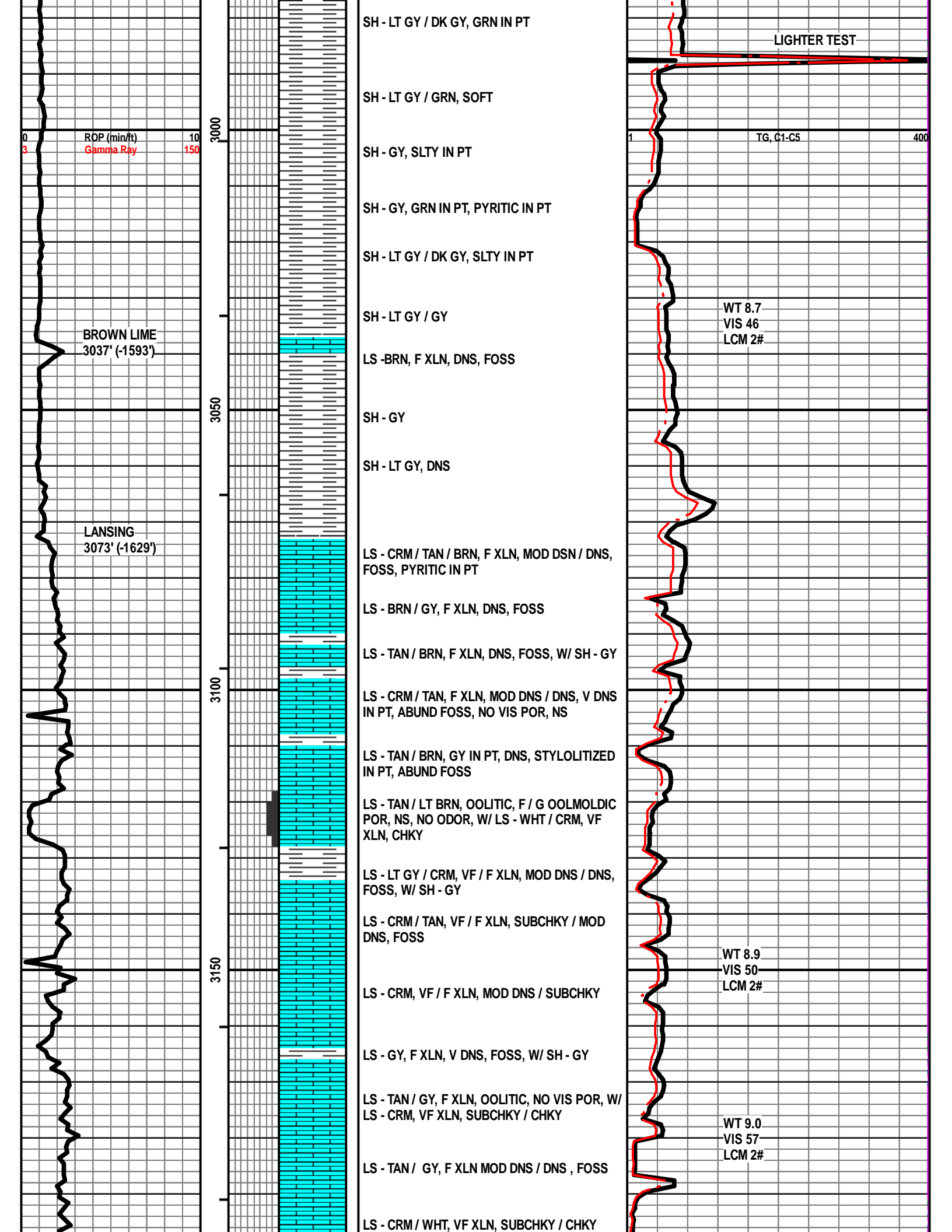
ROP (min/ft)
HEBNER
2805' (-1361')

