



DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURCES L.L.C.**

621 17 th STREET SUITE 1155
DENVER, COLORADO 80293

ATTN: JEREMY SCHWARTZ

L S UNIT 1-15

15-18S-14W BARTON

Start Date: 2015.12.05 @ 06:43:00

End Date: 2015.12.05 @ 02:19:00

Job Ticket #: 01202 DST #: 3

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

Printed: 2015.12.05 @ 14:39:45



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Job Ticket: 01202

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ATTN: JEREMY SCHWARTZ

Test Start: 2015.12.05 @ 06:43:00

GENERAL INFORMATION:

Formation: **KANSAS CITY K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:56:00

Time Test Ended: 02:19:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3366.00 ft (KB) To 3384.00 ft (KB) (TVD)**

Reference Elevations: 1934.00 ft (KB)

Total Depth: 3384.00 ft (KB) (TVD)

1923.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9139

Outside

Press@RunDepth: 349.19 psia @ 3379.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2015.12.05

End Date:

2015.12.05

Last Calib.:

2015.12.05

Start Time: 06:43:00

End Time:

14:19:00

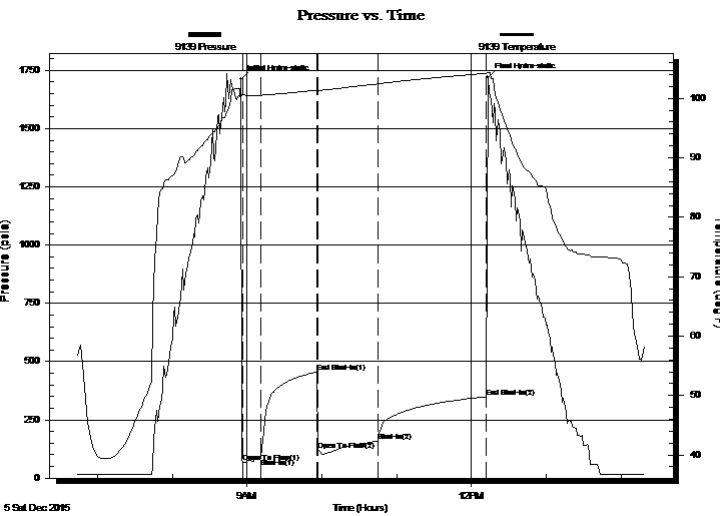
Time On Btm:

2015.12.05 @ 08:55:00

Time Off Btm:

2015.12.05 @ 12:13:00

TEST COMMENT: 1ST FLOW 15 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES
1ST SHUT-IN 45 MINUTES GOOD BLOW BACK
2ND OPENING 45 MINUTES GOOD BLOW BOTTOM OF A 5 GALLON BIUCKET IN 3 MINUTE
2ND SHUT-IN 90 MINUTES- GOOD BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1710.46	101.22	Initial Hydro-static
2	69.94	100.65	Open To Flow (1)
16	83.22	100.53	Shut-In(1)
61	455.53	101.40	End Shut-In(1)
63	118.05	101.34	Open To Flow (2)
111	158.71	102.46	Shut-In(2)
197	349.19	104.22	End Shut-In(2)
198	1719.18	104.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	SLIGHTLY MUD CUT GASSY OIL	0.89
0.00	10 GAS 75 OIL 15 MUD	0.00
180.00	CLEAN GASSY OIL 20 GAS 80 OIL	2.25
0.00	GRAVITY 44 CORRECTED	0.00

Gas Rates

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



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Tester: GENE BUDIG

Unit No: 1

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Reference Elevations: 1934.00 ft (KB)

Total Depth: 3384.00 ft (KB) (TVD)

1923.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9119

Inside

Press@RunDepth: 344.36 psia @ 3379.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2015.12.05

End Date:

2015.12.05

Last Calib.:

2015.12.05

Start Time: 06:43:00

End Time:

