



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

GAS RATES

B5 Operating LLC

10-33S-3W Sumner,KS

P.O. Box 45
Wellington, KS 67152

Simons Brothers #3

Job Ticket: 63094

DST#: 2

ATTN: Mitch Bartelson/Kevi

Test Start: 2017.01.07 @ 11:30:00

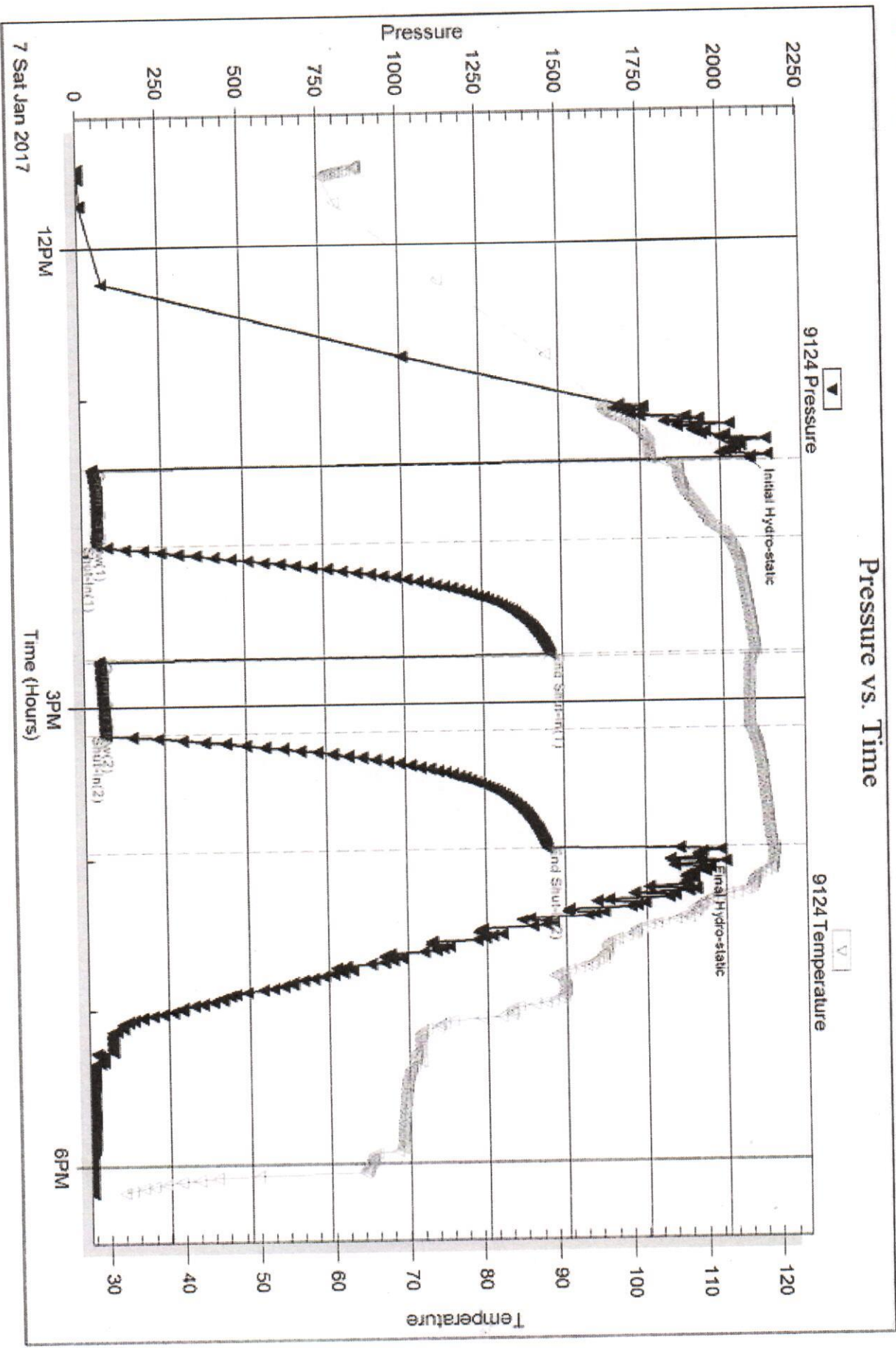
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	22	0.13	13.00	10.26
2	27	0.13	13.00	10.26
2	30	0.13	13.00	10.26

