

# Timothy G. Pierce

## Petroleum Geologist

### GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY R & B Oil and Gas, Inc.

ELEVATIONS

LEASE Bock 'C' #1

KB 1696'

FIELD Wildcat

DF \_\_\_\_\_

LOCATION SE SE NE

SEC 34 TWSP 26S RGE 9W

COUNTY Reno STATE Kansas

Measurements Are All  
From Kelly Bushing

CONTRACTOR Hardt Drilling Rig #1

CASING

SPUD 8-17-2012 COMP 8-25-2012

CONDUCTOR \_\_\_\_\_  
SURFACE 8-5/8" at 256'  
PRODUCTION 4-1/2" at ~2400'

RTD 4297 LTD 4296

MUD UP 2843 TYPE MUD Chemical

SAMPLES SAVED FROM 2200 TO RTD

DRILLING TIME KEPT FROM 2200 TO RTD

SAMPLES EXAMINED FROM 2250 TO RTD

GEOLOGICAL SUPERVISION FROM 2000 TO RTD

GEOLOGIST ON WELL Tim Pierce

FORMATION TOPS

ELECTRIC LOG

SAMPLE

Onaga Sh. 2240 (-544) 2244 (-548)

Wabunsee 2286 (-590) 2289 (-593)

Heebner Sh. 3201 (-1505) 3202 (-1506)

Lansing 3393 (-1697) 3396 (-1700)

Stark Sh. 3678 (-1982) 3680 (-1984)

Cherokee Sh. 3897 (-2201) 3898 (-2202)

Mississippi 3925 (-2229) 3924 (-2228)

Viola 4180 (-2484) 4181 (-2485)

Simpson 4260 (-2564) 4262 (-2566)

#### ELECTRICAL SURVEYS

DIL / CN-CD

Pioneer Energy Svcs

34	○	▲	○

API # 15-155-21,596

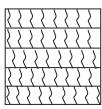
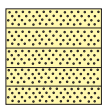
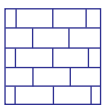
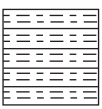

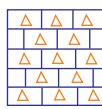

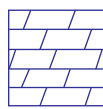
**REMARKS** The Bock 'C' #1 ran structurally high to the Bock #1 in the SE/4 however the Mississippi chert section was considerably thinner than in the #1 well which produces from the upper chert. The upper chert in the 'C' #1 was only 4' thick and considered most likely non-commercial. The decision was made to run casing on the Indian Cave section with the belief there is a chance to separate the gas from the water recovered on DST.

Sample shows in the Pleasanton and Viola were Drill Stem Tested with negative results. A slight sample show was observed in the Kansas City 'B' zone which was deemed not worthy of testing.

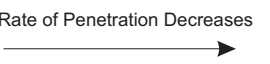
Gas kicks were recorded in the Severy sand at 2463' and the Krider at 1550', both these zones have tested gas in the area but have been non-commercial to date. No other sample shows were observed and no other zones of interest were indicated.

