



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co., Inc  
 10500 E. Berkley Sq. Pkwy, STE 100  
 Wichita, Ks. 67206  
 ATTN: Kitt Noah

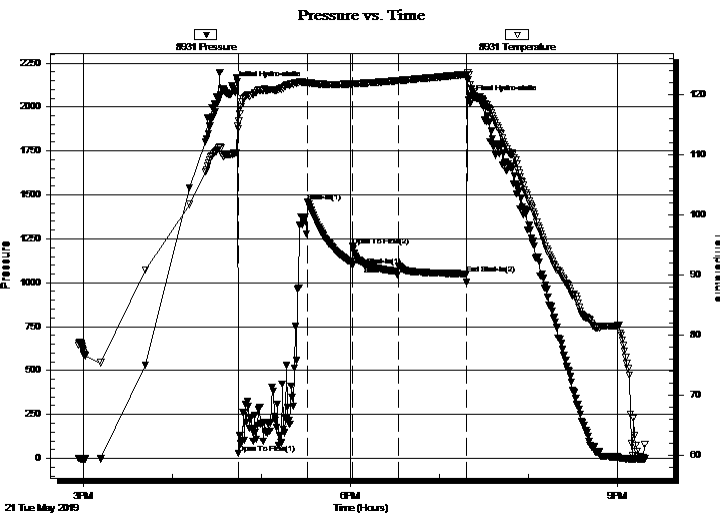
**4-31s-7w Harper Co. Ks.**  
**Sanders #3**  
 Job Ticket: 64926      **DST#: 3**  
 Test Start: 2019.05.21 @ 14:56:53

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:44:38  
 Time Test Ended: 21:19:08  
 Interval: **4377.00 ft (KB) To 4384.00 ft (KB) (TVD)**  
 Total Depth: 4384.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 68  
 Reference Elevations: 1612.00 ft (KB)  
 1607.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8931      Inside**  
 Press@RunDepth: 1094.35 psig @ 4378.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2019.05.21      End Date: 2019.05.21      Last Calib.: 2019.05.21  
 Start Time: 14:56:58      End Time: 21:19:07      Time On Btm: 2019.05.21 @ 16:40:23  
 Time Off Btm: 2019.05.21 @ 19:20:08

**TEST COMMENT:** IF: Weak blow . Built to 3 1/2".  
 IS: No blow .  
 FF: No blow .  
 FS: No blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.58	109.99	Initial Hydro-static
5	30.37	114.32	Open To Flow (1)
51	1462.38	121.96	Shut-In(1)
81	1097.68	121.70	End Shut-In(1)
82	1211.54	121.77	Open To Flow (2)
113	1094.35	122.28	Shut-In(2)
158	1050.44	123.29	End Shut-In(2)
160	2040.85	123.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	DM 100% m	0.15

\* Recovery from multiple tests

## Gas Rates

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





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**FLUID SUMMARY**

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**Sanders #3**  
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## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	7000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 7000.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: 0.20 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	DM 100% m	0.152

Total Length: 20.00 ft      Total Volume: 0.152 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #: none  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

