



**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: 41410 **DST#: 4**
Test Start: 2011.01.08 @ 02:09:11

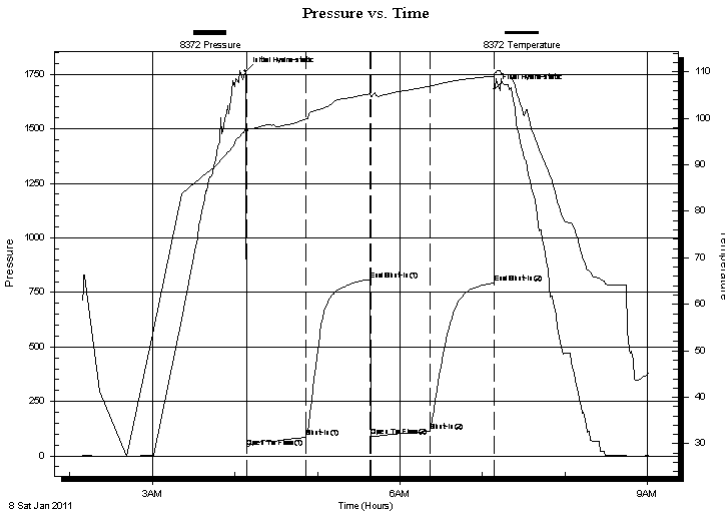
GENERAL INFORMATION:

Formation: **LKC "H-I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:08:40
Time Test Ended: 09:02:10
Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Interval: **3581.00 ft (KB) To 3638.00 ft (KB) (TVD)**
Reference Elevations: 2187.00 ft (KB)
Total Depth: 3638.00 ft (KB) (TVD) 2180.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 7.00 ft

Serial #: 8372 Inside
Press @ Run Depth: 113.48 psig @ 3587.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.08 End Date: 2011.01.08 Last Calib.: 2011.01.08
Start Time: 02:09:11 End Time: 09:02:10 Time On Btm: 2011.01.08 @ 04:07:40
Time Off Btm: 2011.01.08 @ 07:09:10

TEST COMMENT: IFP - BOB 17 min
ISI 1/2" blow back throughout
FFP - BOB 10 min
FSI - 2 1/2" blow back throughout

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1763.88	97.83	Initial Hydro-static
1	40.86	97.10	Open To Flow (1)
44	84.98	99.82	Shut-In(1)
91	809.81	105.28	End Shut-In(1)
92	88.75	104.72	Open To Flow (2)
134	113.48	106.93	Shut-In(2)
181	793.61	109.07	End Shut-In(2)
182	1684.32	109.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSO & WCM 27%G, 3%O, 5%W, 65%M	0.55
40.00	GOCM 40%G, 10%O, 50%M	0.56
70.00	VSO CM 10%G, 3%O, 87%M	0.98
5.00	FREE OIL 95%O, 5%M	0.07
0.00	375' GIP	0.00

Gas Rates

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



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FLUID SUMMARY

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Test Start: 2011.01.08 @ 02:09:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 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
60.00	VSO & WCM 27%G, 3%O, 5%W, 65%M	0.550
40.00	GOCM 40%G, 10%O, 50%M	0.561
70.00	VSOCM 10%G, 3%O, 87%M	0.982
5.00	FREE OIL 95%O, 5%M	0.070
0.00	375' GIP	0.000

Total Length: 175.00 ft

Total Volume: 2.163 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

