



## DRILL STEM TEST REPORT

Prepared For: **RJM Company**

PO Box 256  
Clafin Ks, 67525-0256

ATTN: Jim Musgrove

**BCCJC #1**

**8/18s/11w/Barton**

Start Date: 2013.09.29 @ 06:56:00

End Date: 2013.09.29 @ 14:10:30

Job Ticket #: 18497                      DST #: 2

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

Printed: 2013.09.29 @ 14:29:46



# DRILL STEM TEST REPORT

RJM Company  
 PO Box 256  
 Claflin Ks, 67525-0256  
 ATTN: Jim Musgrove

**8/18s/11w/Barton**  
**BCCJC #1**  
 Job Ticket: 18497      **DST#: 2**  
 Test Start: 2013.09.29 @ 06:56:00

## GENERAL INFORMATION:

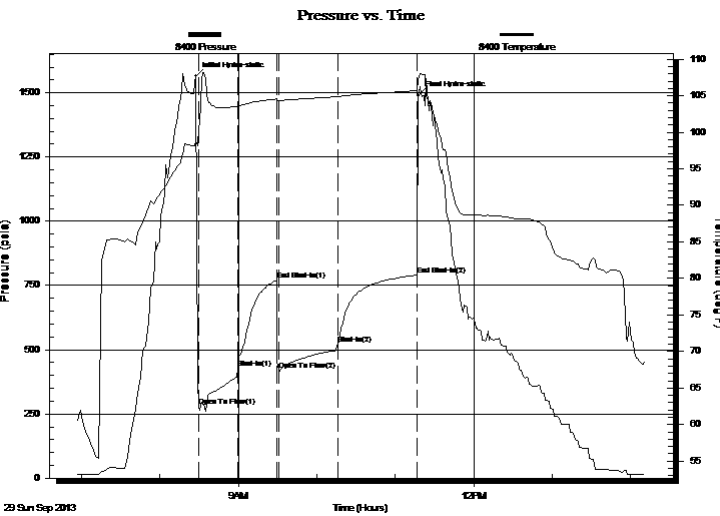
Formation: **LKC "A-F"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 08:29:30  
 Tester: Shane Konzem  
 Time Test Ended: 14:10:30  
 Unit No: 3330/50/Great Bend  
**Interval: 3080.00 ft (KB) To 3165.00 ft (KB) (TVD)**  
 Reference Elevations: 1825.00 ft (KB)  
 Total Depth: 3165.00 ft (KB) (TVD) 1816.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 9.00 ft

## Serial #: 8400

Inside

Press @ Run Depth: 520.37 psia @ 3159.34 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.09.29 End Date: 2013.09.29 Last Calib.: 2013.09.29  
 Start Time: 06:56:00 End Time: 14:10:30 Time On Btm: 2013.09.29 @ 08:27:30  
 Time Off Btm: 2013.09.29 @ 11:17:30

**TEST COMMENT:** 1st Open/ 30 Minutes. Strong blow built to bottom of 5 gallon bucket in 55 seconds.  
 1st Shut In/ 30 Minutes. Good blow back with gas to surface in 2 minutes of shut in.  
 2nd Open/ 45 Minutes. Strong blow built to bottom of 5 gallon bucket in 1 minute 10 seconds.  
 2nd Shut In/ 60 Minutes. Good blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1564.17	98.80	Initial Hydro-static
2	279.44	100.82	Open To Flow (1)
32	429.36	103.60	Shut-In(1)
62	769.59	104.55	End Shut-In(1)
63	419.70	104.39	Open To Flow (2)
109	520.37	104.89	Shut-In(2)
170	790.28	105.70	End Shut-In(2)
170	1488.24	107.28	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	3070 feet of 100% gas.	0.00
1280.00	100% clean gassy oil.	17.96
0.00	Oil corrected Gravity w as 46	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	4.50	1.68
Last Gas Rate	0.13	8.70	3.26
Max. Gas Rate	0.13	9.15	3.43