Timothy G. Pierce

### LEGEND

							
Anhydrite	Sandstone	Limestone	Shale	Carb Sh	Cherty LS	Chert	Dolomite

DRILLING TIME IN MINUTES PER FOOT  
Rate of Penetration Decreases



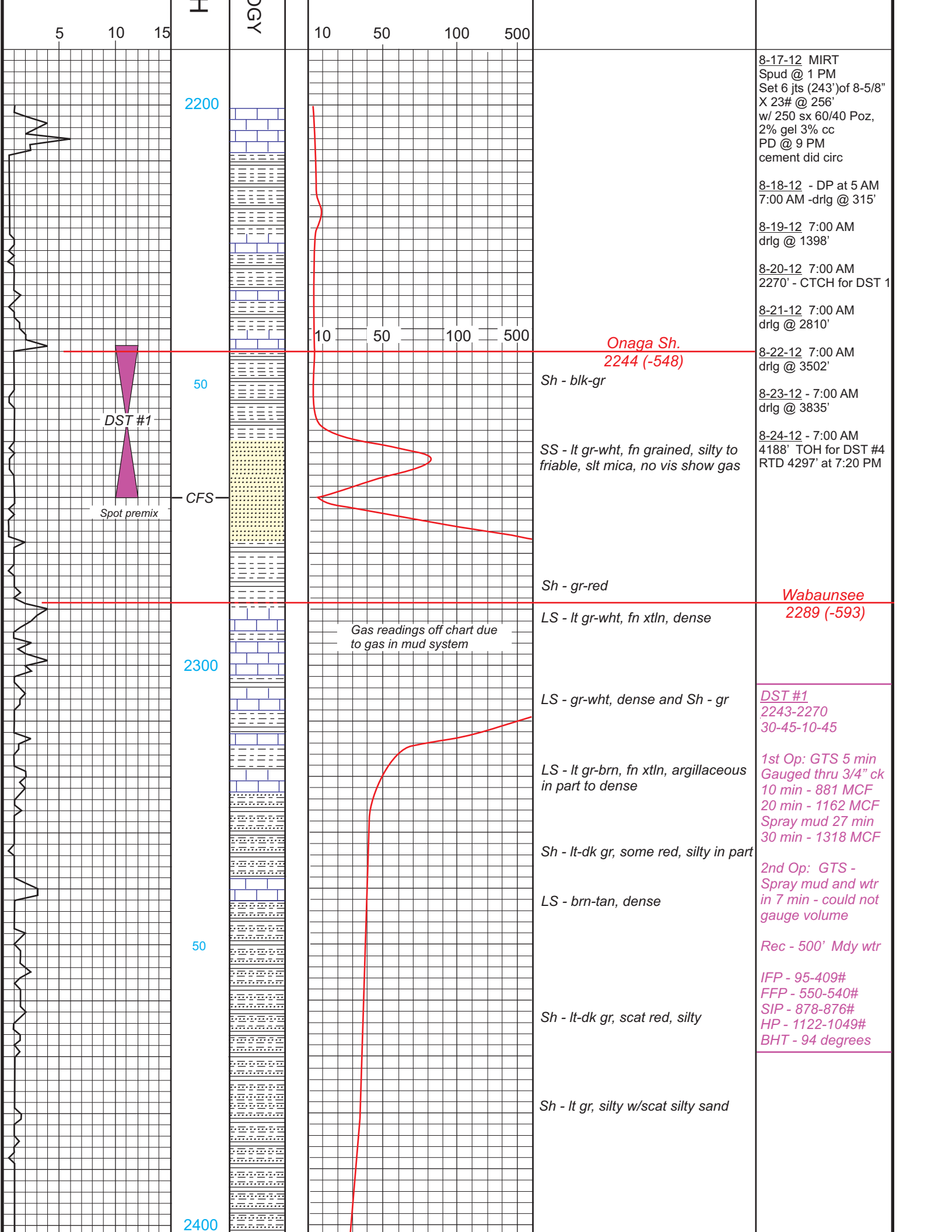
DEPTH

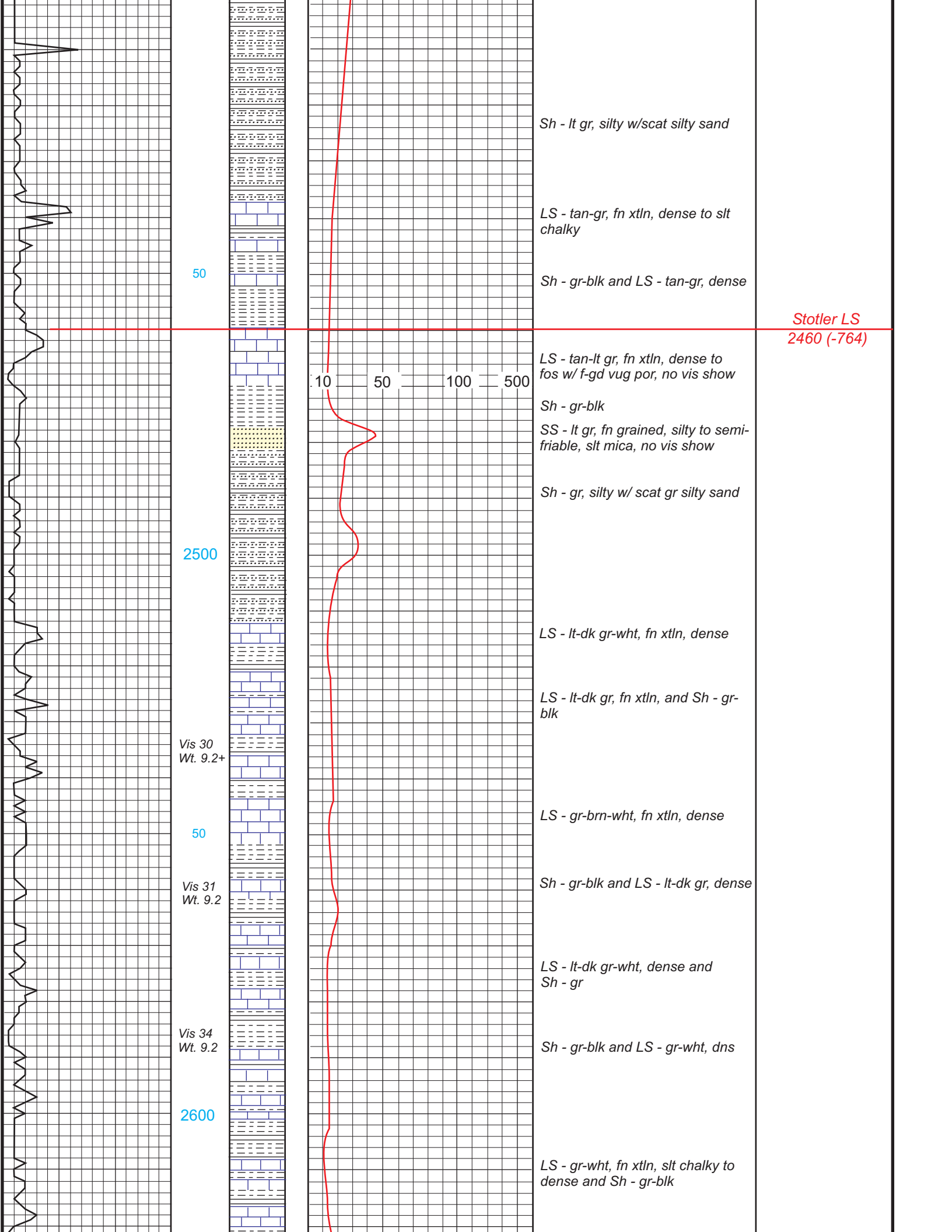
LITHOLOG

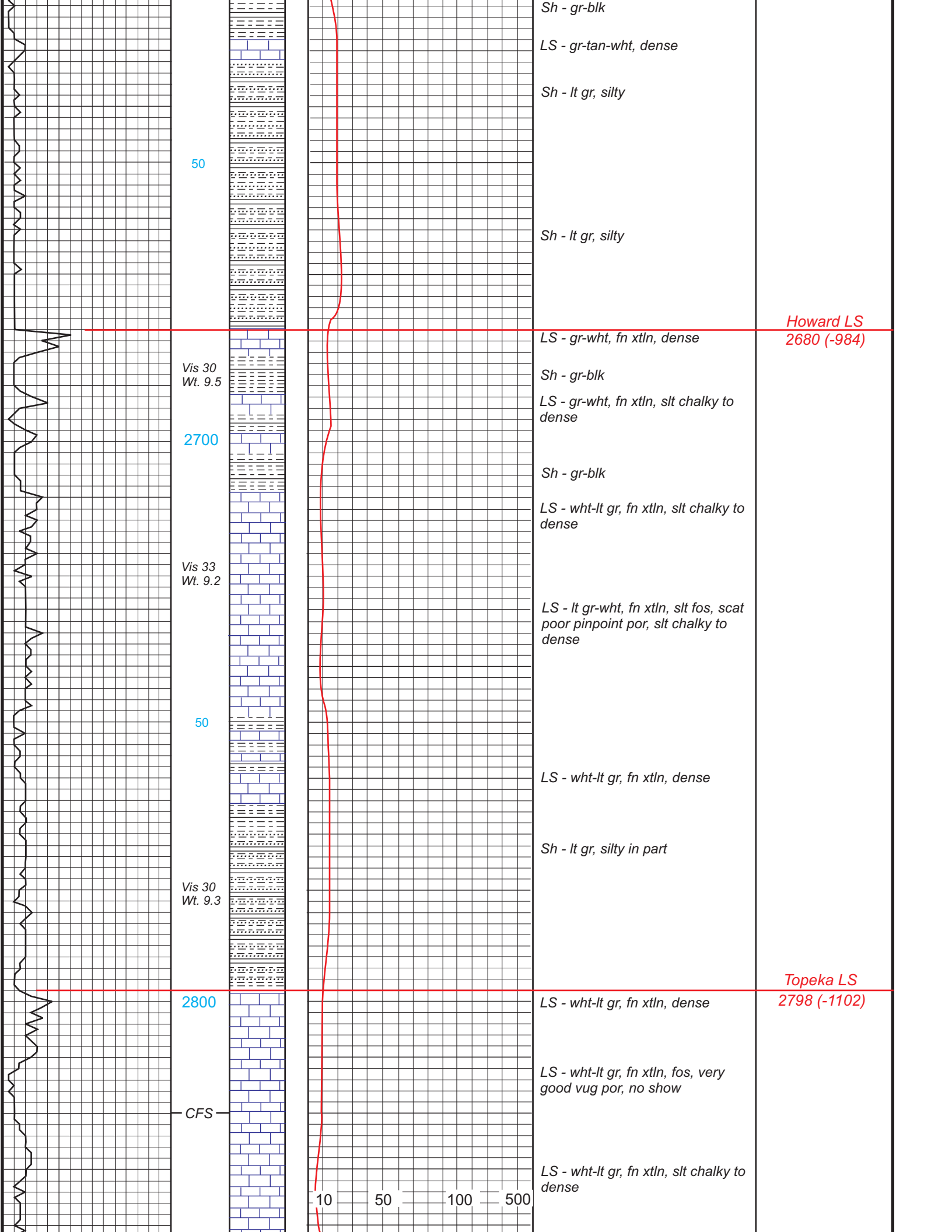
GAS SCALE

SAMPLE DESCRIPTION

REMARKS







50

Sh - gr-blk  
 LS - gr-tan-wht, dense  
 Sh - lt gr, silty

Sh - lt gr, silty

Howard LS  
 2680 (-984)