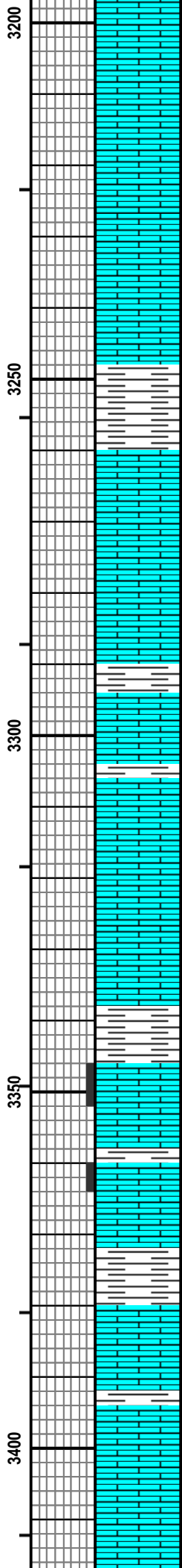
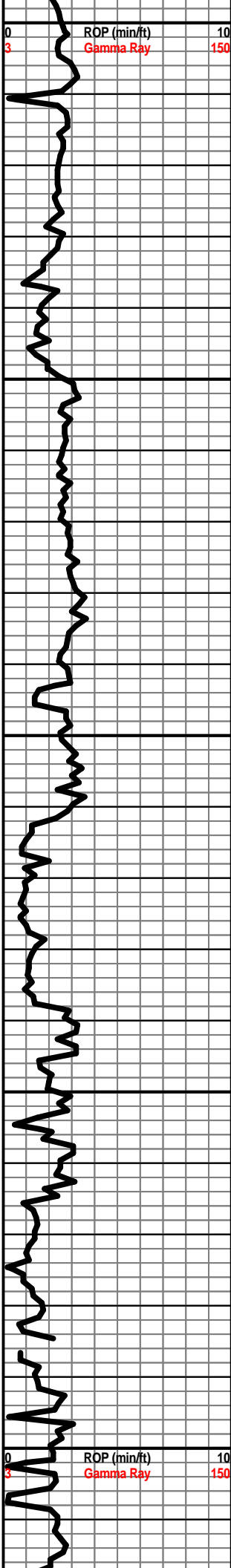
SH - LT GY / DK GY
SH - BLK, CARB
LS - TAN / BRN, F XLN, DNS, FOSS IN PT, W/ SH - RD / GRN / GY
SH - BLK, CARB, SHO OF GAS BUBB
LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS, W/ SH - GRN
LS - CRM / TAN / BRN, F XLN, MOD DNS / DNS, FOSS
LS - CRM, F XLN, MOD DNS, FOSS IN PT
SH - GY, DNS, W/ SLTST - LT GRN / LT GY, V SOFT, FEW PIECES OF PYRITE
SH - GY, MOD DNS
SH - LT GRN / LT GY
SS - WHT / GY, VF GR, SUB-RND / SUB-ANG, P SRTE, FRI IN PT, GLAUC, NS
SH - GRN / GY PURP
LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS
SH - LT GY / DK GY
SH - LT GY
SH - LT GY, SLTY IN PT
SH - GY, GRN-GY IN PT
SH - GY

