



DRILL STEM TEST REPORT

Prepared For: **Valhalla Exploratoin LLC.**

8100 East 22nd St. N BLDG.
1800-2 Wichita Kansas
67226

ATTN: Adam Nighswonger

Hullman 1-14

14-22s-13w-Stafford

Start Date: 2013.10.30 @ 10:16:00

End Date: 2013.10.30 @ 16:34:00

Job Ticket #: 18529 DST #: 2

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

Printed: 2013.10.30 @ 14:57:52



DRILL STEM TEST REPORT

Valhalla Exploratoin LLC.

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ATTN: Adam Nighswonger

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Job Ticket: 18529

DST#: 2

Test Start: 2013.10.30 @ 10:16:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:43:30

Time Test Ended: 16:34:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-35

Interval: 3730.00 ft (KB) To 3802.00 ft (KB) (TVD)

Reference Elevations: 1897.00 ft (KB)

Total Depth: 3802.00 ft (KB) (TVD)

1889.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6839 Outside

Press @ RunDepth: 418.18 psia @ 3799.49 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.10.30

End Date: 2013.10.30

Last Calib.: 2013.10.30

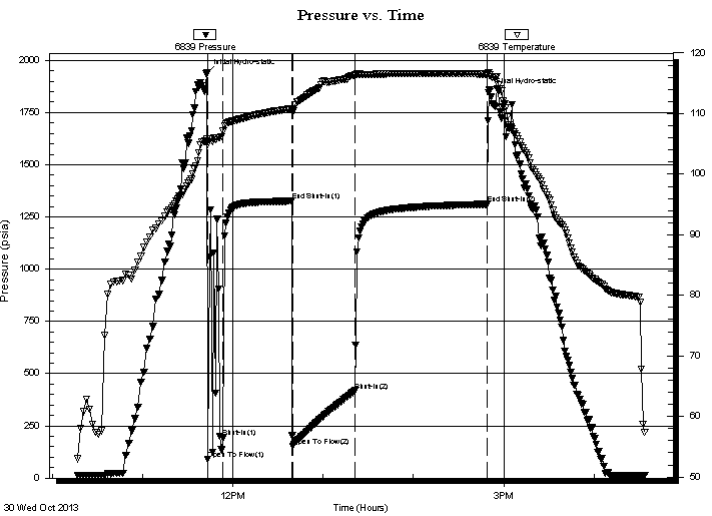
Start Time: 10:17:00

End Time: 16:34:00

Time On Btm: 2013.10.30 @ 11:43:00

Time Off Btm: 2013.10.30 @ 14:50:00

TEST COMMENT: 1st Open 10 minutes Good building blow built to 9.5 inches
1st Shut in 45 minutes No blow back
2nd Open 45 minutes Strong building blow blew off bottom bucket in 7.5 minutes.
2nd Shut in 90 minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1938.33	105.77	Initial Hydro-static
1	89.70	104.84	Open To Flow (1)
11	193.53	107.07	Shut-In(1)
56	1325.90	110.81	End Shut-In(1)
57	153.35	110.50	Open To Flow (2)
98	418.18	116.32	Shut-In(2)
186	1311.34	116.53	End Shut-In(2)
187	1844.86	116.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
366.00	Very slighty oil spotted mud mud100%	5.13
427.00	Very slighty oil spotted w ater	5.99
0.00	Water 100%	0.00
0.00	Chlorides 29,000 .2ohms @56degrees	0.00

Gas Rates

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



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Hullman 1-14

Job Ticket: 18529 **DST#: 2**
Test Start: 2013.10.30 @ 10:16:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:43:30

Time Test Ended: 16:34:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-35

Interval: 3730.00 ft (KB) To 3802.00 ft (KB) (TVD)

Reference Elevations: 1897.00 ft (KB)

Total Depth: 3802.00 ft (KB) (TVD)

1889.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524 Inside

Press @ Run Depth: 1319.35 psia @ 3798.49 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.10.30 End Date: 2013.10.30