Vis 30  
 Wt. 9.5

2700

LS - gr-wht, fn xtl, dense  
 Sh - gr-blk  
 LS - gr-wht, fn xtl, slt chalky to dense

Sh - gr-blk

LS - wht-lt gr, fn xtl, slt chalky to dense

Vis 33  
 Wt. 9.2

LS - lt gr-wht, fn xtl, slt fos, scat poor pinpoint por, slt chalky to dense

50

LS - wht-lt gr, fn xtl, dense

Sh - lt gr, silty in part

Vis 30  
 Wt. 9.3

2800

LS - wht-lt gr, fn xtl, dense

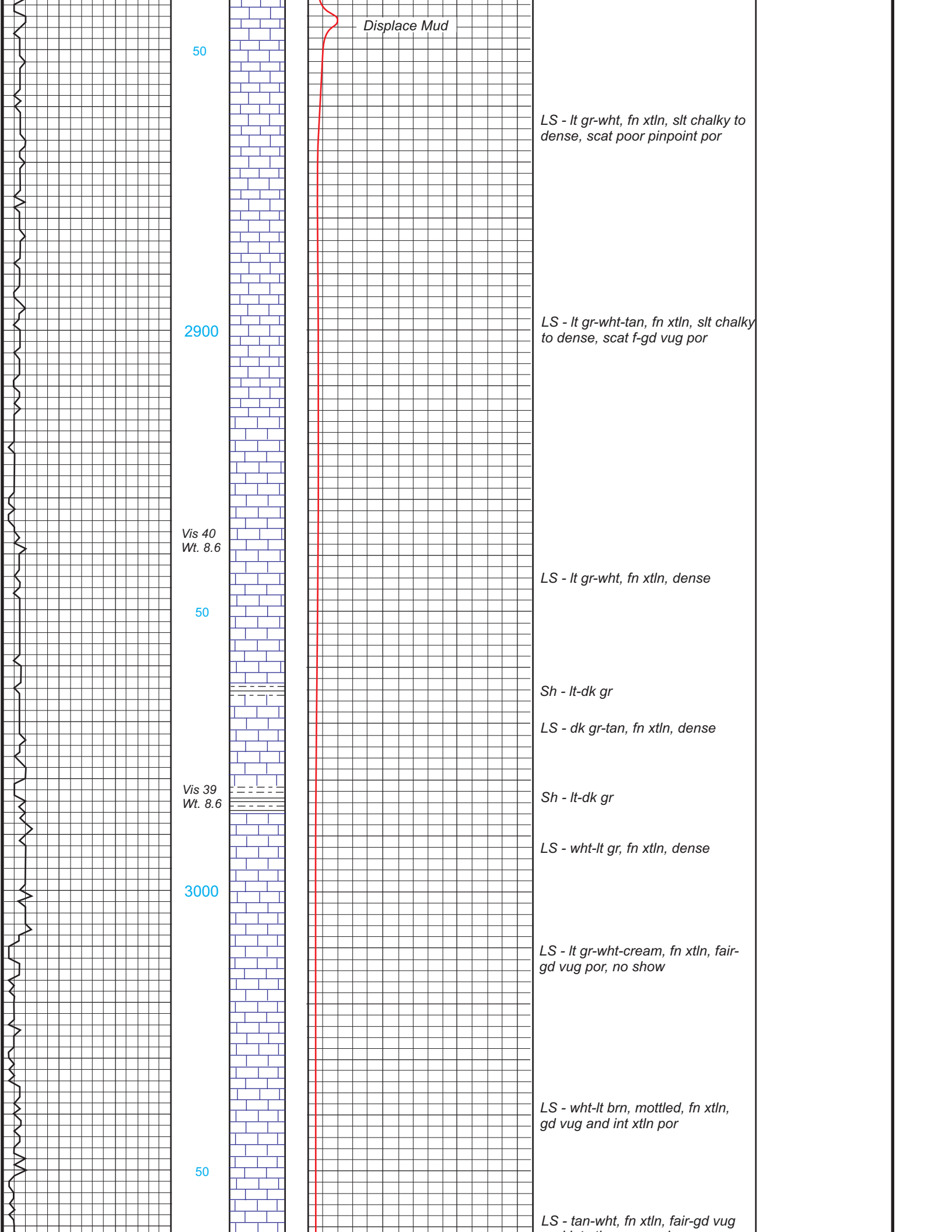
Topeka LS  
 2798 (-1102)

