



## DRILL STEM TEST REPORT

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

9431 E Central STE 100 Wichita Kansas  
67206-2563

ATTN: Frank

**Wolf #3-12**

**12-20s-15w/ Barton**

Start Date: 2013.02.09 @ 00:00:00

End Date: 2013.02.09 @ 00:00:00

Job Ticket #: 16969                      DST #: 2

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

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**Wolf #3-12**

Job Ticket: 16969

**DST#: 2**

ATTN: Frank

Test Start: 2013.02.09 @ 00:00:00

## GENERAL INFORMATION:

Formation: **arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 00:00:00  
 Tester: Gene Budig  
 Time Test Ended: 00:00:00  
 Unit No: 3335  
 Interval: **1813.00 ft (KB) To 1900.00 ft (KB) (TVD)**  
 Reference Elevations: 1980.00 ft (KB)  
 Total Depth: 1900.00 ft (KB) (TVD)  
 1972.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 8.00 ft

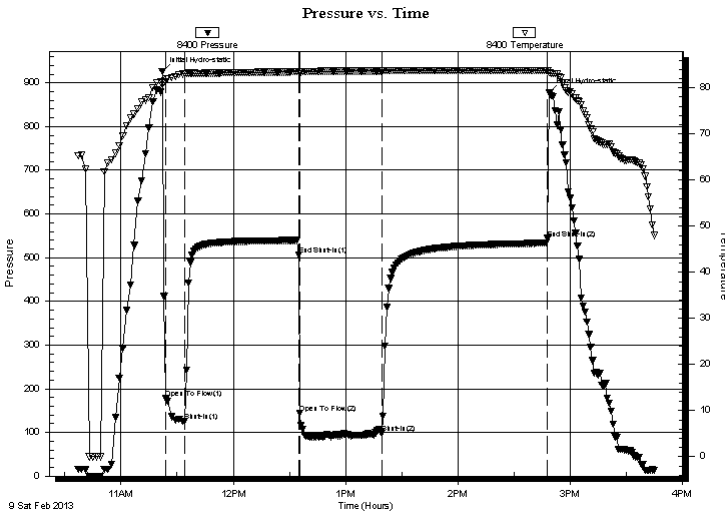
## Serial #: 8400

Inside

Press @ RunDepth: 544.00 psia @ 1896.11 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.02.09 End Date: 2013.02.09 Last Calib.: 2013.02.09  
 Start Time: 10:37:00 End Time: 15:45:30 Time On Btm: 2013.02.09 @ 11:22:00  
 Time Off Btm: 2013.02.09 @ 14:49:00

**TEST COMMENT:** 1st Opening 12 Minutes -Strong blow with gas to surface in 10 minutes  
 1st Shut-In 60 Minutes fair blow back  
 2nd Opening 45 Minutes -Strong blow see gas rates  
 2nd Shut-In 90 Minutes Fair blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	926.38	81.31	Initial Hydro-static
2	178.48	81.91	Open To Flow (1)
12	125.58	83.06	Shut-In(1)
73	506.56	83.44	End Shut-In(1)
74	144.46	83.39	Open To Flow (2)
118	97.65	83.66	Shut-In(2)
207	544.00	83.78	End Shut-In(2)
207	878.21	83.28	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	Drilling Mud	1.05

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.75	4.65	72.63
Last Gas Rate	0.75	5.15	80.44
Max. Gas Rate	0.75	5.15	80.44