# DRILL STEM TEST REPORT

RJM Company  
 PO Box 256  
 Claflin Ks, 67525-0256  
 ATTN: Jim Musgrove

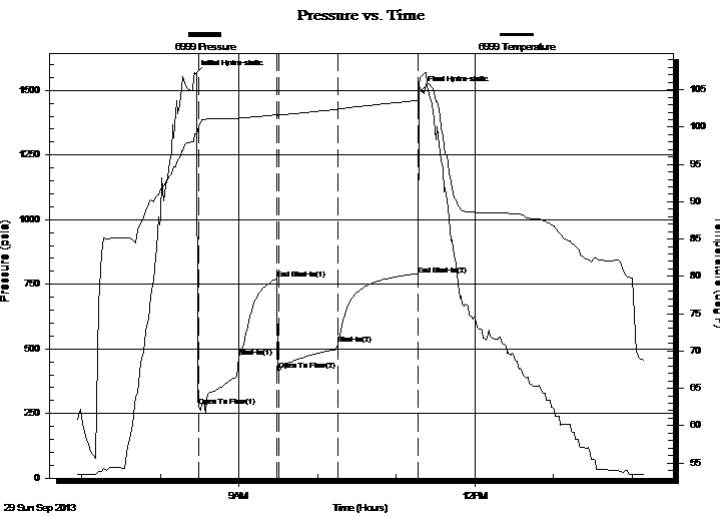
**8/18s/11w/Barton**  
**BCCJC #1**  
 Job Ticket: 18497      **DST#: 2**  
 Test Start: 2013.09.29 @ 06:56:00

## GENERAL INFORMATION:

Formation: **LKC "A-F"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 08:29:30  
 Tester: Shane Konzem  
 Time Test Ended: 14:10:30  
 Unit No: 3330/50/Great Bend  
**Interval: 3080.00 ft (KB) To 3165.00 ft (KB) (TVD)**  
 Reference Elevations: 1825.00 ft (KB)  
 Total Depth: 3165.00 ft (KB) (TVD) 1816.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 9.00 ft

**Serial #: 6999 Outside**  
 Press @ Run Depth: 786.25 psia @ 3160.34 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.09.29 End Date: 2013.09.29 Last Calib.: 2013.09.29  
 Start Time: 06:56:00 End Time: 14:09:30 Time On Btm: 2013.09.29 @ 08:26:30  
 Time Off Btm: 2013.09.29 @ 11:19:00

**TEST COMMENT:** 1st Open/ 30 Minutes. Strong blow built to bottom of 5 gallon bucket in 55 seconds.  
 1st Shut In/ 30 Minutes. Good blow back with gas to surface in 2 minutes of shut in.  
 2nd Open/ 45 Minutes. Strong blow built to bottom of 5 gallon bucket in 1 minute 10 seconds.  
 2nd Shut In/ 60 Minutes. Good blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1561.79	99.16	Initial Hydro-static
3	277.34	100.27	Open To Flow (1)
33	466.53	101.20	Shut-In(1)
63	770.09	101.67	End Shut-In(1)
64	419.33	101.61	Open To Flow (2)
109	517.98	102.41	Shut-In(2)
171	786.25	103.57	End Shut-In(2)
173	1499.03	106.80	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	3070 feet of 100% gas.	0.00
1280.00	100% clean gassy oil.	17.96
0.00	Oil corrected Gravity w as 46	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	4.50	1.68
Last Gas Rate	0.13	8.70	3.26
Max. Gas Rate	0.13	9.15	3.43



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

RJM Company  
 PO Box 256  
 Claflin Ks, 67525-0256  
 A T T N : Jim Musgrove

**8/18s/11w/Barton**  
**BCCJC #1**  
 Job Ticket: 18497      **DST#: 2**  
 Test Start: 2013.09.29 @ 06:56:00

**Tool Information**

Drill Pipe:	Length: 3070.00 ft	Diameter: 3.80 inches	Volume: 43.06 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 43.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 29000.00 lb
Depth to Top Packer:	3080.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.34 ft			
Tool Length:	106.34 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3060.00	
Shut-In Tool	5.00			3065.00	
Hydroic Tool	5.00			3070.00	
Packer	5.00			3075.00	21.00      Bottom Of Top Packer
Packer	5.00			3080.00	
Perforations	5.00			3085.00	
Change Over Sub	0.75			3085.75	
Drill Pipe	62.84			3148.59	
Change Over Sub	0.75			3149.34	
Perforations	9.00			3158.34	
Recorder	1.00	8400	Inside	3159.34	
Recorder	1.00	6999	Outside	3160.34	
Bullnose	5.00			3165.34	85.34      Bottom Packers & Anchor

**Total Tool Length: 106.34**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

RJM Company  
 PO Box 256  
 Claflin Ks, 67525-0256  
 A T T N : Jim Musgrove

**8/18s/11w/Barton**  
**BCCJC #1**  
 Job Ticket: 18497      **DST#: 2**  
 Test Start: 2013.09.29 @ 06:56:00

### 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: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3000.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	3070 feet of 100% gas.	0.000
1280.00	100% clean gassy oil.	17.955
0.00	Oil corrected Gravity was 46	0.000

