



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co Inc**

PO Box 1120
Hays KS 67601

ATTN: Shane Vehige, Jeff La

Gartrell #1

21-6s-20w Rooks,KS

Start Date: 2015.08.11 @ 03:55:11

End Date: 2015.08.11 @ 10:09:20

Job Ticket #: 62652 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.08.14 @ 08:56:26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62652

DST#: 1

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.11 @ 03:55:11

GENERAL INFORMATION:

Formation: **Toronto - LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:00:06

Time Test Ended: 10:09:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

Interval: 3420.00 ft (KB) To 3470.00 ft (KB) (TVD)

Reference Elevations: 2230.00 ft (KB)

Total Depth: 3470.00 ft (KB) (TVD)

2222.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018

Inside

Press@RunDepth: 174.73 psig @ 3434.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.08.11

End Date:

2015.08.11

Last Calib.:

2015.08.11

Start Time: 03:55:11

End Time:

10:09:20

Time On Btm:

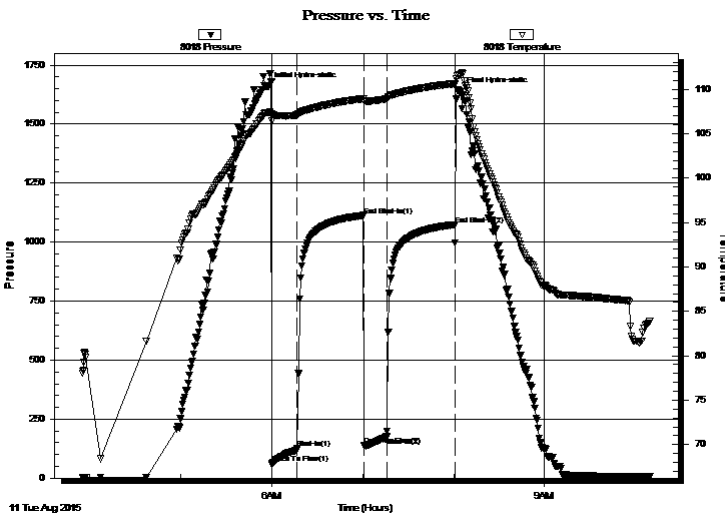
2015.08.11 @ 05:57:36

Time Off Btm:

2015.08.11 @ 08:04:06

TEST COMMENT: 15-IFP-w k to strg in 4 min
45-ISIP-3"bl bk
15-FFP-w k to strg in 3 1/2 min
45-FSIP-3" bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1659.30	107.39	Initial Hydro-static
3	62.46	106.43	Open To Flow (1)
20	125.09	107.10	Shut-In(1)
63	1112.93	108.95	End Shut-In(1)
64	139.85	108.68	Open To Flow (2)
79	174.73	108.94	Shut-In(2)
124	1074.37	110.64	End Shut-In(2)
127	1637.58	111.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	700' GIP	0.00
124.00	GMO 40%G10%M50%O	0.65
62.00	CO	0.87
105.00	MGO 20%G20%M60%O	1.47

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62652

DST#: 1

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.11 @ 03:55:11

Tool Information

Drill Pipe:	Length: 3292.00 ft	Diameter: 3.80 inches	Volume: 46.18 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 46.77 bbl</u>	Tool Chased	6.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3420.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	71.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3400.00	
Shut In Tool	5.00			3405.00	
Hydraulic tool	5.00			3410.00	
Packer	5.00			3415.00	21.00 Bottom Of Top Packer
Packer	5.00			3420.00	
Stubb	1.00			3421.00	
Perforations	13.00			3434.00	
Recorder	0.00	8018	Inside	3434.00	
Recorder	0.00	8700	Outside	3434.00	
Blank Spacing	33.00			3467.00	
Bullnose	3.00			3470.00	50.00 Bottom Packers & Anchor

Total Tool Length: 71.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62652

DST#: 1

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.11 @ 03:55:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.90 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	700' GIP	0.000
124.00	GMO 40%G10%M50%O	0.646
62.00	CO	0.870
105.00	MGO 20%G20%M60%O	1.473

Total Length: 291.00 ft Total Volume: 2.989 bbl

Num Fluid Samples: 0

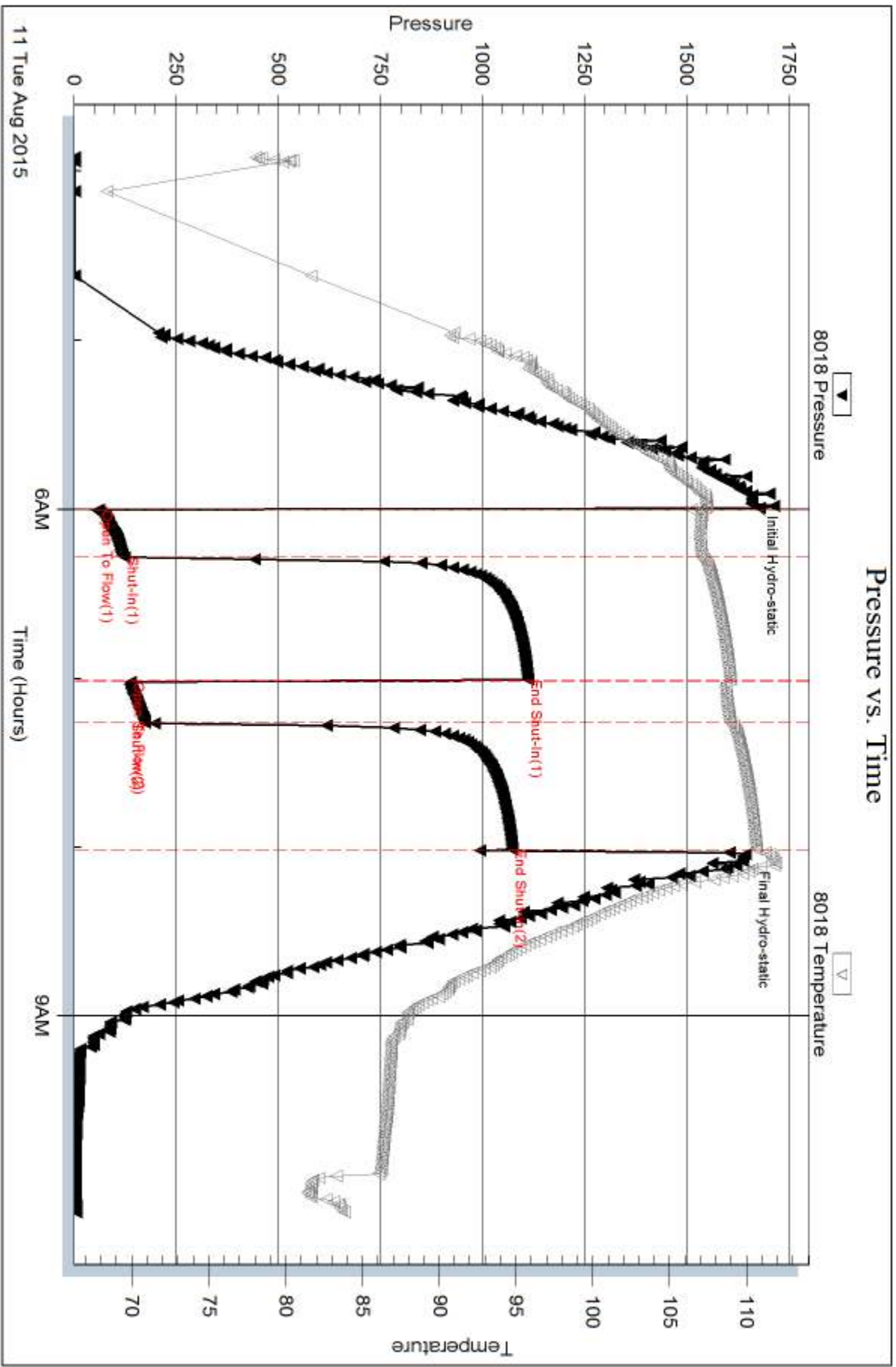
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: slid tool approx 6' to bottom

