



## DRILL STEM TEST REPORT

Prepared For: **Edison Operating Company LLC**

8100 E.22nd Str.N.Bldg 1800  
Wichita, Kansas 67226-2316

ATTN: Adam Kennedy

### **Red Raider #1-26**

#### **26-32s-19w Commanche**

Start Date: 2019.08.02 @ 11:25:00

End Date: 2019.08.02 @ 20:51:00

Job Ticket #: 01371                      DST #: 3

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

Printed: 2019.08.02 @ 21:11:37



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Test Start: 2019.08.02 @ 11:25:00

## GENERAL INFORMATION:

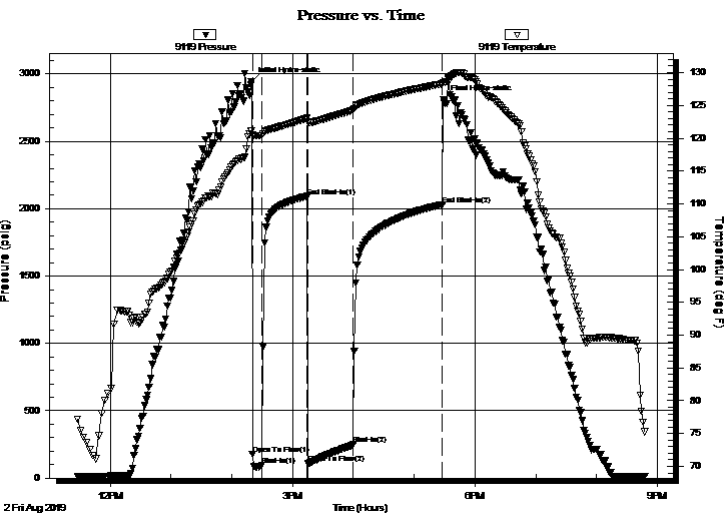
Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 14:20:00  
 Tester: Gene Budig  
 Time Test Ended: 20:51:00  
 Unit No: 1  
 Interval: **5860.00 ft (KB) To 5887.00 ft (KB) (TVD)**  
 Reference Elevations: 1962.00 ft (KB)  
 Total Depth: 5887.00 ft (KB) (TVD)  
 1952.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 10.00 ft

## Serial #: 9119

Inside

Press@RunDepth: 2031.58 psig @ 5882.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2019.08.02 End Date: 2019.08.02 Last Calib.: 2019.08.02  
 Start Time: 11:25:00 End Time: 20:48:00 Time On Btm: 2019.08.02 @ 14:19:30  
 Time Off Btm: 2019.08.02 @ 17:29:00

TEST COMMENT: 1st Opening 10 Minutes fair building blow built to the bottom of a 5 gallon bucket in 2 minutes  
 1st Shut-In 45 Minutes fair blow back  
 2nd Opening 45 Minutes weak building blow built to the bottom of a 5 gallon bucket in 10 minutes  
 2nd Shut-In 90 Minutes fair blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2942.32	121.15	Initial Hydro-static
1	176.75	120.46	Open To Flow (1)
10	94.30	120.38	Shut-In(1)
55	2091.45	123.07	End Shut-In(1)
56	108.10	122.42	Open To Flow (2)
101	248.92	124.28	Shut-In(2)
189	2031.58	128.30	End Shut-In(2)
190	2806.63	128.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	oil cut muddy w ater	1.68
0.00	10% Gas 20%Oil 30%Mud 40%Water	0.00
270.00	Water Chlorides 98,000	3.79

## Gas Rates

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



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**DST#: 3**

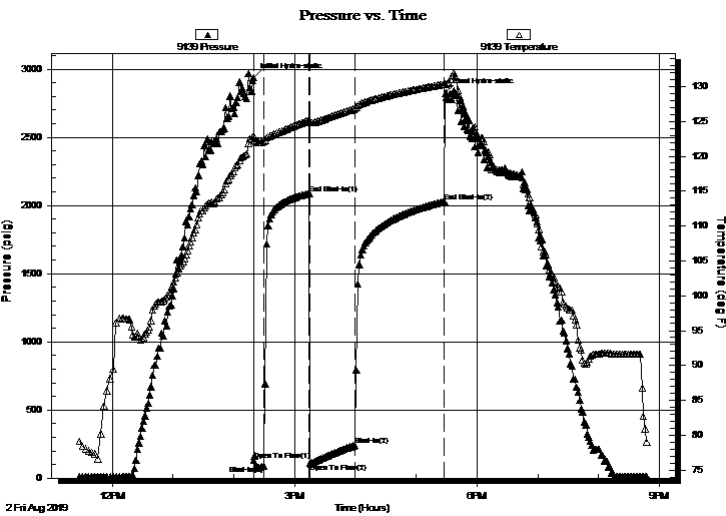
Test Start: 2019.08.02 @ 11:25:00

## GENERAL INFORMATION:

Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 14:20:00 Tester: Gene Budig  
 Time Test Ended: 20:51:00 Unit No: 1  
**Interval: 5860.00 ft (KB) To 5887.00 ft (KB) (TVD)** Reference Elevations: 1962.00 ft (KB)  
 Total Depth: 5887.00 ft (KB) (TVD) 1952.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 9139 Outside**  
 Press@RunDepth: 2028.62 psig @ 5882.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2019.08.02 End Date: 2019.08.02 Last Calib.: 2019.08.02  
 Start Time: 11:25:00 End Time: 20:48:00 Time On Btm: 2019.08.02 @ 14:19:30  
 Time Off Btm: 2019.08.02 @ 17:29:00

