



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DNOC
 PO Box 372
 Hays, Ks
 67601
 ATTN: Marc Downing

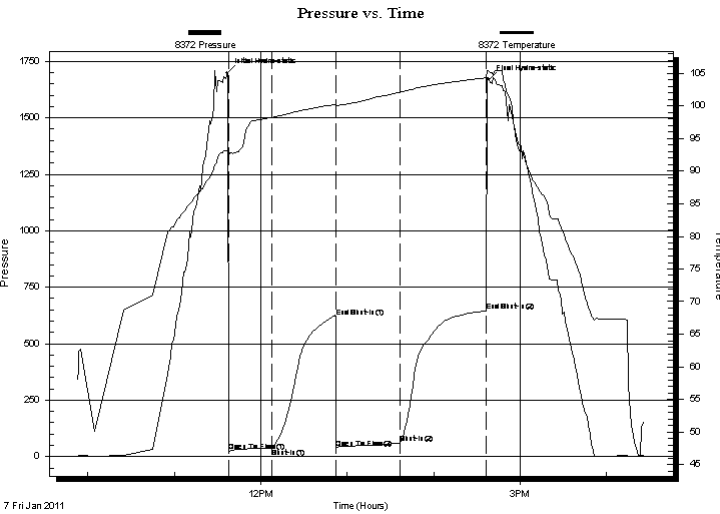
Verna Herl 1-12
12-14-19/Ellis
 Job Ticket: 41409 **DST#: 3**
 Test Start: 2011.01.07 @ 09:52:54

GENERAL INFORMATION:

Formation: **LKC "D-E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:37:53
 Time Test Ended: 16:26:23
Interval: 3512.00 ft (KB) To 3552.00 ft (KB) (TVD)
 Total Depth: 3552.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2187.00 ft (KB)
 2180.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8372 Inside
 Press @ Run Depth: 58.11 psig @ 3515.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.01.07 End Date: 2011.01.07 Last Calib.: 2011.01.07
 Start Time: 09:52:54 End Time: 16:26:23 Time On Btm: 2011.01.07 @ 11:36:53
 Time Off Btm: 2011.01.07 @ 14:38:23

TEST COMMENT: IFP - BOB 7 min
 ISI - sur blow back - died 12 min
 FFP - BOB 30 sec
 FSI - sur blow back - died 9 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.82	93.26	Initial Hydro-static
1	21.92	92.28	Open To Flow (1)
31	38.03	98.23	Shut-In(1)
75	618.26	100.24	End Shut-In(1)
76	38.16	100.08	Open To Flow (2)
120	58.11	102.10	Shut-In(2)
180	643.95	104.34	End Shut-In(2)
182	1671.31	105.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GMCO 30%G, 40%O, 30%M	0.27
20.00	GMO 55%G, 30%O, 15%M	0.28
55.00	GHOCM 5%G, 30%O, 65%M	0.77
0.00	1120' GIP	0.00

Gas Rates

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



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FLUID SUMMARY

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DST#: 3

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Test Start: 2011.01.07 @ 09:52:54

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:

bbbl

Water Loss: 8.74 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
40.00	GMCO 30%G, 40%O, 30%M	0.270
20.00	GMO 55%G, 30%O, 15%M	0.281
55.00	GHOCM 5%G, 30%O, 65%M	0.772
0.00	1120' GIP	0.000

Total Length: 115.00 ft

Total Volume: 1.323 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