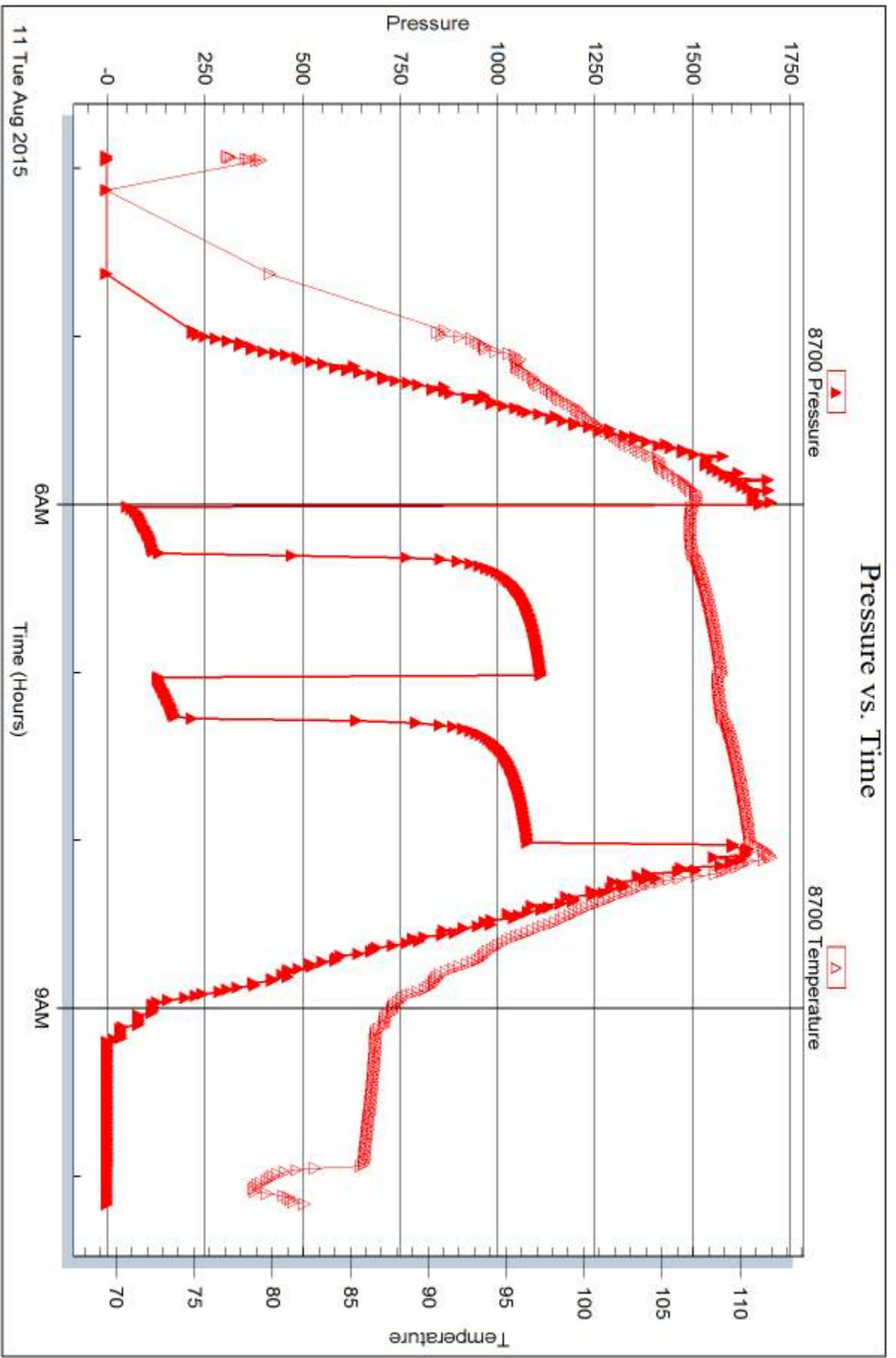


Serial #: 8700

Outside Jasper Co Inc

Garrett #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 62652

Printed: 2015.08.14 @ 08:56:27



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co Inc**

PO Box 1120
Hays KS 67601

ATTN: Shane Vehige, Jeff La

Gartrell #1

21-6s-20w Rooks,KS

Start Date: 2015.08.11 @ 17:40:26

End Date: 2015.08.12 @ 00:15:50

Job Ticket #: 62653 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.08.14 @ 08:56:07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62653

DST#: 2

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.11 @ 17:40:26

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:36:36

Time Test Ended: 00:15:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3480.00 ft (KB) To 3525.00 ft (KB) (TVD)

Reference Elevations: 2230.00 ft (KB)

Total Depth: 3525.00 ft (KB) (TVD)

2222.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018

Inside

Press@RunDepth: 95.12 psig @ 3489.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.08.11

End Date:

2015.08.12

Last Calib.:

2015.08.12

Start Time: 17:40:26

End Time:

00:15:50

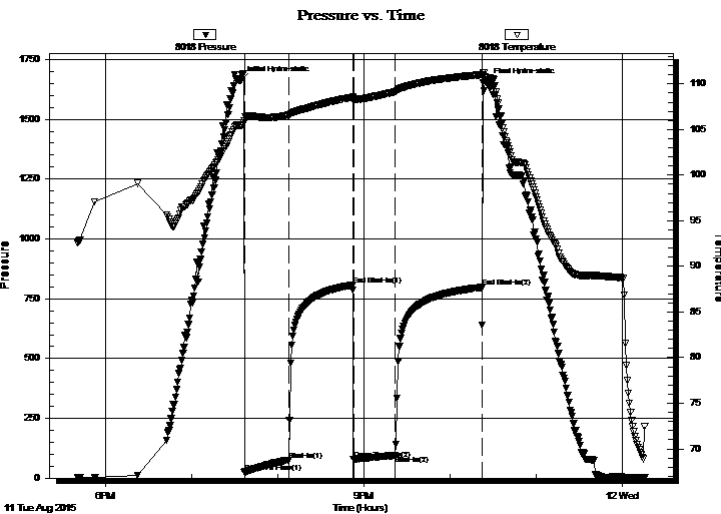
Time On Btm:

2015.08.11 @ 19:33:51

Time Off Btm:

2015.08.11 @ 22:26:05

TEST COMMENT: 30-IFP-w k to a fr bl 1/4" to 4 1/2" bl
45-ISIP-no bl
30-FFP-no bl 1st 5 min, then w k thru-out surface to 2" bl
60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1661.50	105.49	Initial Hydro-static
3	23.35	105.90	Open To Flow (1)
34	74.36	106.57	Shut-In(1)
79	807.22	108.54	End Shut-In(1)
79	79.70	108.30	Open To Flow (2)
108	95.12	109.14	Shut-In(2)
169	797.44	111.00	End Shut-In(2)
173	1655.11	110.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	MW 20% M80% W	0.65
45.00	Mud w/show of oil	0.63

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62653

DST#: 2

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.11 @ 17:40:26

Tool Information

Drill Pipe:	Length: 3351.00 ft	Diameter: 3.80 inches	Volume: 47.01 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 47.60 bbl</u>	Tool Chased	5.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	61000.00 lb
Depth to Top Packer:	3480.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	45.00 ft				
Tool Length:	66.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3460.00	
Shut In Tool	5.00			3465.00	
Hydraulic tool	5.00			3470.00	
Packer	5.00			3475.00	21.00 Bottom Of Top Packer
Packer	5.00			3480.00	
Stubb	1.00			3481.00	
Perforations	8.00			3489.00	
Recorder	0.00	8018	Inside	3489.00	
Recorder	0.00	8700	Outside	3489.00	
Blank Spacing	33.00			3522.00	
Bullnose	3.00			3525.00	45.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62653

DST#: 2

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.11 @ 17:40:26

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:

54000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.91 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	MW 20%M80%W	0.646
45.00	Mud w/show of oil	0.631

Total Length: 169.00 ft Total Volume: 1.277 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

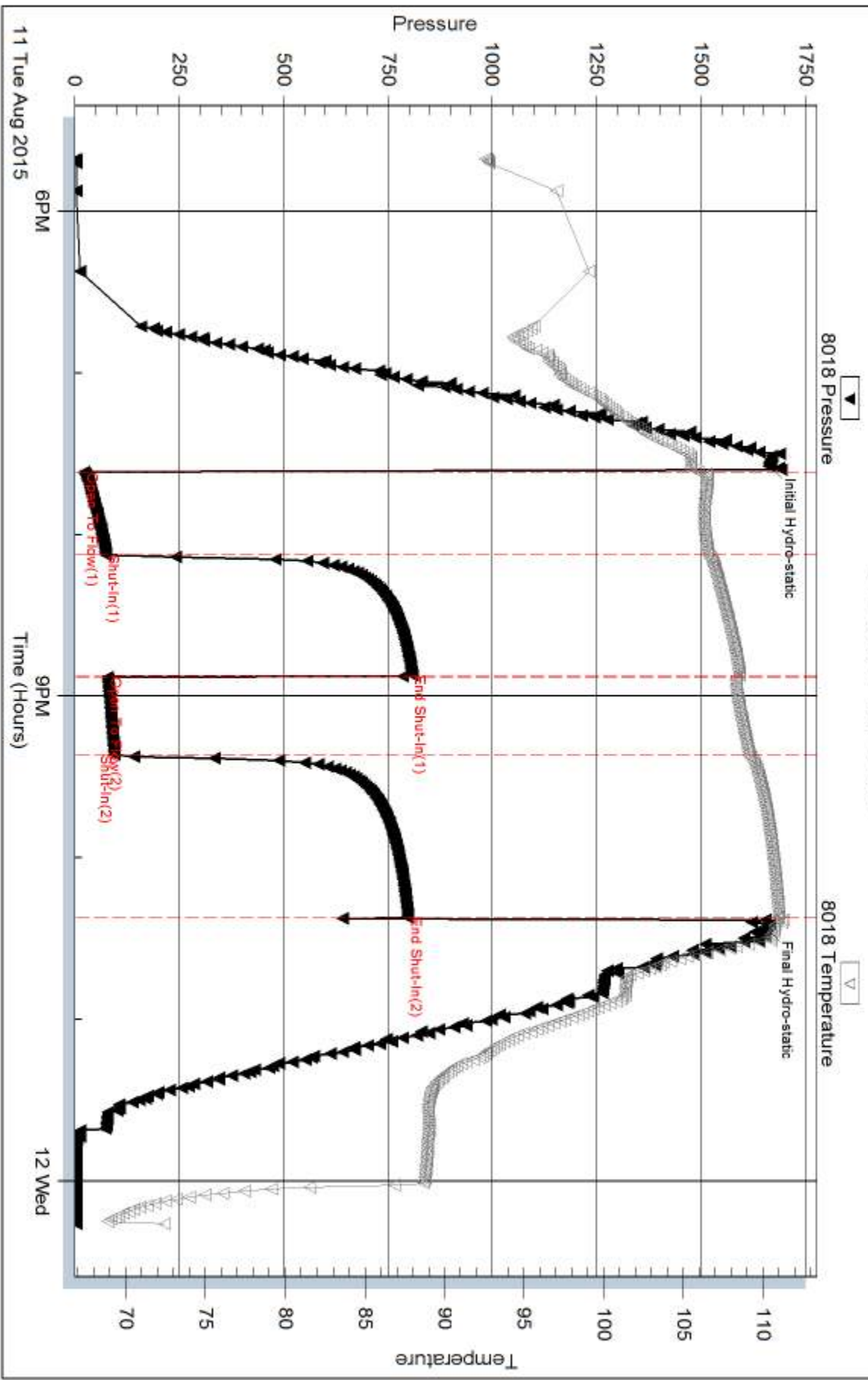
Laboratory Name:

Laboratory Location:

Recovery Comments: slid tool approx 5' to bottom

RW .16@ 60F

Pressure vs. Time

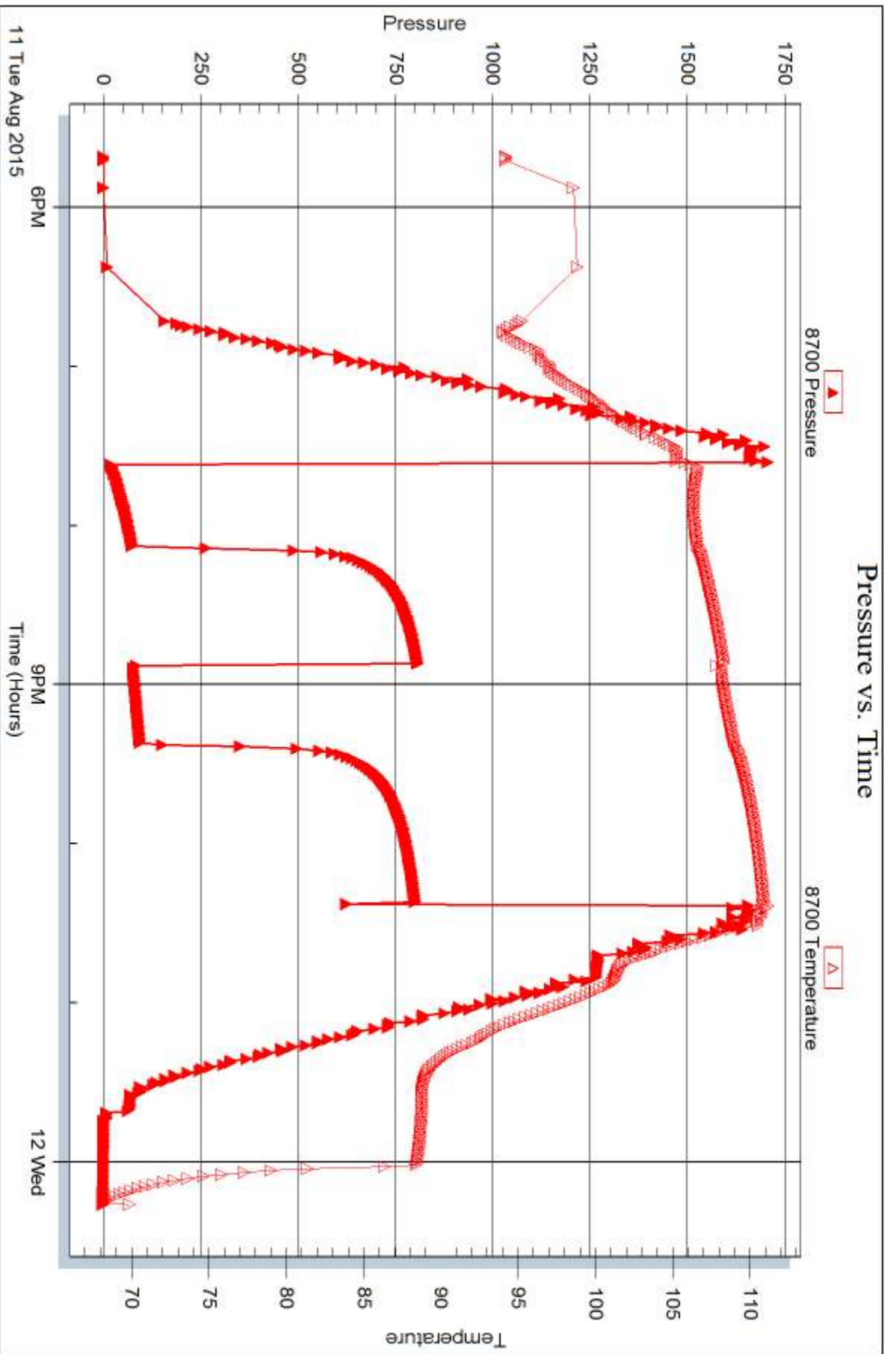


Serial #: 8700

Outside Jasper Co Inc

Gartrell #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62653

Printed: 2015.08.14 @ 08:56:09



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co Inc**

PO Box 1120
Hays KS 67601

ATTN: Shane Vehige, Jeff La

Gartrell #1

21-6s-20w Rooks,KS

Start Date: 2015.08.12 @ 07:30:30

End Date: 2015.08.12 @ 14:11:39

Job Ticket #: 62654 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.08.14 @ 08:55:47



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62654

DST#: 3

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.12 @ 07:30:30

GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:18:40

Time Test Ended: 14:11:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3524.00 ft (KB) To 3552.00 ft (KB) (TVD)

Reference Elevations: 2230.00 ft (KB)

Total Depth: 3552.00 ft (KB) (TVD)

2222.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018

Inside

Press@RunDepth: 217.14 psig @ 3530.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.08.12

End Date:

2015.08.12

Last Calib.:

2015.08.12

Start Time:

07:30:30

End Time:

14:11:39

Time On Btm:

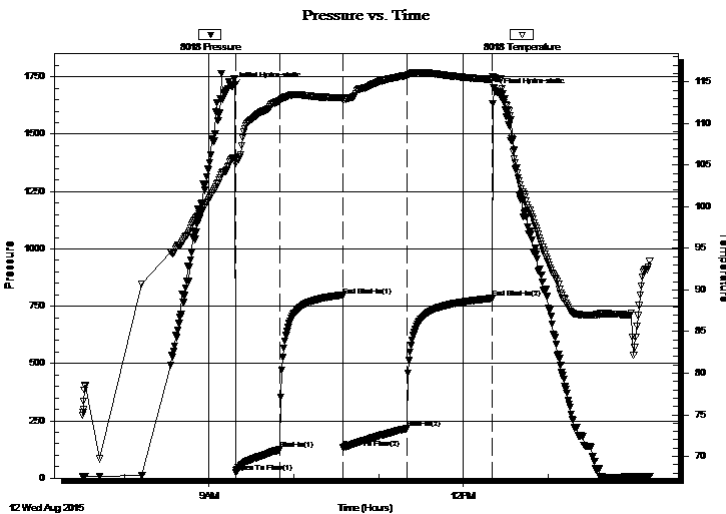
2015.08.12 @ 09:16:40

Time Off Btm:

2015.08.12 @ 12:23:39

TEST COMMENT: 30-IFP-w k to strg in 18 min
45-ISIP-no bl
30-FFP-w k to strg in 25 min
45-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1707.43	105.83	Initial Hydro-static
2	25.98	105.16	Open To Flow (1)
34	124.95	112.73	Shut-In(1)
78	794.58	113.07	End Shut-In(1)
78	132.00	112.84	Open To Flow (2)
124	217.14	115.75	Shut-In(2)
184	784.03	115.28	End Shut-In(2)
187	1683.14	115.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	Water	2.27
120.00	MW w/show of oil	1.68
15.00	SOCMW 2%O40%M48%W	0.21

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62654

DST#: 3

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.12 @ 07:30:30

Tool Information

Drill Pipe:	Length: 3414.00 ft	Diameter: 3.80 inches	Volume: 47.89 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 48.48 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	3524.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3504.00	
Shut In Tool	5.00			3509.00	
Hydraulic tool	5.00			3514.00	
Packer	5.00			3519.00	21.00 Bottom Of Top Packer
Packer	5.00			3524.00	
Stubb	1.00			3525.00	
Perforations	5.00			3530.00	
Recorder	0.00	8018	Inside	3530.00	
Recorder	0.00	8700	Outside	3530.00	
Perforations	19.00			3549.00	
Bullnose	3.00			3552.00	28.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62654

DST#: 3

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.12 @ 07:30:30

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:

77000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.92 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	Water	2.273
120.00	MW w/show of oil	1.683
15.00	SOCMW 2%O40%M48%W	0.210

Total Length: 375.00 ft Total Volume: 4.166 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