LS - wht-lt gr, fn xtl, fos, very good vug por, no show

CFS

LS - wht-lt gr, fn xtl, slt chalky to dense

10 50 100 500



Displace Mud

50

LS - lt gr-wht, fn xtln, slt chalky to dense, scat poor pinpoint por

2900

LS - lt gr-wht-tan, fn xtln, slt chalky to dense, scat f-gd vug por

Vis 40  
Wt. 8.6

LS - lt gr-wht, fn xtln, dense

50

Sh - lt-dk gr

LS - dk gr-tan, fn xtln, dense

Vis 39  
Wt. 8.6

Sh - lt-dk gr

LS - wht-lt gr, fn xtln, dense

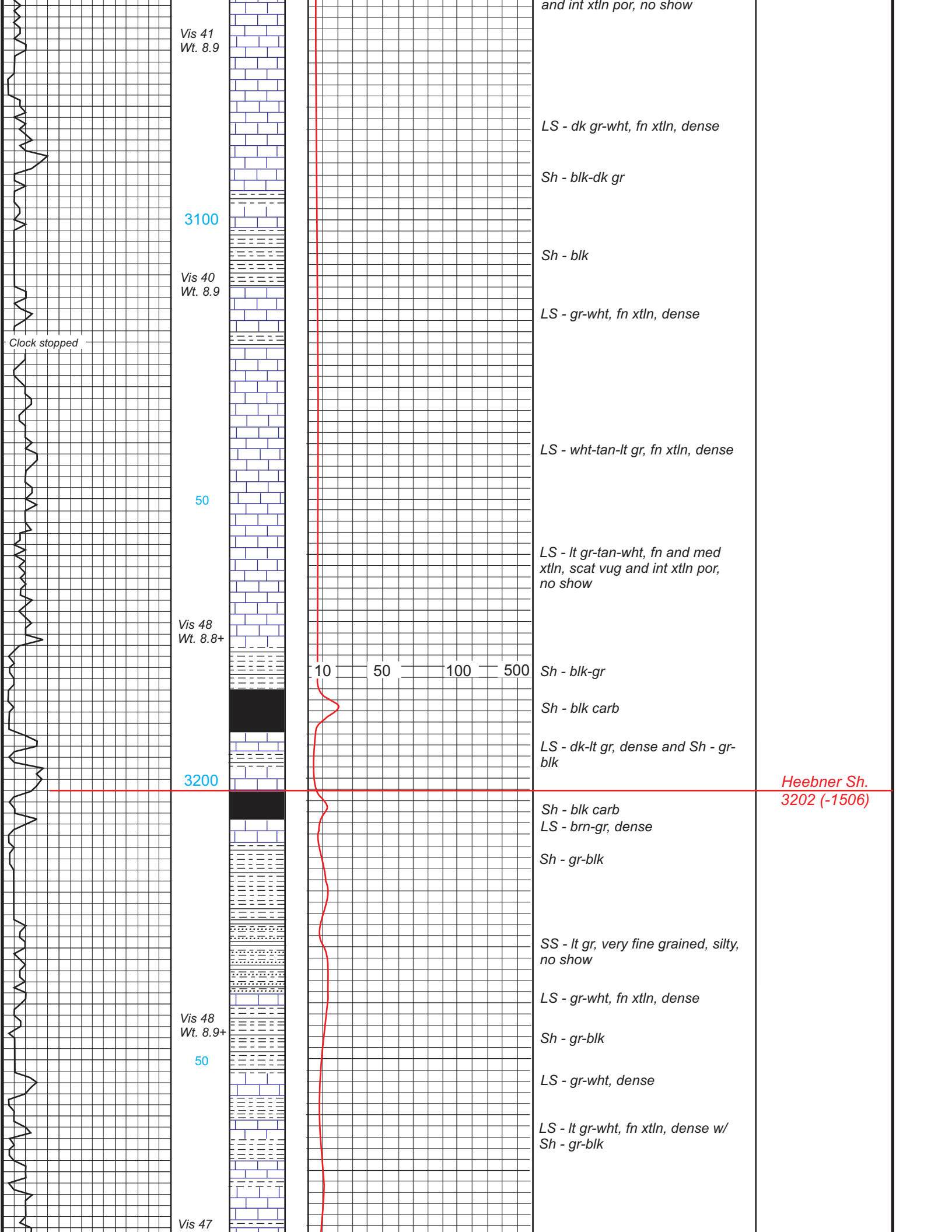
3000

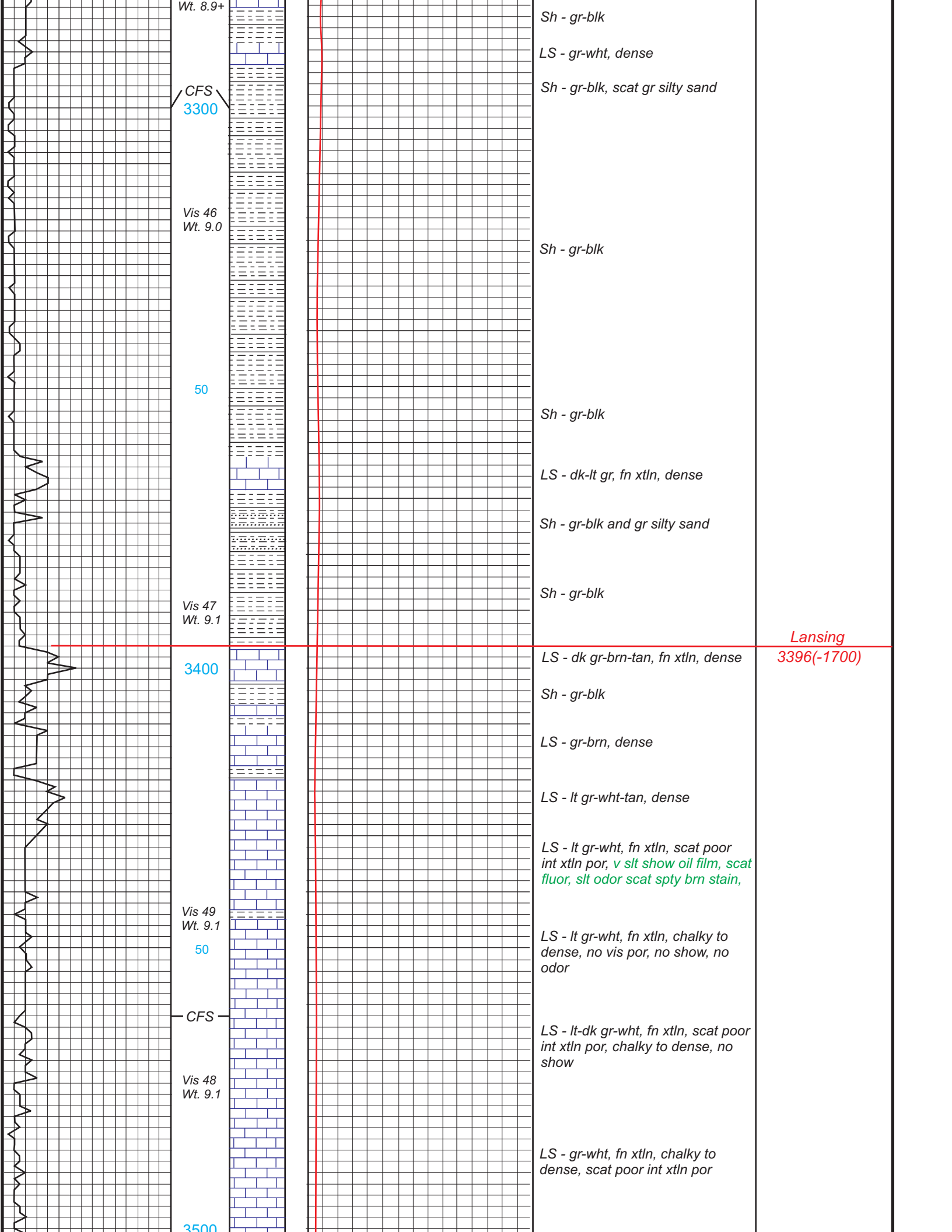
LS - lt gr-wht-cream, fn xtln, fair-gd vug por, no show

