



## DRILL STEM TEST REPORT

Prepared For: **American Oil, LLC**

1200 Main Suite 410  
Hays, KS 67601

ATTN: Austin Klaus

### **Baughner #3**

#### **23-12S-21W Trego,KS**

Start Date: 2018.05.23 @ 10:54:19

End Date: 2018.05.23 @ 18:59:49

Job Ticket #: 63441                      DST #: 1

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

Printed: 2018.05.24 @ 11:56:40



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

American Oil, LLC  
1200 Main Suite 410  
Hays, KS 67601  
ATTN: Austin Klaus

**23-12S-21W Trego, KS**

**Baugher #3**

Job Ticket: 63441

**DST#: 1**

Test Start: 2018.05.23 @ 10:54:19

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:54:49  
 Time Test Ended: 18:59:49  
 Interval: **3906.00 ft (KB) To 3963.00 ft (KB) (TVD)**  
 Total Depth: 3963.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brannan Lonsdale  
 Unit No: 73  
 Reference Elevations: 2277.00 ft (KB)  
 2272.00 ft (CF)  
 KB to GR/CF: 5.00 ft

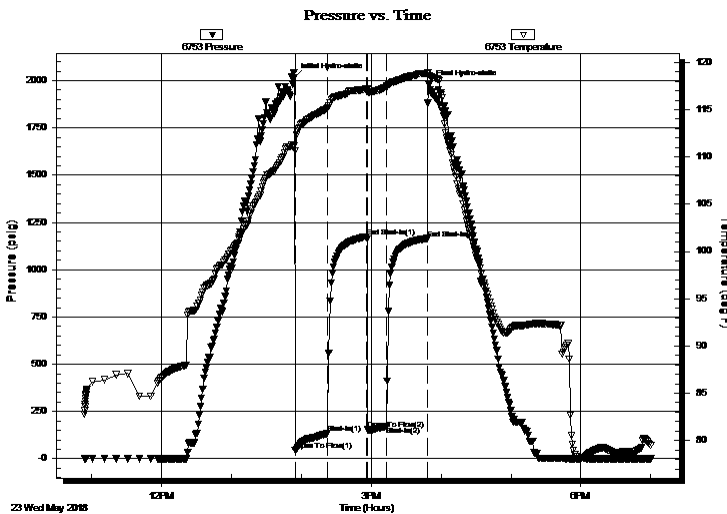
**Serial #: 6753**

**Outside**

Press@RunDepth: 171.92 psig @ 3927.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.05.23 End Date: 2018.05.23 Last Calib.: 2018.05.23  
 Start Time: 10:54:24 End Time: 18:59:48 Time On Btm: 2018.05.23 @ 13:54:19  
 Time Off Btm: 2018.05.23 @ 15:49:49

**TEST COMMENT:** 30- IF- BOB 9 mins (26")  
 30- IS- Built to 28" then died back to 27"  
 15- FF- BOB 12 mins (14")  
 30- FSI- Built to 15.5"

## PRESSURE SUMMARY



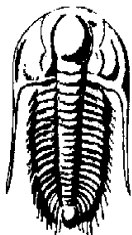
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2016.00	111.15	Initial Hydro-static
1	45.07	110.62	Open To Flow (1)
29	134.68	115.15	Shut-In(1)
62	1174.49	117.17	End Shut-In(1)
63	154.01	116.87	Open To Flow (2)
79	171.92	117.38	Shut-In(2)
114	1164.74	118.79	End Shut-In(2)
116	1977.90	118.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
250.00	HOCM,35%O 65%M	1.65
172.00	CGO, 15%G 85%O	2.44
0.00	78' GIP	0.00

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

American Oil, LLC

1200 Main Suite 410  
Hays, KS 67601

ATTN: Austin Klaus

**23-12S-21W Trego, KS**

**Baugher #3**

Job Ticket: 63441

**DST#: 1**

Test Start: 2018.05.23 @ 10:54:19

**GENERAL INFORMATION:**

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:54:49

Time Test Ended: 18:59:49

**Interval: 3906.00 ft (KB) To 3963.00 ft (KB) (TVD)**

Total Depth: 3963.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Reference Elevations: 2277.00 ft (KB)

2272.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6771**

Inside

Press@RunDepth: psig @ 3927.00 ft (KB)

Start Date: 2018.05.23

End Date:

2018.05.23

Start Time: 10:54:24

End Time:

18:59:59

Capacity: 8000.00 psig

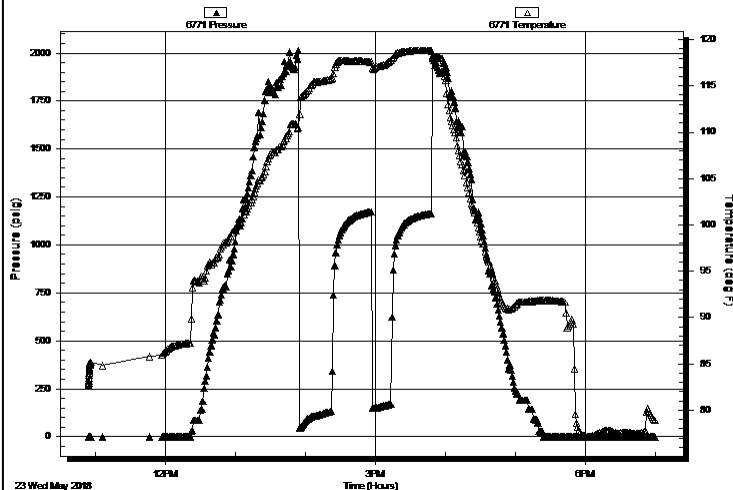
Last Calib.: 2018.05.23

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30- IF- BOB 9 mins (26")  
30- ISI- Built to 28" then died back to 27"  
15- FF- BOB 12 mins (14")  
30- FSI- Built to 15.5"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
250.00	HOCM, 35%O 65%M	1.65
172.00	CGO, 15%G 85%O	2.44
0.00	78' GIP	0.00

Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Oil, LLC

**23-12S-21W Trego,KS**

1200 Main Suite 410  
Hays, KS 67601

**Baugher #3**

Job Ticket: 63441

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2018.05.23 @ 10:54:19

## Tool Information

Drill Pipe:	Length: 3681.00 ft	Diameter: 3.82 inches	Volume: 52.18 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
				String Weight: Initial	56000.00 lb
Drill Pipe Above KB:	7.00 ft			Final	58000.00 lb
Depth to Top Packer:	3906.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	57.00 ft				
Tool Length:	84.00 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			3880.00	
Shut In Tool	5.00			3885.00	
Hydraulic tool	5.00			3890.00	
Gap Sub	4.00			3894.00	
Safety Joint	3.00			3897.00	
Packer	5.00			3902.00	27.00 Bottom Of Top Packer
Packer	4.00			3906.00	
Stubb	1.00			3907.00	
Perforations	20.00			3927.00	
Recorder	0.00	6771	Inside	3927.00	
Recorder	0.00	6753	Outside	3927.00	
Change Over Sub	1.00			3928.00	
Drill Pipe	31.00			3959.00	
Change Over Sub	1.00			3960.00	
Bullnose	3.00			3963.00	57.00 Bottom Packers & Anchor

**Total Tool Length: 84.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Oil, LLC

**23-12S-21W Trego,KS**

1200 Main Suite 410  
Hays, KS 67601

**Baugher #3**

Job Ticket: 63441

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2018.05.23 @ 10:54:19

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
250.00	HOCM,35%O 65%M	1.646
172.00	CGO, 15%G 85%O	2.438
0.00	78' GIP	0.000

Total Length: 422.00 ft      Total Volume: 4.084 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

