

PLOTTED GEOLOGICAL LOG

WellSight Systems

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

Well Name: SPRAGUE #1

Location: 1310' FSL & 1395' FEL of Sec. 35-T25S-R3E

Licence Number: API # 15-015-24136-00-00

Region: Butler County, Kansas

Spud Date: 10/29/2019

Drilling Completed: 11/1/2019

Surface Coordinates: Lat: 37.82882, Long: -97.06540 (NAD83)

Bottom Hole Vertical Well

Coordinates:

Ground Elevation (ft): 1304'

K.B. Elevation (ft): 1313'

Logged Interval (ft): 1650' To: 2831'

Total Depth (ft): 2831'

Formation: Mississipi

Type of Drilling Fluid: Chemical Mud by Fud-Mud

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

OPERATOR

Company: AGV Corp.

Address: P.O. Box 377
Attica, KS 67009

GEOLOGIST

Name: Kent Roberts

Company: Roberts Resources, Inc.

Address: P.O. Box 75187
Wichita, KS 67275
Cell 316-215-1683

BIT INFORMATION

#1 - 12-1/4 Atlas 6160 Cut 269' in 2-1/2 Hrs

#2 - 7-7/8 Security S165 PDC, Out at 580, Cut 311' in 7-3/4 hrs.
Pulled Early, Would not drill

#3 - 7-7/8 Atlas 516 PDC, RR Out at 2831, Cut 2251'

INFORMATION

DRILLING CONTRACTOR: C&G Drilling Co., Rig #2

MUD TYPE: Chemical by Fud-Mud

DRILLING TIME KEPT FROM: 400' to RTD

SAMPLES SAVED FROM: 2200' to RTD

SAMPLES EXAMINED FROM: 2200' to RTD

GEOLOGICAL SUPERVISION FROM: 2200' to RTD

ELECTRICAL SURVEYS: CDL/CNL, DIL, MEL, Sonic by ELI

DAILY ACTIVITY @ 0700 HRS

10/28/2019

C&G Dozer leveling location and digging working pits and reserve pit. MIRT & start Rig Up. Filed Intent to Drill w/ KCC. Wait on approval

10/29/2019

Spud well @ 1:30 PM, drill 12-1/4" hole to 269'. Ran 6 jts New 8-5/8" tally 254' set @ 265' KB. Cemented with 135 sacks cement (2% gel 3% CC) Plug Down 8:50 PM. Cement did circulate. WOC.

10/30/2019

Depth 328', Drilling. Drill out under surface @ 5:00 AM. Depth 580', Bit trip. 3:45 PM, Dev. 1/4 degree. Security S165 PDC not drilling at good rate. Ran 7-7/8" Atlas 516 PDC, Back Drilling @ 4:30 PM

10/31/2019

Depth 1780', Drilling

11/1/2019

Depth 2734'. On bottom w/ DST #1, Opened tool at 7:00 AM. Deviation 3/4 degree

11/2/19

Depth 2831' RTD. Plug and Abandon

CASING DATA

CONDUCTOR CASING: None

SURFACE CASING: 8-5/8" set @ 265' w/ 135 sacks

PRODUCTION : None

COMMENTS

The Mississippi Chert section was encountered at a datum that has been oil productive on this lease. Although the chert was at a favorable datum, drill stem test results indicate the zone to be water bearing at this location.

Based on sample analysis, DST results and E-Log measurements it was recommended the Sprague #1 be plugged and abandoned as a dry hole.

Samples were deposited with Kansas Geological Survey per request.

Respectfully,

Kent Roberts

WELL NAME: Sprague 1

ELEV. G.L.= 1304

K.B.= 1313

FORMATION TOPS	Sample		E- Log	
HEEBNER SHALE	1680	-367	1680	-367
LANSING	1948	-635	1948	-635
BASE LANSING	2097	-784	2100	-787
KANSAS CITY	2252	-939	2251	-938
BASE KANSAS CITY	2411	-1098	2412	-1099
MISSISSIPPI	2725	-1412	2724	-1411
MISS. OSAGE	2765	-1452	2757	-1444
HUNTON	NOT PENETRATED			
VIOLA	NOT PENETRATED			
SIMPSON SAND	NOT PENETRATED			
ARBUCKLE	NOT PENETRATED			
TOTAL DEPTH	2831	-1518	2832	-1519



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

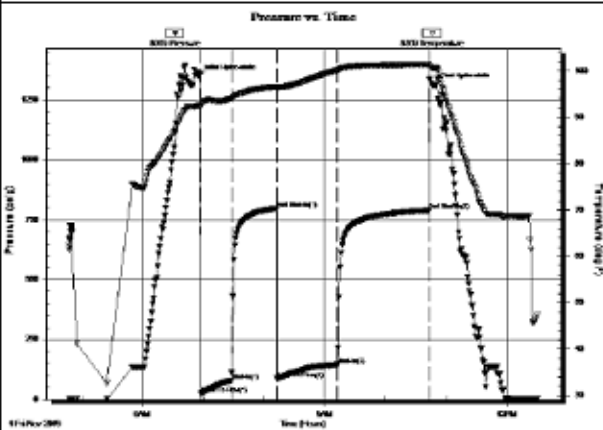
AGV Corporation
PO Box 377
Attica, KS 67009-0377
ATTN: Kent Roberts

35-25S-3E Butler,KS
Sprague #1
Job Ticket: 65412 DST#: 1
Test Start: 2019.11.01 @ 04:48:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: 06:57:50
Time Test Ended: 12:30:39
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Jimmy Ricketts**
Unit No: **80**
Interval: **2694.00 ft (KB) To 2734.00 ft (KB) (TVD)**
Reference Elevations: **1313.00 ft (KB)**
Total Depth: **2734.00 ft (KB) (TVD)** **1304.00 ft (CF)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **9.00 ft**

Serial #: 8369 **Outside**
Press@RunDepth: **145.95 psig @ 2695.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2019.11.01** End Date: **2019.11.01** Last Calib.: **2019.11.01**
Start Time: **04:48:01** End Time: **12:30:40** Time On Btm: **2019.11.01 @ 06:56:00**
Time Off Btm: **2019.11.01 @ 10:48:39**
TIMES: 30-45-60-90
TEST COMMENT: IF - Weak blow building to 7"
FF - Weak blow building to 8"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1345.57	92.53	Initial Hydro-static
2	24.02	92.31	Open To Flow (1)
32	79.37	94.11	Shut-in(1)
77	797.52	96.62	End Shut-in(1)
78	86.92	96.38	Open To Flow (2)
137	145.95	100.16	Shut-in(2)
228	788.82	101.40	End Shut-in(2)
233	1311.06	100.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW w/ Tr O 85%W & 15%M	0.89
120.00	WM w/ Tr O 2%W & 98%M	1.09
Recovery Chlorides = 17,000 ppm		
from Rw 0.452 @ 63.3 Deg F		