Pressure vs. Time



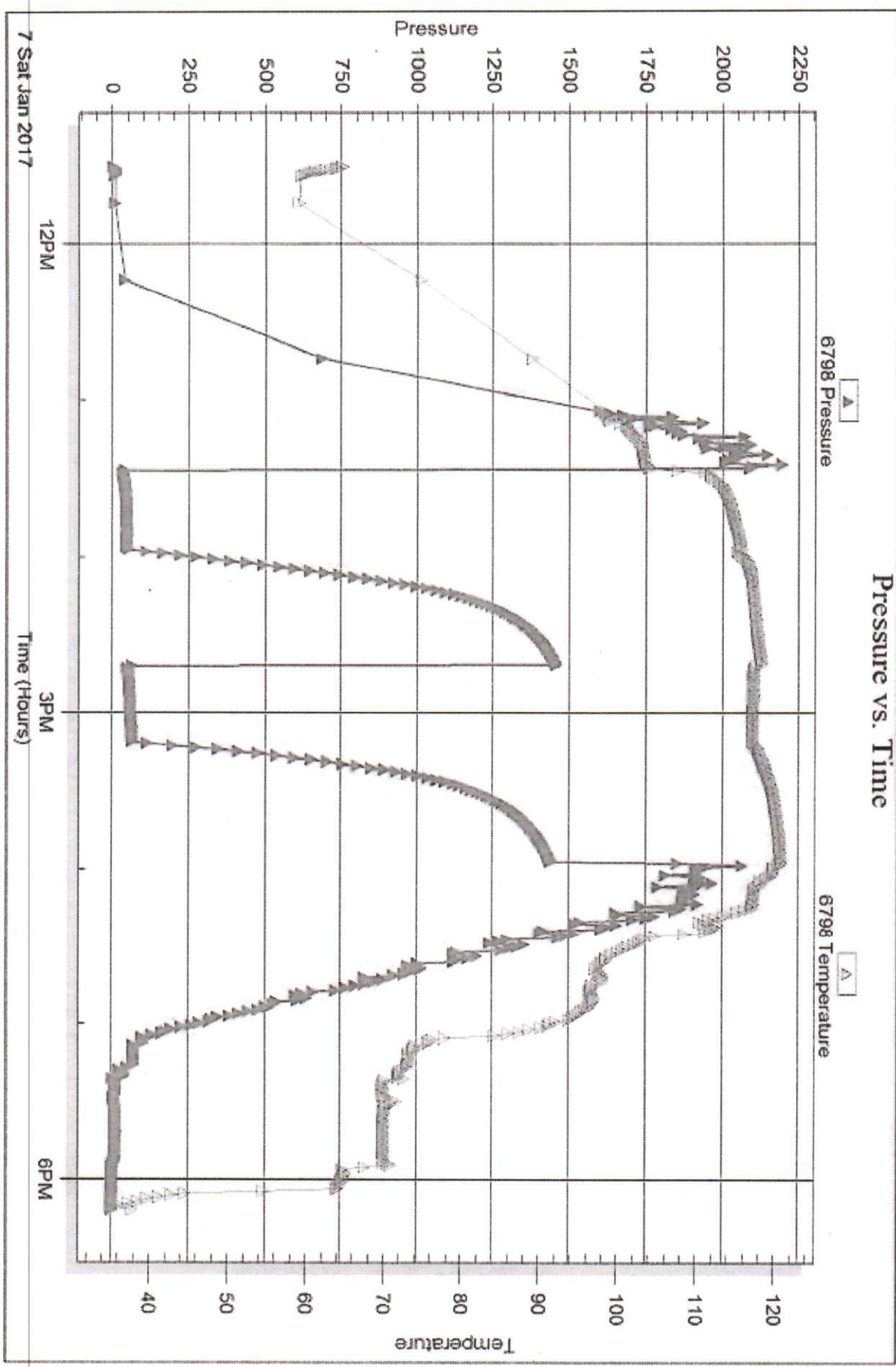
Serial #: 6798

Inside

BS Operating LLC

Simons Brothers #3

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 63094

Printed: 2017 01 12 @ 09:41:58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

