



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

SGA Inc.
1515 Wykoop
STE 700
Denver Co 80202
ATTN: Clayton Camozzi

12-4S-36W Rawlins KS

Fisher Cattle #1-12

Job Ticket: 60024 **DST#: 3**
Test Start: 2014.10.02 @ 15:43:00

GENERAL INFORMATION:

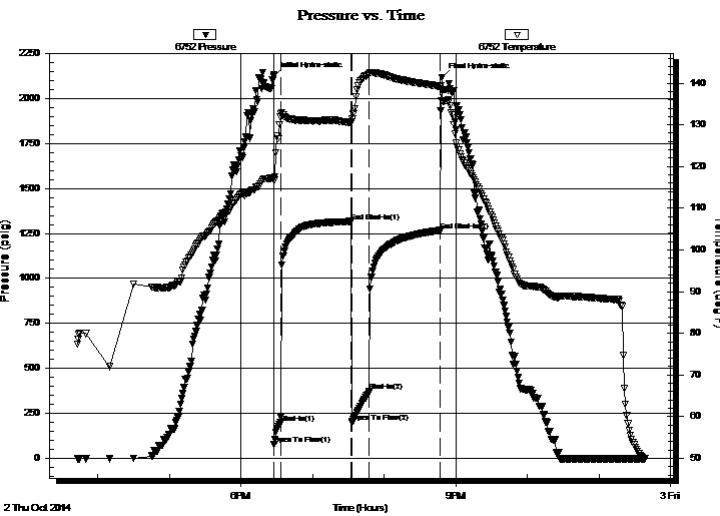
Formation: **LKC " F - G "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:27:45
 Time Test Ended: 23:38:15
 Interval: **4260.00 ft (KB) To 4317.00 ft (KB) (TVD)**
 Total Depth: 4317.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Nichols
 Unit No: 78
 Reference Elevations: 3295.00 ft (KB)
 3290.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press@RunDepth: 370.70 psig @ 4261.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.10.02 End Date: 2014.10.02 Last Calib.: 2014.10.02
 Start Time: 15:43:05 End Time: 23:38:14 Time On Btm: 2014.10.02 @ 18:27:30
 Time Off Btm: 2014.10.02 @ 20:48:15

TEST COMMENT: 5 IF - 1" blow built to BoB @ 3 mins
 60 ISI - No return
 15 FF - Surface blow built to BoB @ 3 mins
 60 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2123.19	117.21	Initial Hydro-static
1	77.40	116.69	Open To Flow (1)
6	197.15	131.85	Shut-In(1)
65	1316.72	130.47	End Shut-In(1)
66	199.77	130.73	Open To Flow (2)
80	370.70	142.30	Shut-In(2)
140	1266.97	139.15	End Shut-In(2)
141	2117.36	135.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MCW - 35%M - 65%W	0.30
632.00	MCW - 10%M - 90%W	7.74
72.00	MCW - 50%M - 50%W	1.01

* Recovery from multiple tests

Gas Rates

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



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Job Ticket: 60024 **DST#: 3**
Test Start: 2014.10.02 @ 15:43:00

GENERAL INFORMATION:

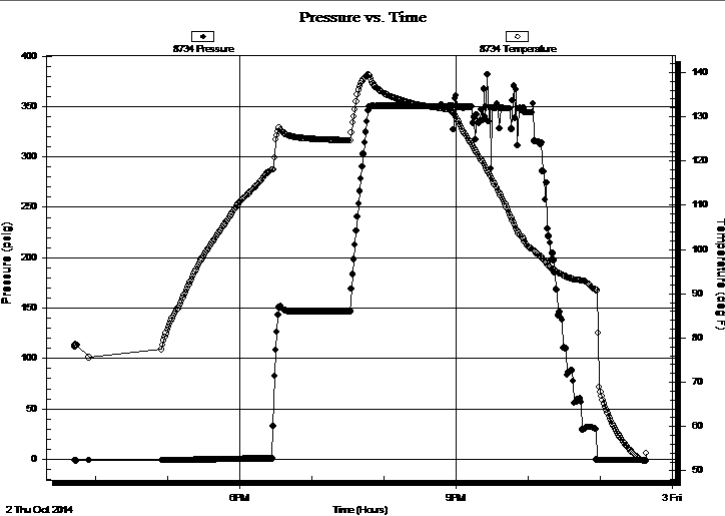
Formation: **LKC " F - G "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:27:45
Time Test Ended: 23:38:15
Interval: **4260.00 ft (KB) To 4317.00 ft (KB) (TVD)**
Total Depth: 4317.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 3295.00 ft (KB)
3290.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Ryan Nichols
Unit No: 78

Serial #: 8734

Fluid

Press@RunDepth: psig @ 4227.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.10.02 End Date: 2014.10.02 Last Calib.: 2014.10.02
Start Time: 15:43:01 End Time: 23:38:10 Time On Btm:
Time Off Btm:

TEST COMMENT: 5 IF - 1" blow built to BoB @ 3 mins
60 ISI - No return
15 FF - Surface blow built to BoB @ 3 mins
60 FSI - No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MCW - 35%M - 65%W	0.30
632.00	MCW - 10%M - 90%W	7.74
72.00	MCW - 50%M - 50%W	1.01

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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1515 Wykoop
STE 700
Denver Co 80202
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12-4S-36W Rawlins KS
Fisher Cattle #1-12
Job Ticket: 60024 **DST#: 3**
Test Start: 2014.10.02 @ 15:43:00

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:	29000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	MCW - 35%M - 65%W	0.305
632.00	MCW - 10%M - 90%W	7.736
72.00	MCW - 50%M - 50%W	1.010

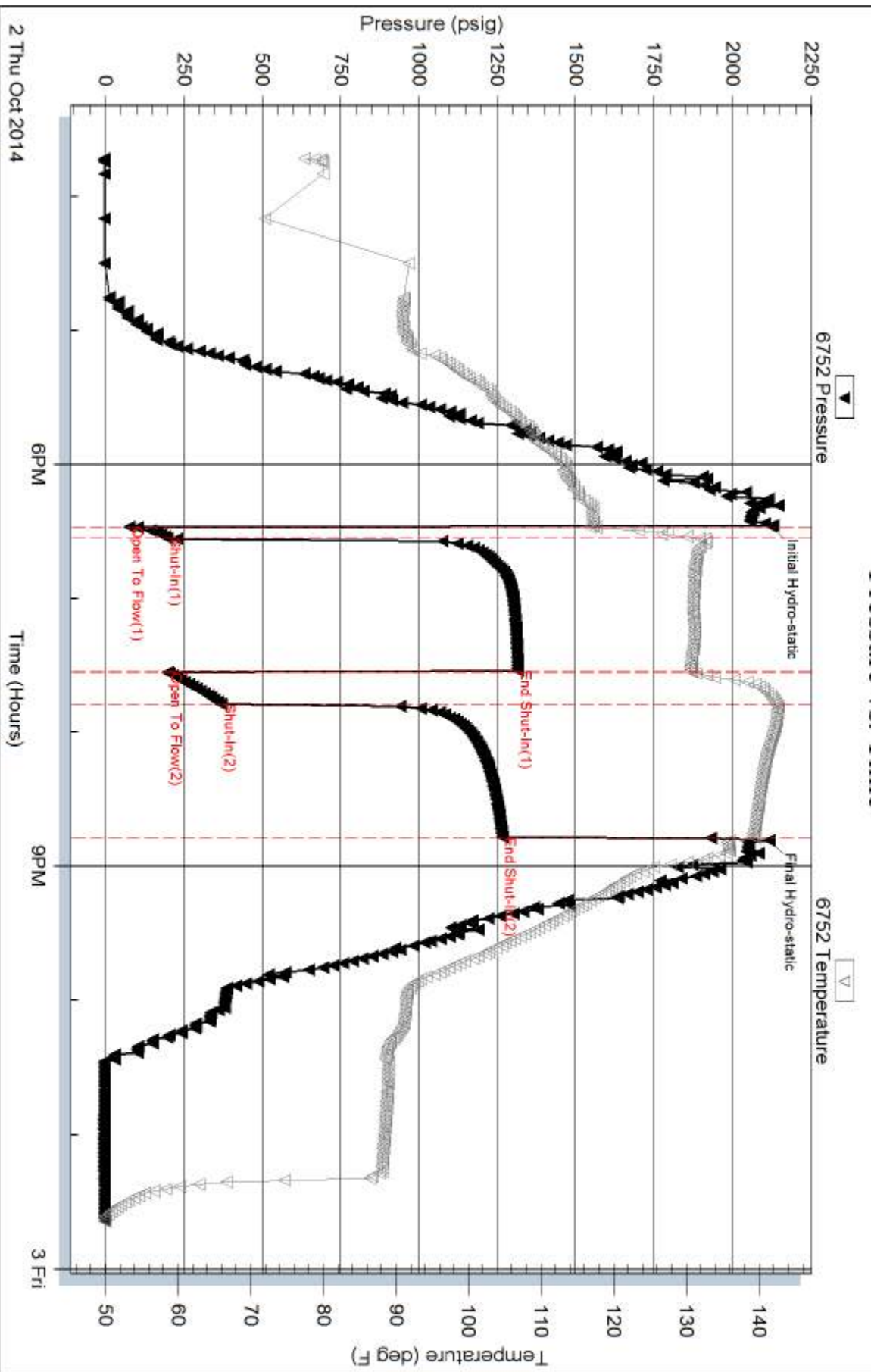
Total Length: 766.00 ft Total Volume: 9.051 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Sampler = 2000ml W - 2000ml total - 210 PSI
RW = .310 @ 55 DEG F
CHLORIDES = 29,000 ppm

Pressure vs. Time



Serial #: 8734

Fluid

SGA Inc.

Fisher Cattle #1-12

DST Test Number: 3