WT 8.7
VIS 49

TG, C1-C5

400





LS - CRM / TAN, GY IN PT, VF / F XLN, MOD DNS / DNS, FOSS

LS - GY, F / M XLN, DNS / V DNS, FOSS IN PT

LS - TAN / GY, F XLN, DNS, FOSS

LS - CRM, VF / F XLN, SUBCHKY / CHKY, FOSS IN PT

LS - LT GY / DK GY, F XLN, DNS, W/ SH - GRN / PURP

LS - BRN / GY, F XLN, DNS, FOSS, LRG FUSILINIDS

LS - TAN / GY, F XLN, MOD DNS / DNS, FOSS

LS - CRM / TAN, F XLN, MOD DNS, ABUND FOSS

SH - RD / GRN / GY, W/ LS - CRM / TAN, F XLN, MOD DNS, ABUND FOSS

LS - TAN / GY, F XLN, MOD DNS / DNS, FOSS

LS - CRM / TAN / GY, VF / F XLN, MOD DNS / SUBCHKY IN PT, FOSS IN PT

LS - TAN / BRN, F / M XLN, DNS / V DNS, OOLITIC IN PT, NO VIS POR

LS - CRM / TAN, VF / F XLN, SUBCHKY, FOSS

SH - GY, W/ LS - TAN / GY, F / M XLN, DNS, FOSS

LS - TAN / LT BRN, F XLN, OOLITIC, P/F OOLMOLDIC POR, NS, NO CUP ODOR, NO FLUOR, RIG HANDS REPORTED ODOR AROUND SAMP BOX

SH - GRN / RD / BRN, W/ LS - CRM / TAN, F XLN, MOD DNS, P INTERXLN POR, NS, NO ODOR

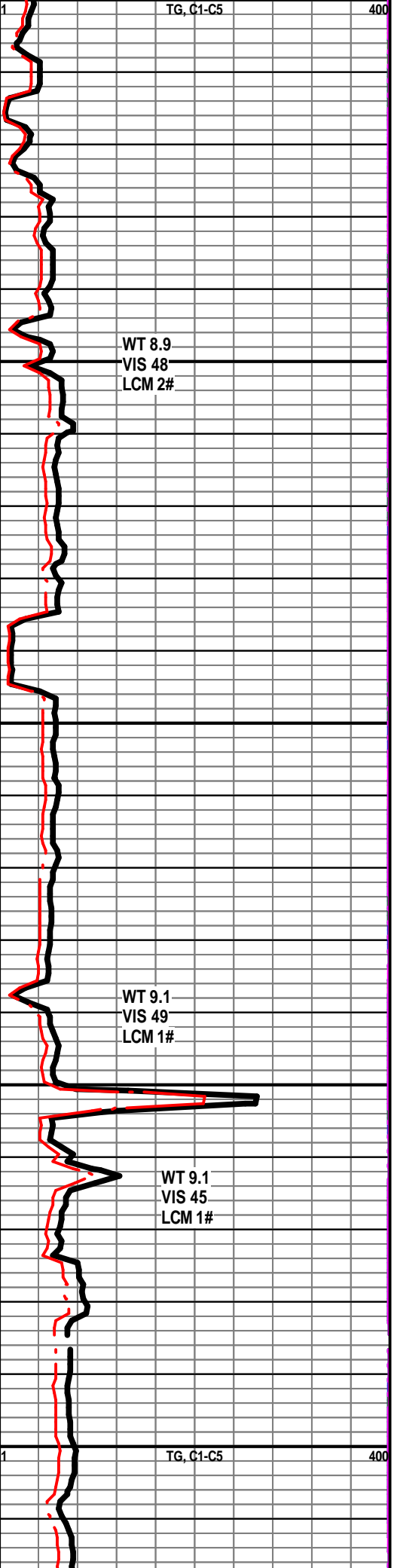
LS - CRM / TAN, F XLN MOD DNS / DNS, FOSS, W/ SH - GY / GRN