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TriLOBITE Testing, Inc

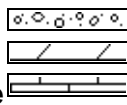
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Printed: 2019.11.01 @ 14:06:51

ROCK TYPES



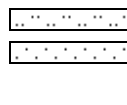
Anhy
Cht
Black shale



Congl
Dolomite
Limestone

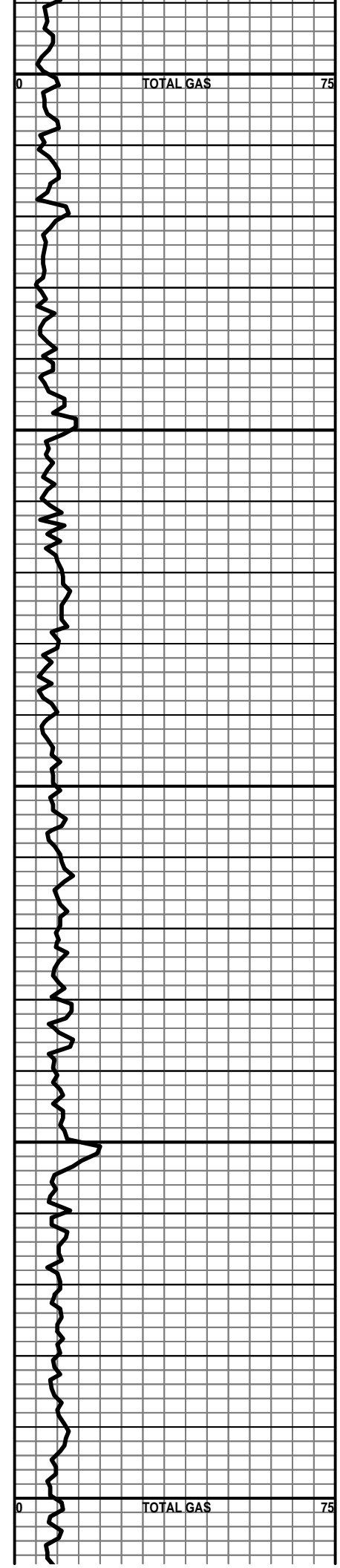
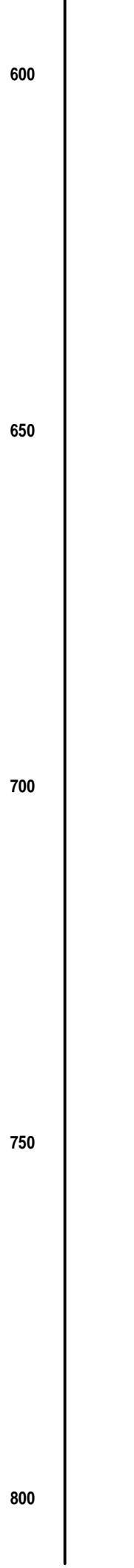
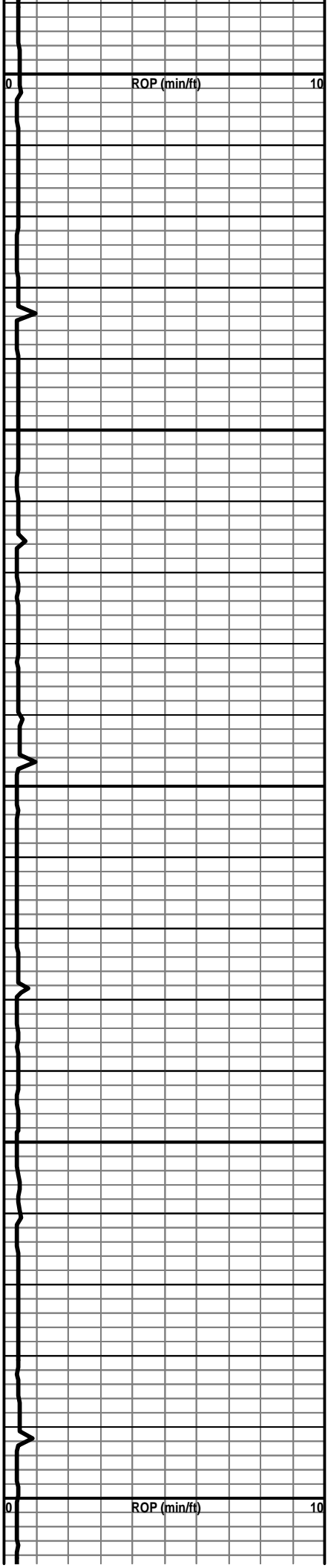


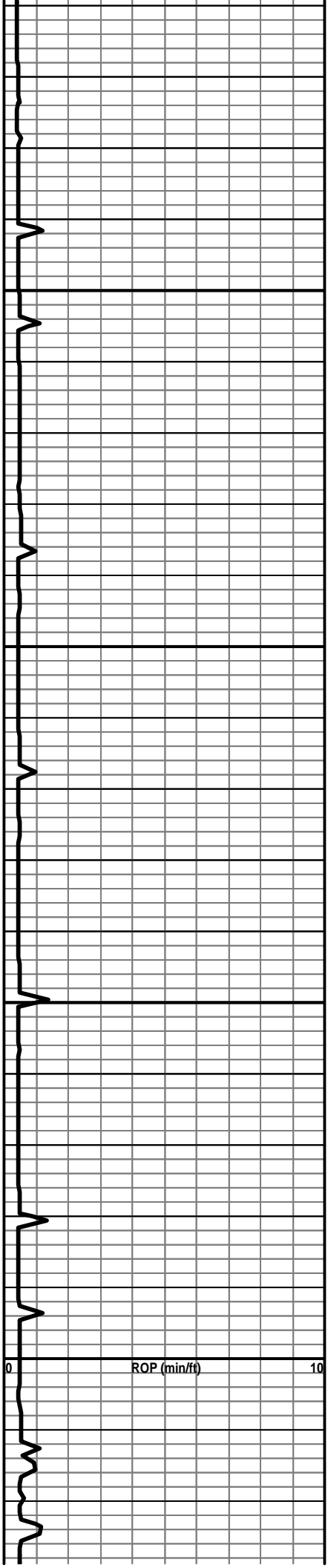
Salt
Shale
Cherty dol.



