



Home  
(785) 798-3400

# Andrew Stenzel Geologist

Ness City, Kansas



Cell  
(785) 798-8977

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

Well Name: Skyfall #1  
API: 15-135-26076-00-00  
Location: NW-NW-SW-SE Sec. 17-17S-25W (Ness County)  
License Number: 30742  
Spud Date: 8/12/19  
Surface Coordinates: 1191' FSL & 2341' FEL  
Region: KANSAS  
Drilling Completed: 8/21/19

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 2462  
Logged Interval (ft): 3600 To: TD  
Formation: MISSISSIPPI  
Type of Drilling Fluid: Mud-Co Chemical  
K.B. Elevation (ft): 2467  
Total Depth (ft): 4525

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

## OPERATOR

Company: Palomino Petroleum, Inc.  
Address: 4924 SE 84th St.  
Newton, KS 67114

## GEOLOGIST

Name: Andrew Stenzel  
Company: Petroleum Geologist  
Address: 501 S. Franklin  
Ness City, KS 67560

## Drilling Report

### DAILY DRILLING REPORT:

8/12/19 MIRU, ran surface casing  
8/13/19 Waiting on cement  
8/14/19 Drilling @ 1392'  
8/15/19 Drilling @ 2647'  
8/16/19 Drilling @ 3372'  
8/17/19 Drilling @ 3976'  
8/18/19 Tripping out for DST #1, DST #1  
8/19/19 Circulating @ 4411, DST #2  
8/20/19 DST #3, ran electric logs  
8/21/19 Ran Production Casing

### Services

RIG: Murfin Drilling DBA WW Drilling, Rig #102

MUD: MUDCO

LOGS: Gemini Wireline; CNDL, PE, DIL, ML, SL

### Casing Record

SURFACE Casing: Ran 5 jts new 8 5/8", 23# casing @ 219'

PRODUCTION Casing: Ran 109 jts new 5 1/2", 15.5# casing set at 4523'.

### Formation Tops

Sample Tops		LogTops	
Anhy.	1709 (+758)	Anhy.	1704 (+763)
Base Anhy.	1736 (+731)	Base Anhy.	1733 (+734)
Topeka	3492 (-1025)	Topeka	Not Logged
Heebner	3774 (-1307)	Heebner	3742 (-1275)
Lansing	3819 (-1352)	Lansing	3786 (-1319)
BKC	4118 (-1651)	BKC	4083 (-1616)
Marmaton	4157 (-1690)	Marmaton	4116 (-1649)
Pawnee	4247 (-1780)	Pawnee	4210 (-1743)
Ft. Scott	4281 (-1814)	Ft. Scott	4281 (-1814)
Cher. Sh.	4305 (-1838)	Cher. Sh.	4306 (-1839)
Miss.	4382 (-1915)	Miss.	4386 (-1919)
Osage	4285 (-2018)	Osage	4484 (-2017)
RTD	4525 (-2058)	LTD	4524 (-2057)



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Palomino Petroleum

27-17s-25w Ness, KS

4924 SE84th St  
Newton, KS 67114

Skyfall #1

Job Ticket: 65246

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2019.08.18 @ 08:21:57

### GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:27

Time Test Ended: 16:12:27

Interval: 4085.00 ft (KB) To 4222.00 ft (KB) (TVD)

Total Depth: 4222.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Reference Elevations: 2467.00 ft (KB)

2462.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166

Outside

Press@RunDepth: 29.13 psig @ 4086.00 ft (KB)

Start Date: 2019.08.18

End Date:

2019.08.18

Start Time: 08:22:02

End Time:

16:12:26

Capacity: 8000.00 psig

Last Callb.: 2019.08.18

Time On Btrr: 2019.08.18 @ 11:38:27

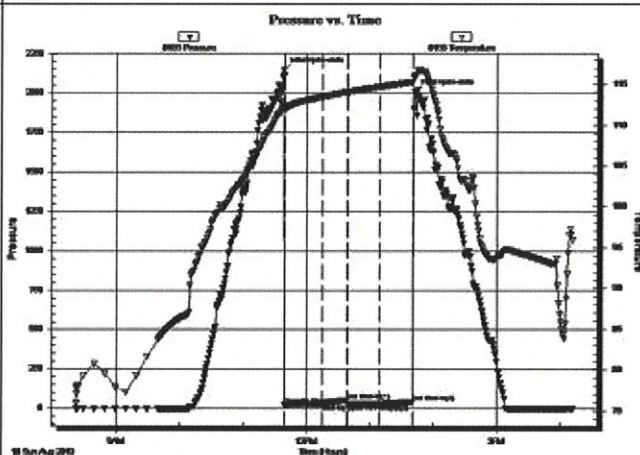
Time Off Btrr: 2019.08.18 @ 13:41:57

TEST COMMENT: IF: 1/4" blow never built.

IS: No return.

FF: No blow.

FS: No return.



### PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2147.66	112.34	Initial Hydro-static
1	24.00	112.02	Open To Flow (1)
37	29.36	113.44	Shut-in(1)
60	52.36	114.04	End Shut-in(1)
61	27.26	114.05	Open To Flow (2)
90	29.13	114.69	Shut-in(2)
122	40.07	115.26	End Shut-in(2)
124	2007.59	116.07	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

### Gas Rates

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Palomino Petroleum

27-17s-25w Ness, KS

4924 SE 84th St  
Newton, KS 67114

Skyfall #1

Job Ticket: 65247

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2019.08.19 @ 11:22:43

### GENERAL INFORMATION:

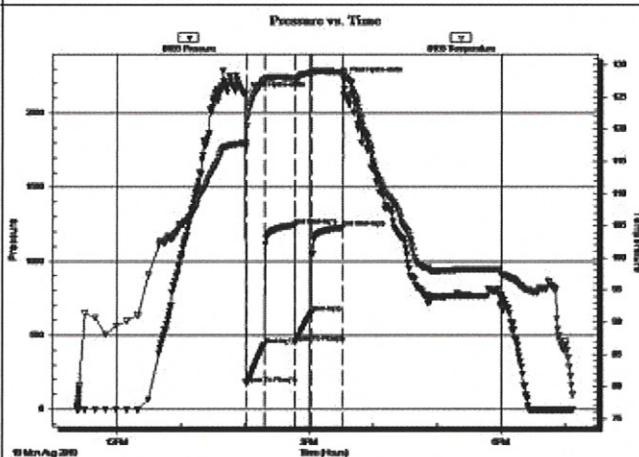
Formation: **Miss**  
 Deviated: **No** Whipstock: **ft (KB)**  
 Time Tool Opened: 14:01:43  
 Time Test Ended: 19:06:43  
 Interval: **4388.00 ft (KB) To 4415.00 ft (KB) (TVD)**  
 Total Depth: **4415.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Tester: **Brandon Turley**  
 Unit No: **79**  
 Reference Elevations: **2467.00 ft (KB)**  
**2462.00 ft (CF)**  
**KB to GR/CF: 5.00 ft**

### Serial #: 8166

### Outside

Press@RunDepth: **652.23 psig @ 4389.00 ft (KB)**  
 Start Date: **2019.08.19** End Date: **2019.08.19** Capacity: **8000.00 psig**  
 Start Time: **11:22:48** End Time: **19:06:42** Last Calib.: **2019.08.19**  
 Time On Btmr: **2019.08.19 @ 14:00:13**  
 Time Off Btmr: **2019.08.19 @ 15:32:13**

TEST COMMENT: IF: BOB in 30 sec. 125"  
 IS: 4" return blow.  
 FF: BOB in 1 min. 91"  
 FS: Surface blow built to 1/4"



### PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2127.54	117.83	Initial Hydro-static
2	174.39	120.42	Open To Flow (1)
18	435.80	127.68	Shut-in(1)
46	1243.71	127.92	End Shut-in(1)
47	452.93	127.50	Open To Flow (2)
62	652.23	128.76	Shut-in(2)
91	1226.85	128.85	End Shut-in(2)
92	2223.58	128.75	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
118.00	gocm 10%g 10%o 80%m	0.58
1623.00	go 20%g 80%o	22.77
0.00	338 GIP	0.00

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
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## DRILL STEM TEST REPORT

Palomino Petroleum  
4924 SE 84th St  
New ton, KS 67114

ATTN: Andrew Stenzel

27-17s-25w Ness,KS

Skyfall #1

Job Ticket: 65248

DST#: 3

Test Start: 2019.08.20 @ 01:25:27

### GENERAL INFORMATION:

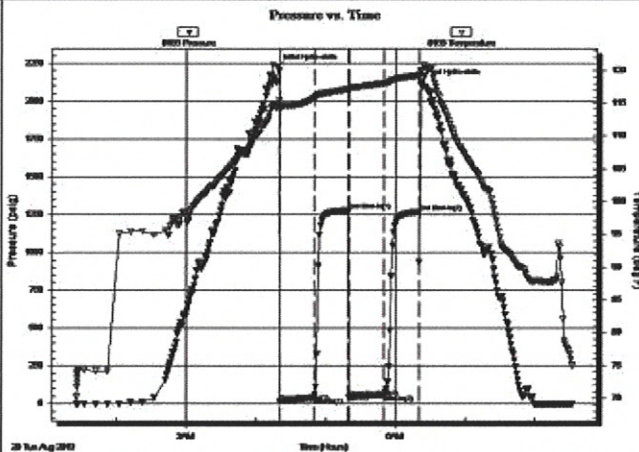
Formation: Miss  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 04:20:27  
Time Test Ended: 08:32:27  
Interval: 4415.00 ft (KB) To 4421.00 ft (KB) (TVD)  
Total Depth: 4421.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Brandon Turley  
Unit No: 79  
Reference Elevations: 2467.00 ft (KB)  
2462.00 ft (CF)  
KB to GR/CF: 5.00 ft

Serial #: 8166

Outside

Press@RunDepth: 58.50 psig @ 4416.00 ft (KB)  
Start Date: 2019.08.20 End Date: 2019.08.20  
Start Time: 01:25:32 End Time: 08:32:26  
Capacity: 8000.00 psig  
Last Calib.: 2019.08.20  
Time On Btmr: 2019.08.20 @ 04:18:27  
Time Off Btmr: 2019.08.20 @ 06:21:57

