

## DRILL STEM TEST REPORT

Prepared For: **Noble Petroleum Inc.**

3101 North Rock RD STE 125 Wichita KS  
67226

ATTN: Frank Mize

**Tom Hansen #1**

**29-22s-4e**

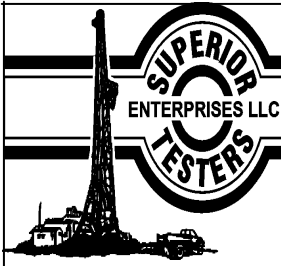
Start Date: 2013.09.27 @ 08:48:00

End Date: 2013.09.27 @ 15:07:00

Job Ticket #: 18558                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.09.27 @ 13:34:16



# DRILL STEM TEST REPORT

Noble Petroleum Inc.

**29-22s-4e**

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**Tom Hansen #1**

ATTN: Frank Mize

Job Ticket: 18558

**DST#: 1**

Test Start: 2013.09.27 @ 08:48:00

## GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:42:00

Time Test Ended: 15:07:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-260

**Interval: 2440.00 ft (KB) To 2473.00 ft (KB) (TVD)**

Reference Elevations: 1447.00 ft (KB)

Total Depth: 2473.00 ft (KB) (TVD)

1443.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

**Serial #: 8524 Inside**

Press @ Run Depth: 188.86 psia @ 2469.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.09.27

End Date: 2013.09.27

Last Calib.: 2013.09.27

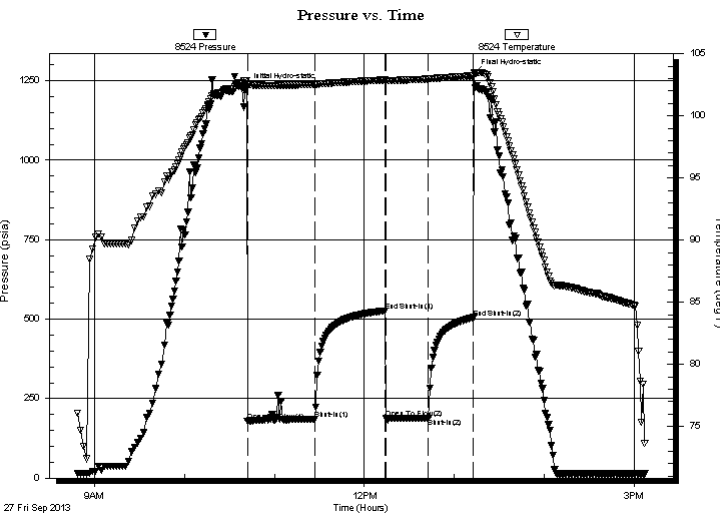
Start Time: 08:49:00

End Time: 15:07:00

Time On Btm: 2013.09.27 @ 10:41:30

Time Off Btm: 2013.09.27 @ 13:13:00

**TEST COMMENT:** 1st Open 45 minutes Fair blow built to 1.5 inches into a 5 gallon bucket of water.  
 1st Shut in 45 minutes No blow back  
 2nd Open 30 minutes Dead  
 2nd Shut in 30 minutes No blow back



## PRESSURE SUMMARY

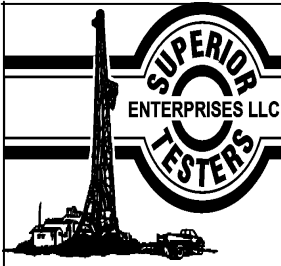
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1227.73	102.83	Initial Hydro-static
1	179.12	102.55	Open To Flow (1)
46	186.08	102.53	Shut-In(1)
92	526.52	102.89	End Shut-In(1)
93	188.21	102.85	Open To Flow (2)
121	188.86	102.96	Shut-In(2)
151	505.21	103.21	End Shut-In(2)
152	1274.06	103.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Mud 100%	0.61
124.00	Very lightly oil spotted mud 100% Mud	0.89

## Gas Rates

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



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ATTN: Frank Mize

Job Ticket: 18558

**DST#: 1**

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Reference Elevations: 1447.00 ft (KB)

Total Depth: 2473.00 ft (KB) (TVD)

