



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: 2014.06.22 @ 00:17:00

End Date: 2014.06.22 @ 07:28:00

Job Ticket #: 18583 DST #: 1

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

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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: 18583

DST#: 1

ATTN: Kent Matson

Test Start: 2014.06.22 @ 00:17:00

GENERAL INFORMATION:

Formation: **Lansing Bzone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:09:00

Time Test Ended: 07:28:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 -Great Bend-20

Interval: **3327.00 ft (KB) To 3348.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3348.00 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: 55.70 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.22

End Date:

2014.06.22

Last Calib.:

2014.06.22

Start Time: 00:17:00

End Time:

07:28:00

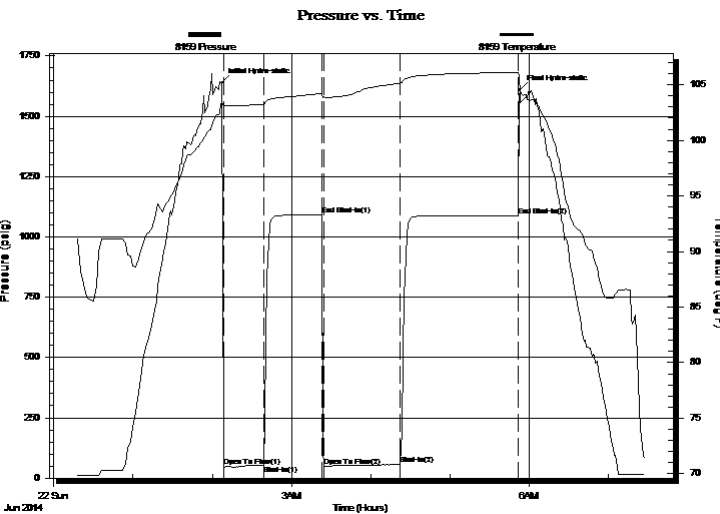
Time On Btm:

2014.06.22 @ 02:07:30

Time Off Btm:

2014.06.22 @ 05:53:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 40 sec gas to surface 15 minutes see gas report
1st Shut-in 45 Minutes-Blow back bottom of bucket
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 20 sec
2nd Shut-in 90 Minutes-Yes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.28	103.44	Initial Hydro-static
2	49.36	103.12	Open To Flow (1)
32	54.60	103.26	Shut-In(1)
76	1091.25	104.22	End Shut-In(1)
77	47.94	103.89	Open To Flow (2)
135	55.70	105.16	Shut-In(2)
225	1088.63	106.12	End Shut-In(2)
226	1609.49	104.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	mud	0.70
0.00	3262 feet gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	19.50	53.78
Last Gas Rate	0.25	19.50	53.78
Max. Gas Rate	0.25	19.50	53.78



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Time Test Ended: 07:28:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 -Great Bend-20

Interval: **3327.00 ft (KB) To 3348.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3348.00 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: 1088.40 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.22

End Date: 2014.06.22

Last Calib.: 2014.06.22

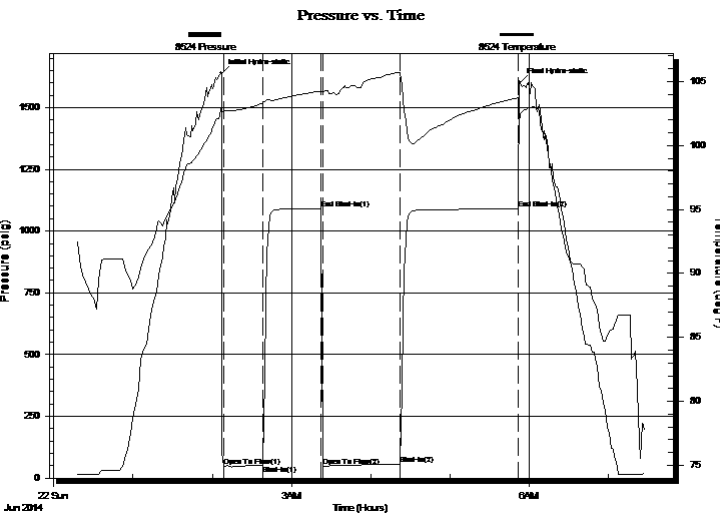
Start Time: 00:17:00

End Time: 07:27:30

Time On Btm: 2014.06.22 @ 02:07:00

Time Off Btm: 2014.06.22 @ 05:53:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 40 sec gas to surface 15 minutes see gas report
1st Shut-in 45 Minutes-Blow back bottom of bucket
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 20 sec
2nd Shut-in 90 Minutes-Yes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.07	102.95	Initial Hydro-static
2	48.99	102.75	Open To Flow (1)
32	53.56	103.31	Shut-In(1)
76	1090.51	104.26	End Shut-In(1)
77	47.59	104.18	Open To Flow (2)
136	55.67	105.69	Shut-In(2)
225	1088.40	103.72	End Shut-In(2)
226	1602.12	102.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	mud	0.70
0.00	3262 feet gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	19.50	53.78
Last Gas Rate	0.25	19.50	53.78
Max. Gas Rate	0.25	19.50	53.78



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TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

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Job Ticket: 18583

DST#: 1

ATTN: Kent Matson

Test Start: 2014.06.22 @ 00:17:00

Tool Information

Drill Pipe:	Length: 3312.00 ft	Diameter: 3.80 inches	Volume: 46.46 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: 60000.00 lb
			<u>Total Volume: 46.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3327.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3304.00	
Hydraulic tool	5.00			3309.00	
Jars	6.00			3315.00	
Safety Joint	2.00			3317.00	
Top Packer	5.00			3322.00	
Packer	5.00			3327.00	28.00 Bottom Of Top Packer
Anchor	16.00			3343.00	
Recorder	1.00		Inside	3344.00	
Recorder	1.00		Outside	3345.00	
Bull Plug	3.00			3348.00	21.00 Anchor Tool
Total Tool Length:	49.00				



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FLUID SUMMARY

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DST#: 1

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Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 45.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	mud	0.701
0.00	3262 feet gas in pipe	0.000

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



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GAS RATES

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Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	25	0.25	19.50	53.78
2	10	0.25	19.50	53.78
2	20	0.25	19.50	53.78
2	30	0.25	19.50	53.78
2	40	0.25	19.50	53.78
2	50	0.25	19.50	53.78
2	60	0.25	19.50	53.78

