

Geologic Report

Aaron L. Young

Drilling Time and Sample Log

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

Well Name: Douglas-Kent #4-18
API: 15-007-24220
Location: Section 18 - T34S - R11W
License Number:
Spud Date: 10 / 01 / 2014
Surface Coordinates: 2310' FSL and 340' FWL
E2 - NW - NW - SW
Region: Barber Co., KS
Drilling Completed: 10 / 11 / 2014
Bottom Hole Coordinates:
Ground Elevation (ft): 1405' K.B. Elevation (ft): 1413'
Logged Interval (ft): 3500' To: 5360' Total Depth (ft): 5360'
Formation: Arbuckle
Type of Drilling Fluid: Chemical - Liberty Drilling Fluids

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

OPERATOR

Company: Chieftain Oil Co., Inc
Address: 101 S 5th
Kiowa, KS 67070

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Young Consulting LLC
Address: 155 N. Market, Suite 710
Wichita, Kansas 67202

General Info

CONTRACTOR: Fossil Drilling, Rig #2

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	17-1/2	Varel RT	?	304'	296'	4.25
2	7-7/8	Hali FX55M	15-15-15-15-15	5360'	5064'	106.5

SURVEYS: 304' - 3, 332' - 1.75, 818' - 1, 1352' - 1, 1854' - .75, 2335' - 1, 2857' - 1, 3709' - .75, 4210' - .75, 5360' - 1

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 2,000-15,000 lbs. on bit and 100-130 RPM.
Pumping 900-1100 psi at standpipe.

Daily Status

10/01/14 - Spud, Set 7 Jts 13 3/8" at 298' w/ 350 sx 60/40
 10/02/14 - W.O.C. @ 304'
 10/03/14 - Drilling @ 850'
 10/04/14 - Drilling @ 2669'
 10/05/14 - Drilling @ 4100'
 10/06/14 - Drilling @ 2906'
 10/07/14 - Drilling @ 3210'
 10/08/14 - Drilling @ 4270'
 10/09/14 - TIH - Plugged Jets on Bit
 10/10/14 - Work on mud up @ 5190'
 10/11/14 - TD @ 5360', Set 127 jts 5 1/2" casing at 5,353' w/ 50 sx light, 150 sx AA2

ROCK TYPES

	Anhy		Gyp		Shgy		Sandylms
	Bent		Igne		Sltst		Shale
	Brec		Lmst		Ss		Sltstn
	Cht		Meta		Till		Shlyslts
	Clyst		Mrlst		Carb sh		Sltyslts
	Coal		Salt		Dol		Lms
	Congl		Shale		Dtd		
	Dol		Shcol		Gry sh		

ACCESSORIES

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

OTHER SYMBOLS

POROSITY TYPE

- E Earthy
- F Fenest
- F Fracture
- X Inter
- ∩ Moldic
- P Organic
- P Pinpoint
- V Vuggy

