



DRILL STEM TEST REPORT

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

9431 East Central STE 100
Wichita Kansas 67206

ATTN: Rene Husted

Calcara unit 1-19

19-19s-14-Barton

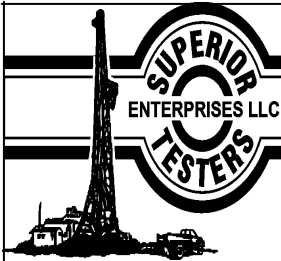
Start Date: 2014.06.08 @ 11:20:00

End Date: 2014.06.08 @ 17:50:00

Job Ticket #: 18335 DST #: 9

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

Printed: 2014.06.09 @ 07:09:12



DRILL STEM TEST REPORT

F.G. Holl Company
 9431 East Central STE 100
 Wichita Kansas 67206
 ATTN: Rene Husted

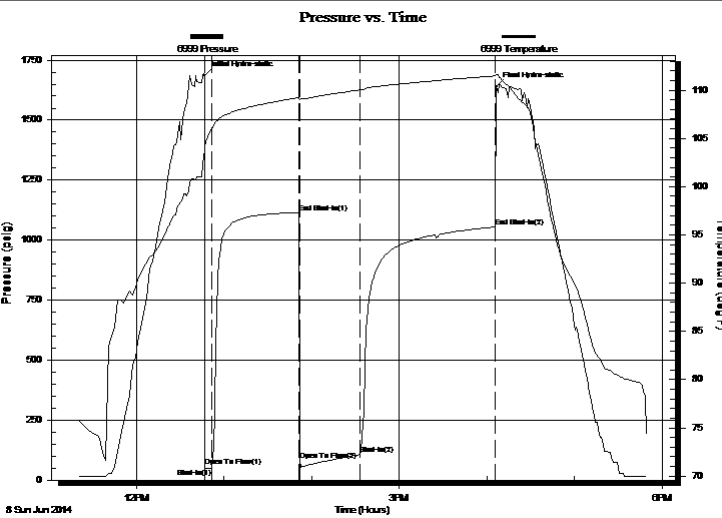
19-19s-14-Barton
Calcara unit 1-19
 Job Ticket: 18335 **DST#: 9**
 Test Start: 2014.06.08 @ 11:20:00

GENERAL INFORMATION:

Formation: Lansing J	Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 12:47:00	Time Test Ended: 17:50:00		Tester: Dustin Ellis
			Unit No: 3315-Great Bend-15
Interval: 3377.00 ft (KB) To 3395.00 ft (KB) (TVD)	Total Depth: 3395.00 ft (KB) (TVD)	Hole Diameter: 7.88 inches	Hole Condition: Fair
			Reference Elevations: 1904.00 ft (KB)
			1896.00 ft (CF)
			KB to GR/CF: 8.00 ft

Serial #: 6999	Outside	Capacity: 5000.00 psig
Press@RunDepth: 106.64 psig @ 3390.00 ft (KB)		Last Calib.: 2014.06.09
Start Date: 2014.06.08	End Date: 2014.06.08	Time On Btm: 2014.06.08 @ 12:46:30
Start Time: 11:20:00	End Time: 17:50:00	Time Off Btm: 2014.06.08 @ 16:06:30

TEST COMMENT: 1st Open 5 minutes Strong building blow built to the botom of a 5 gallon bucket of water in 1.5 minutes.
 1st Shut in 60 minutes No blow back
 2nd Open 45 minutes Strong building blow built to the bottom of a 5 gallon bucket of water instantly.
 2nd Shut in 90 minutes Yes blow back



PRESSURE SUMMARY

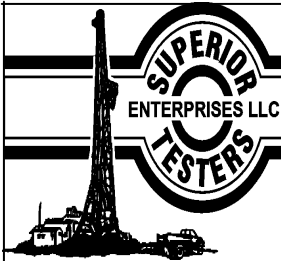
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.20	103.81	Initial Hydro-static
1	57.90	104.00	Open To Flow (1)
6	51.31	106.04	Shut-In(1)
65	1115.70	109.24	End Shut-In(1)
66	81.43	109.05	Open To Flow (2)
107	106.64	110.02	Shut-In(2)
199	1054.65	111.48	End Shut-In(2)
200	1639.68	111.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
161.00	Clean gassy oil Oil 100%	2.26
63.00	Gassy oil cut mud	0.88
0.00	Oil 40% Mud 40% Gas 20%	0.00
0.00	Gravity of oil 39 corrected	0.00