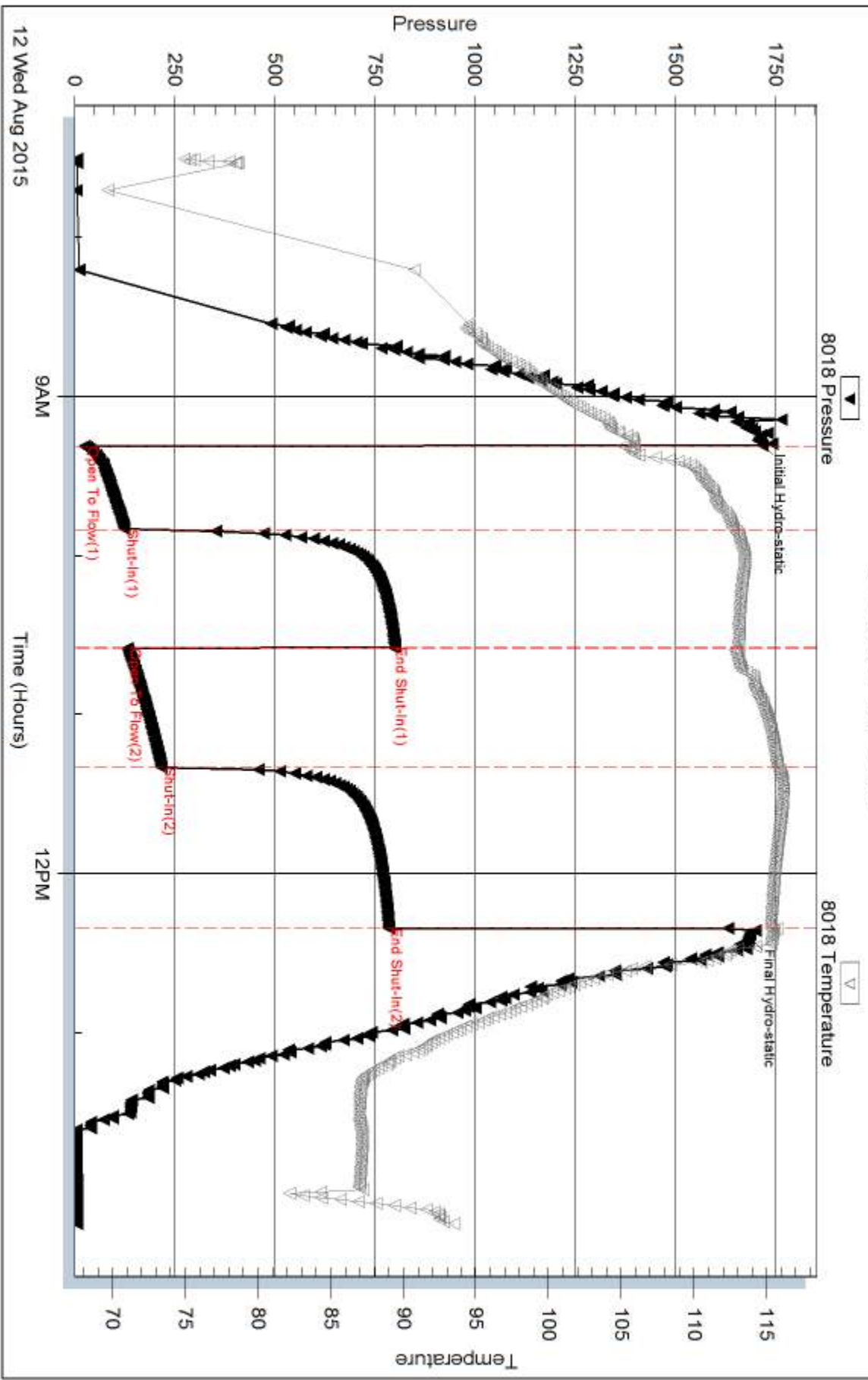
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .08@ 85F

Pressure vs. Time



12 Wed Aug 2015

9AM

Time (Hours)

