



DRILL STEM TEST REPORT

Prepared For: **Toto Energy**

25815 Oak Ridge Dr Spring TX 77380

ATTN:

Greene 24-1

24-23s-17w Pawnee

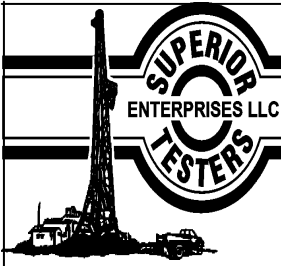
Start Date: 2013.05.30 @ 05:55:00

End Date: 2013.05.30 @ 12:22:30

Job Ticket #: 17464 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2013.05.30 @ 12:40:49



DRILL STEM TEST REPORT

Toto Energy
 25815 Oak Ridge Dr Spring TX 77380
 ATTN:

24-23s-17w Pawnee
Greene 24-1
 Job Ticket: 17464 **DST#:2**
 Test Start: 2013.05.30 @ 05:55:00

GENERAL INFORMATION:

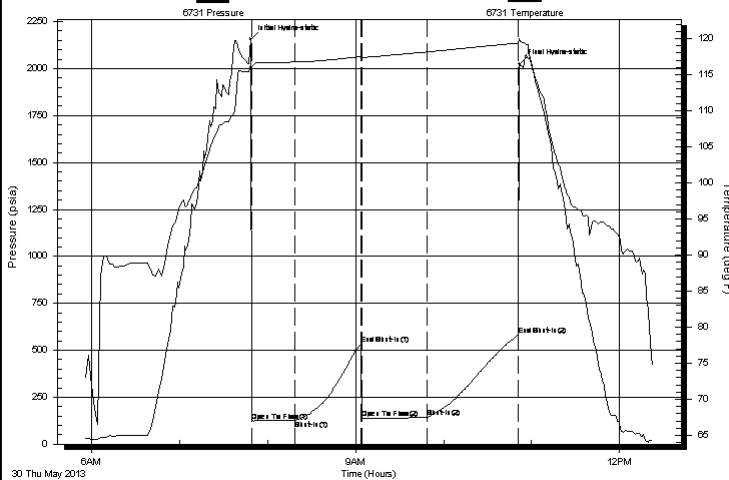
Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Time Tool Opened: 07:49:30
 Time Test Ended: 12:22:30
 Unit No: 3320-Great Bend-80
 Interval: **4140.00 ft (KB) To 4280.00 ft (KB) (TVD)**
 Reference Elevations: 2084.00 ft (KB)
 Total Depth: 4280.00 ft (KB) (TVD)
 2074.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 10.00 ft

Serial #: 6731

Press@RunDepth: 141.83 psia @ ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.05.30 End Date: 2013.05.30 Last Calib.: 2013.05.30
 Start Time: 05:55:00 End Time: 12:22:30 Time On Btm: 2013.05.30 @ 07:48:30
 Time Off Btm: 2013.05.30 @ 10:52:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built bottom of bucket in 22 minutes
 1st Shut-in 45 Minutes-No blow back
 2nd Opening 45 Minutes-Weak blow built bottom of bucket in 22 minutes
 2nd Shut-in 60 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

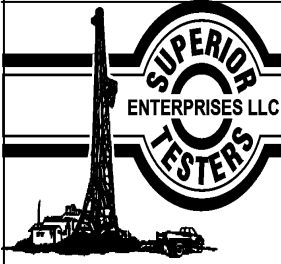
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2155.96	116.42	Initial Hydro-static
1	124.38	116.17	Open To Flow (1)
30	126.98	116.76	Shut-In(1)
75	534.45	117.50	End Shut-In(1)
76	137.46	117.40	Open To Flow (2)
120	141.83	118.16	Shut-In(2)
183	582.12	119.38	End Shut-In(2)
184	2025.35	119.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	spot oil mud 1%oil 99%mud	0.42
60.00	mud	0.84

Gas Rates

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



DRILL STEM TEST REPORT

Toto Energy
 25815 Oak Ridge Dr Spring TX 77380

24-23s-17w Pawnee
Greene 24-1
 Job Ticket: 17464 **DST#: 2**
 Test Start: 2013.05.30 @ 05:55:00

