



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Larry Nicholson

Roemer-Bell #2-1

1-15s-30w Gove,KS

Start Date: 2014.11.14 @ 22:30:00

End Date: 2014.11.15 @ 07:08:00

Job Ticket #: 60617 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

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Murfin Drilling Co Inc
1-15s-30w Gove,KS
Roemer-Bell #2-1
DST # 1
LKC " B - F "
2014.11.14



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Larry Nicholson

1-15s-30w Gove,KS
Roemer-Bell #2-1
 Job Ticket: 60617 **DST#: 1**
 Test Start: 2014.11.14 @ 22:30:00

GENERAL INFORMATION:

Formation: **LKC " B - F "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:51:30
 Time Test Ended: 07:08:00
 Interval: **3715.00 ft (KB) To 3793.00 ft (KB) (TVD)**
 Total Depth: 3793.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 2639.00 ft (KB)
 2629.00 ft (CF)
 KB to GR/CF: 10.00 ft

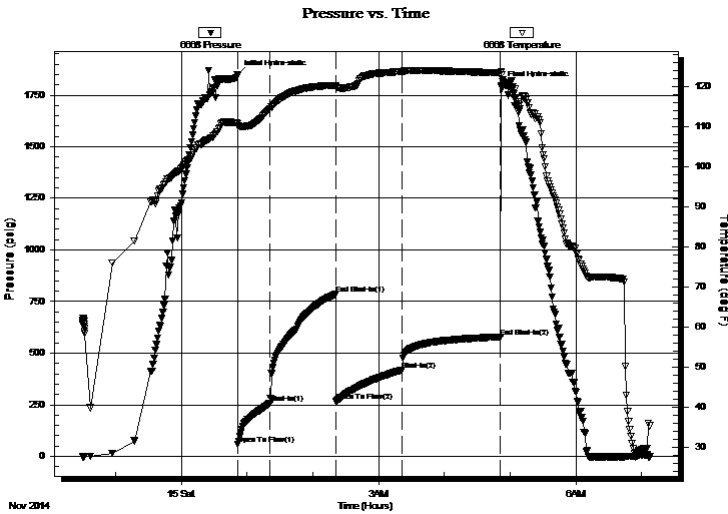
Serial #: 6668

Inside

Press@RunDepth: 417.81 psig @ 3726.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.11.14 End Date: 2014.11.15 Last Calib.: 2014.11.15
 Start Time: 22:30:02 End Time: 07:07:30 Time On Btm: 2014.11.15 @ 00:51:15
 Time Off Btm: 2014.11.15 @ 04:51:45

TEST COMMENT: 30-IFP- BOB in 1 min.
 60-ISIP- No Blow
 60-FFP- BOB in 7 min.
 90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1847.68	110.85	Initial Hydro-static
1	59.56	110.24	Open To Flow (1)
30	257.23	114.56	Shut-In(1)
90	785.69	120.43	End Shut-In(1)
90	266.69	120.24	Open To Flow (2)
150	417.81	123.86	Shut-In(2)
240	578.52	123.55	End Shut-In(2)
241	1796.71	123.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
700.00	MCW 10%w 90%w	7.32
160.00	WCM 40%w 60%m	2.24

Gas Rates

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



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TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
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ATTN: Larry Nicholson

1-15s-30w Gove,KS
Roemer-Bell #2-1
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Tool Information

Drill Pipe:	Length: 3422.00 ft	Diameter: 3.80 inches	Volume: 48.00 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 274.00 ft	Diameter: 2.25 inches	Volume: 1.35 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 49.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3715.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	106.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3688.00	
Shut In Tool	5.00			3693.00	
Hydraulic tool	5.00			3698.00	
Jars	5.00			3703.00	
Safety Joint	2.00			3705.00	
Packer	5.00			3710.00	28.00 Bottom Of Top Packer
Packer	5.00			3715.00	
Stubb	1.00			3716.00	
Perforations	9.00			3725.00	
Change Over Sub	1.00			3726.00	
Recorder	0.00	6668	Inside	3726.00	
Recorder	0.00	8789	Outside	3726.00	
Blank Spacing	63.00			3789.00	
Change Over Sub	1.00			3790.00	
Bullnose	3.00			3793.00	78.00 Bottom Packers & Anchor

Total Tool Length: 106.00



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FLUID SUMMARY

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250 N Water Ste 300
Wichita KS 67202-1216
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1-15s-30w Gove,KS
Roemer-Bell #2-1
Job Ticket: 60617 **DST#: 1**
Test Start: 2014.11.14 @ 22:30:00

