



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: 2016.03.20 @ 10:07:00

End Date: 2016.03.20 @ 17:13:00

Job Ticket #: 01217 DST #: 1

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

Printed: 2016.03.20 @ 17:54:42



DRILL STEM TEST REPORT

Shelby Resources LLC

36-321s-17w PAWNEE

621 17th Street SUITE 1155
Denver Colorado 80293

FRANCIS 1-36

Job Ticket: 01217

DST#: 1

ATTN: Keith Revis

Test Start: 2016.03.20 @ 10:07:00

GENERAL INFORMATION:

Formation: **KANSAS CITY H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:12:00

Time Test Ended: 17:13:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3598.00 ft (KB) To 3620.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 3620.00 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: 1116.75 psia @ 3615.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.03.20

End Date: 2016.03.20

Last Calib.: 2016.03.20

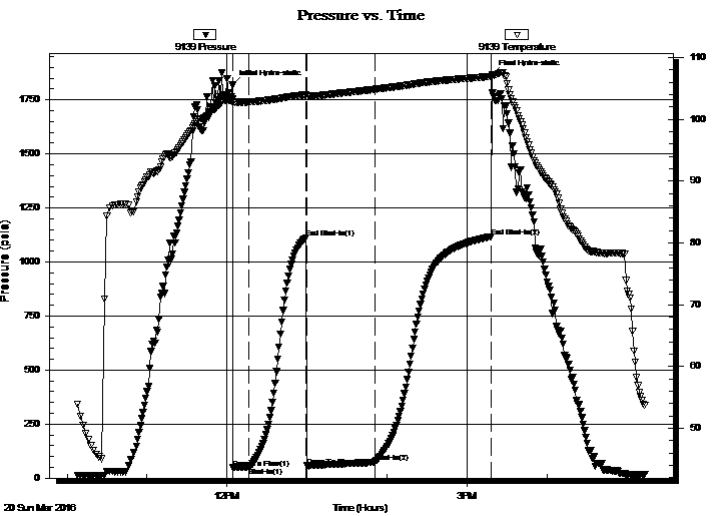
Start Time: 10:07:00

End Time: 17:13:30

Time On Btm: 2016.03.20 @ 12:04:00

Time Off Btm: 2016.03.20 @ 15:18:30

TEST COMMENT: 1ST OPENING 10 MINUTES WEAK BLOW BUILT TO 3 INCHES INTO THE WATER
1ST SDHUT-IN 45 MINUTES NO BLOW BACK
2ND OPENING 45 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF THE BUCKETR IN 10 MINUTES
2ND SHUT-IN 90 MINUTES- WEAK BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1818.32	103.24	Initial Hydro-static
1	46.82	102.74	Open To Flow (1)
12	51.23	102.81	Shut-In(1)
56	1111.01	103.97	End Shut-In(1)
56	56.55	103.72	Open To Flow (2)
107	73.78	104.85	Shut-In(2)
194	1116.75	106.93	End Shut-In(2)
195	1866.15	107.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	oil and and gas cut mud	0.15
0.00	5 gas 30 oil 65 mud	0.00
30.00	muddy frothy oil	0.15
0.00	5 gas 15oil 80 mud	0.00

Gas Rates

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



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

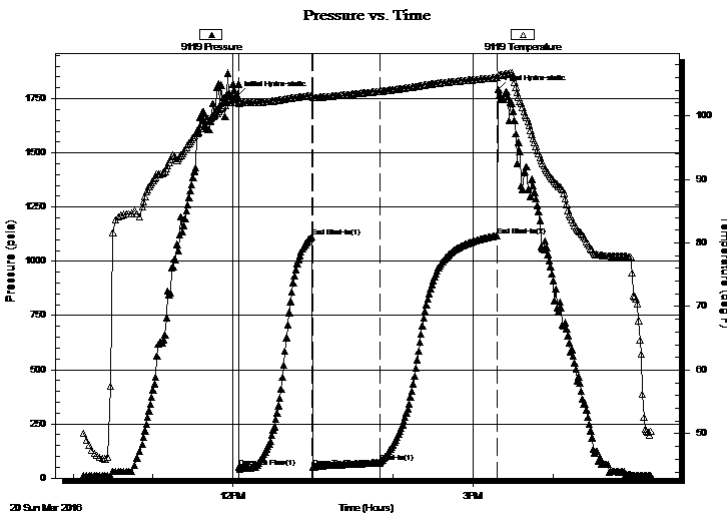
36-321s-17w PAWNEE
FRANCIS 1-36
 Job Ticket: 01217 **DST#: 1**
 Test Start: 2016.03.20 @ 10:07:00

