

DRILL-STEM TEST DATA

Well Name	Renz	Test No.	1
Well Number	9	Zone Tested	Cong.
Company	J. A. Allison	Date	6-21-91
Comp. Rep.	O. R. Phelps	Tester	Don Fabricius
Contractor	Woodman-Iannitti Drilling	Ticket No.	2960
Location	14-18-18	Elevation	

Recorder No. <u>3088</u>	Clock Range <u>12</u>	Recorder No. <u>4377</u>	Clock Range <u>12</u>
Depth <u>3800</u>		Depth <u>3804</u>	
Initial Hydro Mud Press. <u>1923</u>		Initial Hydro Mud Press. <u>1924</u>	
Initial Shut-in Press. <u>70</u>		Initial Shut-in Press. <u>70</u>	
Initial Flow Press. <u>23-23</u>		Initial Flow Press. <u>23-23</u>	
Final Flow Press. <u>-</u>		Final Flow Press. <u>-</u>	
Final Shut-in Press. <u>-</u>		Final Shut-in Press. <u>-</u>	
Final Hydro Mud Press. <u>1923</u>		Final Hydro Mud Press. <u>1924</u>	
Temperature <u>110</u>		Tool Open Before I. S. I. <u>30</u>	Mins.
Mud Weight <u>9.5</u>	Viscosity <u>44</u>	Initial Shut-in <u>30</u>	Mins.
Fluid Loss <u>10</u>		Flow Period <u>-</u>	Mins.
Interval Tested <u>3778-3808</u>		Final Shut-in <u>-</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>3808</u>		Main Hole Size <u>7 7/8</u>	
Drill Pipe Size <u>4 1/2 XH</u>	Wt. <u>16.60</u>	Rubber Size <u>6 3/4</u>	
Drill Collar I. D. _____	Ft. Run _____		
Recovery—Total Feet _____			
Recovered <u>1</u>	Feet Of <u>free oil</u>		
Recovered <u>10</u>	Feet Of <u>mud</u>		
Recovered _____	Feet Of _____		
Recovered _____	Feet Of _____		

Remarks

Very weak blow for 9 min.

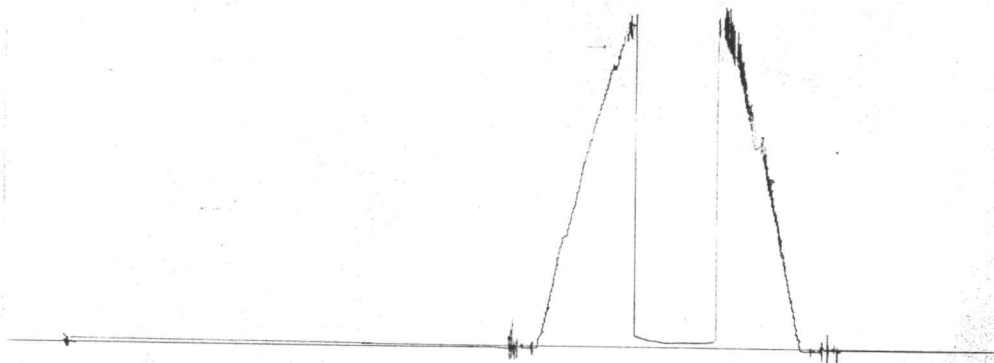
THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED. CONDITIONS: It is expressly understood and agreed that the above described work shall be done under the exclusive control, direction and supervision of the owner or contractor. As a part of the consideration for this agreement, it is expressly understood and agreed that Arrow Testing Company shall not be responsible for damages or losses of any kind whatsoever occasioned by or incident to the use of the above described Tools, whether run or operated by customer, or by anyone employed directly or indirectly by Arrow Testing Company, nor whether resulting from the acts or omissions of Arrow Testing Company, or any of its agents, servants or employees in any way connected with or related to the use of such Tools.

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.

By _____
Owner, Operator or his Agent

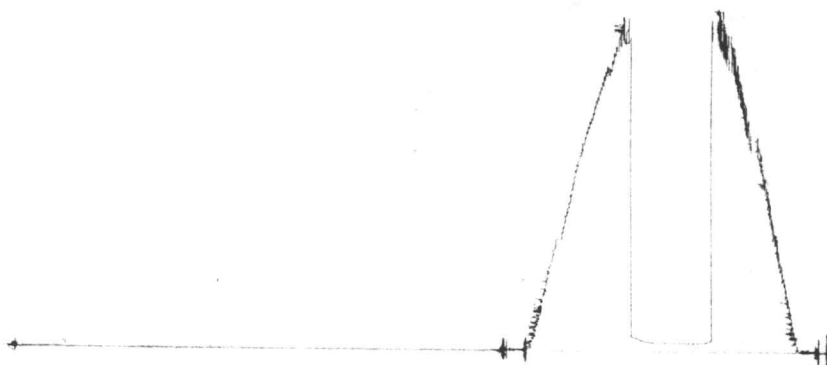
3088

2960



4377

2960



DRILL-STEM TEST DATA

Well Name	Renz	Test No.	2
Well Number	9	Zone Tested	Arb.
Company	J. A. Allison	Date	6-22-91
Comp. Rep.	O. R. Phelps	Tester	Don Fabricius
Contractor	Woodman-Iannitti Drilling	Ticket No.	2961
Location	14-18-18	Elevation	

