



DRILL STEM TEST REPORT

Prepared For: **GL Allison Oil Operations Incorporated**

15 Southeast 30 Road
Great Bend, Kansas 67530

ATTN: Kevin Bailey

Younkin 21-Maycee

21/12S/32W/Logan

Start Date: 2013.09.29 @ 15:03:00

End Date: 2013.09.29 @ 20:02:00

Job Ticket #: 18161 DST #: 4

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2013.09.29 @ 20:13:40



DRILL STEM TEST REPORT

GL Allison Oil Operations Incorporated

21/12S/32W/Logan

15 Southeast 30 Road
Great Bend, Kansas 67530

Younkin 21-Maycee

Job Ticket: 18161

DST#: 4

ATTN: Kevin Bailey

Test Start: 2013.09.29 @ 15:03:00

GENERAL INFORMATION:

Formation: **Cherokee/Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:52:30

Time Test Ended: 20:02:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/74

Interval: 4600.00 ft (KB) To 4645.00 ft (KB) (TVD)

Reference Elevations: 3064.00 ft (KB)

Total Depth: 4645.00 ft (KB) (TVD)

3057.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6749

Inside

Press @ Run Depth: 57.05 psia @ 4641.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.09.29

End Date: 2013.09.29

Last Calib.: 2013.09.29

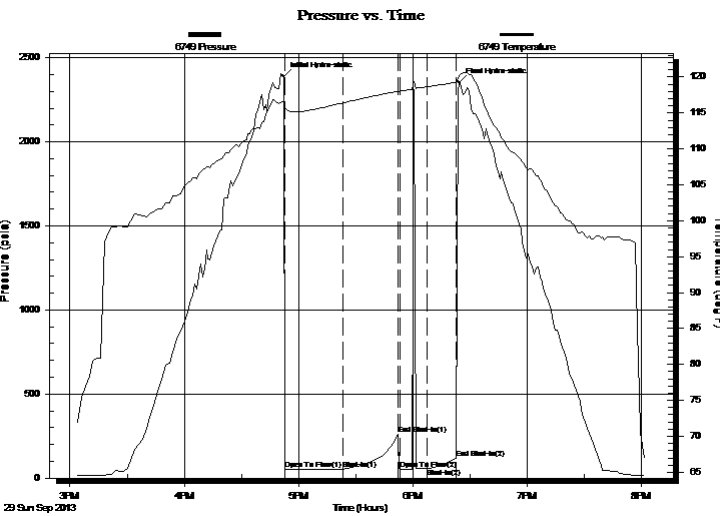
Start Time: 15:03:00

End Time: 20:02:00

Time On Btm: 2013.09.29 @ 16:52:00

Time Off Btm: 2013.09.29 @ 18:24:00

TEST COMMENT: 1ST Open 30 Minutes/Weak blow /Blow built to 1/4 inch then died to surface blow
 1ST Shut In 30 Minutes/No blow back
 2ND Open 15 Minutes/Dead no blow /Flush tool no help
 2ND Shut In 15 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2389.02	116.46	Initial Hydro-static
1	52.32	115.73	Open To Flow (1)
31	54.42	116.38	Shut-In(1)
60	260.08	118.04	End Shut-In(1)
61	54.60	118.03	Open To Flow (2)
76	57.05	118.65	Shut-In(2)
91	119.12	119.27	End Shut-In(2)
92	2353.69	120.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Lightly oil spotted mud/ 100% mud	0.14
0.00		0.00

Gas Rates

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



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Tester: Ken Swinney

Unit No: 3325 Scott City/74

Interval: 4600.00 ft (KB) To 4645.00 ft (KB) (TVD)

Reference Elevations: 3064.00 ft (KB)

Total Depth: 4645.00 ft (KB) (TVD)

3057.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6666 Outside

Press @ Run Depth: 120.78 psia @ 4642.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.09.29

End Date: 2013.09.29

Last Calib.: 2013.09.29

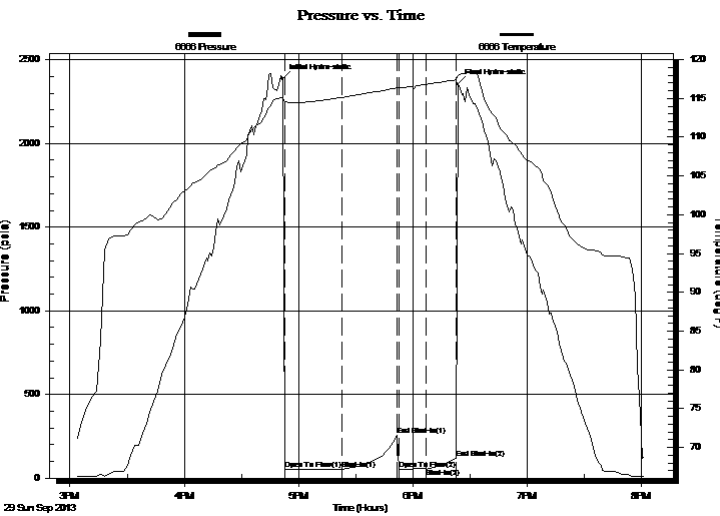
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End Time: 20:01:30

