



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: 2013.01.08 @ 06:35:00

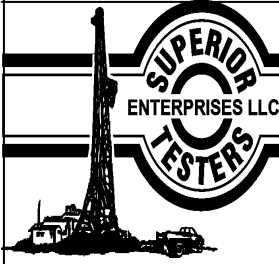
End Date: 2013.01.08 @ 13:01:00

Job Ticket #: 17725 DST #: 3

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

Printed: 2013.01.09 @ 01:16:23

Carrie Exploration
8-22s-10-w Reno
Sara C-1
DST # 3
Lower Simpson sand
2013.01.08



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

8-22s-10-w Reno
Sara C-1
 Job Ticket: 17725 **DST#: 3**
 Test Start: 2013.01.08 @ 06:35:00

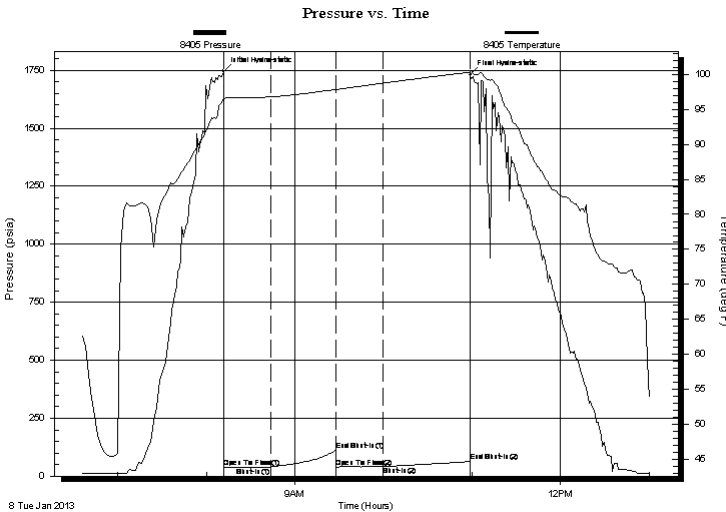
GENERAL INFORMATION:

Formation: **Lower Simpson sand**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 08:12:00 Tester: Dustin Ellis
 Time Test Ended: 13:01:00 Unit No: 3315-Great Bend-75
 Interval: **3540.00 ft (KB) To 3572.00 ft (KB) (TVD)** Reference Elevations: 1772.00 ft (KB)
 Total Depth: 3572.00 ft (KB) (TVD) 1764.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8405 Inside
 Press@RunDepth: 40.42 psia @ 3568.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2013.01.08 End Date: 2013.01.08 Last Calib.: 2013.01.09
 Start Time: 06:35:00 End Time: 13:01:00 Time On Btm: 2013.01.08 @ 08:11:30
 Time Off Btm: 2013.01.08 @ 10:59:00

TEST COMMENT: 1st Open 30 minutes Weak but steady blow 1/2 inch.
 1st Shut in 45 minutes No blow back
 2nd Open 30 minutes Dead Flushed tool 20 minutes in no help.
 2nd Shut in 60 minutes No blow back

PRESSURE SUMMARY



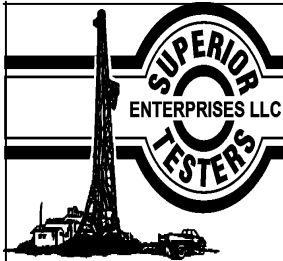
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1745.60	96.51	Initial Hydro-static
1	39.37	96.36	Open To Flow (1)
32	39.16	96.81	Shut-In(1)
76	112.35	97.86	End Shut-In(1)
77	39.74	97.85	Open To Flow (2)
108	40.42	98.76	Shut-In(2)
168	63.20	100.32	End Shut-In(2)
168	1729.35	100.59	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
7.00	Slightly oil cut mud 100% Mud	0.03