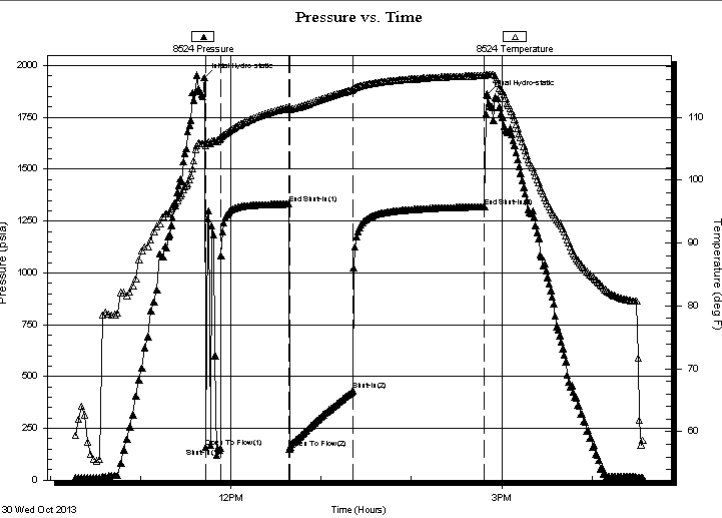
Last Calib.: 2013.10.30

Start Time: 10:17:00 End Time: 16:34:00

Time On Btm: 2013.10.30 @ 11:42:30

Time Off Btm: 2013.10.30 @ 14:50:00

TEST COMMENT: 1st Open 10 minutes Good building blow built to 9.5 inches
1st Shut in 45 minutes No blow back
2nd Open 45 minutes Strong building blow blew off bottom bucket in 7.5 minutes.
2nd Shut in 90 minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1942.52	105.82	Initial Hydro-static
1	160.18	105.42	Open To Flow (1)
11	154.02	106.57	Shut-In(1)
56	1332.07	111.55	End Shut-In(1)
57	151.49	111.20	Open To Flow (2)
99	432.41	114.34	Shut-In(2)
186	1319.35	116.61	End Shut-In(2)
188	1862.27	116.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
366.00	Very slighty oil spotted mud mud100%	5.13
427.00	Very slighty oil spotted w ater	5.99
0.00	Water 100%	0.00
0.00	Chlorides 29,000 .2ohms @56degrees	0.00

Gas Rates

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



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TOOL DIAGRAM

Valhalla Exploratoion LLC.

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Hullman 1-14

Job Ticket: 18529

DST#: 2

ATTN: Adam Nighswonger

Test Start: 2013.10.30 @ 10:16:00

Tool Information

Drill Pipe:	Length: 3737.00 ft	Diameter: 3.80 inches	Volume: 52.42 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: 65000.00 lb
			<u>Total Volume: 52.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3730.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.49 ft			
Tool Length:	92.49 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			3715.00	
Hydraulic Tool	5.00			3720.00	
Packer	5.00			3725.00	20.00 Bottom Of Top Packer
Packer	5.00			3730.00	
Anchor	5.00			3735.00	
Change Over Sub	0.75			3735.75	
Drill Pipe	31.99			3767.74	
Change Over Sub	0.75			3768.49	
Anchor	29.00			3797.49	
Recorder	1.00	8524	Inside	3798.49	
Recorder	1.00	6839	Outside	3799.49	
Bull Plug	3.00			3802.49	72.49 Bottom Packers & Anchor

Total Tool Length: 92.49



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 60.00 sec/qt
Water Loss: 8.79 in³
Resistivity: ohm.m
Salinity: 8800.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psia

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
366.00	Very slighty oil spotted mud mud100%	5.134
427.00	Very slighty oil spotted w ater	5.990
0.00	Water 100%	0.000
0.00	Chlorides 29,000 .2ohms @56degrees	0.000