Gas Rates

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



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 Wichita Kansas 67206
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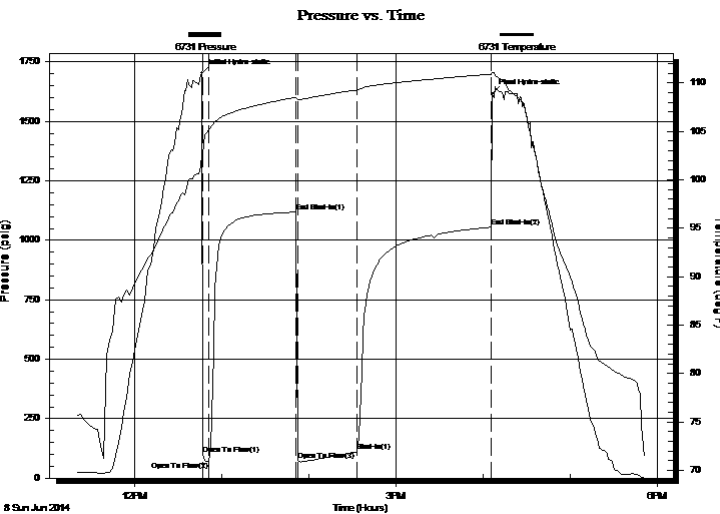
19-19s-14-Barton
Calcara unit 1-19
 Job Ticket: 18335 **DST#: 9**
 Test Start: 2014.06.08 @ 11:20:00

GENERAL INFORMATION:

Formation: **Lansing J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:47:00
 Time Test Ended: 17:50:00
 Interval: **3377.00 ft (KB) To 3395.00 ft (KB) (TVD)**
 Total Depth: 3395.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: 3315-Great Bend-15
 Reference Elevations: 1904.00 ft (KB)
 1896.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6731 Inside
 Press@RunDepth: 1055.66 psig @ 3390.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.06.08 End Date: 2014.06.08 Last Calib.: 2014.06.09
 Start Time: 11:20:00 End Time: 17:51:30 Time On Btm: 2014.06.08 @ 12:46:30
 Time Off Btm: 2014.06.08 @ 16:06:30

TEST COMMENT: 1st Open 5 minutes Strong building blow built to the bootm of a 5 gallon bucket of water in 1.5 minutes.
 1st Shut in 60 minutes No blow back
 2nd Open 45 minutes Strong building blow built to the bottom of a 5 gallon bucket of water instantly.
 2nd Shut in 90 minutes Yes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.45	102.72	Initial Hydro-static
1	101.74	102.50	Open To Flow (1)
5	70.08	105.19	Open To Flow (2)
65	1119.23	108.51	End Shut-In(1)
66	77.23	108.27	Open To Flow (3)
107	112.62	109.28	Shut-In(1)
199	1055.66	110.89	End Shut-In(2)
200	1616.78	111.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
161.00	Clean gassy oil Oil 100%	2.26
63.00	Gassy oil cut mud	0.88
0.00	Oil 40% Mud 40% Gas 20%	0.00
0.00	Gravity of oil 39 corrected	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G. Holl Company

19-19s-14-Barton

9431 East Central STE 100
Wichita Kansas 67206

Calcara unit 1-19

Job Ticket: 18335

DST#: 9

ATTN: Rene Husted

Test Start: 2014.06.08 @ 11:20:00

Tool Information

Drill Pipe:	Length: 3365.00 ft	Diameter: 3.80 inches	Volume: 47.20 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: 62000.00 lb
			<u>Total Volume: 47.20 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3377.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	46.00 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			3354.00	
Hydraulic tool	5.00			3359.00	
Jars	6.00			3365.00	
Safety Joint	2.00			3367.00	
Top Packer	5.00			3372.00	
Packer	5.00			3377.00	28.00 Bottom Of Top Packer
Perforations	13.00			3390.00	
Recorder	0.00	6731	Inside	3390.00	
Recorder	0.00	6999	Outside	3390.00	
Bull Plug	5.00			3395.00	18.00 Anchor Tool
Total Tool Length:	46.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

F.G. Holl Company

19-19s-14-Barton

9431 East Central STE 100
Wichita Kansas 67206

Calcara unit 1-19

Job Ticket: 18335

DST#: 9

ATTN: Rene Husted

Test Start: 2014.06.08 @ 11:20:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 46.00 sec/qt
Water Loss: 14.40 in³
Resistivity: ohm.m
Salinity: 7500.00 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
161.00	Clean gassy oil Oil 100%	2.258
63.00	Gassy oil cut mud	0.884
0.00	Oil 40% Mud 40% Gas 20%	0.000
0.00	Gravity of oil 39 corrected	0.000

Total Length: 224.00 ft Total Volume: 3.142 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