1443.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

**Serial #: 6839 Outside**

Press @ Run Depth: 501.68 psia @ 2470.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.09.27

End Date: 2013.09.27

Last Calib.: 2013.09.27

Start Time: 08:49:00

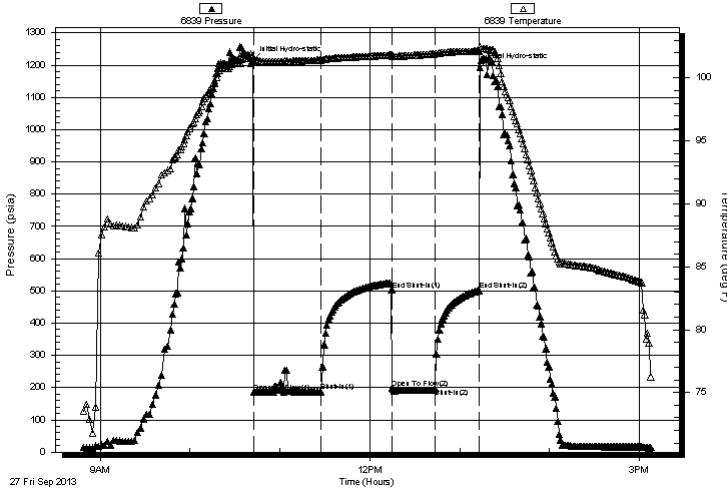
End Time: 15:08:00

Time On Btm: 2013.09.27 @ 10:42:00

Time Off Btm: 2013.09.27 @ 13:13:30

**TEST COMMENT:** 1st Open 45 minutes Fair blow built to 1.5 inches into a 5 gallon bucket of water.  
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Pressure vs. Time



## PRESSURE SUMMARY

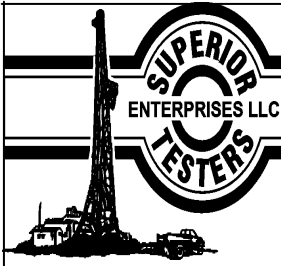
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1215.43	101.76	Initial Hydro-static
1	185.53	101.49	Open To Flow (1)
46	187.80	101.44	Shut-In(1)
93	504.06	101.82	End Shut-In(1)
93	197.33	101.75	Open To Flow (2)
122	198.96	101.92	Shut-In(2)
151	501.68	102.16	End Shut-In(2)
152	1192.47	102.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Mud 100%	0.61
124.00	Very lightly oil spotted mud 100% Mud	0.89

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Noble Petroleum Inc.

**29-22s-4e**

3101 North Rock RD STE 125 Wichita KS 67226

**Tom Hansen #1**

Job Ticket: 18558

**DST#: 1**

ATTN: Frank Mize

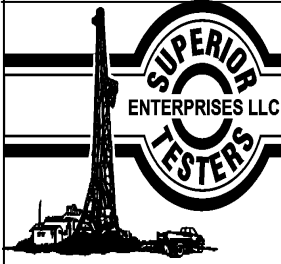
Test Start: 2013.09.27 @ 08:48:00

## Tool Information

Drill Pipe:	Length: 2226.00 ft	Diameter: 3.80 inches	Volume: 31.22 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: 216.84 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 32.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.84 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	2440.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	61.00 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			2417.00	
Hydraulic Tool	5.00			2422.00	
Jars	6.00			2428.00	
Safety Joint	2.00			2430.00	
Packer	5.00			2435.00	28.00 Bottom Of Top Packer
Packer	5.00			2440.00	
Anchor	28.00			2468.00	
Recorder	1.00	8524	Inside	2469.00	
Recorder	1.00	6839	Outside	2470.00	
Bull Plug	3.00			2473.00	33.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>61.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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**29-22s-4e**

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**Tom Hansen #1**

Job Ticket: 18558

**DST#: 1**

ATTN: Frank Mize

Test Start: 2013.09.27 @ 08:48:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 8.79 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: ppm

deg API

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	Mud 100%	0.610
124.00	Very lightly oil spotted mud 100% Mud	0.894

Total Length: 248.00 ft      Total Volume: 1.504 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8524

