



## DRILL STEM TEST REPORT

Prepared For: **Mid-Continent Resources Inc**

PO Box 399  
Garden City KS 67846

ATTN: Scott Corsair, Jason

### **Humburg #3X**

#### **25-19s-22w Ness,KS**

Start Date: 2017.01.31 @ 16:00:47

End Date: 2017.01.31 @ 23:43:56

Job Ticket #: 64089                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mid-Continent Resources Inc  
 PO Box 399  
 Garden City KS 67846  
 ATTN: Scott Corsair, Jason

**25-19s-22w Ness,KS**  
**Humburg #3X**  
 Job Ticket: 64089 **DST#: 1**  
 Test Start: 2017.01.31 @ 16:00:47

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 18:27:42 Tester: Ray Schwager  
 Time Test Ended: 23:43:56 Unit No: 77  
 Interval: **4334.00 ft (KB) To 4401.00 ft (KB) (TVD)** Reference Elevations: 2281.00 ft (KB)  
 Total Depth: 4401.00 ft (KB) (TVD) 2273.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

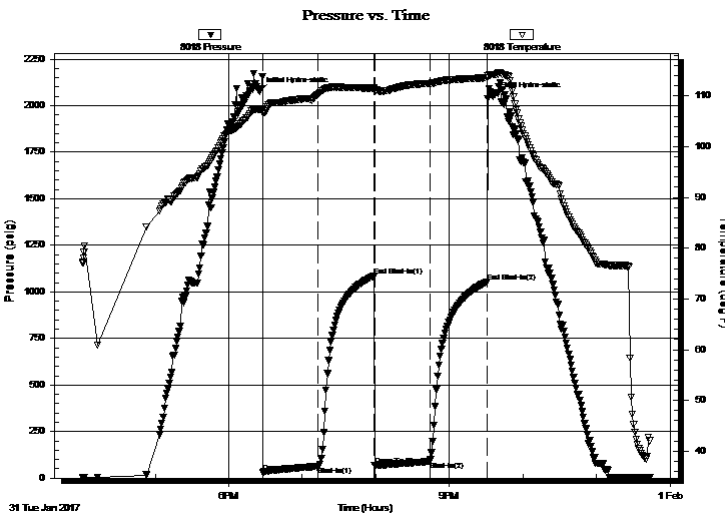
## Serial #: 8018

Inside

Press@RunDepth: 90.85 psig @ 4340.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.01.31 End Date: 2017.01.31 Last Calib.: 2017.01.31  
 Start Time: 16:00:47 End Time: 23:43:56 Time On Btm: 2017.01.31 @ 18:25:12  
 Time Off Btm: 2017.01.31 @ 21:35:26

TEST COMMENT: 45-IFP-w k to a fr bl 1/2" to 5 1/2" bl  
 45-ISIP-no bl  
 45-FFP-w k to a fr bl 1/4" to 5 1/2" bl  
 45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2074.53	107.29	Initial Hydro-static
3	30.59	106.69	Open To Flow (1)
48	64.10	110.26	Shut-In(1)
93	1085.79	111.53	End Shut-In(1)
94	67.59	111.20	Open To Flow (2)
139	90.85	112.44	Shut-In(2)
186	1053.12	113.58	End Shut-In(2)
191	2050.29	114.21	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	GMO 15%G40%M45%O	1.47
40.00	CO	0.56
0.00	145' GIP	0.00

## Gas Rates

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





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**TOOL DIAGRAM**

Mid-Continent Resources Inc

**25-19s-22w Ness, KS**

PO Box 399  
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**Humburg #3X**

Job Ticket: 64089

**DST#: 1**

ATTN: Scott Corsair, Jason

Test Start: 2017.01.31 @ 16:00:47

## Tool Information

Drill Pipe:	Length: 4306.00 ft	Diameter: 3.80 inches	Volume: 60.40 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 60.55 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4334.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	96.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4306.00	
Shut In Tool	5.00			4311.00	
Hydraulic tool	5.00			4316.00	
Jars	5.00			4321.00	
Safety Joint	3.00			4324.00	
Packer	5.00			4329.00	29.00 Bottom Of Top Packer
Packer	5.00			4334.00	
Stubb	1.00			4335.00	
Perforations	5.00			4340.00	
Recorder	0.00	8018	Inside	4340.00	
Recorder	0.00	8700	Outside	4340.00	
Blank Spacing	33.00			4373.00	
Perforations	25.00			4398.00	
Bullnose	3.00			4401.00	67.00 Bottom Packers & Anchor

**Total Tool Length: 96.00**



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**FLUID SUMMARY**

Mid-Continent Resources Inc

**25-19s-22w Ness,KS**

PO Box 399  
Garden City KS 67846

**Humburg #3X**

Job Ticket: 64089

**DST#: 1**

ATTN: Scott Corsair, Jason

Test Start: 2017.01.31 @ 16:00:47

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 53.00 sec/qt  
Water Loss: 7.96 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 6800.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 38 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	GMO 15%G40%M45%O	1.466
40.00	CO	0.561
0.00	145' GIP	0.000