Mud and Cushion Information

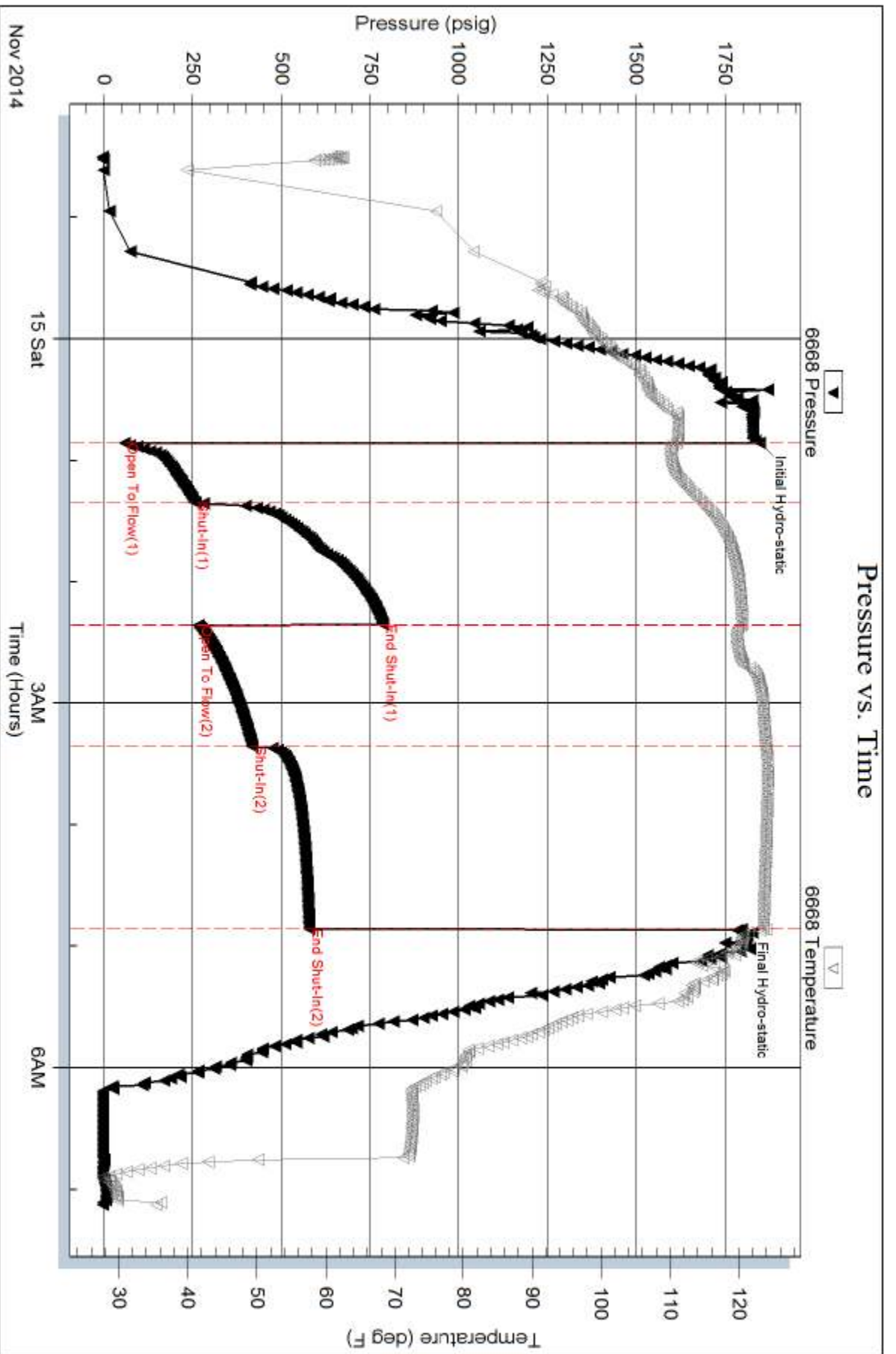
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	66000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 4.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
700.00	MCW 10%m 90%w	7.323
160.00	WCM 40%w 60%m	2.244

Total Length: 860.00 ft Total Volume: 9.567 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .300 @ 27