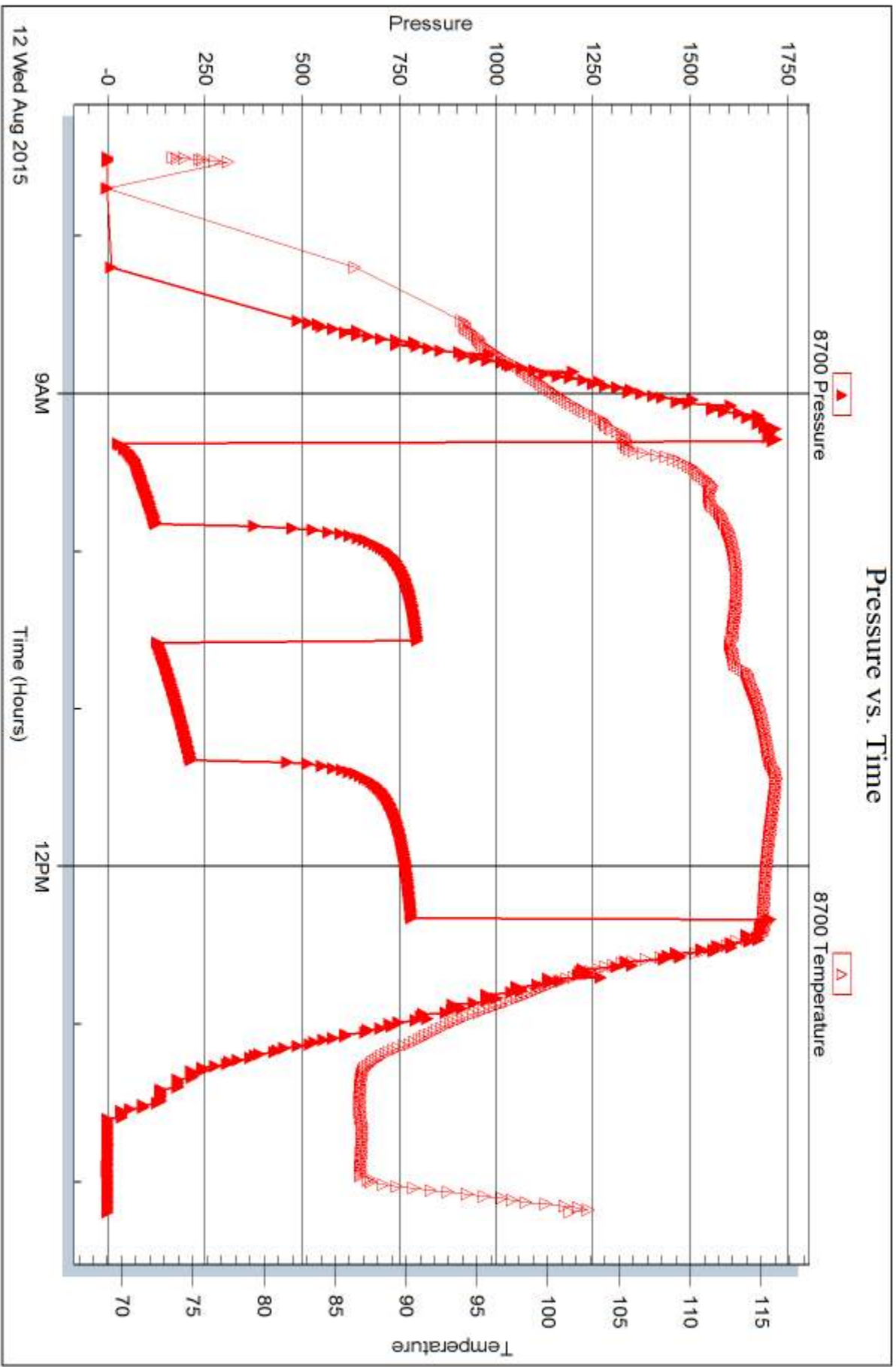
12PM

Serial #: 8700

Outside Jasper Co Inc

Gartrell #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62654

Printed: 2015.08.14 @ 08:55:48



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co Inc**

PO Box 1120
Hays KS 67601

ATTN: Shane Vehige, Jeff La

Gartrell #1

21-6s-20w Rooks,KS

Start Date: 2015.08.13 @ 09:41:02

End Date: 2015.08.13 @ 16:44:41

Job Ticket #: 62655 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.08.14 @ 08:54:53



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62655

DST#: 4

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.13 @ 09:41:02

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:40:27

Time Test Ended: 16:44:41

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3680.00 ft (KB) To 3701.00 ft (KB) (TVD)

Reference Elevations: 2230.00 ft (KB)

Total Depth: 3701.00 ft (KB) (TVD)

2222.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018 Inside

Press@RunDepth: 19.90 psig @ 3681.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.08.13

End Date:

2015.08.13

Last Calib.:

2015.08.13

Start Time:

09:41:02

End Time:

16:44:41

Time On Btm:

2015.08.13 @ 11:38:27

Time Off Btm:

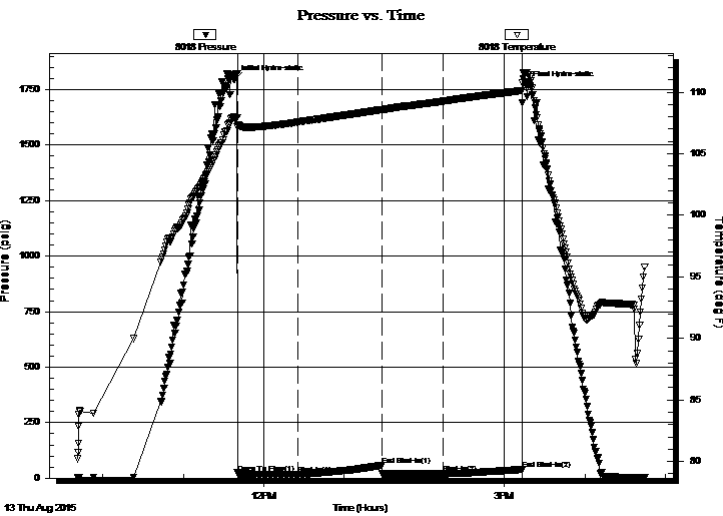
2015.08.13 @ 15:16:11

TEST COMMENT: 45-IFP-surface bl , died in 28 min

60-ISIP-no bl

45-FFP-no bl

60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1794.01	107.95	Initial Hydro-static
2	23.04	107.14	Open To Flow (1)
48	16.90	107.57	Shut-In(1)
110	58.24	108.58	End Shut-In(1)
110	20.15	108.56	Open To Flow (2)
156	19.90	109.26	Shut-In(2)
215	38.09	110.12	End Shut-In(2)
218	1766.22	111.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	HOCM 25%O75%M	0.02
0.00	w / show of clean oil on top of tool	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62655

DST#: 4

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.13 @ 09:41:02

Tool Information

Drill Pipe:	Length: 3571.00 ft	Diameter: 3.80 inches	Volume: 50.09 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 50.68 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3680.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	21.00 ft				
Tool Length:	42.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3660.00	
Shut In Tool	5.00			3665.00	
Hydraulic tool	5.00			3670.00	
Packer	5.00			3675.00	21.00 Bottom Of Top Packer
Packer	5.00			3680.00	
Stubb	1.00			3681.00	
Recorder	0.00	8018	Inside	3681.00	
Recorder	0.00	8700	Outside	3681.00	
Perforations	17.00			3698.00	
Recorder	3.00			3701.00	21.00 Bottom Packers & Anchor
Total Tool Length:	42.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co Inc

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

Gartrell #1

Job Ticket: 62655

DST#: 4

ATTN: Shane Vehige, Jeff La

Test Start: 2015.08.13 @ 09:41:02

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: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	HOCM 25% O 75% M	0.025
0.00	w / show of clean oil on top of tool	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

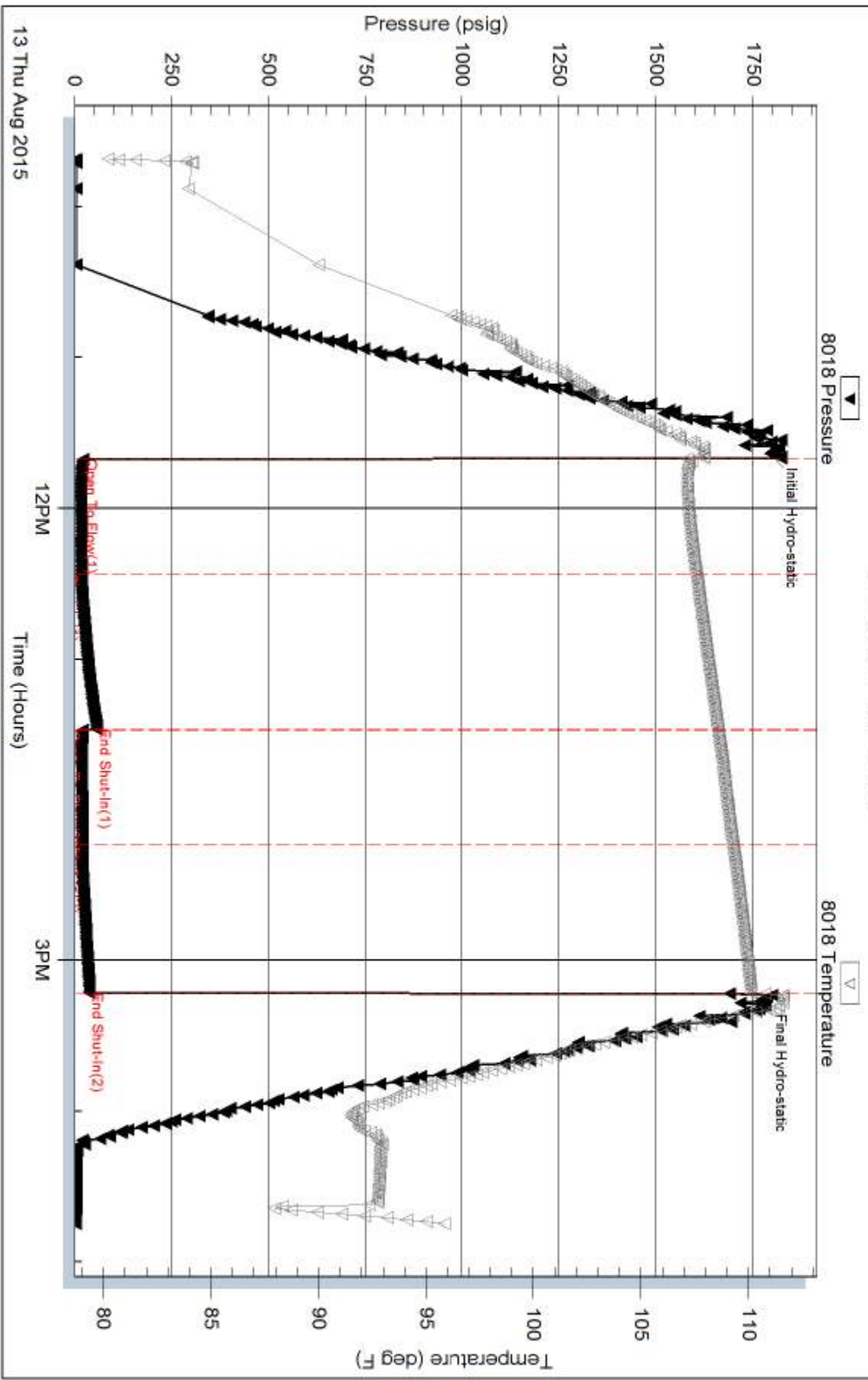
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

