



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Herman L. Loeb, LLC.  
 P.O. Box 838  
 Lawrenceville, IL. 62439  
 ATTN: Jon Christensen

**32-27s-18w Kiowa Co., Ks.**  
**Naumann #2-32**  
 Job Ticket: 54193      **DST#: 2**  
 Test Start: 2014.07.09 @ 01:40:57

## GENERAL INFORMATION:

Formation: **K.C. "H & I"**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 04:13:12  
 Time Test Ended: 11:24:42  
 Interval: **4410.00 ft (KB) To 4436.00 ft (KB) (TVD)**  
 Total Depth: 4436.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 53  
 Reference Elevations: 2223.00 ft (KB)  
 2210.00 ft (CF)  
 KB to GR/CF: 13.00 ft

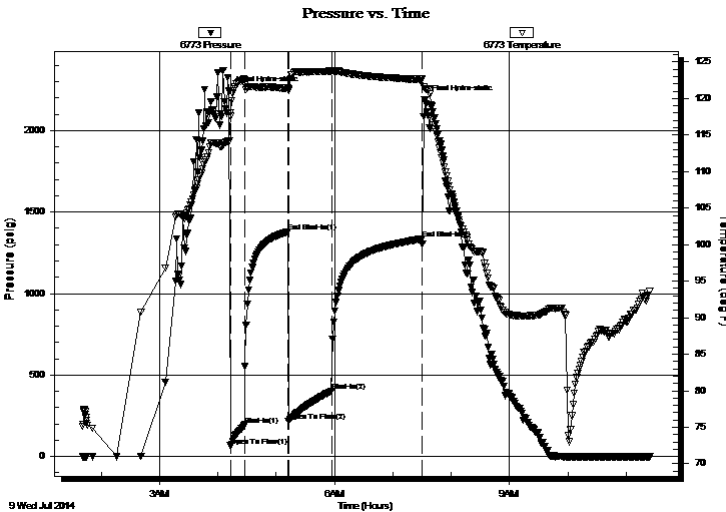
## Serial #: 6773

Outside

Press@RunDepth: 401.74 psig @ 4411.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.07.09      End Date: 2014.07.09      Last Calib.: 2014.07.09  
 Start Time: 01:41:02      End Time: 11:24:42      Time On Btm: 2014.07.09 @ 04:11:42  
 Time Off Btm: 2014.07.09 @ 07:32:57

TEST COMMENT: IF: Strong blow . B.O.B. in 35 secs.  
 IS: Fair blow . Surf., to 6". Bleed off in 5 mins.  
 FF: Strong blow . B.O.B. in 2 1/2 mins.  
 FS: Weak blow . Surf., to 3". Bleed off in 5 mins.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2241.61	114.15	Initial Hydro-static
2	64.27	118.07	Open To Flow (1)
16	194.51	122.56	Shut-In(1)
61	1377.18	121.39	End Shut-In(1)
61	216.76	121.17	Open To Flow (2)
106	401.74	123.74	Shut-In(2)
199	1334.11	122.64	End Shut-In(2)
202	2186.73	121.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM 10%m 90%w	0.30
240.00	WCM 5%m 95%w	1.18
30.00	WCM 2%m 98%w	0.15
96.00	WCM 2%m 98%w	1.35
128.00	WCM 2%m 98%w W/ oil trc	1.80
64.00	WCM 3%m 97%w W/ slt oil	0.90

\* 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: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 9000.00 ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	WCM 10%m 90%w	0.295
240.00	WCM 5%m 95%w	1.180
30.00	WCM 2%m 98%w	0.148
96.00	WCM 2%m 98%w	1.347
128.00	WCM 2%m 98%w W/ oil trc	1.796
64.00	WCM 3%m 97%w W/ slt oil	0.898
64.00	GOMCW 5%g 5%o 5%m 85%w	0.898
64.00	GOMCW 10%o 10%m 20%g 60%w	0.898
64.00	GOMCW 5%m 15%o 35%g 45%w	0.898
20.00	GOMCW 3%m 25%o 30%w 42%g	0.281
0.00	748' G.I.P. 100%g	0.000

Total Length: 830.00 ft      Total Volume: 8.639 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #: none  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: RW .12 @ 82 degrees = 59,000

