



## DRILL STEM TEST REPORT

Prepared For: **Toto Energy LLC.**

25815 Oak Ridge. Dr.Spring  
Texas 77380

ATTN: Harley Sayles

**Baker 19-1**

**19-33-6w-Cowley**

Start Date: 2013.10.13 @ 06:01:00

End Date: 2013.10.13 @ 10:30:00

Job Ticket #: 18569                      DST #: 1

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

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 Texas 77380  
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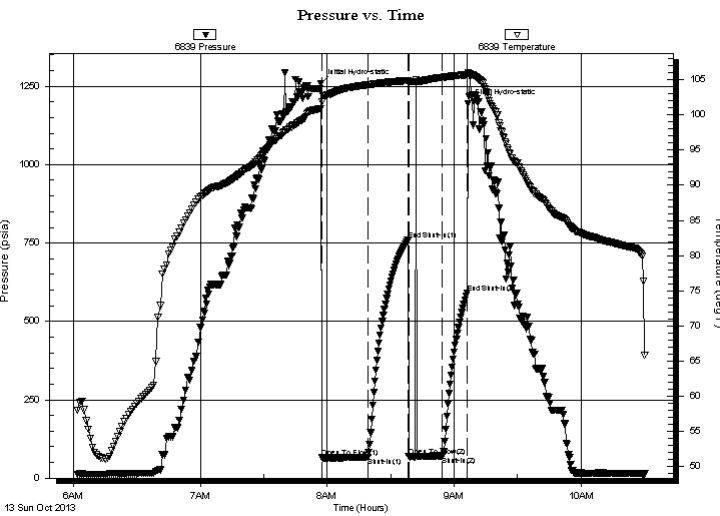
**19-33-6w-Cowley**  
**Baker 19-1**  
 Job Ticket: 18569 **DST#: 1**  
 Test Start: 2013.10.13 @ 06:01:00

## GENERAL INFORMATION:

Formation: **Dodds Creek Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:57:30  
 Time Test Ended: 10:30:00  
 Interval: **2488.00 ft (KB) To 2533.00 ft (KB) (TVD)**  
 Total Depth: 2533.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 3315-Great Bend-340  
 Reference Elevations: 1308.00 ft (KB)  
 1297.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 6839 Outside**  
 Press @ RunDepth: 70.97 psia @ 2530.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.10.13 End Date: 2013.10.13 Last Calib.: 2013.10.13  
 Start Time: 06:01:00 End Time: 10:30:00 Time On Btm: 2013.10.13 @ 07:57:00  
 Time Off Btm: 2013.10.13 @ 09:06:30

**TEST COMMENT:** 1st Open 20 minutes Very weak surface blow died off after 2 minutes.  
 1st Shut in 20 minutes No blow back  
 2nd Open 15 minutes Very weak surface blow died off. Flushed tool no help.  
 2nd Shut in 15 minutes No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1259.16	100.95	Initial Hydro-static
1	66.71	101.86	Open To Flow (1)
22	67.20	104.27	Shut-In(1)
41	758.64	104.89	End Shut-In(1)
42	68.83	104.64	Open To Flow (2)
58	70.97	105.35	Shut-In(2)
69	591.34	105.72	End Shut-In(2)
70	1195.30	106.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
4.00	Mud 100%	0.02

## Gas Rates

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



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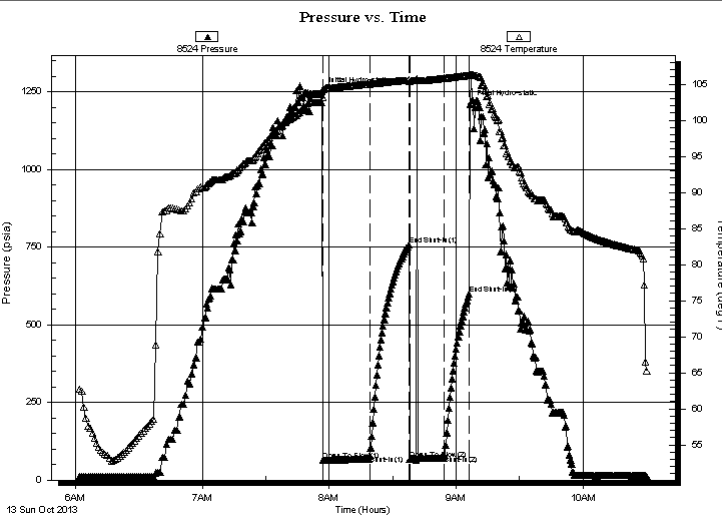
**19-33-6w-Cowley**  
**Baker 19-1**  
 Job Ticket: 18569 **DST#: 1**  
 Test Start: 2013.10.13 @ 06:01:00

## GENERAL INFORMATION:

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 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: 3315-Great Bend-340  
 Reference Elevations: 1308.00 ft (KB)  
 1297.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8524 Inside**  
 Press @ RunDepth: 600.32 psia @ 2529.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.10.13 End Date: 2013.10.13 Last Calib.: 2013.10.13  
 Start Time: 06:01:00 End Time: 10:30:00 Time On Btm: 2013.10.13 @ 07:56:30  
 Time Off Btm: 2013.10.13 @ 09:06:30

**TEST COMMENT:** 1st Open 20 minutes Very weak surface blow died off after 2 minutes.  
 1st Shut in 20 minutes No blow back  
 2nd Open 15 minutes Very weak surface blow died off. Flushed tool no help.  
 2nd Shut in 15 minutes No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1251.86	102.41	Initial Hydro-static
1	63.54	103.22	Open To Flow (1)
23	79.70	105.03	Shut-In(1)
41	757.44	105.57	End Shut-In(1)
42	68.01	105.36	Open To Flow (2)
58	80.60	105.83	Shut-In(2)
70	600.32	106.23	End Shut-In(2)
71	1209.01	106.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
4.00	Mud 100%	0.02