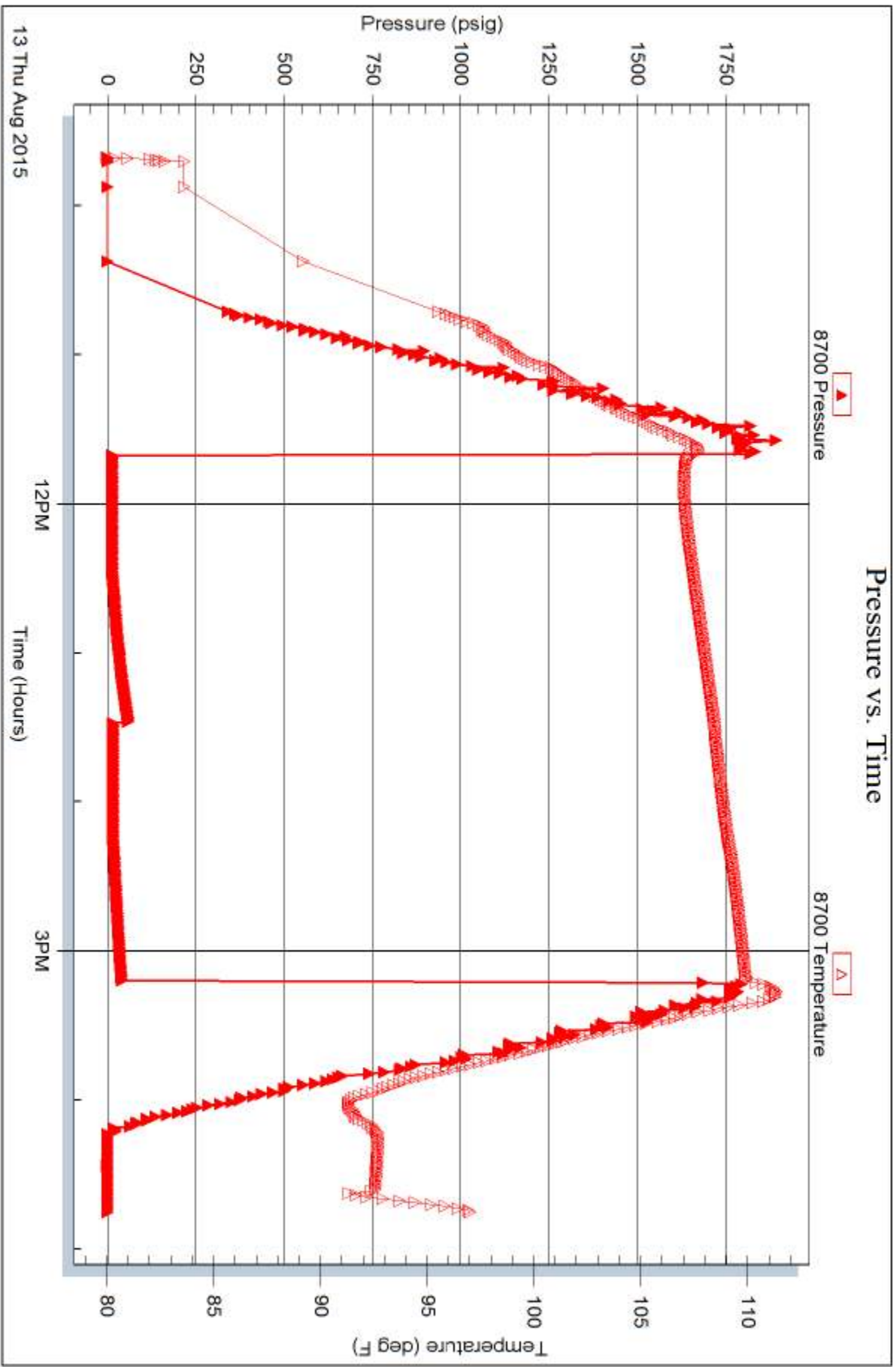


Serial #: 8700

Outside Jasper Co Inc

Gartrell #1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62652

Well Name & No. GARTRELL #1 Test No. 1 Date 8-11-15
 Company Jasper Co. Inc Elevation 2230 KB 2222 GL
 Address PO Box 1120 HAYS, Ks 67601, 1681 Limestone Road South
 Co. Rep / Geo. Jeff Lawlee Rig WW rig 12
 Location: Sec. 21 Twp. 6^s Rge. 20^w Co. Rooks State Ks

Interval Tested 3420-3470 Zone Tested TORONTO-LKC A
 Anchor Length 50 Drill Pipe Run 3292 Mud Wt. 8.7
 Top Packer Depth 3415 Drill Collars Run 120 Vis 54
 Bottom Packer Depth 3420 Wt. Pipe Run - WL 8
 Total Depth 3470 Chlorides 700 ppm System LCM 2#

Blow Description IFP - WEAK TO STRONG IN 4 MIN
ISIP - 3" Blow Back
FFP - WEAK TO STRONG IN 3 1/2 MIN
FSIP - 3" Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>700</u>	<u>GIP</u>				
<u>124</u>	<u>GMO</u>	<u>40</u>	<u>50</u>		<u>10</u>
<u>62</u>	<u>CO</u>				
<u>105</u>	<u>MGO</u>	<u>20</u>	<u>60</u>		<u>20</u>