**TEST COMMENT:** 1st Opening 10 Minutes fair building blow built to the bottom of a 5 gallon bucket in 2 minutes  
 1st Shut-In 45 Minutes fair blow back  
 2nd Opening 45 Minutes weak building blow built to the bottom of a 5 gallon bucket in 10 minutes  
 2nd Shut-In 90 Minutes fair blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2940.20	122.89	Initial Hydro-static
1	130.13	122.30	Open To Flow (1)
10	91.08	122.05	Shut-In(1)
55	2088.60	125.18	End Shut-In(1)
56	106.74	124.77	Open To Flow (2)
101	242.86	126.86	Shut-In(2)
189	2028.62	130.35	End Shut-In(2)
190	2824.25	130.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	oil cut muddy w ater	1.68
0.00	10% Gas 20%Oil 30%Mud 40%Water	0.00
270.00	Water Chlorides 98,000	3.79

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Edison Operating Company LLC

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**DST#: 3**

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Test Start: 2019.08.02 @ 11:25:00

## Tool Information

Drill Pipe:	Length: 5853.00 ft	Diameter: 3.80 inches	Volume: 82.10 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 86000.00 lb
			<u>Total Volume: 82.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	5860.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	57.00 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			5835.00	
Hydraulic tool	5.00			5840.00	
Jars	5.00			5845.00	
Safety Joint	5.00			5850.00	
Packer	5.00			5855.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	5860.00	
Anchor	22.00			5882.00	
Recorder	0.00	9119	Inside	5882.00	
Recorder	0.00	9139	Outside	5882.00	
Bullnose	5.00			5887.00	27.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>57.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 54.00 sec/qt  
Water Loss: 10.59 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 7000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig  
Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	oil cut muddy w ater	1.683
0.00	10% Gas 20%Oil 30%Mud 40%Water	0.000
270.00	Water Chlorides 98,000	3.787

Total Length: 390.00 ft      Total Volume: 5.470 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

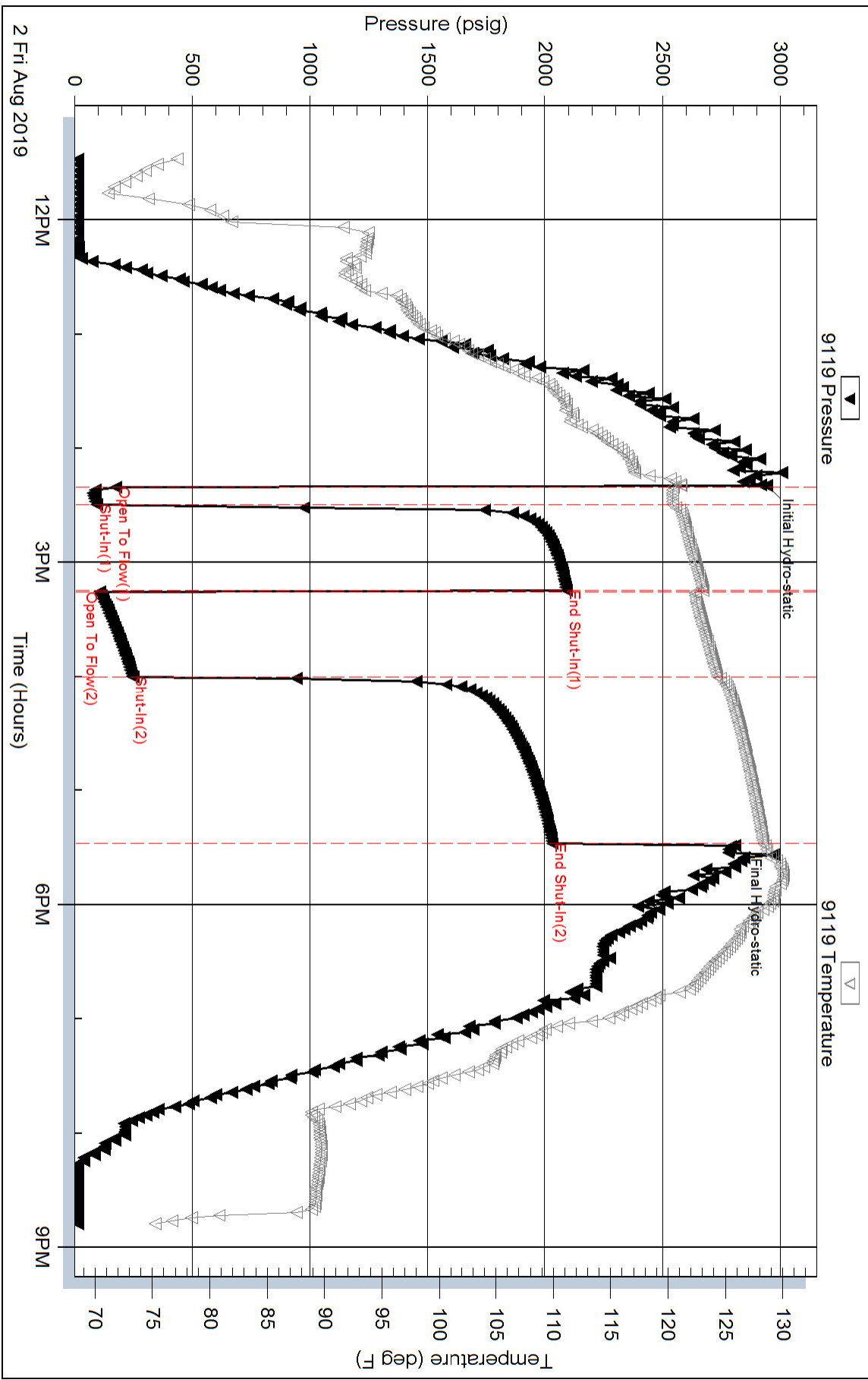
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

