



DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E. Harry Ste 403 bldg400
Wichita ,Kansas 67207

ATTN: keith Reavis

Jarbo "A" # @

25-26s-14w Pratt

Start Date: 2019.04.28 @ 06:00:00

End Date: 2019.04.28 @ 00:45:00

Job Ticket #: 01361 DST #: 4

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2019.04.28 @ 12:58:17



DRILL STEM TEST REPORT

Younger Energy Company

25-26s-14w Pratt

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Job Ticket: 01361

DST#: 4

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Test Start: 2019.04.28 @ 06:00:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:39:00

Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 4236.00 ft (KB) To 4300.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9139 Outside

Press@RunDepth: 1305.56 psig @ 4295.06 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.04.28

End Date: 2019.04.28

Last Calib.: 2019.04.28

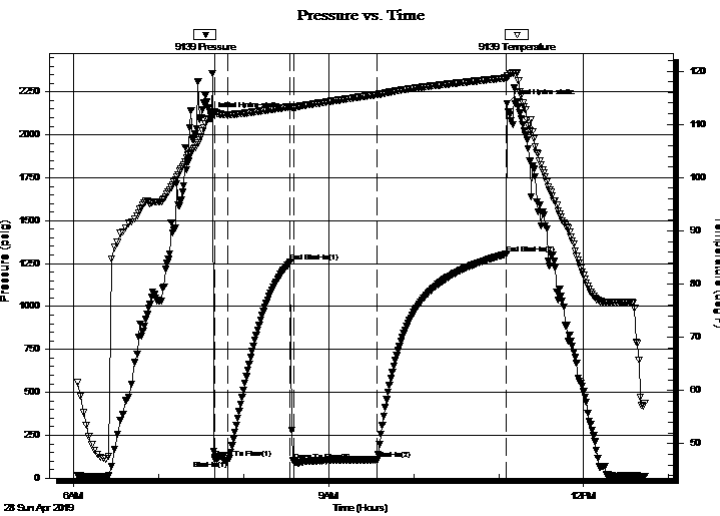
Start Time: 06:00:00

End Time: 12:43:30

Time On Btm: 2019.04.28 @ 07:37:30

Time Off Btm: 2019.04.28 @ 11:06:00

TEST COMMENT: 1st Opening 10 Minutes ghood blow built to the bottom of a 5 gallon bucket in 2 minutes
1st Shut-In 45 Minutes no blow back
2nd opening 60 Minutes gas to suirfaCE IN 2 MINUTES SEE GAS FLOW REPORT
2nd Shut-In 90 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.83	111.05	Initial Hydro-static
2	117.50	112.31	Open To Flow (1)
12	104.30	111.84	Shut-In(1)
56	1257.76	113.33	End Shut-In(1)
58	98.74	113.16	Open To Flow (2)
117	107.60	115.61	Shut-In(2)
208	1305.56	118.71	End Shut-In(2)
209	2179.79	119.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
165.00	DRILLING MUD	2.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	12.40	42.52
Last Gas Rate	0.25	12.40	42.52
Max. Gas Rate	0.25	12.40	42.52



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Time Test Ended: 00:45:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 4236.00 ft (KB) To 4300.00 ft (KB) (TVD)

Reference Elevations: 1979.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

1967.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1308.38 psig @ 4295.06 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.04.28

End Date: 2019.04.28

Last Calib.: 2019.04.28

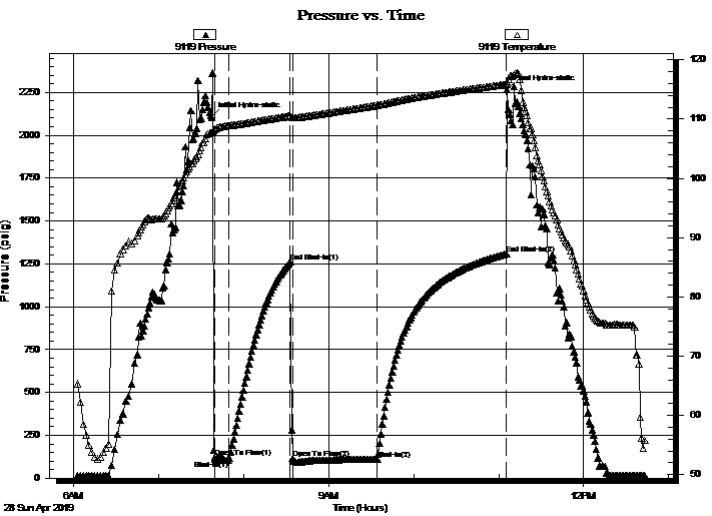
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2nd opening 60 Minutes gas to suirfaCE IN 2 MINUTES SEE GAS FLOW REPORT
2nd Shut-In 90 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2106.52	107.67	Initial Hydro-static
2	121.00	108.28	Open To Flow (1)
12	105.98	108.86	Shut-In(1)
56	1260.54	110.53	End Shut-In(1)
57	115.14	110.22	Open To Flow (2)
117	110.48	112.31	Shut-In(2)
208	1308.38	115.83	End Shut-In(2)
209	2267.82	116.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
165.00	DRILLING MUD	2.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	12.40	42.52
Last Gas Rate	0.25	12.40	42.52
Max. Gas Rate	0.25	12.40	42.52



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TOOL DIAGRAM

Younger Energy Company
 9415 E. Harry Ste 403 bldg400
 Wichita ,Kansas 67207
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25-26s-14w Pratt
Jarbo "A" # @
 Job Ticket: 01361 **DST#: 4**
 Test Start: 2019.04.28 @ 06:00:00

