



DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration & Development**

210 West 22nd
Hays, Kansas
67601

ATTN: Steve Reed

Demel #C01

22/17S/12W/Barton

Start Date: 2013.12.27 @ 01:11:00

End Date: 2013.12.27 @ 07:53:30

Job Ticket #: 17073 DST #: 1

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

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DRILL STEM TEST REPORT

Carrie Exploration & Development

22/17S/12W/Barton

210 West 22nd
Hays, Kansas
67601

Demel #C01

Job Ticket: 17073

DST#: 1

ATTN: Steve Reed

Test Start: 2013.12.27 @ 01:11:00

GENERAL INFORMATION:

Formation: **Kansas City zones H&**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:24:30

Time Test Ended: 07:53:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/40

Interval: 3204.00 ft (KB) To 3248.00 ft (KB) (TVD)

Reference Elevations: 1856.00 ft (KB)

Total Depth: 3248.00 ft (KB) (TVD)

1848.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 6749

Inside

Press @ Run Depth: 152.57 psia @ 3244.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.12.27

End Date:

2013.12.27

Last Calib.:

2013.12.27

Start Time:

01:11:00

End Time:

07:53:30

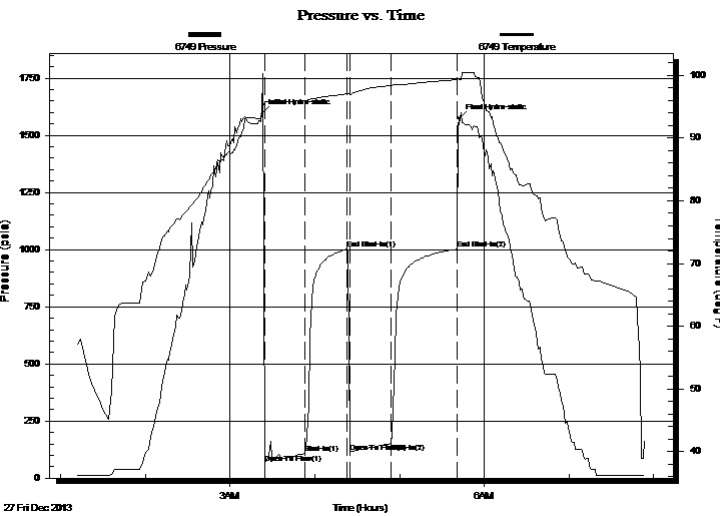
Time On Btm:

2013.12.27 @ 03:22:30

Time Off Btm:

2013.12.27 @ 05:42:00

TEST COMMENT: 1ST Open 30 Minutes/Good blow /Blow built to bottom of bucket in 6 minutes
 1ST Shut In 30 Minutes/Blow back built to 1 1/2 inch
 2ND Open 30 Minutes/Good blow /Blow built to bottom of bucket in 4 minutes 45 seconds
 2ND Shut In 45 Minutes/Blow back built to bottom of bucket in 30 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1593.96	94.21	Initial Hydro-static
2	63.56	95.61	Open To Flow (1)
31	108.03	95.95	Shut-In(1)
61	1002.23	97.04	End Shut-In(1)
63	114.80	96.93	Open To Flow (2)
92	152.57	98.36	Shut-In(2)
138	1001.34	99.28	End Shut-In(2)
140	1574.31	99.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	945 feet of gas in pipe/Gas 100%	0.00
126.00	Mud cut Watery Gassy Emulsified Oil	1.77
0.00	Mud 10% Water 20% Gas 30% Emuls Oil	0.00
126.00	Oil cut Muddy Water	1.77
0.00	Oil 5% Mud 15 % Water 80%	0.00
0.00	Recov. Chlorides 54,000 ppm	0.00

Gas Rates

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



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Tester: Ken Swinney

Unit No: 3325 Great Bend/40

Interval: 3204.00 ft (KB) To 3248.00 ft (KB) (TVD)

Reference Elevations: 1856.00 ft (KB)

Total Depth: 3248.00 ft (KB) (TVD)

1848.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 6838 Outside

Press @ RunDepth: 995.62 psia @ 3245.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.12.27