Siltstone
Sandstone

Curve Track 1 ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks TOTAL GAS (Units)
	<p>400</p> <p>450</p> <p>500</p> <p>550</p>			<p>0</p> <p>75</p> <p>Pason Drill Time from 400' to RTD</p> <p>Pason Gas Detection 475' to RTD</p> <p>Bit Trip @ 580' Deviation 1/4"</p>





850

900

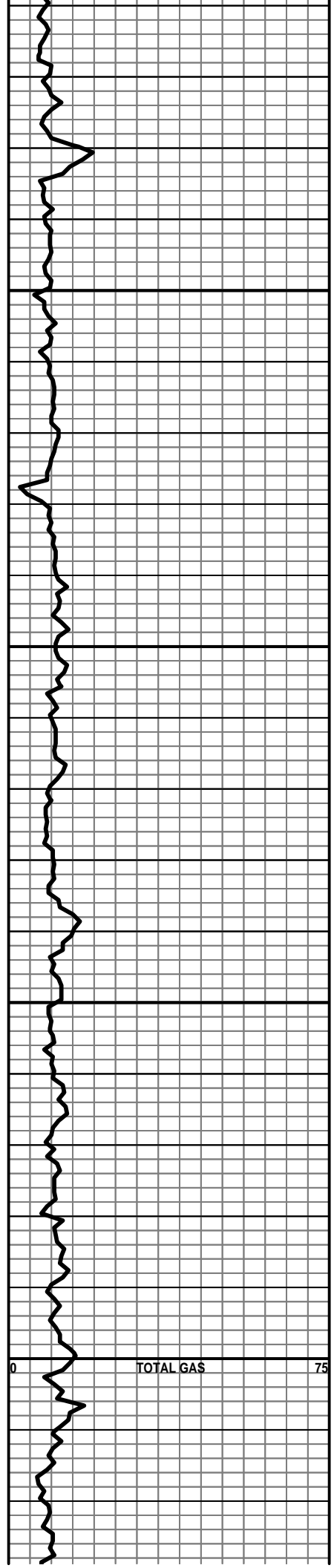
950

1000

ROP (min/ft)

