



DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration**

210 West 22nd Hays Kansas
67601

ATTN: Herb Deines

Sara C-1

8-22s-10-w Reno

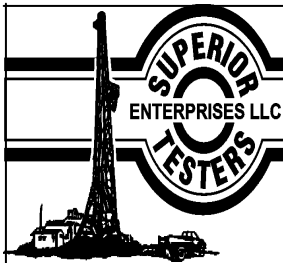
Start Date: 2013.01.06 @ 08:00:00

End Date: 2013.01.06 @ 15:18:00

Job Ticket #: 17723 DST #: 1

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

Printed: 2013.01.07 @ 03:38:21



DRILL STEM TEST REPORT

Carrie Exploration
 210 West 22nd Hays Kansas
 67601
 ATTN: Herb Deines

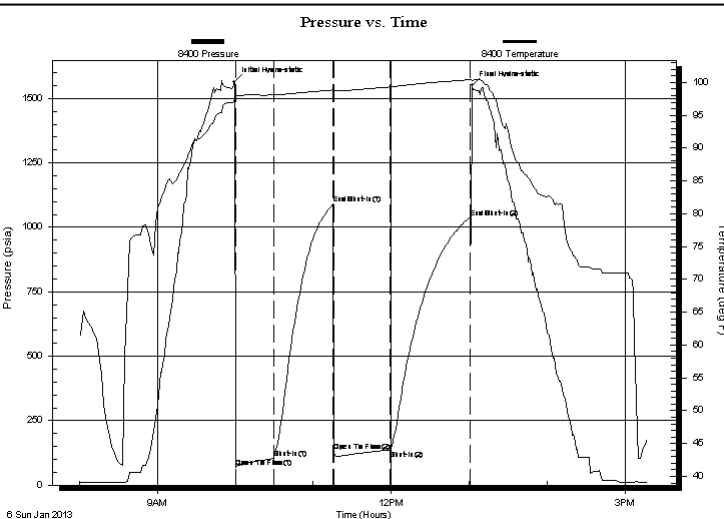
8-22s-10-w Reno
Sara C-1
 Job Ticket: 17723 **DST#: 1**
 Test Start: 2013.01.06 @ 08:00:00

GENERAL INFORMATION:

Formation: **Lansing C-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:00:00
 Time Test Ended: 15:18:00
 Interval: **3164.00 ft (KB) To 3240.00 ft (KB) (TVD)**
 Total Depth: 3240.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: 3315-Great Bend-75
 Reference Elevations: 1772.00 ft (KB)
 1764.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8400 **Outside**
 Press@RunDepth: 137.09 psia @ 3237.07 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.01.06 End Date: 2013.01.06 Last Calib.: 2013.01.07
 Start Time: 08:00:00 End Time: 15:18:00 Time On Btm: 2013.01.06 @ 09:59:30
 Time Off Btm: 2013.01.06 @ 13:02:30

TEST COMMENT: 1st Open 30 minutes Fair building blow blew bottom bucket 4 minutes.
 1st Shut in 45 minutes No blow back
 2nd Open 45 minutes Fair building blow blew bottom bucket 6 minutes.
 2nd Shut in 60 minutes Yes blow back



PRESSURE SUMMARY

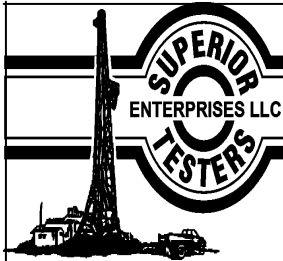
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1565.28	97.43	Initial Hydro-static
1	69.14	97.57	Open To Flow (1)
30	104.33	98.08	Shut-In(1)
76	1089.81	98.85	End Shut-In(1)
77	131.89	98.57	Open To Flow (2)
120	137.09	99.32	Shut-In(2)
182	1037.88	100.40	End Shut-In(2)
183	1550.57	100.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil cut mud Oil 10% Mud 90%	0.07
61.00	Oil pluse gas cut muddy w ater	0.30
0.00	Gas 65% Oil 15% Mud 10% Water 10%	0.00
61.00	Oil spotted muddy w ater	0.41
0.00	Mud 20% Water 80%	0.00
0.00	Chlorides 36,000 .3ohms	0.00

Gas Rates

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



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Sara C-1
 Job Ticket: 17723 **DST#: 1**
 Test Start: 2013.01.06 @ 08:00:00

