



## DRILL STEM TEST REPORT

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

9431 East Central Suite100  
Wichita, Kansas 67206-2563

ATTN: Ryan Greenbaum

### **McDonald #1-19**

### **19-20s-13w Barton**

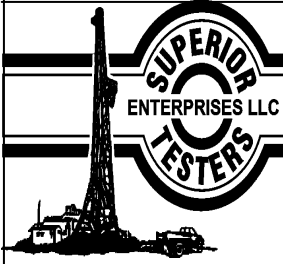
Start Date: 2013.07.23 @ 00:00:00

End Date: 2013.07.23 @ 00:00:00

Job Ticket #: 17750                      DST #: 4

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

Printed: 2013.07.23 @ 09:51:36



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F.G. Holl Company L.L.C.

**19-20s-13w Barton**

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**McDonald #1-19**

Job Ticket: 17750

**DST#: 4**

ATTN: Ryan Greenbaum

Test Start: 2013.07.23 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Kansas City "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

**Interval: 3402.00 ft (KB) To 3430.00 ft (KB) (TVD)**

Total Depth: 3430.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Gend Budig

Unit No: 3335

Reference Elevations: 1888.00 ft (KB)

1880.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 6748**

**Outside**

Press@RunDepth: 694.07 psia @ 3427.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.07.23

End Date:

2013.07.23

Last Calib.:

2013.07.23

Start Time: 02:30:00

End Time:

09:41:30

Time On Btm:

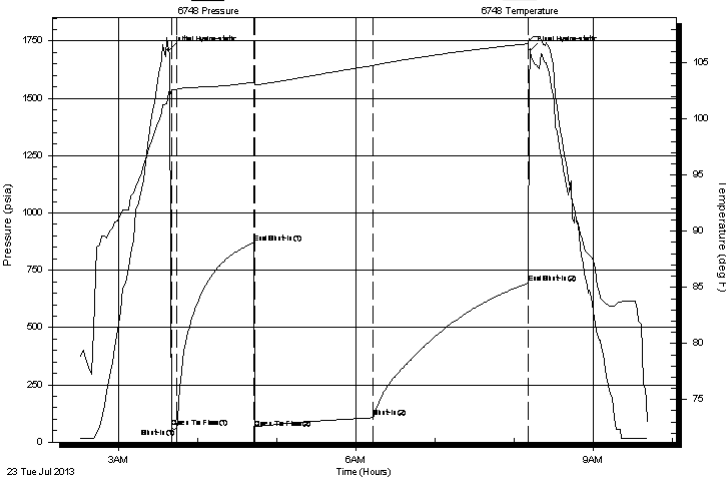
2013.07.23 @ 03:37:30

Time Off Btm:

2013.07.23 @ 08:12:30

**TEST COMMENT:** 1st Opening 5 Minutes- Good blow built to the bottom of a 5 gallon bucket in 3 minutes  
1st Shut-In 60 Minutes- No blow back  
2nd Opening 90 Minutes-Good blow built to the bottom of a 5 gallon bucket in 3 minutes  
2nd Shut-In 120 Minutes-No blow back

Pressure vs. Time



## PRESSURE SUMMARY

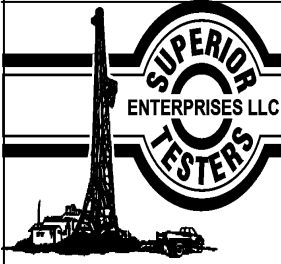
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1710.11	102.37	Initial Hydro-static
3	65.43	102.59	Open To Flow (1)
6	58.18	102.63	Shut-In(1)
65	869.71	103.28	End Shut-In(1)
66	62.22	103.02	Open To Flow (2)
156	106.79	104.76	Shut-In(2)
274	694.07	106.71	End Shut-In(2)
275	1710.07	107.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2250 feet of gas in the pipe	0.00
30.00	oil and gas cut mud	0.42
0.00	3%Gas 45%Oil 40%Mud 12%Water	0.00
90.00	very slightly oil cut w ater	1.26
0.00	1%Oil 10%Mud 89%Water chlorides 5600.00	0.00