SORTING

- W Well
- M Moderate
- P Poor

ROUNDING

- R Rounded
- r Subrnd
- a Subang
- A Angular

OIL SHOWS

- Even
- ◉ Spotted
- ◌ Ques
- ◌ Dead
- ⊠ Gas show

INTERVALS

- Core
- ◻ Dst



Dst



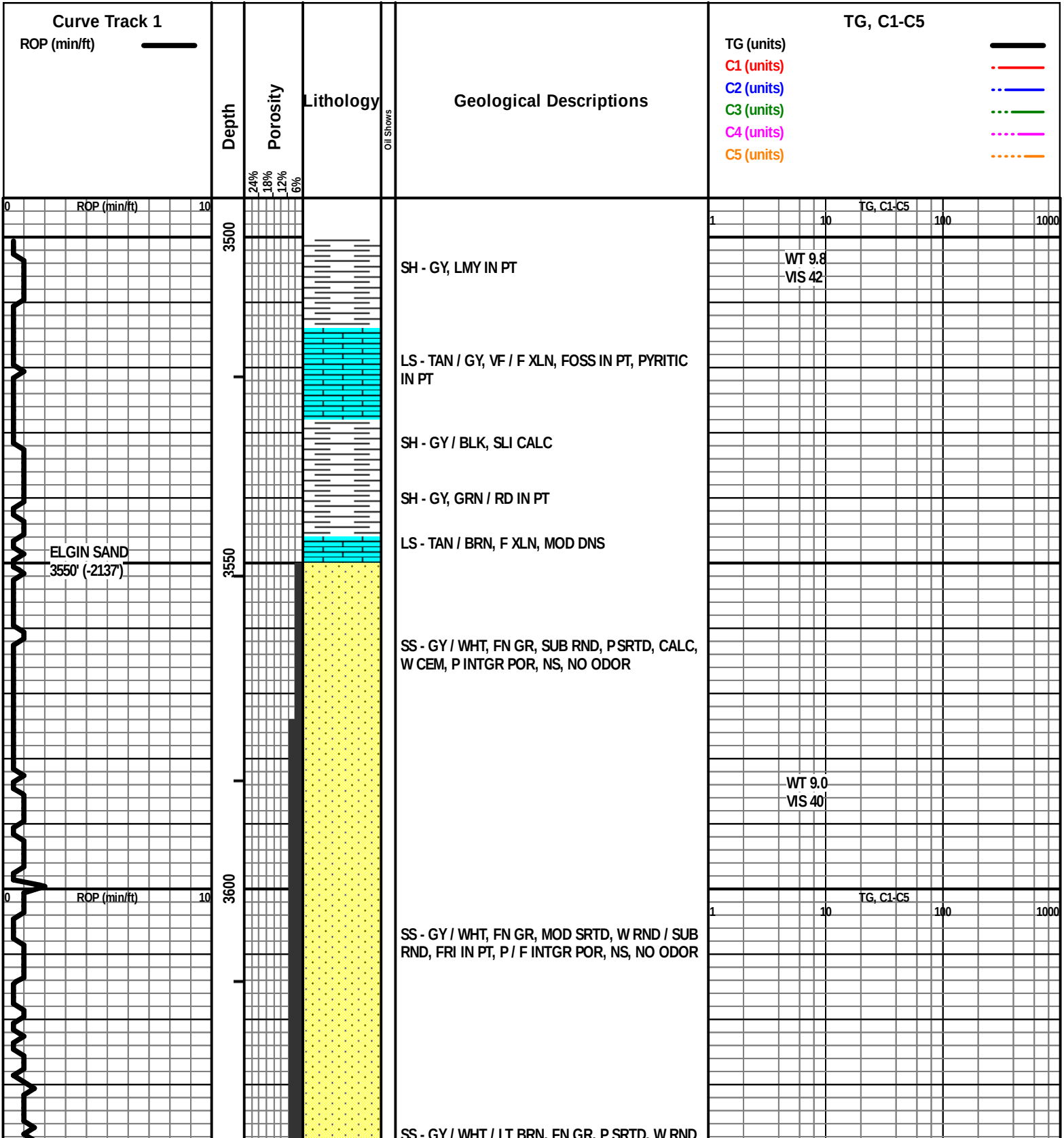
Rft