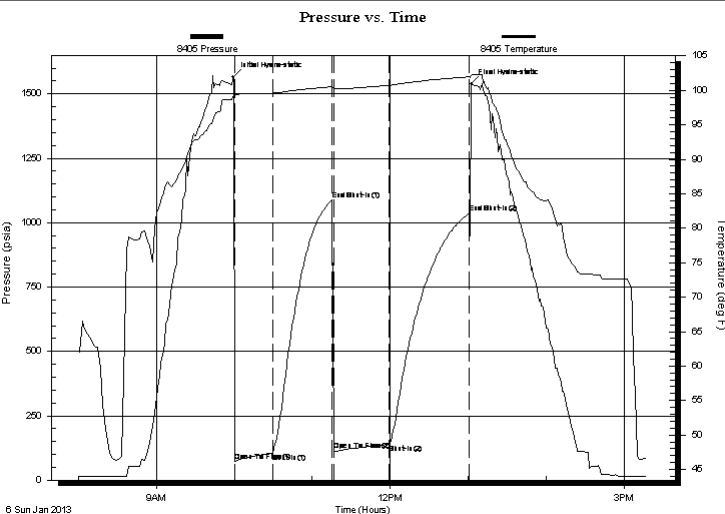
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 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: 3315-Great Bend-75
Interval: 3164.00 ft (KB) To 3240.00 ft (KB) (TVD)
 Total Depth: 3240.00 ft (KB) (TVD)
 Reference Elevations: 1772.00 ft (KB)
 1764.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 8405 Inside

Press@RunDepth: 1037.60 psia @ 3236.07 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.01.06 End Date: 2013.01.06 Last Calib.: 2013.01.07
 Start Time: 08:00:00 End Time: 15:18:00 Time On Btm: 2013.01.06 @ 09:59:30
 Time Off Btm: 2013.01.06 @ 13:02:30

TEST COMMENT: 1st Open 30 minutes Fair building blow blew bottom bucket 4 minutes.
 1st Shut in 45 minutes No blow back
 2nd Open 45 minutes Fair building blow blew bottom bucket 6 minutes.
 2nd Shut in 60 minutes Yes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1565.54	99.24	Initial Hydro-static
1	72.09	98.96	Open To Flow (1)
30	105.21	99.60	Shut-In(1)
76	1089.48	100.53	End Shut-In(1)
77	117.00	100.22	Open To Flow (2)
120	138.99	100.74	Shut-In(2)
182	1037.60	101.97	End Shut-In(2)
183	1539.19	102.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil cut mud Oil 10% Mud 90%	0.07
61.00	Oil pluse gas cut muddy w ater	0.30
0.00	Gas 65% Oil 15% Mud 10% Water 10%	0.00
61.00	Oil spotted muddy w ater	0.41
0.00	Mud 20% Water 80%	0.00
0.00	Chlorides 36,000 .3ohms	0.00

Gas Rates

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

TOOL DIAGRAM

Carrie Exploration
 210 West 22nd Hays Kansas
 67601
 ATTN: Herb Deines

8-22s-10-w Reno
Sara C-1
 Job Ticket: 17723 **DST#: 1**
 Test Start: 2013.01.06 @ 08:00:00

Tool Information

Drill Pipe:	Length: 3034.00 ft	Diameter: 3.80 inches	Volume: 42.56 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: 124.62 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 43.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.62 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3164.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.07 ft			
Tool Length:	96.07 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			3149.00	
Hydraulic Tool	5.00			3154.00	
Packer	5.00			3159.00	20.00 Bottom Of Top Packer
Packer	5.00			3164.00	
Anchor	5.00			3169.00	
Change Over Sub	0.75			3169.75	
Drill Pipe	31.57			3201.32	
Change Over Sub	0.75			3202.07	
Anchor	33.00			3235.07	
Recorder	1.00	8405	Inside	3236.07	
Recorder	1.00	8400	Outside	3237.07	
Bullnose	3.00			3240.07	76.07 Bottom Packers & Anchor

Total Tool Length: 96.07



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FLUID SUMMARY

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 Test Start: 2013.01.06 @ 08:00:00

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Oil cut mud Oil 10% Mud 90%	0.074
61.00	Oil pluse gas cut muddy w ater	0.300
0.00	Gas 65% Oil 15% Mud 10% Water 10%	0.000
61.00	Oil spotted muddy w ater	0.413
0.00	Mud 20% Water 80%	0.000
0.00	Chlorides 36,000 .3ohms	0.000

Total Length: 137.00 ft Total Volume: 0.787 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

