



## DRILL STEM TEST REPORT

Prepared For: **TYLUKA OERATIONS LLC**

P.O. BOX 1213  
HAYS, KANSAS 67601

ATTN: JERAMY SCHWARTZ

**AXMAN FARMS 1-18**

**18-17S-14W**

Start Date: 2015.12.13 @ 04:12:00

End Date: 2015.12.13 @ 11:27:00

Job Ticket #: 01208                      DST #: 2

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

Printed: 2015.12.13 @ 11:46:08

TYLUKA OERATIONS LLC

18-17S-14W

AXMAN FARMS 1-18

DST # 2

KANSAS CITY 'A 7 B'

2015.12.13



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HAYS, KANSAS 67601

AXMAN FARMS 1-18

ATTN: JERAMY SCHWARTZ

Job Ticket: 01208

DST#: 2

Test Start: 2015.12.13 @ 04:12:00

## GENERAL INFORMATION:

Formation: **KANSAS CITY 'A 7 B'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:00

Time Test Ended: 11:27:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1 45

Interval: **3134.00 ft (KB) To 3180.00 ft (KB) (TVD)**

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3180.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 9139

Outside

Press@RunDepth: 591.03 psia @ 3175.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2015.12.13

End Date: 2015.12.13

Last Calib.: 2015.12.13

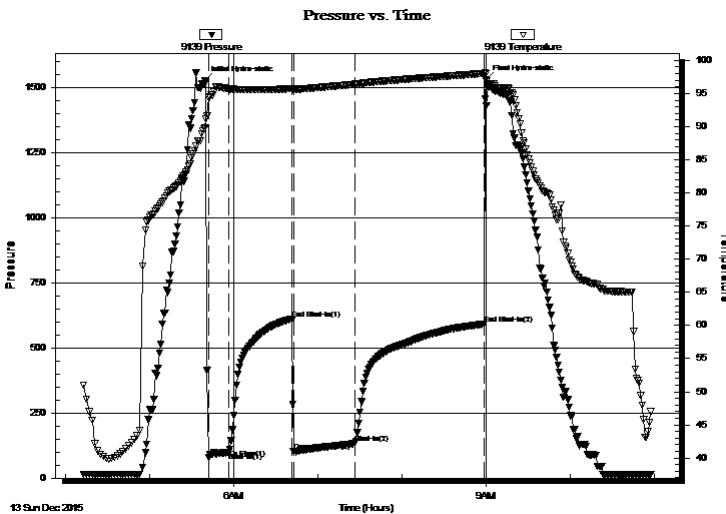
Start Time: 04:12:00

End Time: 10:57:00

Time On Btm: 2015.12.13 @ 05:39:30

Time Off Btm: 2015.12.13 @ 08:59:30

TEST COMMENT: 1ST OPENING 15 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 5 MINUTES  
1ST SHUT-IN 45 MINUTES FAIR BLOW BACK  
2ND OPENING 45 MINUTES FAIR BLKOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 6 MINUTES  
2ND SHUT-IN 90 MINUTES FAIR BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1524.57	89.85	Initial Hydro-static
3	77.78	94.36	Open To Flow (1)
17	99.26	95.69	Shut-In(1)
62	611.40	95.74	End Shut-In(1)
63	102.18	95.63	Open To Flow (2)
107	133.22	96.41	Shut-In(2)
199	591.03	98.02	End Shut-In(2)
200	1531.18	98.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	MUDDY OIL 5 GAS 60 OIL 35 MUD	0.48
60.00	MUDDY OIL 10 GAS 45 OIL 45 MUD	0.48
0.00	1200 FEET OF GAS IN THE PIPE	0.00

## Gas Rates

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



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## GENERAL INFORMATION:

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Time Test Ended: 11:27:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1 45

Interval: **3134.00 ft (KB) To 3180.00 ft (KB) (TVD)**

Reference Elevations: 1892.00 ft (KB)

Total Depth: 3180.00 ft (KB) (TVD)