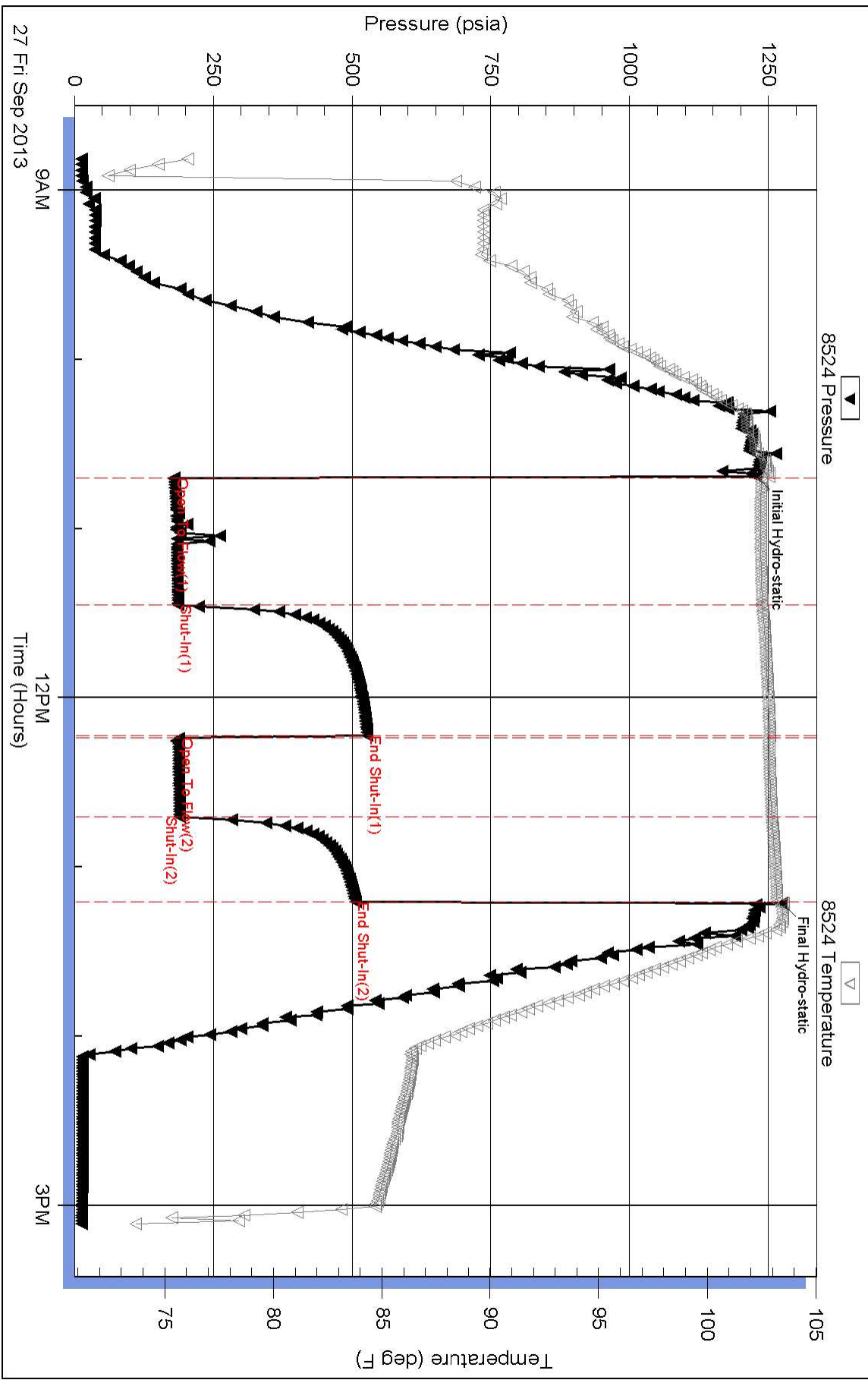
Inside

Noble Petroleum Inc.

Tom Hansen #1

DST Test Number: 1

# Pressure vs. Time



Superior Testers Enterprises LLC

Ref. No: 18558

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