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



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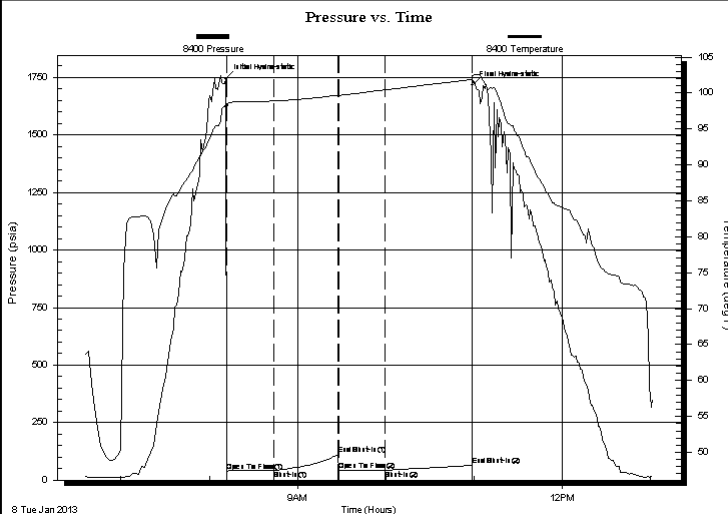
8-22s-10-w Reno
Sara C-1
 Job Ticket: 17725 **DST#: 3**
 Test Start: 2013.01.08 @ 06:35:00

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Deviated: No Whipstock: ft (KB)	Tester: Dustin Ellis
Time Tool Opened: 08:12:00	Unit No: 3315-Great Bend-75
Time Test Ended: 13:01:00	Reference Elevations: 1772.00 ft (KB)
Interval: 3540.00 ft (KB) To 3572.00 ft (KB) (TVD)	1764.00 ft (CF)
Total Depth: 3572.00 ft (KB) (TVD)	KB to GR/CF: 8.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair

Serial #: 8400	Outside	Capacity: 5000.00 psia
Press@RunDepth: 64.63 psia @ 3569.00 ft (KB)		Last Calib.: 2013.01.09
Start Date: 2013.01.08	End Date: 2013.01.08	Time On Btm: 2013.01.08 @ 08:11:30
Start Time: 06:35:00	End Time: 13:01:30	Time Off Btm: 2013.01.08 @ 10:59:00

TEST COMMENT: 1st Open 30 minutes Weak but steady blow 1/2 inch.
 1st Shut in 45 minutes No blow back
 2nd Open 30 minutes Dead Flushed tool 20 minutes in no help.
 2nd Shut in 60 minutes No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1742.82	98.46	Initial Hydro-static
1	39.13	97.84	Open To Flow (1)
33	41.29	98.90	Shut-In(1)
76	113.69	99.70	End Shut-In(1)
77	41.57	99.66	Open To Flow (2)
108	42.41	100.44	Shut-In(2)
167	64.63	101.88	End Shut-In(2)
168	1715.79	102.43	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
7.00	Slightly oil cut mud 100% Mud	0.03

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



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: 17725 **DST#: 3**
 Test Start: 2013.01.08 @ 06:35:00

Tool Information

Drill Pipe:	Length: 3379.00 ft	Diameter: 3.80 inches	Volume: 47.40 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: 166.62 ft	Diameter: 2.25 inches	Volume: 0.82 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 48.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.62 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3540.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	32.00 ft				
Tool Length:	52.00 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			3525.00	
Hydraulic Tool	5.00			3530.00	
Packer	5.00			3535.00	20.00 Bottom Of Top Packer
Packer	5.00			3540.00	
Anchor	27.00			3567.00	
Recorder	1.00	8405	Inside	3568.00	
Recorder	1.00	8400	Outside	3569.00	
Bullnose	3.00			3572.00	32.00 Bottom Packers & Anchor

Total Tool Length: 52.00



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FLUID SUMMARY

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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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	Slightly oil cut mud 100% Mud	0.034

Total Length: 7.00 ft Total Volume: 0.034 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8405