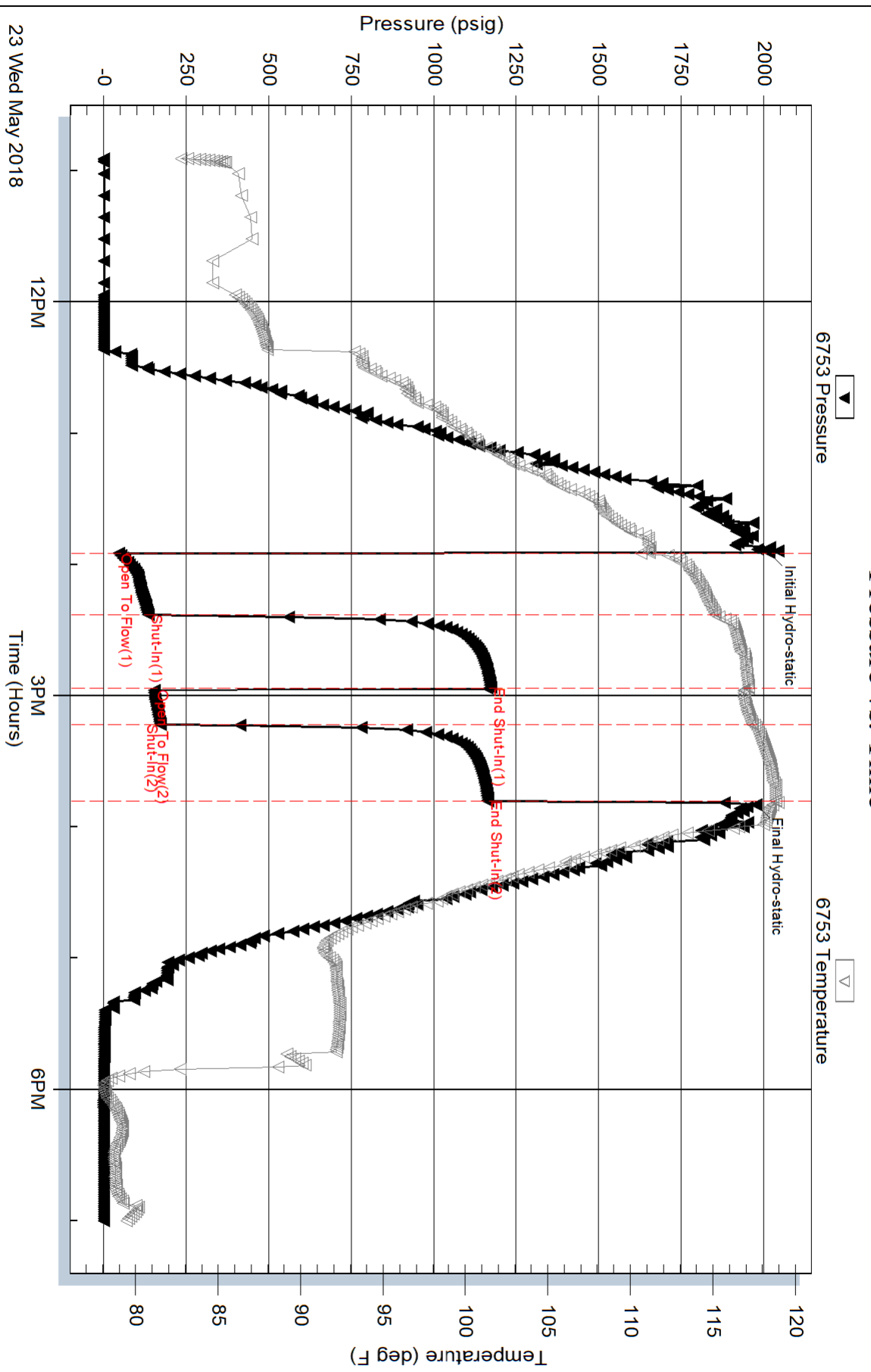
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



