



DRILL STEM TEST REPORT

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

9431 East Central Suite 100
Wichita, Kansas 67206

ATTN: Ryan Greenbaum

Smith "F" #1-6

6-21s-15w

Start Date: 2014.02.22 @ 00:00:00

End Date: 2014.02.22 @ 00:00:00

Job Ticket #: 19227 DST #: 6

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

Printed: 2014.02.22 @ 21:16:09



DRILL STEM TEST REPORT

F.G.Holl Company LLC
 9431 East Central Suite 100
 Wichita, Kansas 67206
 ATTN: Ryan Greenbaum

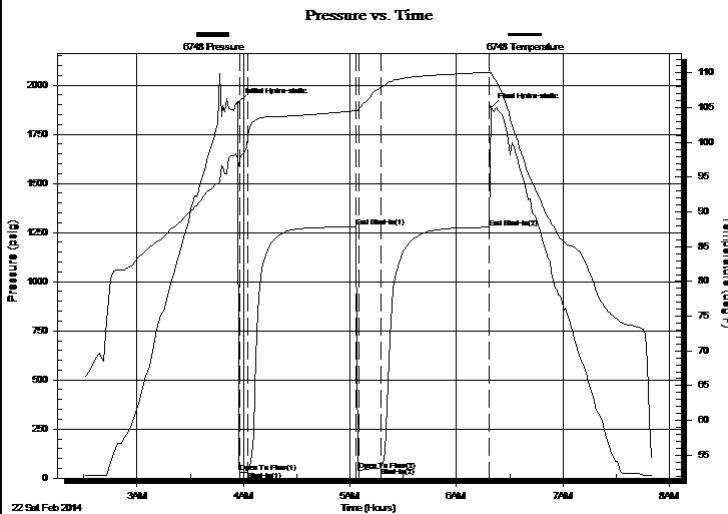
6-21s-15w
Smith "F" #1-6
 Job Ticket: 19227 **DST#: 6**
 Test Start: 2014.02.22 @ 00:00:00

GENERAL INFORMATION:

Formation: **Arbuyckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:00:00
 Time Test Ended: 00:00:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gene Budig
 Unit No: 3335
 Interval: **3797.00 ft (KB) To 3805.00 ft (KB) (TVD)**
 Reference Elevations: 1968.00 ft (KB)
 Total Depth: 3804.00 ft (KB) (TVD)
 1960.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 6748 **Outside**
 Press@RunDepth: 1275.55 psig @ 3802.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.02.22 End Date: 2014.02.22 Last Calib.: 2014.02.22
 Start Time: 02:30:00 End Time: 07:51:00 Time On Btm: 2014.02.22 @ 03:57:00
 Time Off Btm: 2014.02.22 @ 06:19:30

TEST COMMENT: 1st Opening 5 Minutes Fair blow built to the bottom of a 5 gallon bucket in 3 minutes
 1st Shut-In 60 Minutes-No blow back
 2nd Opening 15 Minutes Fair blow built to the bottom of a 5 gallon buckle in 9 minutes
 2nd Shut-In 60 Minutes no blow back



PRESSURE SUMMARY

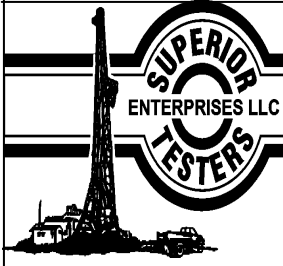
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1909.50 | 97.41 | Initial Hydro-static |
| 1 | 30.87 | 97.65 | Open To Flow (1) |
| 6 | 32.34 | 100.90 | Shut-In(1) |
| 67 | 1278.90 | 104.56 | End Shut-In(1) |
| 68 | 38.88 | 104.80 | Open To Flow (2) |
| 81 | 52.87 | 107.92 | Shut-In(2) |
| 142 | 1275.55 | 110.08 | End Shut-In(2) |
| 143 | 1886.61 | 110.04 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------|--------------|
| 55.00 | oil cut muddy w ater | 0.77 |
| 0.00 | 10% oil 35%mkud 55%w ater | 0.00 |
| 400.00 | gas in the pipe | 5.61 |
| 0.00 | chlorides 28,000 | 0.00 |
| | | |
| | | |

Gas Rates

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



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6-21s-15w

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Wichita, Kansas 67206

Smith "F" #1-6

Job Ticket: 19227

DST#: 6

ATTN: Ryan Greenbaum

Test Start: 2014.02.22 @ 00:00:00

GENERAL INFORMATION:

Formation: **Arbuyckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335

Interval: **3797.00 ft (KB) To 3805.00 ft (KB) (TVD)**

Reference Elevations: 1968.00 ft (KB)

Total Depth: 3804.00 ft (KB) (TVD)

1960.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8525 Inside

Press@RunDepth: 1277.57 psig @ 3801.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.02.22

End Date:

2014.02.22

Last Calib.:

2014.02.22

Start Time:

