



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Marexco, Inc
 PO Box 21598
 Oklahoma City, Ok 73156
 ATTN: Larry Nicholson

28 14s 29w Gove, Ks
Lundgren #32-28
 Job Ticket: 65178 **DST#: 5**
 Test Start: 2019.01.09 @ 03:38:00

GENERAL INFORMATION:

Formation: **Cherokee- Johnson**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 08:08:45 Tester: Bradley Walter
 Time Test Ended: 13:29:45 Unit No: 78
 Interval: **4190.00 ft (KB) To 4255.00 ft (KB) (TVD)** Reference Elevations: 2611.00 ft (KB)
 Total Depth: 4255.00 ft (KB) (TVD) 2606.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

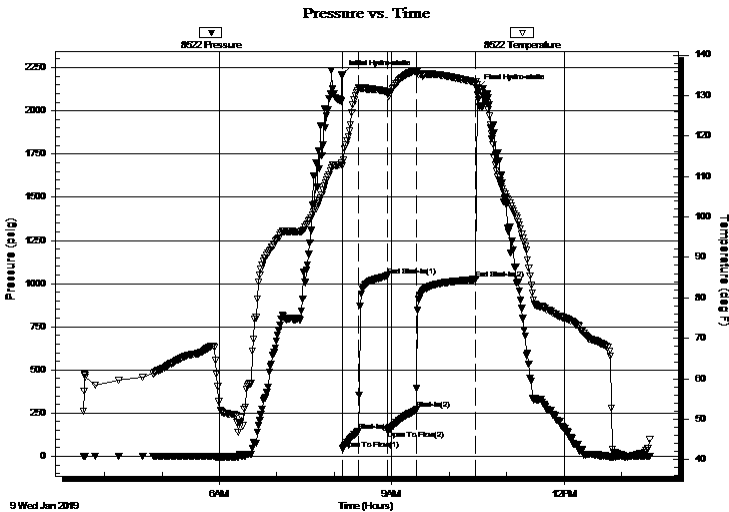
Serial #: 8522

Inside

Press@RunDepth: 270.11 psig @ 4191.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.09 End Date: 2019.01.09 Last Calib.: 2019.01.09
 Start Time: 03:38:05 End Time: 13:29:45 Time On Btm: 2019.01.09 @ 08:08:00
 Time Off Btm: 2019.01.09 @ 10:29:15

TEST COMMENT: 15- IF: BOB @ 2 1/2 min. built to 39"
 30- IS: 3/4" return.
 30- FF: BOB @ 4 1/2" built to 55"
 60- FSI: 2 1/2" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2207.81	113.29	Initial Hydro-static
1	42.86	112.62	Open To Flow (1)
18	144.91	131.82	Shut-In(1)
48	1045.99	130.94	End Shut-In(1)
48	148.66	130.58	Open To Flow (2)
78	270.11	136.09	Shut-In(2)
140	1025.65	133.30	End Shut-In(2)
142	2126.42	132.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	gw co 15g 20w 65o	2.52
180.00	gw mco 20g 15w 20m 45o	2.52
370.00	gw mco 20g 15w 5m 60o	5.19
0.00	360' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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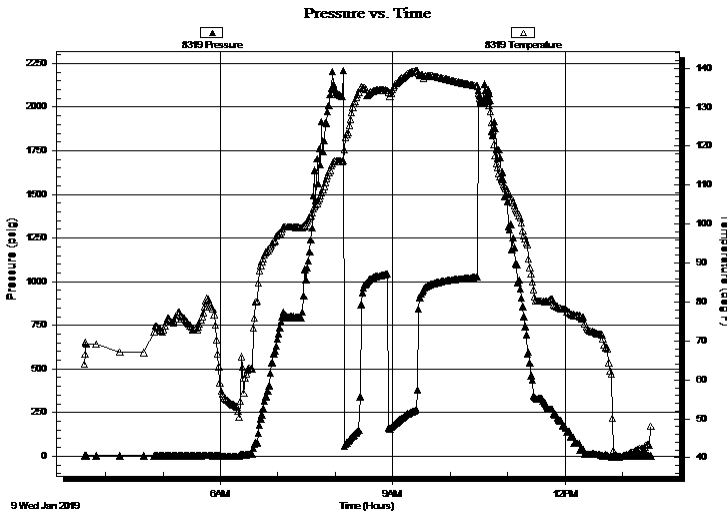
GENERAL INFORMATION:

Formation: **Cherokee- Johnson**
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 Time Test Ended: 13:29:45
 Interval: **4190.00 ft (KB) To 4255.00 ft (KB) (TVD)**
 Total Depth: 4255.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2611.00 ft (KB)
 2606.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8319 Outside
 Press@RunDepth: psig @ 4191.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.09 End Date: 2019.01.09 Last Calib.: 1899.12.30
 Start Time: 03:38:05 End Time: 13:29:45 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15- IF: BOB @ 2 1/2 min. built to 39"
 30- IS: 3/4" return.
 30- FF: BOB @ 4 1/2" built to 55"
 60- FS: 2 1/2" return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	gw co 15g 20w 65o	2.52
180.00	gw mco 20g 15w 20m 45o	2.52
370.00	gw mco 20g 15w 5m 60o	5.19
0.00	360' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Marexco, Inc
 PO Box 21598
 Oklahoma City, Ok 73156
 ATTN: Larry Nicholson

28 14s 29w Gove, Ks
Lundgren #32-28
 Job Ticket: 65178 **DST#: 5**
 Test Start: 2019.01.09 @ 03:38:00

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: 61000 ppm
Viscosity: 67.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.19 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	gw co 15g 20w 65o	2.525
180.00	gw mco 20g 15w 20m 45o	2.525
370.00	gw mco 20g 15w 5m 60o	5.190
0.00	360' GIP	0.000

Total Length: 730.00 ft Total Volume: 10.240 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: rw is .190 @ 46f = 61000ppm