TEST COMMENT: IF: Surface blow built to 2 1/4"  
IS: No return.  
FF: Surface blow built to 1 1/2"  
FS: No return.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2227.12	114.35	Initial Hydro-static
2	14.38	114.25	Open To Flow (1)
31	38.96	115.79	Shut-in(1)
61	1276.18	117.11	End Shut-in(1)
62	41.91	116.84	Open To Flow (2)
92	58.50	118.00	Shut-in(2)
122	1266.62	119.20	End Shut-in(2)
124	2125.32	119.94	Final Hydro-static

### Recovery

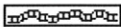
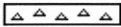
Length (ft)	Description	Volume (bbl)
80.00	mcw 90%w 10%m	0.39
20.00	oil 100%o	0.10





\* Recovery from multiple tests





### Gas Rates

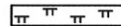

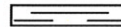
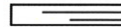
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

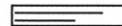



**ROCK TYPES**




-  Anhy
-  Bent
-  Brec
-  Cht

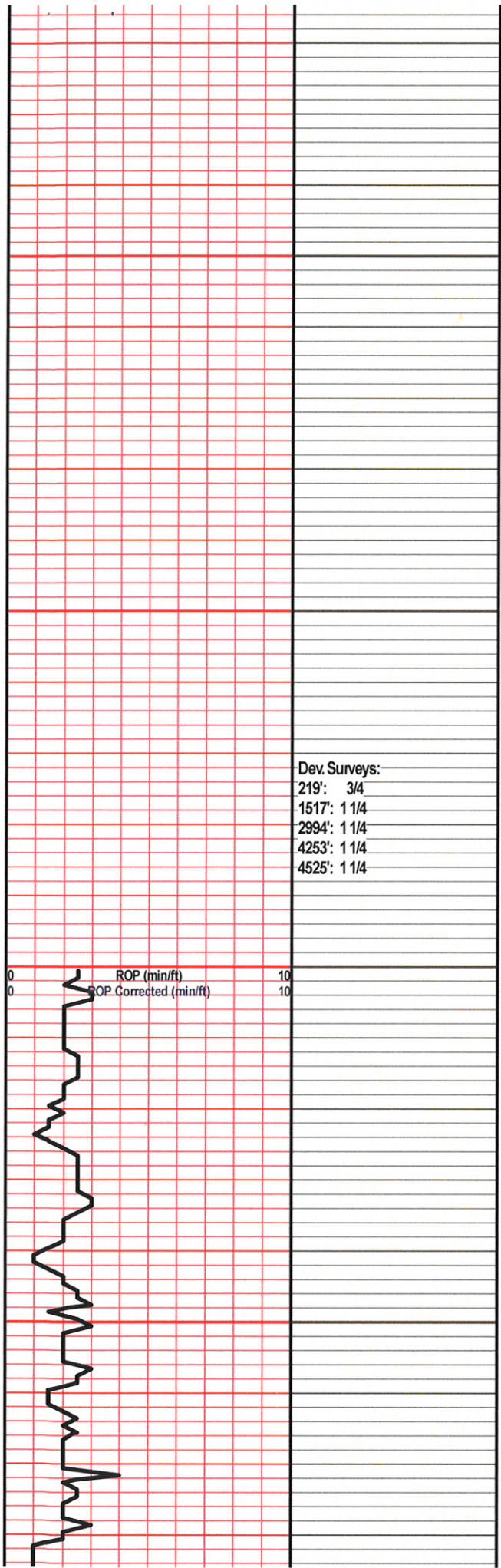
-  Clyst
-  Carb shale
-  Congl
-  Dol

-  Gyp
-  Igne
-  Lmst
-  Meta

-  Mrlst
-  Salt
-  Shale
-  Shcol

-  Shgy
-  Sltst
-  Ss
-  Till

ROP						
ROP (min/ft) 				Misc	% Lithology	Geological Descriptions
ROP Corrected (min/ft) 						DST
<div style="display: flex; justify-content: space-between;"> <span>0</span> <span>ROP (min/ft)</span> <span>10</span> </div> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>ROP Corrected (min/ft)</span> <span>10</span> </div> 		Depth	Oil Shows			
		31				
		3150				
		3200				
		3250				
	<div style="margin-bottom: 20px;"> <p>←=====</p> <p><b>Anhy.</b> 1709 (+758)</p> </div> <div> <p>←=====</p> <p><b>Base Anhy.</b> 1736 (+731)</p> </div>					



Dev. Surveys:  
 219': 3/4  
 1517': 1 1/4  
 2994': 1 1/4  
 4253': 1 1/4  
 4525': 1 1/4