0

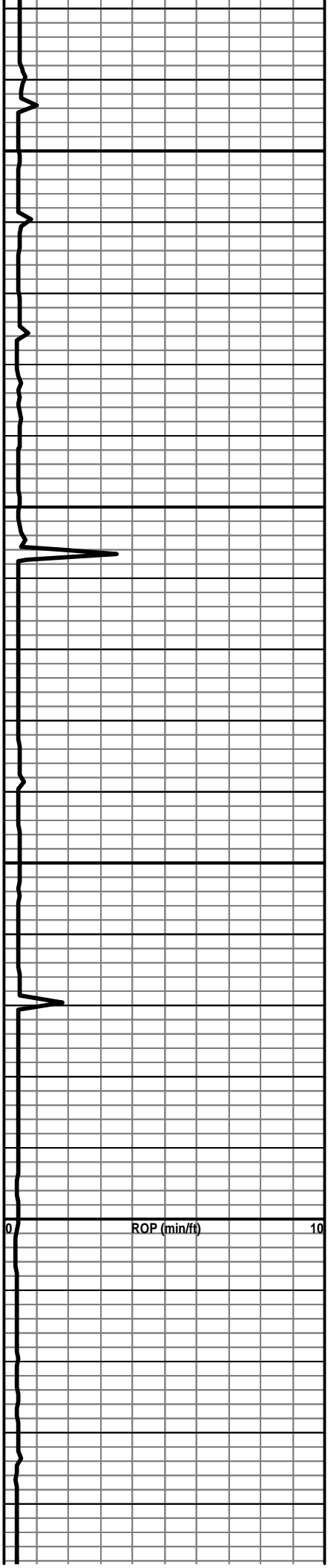
10



TOTAL GAS

0

75

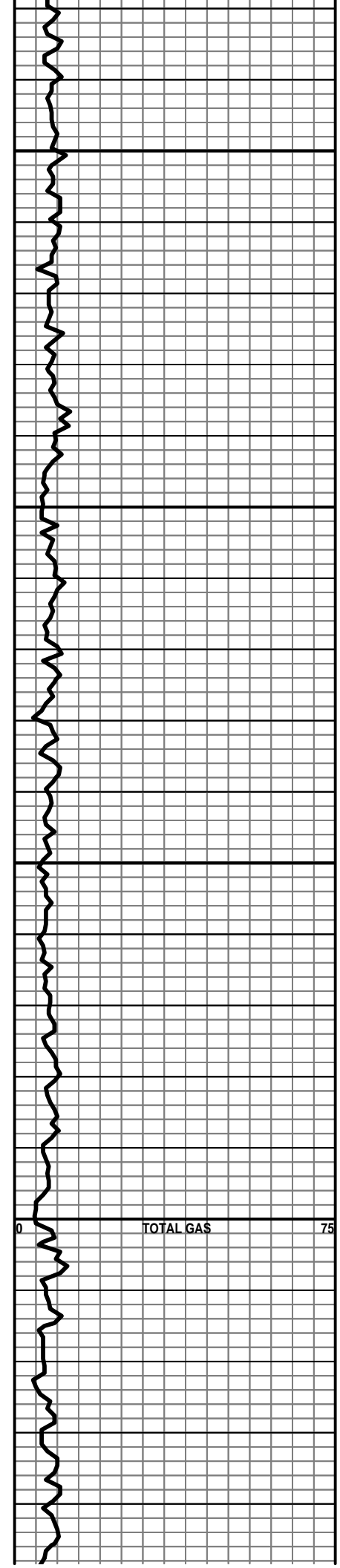


1050

1100

1150

1200



0

TOTAL GAS

75

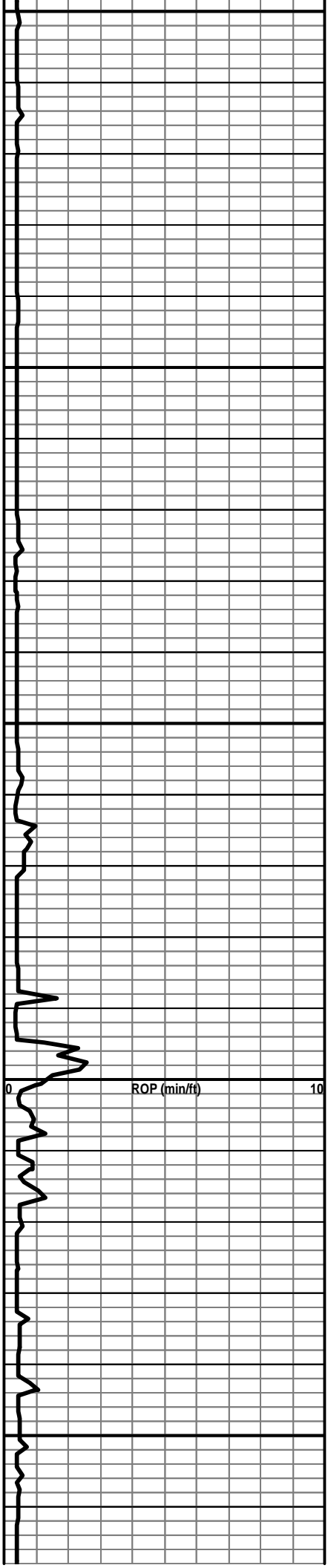
1250

1300

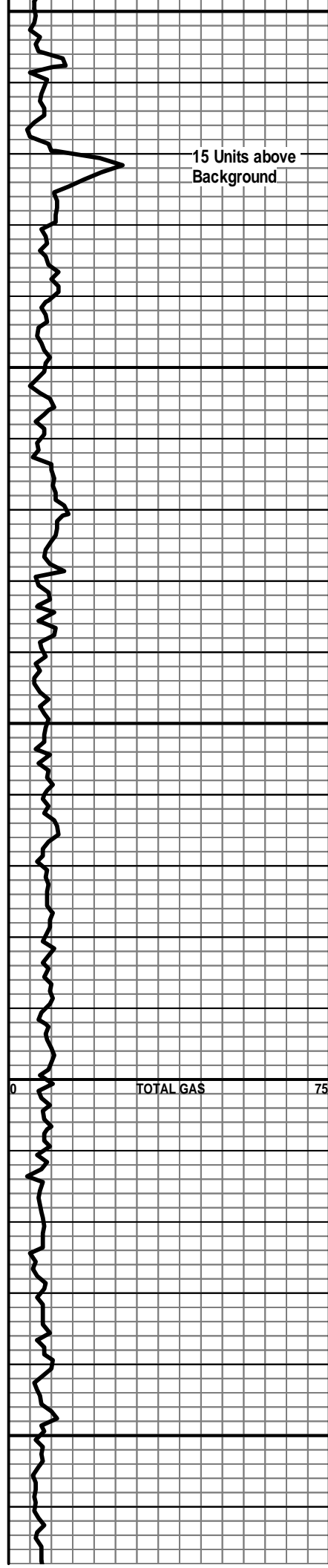
1350

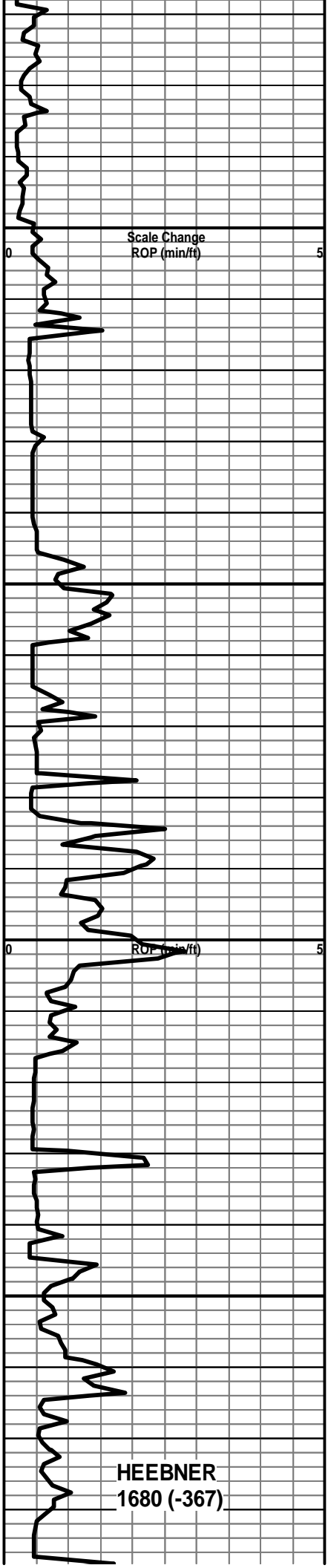
1400

1450



15 Units above