LS - CRM / TAN, F / M XLN, DNS / V DNS, FOSS

LS - CRM, VF / F XLN, SUBCHKY / CHKY, FOSS IN PT

LS - TAN / GY, BRN IN PT, F XLN, MOD DNS / DNS, FOSS

LS - CRM / TAN, F XLN, DNS, ABUND FOSS



TG, C1-C5

400

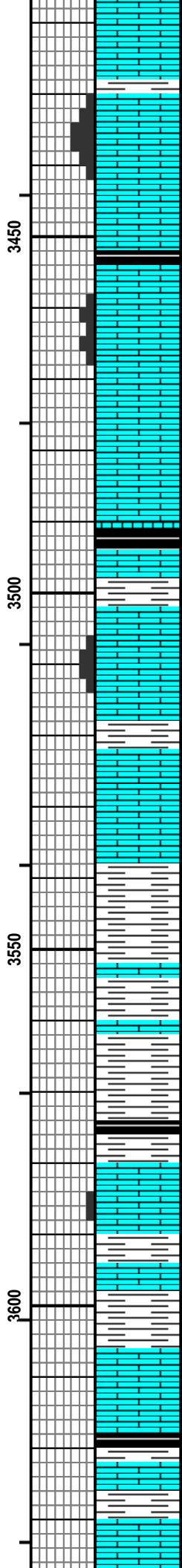
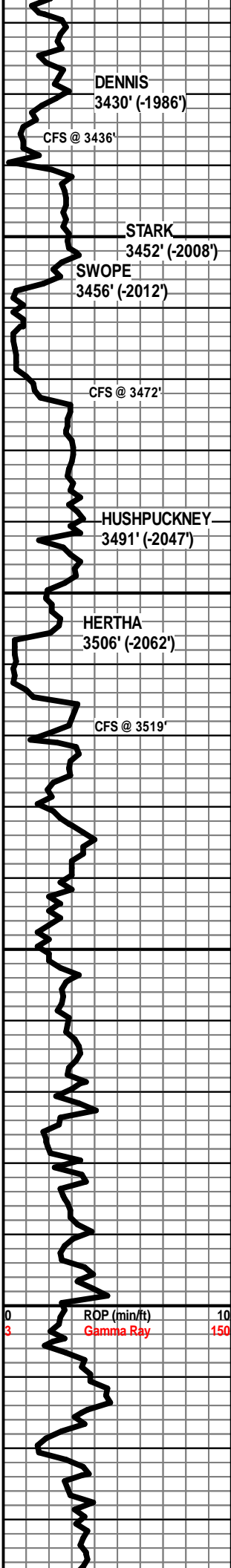
WT 8.9
VIS 48
LCM 2#

