



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Richland Oil Investments LLC

22-12-33 Logan Co KS

608 E. 1st. P.O.. Box 166
Palco Tx 67657

Moore 22-3

Job Ticket: 64844

DST#: 2

ATTN: Steve Murphy

Test Start: 2019.07.30 @ 22:03:15

GENERAL INFORMATION:

Formation: **Morrow Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:57:30

Time Test Ended: 04:26:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4644.00 ft (KB) To 4680.00 ft (KB) (TVD)

Reference Elevations: 3108.00 ft (KB)

Total Depth: 4680.00 ft (KB) (TVD)

3098.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8521

Inside

Press@RunDepth: 24.17 psig @ 4645.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.07.30

End Date:

2019.07.31

Last Calib.: 2019.07.31

Start Time: 22:03:15

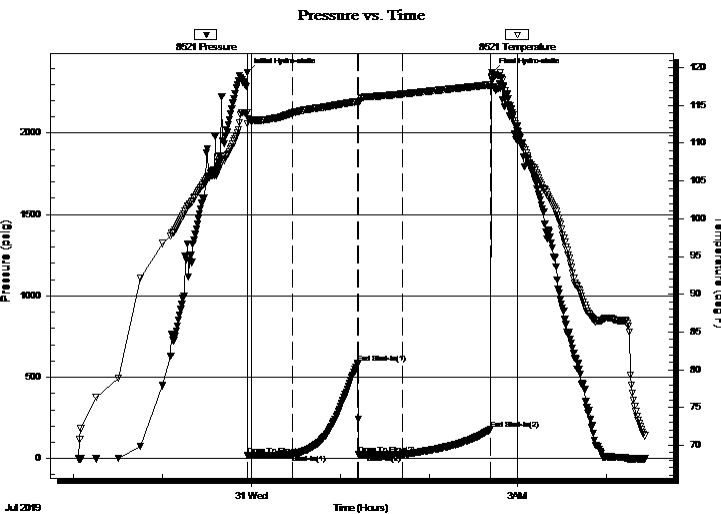
End Time:

04:26:15

Time On Btm: 2019.07.30 @ 23:57:15

Time Off Btm: 2019.07.31 @ 02:42:30

TEST COMMENT: IF: Built to 1" blow
IS: No return blow
FF: Built to 1 1/4" blow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2373.70	114.03	Initial Hydro-static
1	19.06	112.61	Open To Flow (1)
31	23.39	114.01	Shut-In(1)
75	586.57	115.53	End Shut-In(1)
76	26.66	115.24	Open To Flow (2)
105	24.17	116.50	Shut-In(2)
165	181.21	117.75	End Shut-In(2)
166	2373.12	118.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	socm 5 % o 95% m	0.42

Gas Rates

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

* Recovery from multiple tests



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Hole Diameter: 7.88 inches Hole Condition: Fair

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3098.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8968 Outside

Press@RunDepth: psig @ 4645.00 ft (KB)

Start Date: 2019.07.30

End Date:

2019.07.31

Start Time: 22:03:15

End Time:

04:26:00

Capacity: 8000.00 psig

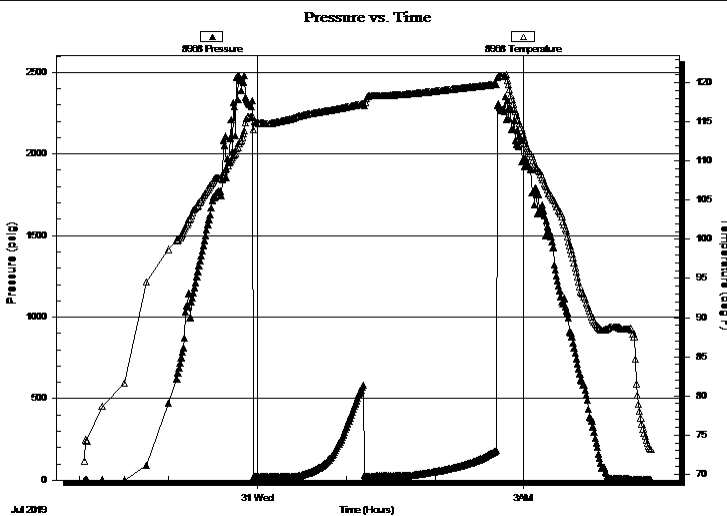
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Time On Btm:

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PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	socm 5 % o 95%m	0.42

Gas Rates

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

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DRILL STEM TEST REPORT

FLUID SUMMARY

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22-12-33 Logan Co KS

608 E. 1st. P.O.. Box 166
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Job Ticket: 64844

DST#: 2

ATTN: Steve Murphy

Test Start: 2019.07.30 @ 22:03:15

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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	socm 5 % o 95%m	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

