



Home
(785) 798-3400

Andrew Stenzel Geologist

Ness City, Kansas



Cell
(785) 798-5977

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

Well Name: Hilton Tokoi #4
API: 15-135-26072
Location: SW-SW-SW-SW Sec. 26-17S-26W (Ness County)
License Number: 30742
Spud Date: 6/22/19
Surface Coordinates: 480' FSL & 356' FWL
Region: KANSAS
Drilling Completed: 6/30/19

Bottom Hole
Coordinates:
Ground Elevation (ft): 2439
Logged Interval (ft): 3600 To: TD
Formation: MISSISSIPPI
Type of Drilling Fluid: Mud-Co Chemical
K.B. Elevation (ft): 2444
Total Depth (ft): 4490

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:

6/22/19 MIRU, ran surface casing
6/23/19 Waiting on cement
6/24/19 Drilling @ 1820'
6/25/19 Drilling @ 2810'
6/26/19 Drilling @ 3530'
6/27/19 Drilling @ 3930'
6/28/19 Circulating @ 4313'
6/29/19 DST #1, DST #2
6/30/19 Ran electric logs, DST #3, Plugged & Abandoned

Services

RIG: Murfin Drilling Co, DBA WW Drilling (Rig #2)

MUD: MUDCO

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

Casing Record

SURFACE Casing: Ran 5 jts new 23#, 8 5/8" casing set at 208'

PRODUCTION Casing: None

Formation Tops

Sample Tops

Anhy.	1771 (+673)
Base Anhy.	1804 (+640)
Heebner	3731 (-1287)
Lansing	3773 (-1329)
BKC	4086 (-1642)
Marmaton	4127 (-1683)
Pawnee	4212 (-1786)
Ft. Scott	4280 (-1836)
Cher. Sh.	4303 (-1859)
Miss.	4382 (-1938)
RTD	4490 (-2046)

Log Tops

Anhy.	1770 (+674)
Base Anhy.	1799 (+645)
Heebner	3727 (-1283)
Lansing	3772 (-1328)
BKC	4082 (-1638)
Marmaton	4126 (-1682)
Pawnee	4211 (-1767)
Ft. Scott	4279 (-1835)
Cher. Sh.	4303 (-1859)
Miss.	4384 (-1940)
LTD	4490 (-2046)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum Inc
4924 SE 84th St
New ton KS 67114+8827
ATTN: Andrew Stenzel

26-17S-26W Ness,KS

Hilton-Tokoi #4

Job Ticket: 65959 **DST#: 1**

Test Start: 2019.06.28 @ 18:55:00

GENERAL INFORMATION:

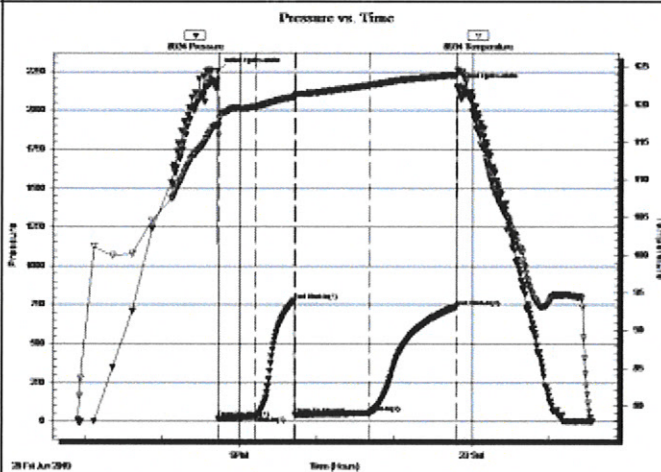
Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:42:45
Time Test Ended: 01:34:15
Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J Staab
Unit No: 84
Interval: **4383.00 ft (KB) To 4398.00 ft (KB) (TVD)**
Reference Elevations: 2444.00 ft (KB)
Total Depth: 4398.00 ft (KB) (TVD) 2439.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8934

Inside

Press@RunDepth: 55.40 psig @ 4384.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.06.28 End Date: 2019.06.29 Last Calib.: 2019.06.29
Start Time: 18:55:15 End Time: 01:34:15 Time On Btm: 2019.06.28 @ 20:42:30
Time Off Btm: 2019.06.28 @ 23:48:30