3300

3350

3400

3450

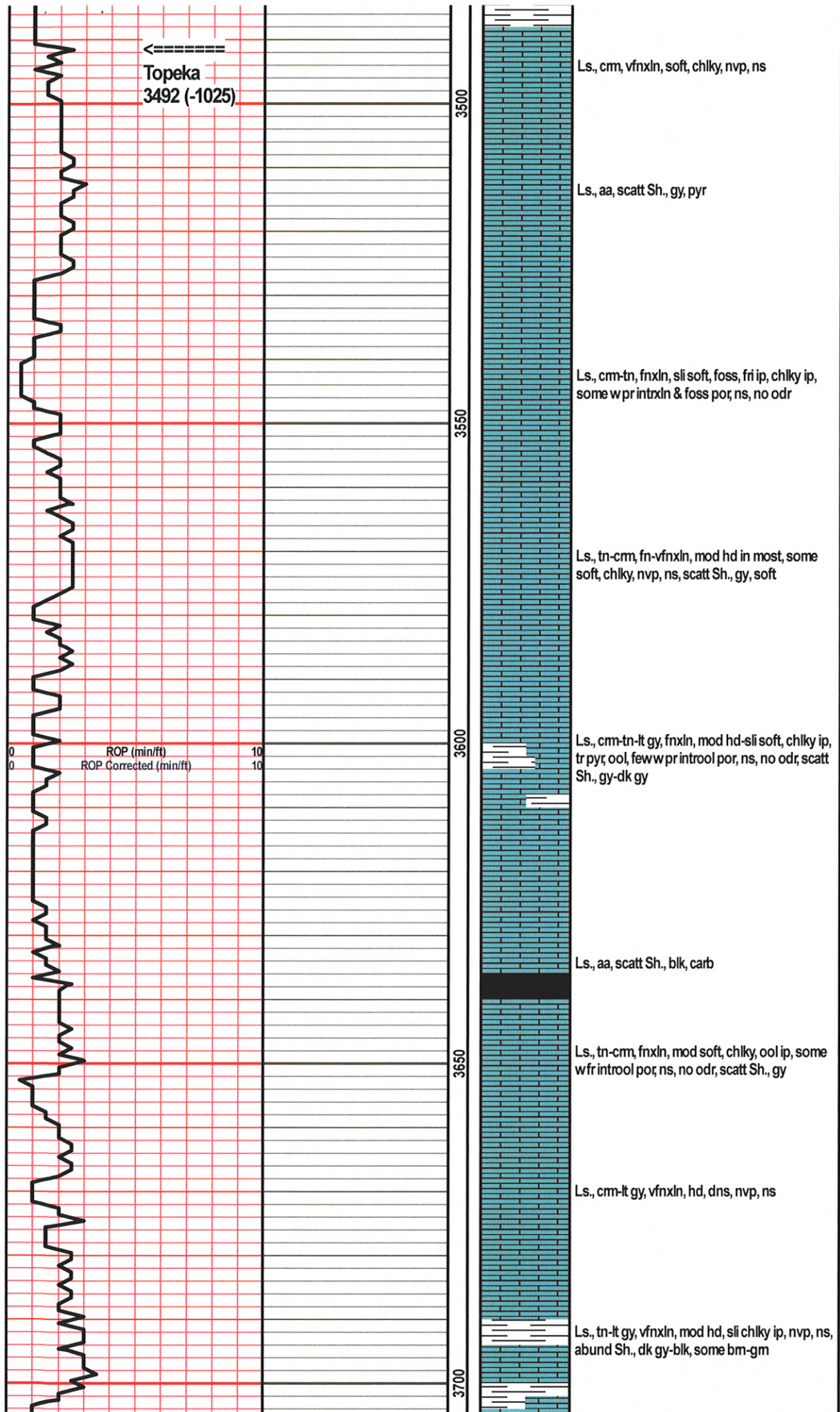


Ls., lt gy-gy, vfrxn, mod hd-hd, dns, foss ip, tr pyr, nvp, ns, scatt Sh., gy, soft

