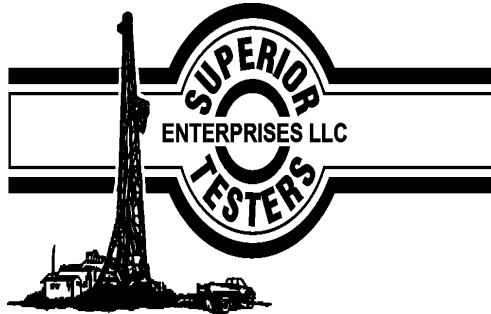




DRILL STEM TEST REPORT

Prepared For: **L B Exploration**

2135 2nd Rd Holyrood KS 67450+9021

ATTN: Steven Petermann

Petermann 28 #1

28-17-10 Ellsworth

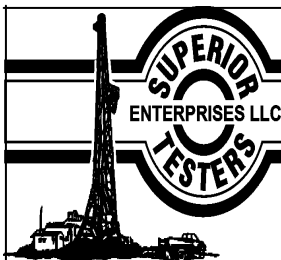
Start Date: 2013.08.20 @ 19:19:00

End Date: 2013.08.21 @ 00:46:30

Job Ticket #: 17025 DST #: 2

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

Printed: 2013.08.21 @ 01:01:57



DRILL STEM TEST REPORT

L B Exploration

28-17-10 Ellsworth

2135 2nd Rd Holyrood KS 67450+9021

Petermann 28 #1

ATTN: Steven Petermann

Job Ticket: 17025

DST#: 2

Test Start: 2013.08.20 @ 19:19:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:57:00

Time Test Ended: 00:46:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320- Great Bend-60

Interval: **3269.00 ft (KB) To 3345.00 ft (KB) (TVD)**

Reference Elevations: 1840.00 ft (KB)

Total Depth: 3345.00 ft (KB) (TVD)

1830.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6731

Press@RunDepth: 88.08 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.08.20

End Date:

2013.08.21

Last Calib.:

2013.08.21

Start Time: 19:19:00

End Time:

00:46:30

Time On Btm:

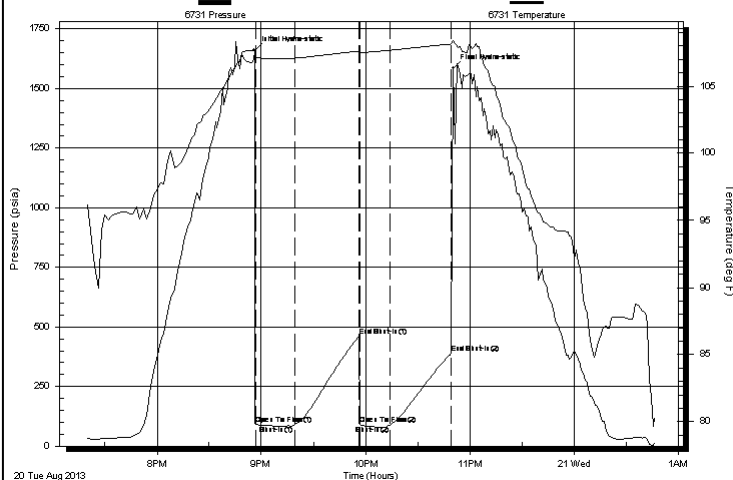
2013.08.20 @ 20:56:00

Time Off Btm:

2013.08.20 @ 22:50:30

TEST COMMENT: 1st Opening 20 Minutes-Weak blow died off 10 minutes into open
1st Shut-in 40 Minutes-No blow back
2nd Opening 15 Minutes-Very weak surge did not build
2nd Shut-in 30 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

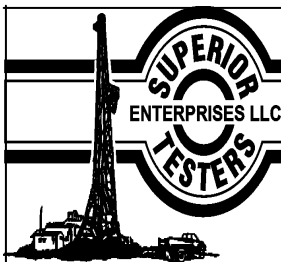
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1660.63	107.63	Initial Hydro-static
1	93.07	107.18	Open To Flow (1)
23	88.87	107.09	Shut-In(1)
60	459.92	107.61	End Shut-In(1)
61	90.11	107.53	Open To Flow (2)
78	88.08	107.67	Shut-In(2)
114	391.50	108.14	End Shut-In(2)
115	1583.62	108.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Oil cut mud 4%oil 96%mud	0.14

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

L B Exploration

28-17-10 Ellsworth

2135 2nd Rd Holyrood KS 67450+9021

Petermann 28 #1

ATTN: Steven Petermann

Job Ticket: 17025

DST#:2

Test Start: 2013.08.20 @ 19:19:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:57:00

Time Test Ended: 00:46:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320- Great Bend-60