B5 Operating LLC

10-33S-3W Sumner,KS

P.O. Box 45
Wellington, KS 67152

Simons Brothers #3

Job Ticket: 63095

DST#: 3

ATTN: Mitch Bartelson/Kevi

Test Start: 2017.01.08 @ 01:23:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:11:15

Time Test Ended: 07:39:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 80

Interval: **4004.00 ft (KB) To 4012.00 ft (KB) (TVD)**

Reference Elevations: 1174.00 ft (KB)

Total Depth: 4012.00 ft (KB) (TVD)

1169.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 9124

Outside

Press@RunDepth: 104.21 psig @ 4005.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.01.08

End Date:

2017.01.08

Last Calib.: 2017.01.08

Start Time: 01:23:05

End Time:

07:38:59

Time On Btm: 2017.01.08 @ 03:09:45

Time Off Btm: 2017.01.08 @ 05:44:00

TEST COMMENT:

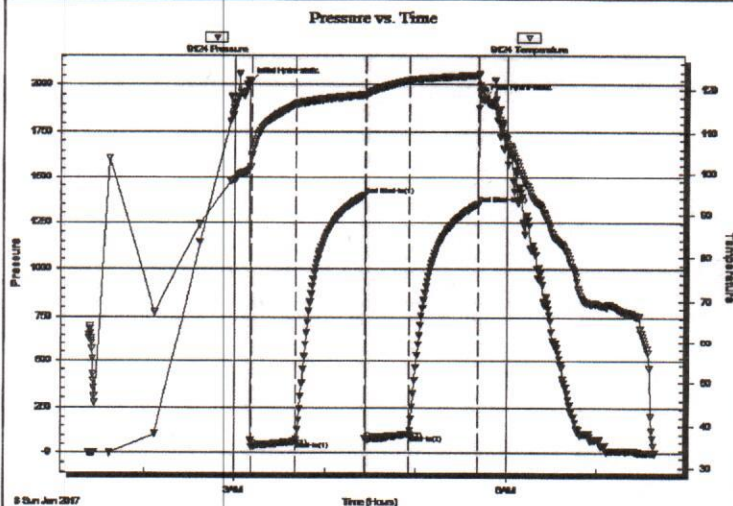
IF - BOB in less than a minute.

IS - 10" blow back

FF - Weak blow building to strong blow 2 minutes

FS - Strong blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2013.70	101.01	Initial Hydro-static
2	33.61	104.17	Open To Flow (1)
31	64.27	116.61	Shut-In(1)
77	1397.16	118.73	End Shut-In(1)
77	77.85	118.46	Open To Flow (2)
106	104.21	122.09	Shut-In(2)
152	1350.17	123.30	End Shut-In(2)
155	1925.65	119.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	SMCW 97%W 3%M	0.62
90.00	GOWCM 10%G 9%O 20%W 61%M	1.26
0.00	1910' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

B5 Operating LLC

10-33S-3W Sumner,KS

P.O. Box 45
Wellington, KS 67152

Simons Brothers #3

Job Ticket: 63095

DST#: 3

ATTN: Mitch Bartelson/Kevi

Test Start: 2017.01.08 @ 01:23:00

Tool Information

Drill Pipe:	Length: 3866.00 ft	Diameter: 3.80 inches	Volume: 54.23 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 54.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4004.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	36.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3977.00	
Shut In Tool	5.00			3982.00	
Hydraulic tool	5.00			3987.00	
Jars	5.00			3992.00	
Safety Joint	3.00			3995.00	
Packer	4.00			3999.00	28.00 Bottom Of Top Packer
Packer	5.00			4004.00	
Stubb	1.00			4005.00	
Recorder	0.00	9124	Outside	4005.00	
Recorder	0.00	6798	Inside	4005.00	
Perforations	5.00			4010.00	
Bullnose	2.00			4012.00	8.00 Bottom Packers & Anchor

