



## DRILL STEM TEST REPORT

Prepared For: **Sandin Oil Corporation**

621 17th Street Suite 2005  
Denver , Colorado 80293-2001

ATTN: Steve Reed

### **Cheney #1**

#### **24-8s-17w Rooks**

Start Date: 2015.04.26 @ 00:00:00

End Date: 2015.04.26 @ 00:00:00

Job Ticket #: 01028                      DST #: 1

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

Printed: 2015.04.26 @ 05:02:34



# DRILL STEM TEST REPORT

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 621 17th Street Suite 2005  
 Denver, Colorado 80293-2001  
 ATTN: Steve Reed

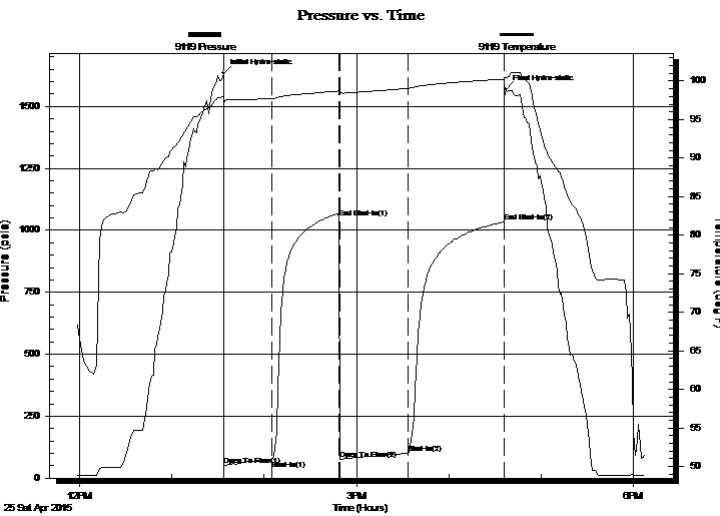
**24-8s-17w Rooks**  
**Cheney #1**  
 Job Ticket: 01028      **DST#: 1**  
 Test Start: 2015.04.26 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Kansas City**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3226.00 ft (KB) To 3275.00 ft (KB) (TVD)**  
 Total Depth: 3275.00 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: 1948.00 ft (KB)  
 1942.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 9119      Outside**  
 Press@RunDepth: 1034.17 psia @ 3270.37 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2015.04.25      End Date: 2015.04.25      Last Calib.: 2015.04.26  
 Start Time: 11:58:00      End Time: 18:07:30      Time On Btm: 2015.04.25 @ 13:33:30  
    Time Off Btm: 2015.04.25 @ 16:37:00

**TEST COMMENT:** 1st Opening 30 Minutes-Weak building blow built to 9 inches into the water  
 1st Shut-In 45 Minutes- No blow back  
 2nd Opening 45 Minutes-Weak building blow built to 11 inches into the water  
 2nd Shut-In 60 Minutes- No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1634.12	97.95	Initial Hydro-static
1	50.08	97.20	Open To Flow (1)
32	73.35	97.73	Shut-In(1)
75	1049.24	98.69	End Shut-In(1)
76	77.55	98.44	Open To Flow (2)
120	100.56	99.05	Shut-In(2)
182	1034.17	100.25	End Shut-In(2)
184	1569.66	100.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Thick heavy oil cut muddy w ater	0.84
0.00	50%Mud 30%Water 20%Oil	0.00
40.00	Thick heavy oil cut mud 80% Mud 20% Oil	0.56
20.00	Clean oil	0.28
0.00	Chlorides 14,000	0.00