## Gas Rates

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



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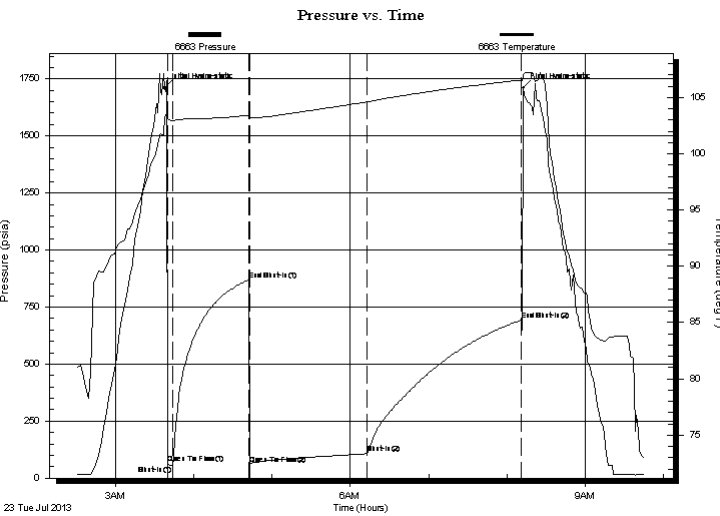
**19-20s-13w Barton**  
**McDonald #1-19**  
 Job Ticket: 17750 **DST#: 4**  
 Test Start: 2013.07.23 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Kansas City "J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gend Budig  
 Unit No: 3335  
 Interval: **3402.00 ft (KB) To 3430.00 ft (KB) (TVD)**  
 Reference Elevations: 1888.00 ft (KB)  
 Total Depth: 3430.00 ft (KB) (TVD) 1880.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

**Serial #: 6663 Inside**  
 Press@RunDepth: 693.50 psia @ 3426.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.07.23 End Date: 2013.07.23 Last Calib.: 2013.07.23  
 Start Time: 02:30:00 End Time: 09:45:30 Time On Btm: 2013.07.23 @ 03:37:30  
 Time Off Btm: 2013.07.23 @ 08:12:30

**TEST COMMENT:** 1st Opening 5 Minutes- Good blow built to the bottom of a 5 gallon bucket in 3 minutes  
 1st Shut-In 60 Minutes- No blow back  
 2nd Opening 90 Minutes-Good blow built to the bottom of a 5 gallon bucket in 3 minutes  
 2nd Shut-In 120 Minutes-No blow back



## PRESSURE SUMMARY

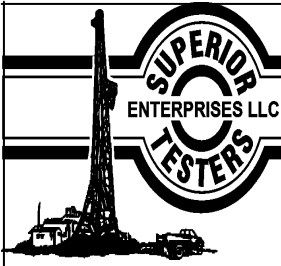
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1709.87	103.30	Initial Hydro-static
3	62.95	103.15	Open To Flow (1)
6	57.06	102.96	Shut-In(1)
65	869.42	103.43	End Shut-In(1)
66	62.67	103.21	Open To Flow (2)
156	107.02	104.61	Shut-In(2)
274	693.50	106.55	End Shut-In(2)
275	1711.48	106.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2250 feet of gas in the pipe	0.00
30.00	oil and gas cut mud	0.42
0.00	3%Gas 45%Oil 40%Mud 12%Water	0.00
90.00	very slightly oil cut water	1.26
0.00	1%Oil 10%Mud 89%Water chlorides 5600	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

F.G. Holl Company L.L.C.  
 9431 East Central Suite100  
 Wichita, Kansas 67206-2563  
 ATTN: Ryan Greenbaum

**19-20s-13w Barton**  
**McDonald #1-19**  
 Job Ticket: 17750 **DST#: 4**  
 Test Start: 2013.07.23 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 3409.00 ft	Diameter: 3.80 inches	Volume: 47.82 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:	61000.00 lb
			<u>Total Volume: 47.82 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3402.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	48.00 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			3387.00	
Hydraulic Tool	5.00			3392.00	
Packer	5.00			3397.00	20.00 Bottom Of Top Packer
Packer	5.00			3402.00	
Anchor	23.00			3425.00	
Recorder	1.00	6663	Inside	3426.00	
Recorder	1.00	6748	Outside	3427.00	
Bullnose	3.00			3430.00	28.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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**McDonald #1-19**

