



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

33-27s-18w Kiowa Co., Ks
Unruh #4-33
 Job Ticket: 57808 **DST#: 1**
 Test Start: 2015.03.02 @ 19:18:25

GENERAL INFORMATION:

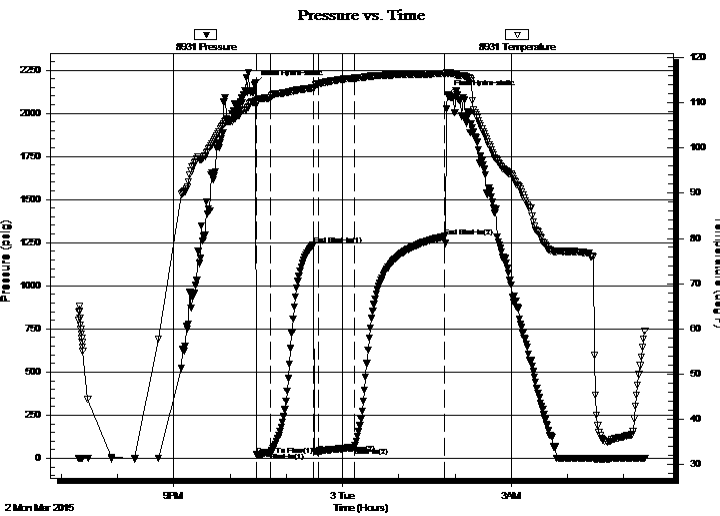
Formation: **KC. "I"**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 22:28:40
 Time Test Ended: 05:23:10
 Interval: **4398.00 ft (KB) To 4417.00 ft (KB) (TVD)**
 Total Depth: 4417.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Matt Smith
 Unit No: 53
 Reference Elevations: 2206.00 ft (KB)
 2197.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8931

Inside

Press @ Run Depth: 62.73 psig @ 4399.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.03.02 End Date: 2015.03.03 Last Calib.: 2015.03.03
 Start Time: 19:18:30 End Time: 05:23:10 Time On Btm: 2015.03.02 @ 22:25:55
 Time Off Btm: 2015.03.03 @ 01:52:10

TEST COMMENT: IF: Fair-Strong blow . Building surf., - 10".
 IS: Weak blow . Surf., - 1/8". Bleed off in 2 1/2 mins. 23 mins for blow back.
 FF: Strong blow . B.O.B. in 6 1/2 mins.
 FS: Weak blow . Surf., - 1". 4 mins. to bleed off. 45 mins for blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2163.99	110.10	Initial Hydro-static
3	18.76	110.23	Open To Flow (1)
18	32.70	111.16	Shut-In(1)
63	1237.17	113.27	End Shut-In(1)
69	29.55	114.21	Open To Flow (2)
107	62.73	115.46	Shut-In(2)
203	1285.33	116.47	End Shut-In(2)
207	2106.03	116.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MOCWG 10%w 25%w 26%oc 39%g	0.30
62.00	WOGCM 10%w 15%oc 20%g 55%m	0.30
0.00	445' G.I.P. 100%g	0.00
0.00	RW 38 @ .36 = 65000 chlorides	0.00

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:	65000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: 0.36 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3600.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	MOCWG 10%m 25%w 26%oc 39%g	0.305
62.00	WOGCM 10%w 15%oc 20%g 55%m	0.305
0.00	445' G.I.P. 100%g	0.000
0.00	RW 38 @ .36 = 65000 chlorides	0.000

Total Length: 124.00 ft Total Volume: 0.610 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments: RW is 38 degrees @ .36 = 65000 chlorides.

Pressure vs. Time

