



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Empire Energy E&P llc
345 Riverside st STE 540
Wichita, ks 67203
ATTN: Kurt Talbot

31-15S-11W
Driscall Heirs #5
Job Ticket: 54350 **DST#: 1**
Test Start: 2013.12.07 @ 23:32:23

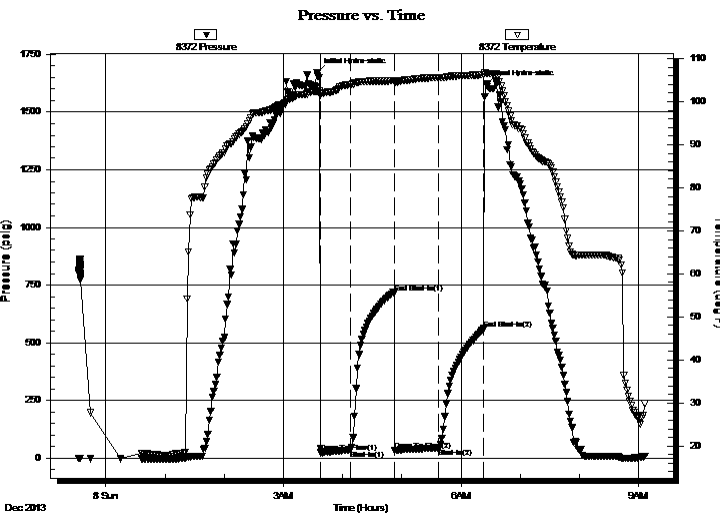
GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:37:53
Time Test Ended: 09:06:53
Interval: **3298.00 ft (KB) To 3361.00 ft (KB) (TVD)**
Total Depth: 3361.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Tim Phillips
Unit No: 68
Reference Elevations: 1891.00 ft (KB)
1878.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8372

Press @ Run Depth: 42.07 psig @ ft (KB) Capacity: 8000.00 psig
Start Date: 2013.12.07 End Date: 2013.12.08 Last Calib.: 2013.12.08
Start Time: 23:32:24 End Time: 09:06:53 Time On Btm: 2013.12.08 @ 03:33:53
Time Off Btm: 2013.12.08 @ 06:25:53

TEST COMMENT: IFP-30-Medium blow built to 4.25 in
ISI-45-No blow back
FF-45-Built to 3 in
FSI-45-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1672.35	102.40	Initial Hydro-static
4	22.89	101.98	Open To Flow (1)
34	32.40	103.96	Shut-In(1)
79	717.43	104.87	End Shut-In(1)
79	33.30	104.54	Open To Flow (2)
123	42.07	105.59	Shut-In(2)
169	560.50	106.26	End Shut-In(2)
172	1619.47	106.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	100% Oil	0.84
5.00	OCM 10%O, 90% M	0.07

Gas Rates

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



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Job Ticket: 54350 **DST#: 1**
Test Start: 2013.12.07 @ 23:32:23

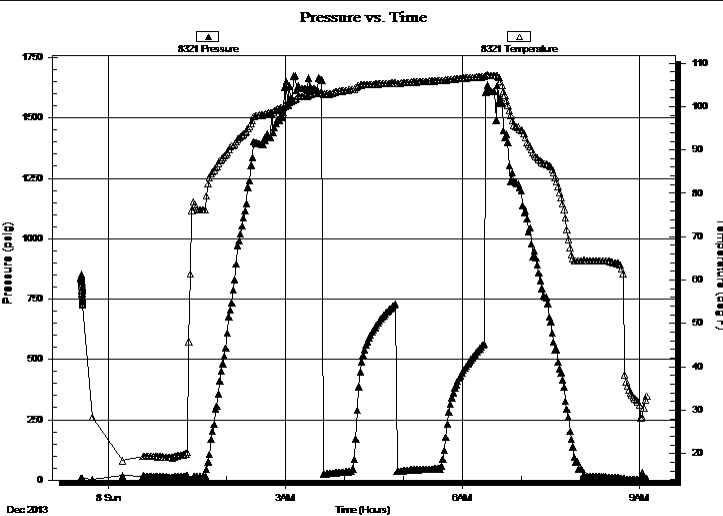
GENERAL INFORMATION:

Formation: Arbuckle		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 03:37:53		Tester: Tim Phillips
Time Test Ended: 09:06:53		Unit No: 68
Interval: 3298.00 ft (KB) To 3361.00 ft (KB) (TVD)		Reference Elevations: 1891.00 ft (KB)
Total Depth: 3361.00 ft (KB) (TVD)		1878.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good		KB to GR/CF: 13.00 ft

Serial #: 8321

Press @ Run Depth:	psig @	ft (KB)	Capacity:	8000.00 psig
Start Date:	2013.12.07	End Date:	2013.12.08	Last Calib.: 2013.12.08
Start Time:	23:32:03	End Time:	09:07:02	Time On Btm:
				Time Off Btm:

TEST COMMENT: IFP-30-Medium blow built to 4.25 in
ISI-45-No blow back
FF-45-Built to 3 in
FSI-45-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
60.00	100% Oil	0.84
5.00	OCM 10%O, 90% M	0.07

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Empire Energy E&P llc

31-15S-11W

345 Riverside st STE 540
Wichita, ks 67203

Driscal Heirs #5

Job Ticket: 54350

DST#: 1

ATTN: Kurt Talbot

Test Start: 2013.12.07 @ 23:32:23

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	100% Oil	0.842
5.00	OCM 10%O, 90% M	0.070

Total Length: 65.00 ft Total Volume: 0.912 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