TEST COMMENT: 30-IF-Weak; Built to 3"
30-ISI-No Return
60-FF-Weak; Built to 3&1/2"
60-FSI-No Return



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2254.17	117.24	Initial Hydro-static
1	17.70	115.86	Open To Flow (1)
30	34.10	119.73	Shut-In(1)
60	776.56	121.00	End Shut-In(1)
61	40.14	121.13	Open To Flow (2)
119	55.40	122.55	Shut-In(2)
186	737.66	123.89	End Shut-In(2)
186	2153.82	124.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	HOCM 40%O 60%M	0.15
60.00	GO 50%G 50%O	0.30
0.00	30' GIP 100%G	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum Inc
 4924 SE 84th St
 Newton KS 67114+8827
 ATTN: Andrew Stenzel

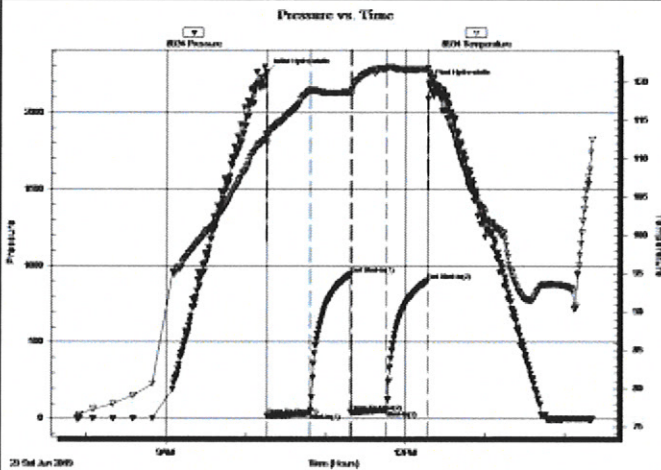
26-17S-26W Ness,KS
Hilton-Tokoi #4
 Job Ticket: 65960 **DST#: 2**
 Test Start: 2019.06.29 @ 07:53:00

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:16:00
 Time Test Ended: 14:20:15
 Interval: **4399.00 ft (KB) To 4417.00 ft (KB) (TVD)**
 Total Depth: 4417.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2444.00 ft (KB)
 2439.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8934 Inside
 Press@RunDepth: 57.00 psig @ 4400.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.06.29 End Date: 2019.06.29 Last Calib.: 2019.06.29
 Start Time: 07:53:15 End Time: 14:20:15 Time On Btm: 2019.06.29 @ 10:15:45
 Time Off Btm: 2019.06.29 @ 12:17:30

TEST COMMENT: 30-IF-Weak; Built to 2&1/4"
 30-ISI-No Return
 30-FF-Weak; Built to 3/4"; Flushed No Help
 30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2269.97	113.32	Initial Hydro-static
1	18.09	111.99	Open To Flow (1)
33	37.07	118.90	Shut-In(1)
63	941.64	118.72	End Shut-In(1)
63	42.44	118.42	Open To Flow (2)
90	57.00	121.85	Shut-In(2)
121	899.87	121.74	End Shut-In(2)
122	2197.00	121.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	OSMW 40%M 60%W	0.34

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

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4924 SE 84th St
New ton KS 67114+8827
ATTN: Andrew Stenzel

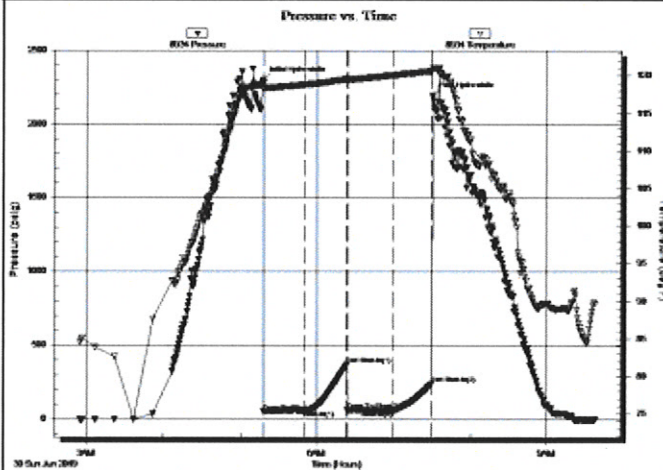
26-17S-26W Ness,KS
Hilton-Tokoi #4
Job Ticket: 65961 **DST#: 3**
Test Start: 2019.06.30 @ 02:55:00