## Gas Rates

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



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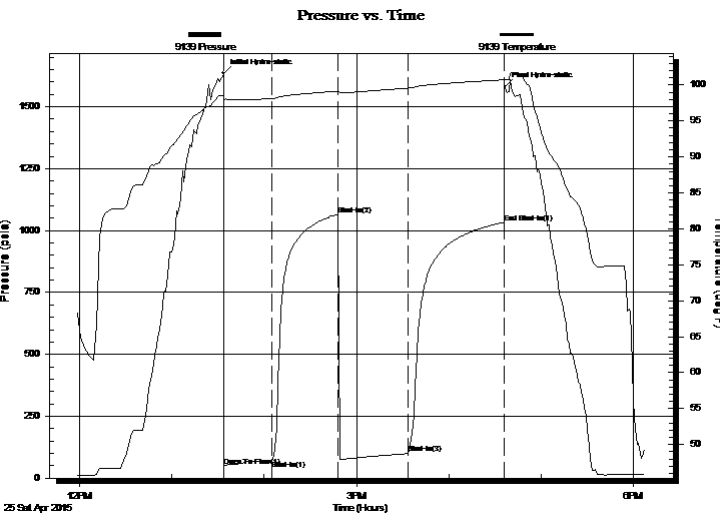
**24-8s-17w Rooks**  
**Cheney #1**  
 Job Ticket: 01028 **DST#: 1**  
 Test Start: 2015.04.26 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Kansas City**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3226.00 ft (KB) To 3275.00 ft (KB) (TVD)**  
 Total Depth: 3275.00 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: 1948.00 ft (KB)  
 1942.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 9139 Inside**  
 Press@RunDepth: 1032.44 psia @ 3270.37 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2015.04.25 End Date: 2015.04.25 Last Calib.: 2015.04.26  
 Start Time: 11:58:00 End Time: 18:07:30 Time On Btm: 2015.04.25 @ 13:33:30  
 Time Off Btm: 2015.04.25 @ 16:36:30

**TEST COMMENT:** 1st Opening 30 Minutes-Weak building blow built to 9 inches into the water  
 1st Shut-In 45 Minutes- No blow back  
 2nd Opening 45 Minutes-Weak building blow built to 11 inches into the water  
 2nd Shut-In 60 Minutes- No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1635.45	98.50	Initial Hydro-static
1	49.14	97.90	Open To Flow (1)
32	72.14	98.13	Shut-In(1)
75	1065.55	99.16	Shut-In(2)
120	99.41	99.58	Shut-In(3)
182	1032.44	100.72	End Shut-In(1)
183	1582.35	100.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Thick heavy oil cut muddy w ater	0.84
0.00	50%Mud 30%Water 20%Oil	0.00
40.00	Thick heavy oil cut mud 80% Mud 20% Oil	0.56
20.00	Clean oil	0.28
0.00	Chlorides 14,000	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Sandin Oil Corporation  
 621 17th Street Suite 2005  
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 ATTN: Steve Reed

**24-8s-17w Rooks**  
**Cheney #1**  
 Job Ticket: 01028      **DST#: 1**  
 Test Start: 2015.04.26 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 3223.00 ft	Diameter: 3.80 inches	Volume: 45.21 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 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:	52000.00 lb
			<u>Total Volume: 45.21 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	3226.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	49.37 ft				
Tool Length:	78.37 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			3202.00	
Hydraulic tool	5.00			3207.00	
Jars	7.00			3214.00	
Safety Joint	2.00		Fluid	3216.00	
Top Packer	5.00			3221.00	
Packer	5.00			3226.00	29.00      Bottom Of Top Packer
Anchor	5.00			3231.00	
Change Over Sub	0.75		Inside	3231.75	
Drill Pipe	31.87			3263.62	
Change Over Sub	0.75			3264.37	
Anchor	6.00			3270.37	
Recorder	0.00	9139	Inside	3270.37	
Recorder	0.00	9119	Outside	3270.37	
Bullnose	5.00			3275.37	49.37      Anchor Tool

**Total Tool Length: 78.37**



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## FLUID SUMMARY

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**Cheney #1**  
 Job Ticket: 01028      **DST#: 1**  
 Test Start: 2015.04.26 @ 00:00:00

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	14000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 1800.00 ppm			
Filter Cake: 1.00 inches			