Time On Btm: 2013.09.29 @ 16:51:30

Time Off Btm: 2013.09.29 @ 18:23:30

TEST COMMENT: 1ST Open 30 Minutes/Weak blow /Blow built to 1/4 inch then died to surface blow
 1ST Shut In 30 Minutes/No blow back
 2ND Open 15 Minutes/Dead no blow /Flush tool no help
 2ND Shut In 15 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2388.09	115.09	Initial Hydro-static
1	51.39	114.59	Open To Flow (1)
31	52.92	115.12	Shut-In(1)
60	256.80	116.33	End Shut-In(1)
61	53.80	116.31	Open To Flow (2)
76	56.08	116.83	Shut-In(2)
92	120.78	117.39	End Shut-In(2)
92	2356.68	117.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Lightly oil spotted mud/ 100% mud	0.14
0.00		0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

GL Allison Oil Operations Incorporated

21/12S/32W/Logan

15 Southeast 30 Road
Great Bend, Kansas 67530

Younkin 21-Maycee

Job Ticket: 18161

DST#: 4

ATTN: Kevin Bailey

Test Start: 2013.09.29 @ 15:03:00

Tool Information

Drill Pipe:	Length: 4595.00 ft	Diameter: 3.80 inches	Volume: 64.46 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 64.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4600.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4578.00	
Hydraulic Tool	5.00			4583.00	
Jars	5.00			4588.00	
Safety Joint	2.00			4590.00	
Packer	5.00			4595.00	27.00 Bottom Of Top Packer
Packer	5.00			4600.00	
Anchor	40.00			4640.00	
Recorder	1.00	6749	Inside	4641.00	
Recorder	1.00	6666	Outside	4642.00	
Bullnose	3.00			4645.00	45.00 Bottom Packers & Anchor
Total Tool Length:	72.00				



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FLUID SUMMARY

GL Allison Oil Operations Incorporated

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Younkin 21-Maycee

Job Ticket: 18161

DST#: 4

ATTN: Kevin Bailey

Test Start: 2013.09.29 @ 15:03:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Lightly oil spotted mud/ 100% mud	0.140
0.00		0.000

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

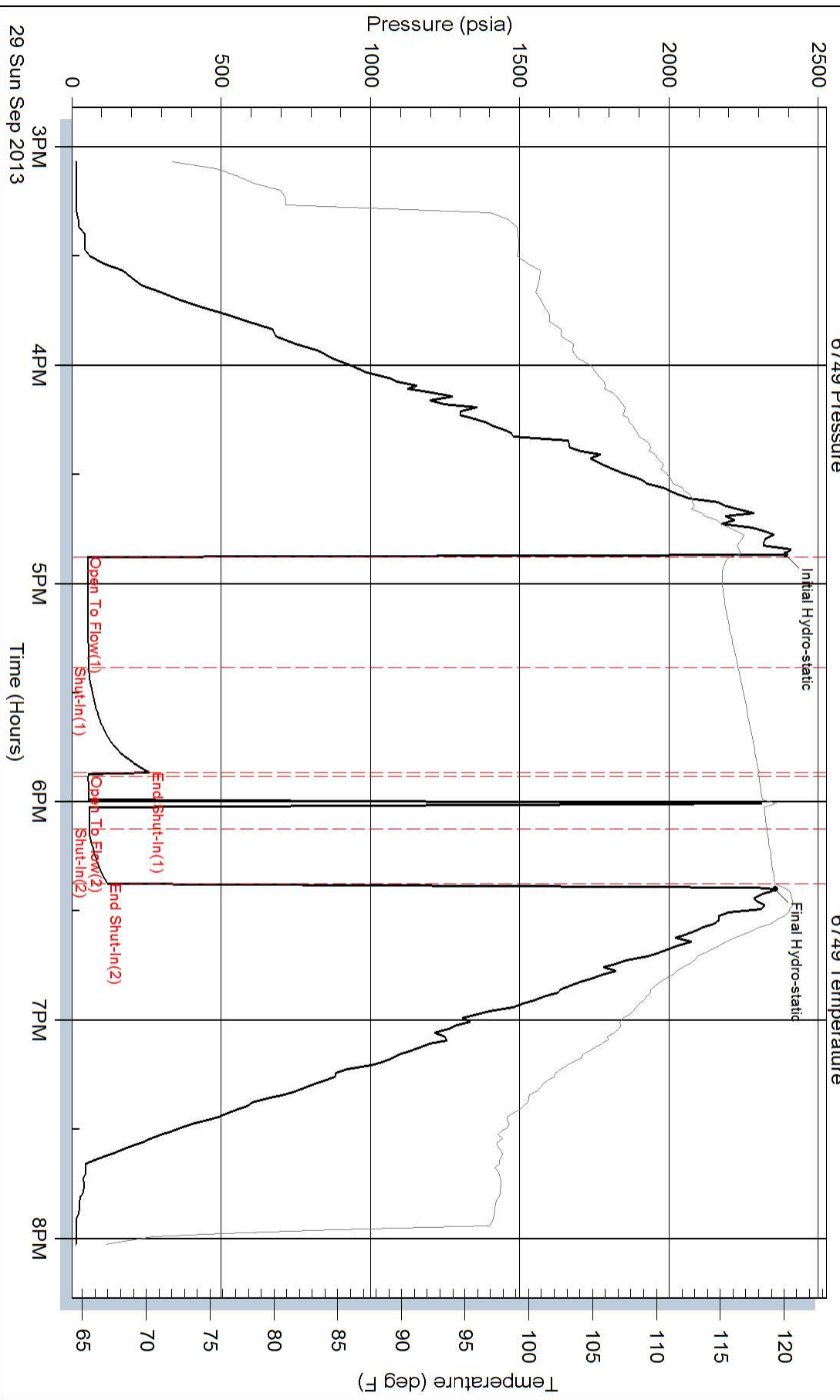
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