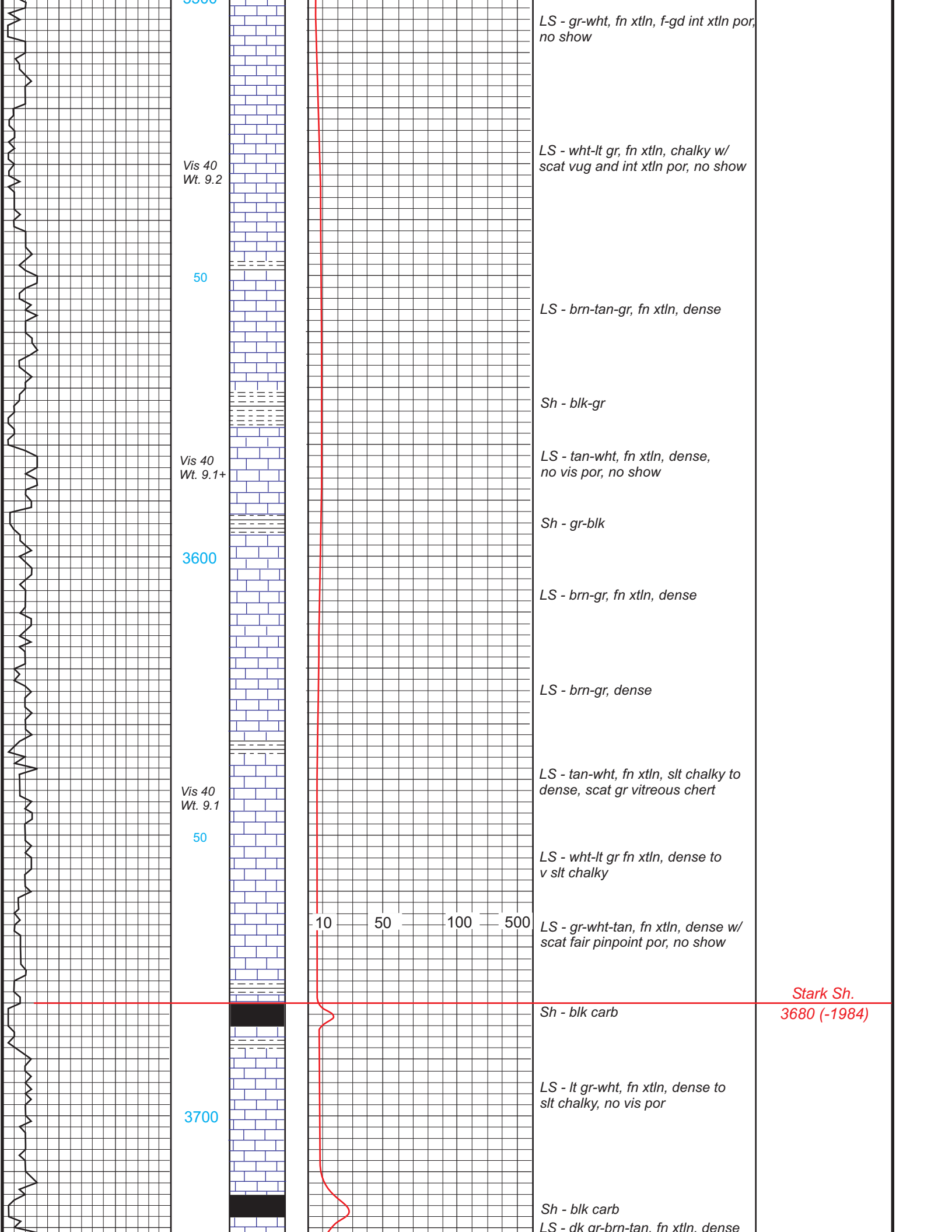
50

LS - wht-lt brn, mottled, fn xtln, gd vug and int xtln por

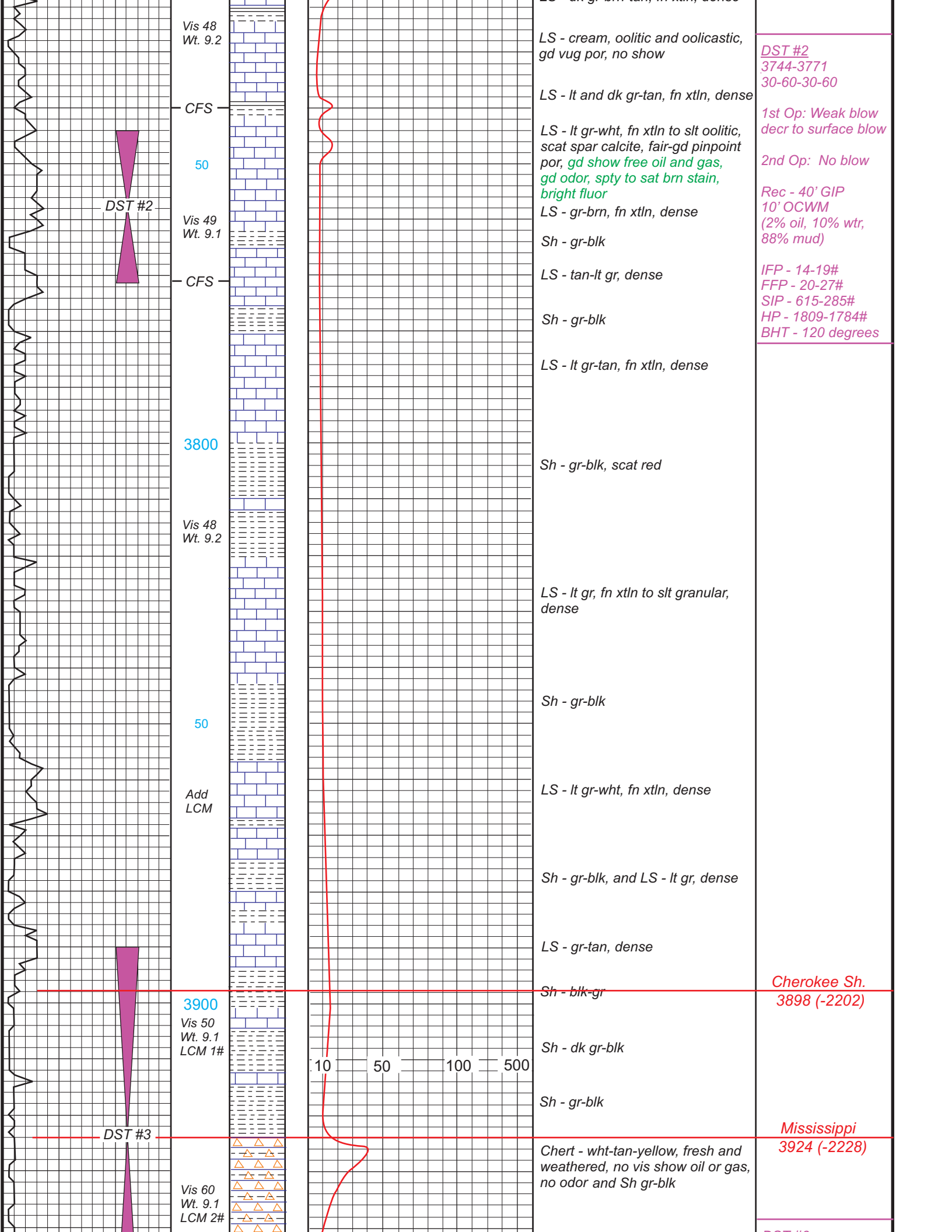
LS - tan-wht, fn xtln, fair-gd vug











DST #2

DST #3

DST #2  
3744-3771  
30-60-30-60

1st Op: Weak blow  
decr to surface blow

2nd Op: No blow

Rec - 40' GIP  
10' OCWM  
(2% oil, 10% wtr,  
88% mud)

