



## DRILL STEM TEST REPORT

Prepared For: **Palmer Oil Inc.**

PO Box 399  
Garden City KS 67845

ATTN: Jeff Lawler

**Willis #23-4**

**23-32-37 Stevens,KS**

Start Date: 2013.08.01 @ 16:50:15

End Date: 2013.08.02 @ 01:44:30

Job Ticket #: 53145                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

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**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Palmer Oil Inc.  
PO Box 399  
Garden City KS 67845  
ATTN: Jeff Lawler

**23-32-37 Stevens,KS**  
**Willis #23-4**  
Job Ticket: 53145      **DST#: 1**  
Test Start: 2013.08.01 @ 16:50:15

**Tool Information**

Drill Pipe:	Length: 6132.00 ft	Diameter: 3.80 inches	Volume: 86.02 bbl	Tool Weight: 1500.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 86.93 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 81000.00 lb
Depth to Top Packer:	6318.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	71.00 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>
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Change Over Sub	1.00			6290.00	
Shut In Tool	5.00			6295.00	
Hydraulic tool	5.00			6300.00	
Jars	5.00			6305.00	
Safety Joint	3.00			6308.00	
Packer	5.00			6313.00	29.00      Bottom Of Top Packer
Packer	5.00			6318.00	
Stubb	1.00			6319.00	
Recorder	0.00	8846	Inside	6319.00	
Recorder	0.00	8737	Outside	6319.00	
Perforations	2.00			6321.00	
Change Over Sub	1.00			6322.00	
Drill Pipe	32.00			6354.00	
Change Over Sub	1.00			6355.00	
Bullnose	5.00			6360.00	42.00      Bottom Packers & Anchor

**Total Tool Length: 71.00**



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**FLUID SUMMARY**

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PO Box 399  
Garden City KS 67845  
ATTN: Jeff Lawler

**23-32-37 Stevens,KS**  
**Willis #23-4**  
Job Ticket: 53145      **DST#: 1**  
Test Start: 2013.08.01 @ 16:50:15

## Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	61.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	8.37 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2700.00 ppm				
Filter Cake:	1.00 inches				

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	mud 100%m	0.971

Total Length: 190.00 ft      Total Volume: 0.971 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: Chased tool 10 feet to bottom, Bottom packer had signs of a packer failure