Background





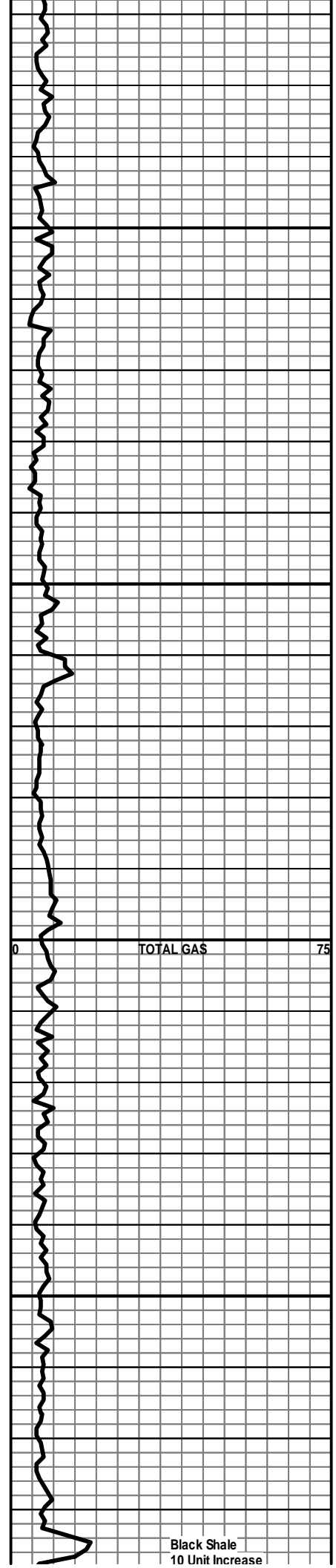
1500

1550

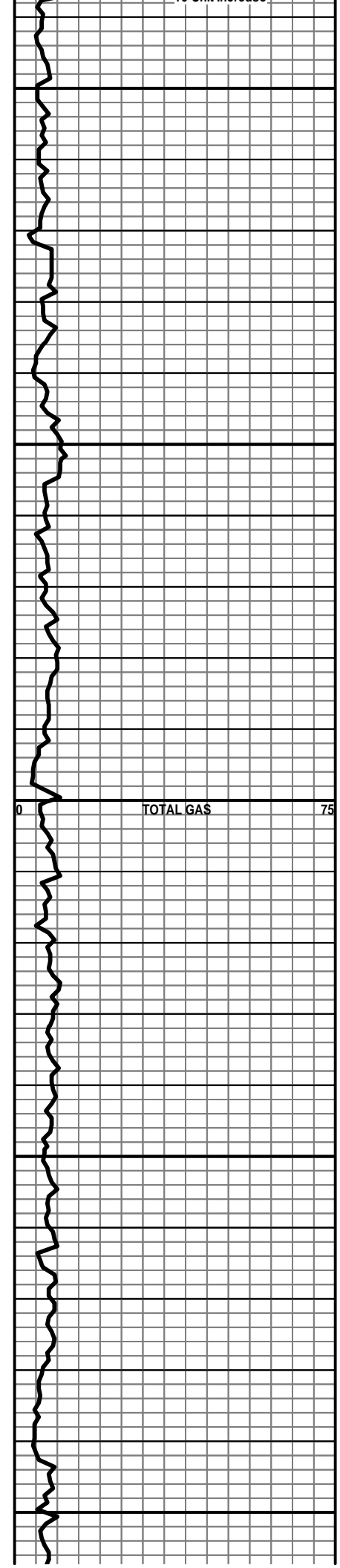
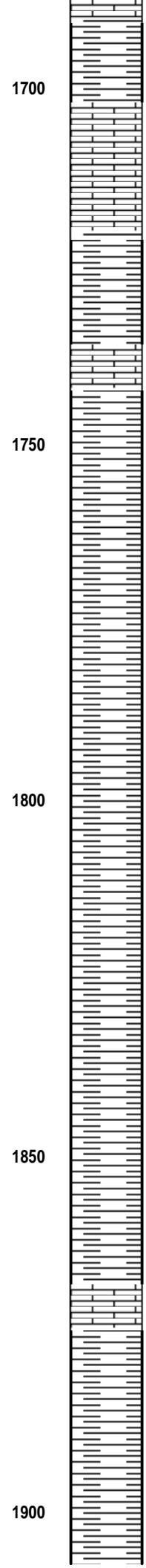
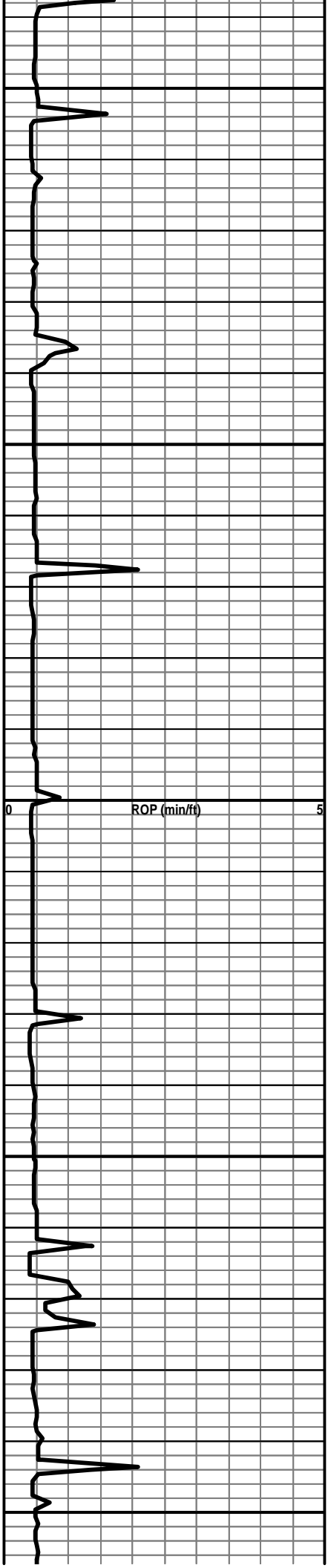
1600

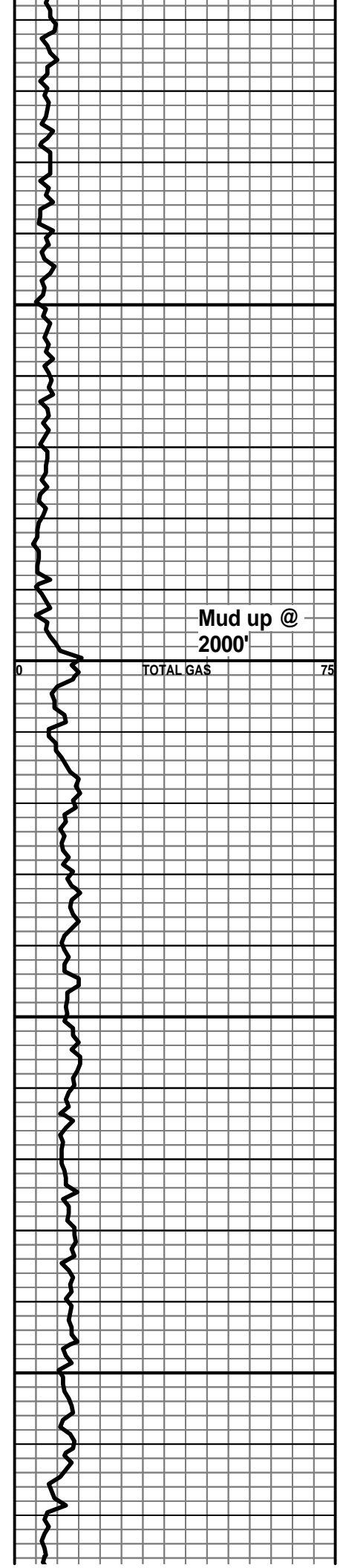
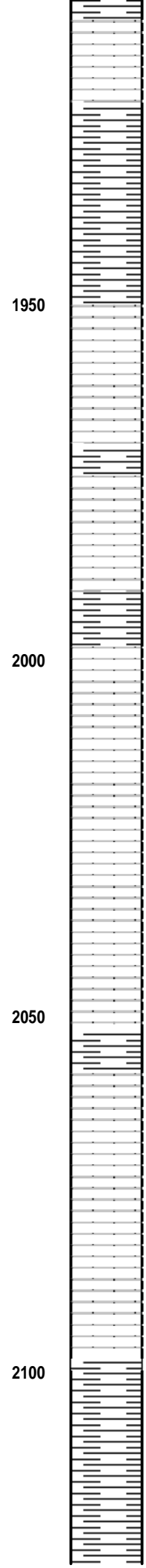
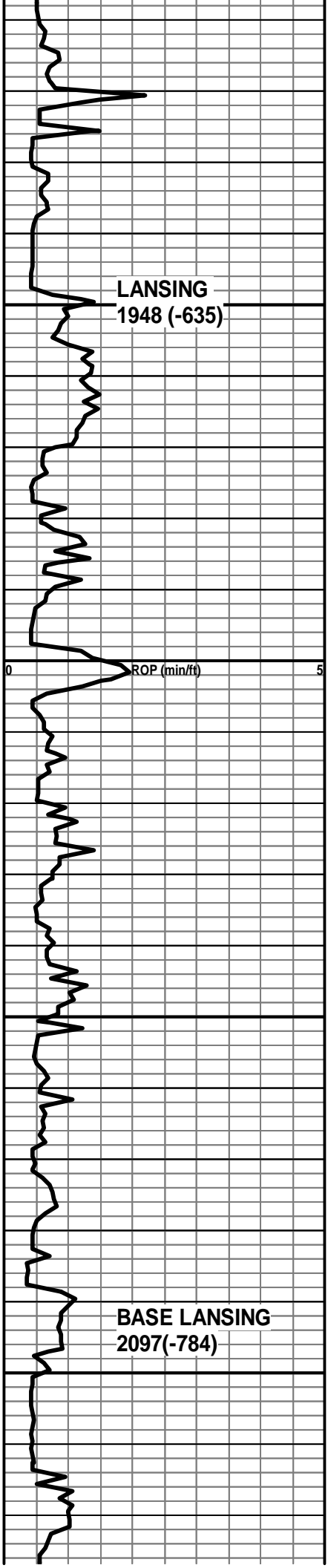
1650

