



DRILL STEM TEST REPORT

Prepared For: **ROYAL ENERGY INC.**

402 CEDAR STREET
MEADE, KANSAS 67864

ATTN: JEFF BURK

YOUNG 31

7-26S-13W PRATT

Start Date: 2017.01.10 @ 11:30:00

End Date: 2017.01.10 @ 00:00:00

Job Ticket #: 01142 DST #: 2

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2017.01.10 @ 18:13:37



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ROYAL ENERGY INC.
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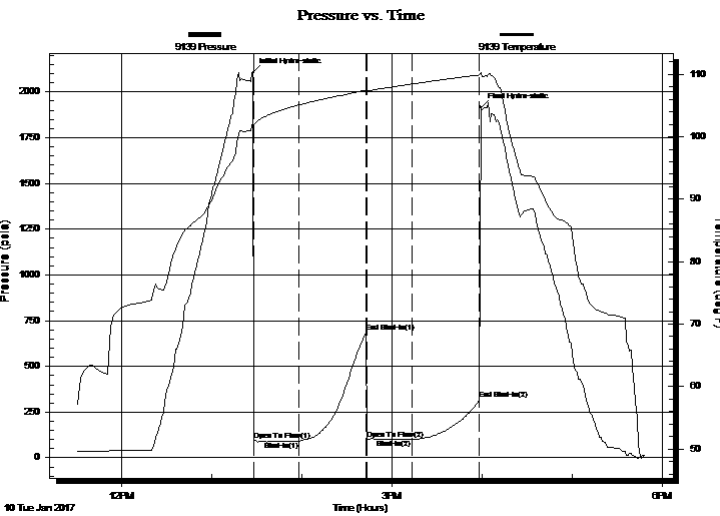
7-26S-13W PRATT
YOUNG 31
 Job Ticket: 01142 **DST#: 2**
 Test Start: 2017.01.10 @ 11:30:00

GENERAL INFORMATION:

Formation: **LANSING 'H-I'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:23:00
 Time Test Ended: 00:00:00
 Interval: **3939.00 ft (KB) To 3970.00 ft (KB) (TVD)**
 Total Depth: 3970.00 ft (KB) (TVD)
 Hole Diameter: 7.86 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: GENE BUDIG
 Unit No: 1
 Reference Elevations: 1970.00 ft (KB)
 1960.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 9139 Outside
 Press@RunDepth: 318.77 psia @ 3965.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2017.01.10 End Date: 2017.01.10 Last Calib.: 2017.01.10
 Start Time: 11:30:00 End Time: 17:48:00 Time On Btm: 2017.01.10 @ 13:27:30
 Time Off Btm: 2017.01.10 @ 15:59:00

TEST COMMENT: 1st OPENING 30 MINUTES WEAK BLOW BUILT TO 1 1/2 INCHES
 1ST SHUT-IN 45 MINUTES NO BLOW BACK
 2ND OPENING 30 MINUTES WEAK BLOW BUILT TO 2 INCHES DECREASED AND DIED IN 15 MINUTES
 2ND SHUT-IN 45 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2104.71	102.13	Initial Hydro-static
1	94.18	101.86	Open To Flow (1)
31	90.82	105.08	Shut-In(1)
76	685.25	107.43	End Shut-In(1)
76	101.55	107.31	Open To Flow (2)
106	98.83	108.43	Shut-In(2)
151	318.77	109.90	End Shut-In(2)
152	1916.41	110.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	MUD WITH A TRACE OF OIL	0.98
0.00	TRACE OIL 70 MUD 30 WATER	0.00
0.00	CHLORIUDES 64,000	0.00