End Date: 2013.12.27

Last Calib.: 2013.12.27

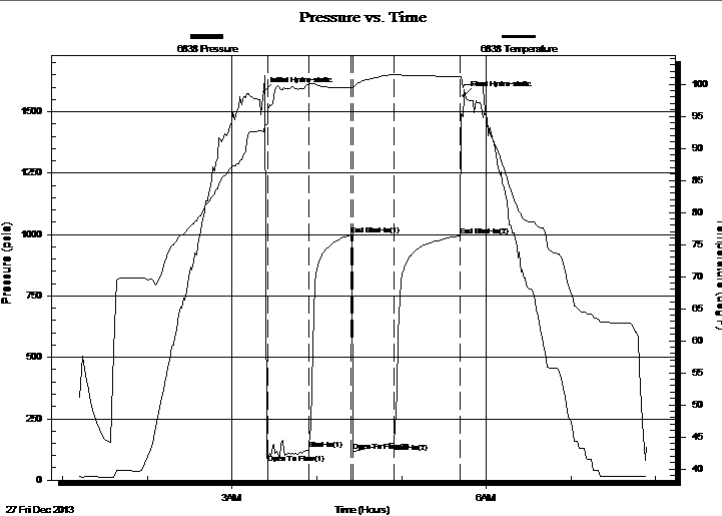
Start Time: 01:11:00

End Time: 07:54:00

Time On Btm: 2013.12.27 @ 03:22:30

Time Off Btm: 2013.12.27 @ 05:44:00

TEST COMMENT: 1ST Open 30 Minutes/Good blow /Blow built to bottom of bucket in 6 minutes
 1ST Shut In 30 Minutes/Blow back built to 1 1/2 inch
 2ND Open 30 Minutes/Good blow /Blow built to bottom of bucket in 4 minutes 45 seconds
 2ND Shut In 45 Minutes/Blow back built to bottom of bucket in 30 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1581.71	92.61	Initial Hydro-static
3	70.02	93.85	Open To Flow (1)
32	124.38	99.94	Shut-In(1)
62	999.40	99.41	End Shut-In(1)
63	116.51	99.33	Open To Flow (2)
92	151.75	101.47	Shut-In(2)
139	995.62	101.12	End Shut-In(2)
142	1563.82	99.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	945 feet of gas in pipe/Gas 100%	0.00
126.00	Mud cut Watery Gassy Emulsified Oil	1.77
0.00	Mud 10% Water 20% Gas 30% Emuls Oil	0.00
126.00	Oil cut Muddy Water	1.77
0.00	Oil 5% Mud 15 % Water 80%	0.00
0.00	Recov. Chlorides 54,000 ppm	0.00

Gas Rates

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



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TOOL DIAGRAM

Carrie Exploration & Development

22/17S/12W/Barton

210 West 22nd
Hays, Kansas
67601

Demel #C01

Job Ticket: 17073

DST#: 1

ATTN: Steve Reed

Test Start: 2013.12.27 @ 01:11:00

Tool Information

Drill Pipe:	Length: 3204.00 ft	Diameter: 3.80 inches	Volume: 44.94 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: 62000.00 lb
			<u>Total Volume: 44.94 bbl</u>	Tool Chased 12.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3204.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: 8 foot slide before tool open/ 4 foot slide after open

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3189.00	
Hydraulic Tool	5.00			3194.00	
Packer	5.00			3199.00	20.00 Bottom Of Top Packer
Packer	5.00			3204.00	
Anchor	39.00			3243.00	
Recorder	1.00	6749	Inside	3244.00	
Recorder	1.00	6838	Outside	3245.00	
Bullnose	3.00			3248.00	44.00 Bottom Packers & Anchor

Total Tool Length: 64.00



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FLUID SUMMARY

Carrie Exploration & Development

22/17S/12W/Barton

210 West 22nd
Hays, Kansas
67601

Demel #C01

Job Ticket: 17073

DST#: 1

ATTN: Steve Reed

Test Start: 2013.12.27 @ 01:11:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 46.00 sec/qt
Water Loss: 9.80 in³
Resistivity: ohm.m
Salinity: 9000.00 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
0.00	945 feet of gas in pipe/Gas 100%	0.000
126.00	Mud cut Watery Gassy Emulsified Oil	1.767
0.00	Mud 10% Water 20% Gas 30% Emuls Oil 40%	0.000
126.00	Oil cut Muddy Water	1.767
0.00	Oil 5% Mud 15 % Water 80%	0.000
0.00	Recov. Chlorides 54,000 ppm	0.000
0.00	Recov. Resist..28ohms @ 58deg	0.000

