



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Mkol Oil LLC  
 1407 Washington Ave Hays Ks 67601  
 ATTN: Larry Denning

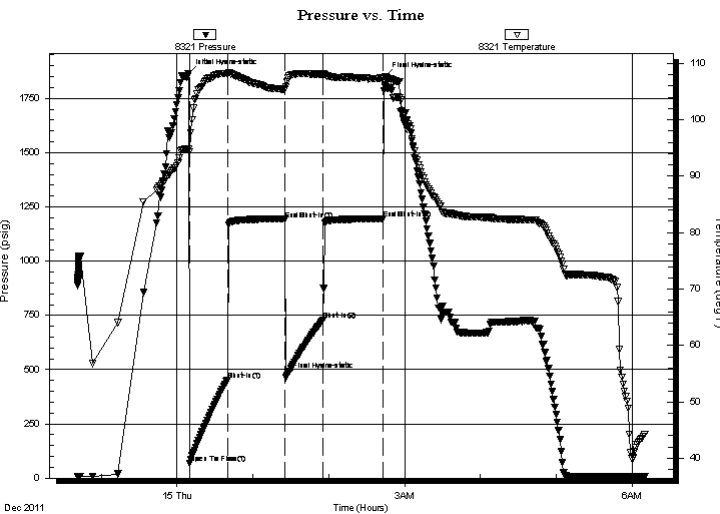
**23-10s-17w-Rooks**  
**Russell 1-23**  
 Job Ticket: 46240 **DST#: 3**  
 Test Start: 2011.12.14 @ 22:41:20

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 00:09:50 Tester: Jeff Brown  
 Time Test Ended: 06:10:20 Unit No: 44  
 Interval: **3652.00 ft (KB) To 3712.00 ft (KB) (TVD)** Reference Elevations: 2086.00 ft (KB)  
 Total Depth: 3712.00 ft (KB) (TVD) 2081.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 8321 Inside**  
 Press @ Run Depth: 452.32 psig @ 3691.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.12.14 End Date: 2011.12.15 Last Calib.: 2011.12.15  
 Start Time: 22:41:21 End Time: 06:10:20 Time On Btm: 2011.12.15 @ 00:09:20  
 Time Off Btm: 2011.12.15 @ 01:25:50

**TEST COMMENT:** IFP-Strong blow BOB in 2 1/2 min  
 ISI-Dead no blow back  
 FFP-Strong blow BOB in 2 1/2 min  
 FSI-Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1864.75	94.80	Initial Hydro-static
1	69.63	94.28	Open To Flow (1)
31	452.32	108.21	Shut-In(1)
76	1192.79	105.33	End Shut-In(1)
77	463.39	105.79	Final Hydro-static
106	728.84	108.03	Shut-In(2)
154	1195.10	107.36	End Shut-In(2)
155	1851.18	106.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1260.00	MW 10%M90%W	17.40
189.00	WM 25%W75%M	2.65
136.00	WM with oil spots 10%M90%W	1.91

\* Recovery from multiple tests

## Gas Rates

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





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## FLUID SUMMARY

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### 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:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.60 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1260.00	MW 10%M90%W	17.401
189.00	WM 25%W75%M	2.651
136.00	WM with oil spots 10%M90%W	1.908

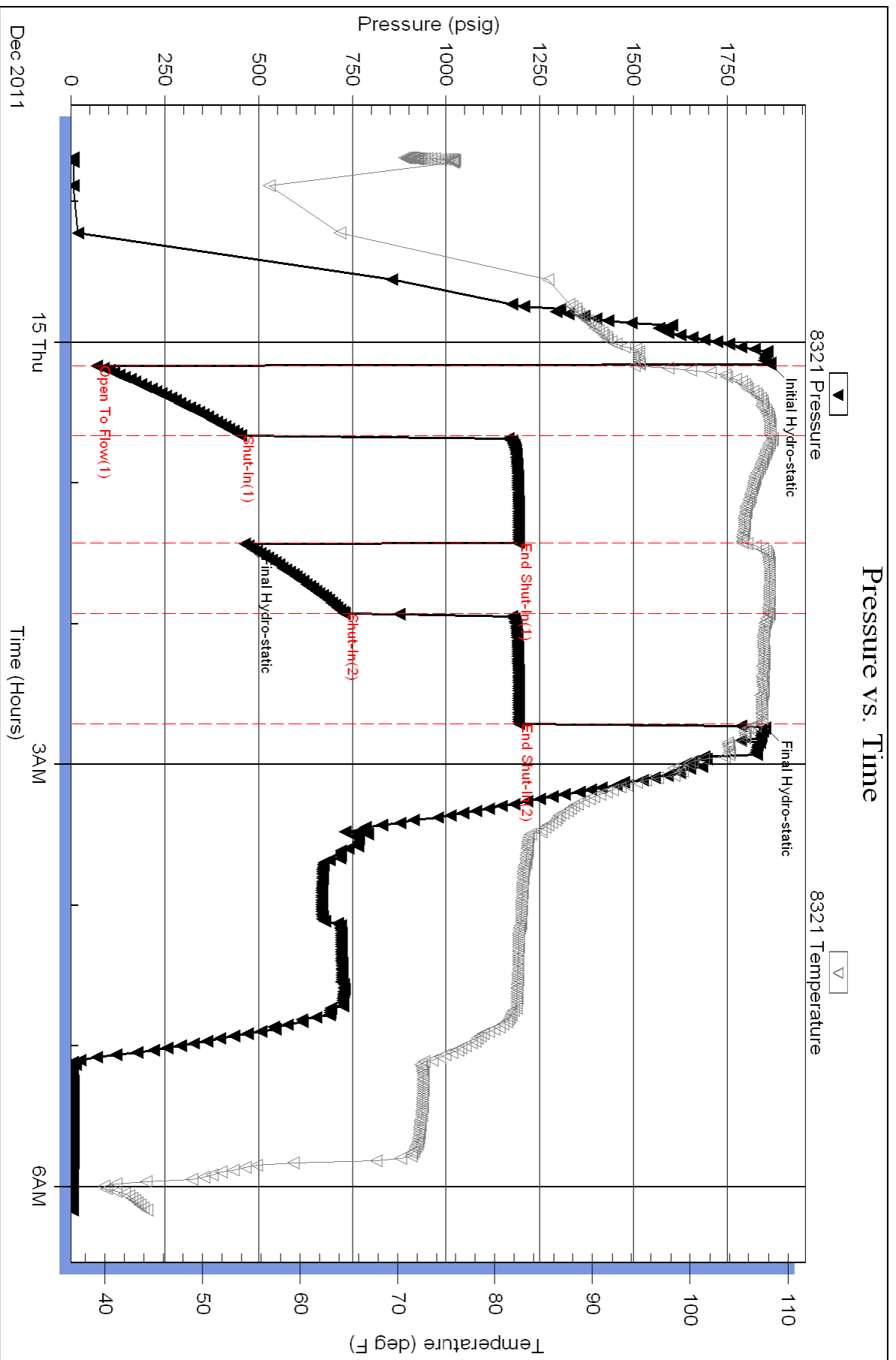
Total Length: 1585.00 ft      Total Volume: 21.960 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

# Pressure vs. Time



Serial #: 8737

Outside Mkol Oil LLC

Russell 1-23

DST Test Number: 3