Job Ticket: 17750

**DST#: 4**

ATTN: Ryan Greenbaum

Test Start: 2013.07.23 @ 00:00:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 50.00 sec/qt  
Water Loss: 8.80 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 6800.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2250 feet of gas in the pipe	0.000
30.00	oil and gas cut mud	0.421
0.00	3%Gas 45%Oil 40%Mud 12%Water	0.000
90.00	very slightly oil cut w ater	1.262
0.00	1%Oil 10%Mud 89%Water chlorides 56000	0.000

Total Length: 120.00 ft      Total Volume: 1.683 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

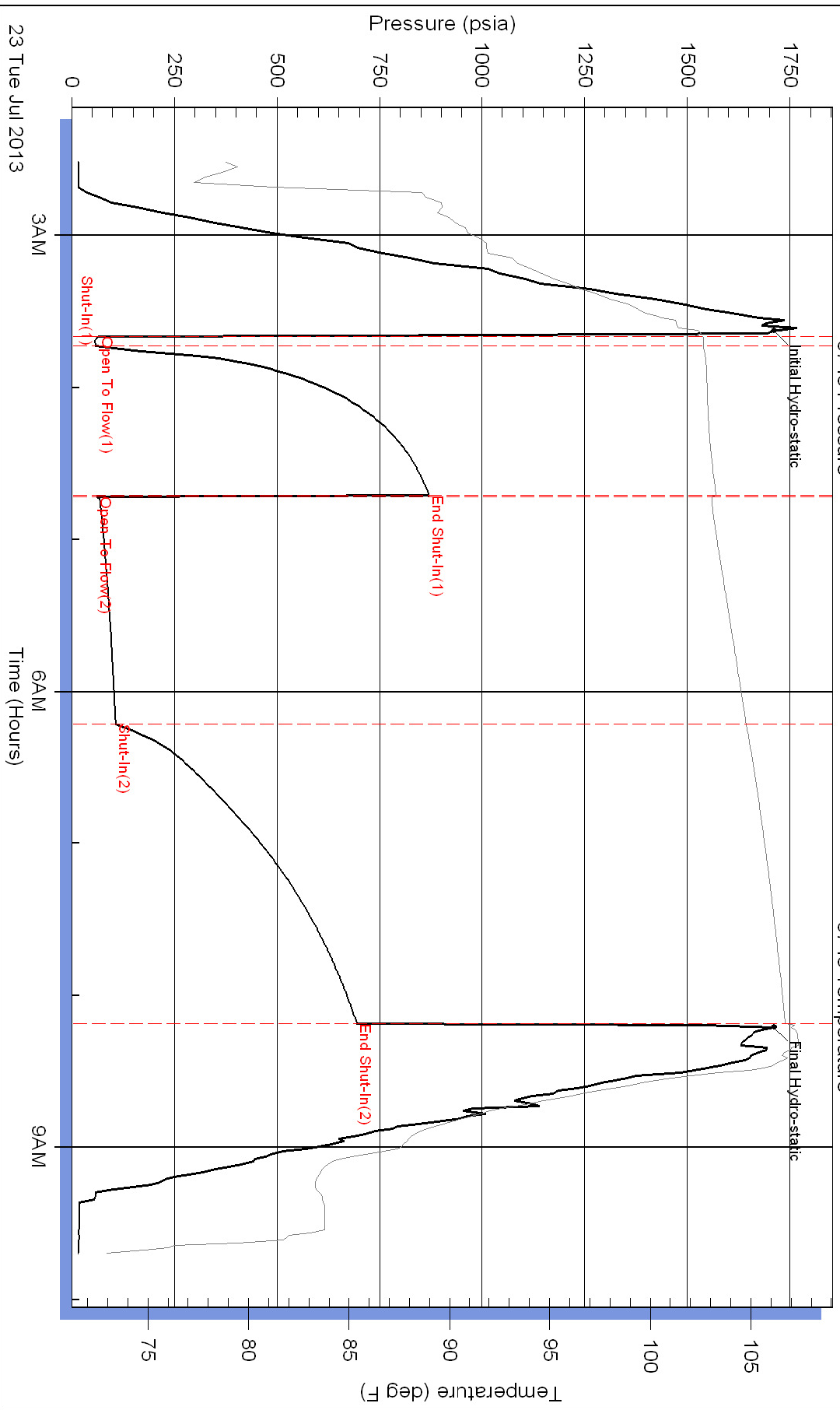
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