IFP - 14-19#  
FFP - 20-27#  
SIP - 615-285#  
HP - 1809-1784#  
BHT - 120 degrees

Cherokee Sh.  
3898 (-2202)

Mississippi  
3924 (-2228)

Vis 48  
Wt. 9.2

CFS

50

Vis 49  
Wt. 9.1

CFS

3800

Vis 48  
Wt. 9.2

50

Add  
LCM

3900  
Vis 50  
Wt. 9.1  
LCM 1#

Vis 60  
Wt. 9.1  
LCM 2#

LS - cream, oolitic and oolitic,  
gd vug por, no show

LS - lt and dk gr-tan, fn xtln, dense

LS - lt gr-wht, fn xtln to slt oolitic,  
scat spar calcite, fair-gd pinpoint  
por, gd show free oil and gas,  
gd odor, spty to sat brn stain,  
bright fluor

LS - gr-brn, fn xtln, dense

Sh - gr-blk

LS - tan-lt gr, dense

Sh - gr-blk

LS - lt gr-tan, fn xtln, dense

Sh - gr-blk, scat red

LS - lt gr, fn xtln to slt granular,  
dense

Sh - gr-blk

LS - lt gr-wht, fn xtln, dense

Sh - gr-blk, and LS - lt gr, dense

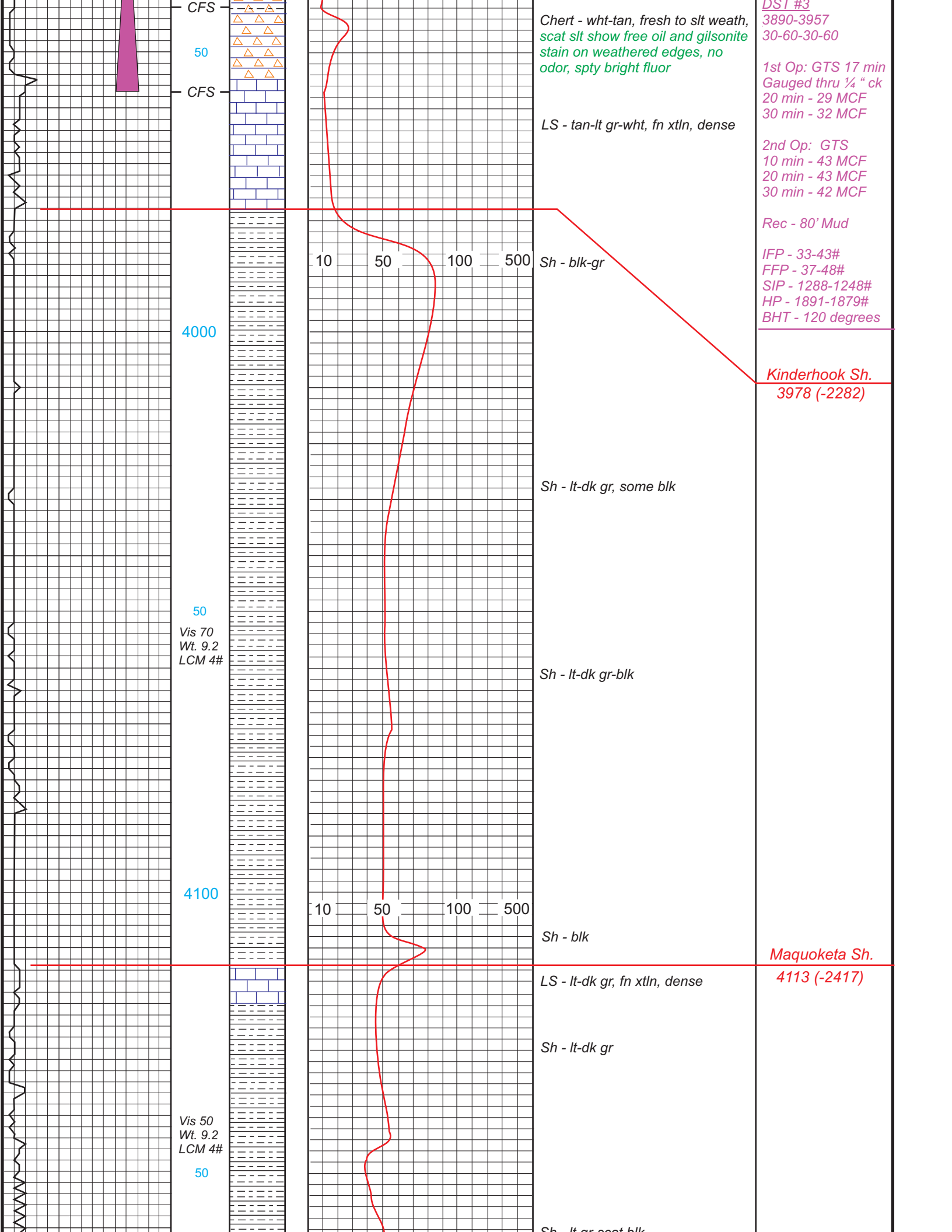
LS - gr-tan, dense

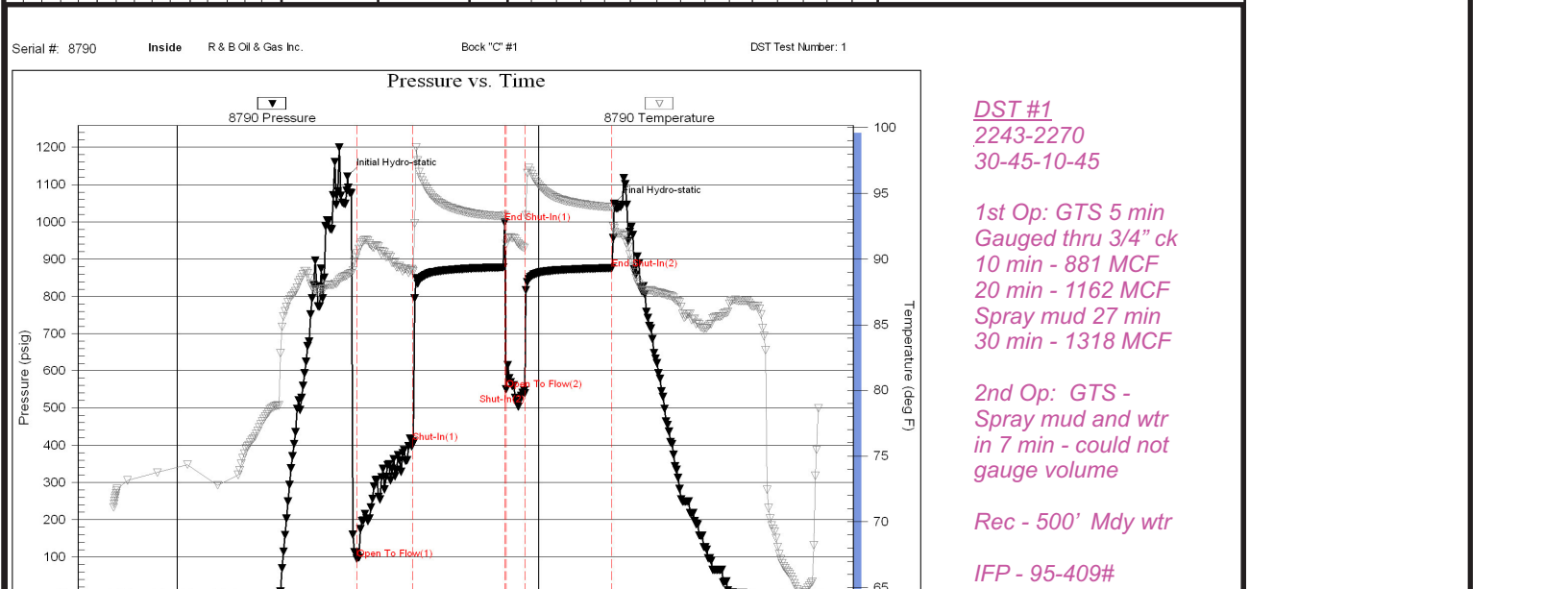
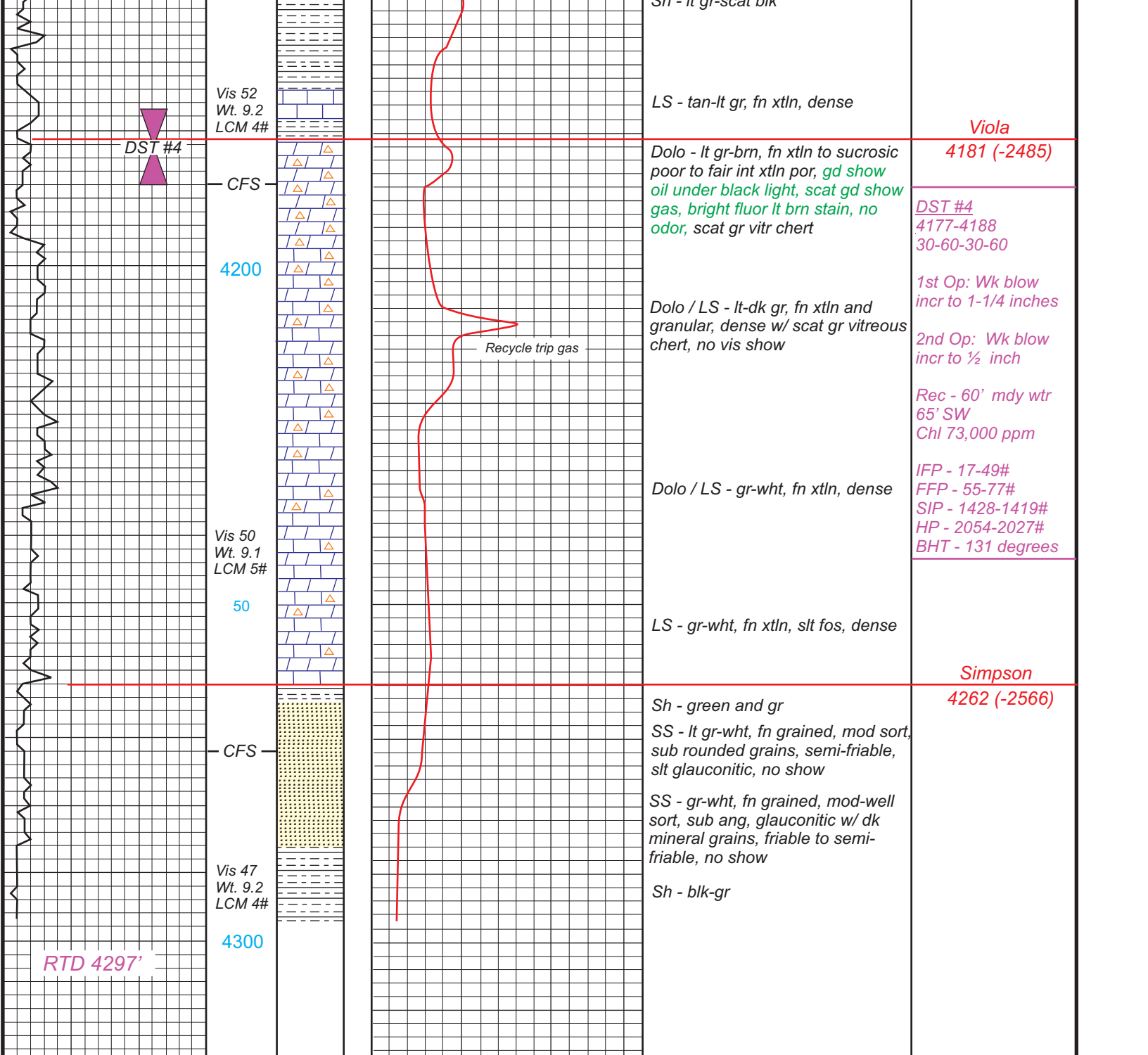
Sh - blk-gr

Sh - dk gr-blk

Sh - gr-blk

Chert - wht-tan-yellow, fresh and  
weathered, no vis show oil or gas,  
no odor and Sh gr-blk