GENERAL INFORMATION:

Formation: **Cong**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:18:15
Time Test Ended: 09:38:15
Interval: **4300.00 ft (KB) To 4387.00 ft (KB) (TVD)**
Total Depth: 4490.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Straddle (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2444.00 ft (KB)
2439.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8934 Inside
Press@RunDepth: 60.70 psig @ 4365.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.06.30 End Date: 2019.06.30 Last Calib.: 2019.06.30
Start Time: 02:55:15 End Time: 09:38:15 Time On Btm: 2019.06.30 @ 05:18:00
Time Off Btm: 2019.06.30 @ 07:30:30

TEST COMMENT: 30-IF-Weak; Built to 1/2"
30-ISI-No Return
30-FF-Weak Surface
30-FSI-No Return



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2298.92	119.02	Initial Hydro-static
1	53.78	118.33	Open To Flow (1)
32	60.71	118.80	Shut-In(1)
66	370.60	119.55	End Shut-In(1)
66	60.99	119.38	Open To Flow (2)
102	60.70	120.07	Shut-In(2)
132	241.48	120.63	End Shut-In(2)
133	2195.99	121.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OSM 100%M	0.10

* Recovery from multiple tests

Gas Rates

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

ROCK TYPES

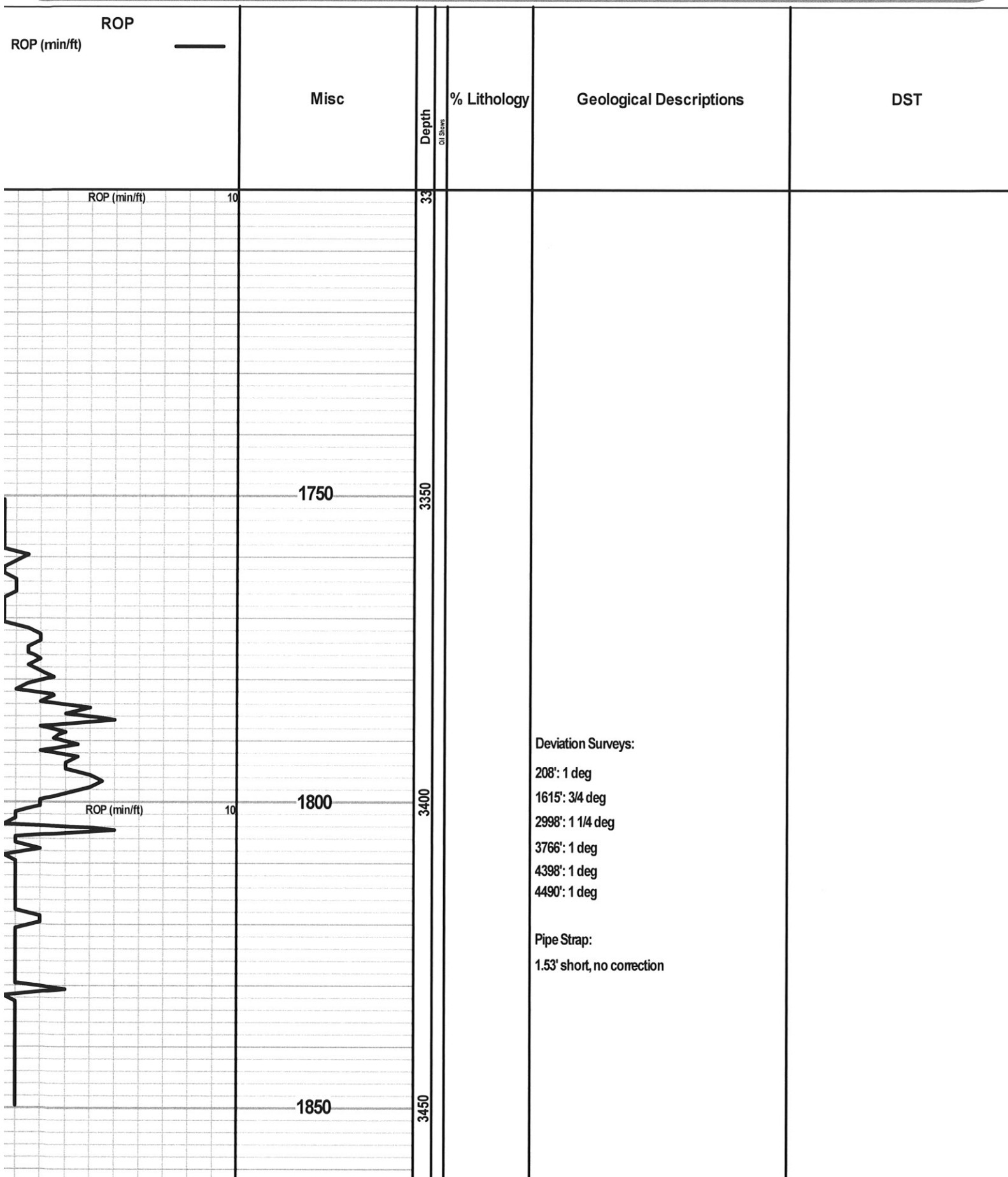
Anhy
Bent
Brec
Cht

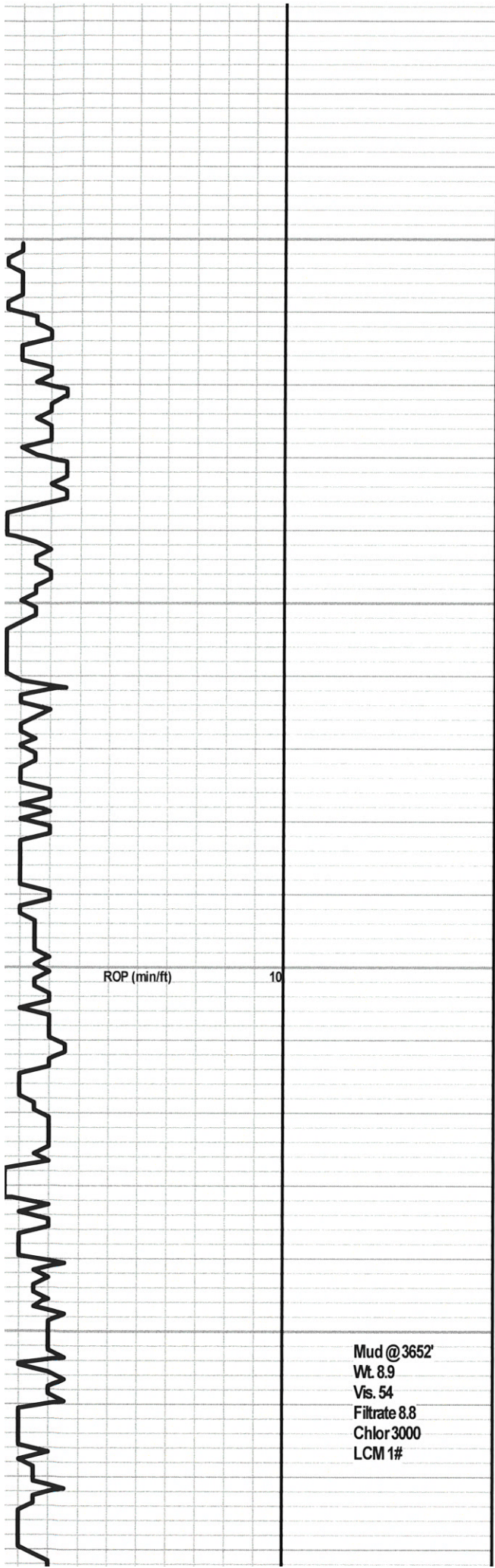
Clyst
Carb shale
Congl
Dol

Gyp
Igne
Lmst
Meta

Mrlst
Salt
Shale
Shcol

Shgy
Sltst
Ss
Till





3500
3550
3600
3650



Ls., tn-lt gy, fnxln, mod hd-sli soft, silty ip, foss, few pcs w pr intrxn & foss por, ns, no odr, few pcs Sh., gy

Ls., cm-tn, fnxln, soft-mod hd ip, most vy chlky, few pcs dns, foss, nvp, ns

Ls., aa, incr amt chlky, few pcs w pr intrxn por, ns, no odr, scatt Sh., gy-dk gy

Ls. cm-tn-mottd bm, soft, vy chlky, foss, ool ip, few pcs w pr introol & intrxn por, ns, no odr, scatt Sh., lt gm-lt gy