Total Length: 1280.00 ft      Total Volume: 17.955 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:



# DRILL STEM TEST REPORT

**GAS RATES**

RJM Company  
PO Box 256  
Claflin Ks, 67525-0256  
ATTN: Jim Musgrove

**8/18s/11w/Barton**  
**BCCJC #1**  
Job Ticket: 18497      **DST#: 2**  
Test Start: 2013.09.29 @ 06:56:00

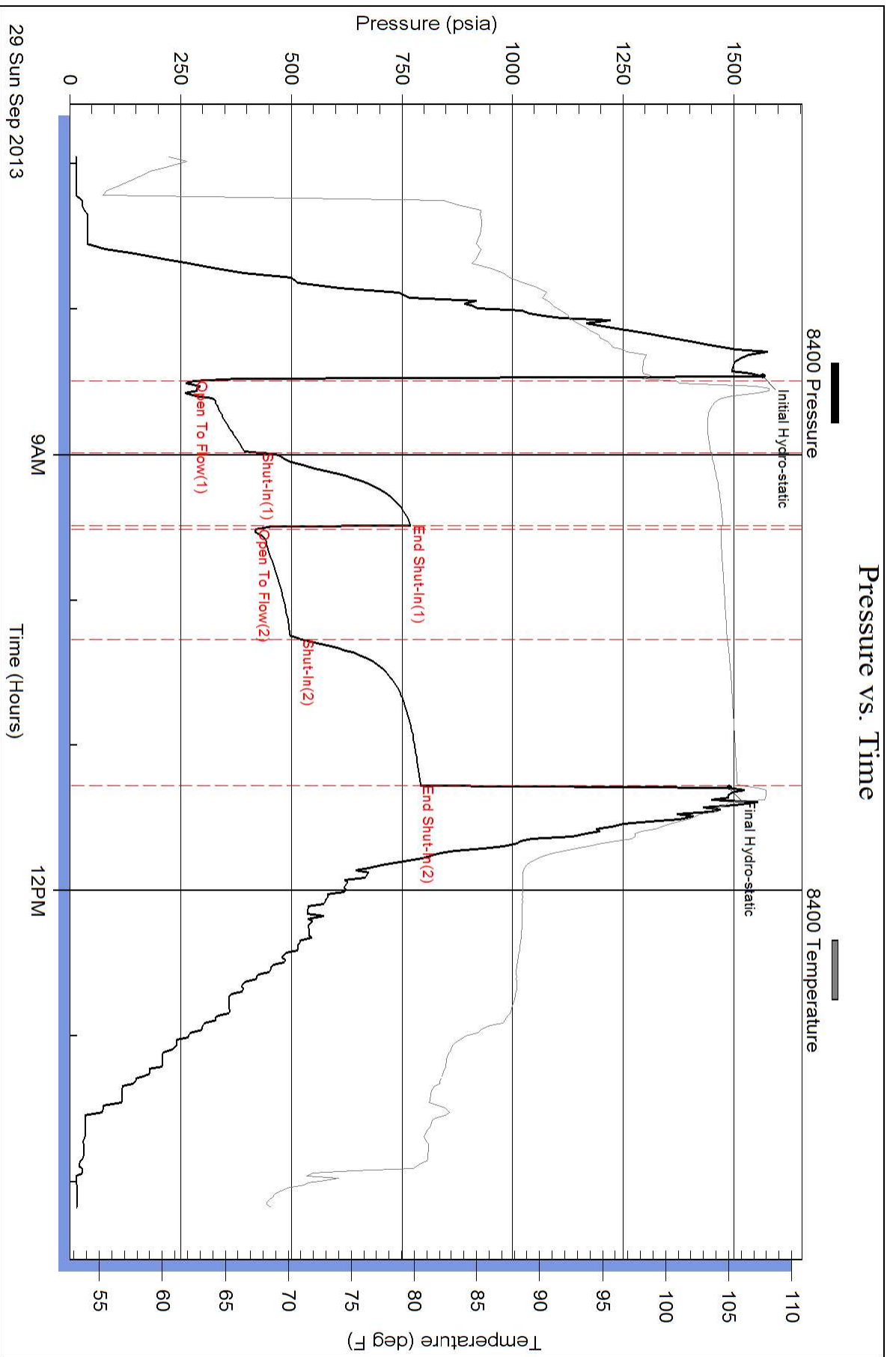
## Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	5	0.13	4.50	1.68
2	15	0.13	5.30	1.98
2	25	0.13	9.00	3.37
2	35	0.13	9.15	3.43
2	45	0.13	8.70	3.26

### Pressure vs. Time



### Pressure vs. Time