Total Length: 164.00 ft      Total Volume: 2.027 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

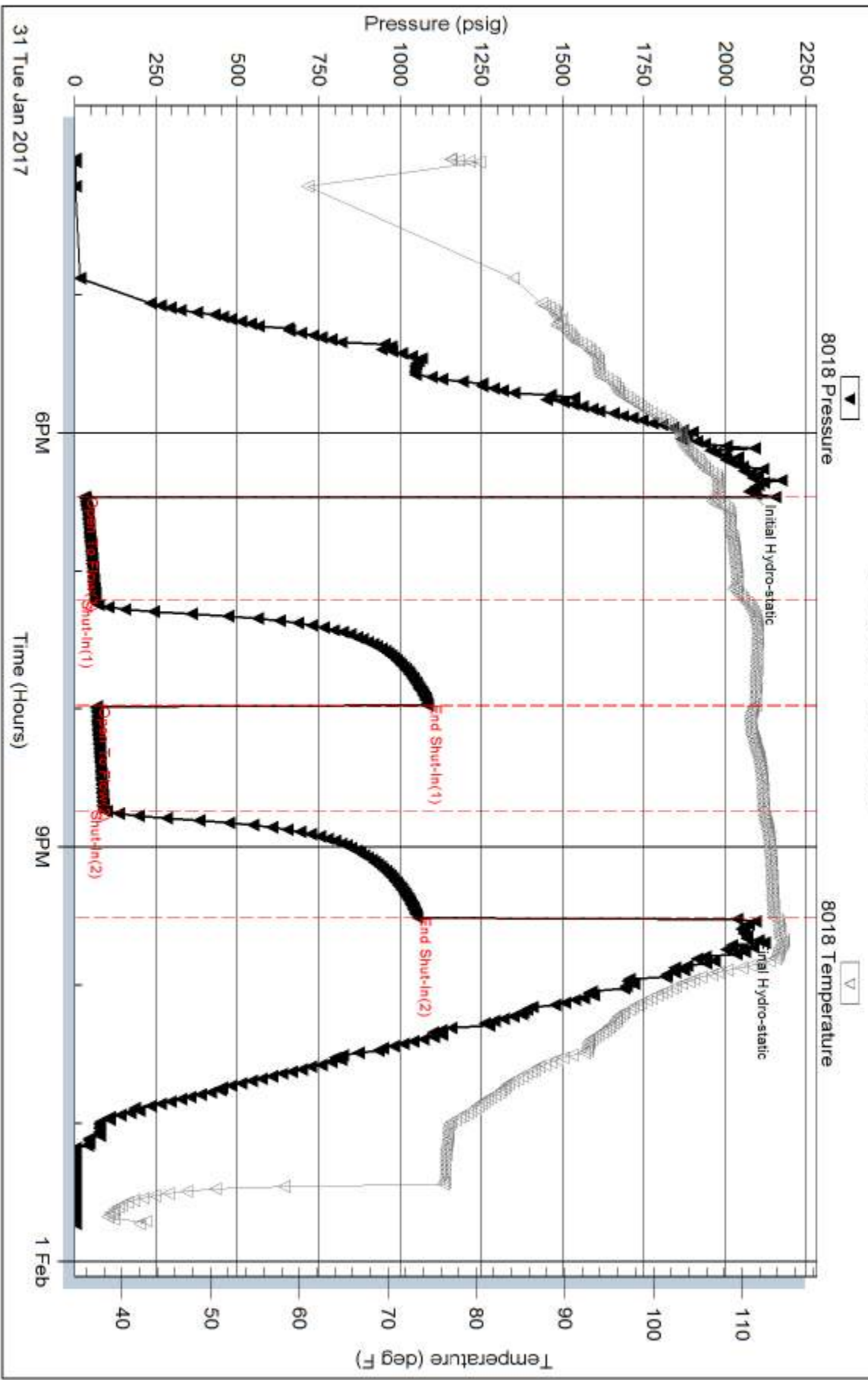
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