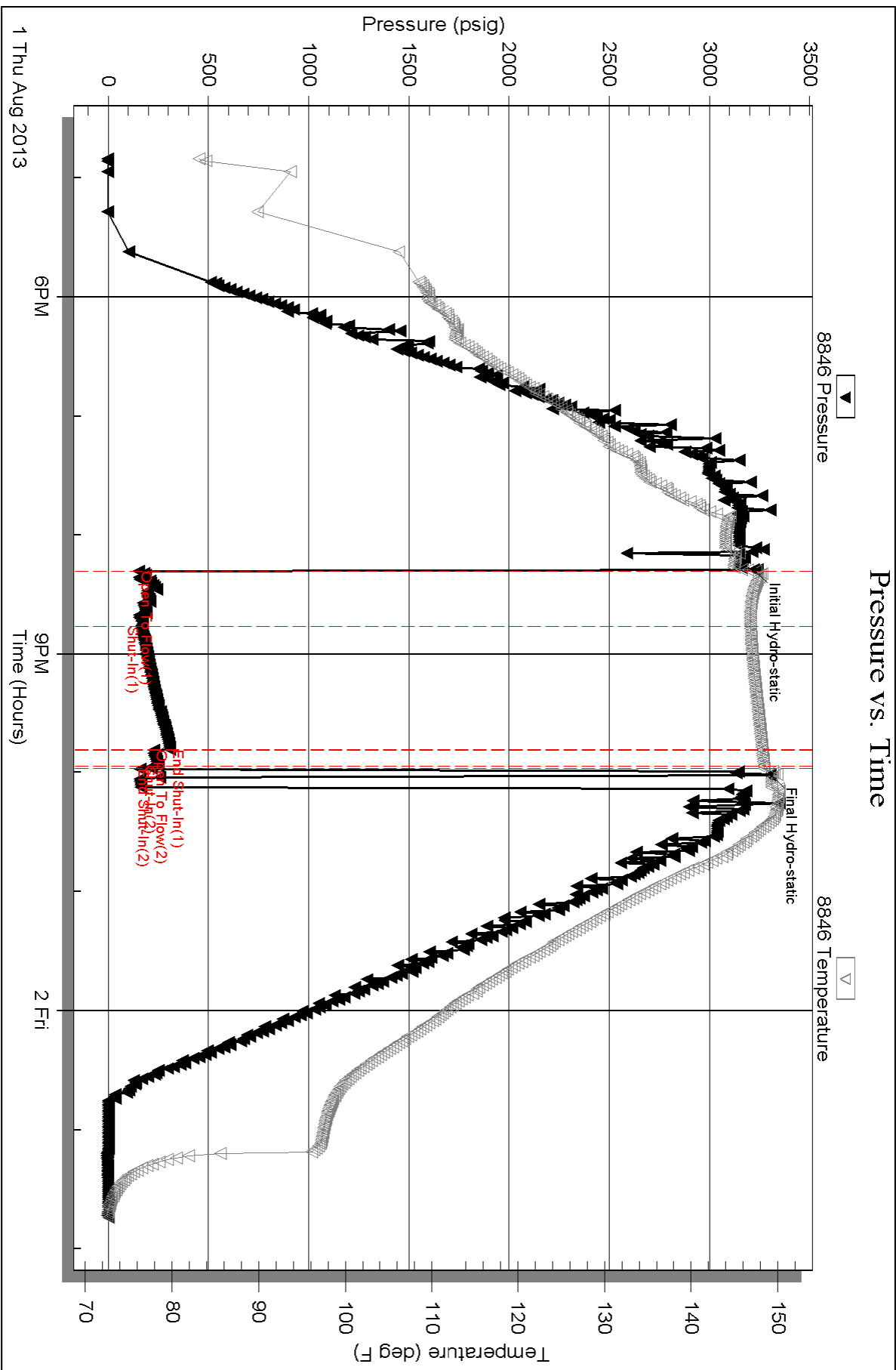
Serial #: 8846

Inside

Palmer Oil Inc.