WT 9.1
VIS 49
LCM 1#

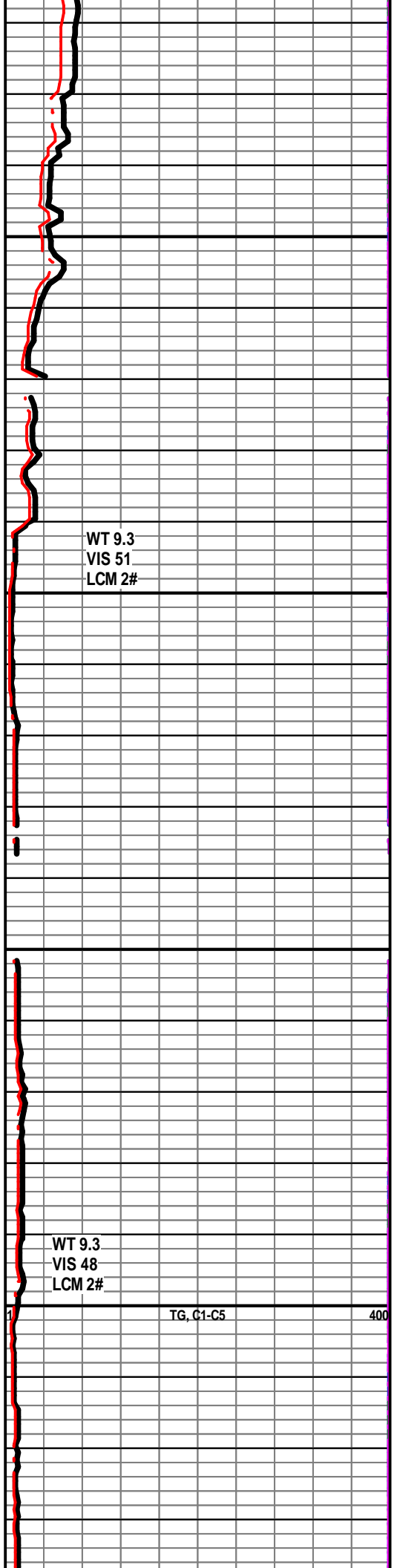
WT 9.1
VIS 45
LCM 1#

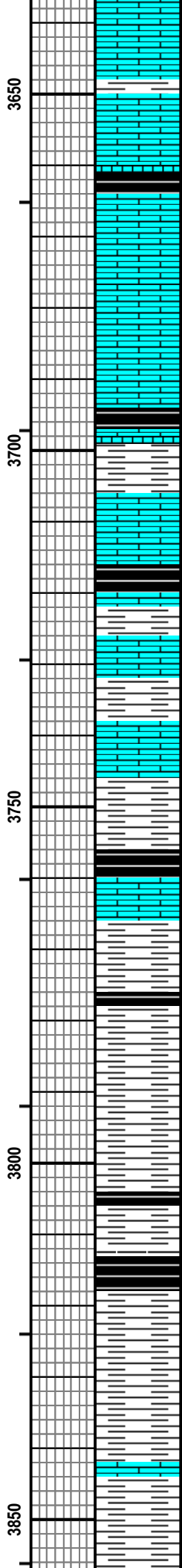
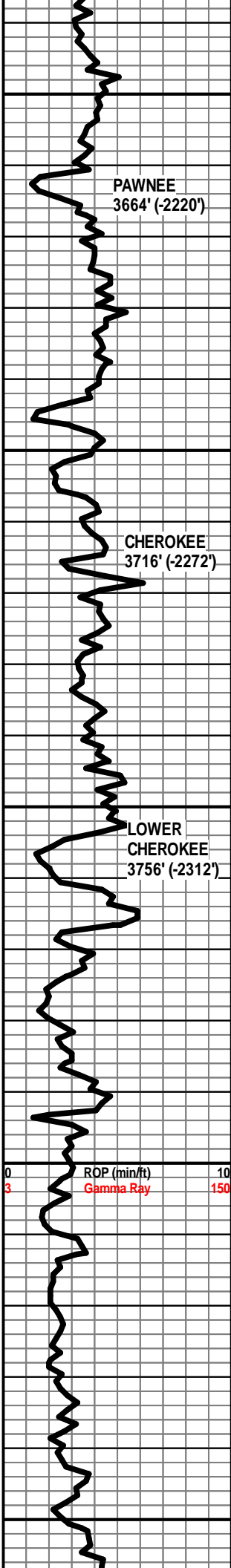
TG, C1-C5

400



LS - GRN / TAN, F XLN, DNS, ABUND FOSS,
 OOLITIC IN PT, NO VIS POR, NS
 LS - TAN, F XLN, MOD DND / DNS, FOSS
 LS - TAN / BRN, F XLN, F / G OOLMOLDIC +
 INTERXLN POR, ABUND OF FOSS, NS, NO
 ODOR, NO FLUOR
 LS - TAN / GY, F XLN, MOD DNS / DNS, FOSS
 SH - BLK, CARB, PYRITIC IN PT
 LS - GY / BRN, VF / F XLN, P / F OOLMOLDIC
 POR, FOSS IN PT, NS, NO ODOR, V DULL
 FLUOR
 LS - TAN / GY, F / M XLN, DNS, FOSS, LRG
 FUSILINIDS
 LS - GY / BRN, F XLN, MOD DNS, FOSS
 LS - CRM / WHT, VF XLN, SUBCHKY / CHKY,
 FOSS IN PT
 SH - BLK, CARB, W/ LS - BRN / TAN, F / M XLN,
 DNS, FOSS, LRG FUSILINIDS
 LS - TAN / BRN, VF / F XLN, P / F OOLMOLDIC
 POR, NS, NO ODOR, MOD FLUOR, ABUND
 FOSS
 SH - GRN / GY, W/ LS - CRM / TAN, VF XLN,
 SUBCHKY / CHKY IN PT
 LS - BRN / GY, F / M XLN, MOD DNS / DNS,
 FOSS
 SH - DK GY / GRN, W/ LS - TAN / BRN / GY, F
 XLN, MOD DNS / DNS FOSS
 SH - GRN / DK GY
 SH - GRN / DK GY
 SH - BLK, CARB, W/ SH - LT GY / DY GY
 LS - TAN / BRN / GY IN PT, F XLN, MOD DNS /
 DNS, FOSS, P OOLMOLDIC POR IN PT, NS, NO
 ODOR
 SH - GRN / GY / MAR, W/ LS - TAN / GY, F XLN,
 MOD DNS, FOSS
 LS - TAN / GY, VF / F XLN, MOD DSN /
 SUBCHKY, FOSS IN PT, W/ SH - GY
 SH - BLK, CARB, W/ LS - CRM / TAN, VF XLN,
 SUBCHKY / MOD DNS
 SH - GRN / GY, W/ LS - CRM / TAN, F XLN, MOD
 DNS / DNS, FOSS
 SH - RD / GRN, W/ LS - CRM / TAN, F XLN, DNS,