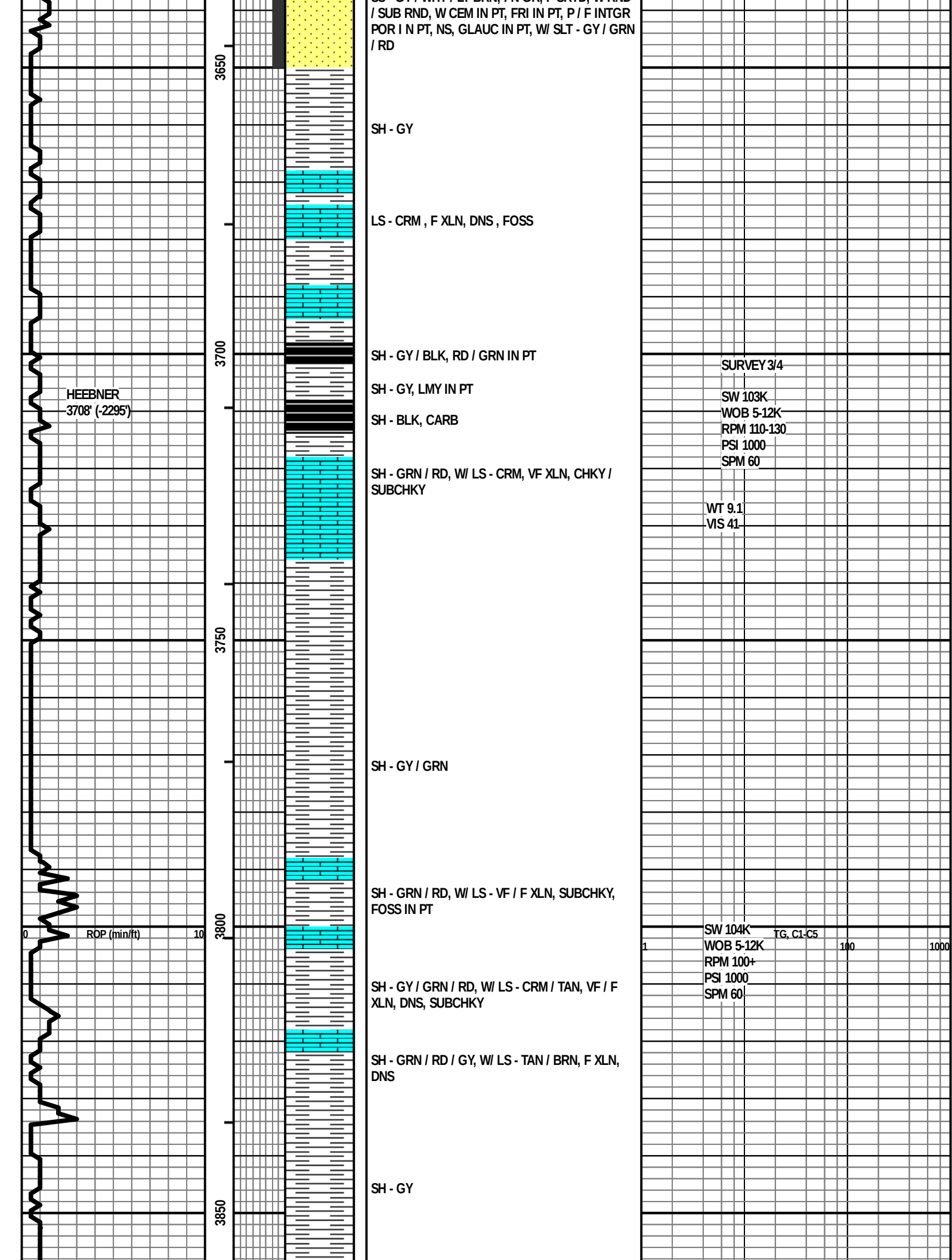


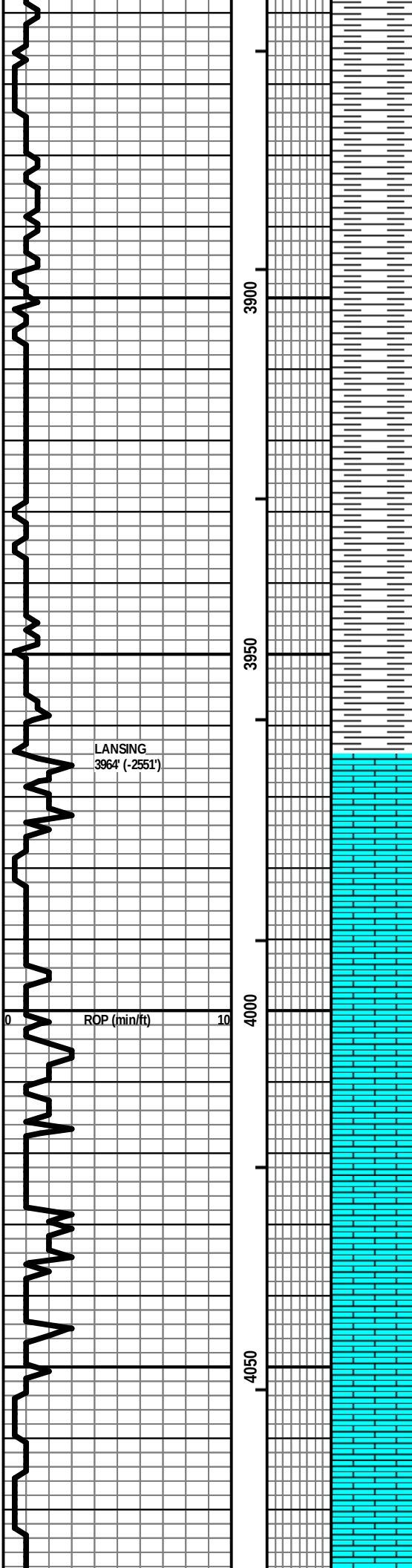
Sidewall



Conn







SH - GY / BLK, FOSS IN PT, SLTY IN PT

SH - GY, SLTY

SH - GY, SLTY IN PT

SH - LT GY, RD IN PT

LS - CRM / TAN, F XLN, DNS, OOL, P OOMOLDIC
POR IN PT, NS