Total Tool Length: 36.00



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FLUID SUMMARY

B5 Operating LLC

10-33S-3W Sumner,KS

P.O. Box 45
Wellington, KS 67152

Simons Brothers #3

Job Ticket: 63095

DST#: 3

ATTN: Mitch Bartelson/Kevi

Test Start: 2017.01.08 @ 01:23:00

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:	160000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.37 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	SMCW 97%W 3%M	0.617
90.00	GOWCM 10%G 9%O 20%W 61%M	1.262
0.00	1910' GIP	0.000

Total Length: 210.00 ft Total Volume: 1.879 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

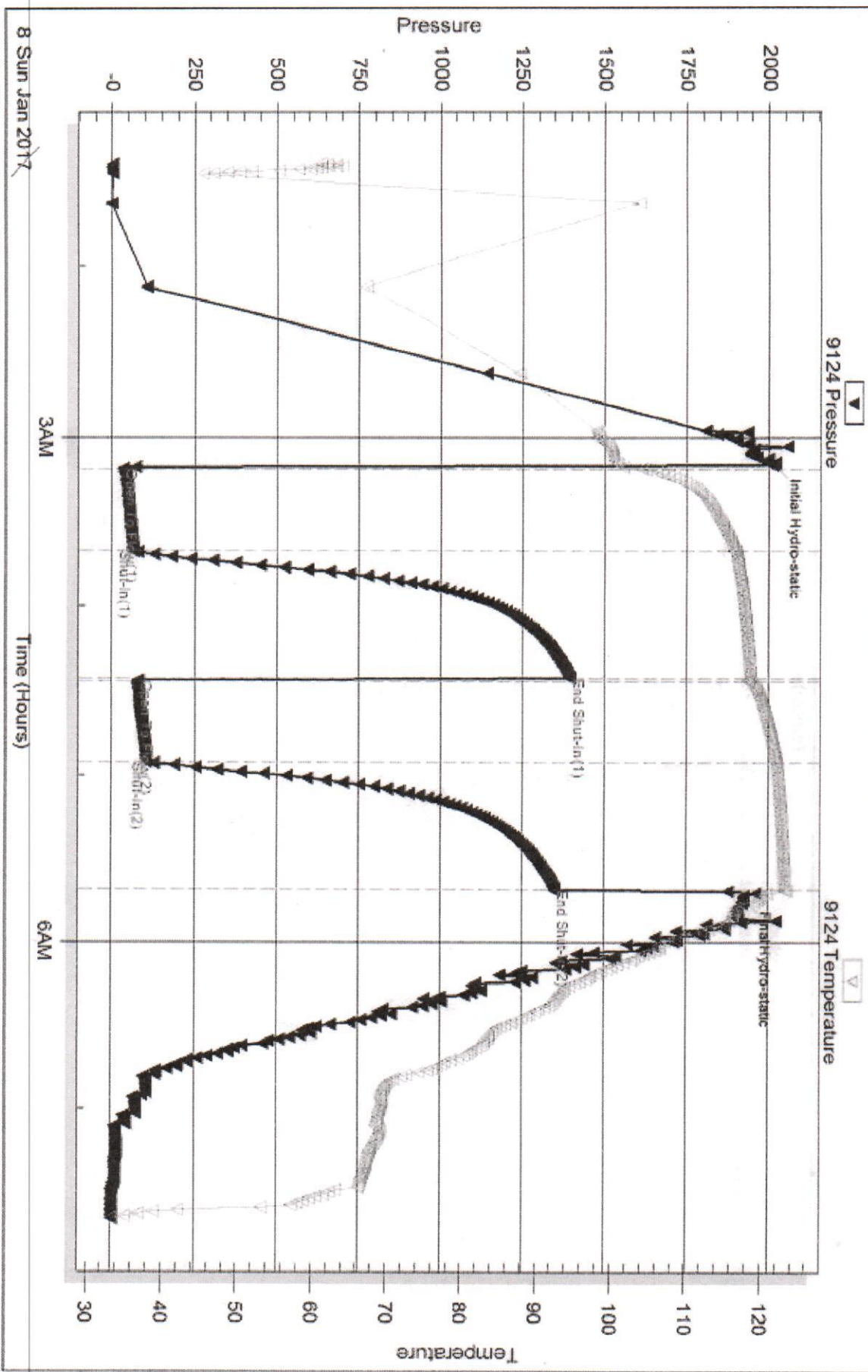
Serial #:

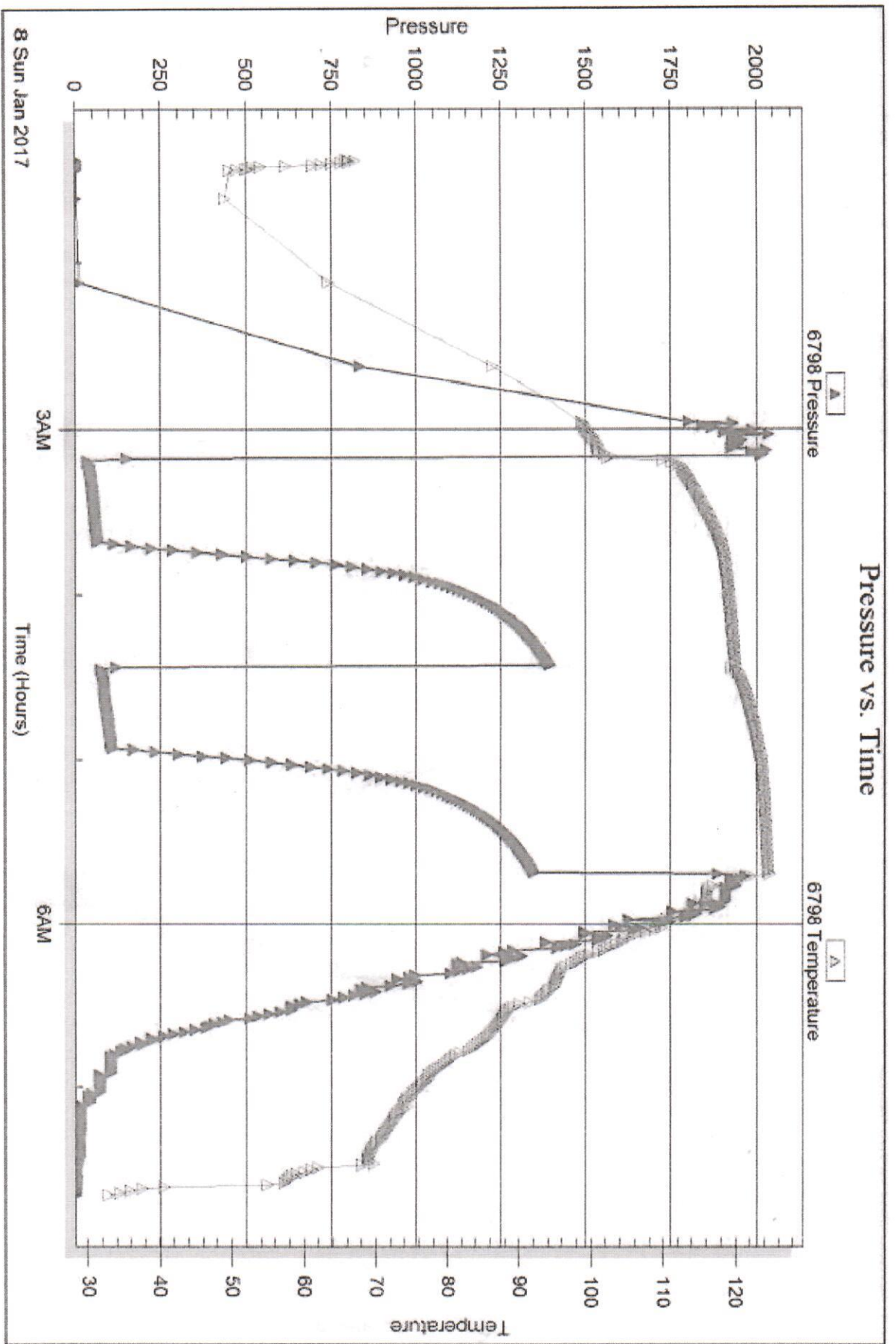
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