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
 Depth 3806 Depth 3810
 Initial Hydro Mud Press. 1923 Initial Hydro Mud Press. 1924
 Initial Shut-in Press. 129 Initial Shut-in Press. 129
 Initial Flow Press. 47-47 Initial Flow Press. 46-46
 Final Flow Press. 47-47 Final Flow Press. 46-46
 Final Shut-in Press. 70 Final Shut-in Press. 70
 Final Hydro Mud Press. 1923 Final Hydro Mud Press. 1924
 Temperature 110 Tool Open Before I. S. I. 30 Mins.
 Mud Weight 9.5 Viscosity 44 Initial Shut-in 30 Mins.
 Fluid Loss 10.8 Flow Period 30 Mins.
 Interval Tested 3778-3814 Final Shut-in 30 Mins.
 Top Packer Depth 3773 Surface Choke Size 1"
 Bottom Packer Depth 3778 Bottom Choke Size 3/4
 Total Depth 3814 Main Hole Size 7 7/8
 Drill Pipe Size 4 1/2 XH Wt. 16.60 Rubber Size 6 3/4
 Drill Collar I. D. _____ Ft. Run _____
 Recovery—Total Feet _____
 Recovered 15 Feet Of mud with a trace of free oil on top
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Remarks
Very weak blow dead in 29 min.

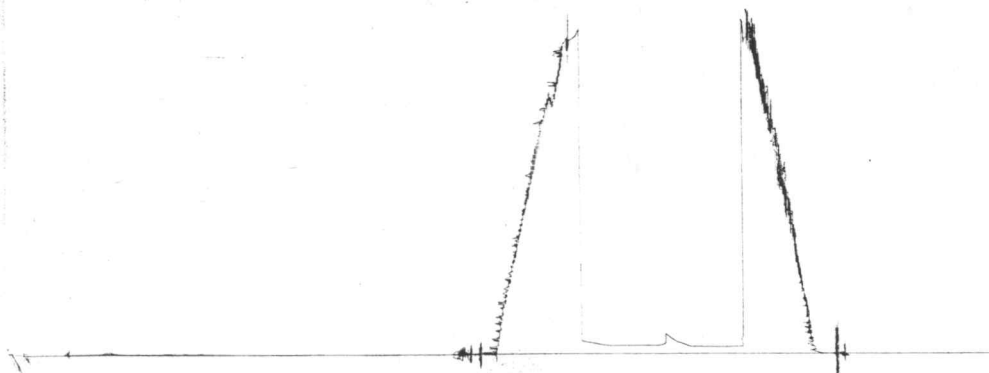
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By _____
 Owner, Operator or his Agent

3088

2961



4877

2961



DRILL-STEM TEST DATA

Well Name	Renz	Test No.	3
Well Number	9	Zone Tested	Arb.
Company	J. A. Allison	Date	6-22-91
Comp. Rep.	O. R. Phelps	Tester	Don Fabricius
Contractor	Woodman-Iannitti Drilling	Ticket No.	2962
Location	14-18-18	Elevation	

Recorder No. <u>3088</u>	Clock Range <u>12</u>	Recorder No. <u>4377</u>	Clock Range <u>12</u>
Depth <u>3812</u>		Depth <u>3816</u>	
Initial Hydro Mud Press. <u>1935</u>		Initial Hydro Mud Press. <u>1947</u>	
Initial Shut-in Press. <u>247</u>		Initial Shut-in Press. <u>258</u>	
Initial Flow Press. <u>23-23</u>		Initial Flow Press. <u>23-23</u>	
Final Flow Press. <u>-</u>		Final Flow Press. <u>-</u>	
Final Shut-in Press. <u>-</u>		Final Shut-in Press. <u>-</u>	
Final Hydro Mud Press. <u>1935</u>		Final Hydro Mud Press. <u>1947</u>	
Temperature <u>112</u>		Tool Open Before I. S. I. <u>30</u>	Mins.
Mud Weight <u>9.4</u>	Viscosity <u>46</u>	Initial Shut-in <u>30</u>	Mins.
Fluid Loss <u>11.2</u>		Flow Period <u>-</u>	Mins.
Interval Tested <u>3778-3820</u>		Final Shut-in <u>-</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>3820</u>		Main Hole Size <u>7 7/8</u>	
Drill Pipe Size <u>4 1/2 XH</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 with trace of free oil on top</u>			
Recovered _____ Feet Of _____			
Recovered _____ Feet Of _____			
Recovered _____ Feet Of _____			
Remarks <u>Very weak blow dead 25 min.</u>			