Tool Information

Drill Pipe:	Length: 4221.00 ft	Diameter: 3.80 inches	Volume: 59.21 bbl	Tool Weight:	2000.00 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:	72000.00 lb
			<u>Total Volume: 59.21 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4236.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	64.06 ft				
Tool Length:	94.06 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			4211.00	
Hydraulic tool	5.00			4216.00	
Jars	5.00			4221.00	
Safety Joint	5.00			4226.00	
Packer	5.00			4231.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	4236.00	
Anchor	5.00			4241.00	
Change Over Sub	0.75			4241.75	
Drill Pipe	31.56			4273.31	
Change Over Sub	0.75		Inside	4274.06	
Anchor	21.00			4295.06	
Recorder	0.00	9119	Inside	4295.06	
Recorder	0.00	9139	Outside	4295.06	
Bullnose	5.00			4300.06	64.06 Bottom Packers & Anchor

Total Tool Length: 94.06



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FLUID SUMMARY

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Job Ticket: 01361

DST#: 4

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Test Start: 2019.04.28 @ 06:00:00

Mud and Cushion Information

Mud Type:		Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.00 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
165.00	DRILLING MUD	2.315

Total Length: 165.00 ft Total Volume: 2.315 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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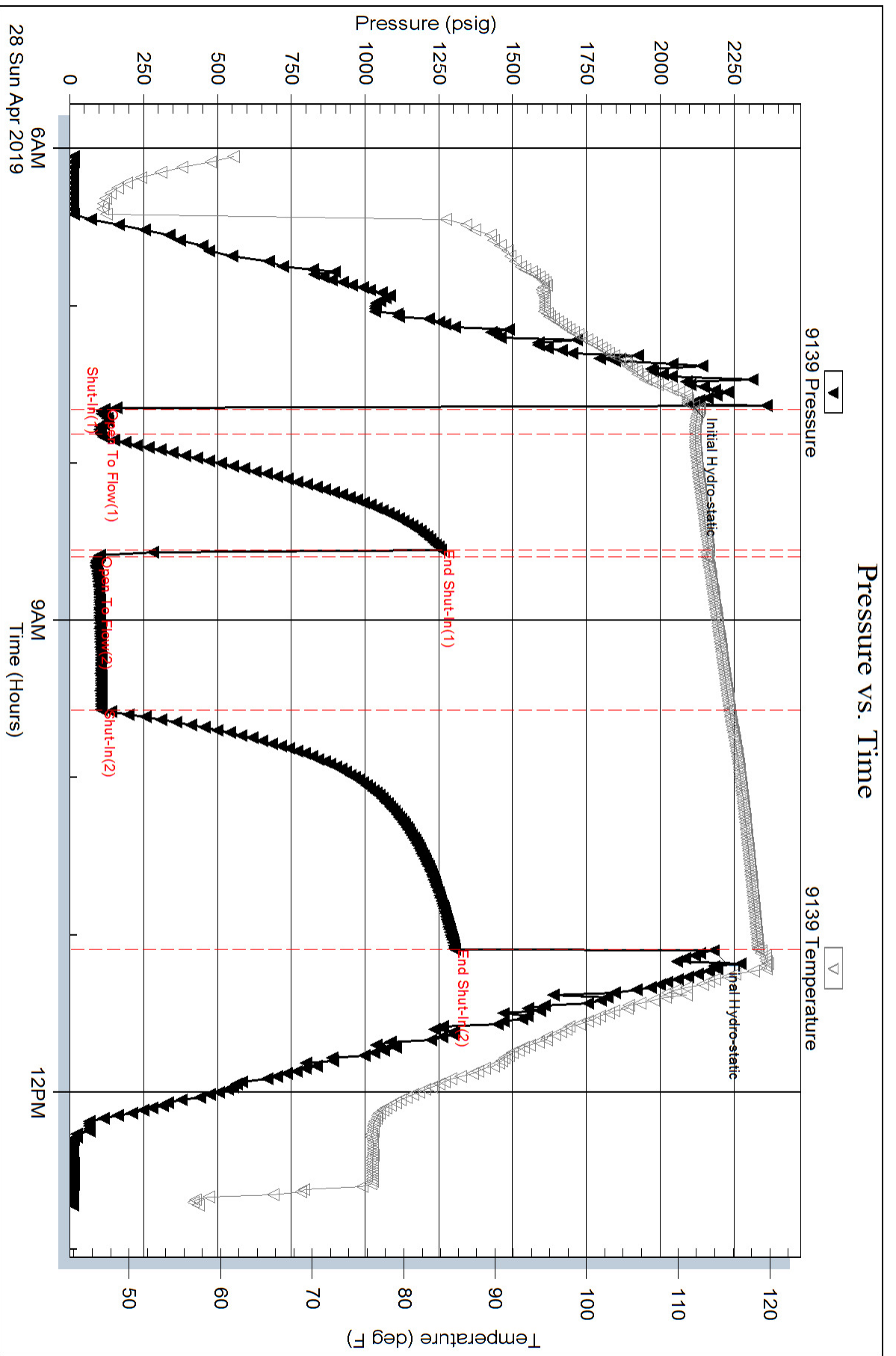
Test Start: 2019.04.28 @ 06:00:00

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)
2	15	0.25	12.40	42.52
2	25	0.25	12.40	42.52
2	35	0.25	12.40	42.52
2	45	0.25	11.00	40.30
2	55	0.25	12.40	42.52



Pressure vs. Time