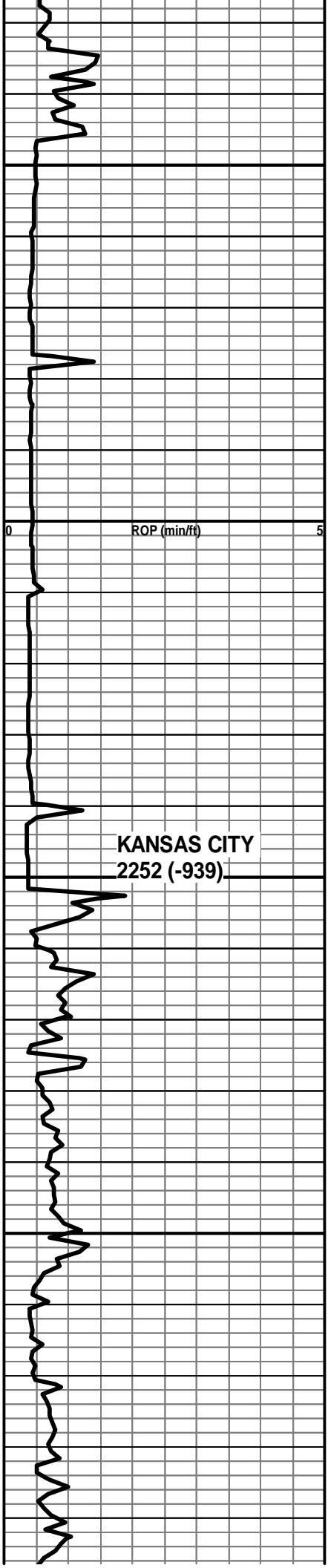
HEEBNER
1680 (-367)



Black Shale
10 Unit Increase





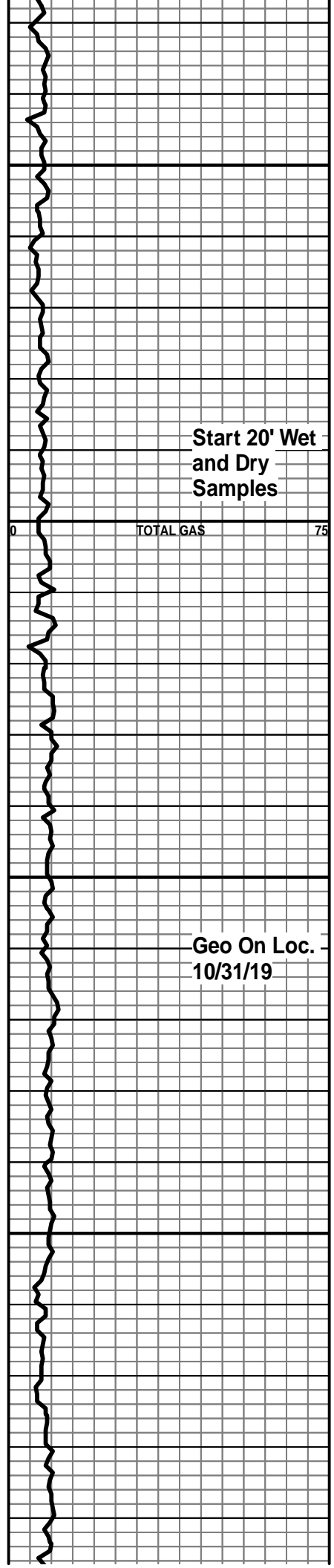
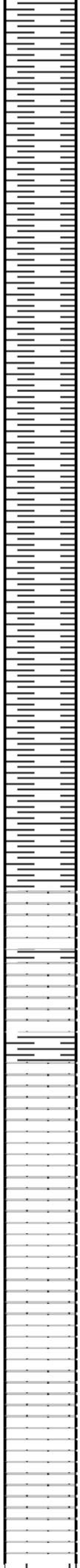


2150

2200

2250

2300



Start 20' Wet and Dry Samples

Geo On Loc. 10/31/19

2350

Ls, As above w/Abn Ls, crm-wht, fxln, trace wht chert, Scat Sh, gry, Black carb.

Black Shale
18 Unit Increase

Ls, crm, buff, gry, fxln, foss i/p, chalky, cherty i/p pr xln porosity, No stain or show, No fluor, No odor.