LS - CRM / TAN, VF / F XLN, SUBCHKY IN PT,
PRED DNS

LS - GY / BRN IN PT, F XLN, DNS, OOL IN PT

LS - CRM / TAN, VF / F XLN, OOLICASTIC IN PT,
SUBCHKY

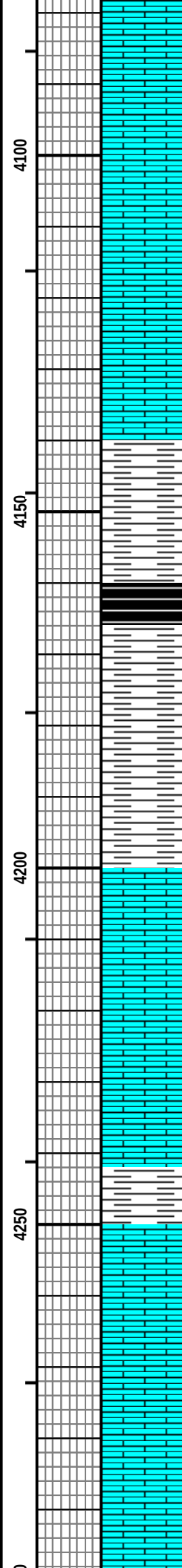
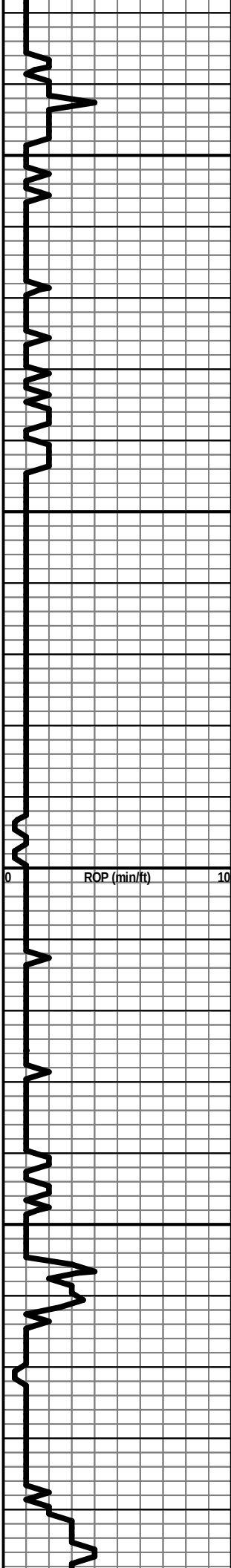
WT 9.1
VIS 56