Wells #23-4

DST Test Number: 1

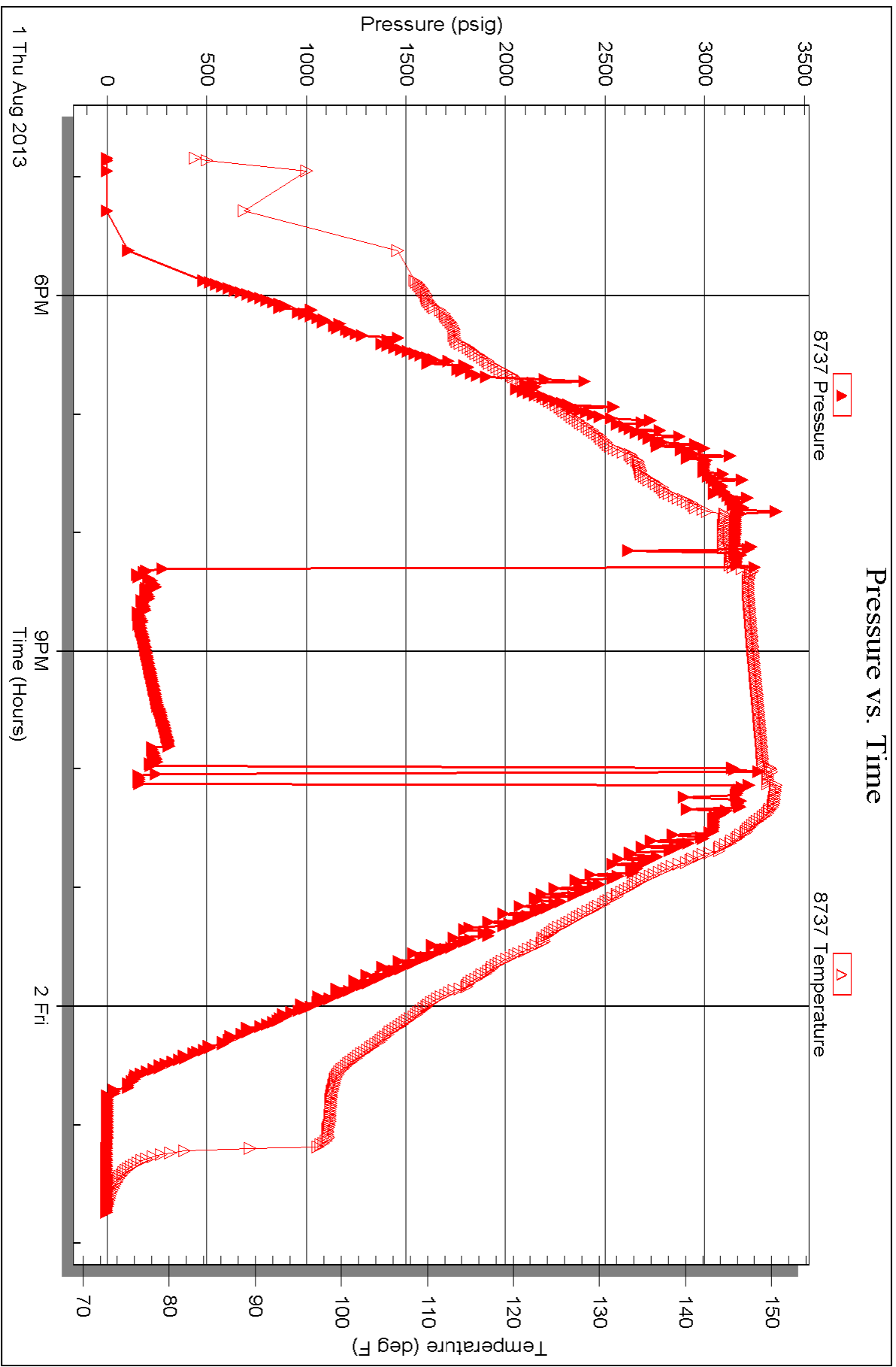


Serial #: 8737

Outside Palmer Oil Inc.

Wells #23-4

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53145

Well Name & No. Willis # 23-4 Test No. 1 Date 8-1-13  
 Company Palmer Oil Inc Elevation 3128 KB 3116 GL  
 Address 3116 N. Cummings Rd P.O. Box 399 Garden City KS 67845  
 Co. Rep / Geo. Jeff Lawler Rig Duke #9  
 Location: Sec. 23 Twp. 32 Rge. 37 Co. Stevens State KS

Interval Tested 6318-6340 Zone Tested St. Louis  
 Anchor Length 42 Drill Pipe Run 6132 Mud Wt. 9.4  
 Top Packer Depth 6314 Drill Collars Run 186 Vis 61  
 Bottom Packer Depth 6318 Wt. Pipe Run Ø WL 8.4  
 Total Depth 6360 Chlorides 2700 ppm System LCM 4  
 Blow Description IF: Built to 1" Died to 1/2"  
IS: NO Return Blow  
FF: No Blow - Flusted tool - Pulled.  
FS: \_\_\_\_\_

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>MUD</u>				<u>100%</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 190 BHT 150 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>3220</u>	<input checked="" type="checkbox"/> Test <u>1450.00/-</u>	T-On Location <u>13:30</u>
(B) First Initial Flow <u>151</u>	<input checked="" type="checkbox"/> Jars <u>250.00</u>	T-Started <u>16:50</u>
(C) First Final Flow <u><del>177</del> 177</u>	<input checked="" type="checkbox"/> Safety Joint <u>75.00</u>	T-Open <u>20:17</u>
(D) Initial Shut-In <u>308</u>	<input checked="" type="checkbox"/> Circ Sub	T-Pulled <u>22:30</u>
(E) Second Initial Flow <u>226</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>01:44</u>
(F) Second Final Flow <u>249</u>	<input checked="" type="checkbox"/> Mileage <u>230RT 356.50/-</u>	Comments <u>Chase tool 10'</u>
(G) Final Shut-In <u>217</u>	<input type="checkbox"/> Sampler	<u>to Bottom - Bottom</u>
(H) Final Hydrostatic <u><del>3304</del> 3198</u>	<input type="checkbox"/> Straddle	<u>Packer has signs of failure</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>20</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>2131.50</u>
	Sub Total <u>#2131.50/-</u>	MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Mike Roberts

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