

4-9-28W

ARROW TESTING COMPANY  
P. O. BOX 1051 GREAT BEND, KANSAS 67530

15-179-21108

DRILL-STEM TEST DATA

Well Name Caldwell	Test No. 1
Well Number 2	Zone Tested Howard
Company A & A Production	Date 2/2/02
Comp. Rep. J Green	Tester Don Fabricius
Contractor A & A Drlg	Ticket No. 4041
Location 4-9-28	Elevation

RECEIVED

JUN 17 2002

KOCWICHITA

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12  
 Depth 3466 Depth 3470  
 Initial Hydro Mud Press. 1681 Initial Hydro Mud Press. 1680  
 Initial Shut-in Press. 1151 Initial Shut-in Press. 1150  
 Initial Flow Press. 58-70 Initial Flow Press. 58-70  
 Final Flow Press. 82-94 Final Flow Press. 82-94  
 Final Shut-in Press. 1140 Final Shut-in Press. 1140  
 Final Hydro Mud Press. 1681 Final Hydro Mud Press. 1680  
 Temperature \_\_\_\_\_ Tool Open Before I. S. I. 45 Mins.  
 Mud Weight 8.8 Viscosity 46 Initial Shut-in 45 Mins.  
 Fluid Loss 8.8 Flow Period 45 Mins.  
 Interval Tested 3415-74 Final Shut-in 45 Mins.  
 Top Packer Depth 3410 Surface Choke Size 1  
 Bottom Packer Depth 3415 Bottom Choke Size 3/4  
 Total Depth 3474 Main Hole Size 7 7/8  
 Drill Pipe Size 4 1/2 X H Wt. 16.60 Rubber Size 6 3/4  
 Drill Collar I. D. \_\_\_\_\_ Ft. Run \_\_\_\_\_  
 Recovery—Total Feet \_\_\_\_\_  
 Recovered 90 Feet Of Muddy water  
 Recovered \_\_\_\_\_ Feet Of \_\_\_\_\_  
 Recovered \_\_\_\_\_ Feet Of \_\_\_\_\_  
 Recovered \_\_\_\_\_ Feet Of \_\_\_\_\_

Remarks  
Very weak blow thru-test

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It is expressly understood and agreed that Arrow Testing Company, shall not be bound by any agreement, not herein contained, and no agent or representative connected with or employed by Arrow Testing Company has authority to alter or extend the terms of this agreement. I have read and understand the terms of this agreement and represent that I am authorized to sign the same as agent of customer.

### DRILL-STEM TEST DATA

Well Name <b>Caldwell</b>	Test No. <b>2</b>
Well Number <b>2</b>	Zone Tested <b>Tron</b>
Company <b>A &amp; A Production</b>	Date <b>2/3/02</b>
Comp. Rep. <b>J Green</b>	Tester <b>Don Fabricius</b>
Contractor <b>A &amp; A Drlg</b>	Ticket No. <b>4042</b>
Location <b>4-9-28</b>	Elevation

Recorder No. <u>3088</u> Clock Range <u>12</u>	Recorder No. <u>4377</u> Clock Range <u>12</u>
Depth <u>3775</u>	Depth <u>3779</u>
Initial Hydro Mud Press. <u>1640</u>	Initial Hydro Mud Press. <u>1640</u>
Initial Shut-in Press. <u>23</u>	Initial Shut-in Press. <u>23</u>
Initial Flow Press. <u>23-23</u>	Initial Flow Press. <u>23-23</u>
Final Flow Press. <u>35</u>	Final Flow Press. <u>35</u>
Final Shut-in Press. _____	Final Shut-in Press. _____
Final Hydro Mud Press. <u>1640</u>	Final Hydro Mud Press. <u>1640</u>
Temperature _____	Tool Open Before I. S. I. <u>30</u> Mins.
Mud Weight <u>9.3</u> Viscosity <u>45</u>	Initial Shut-in <u>30</u> Mins.
Fluid Loss <u>6.4</u>	Flow Period <u>15</u> Mins.
Interval Tested <u>3748-83</u>	Final Shut-in _____ Mins.
Top Packer Depth <u>3743</u>	Surface Choke Size <u>1</u>
Bottom Packer Depth <u>3748</u>	Bottom Choke Size <u>3/4</u>
Total Depth <u>3783</u>	Main Hole Size <u>7 7/8</u>
Drill Pipe Size <u>4 1/2 X H</u> Wt. <u>16.60</u>	Rubber Size <u>6 3/4</u>
Drill Collar I. D. _____ Ft. Run _____	
Recovery—Total Feet _____	
Recovered <u>10</u> Feet Of <u>Mud</u>	
Recovered _____ Feet Of _____	
Recovered _____ Feet Of _____	
Recovered _____ Feet Of _____	