14:19:00

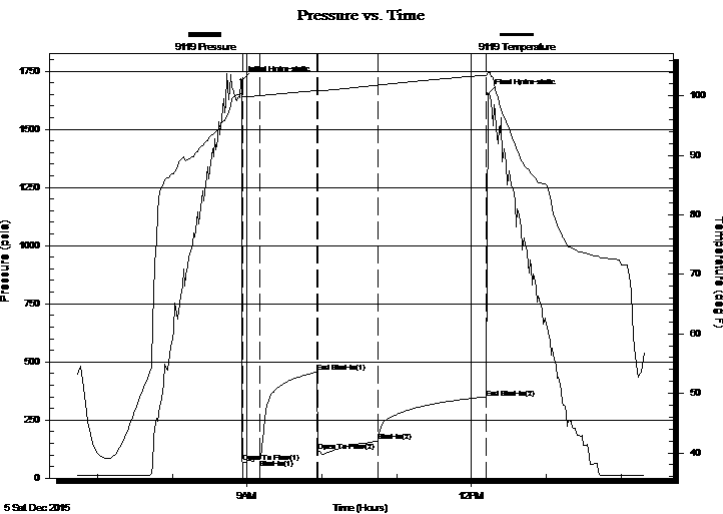
Time On Btm:

2015.12.05 @ 08:55:30

Time Off Btm:

2015.12.05 @ 12:13:00

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1ST SHUT-IN 45 MINUTES GOOD BLOW BACK
2ND OPENING 45 MINUTES GOOD BLOW BOTTOM OF A 5 GALLON BIUCKET IN 3 MINUTE
2ND SHUT-IN 90 MINUTES- GOOD BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1710.23	100.33	Initial Hydro-static
1	67.88	99.95	Open To Flow (1)
15	82.82	100.02	Shut-In(1)
61	456.39	100.92	End Shut-In(1)
62	117.74	100.84	Open To Flow (2)
110	159.32	101.80	Shut-In(2)
197	344.36	103.49	End Shut-In(2)
198	1652.47	103.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	SLIGHTLY MUD CUT GASSY OIL	0.89
0.00	10 GAS 75 OIL 15 MUD	0.00
180.00	CLEAN GASSY OIL 20 GAS 80 OIL	2.25
0.00	GRAVITY 44 CORRECTED	0.00

Gas Rates

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



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TOOL DIAGRAM

SHELBY RESOURCES L.L.C.

15-18S-14W BARTON

621 17 th STREET SUITE 1155
DENVER, COLORADO 80293

L S UNIT 1-15

Job Ticket: 01202

DST#: 3

ATTN: JEREMY SCHWARTZ

Test Start: 2015.12.05 @ 06:43:00

Tool Information

Drill Pipe:	Length: 3160.00 ft	Diameter: 3.80 inches	Volume: 44.33 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 45.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3366.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	47.00 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			3342.00	
Hydraulic tool	5.00			3347.00	
Jars	7.00			3354.00	
Safety Joint	2.00		Fluid	3356.00	
Top Packer	5.00			3361.00	
Packer	5.00			3366.00	29.00 Bottom Of Top Packer
Anchor	13.00			3379.00	
Recorder	0.00	9119	Inside	3379.00	
Recorder	0.00	9139	Outside	3379.00	
Bullnose	5.00			3384.00	18.00 Anchor Tool
Total Tool Length:	47.00				



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 62.00 sec/qt
Water Loss: 8.80 in³
Resistivity: ohm.m
Salinity: 6500.00 ppm
Filter Cake: 1.00 inches

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

Oil API: 44 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	SLIGHTLY MUD CUT GASSY OIL	0.885
0.00	10 GAS 75 OIL 15 MUD	0.000
180.00	CLEAN GASSY OIL 20 GAS 80 OIL	2.252
0.00	GRAVITY 44 CORRECTED	0.000

Total Length: 360.00 ft Total Volume: 3.137 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

