



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Norstar
 88 Inverness Cir E Unit f104
 Englewood, CO 80112
 ATTN: Bob Elder

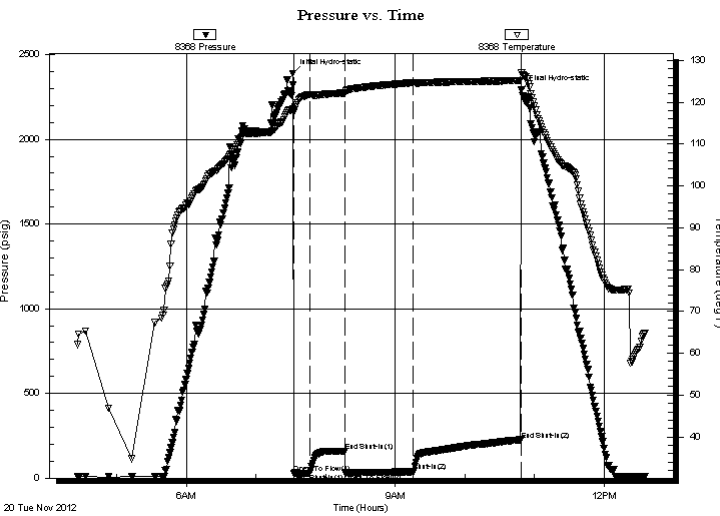
24-10s-34w Thomas, Ks
Epard Farms # 1-24
 Job Ticket: 49887 **DST#: 1**
 Test Start: 2012.11.20 @ 04:26:11

GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 07:32:11
 Time Test Ended: 12:55:56
 Interval: **4622.00 ft (KB) To 4675.00 ft (KB) (TVD)**
 Total Depth: 4675.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3177.00 ft (KB)
 3169.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8368 Outside
 Press @ Run Depth: 37.82 psig @ 4623.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.20 End Date: 2012.11.20 Last Calib.: 2012.11.20
 Start Time: 04:26:11 End Time: 12:34:56 Time On Btm: 2012.11.20 @ 07:31:26
 Time Off Btm: 2012.11.20 @ 10:48:41

TEST COMMENT: B.O.B. in 10 min.
 3 1/2" in return
 B.O.B. in 1 min
 No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2389.82	118.31	Initial Hydro-static
1	26.70	117.62	Open To Flow (1)
15	27.68	121.84	Shut-In(1)
45	159.43	122.20	End Shut-In(1)
46	31.22	122.29	Open To Flow (2)
104	37.82	124.67	Shut-In(2)
197	226.46	125.22	End Shut-In(2)
198	2295.20	127.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	s o & w c m2%o 23%w 75%m trace of	0.63
0.00	615' very weak gas in pipe	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: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 37500 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.78 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	s o & w c m 2%o 23%w 75% m trace of oil	0.631
0.00	615' very weak gas in pipe	0.000

Total Length: 45.00 ft Total Volume: 0.631 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw .268 @ 50'f = 37,500 chlor