Interval: **3269.00 ft (KB) To 3345.00 ft (KB) (TVD)**

Reference Elevations: 1840.00 ft (KB)

Total Depth: 3345.00 ft (KB) (TVD)

1830.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8159

Press@RunDepth: 401.72 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.08.20

End Date:

2013.08.21

Last Calib.:

2013.08.21

Start Time: 19:19:00

End Time:

00:47:00

Time On Btm:

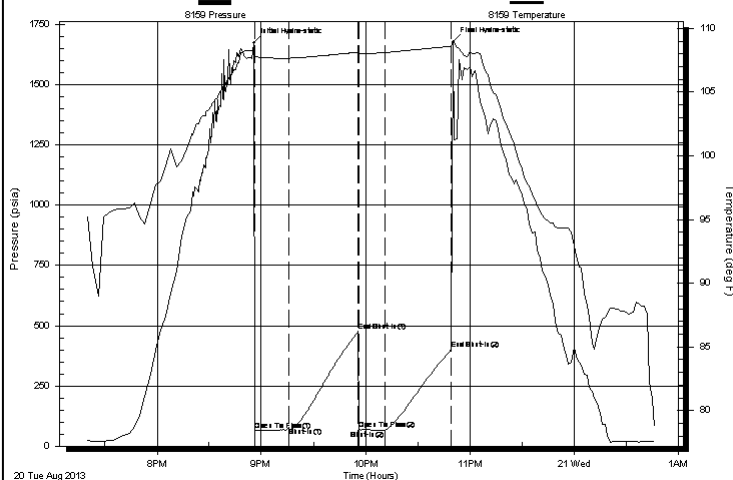
2013.08.20 @ 20:55:50

Time Off Btm:

2013.08.20 @ 22:50:30

TEST COMMENT: 1st Opening 20 Minutes-Weak blow died off 10 minutes into open
1st Shut-in 40 Minutes-No blow back
2nd Opening 15 Minutes-Very weak surge did not build
2nd Shut-in 30 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

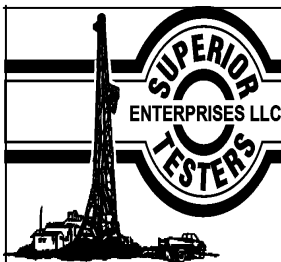
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1674.63	108.28	Initial Hydro-static
1	66.94	107.85	Open To Flow (1)
21	77.08	107.67	Shut-In(1)
60	475.54	108.14	End Shut-In(1)
61	68.47	107.93	Open To Flow (2)
76	67.28	108.11	Shut-In(2)
114	401.72	108.60	End Shut-In(2)
115	1678.19	109.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Oil cut mud 4%oil 96%mud	0.14

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

L B Exploration

28-17-10 Ellsworth

2135 2nd Rd Holyrood KS 67450+9021

Petermann 28 #1

ATTN: Steven Petermann

Job Ticket: 17025

DST#: 2

Test Start: 2013.08.20 @ 19:19:00

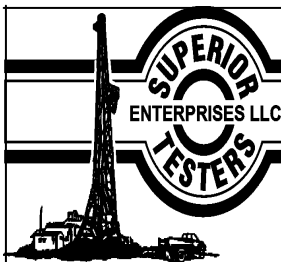
Tool Information

Drill Pipe:	Length:	3282.00 ft	Diameter:	3.80 inches	Volume:	46.04 bbl	Tool Weight:	1000.00 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:	70000.00 lb
					Total Volume:	46.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		33.00 ft					String Weight: Initial	46000.00 lb
Depth to Top Packer:		3269.00 ft					Final	46000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		76.00 ft						
Tool Length:		96.00 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			3254.00	
Hydraulic Tool	5.00			3259.00	
Packer	5.00			3264.00	20.00 Bottom Of Top Packer
Packer	5.00			3269.00	
Anchor	10.00			3279.00	
Change Over Sub	0.75			3279.75	
Drill Pipe	31.50			3311.25	
Change Over Sub	0.75			3312.00	
Anchor	28.00			3340.00	
Recorder	1.00	6731	Inside	3341.00	
Recorder	1.00	8159	Outside	3342.00	
Bullnose	3.00			3345.00	76.00 Bottom Packers & Anchor

Total Tool Length: 96.00



DRILL STEM TEST REPORT

FLUID SUMMARY

L B Exploration

28-17-10 Ellsworth

2135 2nd Rd Holyrood KS 67450+9021

Petermann 28 #1

Job Ticket: 17025

DST#: 2

ATTN: Steven Petermann

Test Start: 2013.08.20 @ 19:19:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 8.00 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psia

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Oil cut mud 4%oil 96%mud	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: ruined packer

Serial #: 6731

L B Exploration

Petermann 28 #1

DST Test Number: 2

Pressure vs. Time

