



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: 2014.06.23 @ 22:00:00

End Date: 2014.06.24 @ 05:36:30

Job Ticket #: 18586 DST #: 4

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

Printed: 2014.06.24 @ 07:01:44



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ATTN: Kent Matson

Test Start: 2014.06.23 @ 22:00:00

GENERAL INFORMATION:

Formation: **Lansing Hzone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:33:00

Time Test Ended: 05:36:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3428.00 ft (KB) To 3450.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3450.00 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: 98.47 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.23

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 22:00:00

End Time:

05:36:30

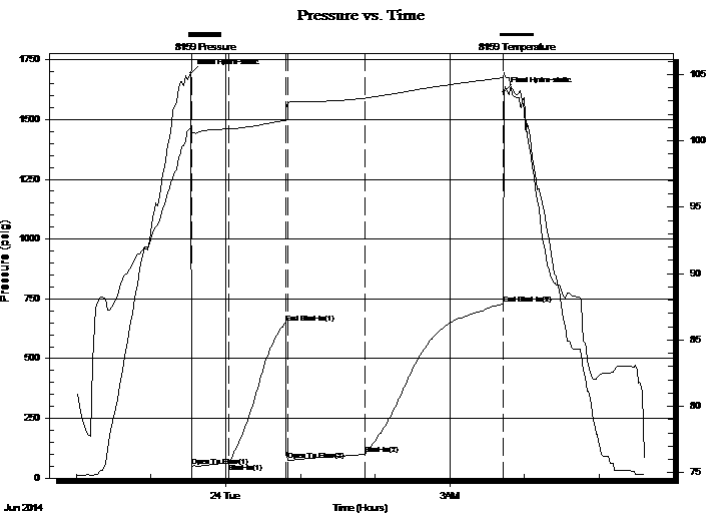
Time On Btm:

2014.06.23 @ 23:32:00

Time Off Btm:

2014.06.24 @ 03:43:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 3 1/2 minutes
1st Shut-in 45 Minutes-Yes blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 2 minutes
2nd Shut-in 90 Minutes-4 inches from bottom



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1694.01	100.91	Initial Hydro-static
1	50.57	100.66	Open To Flow (1)
31	63.96	100.89	Shut-In(1)
76	650.18	101.54	End Shut-In(1)
78	73.86	102.86	Open To Flow (2)
140	98.47	103.21	Shut-In(2)
251	727.69	104.75	End Shut-In(2)
252	1616.74	105.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	w ater oil 10%w ater 90%oil	2.24
0.00	600 feet gas in pipe	0.00
0.00	chlorides 40,000	0.00

Gas Rates

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



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Reference Elevations: 1908.00 ft (KB)

Total Depth: 3450.00 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: 726.77 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.23

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 22:00:00

End Time:

05:36:30

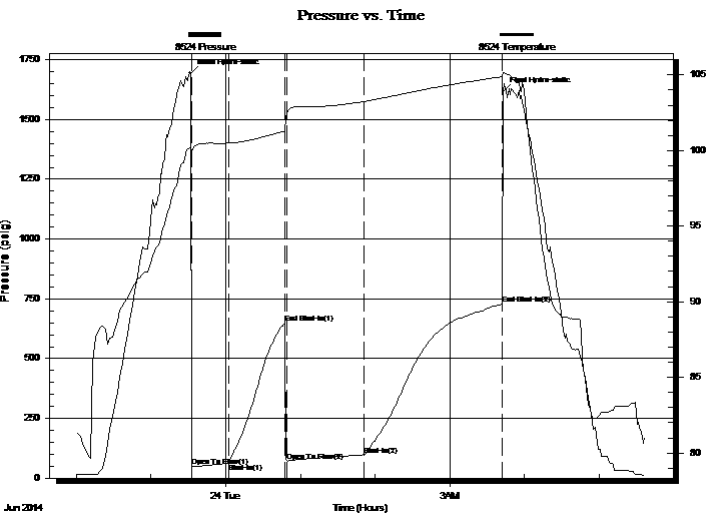
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2nd Opening 60 Minutes-Strong blow built bottom of bucket in 2 minutes
2nd Shut-in 90 Minutes-4 inches from bottom



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.51	100.18	Initial Hydro-static
1	48.55	99.95	Open To Flow (1)
31	62.69	100.49	Shut-In(1)
76	649.49	101.28	End Shut-In(1)
78	72.55	102.42	Open To Flow (2)
140	97.45	103.24	Shut-In(2)
251	726.77	104.88	End Shut-In(2)
252	1616.86	105.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	w ater oil 10%w ater 90%oil	2.24
0.00	600 feet gas in pipe	0.00
0.00	chlorides 40,000	0.00

Gas Rates

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



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TOOL DIAGRAM

Younger Energy Company

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DST#: 4

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Test Start: 2014.06.23 @ 22:00:00

Tool Information

Drill Pipe:	Length: 3404.00 ft	Diameter: 3.80 inches	Volume: 47.75 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:	65000.00 lb
			<u>Total Volume: 47.75 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	53000.00 lb
Depth to Top Packer:	3428.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	50.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3405.00	
Hydraulic tool	5.00			3410.00	
Jars	6.00			3416.00	
Safety Joint	2.00			3418.00	
Top Packer	5.00			3423.00	
Packer	5.00			3428.00	28.00 Bottom Of Top Packer
Anchor	17.00			3445.00	
Recorder	1.00	8159	Inside	3446.00	
Recorder	1.00	8524	Outside	3447.00	
Bull Plug	3.00			3450.00	22.00 Anchor Tool
Total Tool Length:	50.00				



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 48.00 sec/qt
Water Loss: 8.00 in³
Resistivity: ohm.m
Salinity: 5000.00 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
160.00	water oil 10%water 90%oil	2.244
0.00	600 feet gas in pipe	0.000
0.00	chlorides 40,000	0.000

Total Length: 160.00 ft Total Volume: 2.244 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