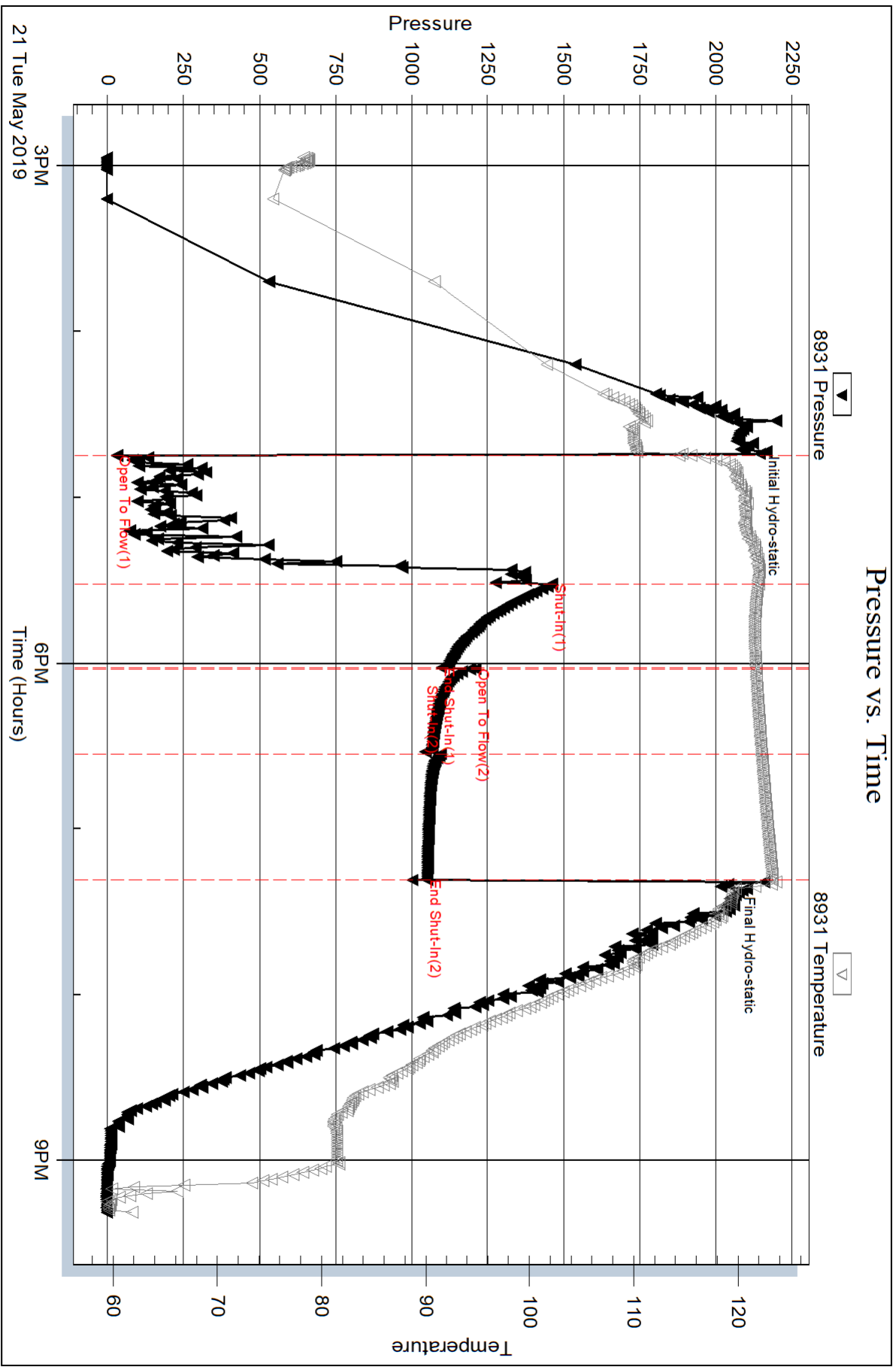
Serial #: 8931

Inside

Hartman Oil Co., Inc

Sanders #3

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64926

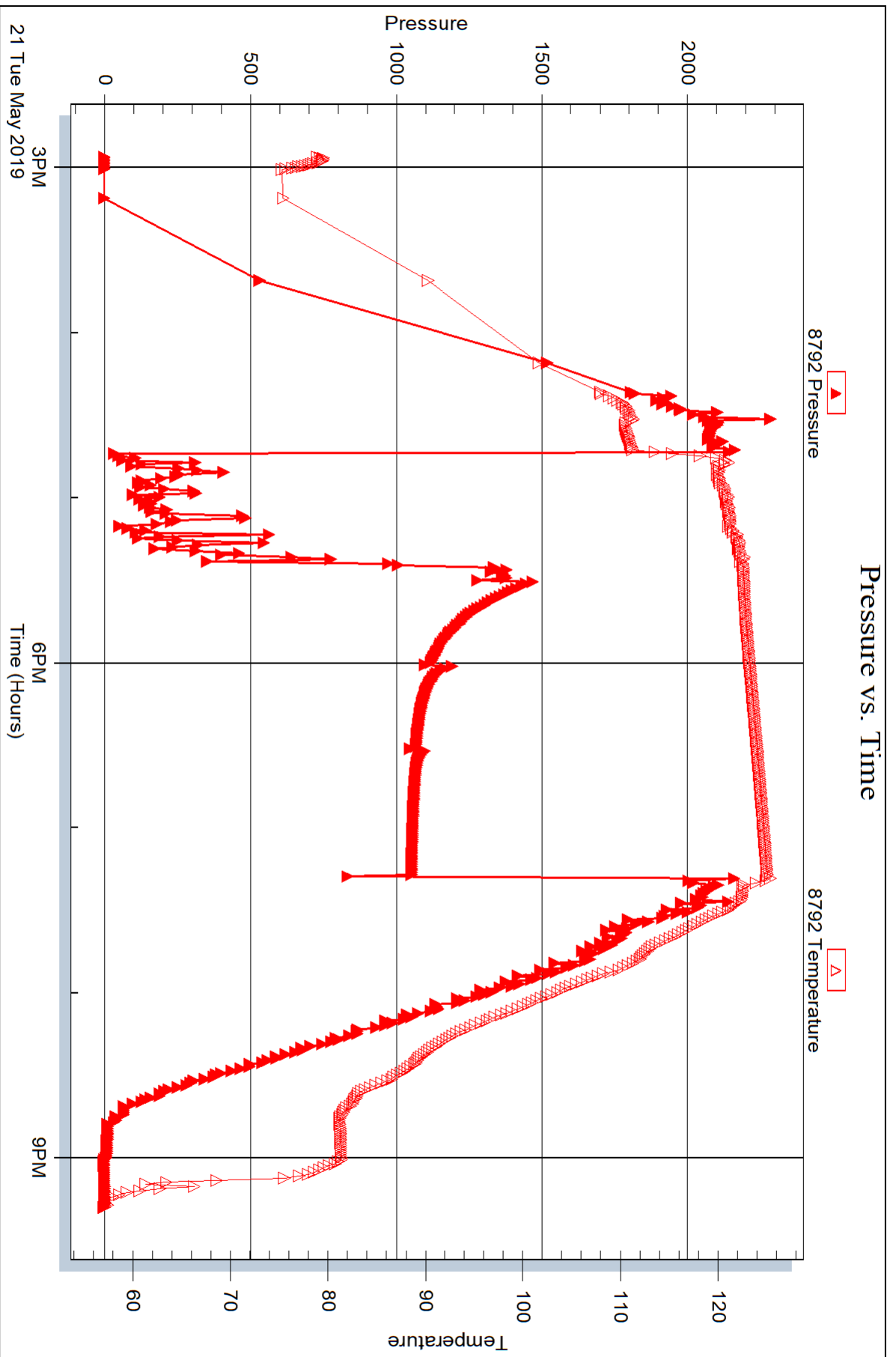
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Serial #: 8792

Outside Hartman Oil Co., Inc

Sanders #3

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 64926

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