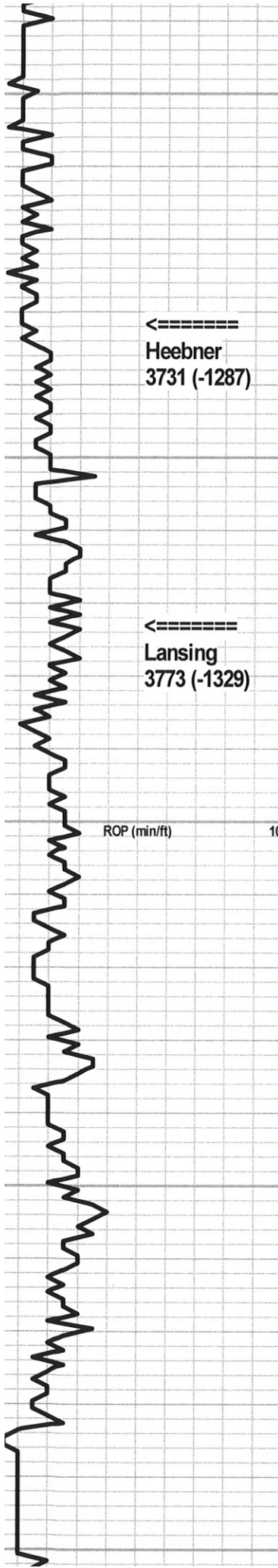
Ls., tn, fn-vfnxln, mod hd, ool ip, dns, nvp, ns, no odr

Ls., tn-lt gy, fnxln, mod soft-soft, chlky ip, ool, few w fr introol por, ns, no odr

Ls., aa, scatt Sh., blk, carb, soft

Ls., cm-tn, fnxln, mod soft-soft, chlky, ool, foss

Mud @ 3652'
Wt. 8.9
Vis. 54
Filtrate 8.8
Chlor 3000
LCM 1#



3700
3750
3800
3850
3900

Ls., cm-tn-lt gy, vfn-fnxln, vy soft, vy chlky, nvp, ns, scatt Sh., gy

Sh., blk, carb

Ls., cm, fn-vfnxn, mod hd, foss ip, few pcs w pr foss & rare intrxn por, ns, no odr, abund Sh., lt gy-bm

Sh., gy-bm, soft ip, Ls., aa

Ls., cm, vfnxn, mod hd, fri/brittle ip, few pcs foss, nvp, ns, abund Chr., lt gy, foss, shp/fresh, nvp, ns

Ls., cm-lt gy, fnxn, mod hd, tr pyr, couple pcs w vy pr intrxn por, one w vy spot blk edge stn, wk fluoro, no det odr

Sh., gy-bm, soft, pyr ip

Ls., cm, fn-vfnxn, mod hd, dns, sli fri/brittle, tr rexln, nvp, ns, scatt Chr., bm, shp

Ls., cm-tn, fnxn, mod hd-sli soft ip, chlky ip, few pcs w pr intrxn por, ns, no odr, scatt Sh., bm-gy

Ls., cm, fnxn, mod hd-sli soft, chlky ip, ool ip, pr introol & ooc por, ns, abund Chr., cm-tn.

Mud @ 3975'
Wt. 8.9
Vis. 52
Filtrate 10.0
Chlor 4000
LCM 2#

ROP (min/ft) 10

←
BKC
4086 (-1642)

3950

4000

4050

4100

Sh., gy-blk, carb ip

Ls., cm-tn, fnxn, mod hd-hd, dns, few pcs
chky, nvp, ns, scatt Sh., gy

Sh., gy, fiss

Ls., cm, fn-vfnxn, mod hd, chky ip, ool ip, few
pcs w vy pr intrxn por, ns, no odr, scatt Chrt.,
cm, shp

Sh., gy-bm, Ls., cm, fn-vfnxn, mod hd, sli
chky, fri/brittle ip, few pcs w vy pr intrxn por, ns,
no odr, abund Chrt., cm-tn, weath ip, nvp, ns

Sh., gy-blk, carb ip

Ls., cm-lt gy, vfnxn, sli soft-mod hd, chky ip,
few pcs w vy pr intrxn por, ns, no odr

Ls., cm-tn, fn-vfnxn, mod hd, fri/brittle,
foss/ool ip, nvp, ns, scatt Chrt., tn, sli weath

