



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil & Gas

4-12-32 Logan, Ks

3501 S Yale Ave.
Tulsa, Ok 74135

Voth 2-4

ATTN: Larry Nicholson

Job Ticket: 63800

DST#: 3

Test Start: 2017.05.06 @ 04:15:07

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:45:37

Time Test Ended: 12:26:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4594.00 ft (KB) To 4650.00 ft (KB) (TVD)

Reference Elevations: 3060.00 ft (KB)

Total Depth: 4650.00 ft (KB) (TVD)

3050.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8166 Outside

Press@RunDepth: 663.57 psig @ 4595.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.06

End Date: 2017.05.06

Last Calib.: 2017.05.06

Start Time: 04:15:12

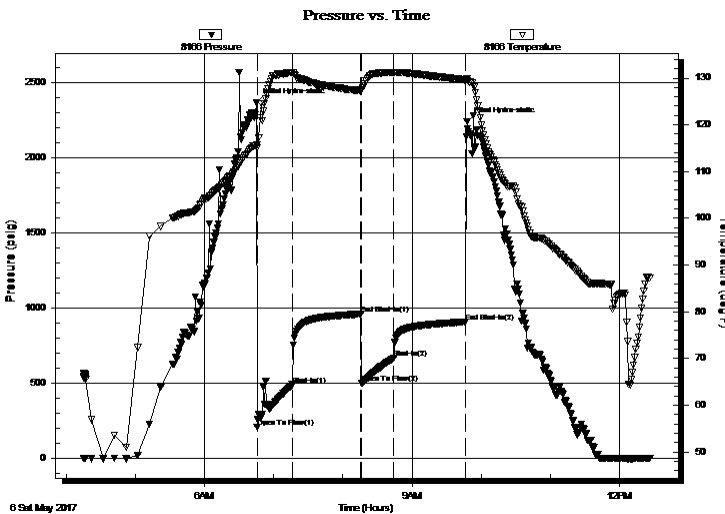
End Time: 12:26:06

Time On Btm: 2017.05.06 @ 06:45:07

Time Off Btm: 2017.05.06 @ 09:47:37

TEST COMMENT: IF: BOB in 3 min.
IS: No return.
FF: BOB in 4 1/2 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2365.49	115.81	Initial Hydro-static
1	205.89	115.07	Open To Flow (1)
31	488.34	131.19	Shut-In(1)
91	958.61	127.31	End Shut-In(1)
91	501.08	127.45	Open To Flow (2)
119	663.57	131.15	Shut-In(2)
181	907.06	129.59	End Shut-In(2)
183	2238.09	129.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
819.00	mcw 90%w 10%m	11.49
252.00	w cm 40%w 60%m	3.53
346.00	w cm oil spots 20%w 80%m	4.85

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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Job Ticket: 63800

DST#: 3

ATTN: Larry Nicholson

Test Start: 2017.05.06 @ 04:15:07

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:

24000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
819.00	mcw 90%w 10%m	11.488
252.00	w cm 40%w 60%m	3.535
346.00	w cm oil spots 20%w 80%m	4.853

Total Length: 1417.00 ft Total Volume: 19.876 bbl

Num Fluid Samples: 0

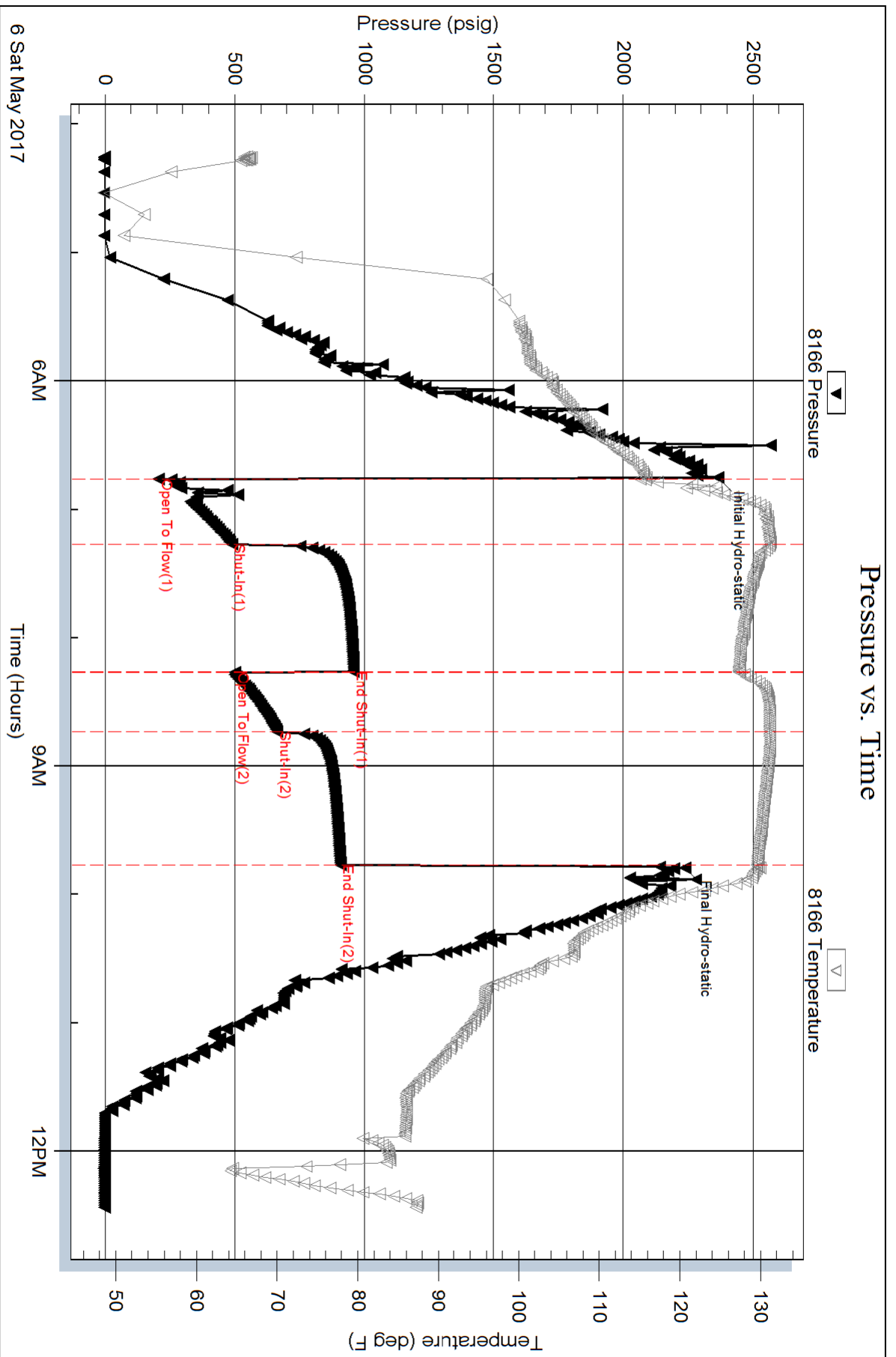
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .26@78=24000



Serial #: 8875

Inside

Culbreath Oil & Gas

Voith 2-4

DST Test Number: 3

