



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

3 11s 32w Logan, Ks

3801 S.Yale Ave.
Tulsa, Oklahoma 74135

Boyd #2-3

Job Ticket: 61807

DST#: 4

ATTN: Steve Murphy

Test Start: 2015.07.22 @ 15:00:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:31:15

Time Test Ended: 00:38:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: 4594.00 ft (KB) To 4630.00 ft (KB) (TVD)

Reference Elevations: 3035.00 ft (KB)

Total Depth: 4630.00 ft (KB) (TVD)

3030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8365 Inside

Press@RunDepth: 812.47 psig @ 4595.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.22

End Date:

2015.07.23

Last Calib.: 2015.07.23

Start Time: 15:00:05

End Time:

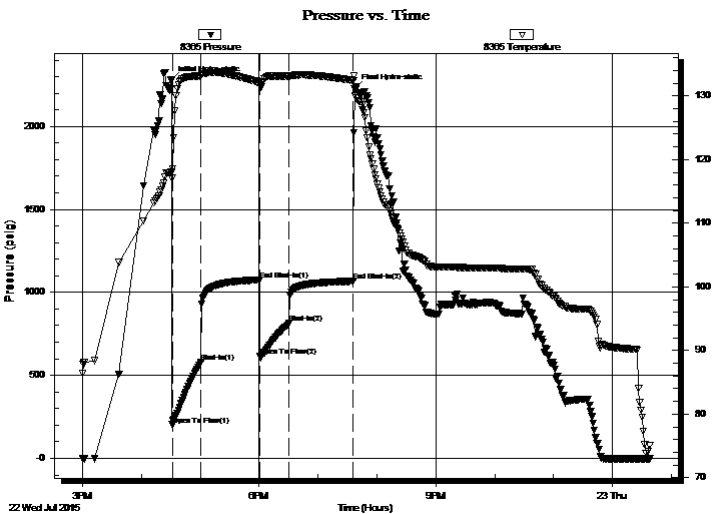
00:38:45

Time On Btm: 2015.07.22 @ 16:31:00

Time Off Btm: 2015.07.22 @ 19:37:00

TEST COMMENT: IF: BOB @ 1 min.
IS: 4 1/2" return.
FF: BOB @ 1 min.
FS: BOB @ 15 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2279.18	117.98	Initial Hydro-static
1	202.27	117.06	Open To Flow (1)
30	579.73	133.16	Shut-In(1)
90	1075.70	132.07	End Shut-In(1)
90	614.43	131.74	Open To Flow (2)
120	812.47	133.05	Shut-In(2)
185	1067.02	132.42	End Shut-In(2)
186	2229.81	131.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1930.00	go 25g 75o	26.00
180.00	go 30g 70o	2.52
0.00	850'GIP	0.00

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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Boyd #2-3

Job Ticket: 61807

DST#: 4

ATTN: Steve Murphy

Test Start: 2015.07.22 @ 15:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1930.00	go 25g 75o	25.998
180.00	go 30g 70o	2.525
0.00	850'GIP	0.000

Total Length: 2110.00 ft Total Volume: 28.523 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8365

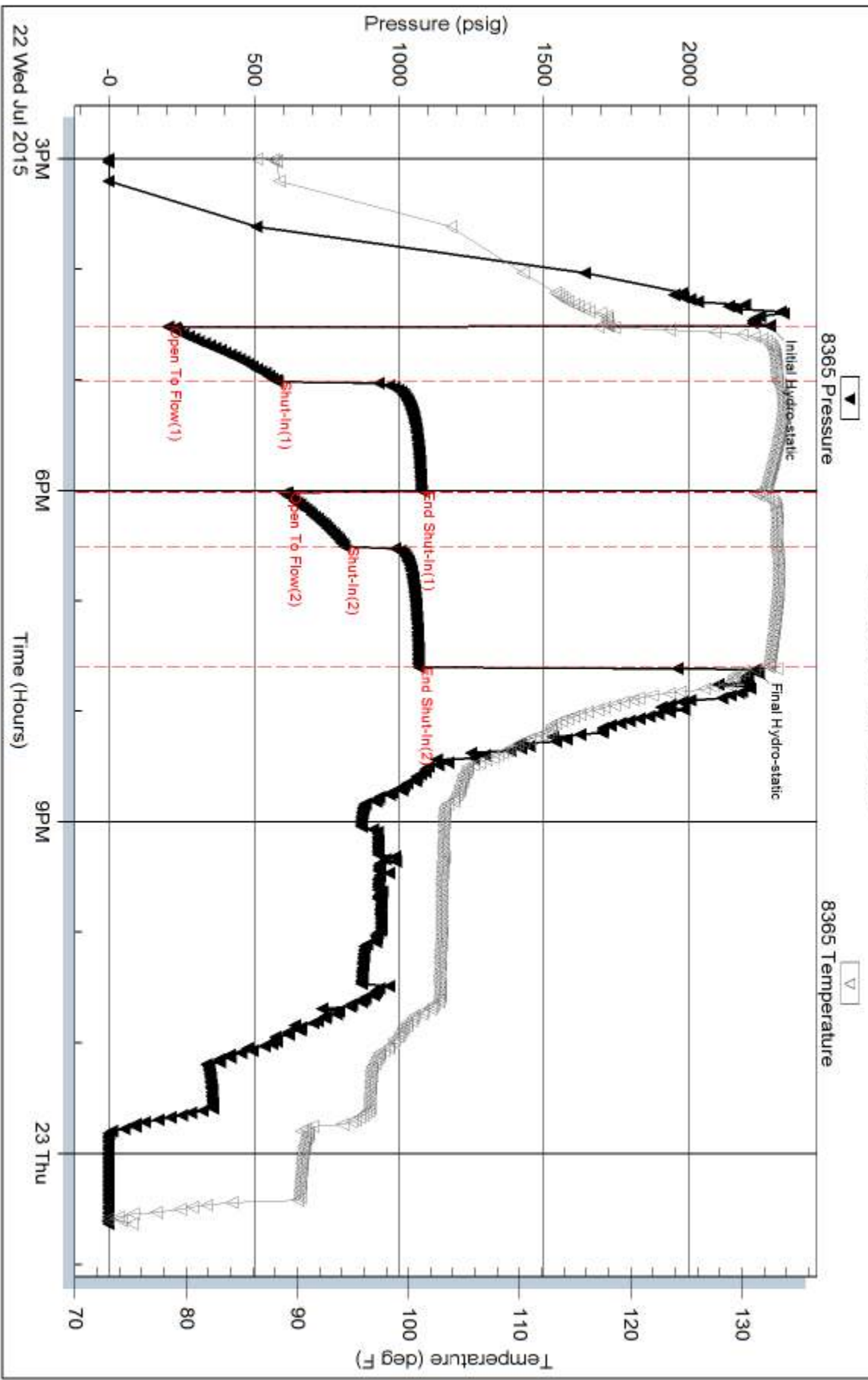
Inside

Culbreath Oil & Gas Co, Inc

Boyd #2-3

DST Test Number: 4

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 61807

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