Serial #: 8522

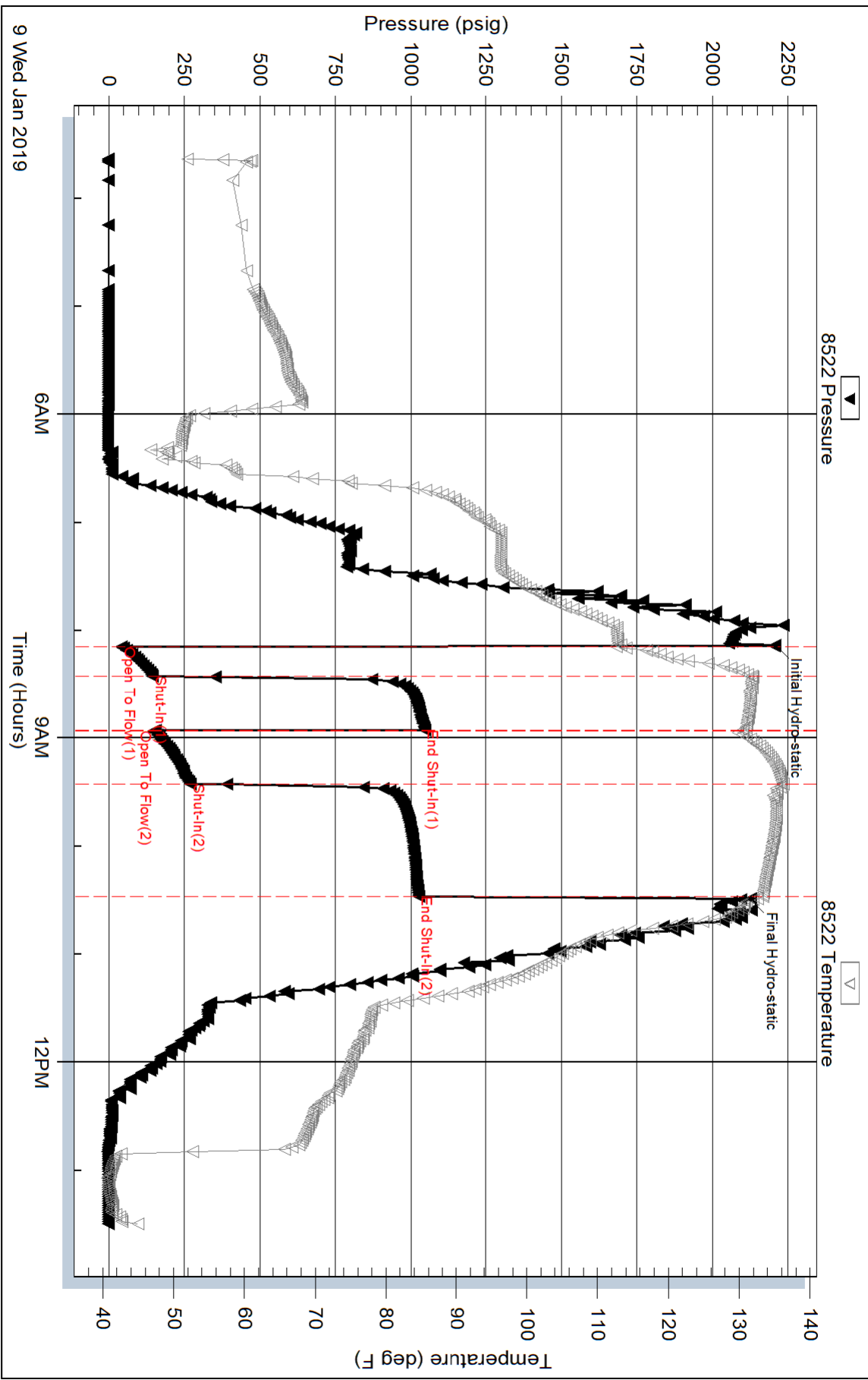
Inside

Marexco, Inc

Lundgren #32-28

DST Test Number: 5

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 65178

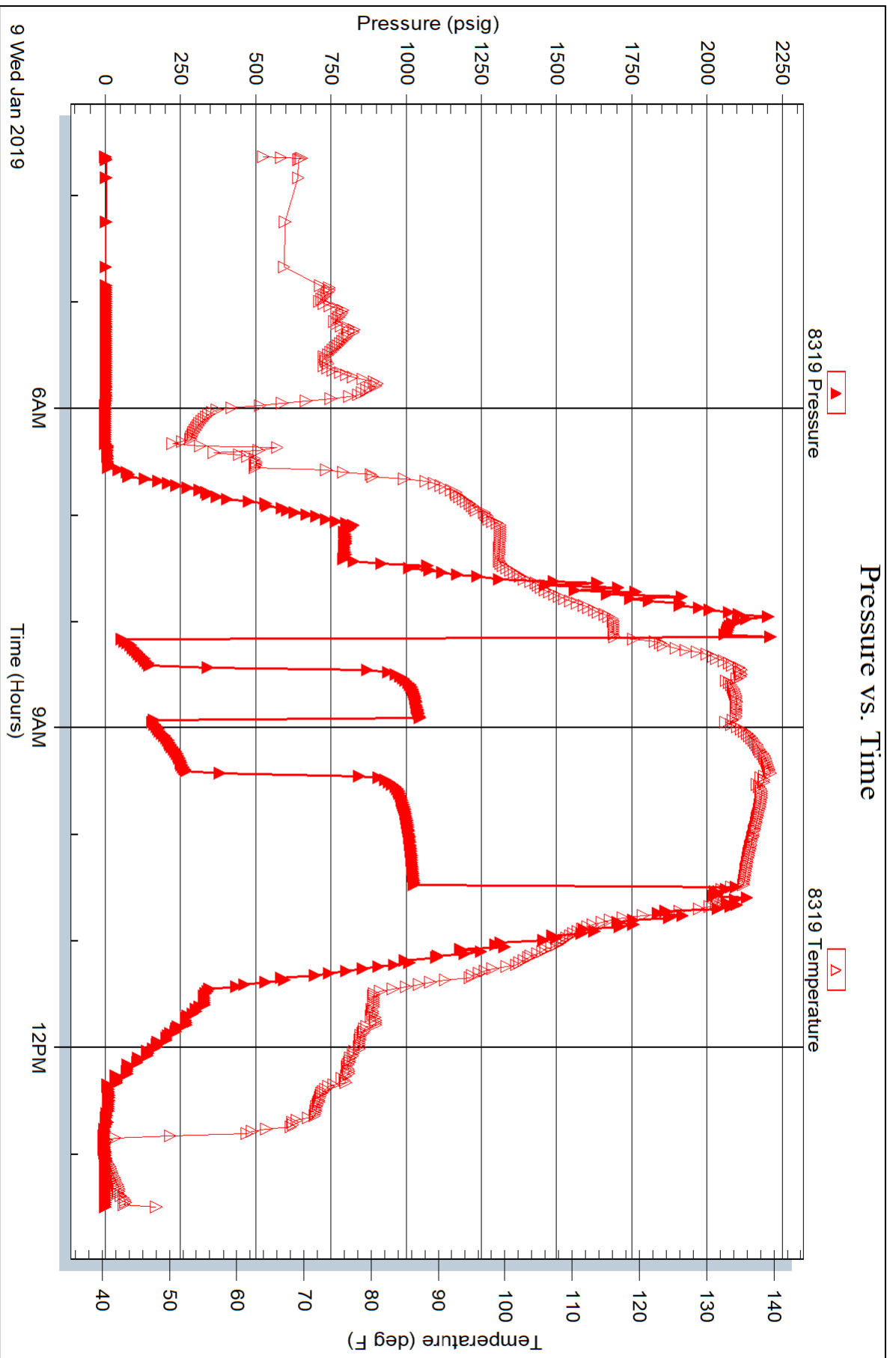
Printed: 2019.01.09 @ 14:00:18

Serial #: 8319

Outside Marexco, Inc

Lundgren #32-28

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 65178

Printed: 2019.01.09 @ 14:00:18