



## DRILL STEM TEST REPORT

Prepared For: **YOUNGER ENERGY COMPANY**

9415 EAST HARRY SUITE 403  
WICHITA, KANSAS 67207-5083

ATTN: KEITH REAVIS

**ZACKARY 1-2**

**2-29S-1W SEDGWICK**

Start Date: 2017.02.04 @ 21:29:00

End Date: 2017.02.05 @ 06:27:00

Job Ticket #: 01146                      DST #: 2

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

Printed: 2017.02.05 @ 06:47:23



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ZACKARY 1-2

Job Ticket: 01146

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Test Start: 2017.02.04 @ 21:29:00

## GENERAL INFORMATION:

Formation: **SIMPSON B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:28:00

Time Test Ended: 06:27:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3614.00 ft (KB) To 3734.00 ft (KB) (TVD)**

Reference Elevations: 1302.00 ft (KB)

Total Depth: 3734.00 ft (KB) (TVD)

1292.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 9139

Inside

Press@RunDepth: 1467.83 psia @ 3729.04 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.04

End Date: 2017.02.05

Last Calib.: 2017.02.05

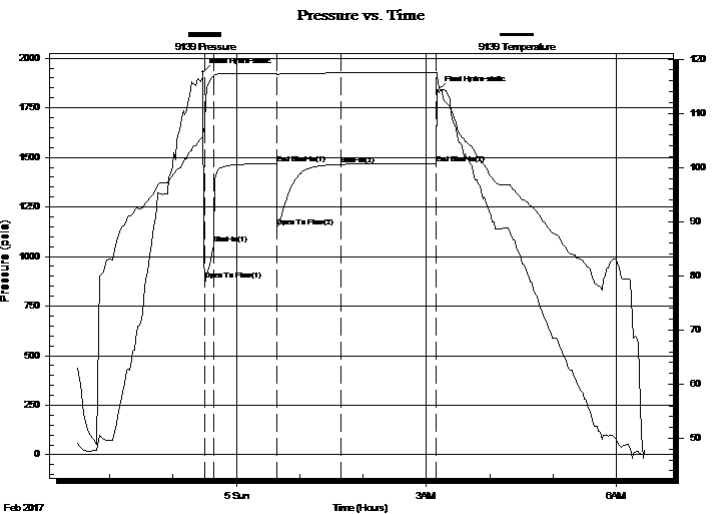
Start Time: 21:29:00

End Time: 06:27:00

Time On Btm: 2017.02.04 @ 23:28:30

Time Off Btm: 2017.02.05 @ 03:10:30

TEST COMMENT: 1ST OPENING 10 MINUTES STRONG BLOW BOTTOM OF THE BUCKET IN ONE MINUTE  
1ST SHUT-IN 60 MINUTES NO BLOW BACK  
2ND OPENING 60 MINUTES STRONG BLOW DECREASED AND DIED IN 60 MINUTES  
2ND SHUT-IN 90 MINUTES NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1928.25	106.29	Initial Hydro-static
2	883.76	107.86	Open To Flow (1)
11	1064.88	116.91	Shut-In(1)
70	1468.14	117.38	End Shut-In(1)
70	1147.70	117.12	Open To Flow (2)
131	1464.27	117.52	Shut-In(2)
221	1467.83	117.55	End Shut-In(2)
222	1835.28	116.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	DRILLING MUD	1.96
120.00	WATERY MUD	1.68
240.00	MUDDY WATER	3.37
2600.00	SALT WATER CHLORIDES 50,000	36.47

## Gas Rates

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



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Tester: GENE BUDIG

Unit No: 1

Interval: **3614.00 ft (KB) To 3734.00 ft (KB) (TVD)**

Reference Elevations: 1302.00 ft (KB)

Total Depth: 3734.00 ft (KB) (TVD)

1292.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: **91716** Outside

Press@RunDepth: 1450.15 psia @ 3729.04 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.04

End Date:

2017.02.05

Last Calib.:

2017.02.05

Start Time: 21:29:00

End Time:

06:26:29

Time On Btm:

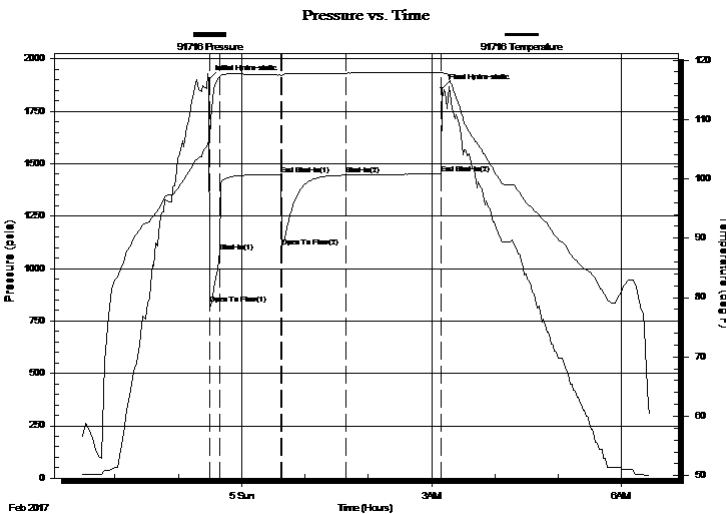
2017.02.04 @ 23:29:00

Time Off Btm:

2017.02.05 @ 03:09:30

TEST COMMENT: 1ST OPENING 10 MINUTES STRONG BLOW BOTTOM OF THE BUCKET IN ONE MINUTE  
1ST SHUT-IN 60 MINUTES NO BLOW BACK  
2ND OPENING 60 MINUTES STRONG BLOW DECREASED AND DIED IN 60 MINUTES  
2ND SHUT-IN 90 MINUTES NO BLOW BACK

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1901.05	106.38	Initial Hydro-static
1	831.19	106.60	Open To Flow (1)
10	1078.71	117.15	Shut-In(1)
69	1449.15	117.46	End Shut-In(1)
69	1101.32	117.46	Open To Flow (2)
130	1446.61	117.81	Shut-In(2)
220	1450.15	117.87	End Shut-In(2)
221	1860.03	117.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	DRILLING MUD	1.96
120.00	WATERY MUD	1.68
240.00	MUDDY WATER	3.37
2600.00	SALT WATER CHLORIDES 50,000	36.47

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

YOUNGER ENERGY COMPANY

2-29S-1W SEDGWICK

9415 EAST HARRY SUITE 403  
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ZACKARY 1-2

Job Ticket: 01146

DST#: 2

ATTN: KEITH REAVIS

Test Start: 2017.02.04 @ 21:29:00

## Tool Information

Drill Pipe:	Length: 3605.00 ft	Diameter: 3.80 inches	Volume: 50.57 bbl	Tool Weight: 20000.00 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: 75000.00 lb
			Total Volume: 50.57 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3614.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	120.04 ft			
Tool Length:	149.04 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			3590.00	
Hydraulic tool	5.00			3595.00	
Jars	7.00			3602.00	
Safety Joint	2.00		Fluid	3604.00	
Top Packer	5.00			3609.00	
Packer	5.00			3614.00	29.00 Bottom Of Top Packer
Anchor	5.00			3619.00	
Change Over Sub	0.75			3619.75	
Drill Pipe	94.54			3714.29	
Change Over Sub	0.75			3715.04	
Anchor	14.00			3729.04	
Recorder	0.00	9139	Inside	3729.04	
Recorder	0.00	91716	Outside	3729.04	
Bullnose	5.00			3734.04	120.04 Anchor Tool

**Total Tool Length: 149.04**



# DRILL STEM TEST REPORT

**FLUID SUMMARY**

YOUNGER ENERGY COMPANY

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**ZACKARY 1-2**

Job Ticket: 01146

**DST#: 2**

ATTN: KEITH REAVIS

Test Start: 2017.02.04 @ 21:29:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 69.00 sec/qt  
Water Loss: 6.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 1000.00 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
140.00	DRILLING MUD	1.964
120.00	WATERY MUD	1.683
240.00	MUDDY WATER	3.367
2600.00	SALT WATER CHLORIDES 50,000	36.471

Total Length: 3100.00 ft      Total Volume: 43.485 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time