Sh., blk, carb

Ls., tn-lt gy-bm, vfnxn, mod hd, ool ip, tr rexln,
nvp, ns, scatt Chrt., tn-lt gy, sli weath, nvp, ns

Sh., blk, carb

Sh., lt gm-gm-gy, vy soft/clayey, Ls., cm-tn,
vfnxn, mod hd-mod soft, chky ip, nvp, ns

Sh., blk, carb, Ls., tn, vfnxn, mod hd-hd, ool ip,

Marmaton
4127 (-1683)

Sh., lt gm-bm, soft, clayey, Ls., cm, vfnxn, hd, dns, nvp, ns, few pcs soft, chky, nvp, ns

4150

Ls., cm-lt gy, vfnxn, mod hd-hd, shly, tr rexln, couple pcs w vy wk bm edge stn, wk cut, NSFO, no det odr; scatt Sh., gy-bm

Ls., tn-lt gy, vfn-fnxln, mod hd, shly ip, few pcs w vy pr intrxn por; ns, no odr or cut

Ls., cm-lt gy, most vfnxn, mod hd-hd, fri/brittle, dns, nvp, ns, few pcs cm, sli chky ip, pr intrxn por; VS-SSFO, blk flaky stn & few w bm stn, wk cut, no det odr

4200

Ls., lt gy, vfnxn, chky, nvp, ns, no odr; scatt Sh., gy-dk gy

Ls., lt gy, vfnxn, mod hd, sli chky, nvp, ns

Ls., lt gy-gy, vfnxn, mod hd, shly ip, nvp, ns, scatt Sh., gy

4250

Ls., aa, scatt Sh., dk gy

Sh., blk, carb

Ls., cm-tn, fnxn, mod hd-hd, foss ip, few pcs w pr intrxn & occ pr small vug por; FSFO, vy lt bm stn, sli show gas, fr odr

4300

Sh., blk, carb

Ls., cm-tn, fn-vfnxn, mod hd, chky ip, ool ip, nvp, ns, scatt Sh., gy, fss

Ls., cm, fnxn, mod hd, scatt pcs w blk tar stn, SSFO, vy wk odr; scatt Sh., gy-dk gy

ROP (min/ft) 10

Pawnee
4212 (-1768)

Ft. Scott
4280 (-1836)

Cherokee Sh.
4303 (-1859)

DST 3

Mud @ 4313'
Wt. 9.3
Vis. 56
Filtrate 8.0
Chlor 4400
LCM 2#

DST #3 4300-4387
(Cherokee)

30-30-30-30
IF: WB, built to 1/2"
IS: No blow
FF: WSB
FS: No Blow

Recovery:
20' OSM (100%M)

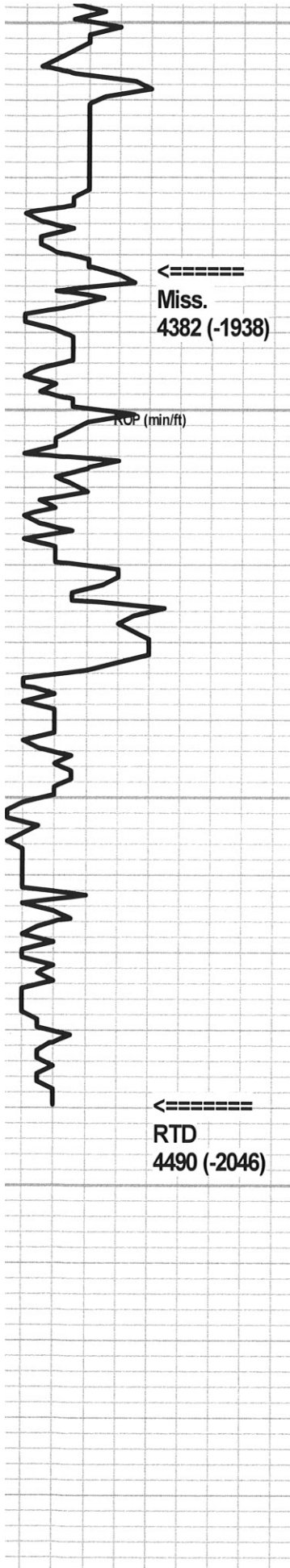
FP: 54-60; 61-61
SIP: 371-241
HP: 2299-2196