Sh, Black Carb

Black Shale
25 Unit Increase

2400

Ls, brn, fxln, dense, crm, f-mxln, fr xln porosity, Wht soft chalk, No show

TOTAL GAS

ROP (min/ft)

BASE / KC
2411 (-1098)

Sh, gry, lt-dk gry, silty to soft gumbo

Sh, gry, silty

2450

Sh, gry, dk-gry silty

Sh, gry, dk-gry silty

Ls, brn, tan, gry, fxln, dense

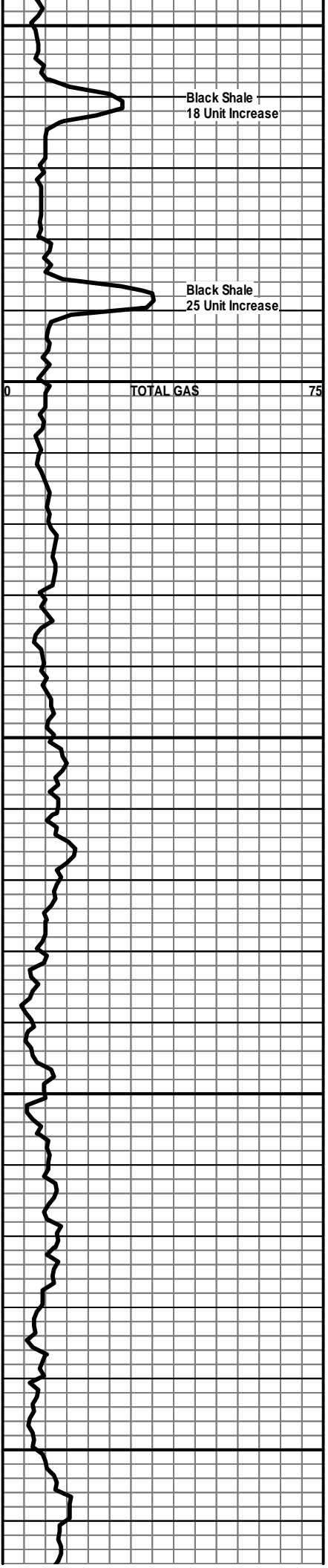
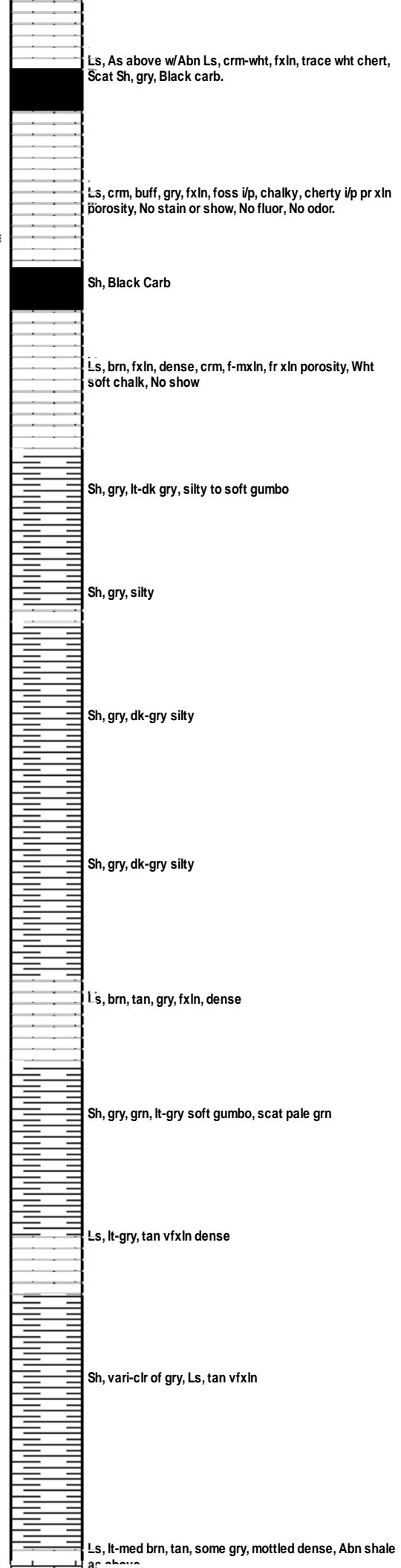
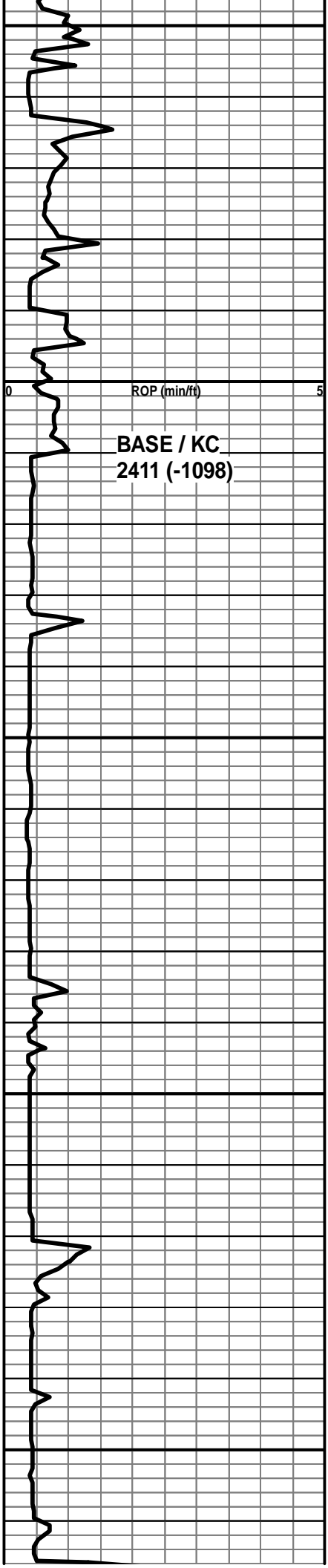
2500

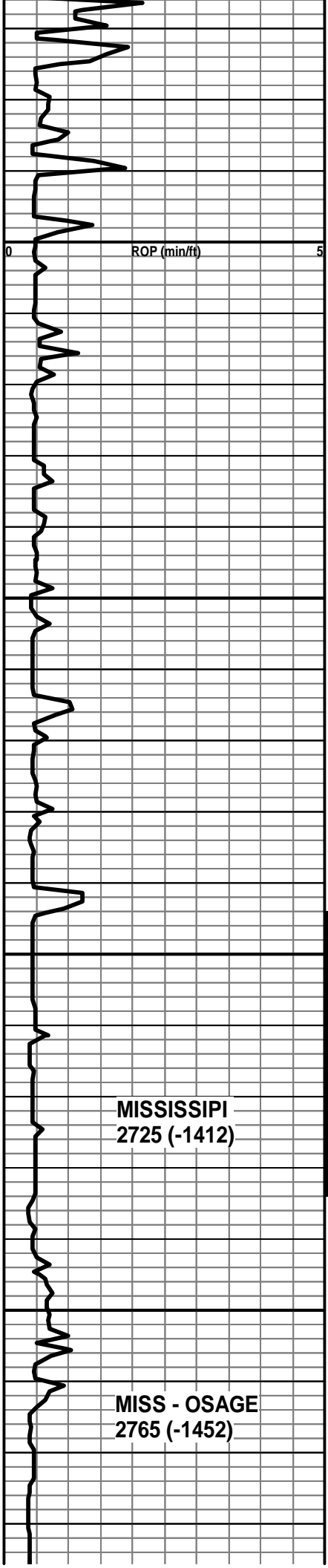
Sh, gry, grn, lt-gry soft gumbo, scat pale grn

Ls, lt-gry, tan vfxln dense

2550

Ls, lt-med brn, tan, some gry, mottled dense, Abn shale as above





2600

2650

2700

2724'

2734'

2748'

2750'

2760'

2768'

**MISSISSIPPI
2725 (-1412)**

**MISS - OSAGE
2765 (-1452)**

DST #1

as above

Ls, lt-med brn, tan, some gry, mottled dense, Abn shale as above

Ls, lt-med brn, tan, some gry, mottled dense, Flood of Black Carb Shale. Scat Wht soft chalk w/ dull fluor, Very faint odor, No stain, no show

Ls, tan, brn, dense, cherty, scat crm-tan foss, scat soft crm chalky

Ls, crm, lt gry, foss, Abn, sh, gry, trace Black Carb.