Total Length: 793.00 ft Total Volume: 11.124 bbl

Num Fluid Samples: 0

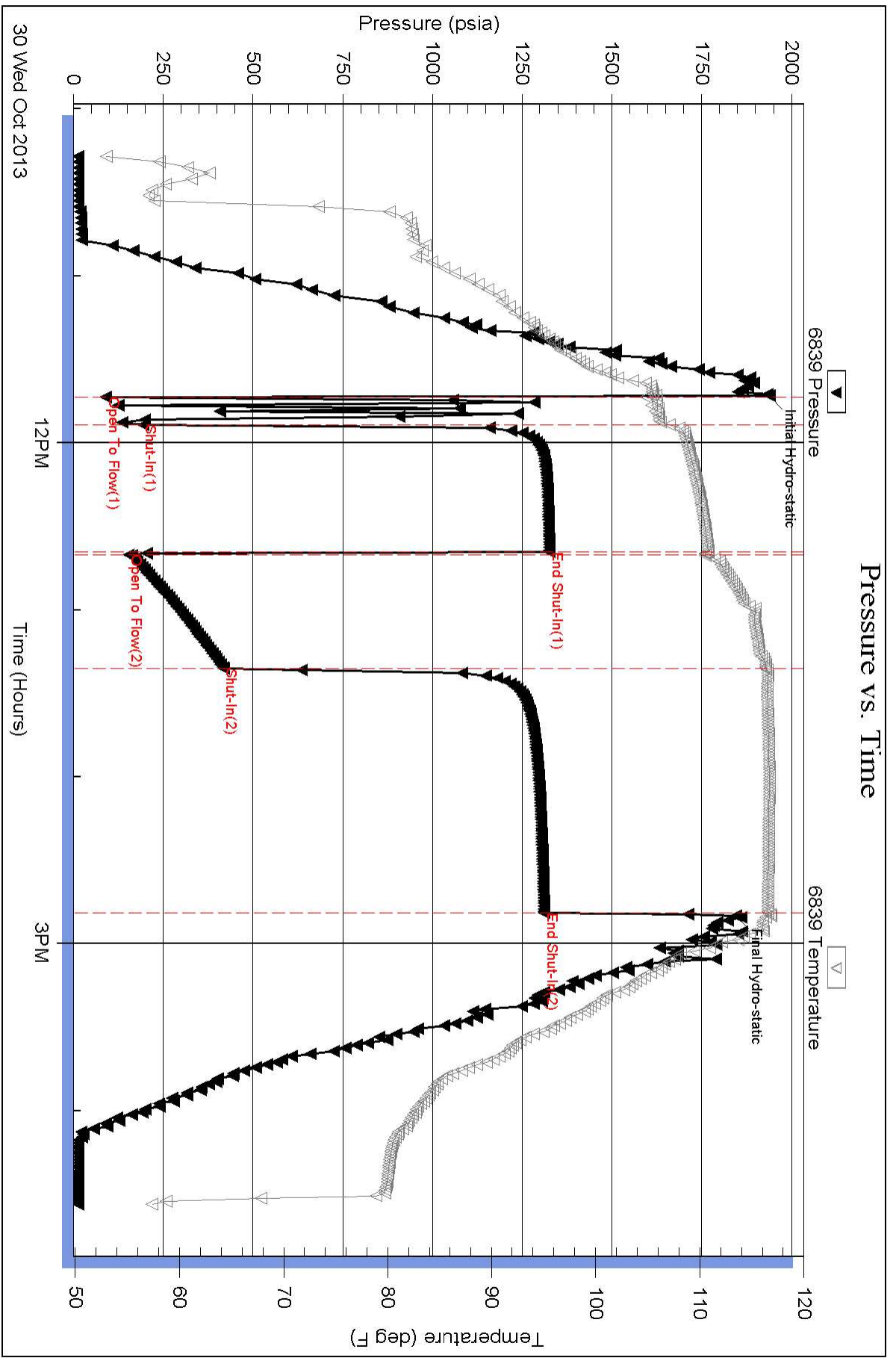
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