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DRILL STEM TEST REPORT

B5 Operating LLC

10-33S-3W Sumner,KS

P.O. Box 45
Wellington, KS 67152

Simons Brothers #3

Job Ticket: 63096

DST#: 4

ATTN: Mitch Bartelson/Kevi

Test Start: 2017.01.09 @ 20:21:00

GENERAL INFORMATION:

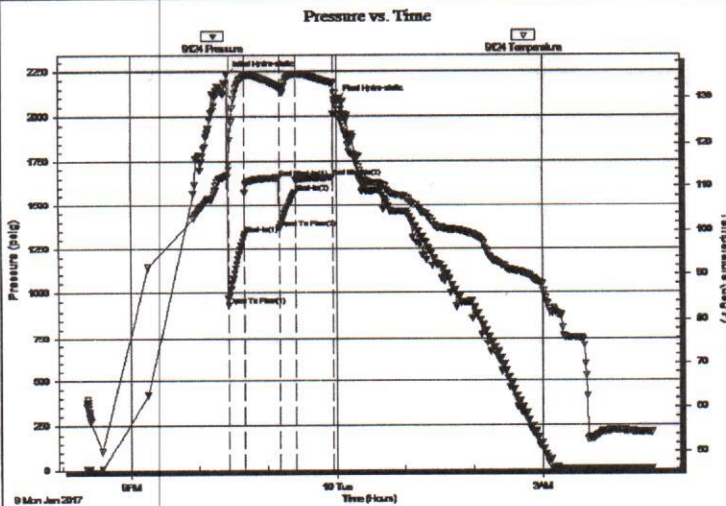
Formation: **Simpson sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:25:45
 Time Test Ended: 04:36:45
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jimmy Ricketts
 Unit No: 80
 Interval: **4360.00 ft (KB) To 4456.00 ft (KB) (TVD)**
 Reference Elevations: 1174.00 ft (KB)
 Total Depth: 4456.00 ft (KB) (TVD)
 1169.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 9124

Outside

Press@RunDepth: 1571.60 psig @ 4361.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.01.09 End Date: 2017.01.10 Last Calib.: 2017.01.09
 Start Time: 20:21:05 End Time: 04:36:44 Time On Btm: 2017.01.09 @ 22:24:15
 Time Off Btm: 2017.01.10 @ 00:00:30

TEST COMMENT: IF - Strong blow throughout initial flow period.
 FF - Strong blow throughout final flow period.
 FS - Strong blow back during final shut-in period.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.70	112.78	Initial Hydro-static
2	930.44	114.15	Open To Flow (1)
16	1330.95	134.99	Shut-In(1)
46	1654.79	132.46	End Shut-In(1)
47	1365.55	132.31	Open To Flow (2)
61	1571.60	135.24	Shut-In(2)
93	1657.36	133.22	End Shut-In(2)
97	2088.01	126.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2320.00	SW 100%W	31.48
250.00	MCW 88%W 12%M	3.51
250.00	GWM 5%G 40%W 55%M	3.51
380.00	GWCM 6%G 12%W 82%M	5.33

Gas Rates

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