FOSS, LRG FUSILINIDS, CRINOIDS

SH - LT GRN / GY, PYRITIC IN PT, W/ LS - CRM, VF / F XLN, SUBCHKY, FOSS IN PT

LS - TAN / GY, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

SH - BLK, CARB, W/ LS - TAN / BRN, F XLN, MOD DNS / DNS, FOSS IN PT

LS - TAN / GY / BRN IN PT, F / M XLN, V DNS, FOSS

LS - TAN / GY, F XLN, DNS, FOSS

SH - BLK, CARB, SLI PYRITIC, W/ SH - GRN / GY, W/ LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS, OOLITIC IN PT, NO VIS POR, NS

LS - GY, VF XLN, SUBCHKY / CHKY, W/ SH - GRN / GY

SH - BLK, CARB, W/ FEW PIECES OF PYRITE, W/ SH - LT GY / GRN

LS - TAN / GY, VF / F XLN, MOD DNS / SUBCHKY, W/ SH - GY

SH - LT GY, W/ LS - TAN / LT BRN, F XLN, MOD DNS / DSN, FOSS

SH - LT GY / GY, STREAKS OF PYRITE, W/ LS - CRM / TAN / GY, VF / F XLN, MOD DNS / DNS, FOSS

SH - BLK, CARB, PLATY, IRON STN IN PT, W/ SH - LT / DK GY, W/ LS - TAN / GY, F XLN, MOD DNS / DNS FOSS

LS - TAN / GY, F XLN, DNS, FOSS, W/ SH - LT GRN / LT GY

SH - DK GRN / GY, W/ SH - BLK, CARB

SH - RD / GRN / GY

SH - GRN / GY / YEL IN PT

SH - RD / GRN / GY / YEL

SH - GRN / GY / RD / MAR / PURP

SH - DK GY / BLK, SLI CARB, W/ SH - GY / GRN / PURP

SH - GY / GRN / YEL

SH - GRN / YEL / GY

SH - GRN / PURP / YEL IN PT, W/ FEW PIECES OF LS - TAN, F XLN, MOD DNS, NO VIS POR, NS, NO ODOR

SH - GY / GRN / MAR / PURP

WT 9.2
VIS 48
LCM 2#

WT 9.4
VIS 48
LCM 2#

PLUGGED
SAMPLE LINE

DST #1
Mississippi
3,880' - 3,910'

IF: BOB in 30 sec, built to 325"
ISI: No blow back
FF: BOB immed, GTS in 3 min,
Guaged
FSI: No blow back

WT 9.5
VIS 49
LCM 1#

Rec'd: 95' SGCM (5% G, 95% M),
3787' GIP

Max rate: 50 min 59.461 mcf/d
End rate: 48.83 mcf/d

SIP: 598-568#, FP: 49-48#, 39-71#,
HP: 1985-1979#

NEW SAMPLE
LINE INSTALLED

SHORT TRIP
@ 3800' TG, C1-C5

DST #2
Mississippi
3,910' - 3,934'