GENERAL INFORMATION:

Formation: **KANSAS CITY H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:12:00
 Time Test Ended: 17:13:00
 Interval: **3598.00 ft (KB) To 3620.00 ft (KB) (TVD)**
 Total Depth: 3620.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: GENE BUDIG
 Unit No: 1
 Reference Elevations: 1982.00 ft (KB)
 1971.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 9119 Inside
 Press@RunDepth: 1118.82 psia @ 3615.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2016.03.20 End Date: 2016.03.20 Last Calib.: 2016.03.20
 Start Time: 10:07:00 End Time: 10:07:30 Time On Btm: 2016.03.20 @ 12:03:30
 Time Off Btm: 2016.03.20 @ 15:19:00

TEST COMMENT: 1ST OPENING 10 MINUTES WEAK BLOW BUILT TO 3 INCHES INTO THE WATER
 1ST SDHUT-IN 45 MINUTES NO BLOW BACK
 2ND OPENING 45 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF THE BUCKETR IN 10 MINUTES
 2ND SHUT-IN 90 MINUTES- WEAK BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1762.04	102.80	Initial Hydro-static
1	49.71	101.98	Open To Flow (1)
56	1114.10	103.17	End Shut-In(1)
57	50.56	102.91	Open To Flow (2)
107	71.23	103.85	Shut-In(1)
195	1118.82	105.99	End Shut-In(2)
196	1790.55	106.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	oil and and gas cut mud	0.15
0.00	5 gas 30 oil 65 mud	0.00
30.00	muddy frothy oil	0.15
0.00	5 gas 15oill 80 mud	0.00

Gas Rates

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



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TOOL DIAGRAM

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

36-321s-17w PAWNEE
FRANCIS 1-36
 Job Ticket: 01217 **DST#: 1**
 Test Start: 2016.03.20 @ 10:07:00

Tool Information

Drill Pipe:	Length: 3374.00 ft	Diameter: 3.80 inches	Volume: 47.33 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: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 48.40 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3598.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	51.00 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			3574.00	
Hydraulic tool	5.00			3579.00	
Jars	7.00			3586.00	
Safety Joint	2.00		Fluid	3588.00	
Top Packer	5.00			3593.00	
Packer	5.00			3598.00	29.00 Bottom Of Top Packer
Anchor	17.00			3615.00	
Recorder	0.00	9119	Inside	3615.00	
Recorder	0.00	9139	Outside	3615.00	
Bullnose	5.00			3620.00	22.00 Anchor Tool
Total Tool Length:	51.00				



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FLUID SUMMARY

Shelby Resources LLC

36-321s-17w PAWNEE

621 17th Street SUITE 1155
Denver Colorado 80293

FRANCIS 1-36

Job Ticket: 01217

DST#: 1

ATTN: Keith Revis

Test Start: 2016.03.20 @ 10:07:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 68.00 sec/qt
Water Loss: 6.80 in³
Resistivity: ohm.m
Salinity: 4200.00 ppm
Filter Cake: 0.00 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
30.00	oil and and gas cut mud	0.148
0.00	5 gas 30 oil 65 mud	0.000
30.00	muddy frothy oil	0.148
0.00	5 gas 15oil 80 mud	0.000