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Job Ticket: 16969

**DST#: 2**

ATTN: Frank

Test Start: 2013.02.09 @ 00:00:00

## GENERAL INFORMATION:

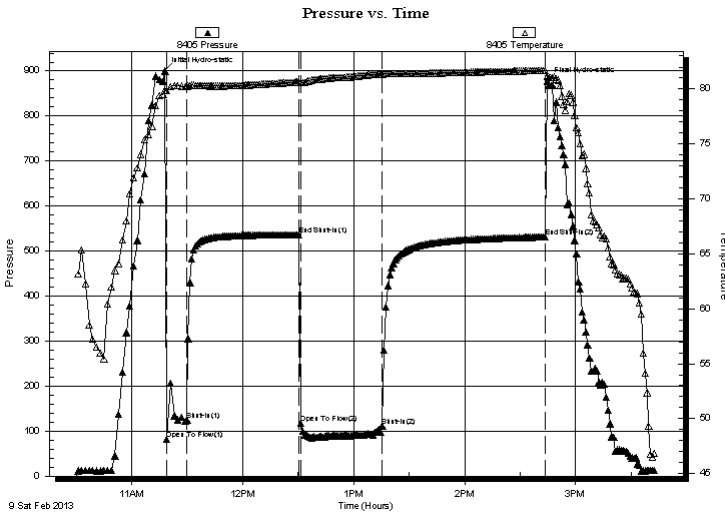
Formation: **arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **1813.00 ft (KB) To 1900.00 ft (KB) (TVD)**  
 Total Depth: 1900.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335  
 Reference Elevations: 1980.00 ft (KB)  
 1972.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8405 Outside

Press @ RunDepth: 531.31 psia @ 1897.11 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.02.09 End Date: 2013.02.09 Last Calib.: 2013.02.09  
 Start Time: 10:31:00 End Time: 15:42:30 Time On Btm: 2013.02.09 @ 11:18:00  
 Time Off Btm: 2013.02.09 @ 14:44:30

**TEST COMMENT:** 1st Opening 12 Minutes -Strong blow with gas to surface in 10 minutes  
 1st Shut-In 60 Minutes fair blow basck  
 2nd Opening 45 Minutes -Strong blow see gas rates  
 2nd Shut-In 90 Minutes Fair blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	899.97	79.83	Initial Hydro-static
1	81.92	79.86	Open To Flow (1)
12	123.60	80.23	Shut-In(1)
73	536.66	80.64	End Shut-In(1)
74	117.09	80.58	Open To Flow (2)
118	111.29	81.37	Shut-In(2)
206	531.31	81.70	End Shut-In(2)
207	876.74	81.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	Drilling Mud	1.05

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.75	4.65	72.63
Last Gas Rate	0.75	5.15	80.44
Max. Gas Rate	0.75	5.15	80.44



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

F.G. Holl Company LLC

**12-20s-15w/ Barton**

9431 E Central STE 100 Wichita Kansas 67206-2563

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**DST#: 2**

ATTN: Frank

Test Start: 2013.02.09 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 1794.00 ft	Diameter: 3.80 inches	Volume: 25.17 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: 35000.00 lb
			<u>Total Volume: 25.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	1813.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.11 ft			
Tool Length:	115.11 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-InTool	5.00		Inside	1790.00	
Hydraulic Tool	5.00			1795.00	
Jars	6.00			1801.00	
Safety Joint	2.00			1803.00	
Packer	5.00			1808.00	28.00 Bottom Of Top Packer
Packer	5.00			1813.00	
Anchor	3.00			1816.00	
Change Over Sub	0.75			1816.75	
Drill Pipe	62.61		Outside	1879.36	
Change Over Sub	0.75		Outside	1880.11	
Anchor	15.00			1895.11	
Recorder	1.00	8400	Inside	1896.11	
Recorder	1.00	8405	Outside	1897.11	
Bullnose	3.00			1900.11	87.11 Bottom Packers & Anchor

**Total Tool Length: 115.11**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

F.G. Holl Company LLC

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Job Ticket: 16969

**DST#: 2**

ATTN: Frank

Test Start: 2013.02.09 @ 00:00:00

### 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: 58.00 sec/qt

Cushion Volume: bbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psia

Salinity: 17000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	Drilling Mud	1.052

Total Length: 75.00 ft      Total Volume: 1.052 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



# DRILL STEM TEST REPORT

**GAS RATES**

F.G. Holl Company LLC

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ATTN: Frank

Test Start: 2013.02.09 @ 00:00:00

## 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 (psia)	Gas Rate (Mcf/d)
2	5	0.75	4.65	72.63
2	15	0.75	4.95	77.32
2	25	0.75	5.15	80.44
2	35	0.75	5.15	80.44
2	40	0.75	5.15	80.44