Sh, Black Carb, w/ gry, soft gumbo

Ls, gry, tan, brn, foss, dense, sh, gry, black carb.

Ls, gry, tan, foss, dense, trace grn sh w/ clr f-m grn clr sand inclusions, some lt-grn siltstone

Ls, gry, tan, foss, dense, Abn grn sh w/ grn-clr f-m grn shaley sand, some lt-grn siltstone. Trace gry, purple shale, No show

20" CFS - 2724 Flood of vari-clr shale, 2-3 pcs of gry, blocky chert

40" CFS 2724 Vari-clr sh. 3 pcs off-wht blocky chert w/ dull fluor. 1 pc has fr weathered - tripolitic porosity w/ trace dead black stain, No show free oil, very weak odor.

20" CFS - 2734 Flood of Chert wht, blocky w/ scat pcs fr tripolitic porosity, Lt stain, trace black dead. Bright fluor in porosity & on fracture face. Few pcs bleeding nr-fr show free oil, fair odor

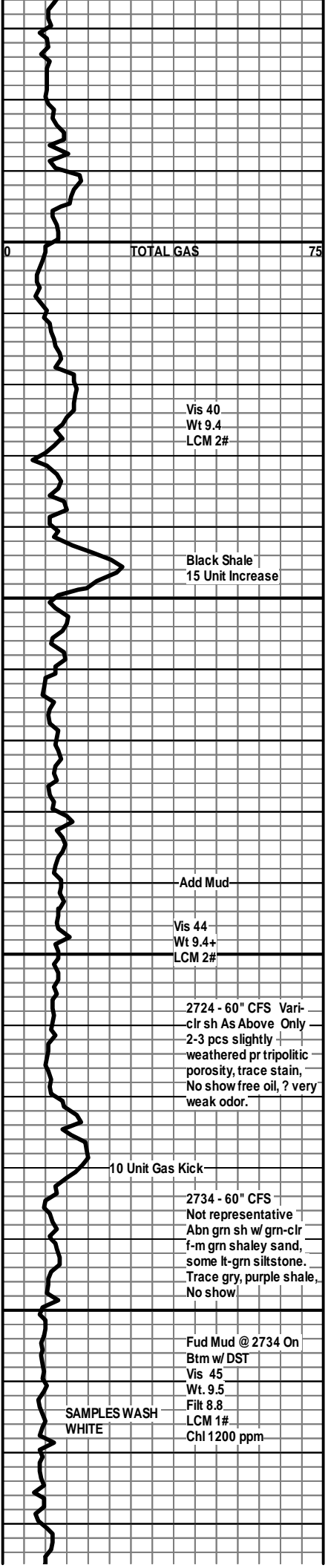
40" CFS - 2734 Scat tripolitic chert as above w/ slight show free oil, 1 pc bleeding fr-gd show free oil, patchy fluor, ? very faint odor, mostly wht, off-wht dolomitic LS, chalky

20 & 40" CFS - 2748 Dolomitic Ls, wht, off-wht, vfxln, soft, very chalky. Dull mineral fluor, No show

20 & 40" CFS - 2760. Ls, lt-gry, pale grn, vfxln dense, trace of wht slightly weathered chert, trace opq, No show

Flood of Cht, Wht, some opq, sharp, most is weathered, tripolitic. No stain, No show oil, No fluor or odor.

Cht, Wht, weathered, tripolitic, Dol, Wht, vfxln, Abn soft wht chalk



Vis 40
Wt 9.4
LCM 2#

Black Shale
15 Unit Increase

Add Mud

Vis 44
Wt 9.4+
LCM 2#

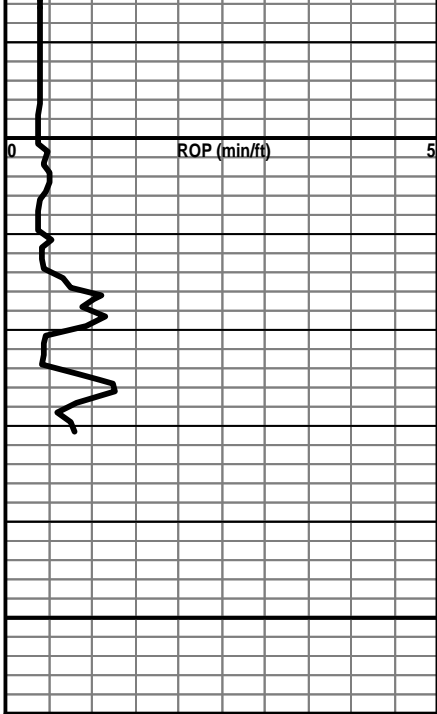
2724 - 60" CFS Vari-clr sh As Above Only
2-3 pcs slightly weathered pr tripolitic porosity, trace stain, No show free oil, ? very weak odor.

10 Unit Gas Kick

2734 - 60" CFS
Not representative
Abn grn sh w/ grn-clr f-m grn shaley sand, some lt-grn siltstone. Trace gry, purple shale, No show

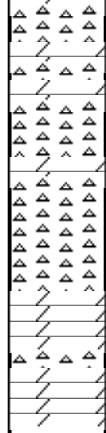
Fud Mud @ 2734 On Btm w/ DST
Vis 45
Wt. 9.5
Filt 8.8
LCM 1#
Chl 1200 ppm

SAMPLES WASH
WHITE



2800

2850



Cht, Wht, weathered, tripolitic, Dol, Wht, vfxln, Abn soft
wht chalk

Scat cht, wht, opq, weathered to sharp, Dol, crm, buff vf
sucrosic, soft. Very chalky

**RTD 2831' @ 6:55 PM on
11/1/19**