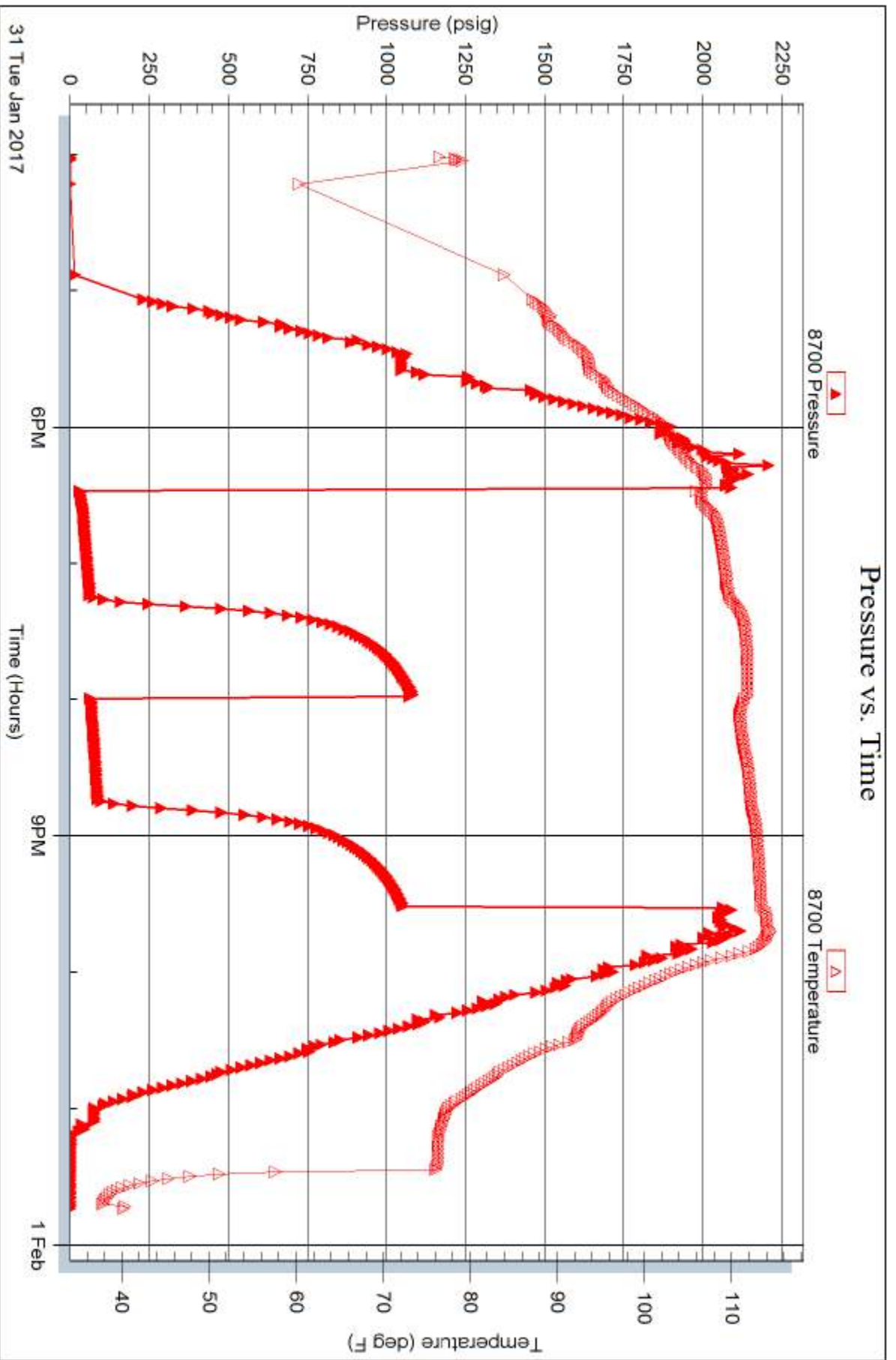


Serial #: 8700

Outside Mc-Continent Resources Inc

Humburg #3X

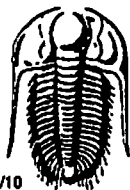
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 64089

Printed: 2017.02.01 @ 09:50:00



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64089

Well Name & No. Humburg #3X Test No. 1 Date 1-31-2017  
 Company Mid-Continent Resources Inc Elevation 2281 KB 2273 GL  
 Address PO Box 399 Garden City, Ks 67846  
 Co. Rep / Geo. Jason Alm Rig Discovery rig 3  
 Location: Sec. 25 Twp. 19S Rge. 22W Co. Ness State Ks

Interval Tested 4334-4401 Zone Tested Miss  
 Anchor Length 67 Drill Pipe Run 4306 Mud Wt. 9.1  
 Top Packer Depth 4329 Drill Collars Run 30 Vis 53  
 Bottom Packer Depth 4334 Wt. Pipe Run - WL 8  
 Total Depth 4401 Chlorides 6800 ppm System LCM 1#  
 Blow Description IFP - WEAK TO A FAIR BLOW 1/2" TO 5 1/2" BLOW  
ISIP - NO BLOW  
FFP - WEAK TO A FAIR BLOW 1/4" TO 5 1/2" BLOW  
FSTIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>145</u>	<u>GTP</u>				
<u>40</u>	<u>CO</u>				
<u>124</u>	<u>GMO</u>	<u>15</u>	<u>45</u>		<u>40</u>

Rec Total 164 BHT 113 Gravity 38 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2074  Test 1150 T-On Location 1445  
 (B) First Initial Flow 30  Jars 250 T-Started 1600  
 (C) First Final Flow 64  Safety Joint 75 T-Open 1825  
 (D) Initial Shut-In 1085  Circ Sub \_\_\_\_\_ T-Pulled 2125  
 (E) Second Initial Flow 67  Hourly Standby \_\_\_\_\_ T-Out 2343  
 (F) Second Final Flow 90  Mileage 116 RT 87 Comments \_\_\_\_\_  
 (G) Final Shut-In 1053  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2050  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1562

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1562  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Ray Schwager THANK YOU

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