Remarks

Very weak blow dead in 12 min - flash  
tool on second open - surge

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**ARROW TESTING COMPANY**  
P. O. BOX 1051                      GREAT BEND, KANSAS 67530

**DRILL-STEM TEST DATA**

Well Name <b>Caldwell</b>	Test No. <b>3</b>
Well Number <b>2</b>	Zone Tested <b>KC</b>
Company <b>A &amp; A Production</b>	Date <b>2/4/02</b>
Comp. Rep. <b>J Green</b>	Tester <b>Don Fabricius</b>
Contractor <b>A &amp; A Drlg</b>	Ticket No. <b>4043</b>
Location <b>4-9-28</b>	Elevation

Recorder No. <u>3088</u> Clock Range <u>12</u>	Recorder No. <u>4377</u> Clock Range <u>12</u>
Depth <u>3787</u>	Depth <u>3791</u>
Initial Hydro Mud Press. <u>1900</u>	Initial Hydro Mud Press. <u>1900</u>
Initial Shut-in Press. <u>837</u>	Initial Shut-in Press. <u>837</u>
Initial Flow Press. <u>35-47</u>	Initial Flow Press. <u>35-47</u>
Final Flow Press. <u>58-70</u>	Final Flow Press. <u>58-70</u>
Final Shut-in Press. <u>707</u>	Final Shut-in Press. <u>708</u>
Final Hydro Mud Press. <u>1900</u>	Final Hydro Mud Press. <u>1900</u>
Temperature _____	Tool Open Before I. S. I. <u>45</u> Mins.
Mud Weight <u>9.3</u> Viscosity <u>45</u>	Initial Shut-in <u>45</u> Mins.
Fluid Loss <u>6.4</u>	Flow Period <u>45</u> Mins.
Interval Tested <u>3778-3795</u>	Final Shut-in <u>45</u> Mins.
Top Packer Depth <u>3773</u>	Surface Choke Size <u>1</u>
Bottom Packer Depth <u>3778</u>	Bottom Choke Size <u>3/4</u>
Total Depth <u>3795</u>	Main Hole Size <u>7 7/8</u>
Drill Pipe Size <u>4 1/2 X H</u> Wt. <u>16.60</u>	Rubber Size <u>6 3/4</u>
Drill Collar I. D. _____ Ft. Run _____	
Recovery—Total Feet _____	
Recovered <u>240</u> Feet Of <u>Gas in pipe</u>	
Recovered <u>50</u> Feet Of <u>Clean oil</u>	
Recovered <u>75</u> Feet Of <u>Heavy oil cut mud</u>	
Recovered _____ Feet Of _____	

Remarks

Weak blow building to fair thru-test

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### DRILL-STEM TEST DATA

Well Name <b>Caldwell</b>	Test No. <b>4</b>
Well Number <b>2</b>	Zone Tested <b>KC</b>
Company <b>A &amp; A Production</b>	Date <b>2/5/02</b>
Comp. Rep. <b>J Green</b>	Tester <b>Don Fabricius</b>
Contractor <b>A &amp; A Drlg</b>	Ticket No. <b>4044</b>
Location <b>4-9-28</b>	Elevation

