



DRILL STEM TEST REPORT

Prepared For: **FG Holl Company LLC**

9431 E. Central STE 100
Wichita Kansas, 67208-2563

ATTN: Frank Greenbaum

Mermis "B" #1-31

31-20s-15w-Barton

Start Date: 2013.04.22 @ 08:30:00

End Date: 2013.04.22 @ 14:16:30

Job Ticket #: 17573 DST #: 4

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

Printed: 2013.04.22 @ 14:39:12



DRILL STEM TEST REPORT

FG Holl Company LLC
 9431 E. Central STE 100
 Wichita Kansas, 67208-2563
 ATTN: Frank Greenbaum

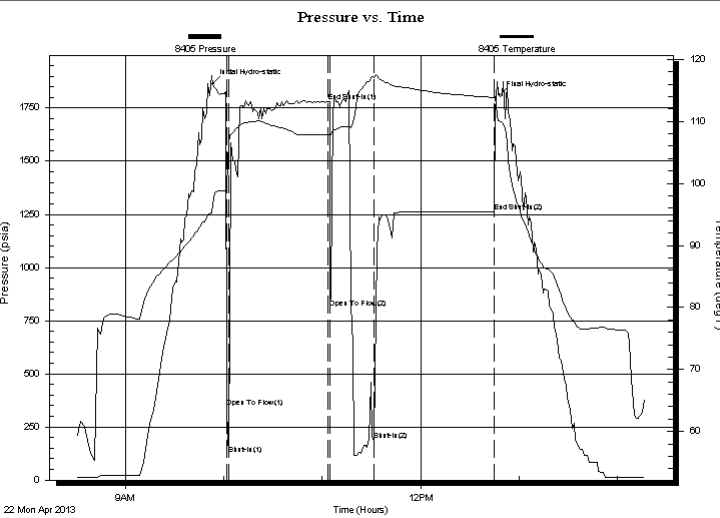
31-20s-15w-Barton
Mermis "B" #1-31
 Job Ticket: 17573 **DST#: 4**
 Test Start: 2013.04.22 @ 08:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:02:00
 Time Test Ended: 14:16:30
 Interval: **3805.00 ft (KB) To 3815.00 ft (KB) (TVD)**
 Total Depth: 3815.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane Konzem
 Unit No: 3330/50/Great Bend
 Reference Elevations: 2001.00 ft (KB)
 1993.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8405 Inside
 Press @ Run Depth: 186.84 psia @ 3811.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.04.22 End Date: 2013.04.22 Last Calib.: 2013.04.22
 Start Time: 08:30:00 End Time: 14:16:30 Time On Btm: 2013.04.22 @ 09:53:30
 Time Off Btm: 2013.04.22 @ 12:48:00

TEST COMMENT: 1st Open/ 1 Minutes. Strong blow built to bottom of 5 gallon bucket in 330 seconds.
 1st Shut In/ 60 Minutes. No Blow back.
 2nd Open/ 36 Minutes. After flushing tool blow built to bottom of 5 gallon bucket in 3 1/2 minutes.
 2nd Shut In/ 60 Minutes. No blow back.



PRESSURE SUMMARY

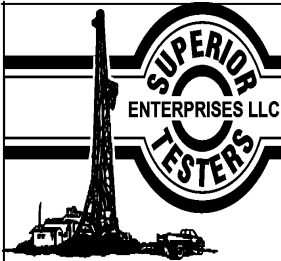
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1863.33	96.55	Initial Hydro-static
9	341.69	99.01	Open To Flow (1)
10	123.05	106.30	Shut-In(1)
70	1779.21	107.90	End Shut-In(1)
72	810.75	107.67	Open To Flow (2)
98	186.84	117.12	Shut-In(2)
172	1261.88	113.81	End Shut-In(2)
175	1808.70	110.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	100% mud	0.98
60.00	25% mud, 75% water	0.84
120.00	100% water	1.68
0.00	chloride recov 3200 ppm	0.00
0.00	resist recov .22 ohms at 40 degrees.	0.00

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
----------------	-----------------	------------------



DRILL STEM TEST REPORT

FG Holl Company LLC
 9431 E. Central STE 100
 Wichita Kansas, 67208-2563
 ATTN: Frank Greenbaum