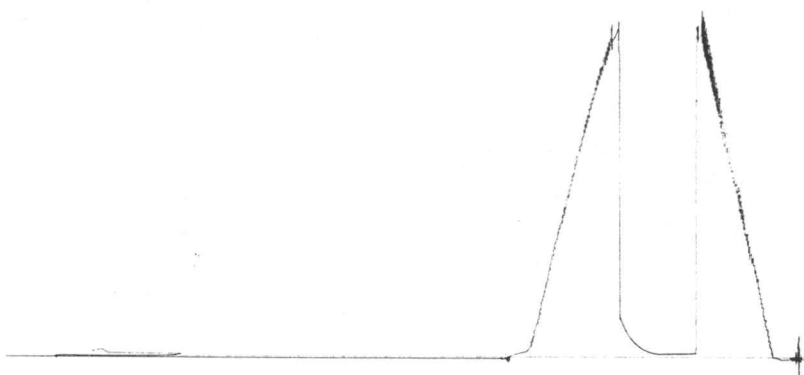
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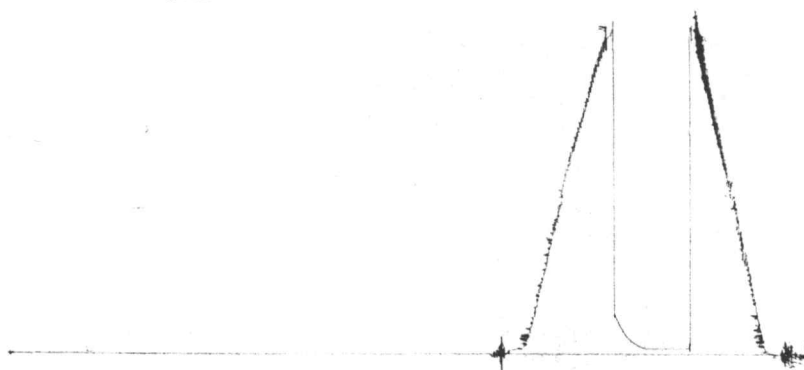
3088

2962



4377

2962



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

DRILL-STEM TEST DATA

Well Name	Renz	Test No.	4
Well Number	9	Zone Tested	Arb.
Company	J. A. Allison	Date	6/22/91
Comp. Rep.	O. R. Phelps	Tester	Don Fabricius
Contractor	Woodman-Iannitti Drilling	Ticket No.	2963
Location	14-18-18	Elevation	

Recorder No. 3088	Clock Range 12	Recorder No. 4377	Clock Range 12
Depth 3816		Depth 3820	
Initial Hydro Mud Press. 1935		Initial Hydro Mud Press. 1947	
Initial Shut-in Press. 1220		Initial Shut-in Press. 1226	
Initial Flow Press. 47-47		Initial Flow Press. 46-46	
Final Flow Press. 58-58		Final Flow Press. 58-58	
Final Shut-in Press. 1220		Final Shut-in Press. 1226	
Final Hydro Mud Press. 1935		Final Hydro Mud Press. 1947	
Temperature 116		Tool Open Before I. S. I. 30 Mins.	
Mud Weight 9.4	Viscosity 46	Initial Shut-in 60 Mins.	
Fluid Loss 11		Flow Period 30 Mins.	
Interval Tested 3778-3824		Final Shut-in 60 Mins.	
Top Packer Depth 3773		Surface Choke Size 1"	
Bottom Packer Depth 3778		Bottom Choke Size 3/4"	
Total Depth 3824		Main Hole Size 7 7/8	
Drill Pipe Size 4 1/2 XH	Wt. 16.60	Rubber Size 6 3/4	
Drill Collar I. D. _____ Ft. Run _____			
Recovery—Total Feet _____			
Recovered 60 Feet Of muddy oil			
Recovered _____ Feet Of _____			
Recovered _____ Feet Of _____			
Recovered _____ Feet Of _____			
Remarks			
Very weak blow thru test			

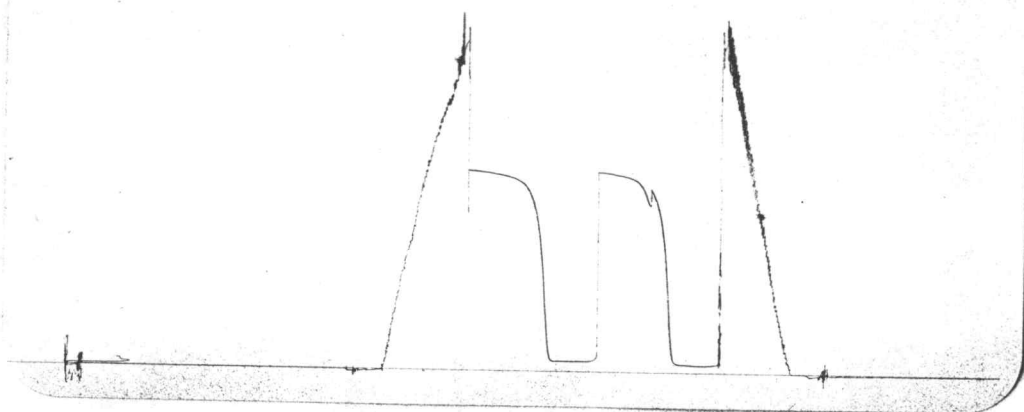
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By _____
Owner, Operator or his Agent

308A

2962



4377

2963

