



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Herman L. Loeb, LLC.
P.O. Box 838
Lawrenceville, IL 62439
ATTN: Tom Pronhold

14-33s-26w Meade Co., KS

MadDog 1-14

Job Ticket: 51984

DST#: 2

Test Start: 2014.05.23 @ 21:20:24

GENERAL INFORMATION:

Formation: **Chester**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 00:18:09

Time Test Ended: 06:33:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Reynolds

Unit No: 68

Interval: 5426.00 ft (KB) To 5477.00 ft (KB) (TVD)

Reference Elevations: 2145.00 ft (KB)

Total Depth: 5477.00 ft (KB) (TVD)

2134.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8790 Inside

Press @ RunDepth: 71.36 psig @ 5433.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.23

End Date:

2014.05.24

Last Calib.:

2014.05.24

Start Time: 21:20:29

End Time:

06:33:39

Time On Btm:

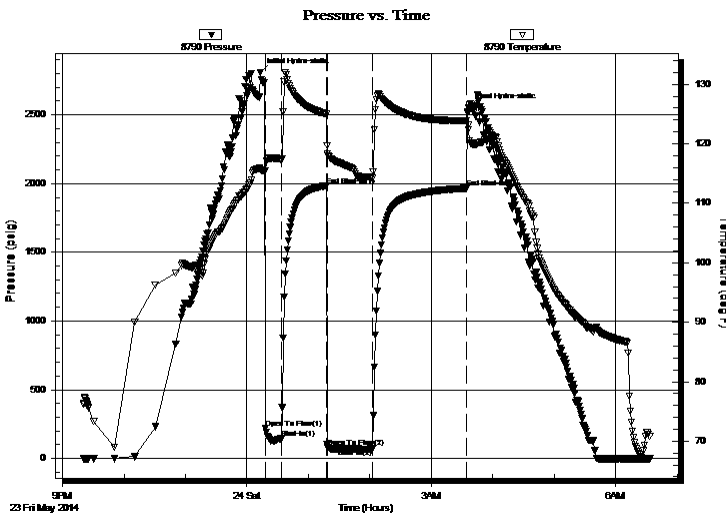
2014.05.24 @ 00:13:09

Time Off Btm:

2014.05.24 @ 03:35:54

TEST COMMENT: IF: Strong blow . BOB immed. GTS @ 13min.
IS: No blow
FF: Strong blow . BOB immed. Guaged gas
FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2808.58	115.67	Initial Hydro-static
5	220.85	115.48	Open To Flow (1)
21	143.97	117.37	Shut-In(1)
65	1983.99	125.00	End Shut-In(1)
66	77.81	118.31	Open To Flow (2)
110	71.36	114.21	Shut-In(2)
202	1966.68	123.88	End Shut-In(2)
203	2549.47	123.13	Final Hydro-static

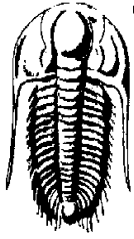
Recovery

Length (ft)	Description	Volume (bbl)
80.00	WCM 7%w, 93%m	0.39

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	17.00	215.86
Last Gas Rate	0.50	15.00	202.37
Max. Gas Rate	0.50	17.50	219.24



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FLUID SUMMARY

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Test Start: 2014.05.23 @ 21:20:24

Mud and Cushion Information

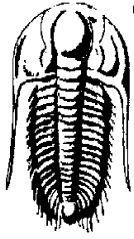
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	67000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3700.00 ppm			
Filter Cake: 0.02 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	WCM 7%w, 93%m	0.393

Total Length: 80.00 ft Total Volume: 0.393 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:



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GAS RATES

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Job Ticket: 51984

DST#: 2

ATTN: Tom Pronhold

Test Start: 2014.05.23 @ 21:20:24

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.50	17.00	215.86
2	20	0.50	17.50	219.24
2	30	0.50	16.00	209.12
2	40	0.50	15.00	202.37
2	45	0.50	15.00	202.37