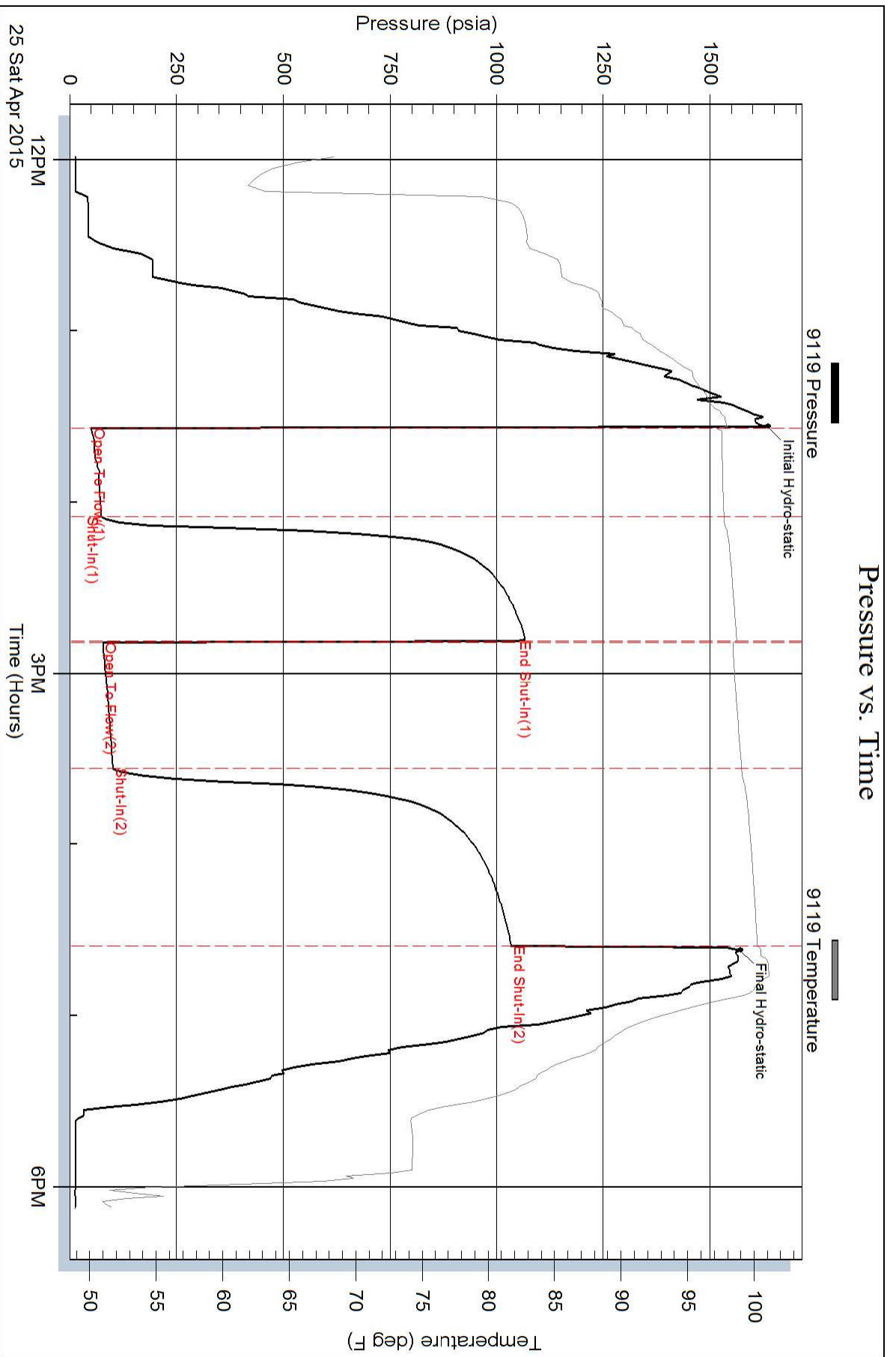
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Thick heavy oil cut muddy w ater	0.842
0.00	50%Mud 30%Water 20%Oil	0.000
40.00	Thick heavy oil cut mud 80% Miud 20%Oil	0.561
20.00	Clean oil	0.281
0.00	Chlorides 14,000	0.000

Total Length: 120.00 ft      Total Volume: 1.684 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

# Pressure vs. Time



# Pressure vs. Time

