



## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

621 17th Street SUITE 1155  
Denver Colorado 80293

ATTN: Keith Revis

**FRANCIS 1-36**

**36-321s-17w PAWNEE**

Start Date: 2016.03.21 @ 11:00:00

End Date: 2016.03.21 @ 17:13:00

Job Ticket #: 01218                      DST #: 2

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2016.03.21 @ 17:27:00



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 621 17th Street SUITE 1155  
 Denver Colorado 80293  
 ATTN: Keith Revis

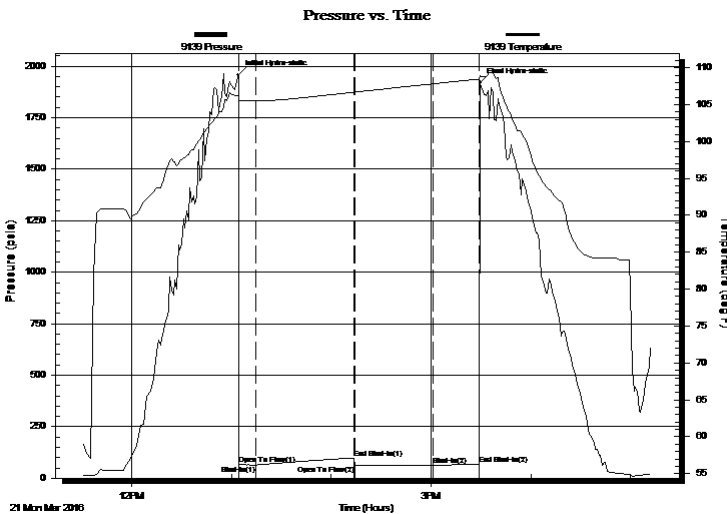
**36-321s-17w PAWNEE**  
**FRANCIS 1-36**  
 Job Ticket: 01218 **DST#: 2**  
 Test Start: 2016.03.21 @ 11:00:00

## GENERAL INFORMATION:

Formation: **CONGLOMERATE CHERT**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 13:13:00 Tester: GENE BUDIG  
 Time Test Ended: 17:13:00 Unit No: 1  
 Interval: **3754.00 ft (KB) To 3800.00 ft (KB) (TVD)** Reference Elevations: 1982.00 ft (KB)  
 Total Depth: 3800.00 ft (KB) (TVD) 1971.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 9139 Outside**  
 Press@RunDepth: 68.25 psia @ 3795.34 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.03.21 End Date: 2016.03.21 Last Calib.: 2016.03.21  
 Start Time: 11:30:00 End Time: 17:12:30 Time On Btm: 2016.03.21 @ 13:04:00  
 Time Off Btm: 2016.03.21 @ 15:29:30

**TEST COMMENT:** 1st OPEANING 10 MINUTES WEAK BLOW BUILT TO 2 INCHES INTO THE WATER  
 1st SHUT-IN 60 MINUTES- NO BLOWQ BACK  
 2n OPENING 45 MINUTES WEAK BLOW BUILT TO 1 1/2 INCH DECREASED AND DIED IN 33 MINUTES  
 2nd SHUT IN 30 MINIUTES- NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1958.66	106.14	Initial Hydro-static
1	66.52	105.59	Open To Flow (1)
11	63.83	105.50	Shut-In(1)
70	98.25	106.70	End Shut-In(1)
70	61.16	106.70	Open To Flow (2)
117	61.95	107.84	Shut-In(2)
145	68.25	108.47	End Shut-In(2)
146	1920.82	108.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	OIL, SPECKED MUD	0.10

## Gas Rates

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



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 621 17th Street SUITE 1155  
 Denver Colorado 80293  
 ATTN: Keith Revis