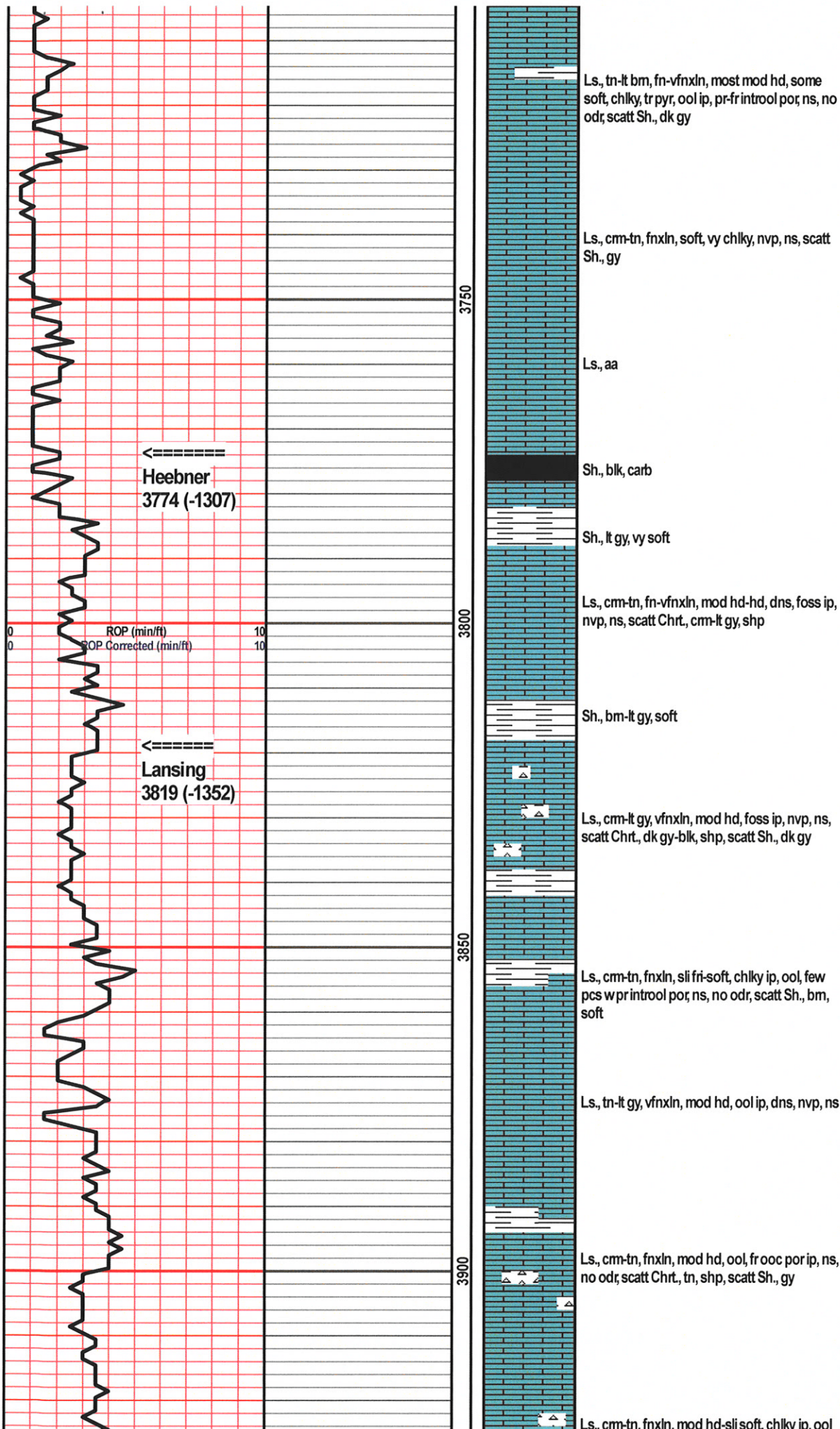
Ls., cm-gy, fr-vfrxn, mod hd, chky ip, foss, nvp, ns, sactt Sh., bm-gm

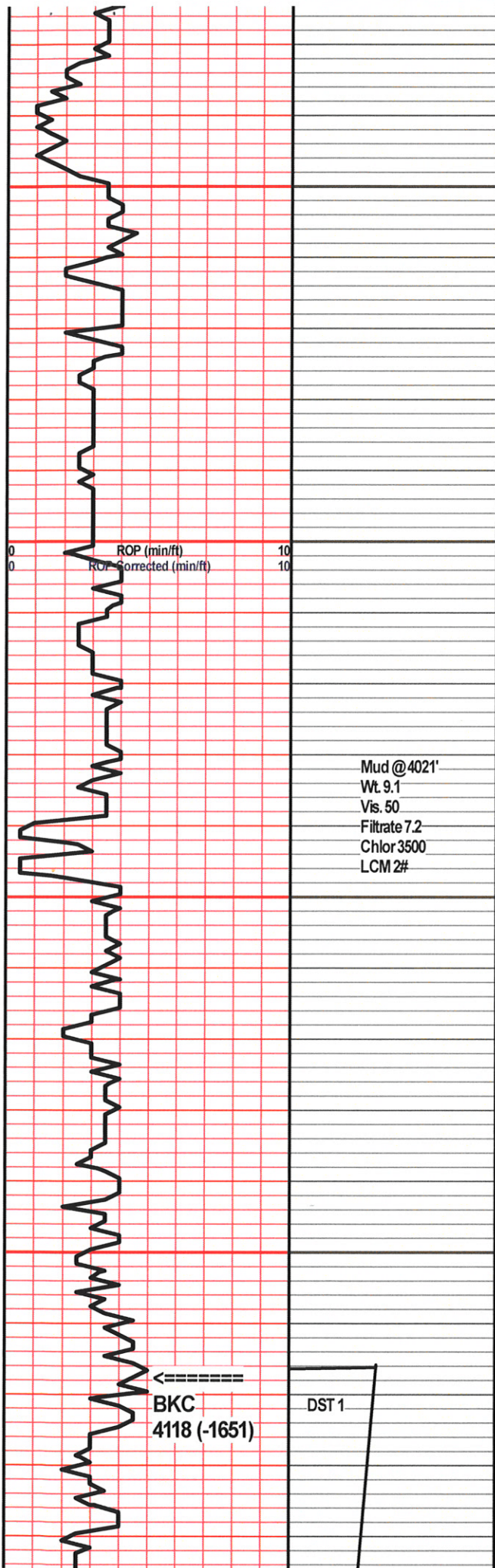
Ls., lt gy-gy-tn, frxn, mod hd-hd, ool, nvp, ns