SW 104K
WOB 5-12K
RPM 100+
SPM 60

SW 105K
WOB 5-14K
RPM 100+
PSI 1000
SPM 60

SW 106K

TG, C1-C5



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

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

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

SH - GY

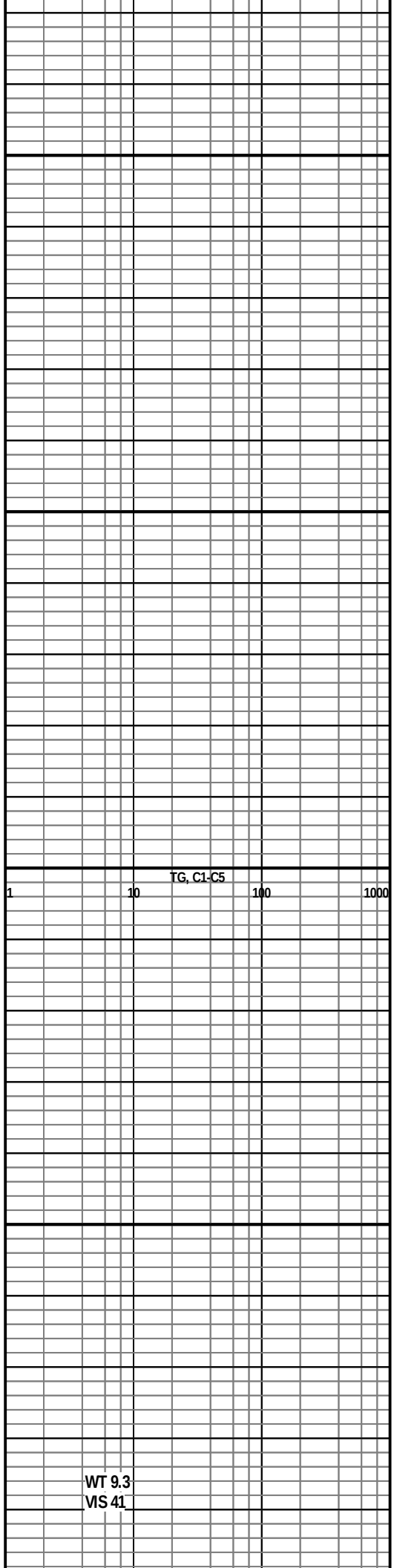
SH - BLK, CARB, W/ SH - GY

SH - GY

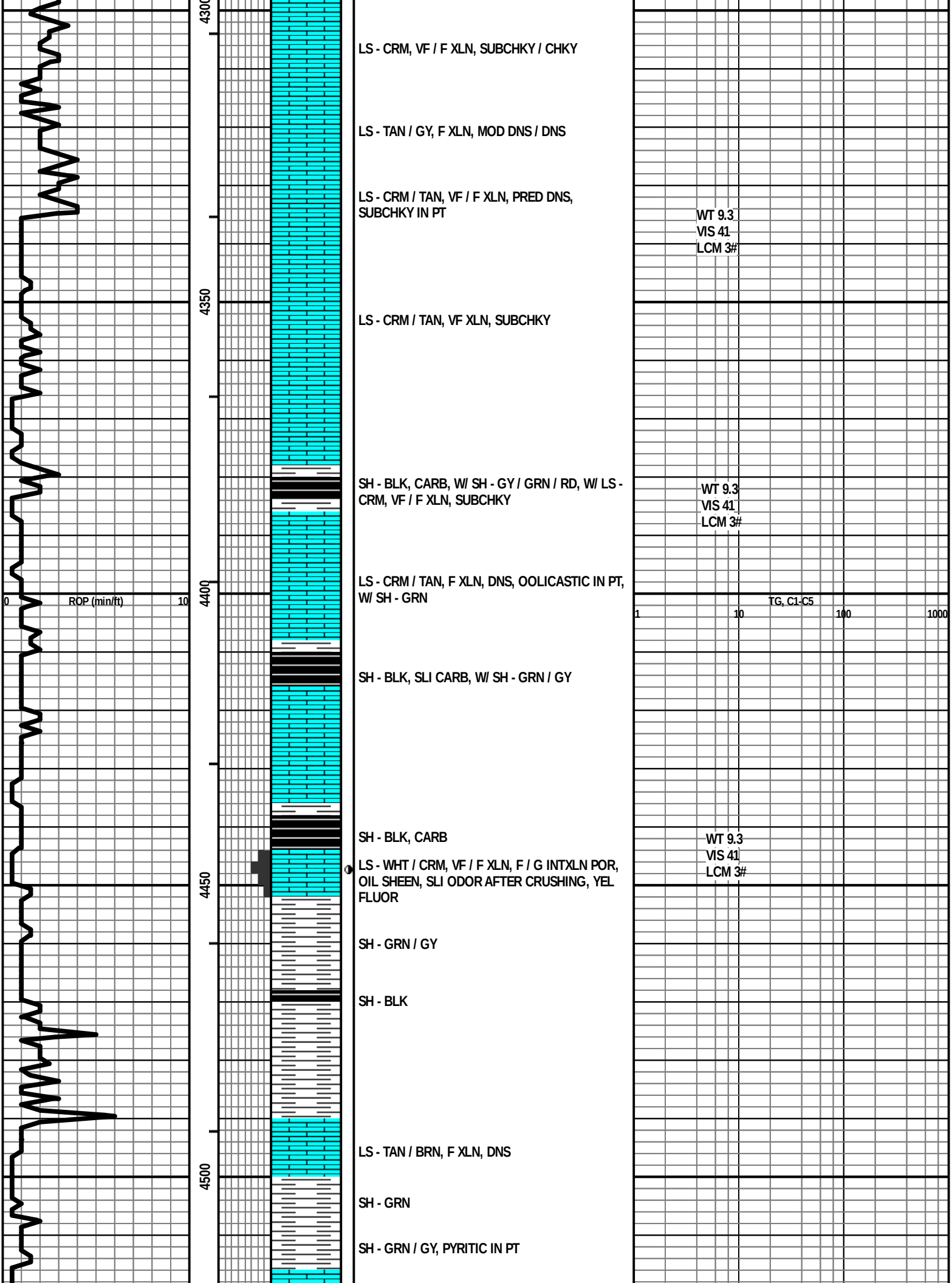
LS - CRM / TAN, GY IN PT, VF / F XLN, SUBCHKY / CHKY

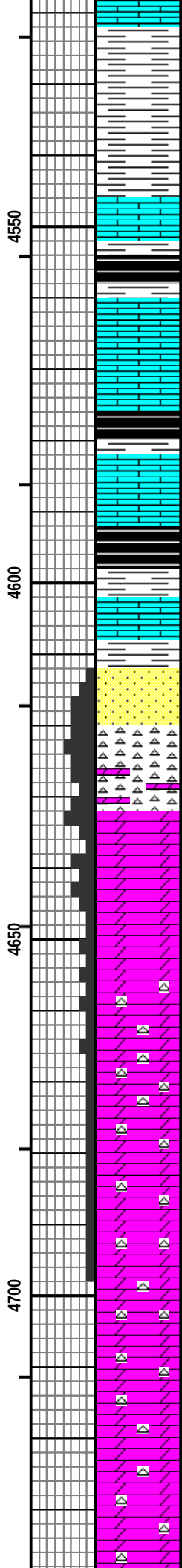
LS - CRM / GY, F XLN, DNS

LS - CRM / GY, F XLN, DNS



WT 9.3
VIS 41





LS - CRM, VF / F XLN, PRED DNS, SUBCHKY IN PT

SH - BLK, CARB, W/ SH - GRN

LS - TAN / LT BRN, F XLN, DNS

SH - BLK, CARB, W/ SH - GRN

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

LS - CRM / TAN, VF / F XLN, SUBCHKY, FOSS, W/ SH - GY

SS - CLR, F GR, W SRTD, FRI, G INTGR POR, GSFO, G ODOR, SLI FLUOR, CHT - WHT, OPAQ / TRANSLCNT, P / F TRIPPOR, FSFO, SLI FLUOR, SLI ODOR

