



DRILL STEM TEST REPORT

Prepared For: **Valhalla Exploration L.L.C.**

133 North Glendale
Wichita, Kansas 67208

ATTN: Adam Kennedy

Morgenstern #1-2

2-17s-13w Barton

Start Date: 2011.12.08 @ 09:30:00

End Date: 2011.12.08 @ 00:00:00

Job Ticket #: 18664 DST #: 2

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

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Job Ticket: 18664

DST#: 2

ATTN: Adam Kennedy

Test Start: 2011.12.08 @ 09:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-42

Interval: 3307.00 ft (KB) To 3327.00 ft (KB) (TVD)

Reference Elevations: 1867.00 ft (KB)

Total Depth: 3327.00 ft (KB) (TVD)

1859.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524 Outside

Press @ Run Depth: 1110.51 psia @ 3324.00 ft (KB)

Capacity: psia

Start Date: 2011.12.08

End Date: 2011.12.08

Last Calib.: 1899.12.30

Start Time: 09:30:00

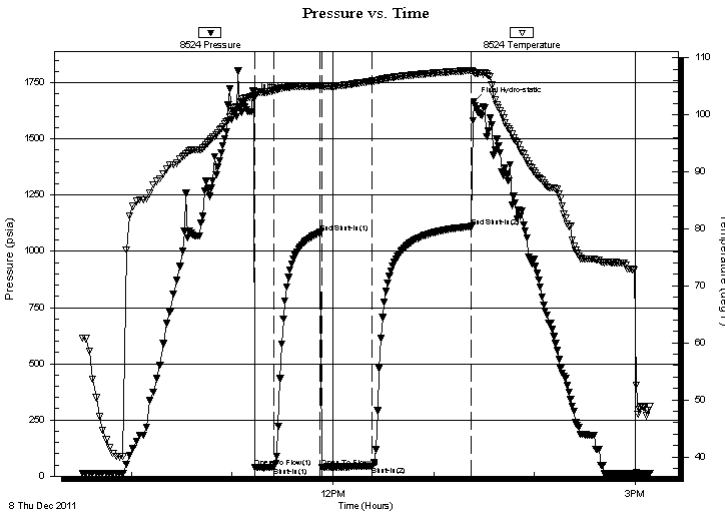
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Time On Btm: 2011.12.08 @ 11:13:00

Time Off Btm: 2011.12.08 @ 13:24:00

TEST COMMENT: 1st Opening 10 Minutes-Weak blow for 7 minutes and died
1st Shut-In 30 Minutes-No blow back
2nd Opening 30 Minutes-No blow
2nd Shut-In 60 Minutes-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1681.63	103.92	Initial Hydro-static
1	38.57	103.78	Open To Flow (1)
12	38.50	104.23	Shut-In(1)
40	1083.89	105.10	End Shut-In(1)
41	39.18	104.93	Open To Flow (2)
70	44.65	105.86	Shut-In(2)
130	1110.51	107.77	End Shut-In(2)
131	1665.25	107.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Clean Gass Oil	0.07
5.00	Oil and Gas Cut Mud	0.02
0.00	15%Gas 45%Oil 40%Mud	0.00

Gas Rates

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



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Tester: Gene Budig

Unit No: 3335-42

Interval: 3307.00 ft (KB) To 3327.00 ft (KB) (TVD)

Reference Elevations: 1867.00 ft (KB)

Total Depth: 3327.00 ft (KB) (TVD)

1859.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8419 Inside

Press @ Run Depth: 1114.07 psia @ 3323.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.12.08 End Date: 2011.12.08

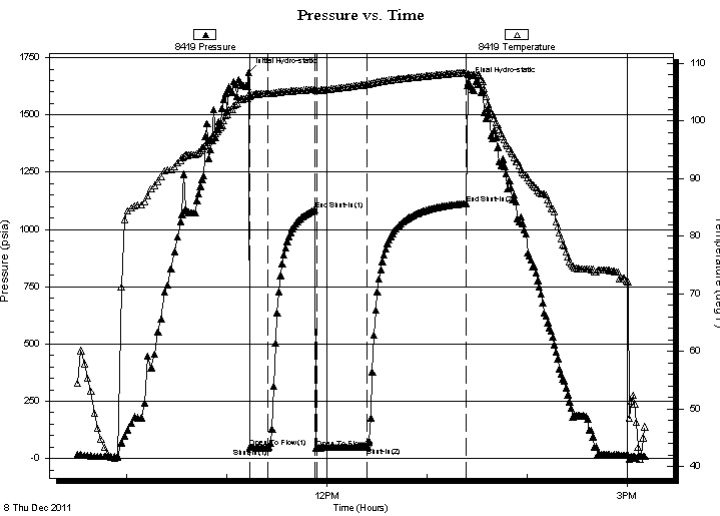
Last Calib.: 2011.12.08

Start Time: 09:30:00 End Time: 15:11:00

Time On Btm: 2011.12.08 @ 11:13:30

Time Off Btm: 2011.12.08 @ 13:25:00

TEST COMMENT: 1st Opening 10 Minutes-Weak blow for 7 minutes and died
1st Shut-In 30 Minutes-No blow back
2nd Opening 30 Minutes-No blow
2nd Shut-In 60 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1685.89	104.50	Initial Hydro-static
1	48.85	104.27	Open To Flow (1)
12	45.97	104.71	Shut-In(1)
40	1085.44	105.49	End Shut-In(1)
41	46.51	105.30	Open To Flow (2)
71	50.49	106.31	Shut-In(2)
130	1114.07	108.40	End Shut-In(2)
132	1644.26	108.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Clean Gass Oil	0.07
5.00	Oil and Gas Cut Mud	0.02
0.00	15%Gas 45%Oil 40%Mud	0.00

Gas Rates

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



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TOOL DIAGRAM

Valhalla Exploration L.L.C.