Sh., gy, Ls., aa







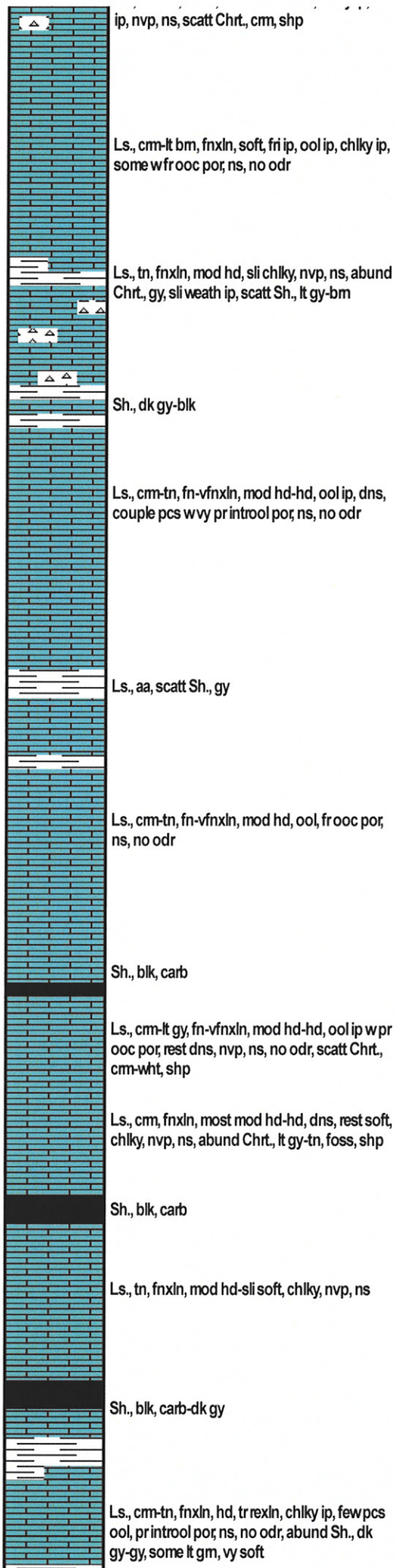


Mud @ 4021'  
 Wt 9.1  
 Vis 50  
 Filtrate 7.2  
 Chlor 3500  
 LCM 2#

BKC  
 4118 (-1651)

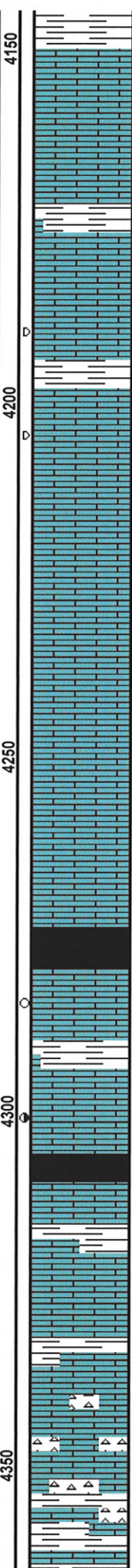
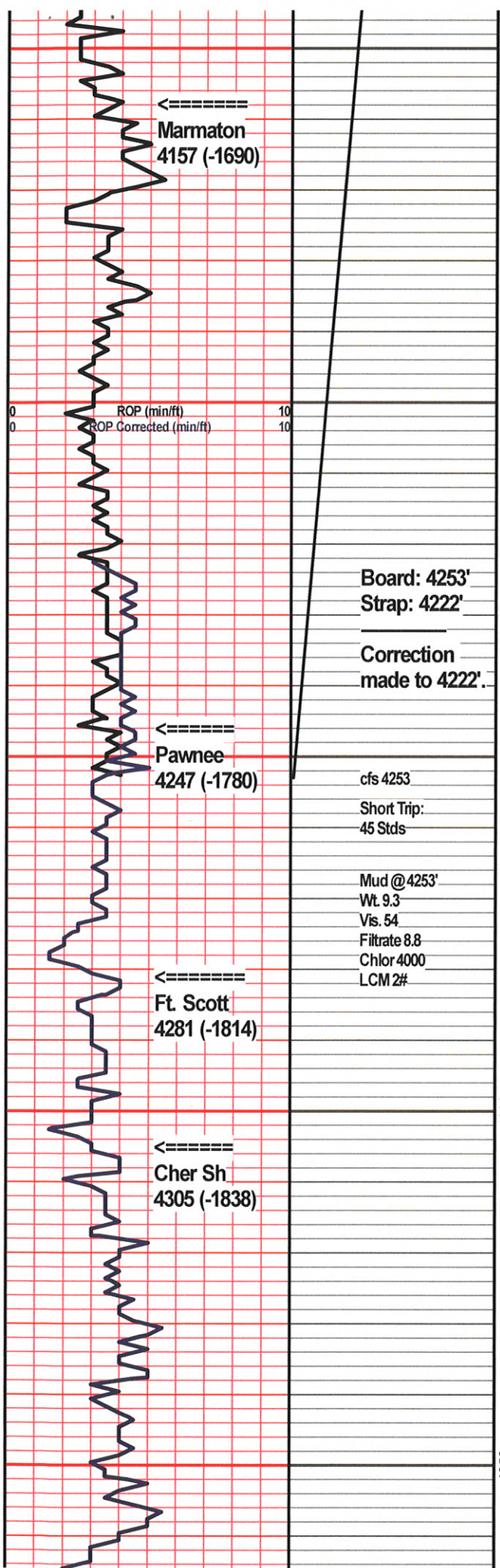
DST 1