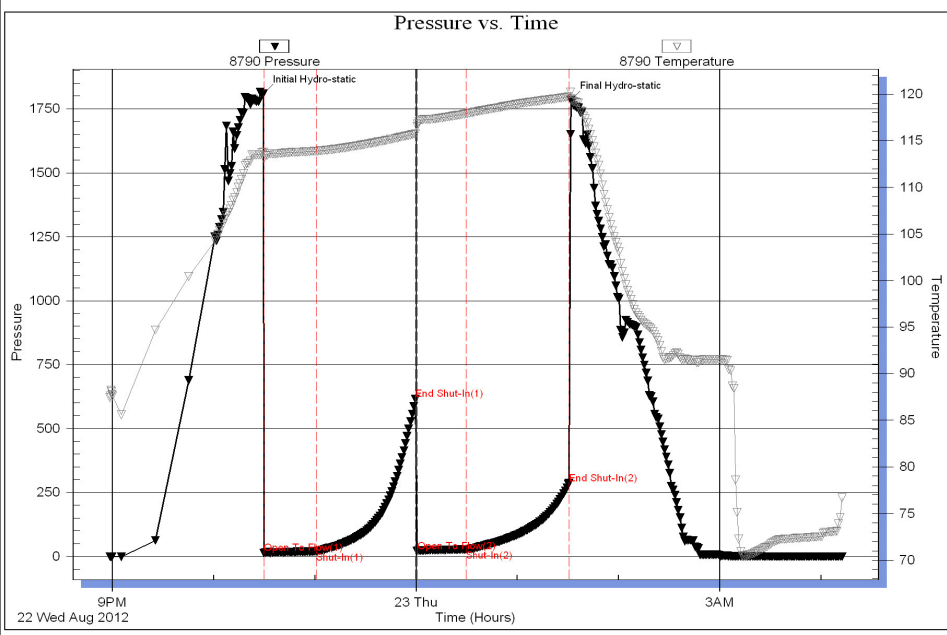






FFP - 550-540#  
 SIP - 878-876#  
 HP - 1122-1049#  
 BHT - 94 degrees

Serial #: 8790 Inside R & B Oil & Gas Inc. Bock "C" #1 DST Test Number: 2



**DST #2**  
 3744-3771  
 30-60-30-60

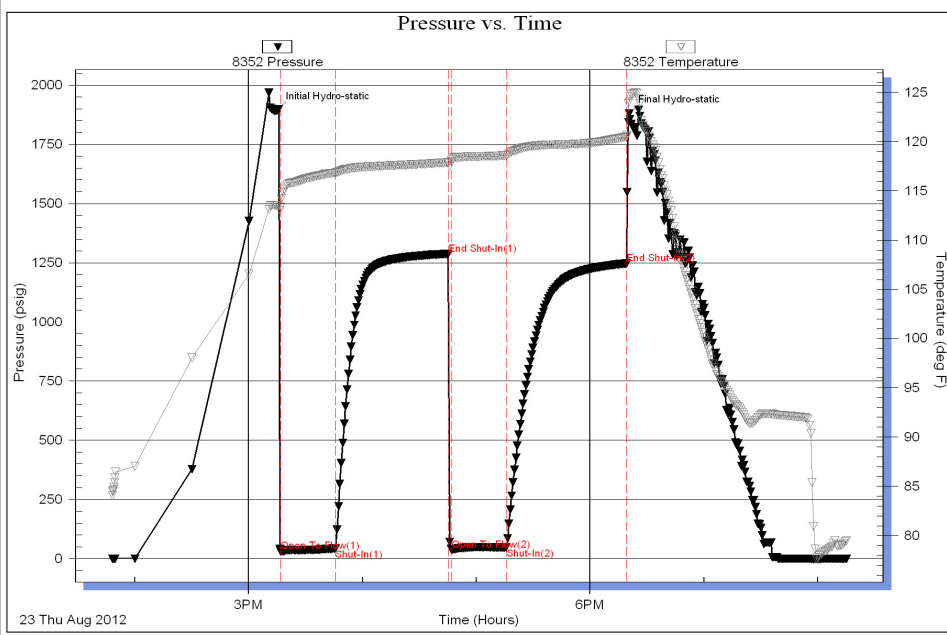
1st Op: Weak blow  
 decr to surface blow

2nd Op: No blow

Rec - 40' GIP  
 10' OCWM  
 (2% oil, 10% wtr,  
 88% mud)

IFP - 14-19#  
 FFP - 20-27#  
 SIP - 615-285#  
 HP - 1809-1784#  
 BHT - 120 degrees

Serial #: 8352 Inside R & B Oil & Gas Inc. Bock "C" #1 DST Test Number: 3



**DST #3**  
 3890-3957  
 30-60-30-60

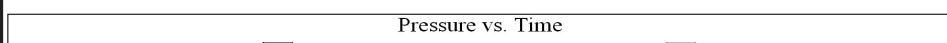
1st Op: GTS 17 min  
 Gauged thru 1/4" ck  
 20 min - 29 MCF  
 30 min - 32 MCF

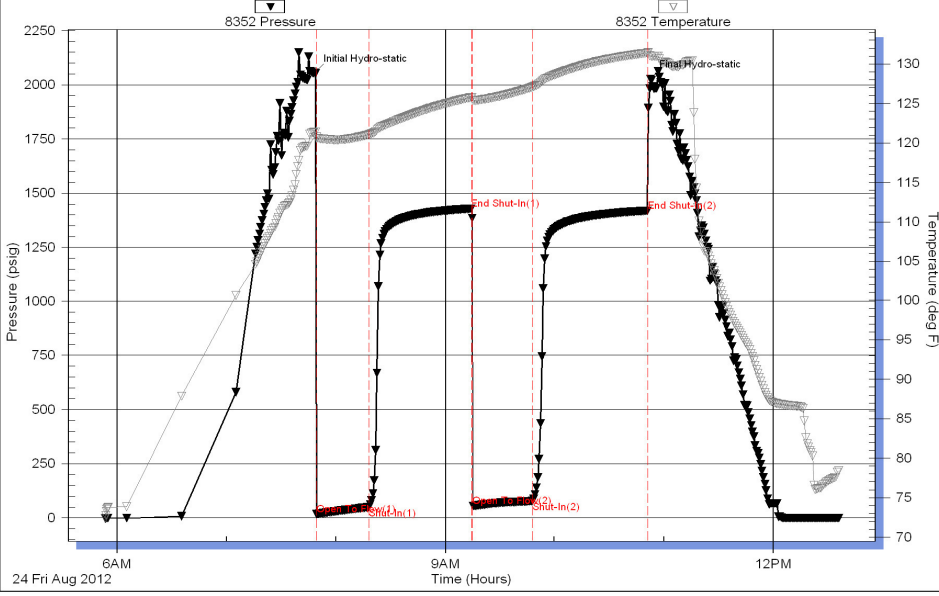
2nd Op: GTS  
 10 min - 43 MCF  
 20 min - 43 MCF  
 30 min - 42 MCF

Rec - 80' Mud

IFP - 33-43#  
 FFP - 37-48#  
 SIP - 1288-1248#  
 HP - 1891-1879#  
 BHT - 120 degrees

Serial #: 8352 Inside R & B Oil & Gas Inc. Bock "C" #1 DST Test Number: 4





*DST #4  
4177-4188  
30-60-30-60*

*1st Op: Wk blow  
incr to 1-1/4 inches*

*2nd Op: Wk blow  
incr to 1/2 inch*

*Rec - 60' mdy wtr  
65' SW  
Chl 73,000 ppm*

*IFP - 17-49#  
FFP - 55-77#  
SIP - 1428-1419#  
HP - 2054-2027#  
BHT - 131 degrees*