Total Length: 60.00 ft Total Volume: 0.296 bbl

Num Fluid Samples: 0

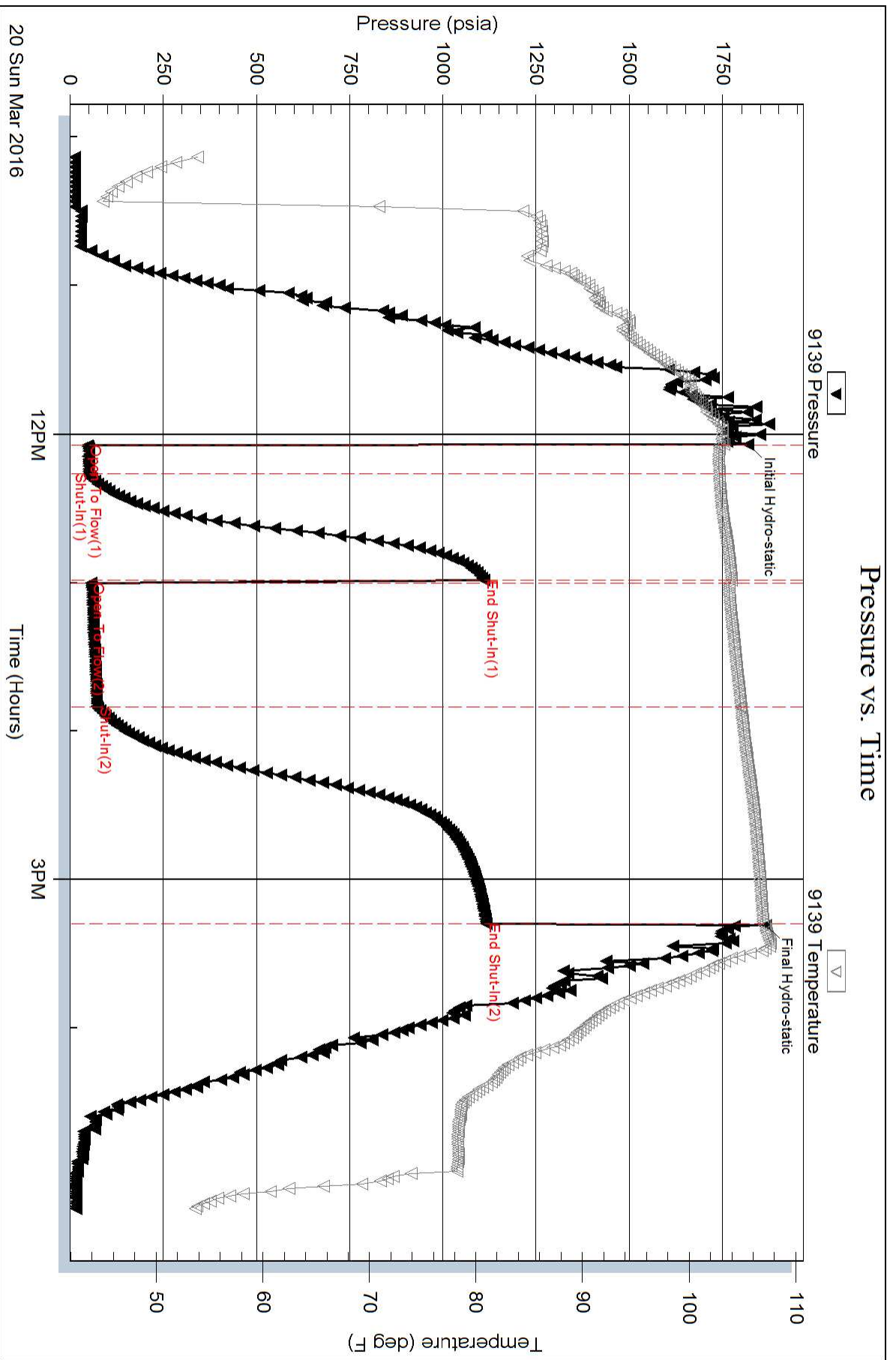
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