Gas Rates

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



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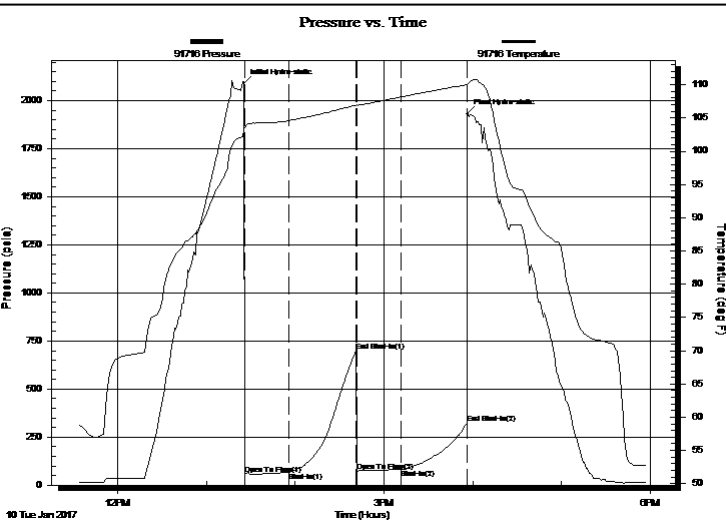
7-26S-13W PRATT
YOUNG 31
Job Ticket: 01142 **DST#: 2**
Test Start: 2017.01.10 @ 11:30:00

GENERAL INFORMATION:

Formation: **LANSING 'H-I'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 13:23:00 Tester: GENE BUDIG
 Time Test Ended: 00:00:00 Unit No: 1
 Interval: **3939.00 ft (KB) To 3970.00 ft (KB) (TVD)**
 Reference Elevations: 1970.00 ft (KB)
 Total Depth: 3970.00 ft (KB) (TVD) 1960.00 ft (CF)
 Hole Diameter: 7.86 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 91716 Inside
 Press@RunDepth: 323.40 psia @ 3965.00 ft (KB) Capacity: psia
 Start Date: 2017.01.10 End Date: 2017.01.10 Last Calib.: 1899.12.30
 Start Time: 11:30:00 End Time: 17:58:00 Time On Btm: 2017.01.10 @ 13:25:30
 Time Off Btm: 2017.01.10 @ 15:56:30

TEST COMMENT: 1st OPENING 30 MINUTES WEAK BLOW BUILT TO 1 1/2 INCHES
 1ST SHUT-IN 45 MINUTES NO BLOW BACK
 2ND OPENING 30 MINUTES WEAK BLOW BUILT TO 2 INCHES DECREASED AND DIED IN 15 MINUTES
 2ND SHUT-IN 45 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2089.39	103.17	Initial Hydro-static
1	57.04	103.56	Open To Flow (1)
31	66.80	104.61	Shut-In(1)
76	695.82	106.92	End Shut-In(1)
76	70.01	106.94	Open To Flow (2)
106	80.98	108.15	Shut-In(2)
151	323.40	110.01	End Shut-In(2)
151	1931.33	110.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	MUD WITH A TRACE OF OIL	0.98
0.00	TRACE OIL 70 MUD 30 WATER	0.00
0.00	CHLORIUDES 64,000	0.00

Gas Rates

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



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TOOL DIAGRAM

ROYAL ENERGY INC.
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7-26S-13W PRATT
 YOUNG 31
 Job Ticket: 01142 **DST#: 2**
 Test Start: 2017.01.10 @ 11:30:00

Tool Information

Drill Pipe:	Length: 3929.00 ft	Diameter: 3.80 inches	Volume: 55.11 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: 54000.00 lb
			<u>Total Volume: 55.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3939.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3915.00	
Hydraulic tool	5.00			3920.00	
Jars	7.00			3927.00	
Safety Joint	2.00		Fluid	3929.00	
Top Packer	5.00			3934.00	
Packer	5.00			3939.00	29.00 Bottom Of Top Packer
Anchor	26.00			3965.00	
Recorder	0.00	91716	Inside	3965.00	
Recorder	0.00	9139	Outside	3965.00	
Bullnose	5.00			3970.00	31.00 Anchor Tool
Total Tool Length:	60.00				



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FLUID SUMMARY

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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: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 14000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	MUD WITH A TRACE OF OIL	0.982
0.00	TRACE OIL 70 MUD 30 WATER	0.000
0.00	CHLORIDES 64,000	0.000