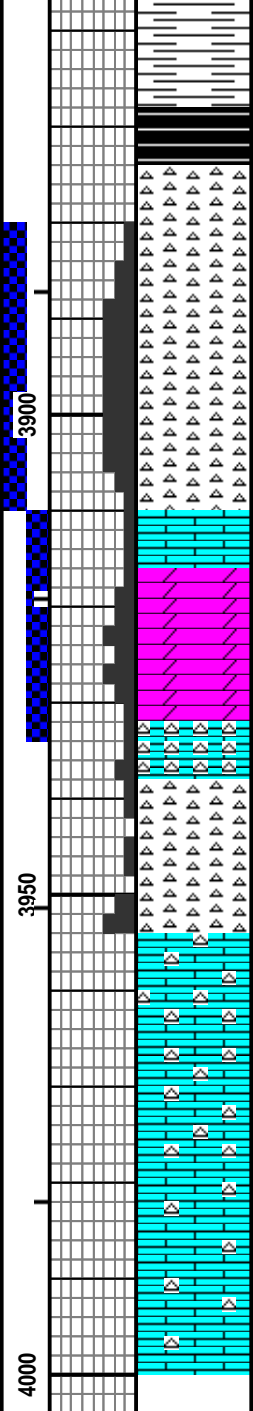
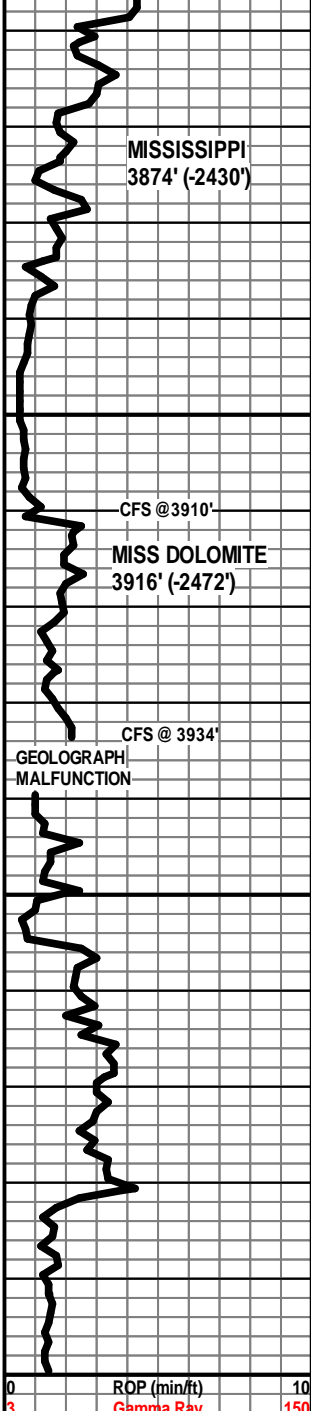
WT 9.5
VIS 48
LCM 1#

IF: BOB in 30 sec, built to 315"
ISI: No blow back
FF: BOB immed, built to 343", GTS
in 22 min, TSTM
FSI: No blow back

Rec'd: 40' GOMCW (5% G, 10% O,
30% M, 55% W), 62' OMCW (5% O,
10% M, 85% W), 186' W, 3624' GIP

WT 9.4
VIS 60
LCM 2#

SIP: 604-602#, FP: 42-89#,
80-154# HP: 2022-1920#



SH - MAR / PURP / GRN / YEL

SH - GRN / PURP / YEL

SH - GY / GRN / MAR / PURP / YEL, W/ FEW PIECES LS - TAN / GY, F XLN, DNS, NO VIS POR, NS, FOSS IN PT

CHT - WHT, 50% WEATH, 50% FRSH, P/F WEATH POR, SLI SHO GAS, V SLI OIL SHEEN, G YEL / GRN FLUOR

● CHT - WHT, PRED WEATH, SLI DOLOMITIC, F / G WEATH POR, G SHO GAS, SSFO, OIL FLOATING IN DISH, G ODOR, BRI YEL-GRN FLUOR,

● CHT - WHT / BRN, PRED WEATH, SLI DOLOMITIC, G WEATH POR, F VUG POR, G SHO GAS, FSFO, OIL BLEEDING, G ODOR, G YEL-GRN FLUOR

● LS - WHT / CRM, VF / F XLN, P / F INTXLN POR, G SHO GAS, SSFO, F ODOR, BRI YEL-GRN FLUOR, FOSS IN PT, SUBCHKY IN PT, FEW PIECES CHT