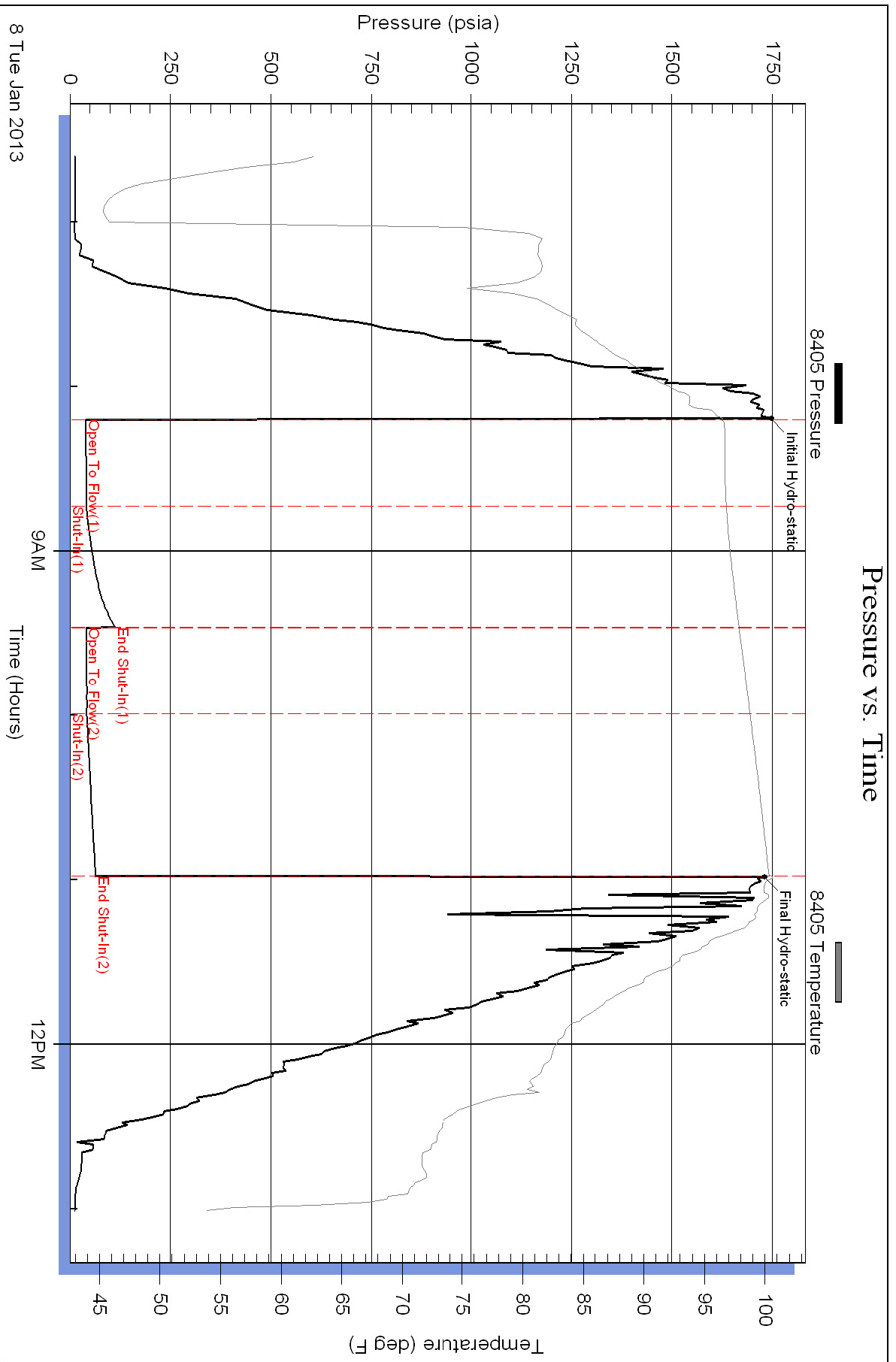
Inside

Carrie Exploration

Sara C-1

DST Test Number: 3

Pressure vs. Time



Pressure vs. Time