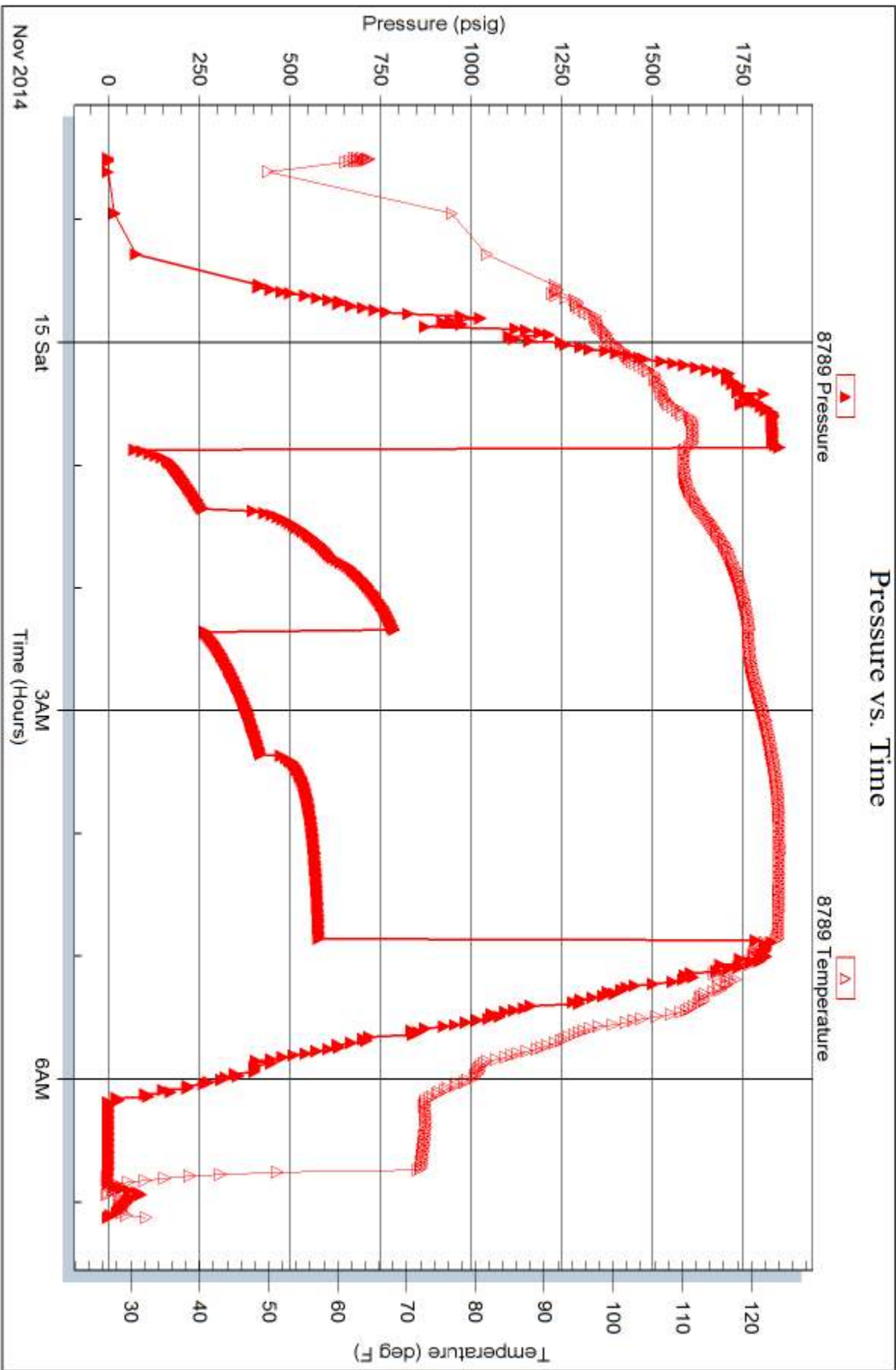


Serial #: 8789

Outside Murfin Drilling Co Inc

Roemer-Bell #2-1

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60617

4/10

Well Name & No. Roemer-Bell #2-1 Test No. 1 Date 11-14-14
 Company Murfin Drilling Co. Inc. Elevation 2639 KB 2629 GL
 Address 250 N. Water Ste 300 Wichita KS 67202-1216
 Co. Rep / Geo. Larry Nicholson Rig Murfin 21
 Location: Sec. 1 Twp. 15S Rge. 30W Co. Dove State KS

Interval Tested 3715 - 3793 Zone Tested LKC "B-F"
 Anchor Length 78 Drill Pipe Run 3422 Mud Wt. 9.2
 Top Packer Depth 3710 Drill Collars Run ~~3422~~ 274 Vis 50
 Bottom Packer Depth 3715 Wt. Pipe Run 0 WL 6.4
 Total Depth 3793 Chlorides 2200 ppm System LCM 4

Blow Description FFP - BOB in 1min.
ISIP - No Blow
FFP - BOB in 7min.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>700</u>	<u>mcw</u>		<u>90</u>	<u>10</u>	
<u>160</u>	<u>wcm</u>		<u>40</u>	<u>60</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 860 BHT 123 Gravity _____ API RW 300 @ 27 ° F Chlorides 66000 ppm
 (A) Initial Hydrostatic 1847 Test 1150 T-On Location 21:27
 (B) First Initial Flow 59 Jars 250 T-Started 22:30
 (C) First Final Flow 257 Safety Joint 75 T-Open 00:52
 (D) Initial Shut-In 785 Circ Sub _____ T-Pulled 04:52
 (E) Second Initial Flow 266 Hourly Standby _____ T-Out 07:08
 (F) Second Final Flow 417 Mileage 205 RT Comments Released AT 13:19
 (G) Final Shut-In 578 Sampler 76rt 117.80 117.80 11-17-14
 (H) Final Hydrostatic 1796 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30 Extra Recorder _____ Sub Total 800
 Initial Shut-In 60 Day Standby ? 1.5d 18.25h Total 2510.60
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1710.60

Approved By _____ Our Representative [Signature]

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