CHT - WHT, OPAQ / TRANSLCNT IN PT, P / F TRIP POR, DNS IN PT, GSFO, GAS BUBBLES, YEL-GRN FLUOR, F ODOR

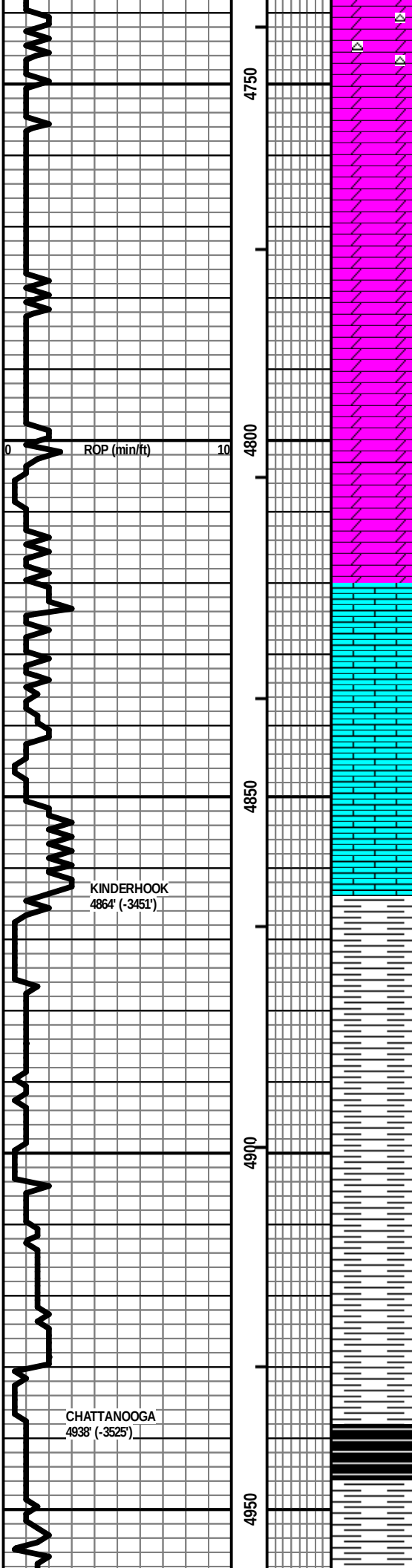
DOLOMITE - WHT - GY, P / F INTXLN POR, SPOT STN, SLI ODOR, SLI YEL FLUOR

DOLO - GY / BRN, VF / F XLN, P / F INTXLN POR, FSFO, G ODOR, YEL-GRN FLUOR W / CHT - WHT / GY, OPAQ, TRANSLCNT IN PT, PRED FRSH, NS, NO ODOR

DOLO - WHT / GY / BRN, VF / F XLN, DNS, NS, V SLI FLUOR, W / CHT - WHT / GY, PRED OPAQ, TRANSLCNT IN PT, PRED FRSH, NS, NO ODOR

DOLO - CRM / GY, VF / F XLN, DNS, NS, W/ CHT - GY / BRN, TRANSLCNT, NS, DNS

SW 111K WOB 5-14K RPM 100+ PSI 1100 SPM 60			
SW 112K WOB 8-14K RPM 100+ PSI 1100 SPM 60			
SW 113K			
WT 9.2 VIS 43		WT 9.3 VIS 52 LCM 5#	