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Wichita, Kansas 67208

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DST#: 2

ATTN: Adam Kennedy

Test Start: 2011.12.08 @ 09:30:00

Tool Information

Drill Pipe:	Length: 2979.00 ft	Diameter: 3.80 inches	Volume: 41.79 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.86 inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 310.00 ft	Diameter: 2.25 inches	Volume: 1.52 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3307.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	3284.00	
Hydraulic Tool	5.00			3289.00	
Jars	6.00			3295.00	
Safety Joint	2.00			3297.00	
Packer	5.00			3302.00	28.00 Bottom Of Top Packer
Packer	5.00			3307.00	
Anchor	15.00			3322.00	
Recorder	1.00	8419	Inside	3323.00	
Recorder	1.00	8524	Outside	3324.00	
Bullnose	3.00			3327.00	20.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



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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: 58.00 sec/qt
Water Loss: 8.40 in³
Resistivity: ohm.m
Salinity: 7100.00 ppm
Filter Cake: 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
15.00	Clean Gass Oil	0.074
5.00	Oil and Gas Cut Mud	0.025
0.00	15%Gas 45%Oil 40%Mud	0.000

Total Length: 20.00 ft Total Volume: 0.099 bbl

Num Fluid Samples: 0

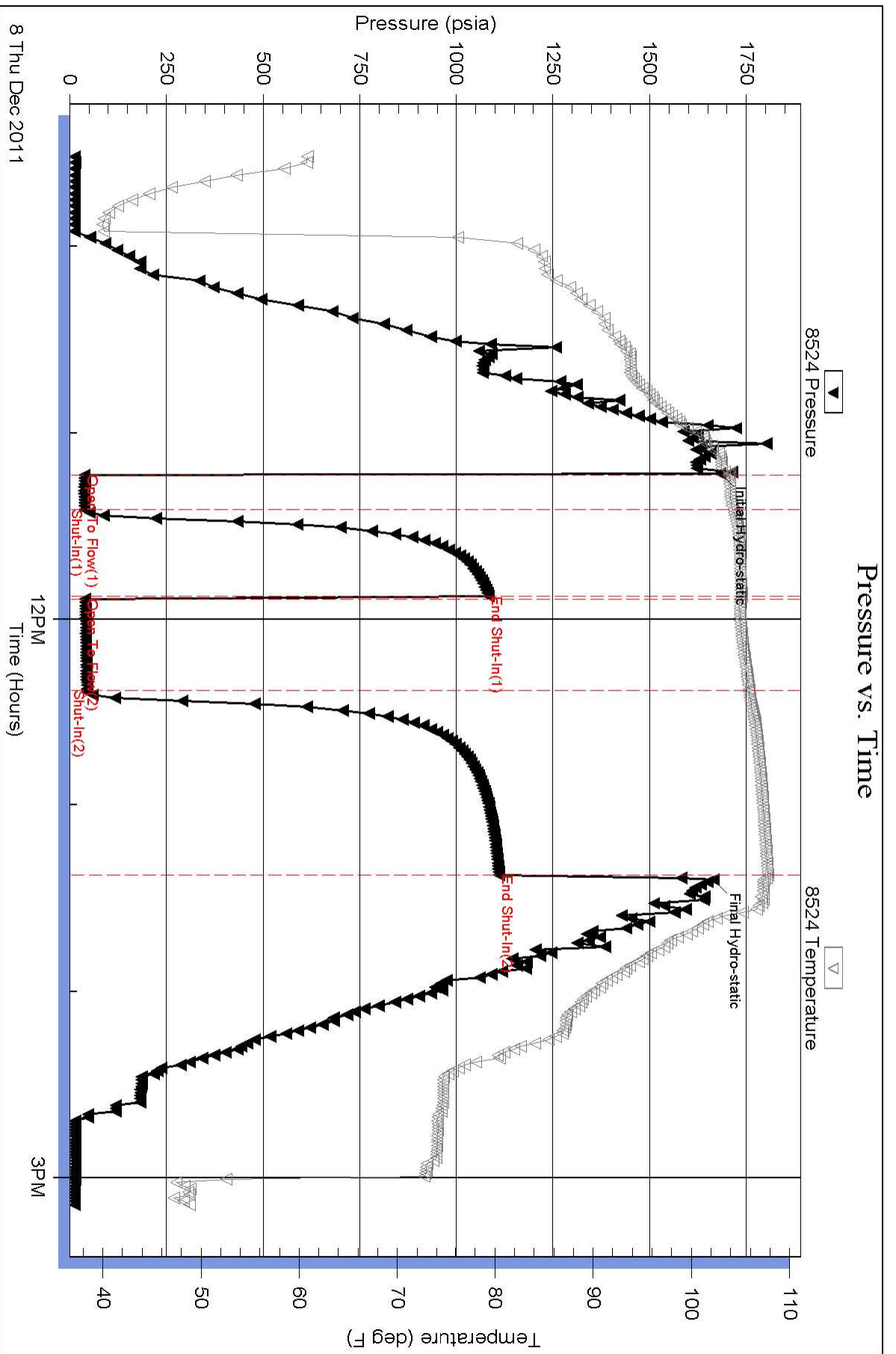
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