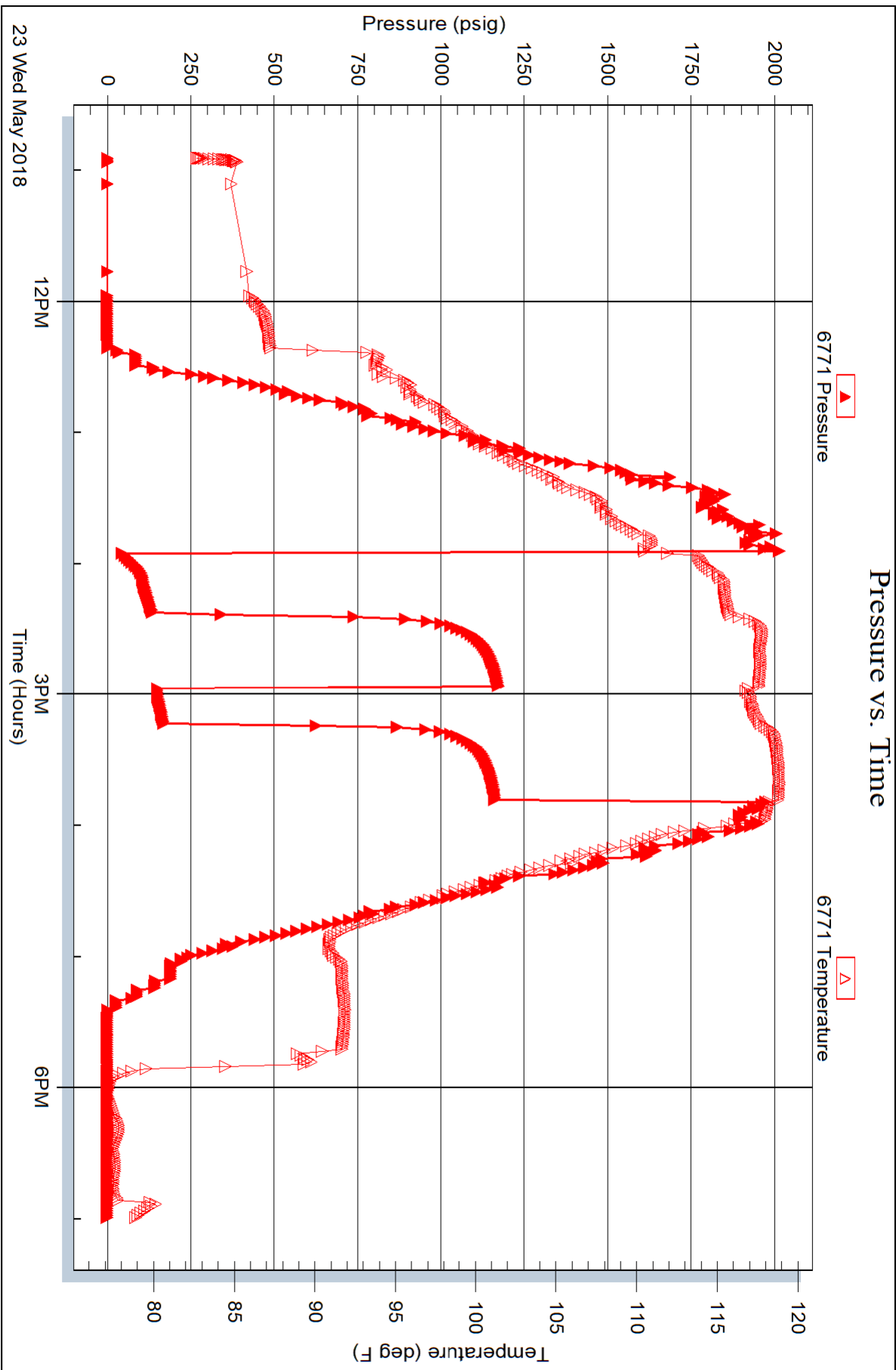
Serial #: 6771

Inside

American Oil, LLC

Baugher #3

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63441

Well Name & No. Baughner #3 Test No. 1 Date 5/23/18  
 Company American Oil, LLC Elevation 2277 KB 2272 GL  
 Address 1200 Main, Suite 410 Hays, KS 67601  
 Co. Rep / Geo. Angsten Klaus Rig Murfin #24  
 Location: Sec. 23 Twp 12 S Rge. 21 W Co. Trego State KS

Interval Tested 3906-3963 Zone Tested Arbuckle  
 Anchor Length 57' Drill Pipe Run 3681 Mud Wt. 9.4  
 Top Packer Depth 3901 Drill Collars Run 205 Vis 58  
 Bottom Packer Depth 3906 Wt. Pipe Run \_\_\_\_\_ WL 7.2  
 Total Depth 3963 Chlorides 6000 ppm System LCM 3#

Blow Description IF - BOB 9 mins (28") (26")  
1st - Built to 28" then died back to 27"  
PF - BOB 12 mins (14")  
FST - Built to 15 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>250</u>	<u>HOCM</u>	<u>35</u>	<u>0</u>	<u>65</u>	<u>0</u>
<u>172</u>	<u>CGO</u>	<u>15</u>	<u>85</u>	<u>0</u>	<u>0</u>
<u>    </u>	<u>78' GIP</u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

Rec Total 422 BHT 119' Gravity 32 API RW      @      ° F Chlorides      ppm

(A) Initial Hydrostatic 2016  Test 1050 T-On Location 0934  
 (B) First Initial Flow 45  Jars \_\_\_\_\_ T-Started 1054  
 (C) First Final Flow 135  Safety Joint \_\_\_\_\_ T-Open 1354  
 (D) Initial Shut-In 1174  Circ Sub \_\_\_\_\_ T-Pulled 1539  
 (E) Second Initial Flow 154  Hourly Standby \_\_\_\_\_ T-Out 1859  
 (F) Second Final Flow 172  Mileage 46 RT 46 Comments \_\_\_\_\_  
 (G) Final Shut-In 1165  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1978  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 15  Day Standby \_\_\_\_\_ Total 1346  
 Final Shut-In 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1346

Approved By \_\_\_\_\_ Our Representative Brannan Lonsdale

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