



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mull
1700 N Waterfront PKWY
Wichita, KS 67206
ATTN: Phil Askey

Harkness Trust #1-5
5-17s-23w Ness
Job Ticket: 39178 **DST#: 2**
Test Start: 2010.06.26 @ 23:43:05

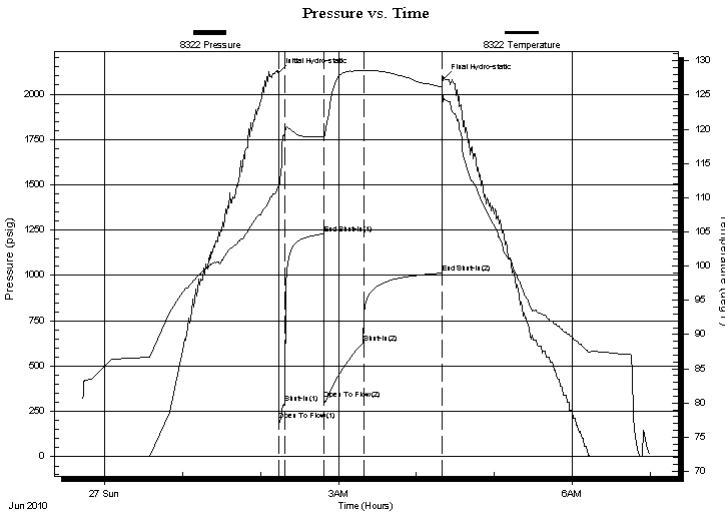
GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:14:15
Time Test Ended: 06:59:59
Interval: **4437.00 ft (KB) To 4525.00 ft (KB) (TVD)**
Total Depth: 4525.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Brandon Domsch
Unit No: 48
Reference Elevations: 2494.00 ft (KB)
2489.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8322 Inside
Press @ RunDepth: 628.35 psig @ 4438.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.06.26 End Date: 2010.06.27 Last Calib.: 2010.06.27
Start Time: 23:43:05 End Time: 06:59:59 Time On Btm: 2010.06.27 @ 02:14:00
Time Off Btm: 2010.06.27 @ 04:21:00

TEST COMMENT: IF: BOB in 1 1/2 mins.
IS: Surface blow for 5 mins.
FF: BOB in 2 mins.
FS: Surface blow for 12 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.78	111.65	Initial Hydro-static
1	199.13	111.32	Open To Flow (1)
5	295.04	119.53	Shut-In(1)
35	1228.66	118.82	End Shut-In(1)
35	318.01	118.55	Open To Flow (2)
66	628.35	128.54	Shut-In(2)
126	1013.06	126.20	End Shut-In(2)
127	2086.17	124.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	M 100%m	0.15
591.00	CW 100%w	7.43
124.00	MCW 80%w 20%m	1.74
375.00	SO&WCM 5%o 35%w 60%m	5.26
90.00	M 100%m	1.26
0.00	GIP = 0	0.00

Gas Rates

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



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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: 42000 ppm	
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.57 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M 100%m	0.148
591.00	CW 100%w	7.434
124.00	MCW 80%w 20%m	1.739
375.00	SO&WCM 5%o 35%w 60%m	5.260
90.00	M 100%m	1.262
0.00	GIP = 0	0.000
0.00	RW = .165@78F = 42000ppm	0.000

Total Length: 1210.00 ft Total Volume: 15.843 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