Rec Total 291 BHT 112 Gravity 35 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1659 Test 1050 T-On Location 0230
 (B) First Initial Flow 62 Jars - T-Started 0355
 (C) First Final Flow 125 Safety Joint - T-Open 0605
 (D) Initial Shut-In 1112 Circ Sub - T-Pulled 0805
 (E) Second Initial Flow 139 Hourly Standby - T-Out 1009

(F) Second Final Flow 174 Mileage 122 RT Comments SLD Tool APPROX 6' TO
 (G) Final Shut-In 1074 Sampler - Bottom
 (H) Final Hydrostatic 1637 Straddle - Ruined Shale Packer -
 Shale Packer - Ruined Packer -
 Extra Packer - Extra Copies -
 Extra Recorder - Sub Total 0
 Day Standby - Total 1172
 Accessibility - MP/DST Disc't -

Initial Open 15
 Initial Shut-In 45
 Final Flow 15
 Final Shut-In 45
 Sub Total 1172

Approved By _____ Our Representative Ray Schwager Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62653

Well Name & No. GARTRELL #1 Test No. 2 Date 8-11-15
 Company JASPAR Co, Inc Elevation 2230 KB 2222 GL
 Address PO Box 1120 Hays, Ks 67601
 Co. Rep / Geo. Jeff Lawler Rig WW rig/2
 Location: Sec. 21 Twp. 6^s Rge. 20^w Co. Rooks State Ks

Interval Tested 3480-3525 Zone Tested LKC C-D
 Anchor Length 45 Drill Pipe Run 3351 Mud Wt. 9.1
 Top Packer Depth 3475 Drill Collars Run 120 Vis 53
 Bottom Packer Depth 3480 Wt. Pipe Run - WL 8
 Total Depth 3525 Chlorides 700 ppm System LCM 2#

Blow Description IFP - WEAK TO A FAIR BLOW 1/4" TO 1/2" BLOW
ISIP - NO BLOW
FFP - NO BLOW 1st 5 MIN, THEN WEAK THROUGH, SURFACE TO 2" BLOW
FSTIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Mud w/slow of air</u>				
<u>124</u>	<u>MW</u>			<u>80</u>	<u>20</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 169 BHT 111 Gravity - API RW 16 @ 60 ° F Chlorides 54000 ppm

(A) Initial Hydrostatic 1661 Test 1050 T-On Location 1710
 (B) First Initial Flow 23 Jars 1740
 (C) First Final Flow 74 Safety Joint 1940
 (D) Initial Shut-In 807 Circ Sub 2225
 (E) Second Initial Flow 79 Hourly Standby 0615
 (F) Second Final Flow 95 Mileage 122 Comments Slid Tool approx 5' to
 (G) Final Shut-In 797 Sampler Bottom
 (H) Final Hydrostatic 1655 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies 0
 Extra Recorder

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 60
 Sub Total 1172
 Total 1172
 MP/DST Disc't _____

Approved By _____ Our Representative Ray Schwager Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62654

Well Name & No. GARTRELL #1 Test No. 3 Date 8-12-15
 Company JASPAR Co. Inc Elevation 2230 KB 2222 GL
 Address PO Box 1120 HAYS, Ks 67601
 Co. Rep / Geo. JEFF LAWLER Rig WW1912
 Location: Sec. 21 Twp. 6^s Rge. 20^w Co. Rooks State Ks

Interval Tested 3524-3552 Zone Tested LKC E-F
 Anchor Length 28 Drill Pipe Run 3414 Mud Wt. 9.1
 Top Packer Depth 3519 Drill Collars Run 120 Vis 57
 Bottom Packer Depth 3524 Wt. Pipe Run — WL 8
 Total Depth 3552 Chlorides 700 ppm System LCM 2#

Blow Description IFP - WEAK TO STRONG IN 18 MIN
ISIP - NO BLOW
FFP - WEAK TO STRONG IN 25 MIN
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>248</u>	<u>WATER</u>				
<u>120</u>	<u>MW w/show of oil</u>				
<u>15</u>	<u>SOC MW</u>		<u>2</u>	<u>48</u>	<u>40</u>

Rec Total 383 BHT 115 Gravity — API RW .08 @ 85 ° F Chlorides 77000 ppm

(A) Initial Hydrostatic 1707 Test 1050 T-On Location 0700
 (B) First Initial Flow 25 Jars _____ T-Started 0730
 (C) First Final Flow 124 Safety Joint _____ T-Open 0915
 (D) Initial Shut-In 794 Circ Sub _____ T-Pulled 1215
 (E) Second Initial Flow 132 Hourly Standby _____ T-Out 1411
 (F) Second Final Flow 217 Mileage 122 Comments _____
 (G) Final Shut-In 784 Sampler _____
 (H) Final Hydrostatic 1683 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 45 Shale Packer _____ Ruined Packer _____
 Final Flow 45 Extra Packer _____ Extra Copies _____
 Final Shut-In 60 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1172
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1172

Approved By _____ Our Representative RAY SCHWAGA Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62655

Well Name & No. GARTRELL #1 Test No. 4 Date 8-13-15
 Company JASPAR ED Inc Elevation 2230 KB 2222 GL
 Address PO Box 1120 HAYS, Ks 67601
 Co. Rep / Geo. Jeff Lawler Rig WW rig 12
 Location: Sec. 21 Twp. 6^s Rge. 20^w Co. Rooks State Ks

Interval Tested 3680-3701 Zone Tested Arbuckle
 Anchor Length 21 Drill Pipe Run 3571 Mud Wt. 9.1
 Top Packer Depth 3675 Drill Collars Run 120 Vis 51
 Bottom Packer Depth 3680 Wt. Pipe Run — WL 8
 Total Depth 3701 Chlorides 200 ppm System LCM 2#
 Blow Description IIFP - SURFACE Blow, died in 28 min
ISIP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>HOCM</u>	<u>25</u>		<u>25</u>	
	<u>w/show of CO on Top of Tool</u>				

Rec Total 5 BHT 110 Gravity — API RW — @ — °F Chlorides — ppm
 (A) Initial Hydrostatic 1794 Test 1050 T-On Location 0905
 (B) First Initial Flow 23 Jars — T-Started 0940
 (C) First Final Flow 17 Safety Joint — T-Open 1140
 (D) Initial Shut-In 58 Circ Sub — T-Pulled 1510
 (E) Second Initial Flow 20 Hourly Standby — T-Out 1644
 (F) Second Final Flow 19 Mileage 122 Comments —
 (G) Final Shut-In 38 Sampler —
 (H) Final Hydrostatic 1766 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Initial Open 45 Extra Recorder — Sub Total 0
 Initial Shut-In 60 Day Standby — Total 1172
 Final Flow 45 Accessibility — MP/DST Disc't —
 Final Shut-In 60 Sub Total 1172

Approved By _____ Our Representative RAY SCHWAGER *Thank you*
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.