3950  
 4000  
 4050  
 4100



DST #1 4085-4222  
 (Marmaton)

30-30-30-30  
 IF: 1/4" blow, never built  
 IS: No blow  
 FF: No blow  
 FS: No blow



Ls., cm-tn, fn-vfnxn, mod hd, foss ip, tr fracs, couple pcs wvy pr frac & foss por, NSFO, tr dk bm-blk stn along por, strong cup odr, scatt Sh., aa

Ls., cm-tn-lt gy, fn-vfnxn, mod hd, foss ip, tr fracs, couple pcs wvy pr intrxn & frac por, VSSF0, dk bm-blk spot-flky stn, strg cup odr, some free oil in tray, scatt Sh., bm, soft

Ls., cm-tn, fnxn, mod hd-sli soft ip, few pcs chlky, tr fracs, foss ip, few pcs wvy pr foss & intrxn por, VSSF0, tr blk stn in por, one pc wfr rexln, gd lt bm edge stn, pr vug por, decr odr

Ls., cm-lt gy, vfnxn, mod hd, sli chlky ip, nvp, ns, no odr

Ls., lt gy-gy, vfnxn, mod hd-hd, dns, sli chlky ip, nvp, ns

Ls., gy, vfnxn, mod hd, sli shly, nvp, ns

Sh., blk, carb

Ls., cm, fnxn, mod hd, foss, scatt pcs wpr intrxn, ppt & rare pr foss por, SSFO, lt bm spot stn, wk odr

Ls., cm-tn, fnxn, mod hd-sli soft ip, foss, scatt pcs wpr ppt & intrxn por, few wfr ppt & vug por, tr rexln, FSFO, lt bm spot -rare sub sat stn, gd odr, scatt Sh., gy-bm

Sh., blk, carb

Ls., cm, fn-vfnxn, hd, most dns, few pcs chlky, tr pyr, nvp, ns, scatt Sh., gy-dk gy

Ls., cm-tn, fnxn, mod hd-hd, tr pyr, nvp, ns, scatt Sh., gy, scatt Chrt., tn-bm-org, weath, tr pr intrgran por, blk stn, NSFO, no det odr

Ls., aa, couple pcs wvy pr iso vug por, blk tar stn, abund Sh., yel-bm-purp, soft-vy soft, scatt Chrt., tn-org, weath, nvp, ns, no det odr

Recovery:  
5' Mud

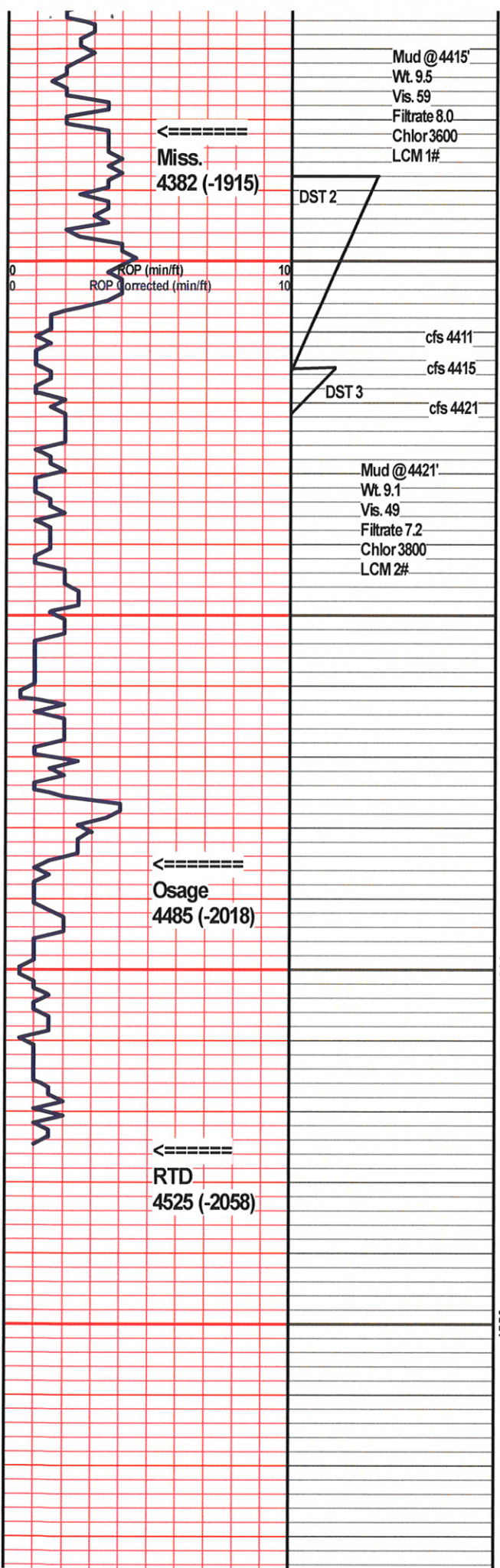
FP: 24-28; 27-27  
SIP: 52-40  
HP: 2147-2007

BHT: 115  
Gravity: --  
Chlor: ---

\*DST interval was changed from 4116-4253 to 4085-4222 due to board correction

Driller put an extra joint on the board and rolled geograph forward, putting everything approximately 31' low. Tops and drill time from 3400-4253' not corrected.