BHT: 120 Deg F
Gravity: --
Chlor: -----

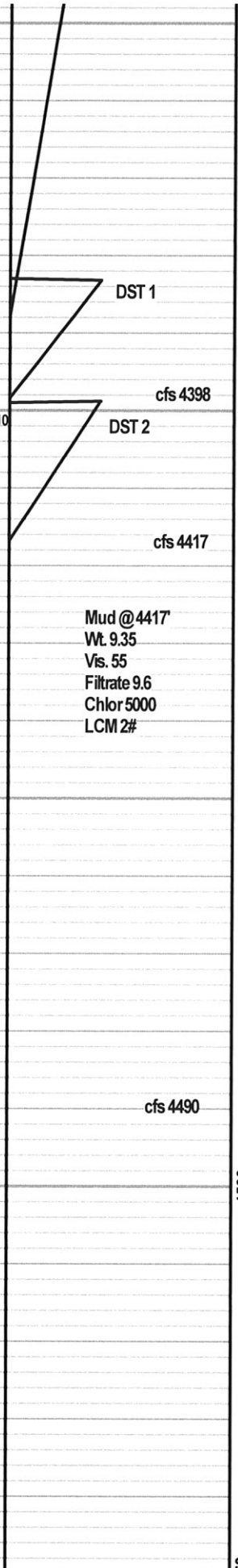
DST #1 4383-4398
(Mississippi)

30-30-60-60
IF: WB, built to 3"
IS: No blow
FF: WB, built to 3 1/2"
FS: No blow

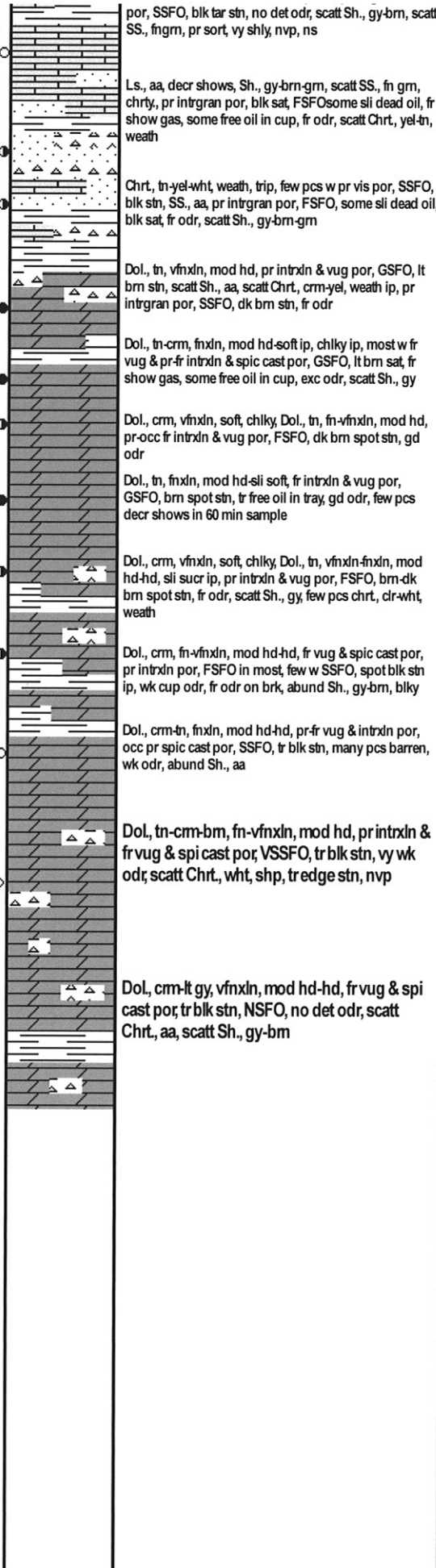
Recovery:



Miss.
4382 (-1938)



4350
4400
4450
4500



30' HOCM (40%O, 60%M)

90' TF

FP: 17-34; 40-55
SIP: 776-737
HP: 2254-2153

BHT: 124
Gravity: 41
Chlor: ----

DST #2 4399-4417 (Mississippi)
30-30-30-30
IF: WB, built to 2 1/4"
IS: No blow
FF: WB, built to 3/4", flushed, no help
FS: No blow

Recovery:
70' OSMW (40%M, 60%W)

FP: 18-37; 42-57
SIP: 941-899
HP: 2269-2197

BHT: 121
Gravity: --
Chlor: 66000 ppm