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Toto Energy LLC.  
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 ATTN: Harley Sayles

**19-33-6w-Cowley**  
**Baker 19-1**  
 Job Ticket: 18569      **DST#: 1**  
 Test Start: 2013.10.13 @ 06:01:00

**Tool Information**

Drill Pipe:	Length: 2207.00 ft	Diameter: 3.80 inches	Volume: 30.96 bbl	Tool Weight:	2000.00 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: 260.08 ft	Diameter: 2.25 inches	Volume: 1.28 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 32.24 bbl</u>	Tool Chased	1.00 ft
Drill Pipe Above KB:	7.08 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	2488.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	45.00 ft				
Tool Length:	73.00 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			2465.00	
Hydraulic Tool	5.00			2470.00	
Jars	6.00			2476.00	
Safety Joint	2.00			2478.00	
Packer	5.00			2483.00	28.00      Bottom Of Top Packer
Packer	5.00			2488.00	
Anchor	40.00			2528.00	
Recorder	1.00	8524	Inside	2529.00	
Recorder	1.00	6839	Outside	2530.00	
Bull Plug	3.00			2533.00	45.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>73.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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Test Start: 2013.10.13 @ 06:01:00

### 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:	48.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	9.20 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
4.00	Mud 100%	0.020

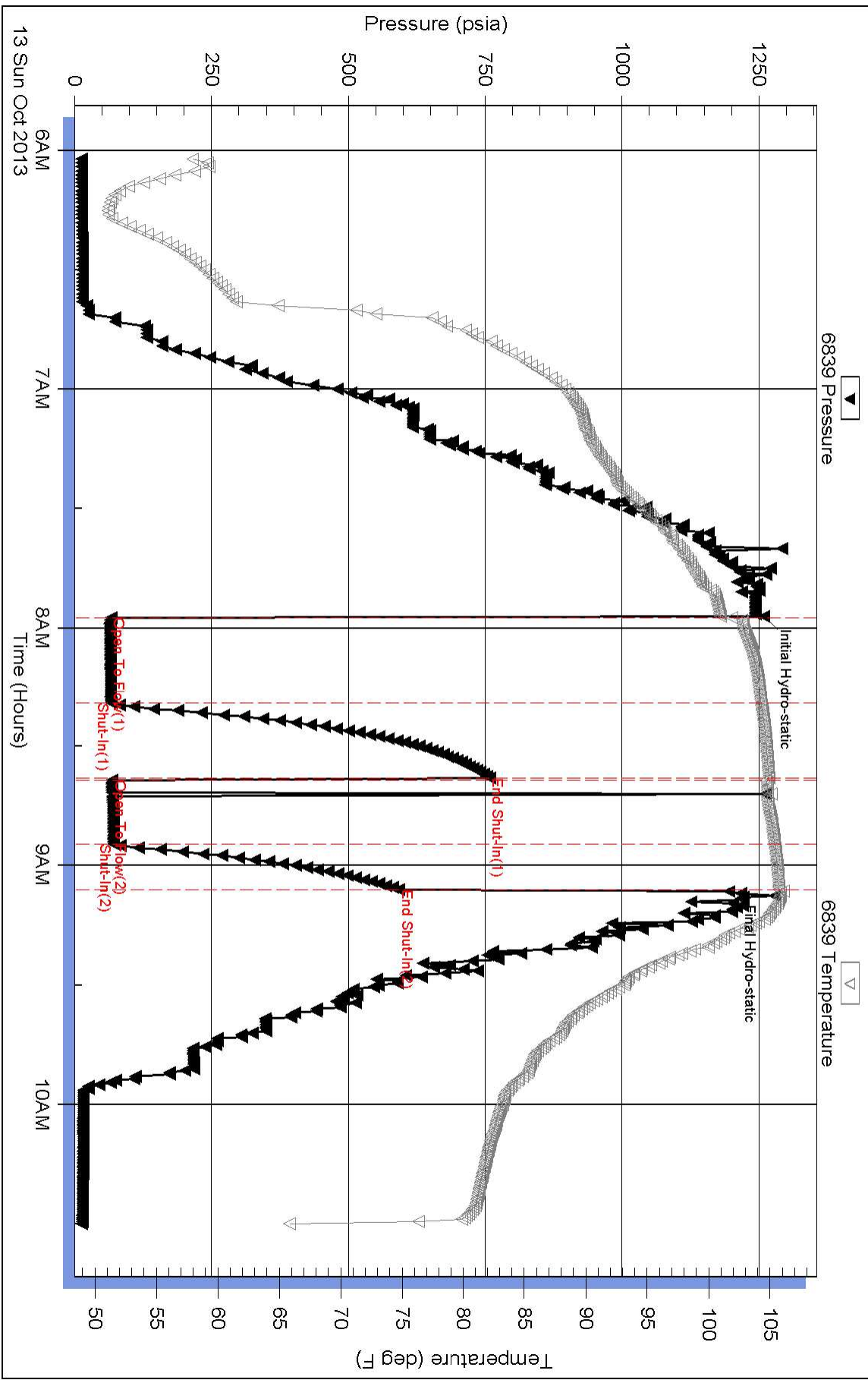
Total Length: 4.00 ft      Total Volume: 0.020 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