DOLO - GY, VF XLN, PRED DNS, GRITTY IN PT

DOLO - GY, VF XLN, V DNS

DOLO - LT GY / DK GY, VF XLN, MOD DNS /
SUBCHKY

LS - CRM, VF XLN, SUBCHKY / CHKY

SH - GRN / GY

SH - LT GY / DK GY

SH - GY, PYRITIC IN PT

SH - BLK, CARB

SH - DK GY

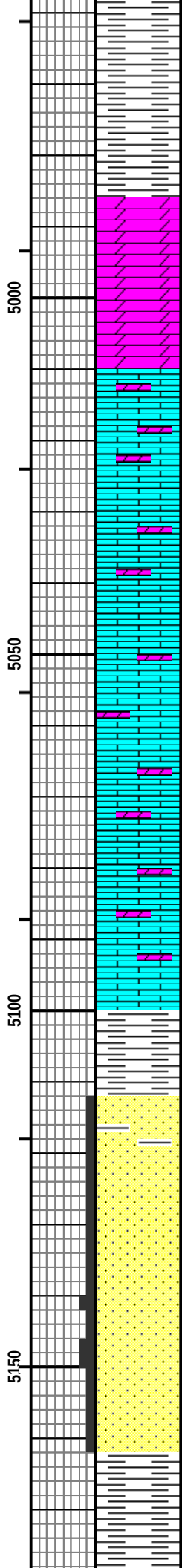
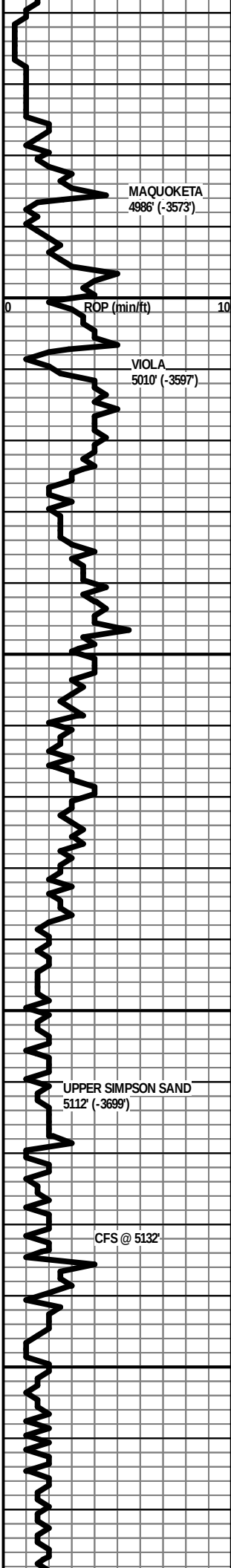
1 10 100 1000
TG, C1-C5

WT 9.3
VIS 56
LCM 5#

WT 9.3
VIS 53
LCM 6#

SW 117K
WOB 6-10K
RPM 100+
PSI 1100
SPM 60

WT 9.3
VIS 53
LCM 6#



SH - RD / BRN, W/ SH - BLK, CARB

DOLO - GY, VF XLN, MOD DNS / SUBCHKY

LS - CRM / GY, VF XLN, CHKY / SUBCHKY, W/
DOLO - GY, VF XLN, MOD DNS / SUBCHKY

LS - BRN / GY, F XLN, DNS, W/ DOLO - GRN / GY,
VF XLN, MOD DNS / DNS

LS - CRM / TAN / LT BRN, VF XLN, CHKY, BLK
SPECS, W/ DOLO - GRN / GY, VF XLN, MOD DNS /
DNS

SH - BLU-GRN, WAXY, PYRITIC IN PT, LMY IN PT

SS - CLR, SHLY, FN GR, SUB RND, P SRTD, W
CEM, P INTGR POR IN PT, NS, NO ODOR, W/ SH -
GRN

SS - CLR / WHT, FN GR, SUB RND, P SRTD, PRED
FRI, DNS IN PT, NS

SH - GY / GRN, DNS, WAXY IN PT

SW 118K

WT 9.3

VS 54

LCM 6#

TG, C1-C5

MUD ALL GASSED UP - TERRIBLE
SAMPLES, STARTED IN ALUMINUM
STERATE AND DIESEL INTO MUD TO
KNOCK AIR OUT

WT 9.3

VS 51

LCM 6#

WT 9.4

VS 56

LCM 5#

WT 9.4

VS 54

LCM 5#

WT 9.5