Recorder No. <u>3088</u>	Clock Range <u>12</u>	Recorder No. <u>4377</u>	Clock Range <u>12</u>
Depth <u>3827</u>		Depth <u>3831</u>	
Initial Hydro Mud Press. <u>1912</u>		Initial Hydro Mud Press. <u>1915</u>	
Initial Shut-in Press. <u>1094</u>		Initial Shut-in Press. <u>1094</u>	
Initial Flow Press. <u>35-58</u>		Initial Flow Press. <u>35-58</u>	
Final Flow Press. <u>70-82</u>		Final Flow Press. <u>70-82</u>	
Final Shut-in Press. <u>1036</u>		Final Shut-in Press. <u>1038</u>	
Final Hydro Mud Press. <u>1912</u>		Final Hydro Mud Press. <u>1915</u>	
Temperature _____		Tool Open Before I. S. I. <u>45</u>	Mins.
Mud Weight <u>9.3</u>	Viscosity <u>44</u>	Initial Shut-in <u>45</u>	Mins.
Fluid Loss <u>6.4</u>		Flow Period <u>45</u>	Mins.
Interval Tested <u>3800-35</u>		Final Shut-in <u>45</u>	Mins.
Top Packer Depth <u>3995</u>		Surface Choke Size <u>1</u>	
Bottom Packer Depth <u>3800</u>		Bottom Choke Size <u>3/4</u>	
Total Depth <u>3835</u>		Main Hole Size <u>7 7/8</u>	
Drill Pipe Size <u>4 1/2 X H</u>	Wt. <u>16.60</u>	Rubber Size <u>6 3/4</u>	
Drill Collar I. D. _____	Ft. Run _____		
Recovery—Total Feet _____			
Recovered <u>5</u>	Feet Of <u>Free oil</u>		
Recovered <u>60</u>	Feet Of <u>Oil cut mud</u>		
Recovered <u>60</u>	Feet Of <u>Very slightly oil cut mud</u>		
Recovered _____	Feet Of _____		

Remarks

Weak building to fair blow thru-test

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### DRILL-STEM TEST DATA

Well Name <b>Caldwell</b>	Test No. <b>5</b>
Well Number <b>2</b>	Zone Tested <b>KC</b>
Company <b>A &amp; A Production</b>	Date <b>2/5/02</b>
Comp. Rep. <b>J Green</b>	Tester <b>Don Fabricius</b>
Contractor <b>A &amp; A Drlg</b>	Ticket No. <b>4045</b>
Location <b>4-9-28</b>	Elevation

Recorder No. <u>3088</u>	Clock Range <u>12</u>	Recorder No. <u>4377</u>	Clock Range <u>12</u>
Depth <u>3962</u>		Depth <u>3966</u>	
Initial Hydro Mud Press. <u>1981</u>		Initial Hydro Mud Press. <u>1983</u>	
Initial Shut-in Press. <u>35</u>		Initial Shut-in Press. <u>35</u>	
Initial Flow Press. <u>35-35</u>		Initial Flow Press. <u>35-35</u>	
Final Flow Press. <u>35-35</u>		Final Flow Press. <u>35-35</u>	
Final Shut-in Press. <u>--</u>		Final Shut-in Press. <u>--</u>	
Final Hydro Mud Press. <u>1981</u>		Final Hydro Mud Press. <u>1983</u>	
Temperature _____		Tool Open Before I. S. I. <u>30</u>	Mins.
Mud Weight <u>9.4</u>	Viscosity <u>42</u>	Initial Shut-in <u>30</u>	Mins.
Fluid Loss <u>6.4</u>		Flow Period <u>15</u>	Mins.
Interval Tested <u>3928-70</u>		Final Shut-in <u>--</u>	Mins.
Top Packer Depth <u>3923</u>		Surface Choke Size <u>1</u>	
Bottom Packer Depth <u>3928</u>		Bottom Choke Size <u>3/4</u>	
Total Depth <u>3970</u>		Main Hole Size <u>7 7/8</u>	
Drill Pipe Size <u>4 1/2 X H</u>	Wt. <u>16.60</u>	Rubber Size <u>6 3/4</u>	
Drill Collar I. D. _____	Ft. Run _____		
Recovery—Total Feet _____			
Recovered <u>3</u>	Feet Of <u>Mud</u>		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		
Remarks			
<u>Very weak blow dead in 21 min flush tool</u>			
<u>on second open - surge</u>			

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