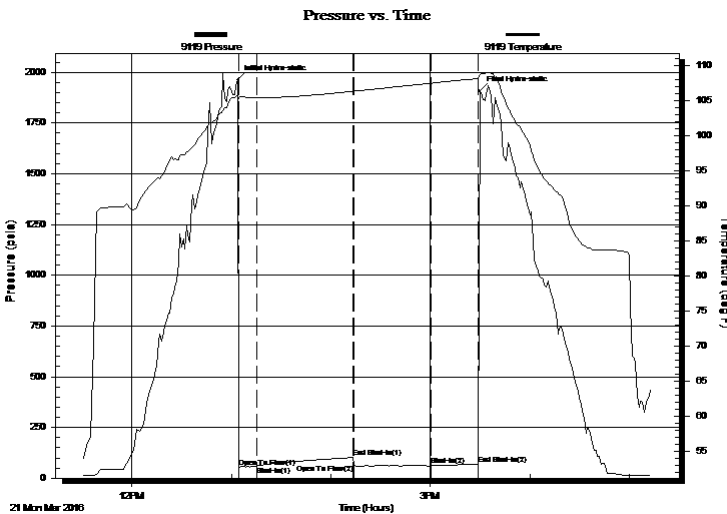
**36-321s-17w PAWNEE**  
**FRANCIS 1-36**  
 Job Ticket: 01218 **DST#: 2**  
 Test Start: 2016.03.21 @ 11:00:00

## GENERAL INFORMATION:

Formation: **CONGLOMERATE CHERT**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 13:13:00 Tester: GENE BUDIG  
 Time Test Ended: 17:13:00 Unit No: 1  
 Interval: **3754.00 ft (KB) To 3800.00 ft (KB) (TVD)** Reference Elevations: 1982.00 ft (KB)  
 Total Depth: 3800.00 ft (KB) (TVD) 1971.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 9119 Inside**  
 Press@RunDepth: 68.65 psia @ 3795.34 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.03.21 End Date: 2016.03.21 Last Calib.: 2016.03.21  
 Start Time: 11:30:00 End Time: 17:13:00 Time On Btm: 2016.03.21 @ 13:04:00  
 Time Off Btm: 2016.03.21 @ 15:30:00

**TEST COMMENT:** 1st OPEANING 10 MINUTES WEAK BLOW BUILT TO 2 INCHES INTO THE WATER  
 1st SHUT-IN 60 MINUTES- NO BLOWQ BACK  
 2n OPENING 45 MINUTES WEAK BLOW BUILT TO 1 1/2 INCH DECREASED AND DIED IN 33 MINUTES  
 2nd SHUT IN 30 MINIUTES- NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1962.52	105.75	Initial Hydro-static
1	54.96	105.30	Open To Flow (1)
12	60.65	105.37	Shut-In(1)
70	102.05	106.28	End Shut-In(1)
70	65.99	106.27	Open To Flow (2)
117	60.98	107.43	Shut-In(2)
145	68.65	108.10	End Shut-In(2)
146	1907.19	108.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	OIL, SPECKED MUD	0.10

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC

36-321s-17w PAWNEE

621 17th Street SUITE 1155  
Denver Colorado 80293

FRANCIS 1-36

Job Ticket: 01218

DST#: 2

ATTN: Keith Revis

Test Start: 2016.03.21 @ 11:00:00

## Tool Information

Drill Pipe:	Length: 3533.00 ft	Diameter: 3.80 inches	Volume: 49.56 bbl	Tool Weight:	9.40 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	59.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	66000.00 lb
			<u>Total Volume: 50.63 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3754.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	46.34 ft				
Tool Length:	75.34 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

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

Shut In Tool	5.00			3730.00	
Hydraulic tool	5.00			3735.00	
Jars	7.00			3742.00	
Safety Joint	2.00		Fluid	3744.00	
Top Packer	5.00			3749.00	
Packer	5.00			3754.00	29.00 Bottom Of Top Packer
Anchor	3.00			3757.00	
Change Over Sub	0.75			3757.75	
Drill Pipe	31.84			3789.59	
Change Over Sub	0.75			3790.34	
Anchor	5.00			3795.34	
Recorder	0.00	9119	Inside	3795.34	
Recorder	0.00	9139	Outside	3795.34	
Bullnose	5.00			3800.34	46.34 Anchor Tool

**Total Tool Length: 75.34**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Shelby Resources LLC

**36-321s-17w PAWNEE**

621 17th Street SUITE 1155  
Denver Colorado 80293

**FRANCIS 1-36**

Job Ticket: 01218

**DST#: 2**

ATTN: Keith Revis

Test Start: 2016.03.21 @ 11:00:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 59.00 sec/qt  
Water Loss: 7.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5100.00 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
20.00	OIL, SPECKED MUD	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time

