



DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206

ATTN: Renee Husted

Calcara#2-19

19-19s-14w

Start Date: 2017.09.25 @ 06:32:00

End Date: 2017.09.25 @ 00:00:00

Job Ticket #: 01193 DST #: 1

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

Printed: 2017.09.25 @ 16:34:03



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Job Ticket: 01193

DST#: 1

ATTN: Renee Husted

Test Start: 2017.09.25 @ 06:32:00

GENERAL INFORMATION:

Formation: **Kansas City "H & I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:43:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3340.00 ft (KB) To 3382.00 ft (KB) (TVD)**

Reference Elevations: 1910.00 ft (KB)

Total Depth: 3382.00 ft (KB) (TVD)

1902.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139

Inside

Press@RunDepth: 1120.37 psig @ 3377.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2017.09.25

End Date:

2017.09.25

Last Calib.:

2017.09.25

Start Time: 06:35:00

End Time:

16:23:00

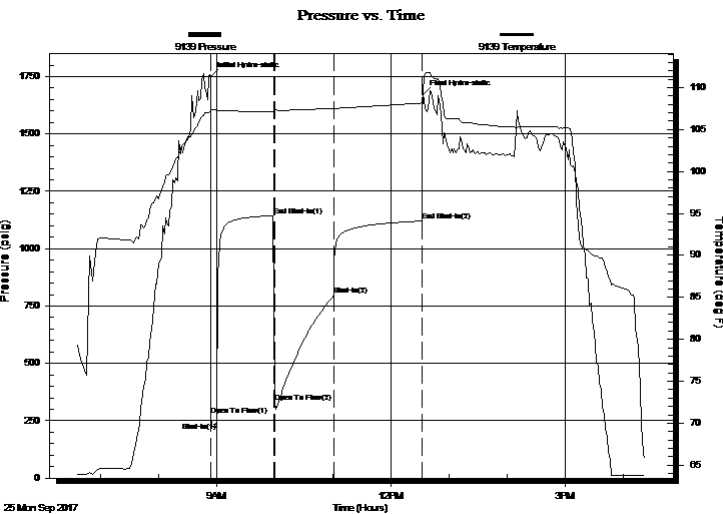
Time On Btm:

2017.09.25 @ 08:53:00

Time Off Btm:

2017.09.25 @ 12:33:00

TEST COMMENT: 1st opening 5 Minutes strong blow bottom of the bucket in 30 second
1st Shut-In 60 Minutes good blow back
2nd Opening 60 Minutes Strong blow with gas to surface max. gauged 5.32 mcf
2nd Shut-in 90 Minutes good blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1751.42	107.09	Initial Hydro-static
1	274.37	107.39	Open To Flow (1)
7	242.43	107.40	Shut-In(1)
66	1143.67	107.17	End Shut-In(1)
67	330.48	107.35	Open To Flow (2)
128	797.06	107.53	Shut-In(2)
219	1120.37	108.15	End Shut-In(2)
220	1673.33	109.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2900.00	clean gassy oil 30% Gas 70% Oil	40.68
0.00	gas gauged 15 min-5.32mcf	0.00
0.00	25 min. 5.05mcf	0.00
0.00	35 min 4.76mcf	0.00
0.00	45 min. 4.12mcf	0.00
0.00	55 min 3.37mcf	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13		
Last Gas Rate	0.13		



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Reference Elevations: 1910.00 ft (KB)

Total Depth: 3382.00 ft (KB) (TVD)

1902.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 91716 Outside

Press@RunDepth: 1091.67 psig @ 3377.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2017.09.25

End Date:

2017.09.25

Last Calib.:

2017.09.25

Start Time: 06:35:00

End Time:

16:22:30

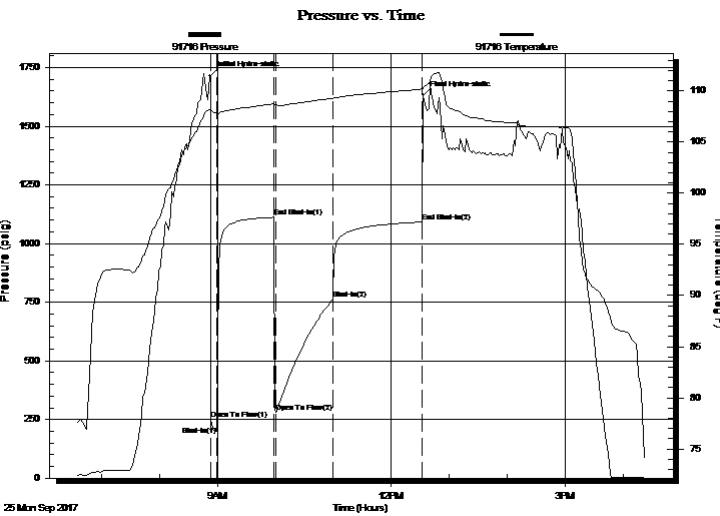
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2nd Opening 60 Minutes Strong blow with gas to surface max. gauged 5.32 mcf
2nd Shut-in 90 Minutes good blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1714.10	108.21	Initial Hydro-static
1	252.18	108.19	Open To Flow (1)
7	222.43	107.79	Shut-In(1)
66	1111.75	108.74	End Shut-In(1)
67	280.58	108.66	Open To Flow (2)
127	765.55	109.28	Shut-In(2)
219	1091.67	110.18	End Shut-In(2)
220	1630.36	110.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2900.00	clean gassy oil 30%Gas 70% Oil	40.68
0.00	gas gauged 15 min-5.32mcf	0.00
0.00	25 min. 5.05mcf	0.00
0.00	35 min 4.76mcf	0.00
0.00	45 min. 4.12mcf	0.00
0.00	55 min 3.37mcf	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13		
Last Gas Rate	0.13		



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TOOL DIAGRAM

F.G.Holl Company LLC

19-19s-14w

9431 East Central Suite 100
Wichita, Kansas 67206

Calcara#2-19

Job Ticket: 01193

DST#: 1

ATTN: Renee Husted

Test Start: 2017.09.25 @ 06:32:00

Tool Information

Drill Pipe:	Length: 3335.00 ft	Diameter: 3.80 inches	Volume: 46.78 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: 74000.00 lb
			<u>Total Volume: 46.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3340.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3315.00	
Hydraulic tool	5.00			3320.00	
Jars	5.00			3325.00	
Safety Joint	5.00			3330.00	
Packer	5.00			3335.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3340.00	
Anchor	37.00			3377.00	
Recorder	0.00	9139	Inside	3377.00	
Recorder	0.00	91716	Outside	3377.00	
Bullnose	5.00			3382.00	42.00 Bottom Packers & Anchor
Total Tool Length:	72.00				



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FLUID SUMMARY

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Test Start: 2017.09.25 @ 06:32:00

Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 59.00 sec/qt
 Water Loss: 9.20 in³
 Resistivity: ohm.m
 Salinity: 5700.00 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
2900.00	clean gassy oil 30%Gas 70% Oil	40.679
0.00	gas gauged 15 min-5.32mcf	0.000
0.00	25 min. 5.05mcf	0.000
0.00	35 min 4.76mcf	0.000
0.00	45 min. 4.12mcf	0.000
0.00	55 min 3.37mcf	0.000
0.00	Gravity 41 corrected	0.000

Total Length: 2900.00 ft Total Volume: 40.679 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