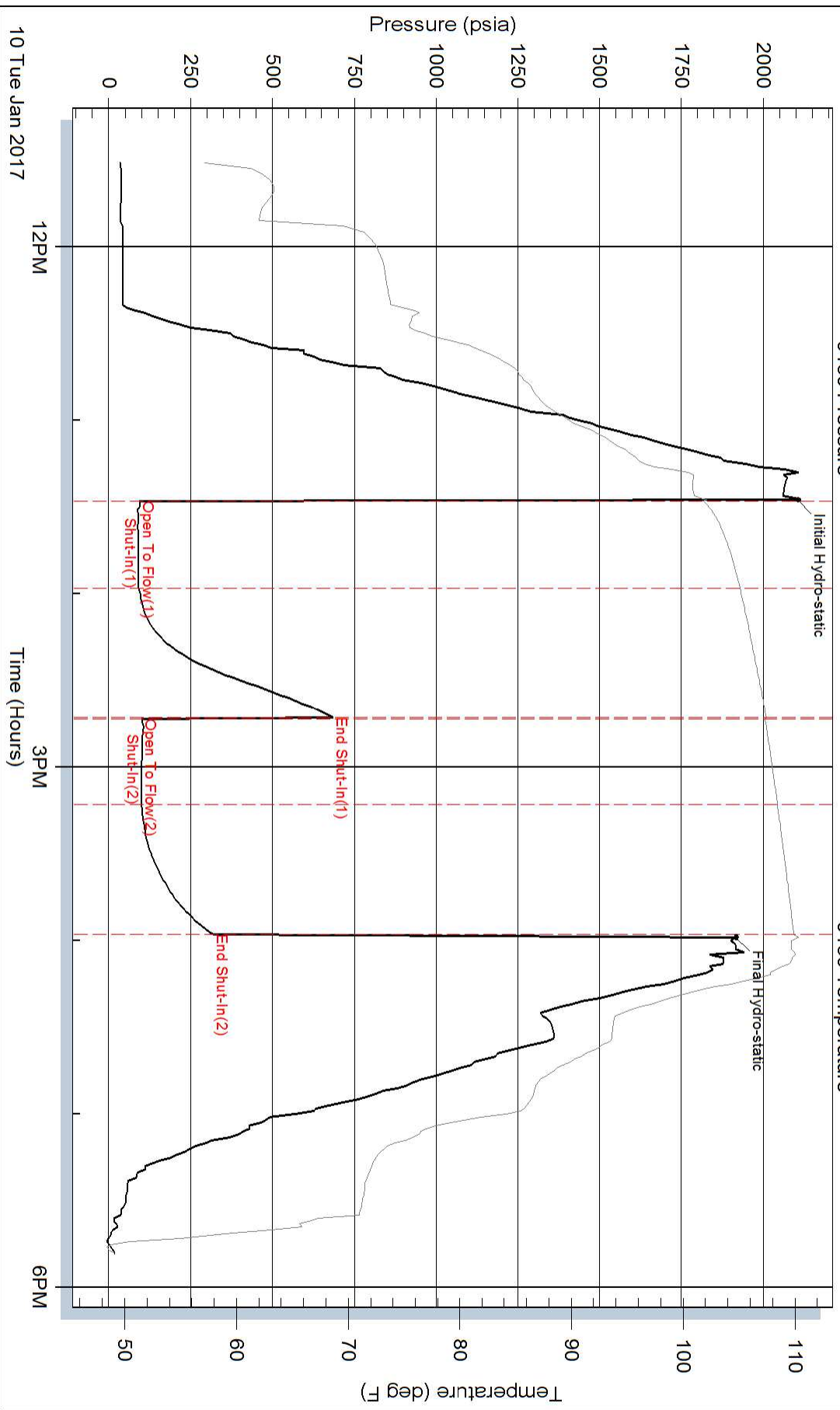
Total Length: 70.00 ft Total Volume: 0.982 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