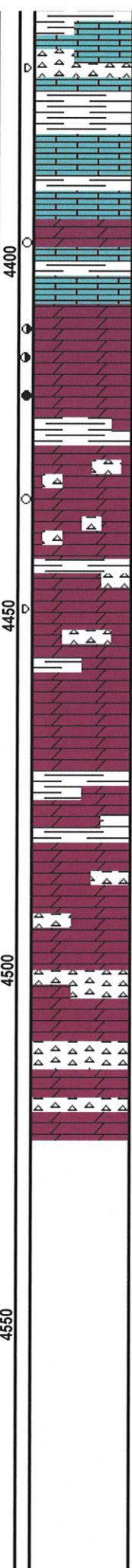
**DST #2 4388-4415 (Mississippi)**  
15-30-15-30  
IF: BOB in 30 sec, built to 125"  
IS: Built to 4"  
FF: BOB in 1 min, built to 91"  
FS: SR built to 1/4"



Mud @ 4415'  
 Wt. 9.5  
 Vis. 59  
 Filtrate 8.0  
 Chlor 3600  
 LCM 1#

cfs 4411  
 cfs 4415  
 cfs 4421

Mud @ 4421'  
 Wt. 9.1  
 Vis. 49  
 Filtrate 7.2  
 Chlor 3800  
 LCM 2#



Chrt, vari col., scatt pcs w vy pr-pr intrgran por, blk tar stn, VSSFO, wk odr, scatt Ls., cm, mod hd, dns, nvp, ns, scatt Sh., dk brn-purp, silty ip

Ls., cm-tn, fnxn, mod hd, chiky ip, brittle ip, nvp, ns, scatt Sh., gy-brn-dk gy

Ls., aa, scatt Dol., tn, fnxn, hd, some dns, nvp, most w pr intrxn & foss por, SSFO, dk brn stn in por, wk odr, scatt Sh., aa

4411 Dol., tn, fnxn, mod hd-sli soft ip, sli sucr ip, pr-fr intrxn & vug por, FSFO, even brn sat in most, some spot stn, fr odr, scatt Sh., gy-brn

4415 Dol., tn-cm, fn-vfnxn, mod hd, 60-70% w pr intrxn & vug por, FSFO, sub sat-sat stn, 30-40% w fr-rare gd vug por, SSFO, abund brn edge & por stn, gd odr

4421 Dol., cm, fn-vfnxn, mod hd-hd, some soft, vy chiky, most dns w pr-fr-rare gd vug por, pr intrxn & ppt por, GSFO, dk brn-blk spot stn in por, fr odr

Dol., tn, fnxn, mod soft, fri, sli sucr ip, tr pyr, fr intrxn & vug por, rare gd vug por, SSFO, couple w FSFO, some pcs barren, tr brn stn, wk odr, scatt Chrt., clr-wht, frac ip, ns, abund Sh., gy-brn

Dol., tn, fnxn, rare vfnxn, mod hd, pr-fr vug por, pr intrxn & occ pr spic cast por, SSFO ip, many pcs barren, tr blk stn, some flaky, wk odr, sli incr Chrt., aa, scatt Sh., gy-brn

Dol., cm, fnxn, mod soft, fri, fr-gd intrxn & vug por, ns, no odr or stn, scatt Chrt., clr-wht, frac ip, ns

Sh., gy, Dol., aa

Dol., cm, fnxn, mod soft, sli shly ip, fr vug por, 2 pcs w SSFO, brn spot stn, poss sluff, abund Chrt., wht-cm-lt gy, spic ip, sli weath ip, ns, no det odr

Chrt., wht-cm, most shp, few pcs vitr, nvp, ns, scatt Dol., cm-tn, fnxn mod hd, pr-fr vug por, ns, no odr

Recovery:  
 338' GIP  
 1623' GO (20%G, 80%O)  
 118' GOCM (10%G, 10%O, 80%M)

1741' TF \*Reversed out to truck

FP: 174-436; 453-652  
 SIP: 1244-1227  
 HP: 2128-2224

BHT: 128  
 Gravity: 35  
 Chlor: ---

**DST #3 4415-4421 (Mississippi)**

30-30-30-30  
 IF: SB, built to 2 1/4"  
 IS: No blow  
 FF: SB, built to 1 1/2"  
 FS: No blow

Recovery:  
 20' Oil (100%O)  
 80 WCM (10%W, 90%M)

100' TF

FP: 14-39; 42-59  
 SIP: 1276-1267  
 HP: 2227-2125

BHT: 119  
 Gravity: 35  
 Chlor 22000

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