1884.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 9119

Inside

Press@RunDepth: 592.10 psia @ 3175.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2015.12.13

End Date:

2015.12.13

Last Calib.:

2015.12.13

Start Time: 04:12:00

End Time:

10:56:30

Time On Btm:

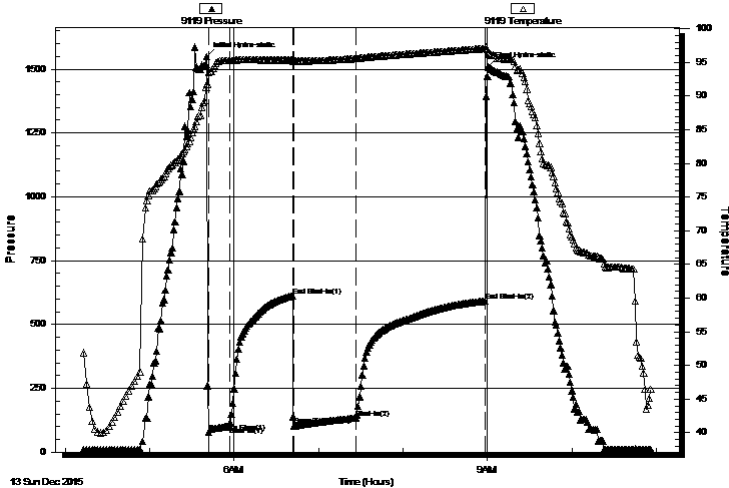
2015.12.13 @ 05:40:30

Time Off Btm:

2015.12.13 @ 09:00:30

TEST COMMENT: 1ST OPENING 15 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 5 MINUTES  
1ST SHUT-IN 45 MINUTES FAIR BLOW BACK  
2ND OPENING 45 MINUTES FAIR BLKOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 6 MINUTES  
2ND SHUT-IN 90 MINUTES FAIR BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1549.26	91.72	Initial Hydro-static
2	76.92	93.54	Open To Flow (1)
16	100.56	95.30	Shut-In(1)
61	612.68	95.35	End Shut-In(1)
62	103.57	95.22	Open To Flow (2)
106	134.41	95.58	Shut-In(2)
198	592.10	97.07	End Shut-In(2)
200	1508.07	96.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MUDDY OIL 5 GAS 60 OIL 35 MUD	0.48
60.00	MUDDY OIL 10 GAS 45 OIL 45 MUD	0.48
0.00	1200 FEET OF GAS IN THE PIPE	0.00

Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

TYLUKA OPERATIONS LLC

18-17S-14W

P.O. BOX 1213  
HAYS, KANSAS 67601

AXMAN FARMS 1-18

ATTN: JERAMY SCHWARTZ

Job Ticket: 01208

DST#: 2

Test Start: 2015.12.13 @ 04:12:00

## Tool Information

Drill Pipe:	Length: 2812.00 ft	Diameter: 3.80 inches	Volume: 39.44 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.86 inches	Volume: 2.47 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 41.91 bbl</u>	Tool Chased 12.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3134.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3110.00	
Hydraulic tool	5.00			3115.00	
Jars	7.00			3122.00	
Safety Joint	2.00		Fluid	3124.00	
Top Packer	5.00			3129.00	
Packer	5.00			3134.00	29.00 Bottom Of Top Packer
Anchor	41.00			3175.00	
Recorder	0.00	9119	Inside	3175.00	
Recorder	0.00	9139	Outside	3175.00	
Bullnose	5.00			3180.00	46.00 Anchor Tool
<b>Total Tool Length:</b>	<b>75.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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Test Start: 2015.12.13 @ 04:12:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 48.00 sec/qt  
Water Loss: 9.20 in<sup>3</sup>  
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: psia

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MUDDY OIL 5 GAS 60 OIL 35 MUD	0.477
60.00	MUDDY OIL 10 GAS 45 OIL 45 MUD	0.477
0.00	1200 FEET OF GAS IN THE PIPE	0.000

Total Length: 120.00 ft      Total Volume: 0.954 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