● DOLO - TAN / BRN, VF / F XLN, F / G INTXLN POR, VUG POR IN PT, SUCROSIC IN PT, FSFO, F ODOR, G SHO GAS, BRI YEL-GRN FLUOR, FEW PIECES CHT

● LS - WHT, F XLN, SILICEOUS, P / F INTXLN POR, F SHO GAS, SSFO, MOD YEL-GRN FLUOR, F ODOR, W / FEW PIECES OF LS - WHT, VF XLN, V CHKY

● CHT - WHT / GY, PRED FRSH, PRED OPAQ, SLI TRANSLUCNT IN PT, F WEATH POR IN PT, NS, N ODOR, V DULL FLUOR

LS - BRN / GY / WHT, F XLN, DNS, ABUND BLK SPECS, SILICEOUS, ABUND FOSS, NO VIS POR, NS

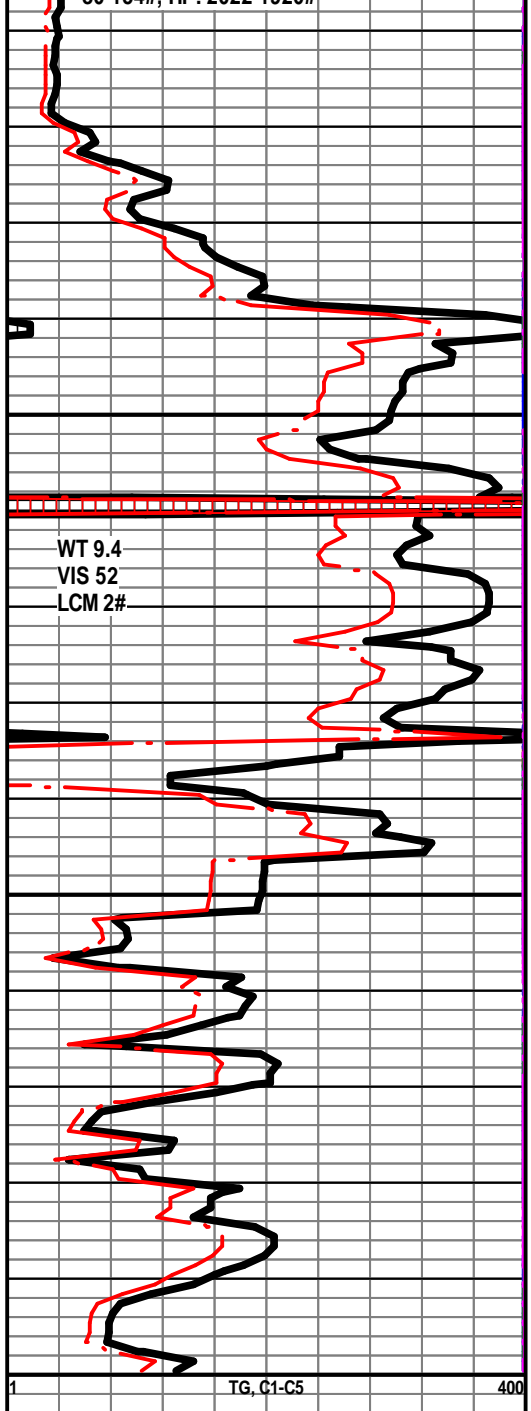
LS - CRM / BRN / GY, F XLN, MOD DNS / DNS, ABUND BLK SPECS, SILICEOUS IN PT, ABUND FOSS

LS - CRM / WHT / GY, VF / F XLN, SUBCHKY / CHKY, BLK SPECS IN PT, FOSS IN PT

LS - GY / TAN / BRN IN PT, VF / F XLN, SILICEOUS IN PT, CHKY IN PT, PRED MOD DNS, FOSS, BLK SPECS, NS

LS - BRN / GY, F XLN, MOD DNS / DNS, BLK SPECS, SLI SILICEOUS, NS

RTD 4000'



0 ROP (min/ft) 10
 3 Gamma Ray 150
 4000

1 TG, C1-C5 400