31-20s-15w-Barton

Mermis "B" #1-31

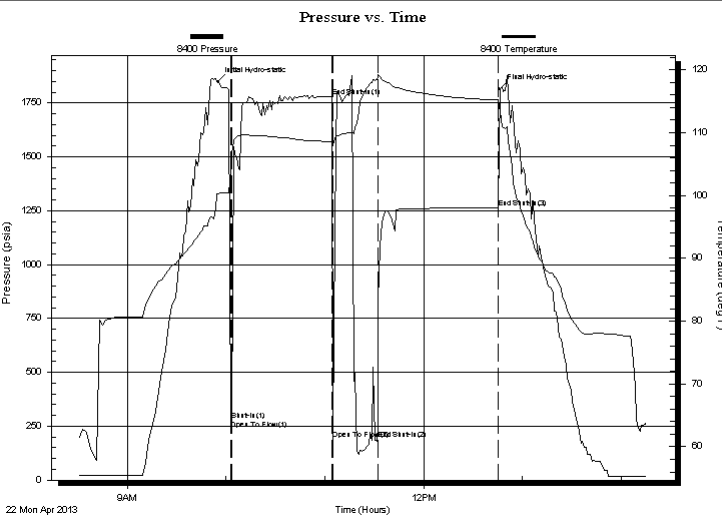
Job Ticket: 17573 **DST#: 4**
 Test Start: 2013.04.22 @ 08:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:02:00
 Time Test Ended: 14:16:30
 Interval: **3805.00 ft (KB) To 3815.00 ft (KB) (TVD)**
 Total Depth: 3815.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane Konzem
 Unit No: 3330/50/Great Bend
 Reference Elevations: 2001.00 ft (KB)
 1993.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8400 Outside
 Press @ Run Depth: 1262.44 psia @ 3812.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.04.22 End Date: 2013.04.22 Last Calib.: 2013.04.22
 Start Time: 08:30:00 End Time: 14:16:00 Time On Btm: 2013.04.22 @ 09:55:00
 Time Off Btm: 2013.04.22 @ 12:46:30

TEST COMMENT: 1st Open/ 1 Minutes. Strong blow built to bottom of 5 gallon bucket in 330 seconds.
 1st Shut In/ 60 Minutes. No Blow back.
 2nd Open/ 36 Minutes. After flushing tool blow built to bottom of 5 gallon bucket in 3 1/2 minutes.
 2nd Shut In/ 60 Minutes. No blow back.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1848.83	100.30	Initial Hydro-static
8	235.09	103.78	Open To Flow (1)
9	278.81	106.61	Shut-In(1)
69	1779.49	108.58	End Shut-In(1)
70	191.49	107.99	Open To Flow (2)
97	230.52	118.86	End Shut-In(2)
171	1262.44	115.20	End Shut-In(3)
172	1814.22	113.29	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
70.00	100% mud	0.98
60.00	25% mud, 75% water	0.84
120.00	100% water	1.68
0.00	chloride recov 3200 ppm	0.00
0.00	resist recov .22 ohms at 40 degrees.	0.00

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



DRILL STEM TEST REPORT

TOOL DIAGRAM

FG Holl Company LLC

31-20s-15w-Barton

9431 E. Central STE 100
Wichita Kansas, 67208-2563

Mermis "B" #1-31

Job Ticket: 17573

DST#: 4

ATTN: Frank Greenbaum

Test Start: 2013.04.22 @ 08:30:00

Tool Information

Drill Pipe:	Length: 3810.00 ft	Diameter: 3.80 inches	Volume: 53.44 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: 59000.00 lb
			<u>Total Volume: 53.44 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3805.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	38.00 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-InTool	5.00		Inside	3782.00	
Hydraulic Tool	5.00			3787.00	
Jars	6.00			3793.00	
Safety Joint	2.00			3795.00	
Packer	5.00			3800.00	28.00 Bottom Of Top Packer
Packer	5.00			3805.00	
Anchor	5.00			3810.00	
Recorder	1.00	8405	Inside	3811.00	
Recorder	1.00	8400	Outside	3812.00	
Bullnose	3.00			3815.00	10.00 Bottom Packers & Anchor
Total Tool Length:	38.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

FG Holl Company LLC
9431 E. Central STE 100
Wichita Kansas, 67208-2563
ATTN: Frank Greenbaum

31-20s-15w-Barton
Mermis "B" #1-31
Job Ticket: 17573 **DST#: 4**
Test Start: 2013.04.22 @ 08:30:00

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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5600.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	100% mud	0.982
60.00	25% mud, 75% w ater	0.842
120.00	100% w ater	1.683
0.00	chloride recov 3200 ppm	0.000
0.00	resist recov .22 ohms at 40 degrees.	0.000

Total Length: 250.00 ft Total Volume: 3.507 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time