02:30:00

End Time:

07:52:00

Time On Btm:

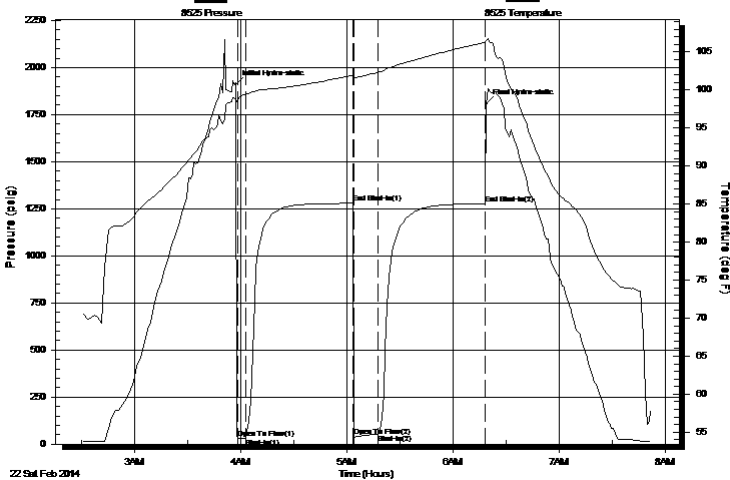
2014.02.22 @ 03:57:00

Time Off Btm:

2014.02.22 @ 06:18:30

TEST COMMENT: 1st Opening 5 Minutes Fair blow built to the bottom of a 5 gallon bucket in 3 minutes
1st Shut-In 60 Minutes-No blow back
2nd Opening 15 Minutes Fair blow built to the bottom of a 5 gallon bucket in 9 minutes
2nd Shut-In 60 Minutes no blow back

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1910.15 | 99.00 | Initial Hydro-static |
| 1 | 30.60 | 98.62 | Open To Flow (1) |
| 6 | 32.67 | 99.42 | Shut-In(1) |
| 67 | 1279.54 | 101.95 | End Shut-In(1) |
| 67 | 39.53 | 101.64 | Open To Flow (2) |
| 81 | 53.33 | 102.34 | Shut-In(2) |
| 141 | 1277.57 | 106.26 | End Shut-In(2) |
| 142 | 1807.03 | 106.53 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------|--------------|
| 55.00 | oil cut muddy w ater | 0.77 |
| 0.00 | 10% oil 35%mkud 55%w ater | 0.00 |
| 400.00 | gas in the pipe | 5.61 |
| 0.00 | chlorides 28,000 | 0.00 |
| | | |
| | | |

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company LLC

6-21s-15w

9431 East Central Suite 100
Wichita, Kansas 67206

Smith "F" #1-6

Job Ticket: 19227

DST#: 6

ATTN: Ryan Greenbaum

Test Start: 2014.02.22 @ 00:00:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3779.00 ft | Diameter: 3.80 inches | Volume: 53.01 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: 53.01 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 5.00 ft | | | String Weight: Initial | 52000.00 lb |
| Depth to Top Packer: | 3797.00 ft | | | Final | 52000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 8.00 ft | | | | |
| Tool Length: | 31.00 ft | | | | |
| Number of Packers: | 1 | Diameter: 6.75 inches | | | |
| Tool Comments: | | | | | |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

| | | | | | |
|---------------------------|--------------|------|---------|---------|----------------------------|
| Shut-In Tool | 5.00 | | | 3779.00 | |
| Hydraulic Tool | 5.00 | | | 3784.00 | |
| Jars | 6.00 | | | 3790.00 | |
| Safety Joint | 2.00 | | | 3792.00 | |
| Packer | 5.00 | | | 3797.00 | 23.00 Bottom Of Top Packer |
| Anchor | 3.00 | | | 3800.00 | |
| Recorder | 1.00 | 8525 | Inside | 3801.00 | |
| Recorder | 1.00 | 6748 | Outside | 3802.00 | |
| Bull Plug | 3.00 | | | 3805.00 | 8.00 Anchor Tool |
| Total Tool Length: | 31.00 | | | | |



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FLUID SUMMARY

F.G.Holl Company LLC

6-21s-15w

9431 East Central Suite 100
Wichita, Kansas 67206

Smith "F" #1-6

Job Ticket: 19227

DST#: 6

ATTN: Ryan Greenbaum

Test Start: 2014.02.22 @ 00:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 10.00 lb/gal
Viscosity: 49.00 sec/qt
Water Loss: 6.00 in³
Resistivity: ohm.m
Salinity: 4700.00 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 |
|--------------|--------------------------|---------------|
| 55.00 | oil cut muddy water | 0.772 |
| 0.00 | 10% oil 35%mkud 55%water | 0.000 |
| 400.00 | gas in the pipe | 5.611 |
| 0.00 | chlorides 28,000 | 0.000 |

Total Length: 455.00 ft Total Volume: 6.383 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