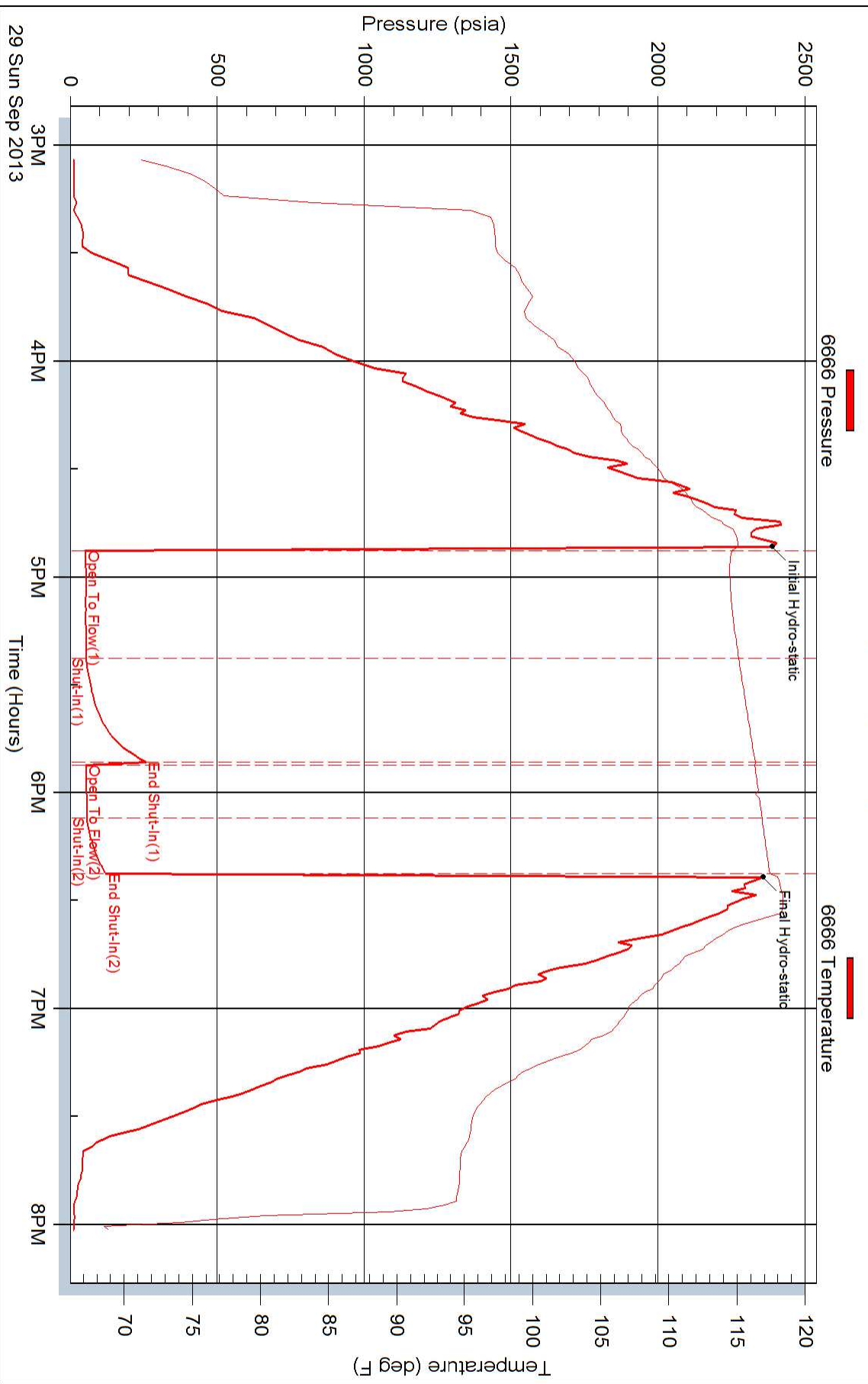
Serial #: 6666

Outside GL Allison Oil Operations Incorporated

Younkin 21-Maycee

DST Test Number: 4

Pressure vs. Time



Superior Testers Enterprises LLC

Ref. No: 18161

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