ATTN:

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:49:30
 Time Test Ended: 12:22:30

Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 3320-Great Bend-80

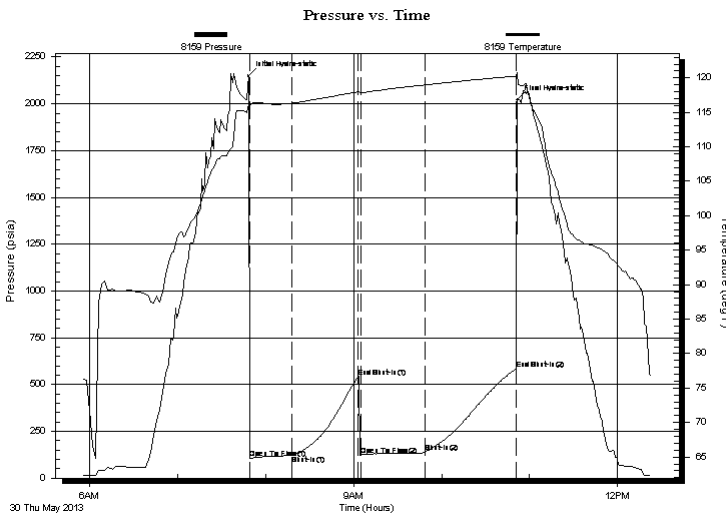
Interval: **4140.00 ft (KB) To 4280.00 ft (KB) (TVD)**
 Total Depth: 4280.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2084.00 ft (KB)
 2074.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8159

Press@RunDepth: 583.11 psia @ ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.05.30 End Date: 2013.05.30 Last Calib.: 2013.05.30
 Start Time: 05:55:00 End Time: 12:22:30 Time On Btm: 2013.05.30 @ 07:48:30
 Time Off Btm: 2013.05.30 @ 10:51:30

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built bottom of bucket in 22 minutes
 1st Shut-in 45 Minutes-No blow back
 2nd Opening 45 Minutes-Weak blow built bottom of bucket in 22 minutes
 2nd Shut-in 60 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2149.83	116.13	Initial Hydro-static
1	105.61	116.03	Open To Flow (1)
30	120.07	116.31	Shut-In(1)
75	538.71	117.95	End Shut-In(1)
77	123.33	117.85	Open To Flow (2)
121	138.80	118.97	Shut-In(2)
182	583.11	120.23	End Shut-In(2)
183	2021.16	120.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	spot oil mud 1%oil 99% mud	0.42
60.00	mud	0.84

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Toto Energy
 25815 Oak Ridge Dr Spring TX 77380
 ATTN:

24-23s-17w Pawnee
Greene 24-1
 Job Ticket: 17464 **DST#: 2**
 Test Start: 2013.05.30 @ 05:55:00

Tool Information

Drill Pipe:	Length: 4132.00 ft	Diameter: 3.80 inches	Volume: 57.96 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 57.96 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4140.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	140.00 ft				
Tool Length:	168.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			4117.00	
Hydraulic Tool	5.00			4122.00	
Jars	6.00			4128.00	
Safety Joint	2.00			4130.00	
Packer	5.00			4135.00	28.00 Bottom Of Top Packer
Packer	5.00			4140.00	
Anchor	0.00			4140.00	
Change Over Sub	0.75			4140.75	
Drill Pipe	126.50			4267.25	
Change Over Sub	0.75			4268.00	
Anchor	7.00			4275.00	
Recorder	1.00	6731	Inside	4276.00	
Recorder	1.00		Outside	4277.00	
Bullnose	3.00			4280.00	140.00 Bottom Packers & Anchor

Total Tool Length: 168.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Toto Energy
 25815 Oak Ridge Dr Spring TX 77380
 ATTN:

24-23s-17w Pawnee
Greene 24-1
 Job Ticket: 17464 **DST#: 2**
 Test Start: 2013.05.30 @ 05:55:00

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: 68.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 9400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	spot oil mud 1%oil 99%mud	0.421
60.00	mud	0.842

Total Length: 90.00 ft Total Volume: 1.263 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

