



DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.26 @ 11:15:00

End Date: 2014.06.26 @ 17:52:30

Job Ticket #: 18590 DST #: 8

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.26 @ 19:13:04



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18590

DST#: 8

ATTN: Kent Matson

Test Start: 2014.06.26 @ 11:15:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:32:30

Time Test Ended: 17:52:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend-20

Interval: **3523.00 ft (KB) To 3595.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3595.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 95.22 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.26

End Date: 2014.06.26

Last Calib.: 2014.06.26

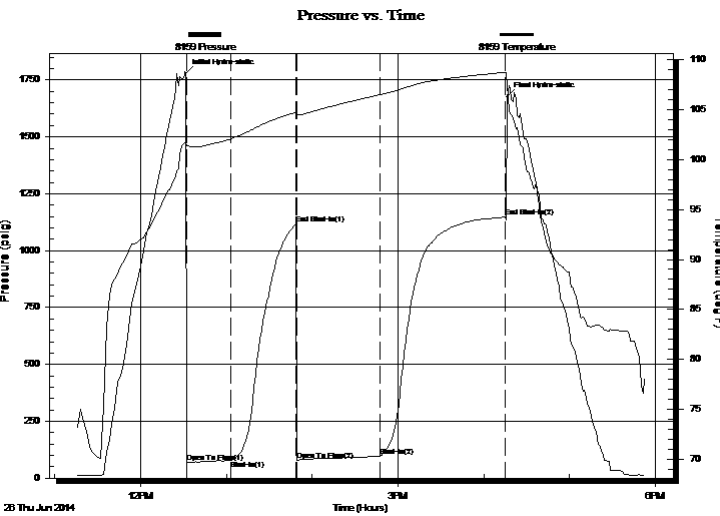
Start Time: 11:15:00

End Time: 17:52:30

Time On Btm: 2014.06.26 @ 12:31:30

Time Off Btm: 2014.06.26 @ 16:16:30

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built 7 inches into bucket w water in 30 Minutes
1st Shut-in 45 Minutes-Very weak
2nd Opening 60 Minutes-Fair blow built bottom of bucket in 45 minutes
2nd Shut-in 90 Minutes-1 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.92	101.81	Initial Hydro-static
1	67.98	101.36	Open To Flow (1)
32	76.38	102.04	Shut-In(1)
77	1115.90	104.69	End Shut-In(1)
78	79.91	104.45	Open To Flow (2)
136	95.22	106.47	Shut-In(2)
224	1147.49	108.70	End Shut-In(2)
225	1676.25	107.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	gas oil mud 15%gas 25%oil 55%mud	0.42
60.00	oil mud 50% oil 50% mud	0.84
0.00	180 feet gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

ATTN: Kent Matson

Job Ticket: 18590

DST#: 8

Test Start: 2014.06.26 @ 11:15:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:32:30

Time Test Ended: 17:52:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend-20

Interval: **3523.00 ft (KB) To 3595.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3595.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 1148.01 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.26

End Date: 2014.06.26

Last Calib.: 2014.06.26

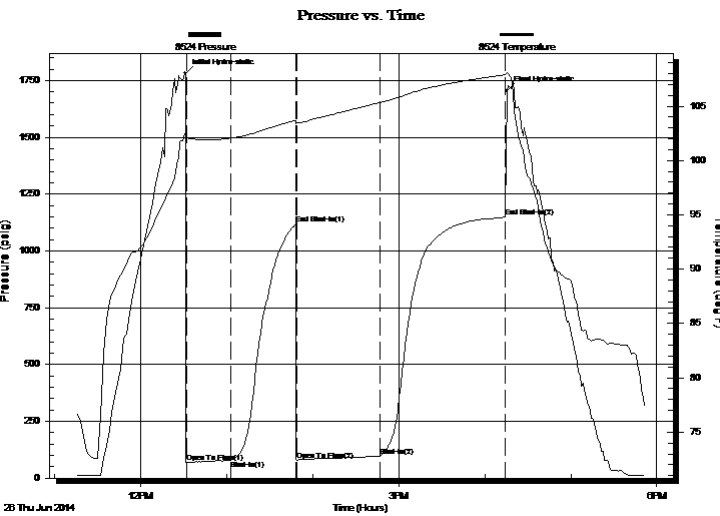
Start Time: 11:15:00

End Time: 17:52:00

Time On Btm: 2014.06.26 @ 12:31:00

Time Off Btm: 2014.06.26 @ 16:15:30

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built 7 inches into bucket w water in 30 Minutes
1st Shut-in 45 Minutes-Very weak
2nd Opening 60 Minutes-Fair blow built bottom of bucket in 45 minutes
2nd Shut-in 90 Minutes-1 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.79	102.52	Initial Hydro-static
1	67.97	102.07	Open To Flow (1)
32	79.55	102.06	Shut-In(1)
77	1117.43	103.69	End Shut-In(1)
78	79.36	103.47	Open To Flow (2)
136	95.88	105.33	Shut-In(2)
224	1148.01	107.88	End Shut-In(2)
225	1704.97	108.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	gas oil mud 15%gas 25%oil 55%mud	0.42
60.00	oil mud 50% oil 50% mud	0.84
0.00	180 feet gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18590

DST#: 8

ATTN: Kent Matson

Test Start: 2014.06.26 @ 11:15:00

Tool Information

Drill Pipe:	Length: 3497.00 ft	Diameter: 3.80 inches	Volume: 49.05 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 67000.00 lb
			Total Volume: 49.05 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3523.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.00 ft			
Tool Length:	100.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3500.00	
Hydraulic tool	5.00			3505.00	
Jars	6.00			3511.00	
Safety Joint	2.00			3513.00	
Packer	5.00			3518.00	28.00 Bottom Of Top Packer
Packer	5.00			3523.00	
Anchor	4.00			3527.00	
Change Over Sub	0.75			3527.75	
Drill Pipe	31.50			3559.25	
Change Over Sub	0.75			3560.00	
Anchor	30.00			3590.00	
Recorder	1.00	8159	Inside	3591.00	
Recorder	1.00	8524	Outside	3592.00	
Bull Plug	3.00			3595.00	72.00 Bottom Packers & Anchor

Total Tool Length: 100.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18590

DST#: 8

ATTN: Kent Matson

Test Start: 2014.06.26 @ 11:15:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 4800.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	gas oil mud 15%gas 25%oil 55%mud	0.421
60.00	oil mud 50% oil 50% mud	0.842
0.00	180 feet gas in pipe	0.000

Total Length: 90.00 ft Total Volume: 1.263 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