Total Length: 252.00 ft Total Volume: 3.534 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

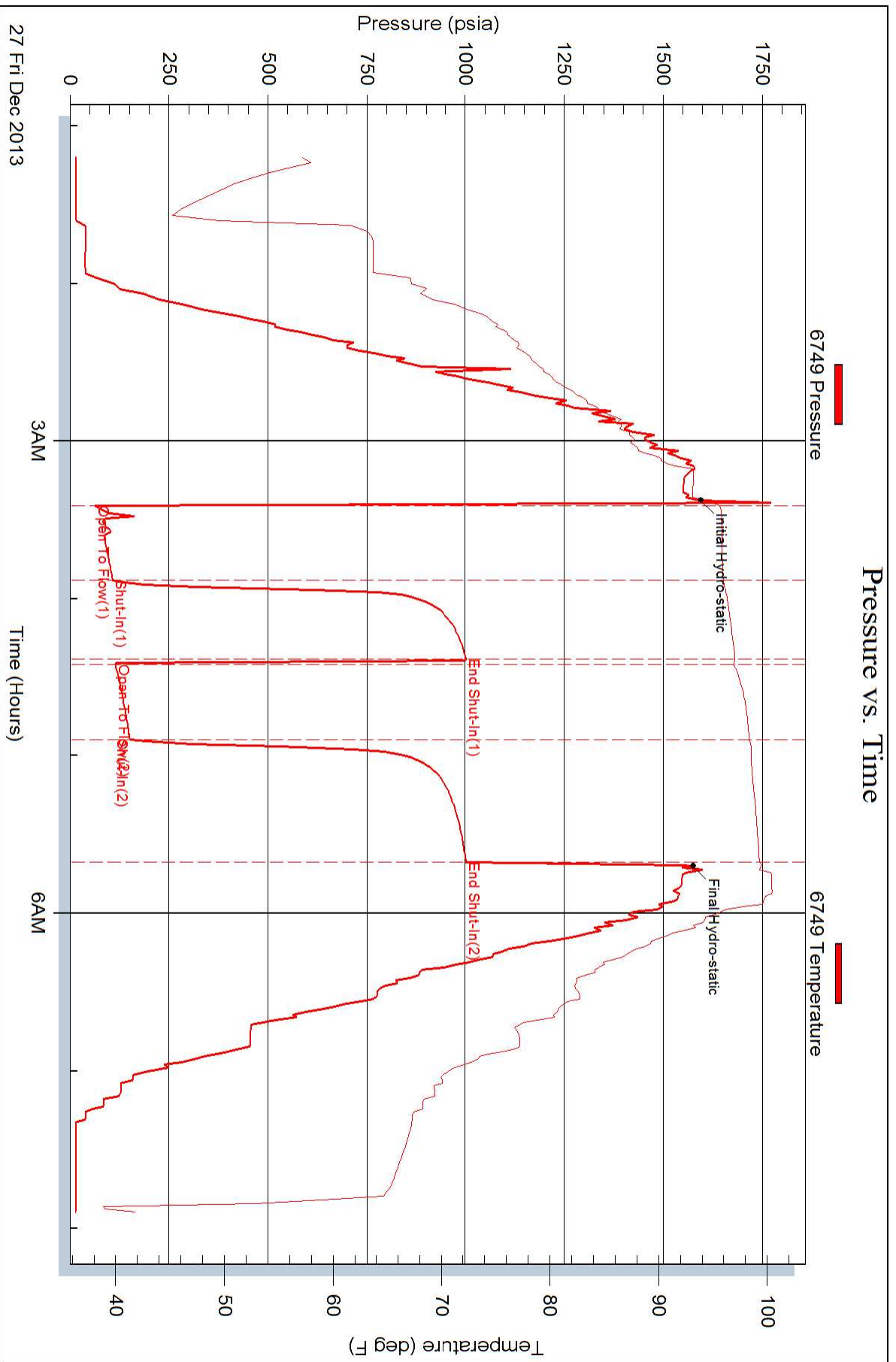
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

