

DRILL-STEM TEST DATA

15-009-24678

Well Name	B&D	Test No.	1
Well Number	4	Zone Tested	KC
Company	Richlan Drilling	Date	6/17/00
Comp. Rep.	R Schreiber	Tester	Don Fabricius
Contractor	Duke	Ticket No.	3353
Location	25-17-12	Elevation	

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
Depth 3108 Depth 3112
Initial Hydro Mud Press. 1519 Initial Hydro Mud Press. 1524
Initial Shut-in Press. 695 Initial Shut-in Press. 692
Initial Flow Press. 23-23 Initial Flow Press. 23-23
Final Flow Press. 35-35 Final Flow Press. 35-35
Final Shut-in Press. 577 Final Shut-in Press. 528
Final Hydro Mud Press. 1519 Final Hydro Mud Press. 1524
Temperature _____ Tool Open Before I. S. I. 30 Mins.
Mud Weight 9.3 Viscosity 39 Initial Shut-in 30 Mins.
Fluid Loss 10.4 Flow Period 30 Mins.
Interval Tested 3103-16 Final Shut-in 30 Mins.
Top Packer Depth 3098 Surface Choke Size 1
Bottom Packer Depth 3103 Bottom Choke Size 3/4
Total Depth 3116 Main Hole Size 7 7/8
Drill Pipe Size 4.5 XH Wt. 16.60 Rubber Size 6 3/4
Drill Collar I. D. _____ Ft. Run _____
Recovery—Total Feet _____
Recovered 20 Feet Of Mud with oil specks
Recovered _____ Feet Of _____
Recovered _____ Feet Of _____
Recovered _____ Feet Of _____
Remarks
Very weak blow thru-test

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25-17-12
50N1 SE SW SE

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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.

By _____

DRILL-STEM TEST DATA

Well Name	B&D	Test No.	2
Well Number	4	Zone Tested	KC
Company	Richlan Drilling	Date	6/18/00
Comp. Rep.	R Schreiber	Tester	Don Fabricius
Contractor	Duke Drlg	Ticket No.	3354
Location	25-17-12	Elevation	

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
Depth 3252 Depth 3256
Initial Hydro Mud Press. 1611 Initial Hydro Mud Press. 1615
Initial Shut-in Press. 1082 Initial Shut-in Press. 1089
Initial Flow Press. 70-70 Initial Flow Press. 70-70
Final Flow Press. 94-105 Final Flow Press. 93-105
Final Shut-in Press. 1048 Final Shut-in Press. 1054
Final Hydro Mud Press. 1611 Final Hydro Mud Press. 1615
Temperature _____ Tool Open Before I. S. I. 30 Mins.
Mud Weight 9.1 Viscosity 44 Initial Shut-in 30 Mins.
Fluid Loss 20 Flow Period _____ Mins.
Interval Tested 3159-3260 Final Shut-in 30 Mins.
Top Packer Depth 3154 Surface Choke Size 1
Bottom Packer Depth 3159 Bottom Choke Size 3/4
Total Depth 3260 Main Hole Size 7 7/8
Drill Pipe Size 4.5 XH Wt. 16.60 Rubber Size 6 3/4
Drill Collar I. D. _____ Ft. Run _____

Recovery—Total Feet _____
Recovered 510 Feet Of _____ Gas in pipe
Recovered 30 Feet Of _____ Very slightly oil mud
Recovered 60 Feet Of _____ oil cut mud
Recovered _____ Feet Of _____

Remarks
Weak building to strong blow thru-test

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DRILL-STEM TEST DATA

Well Name	B&D	Test No.	3
Well Number	4	Zone Tested	KC
Company	Richlan Drilling	Date	6/19/00
Comp. Rep.	R Schreiber	Tester	Don Fabricius
Contractor	Duke Drlg	Ticket No.	3355
Location	25-17-12	Elevation	

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
Depth 3303 Depth 3307
Initial Hydro Mud Press. 1704 Initial Hydro Mud Press. 1707
Initial Shut-in Press. 188 Initial Shut-in Press. 187
Initial Flow Press. 35-35 Initial Flow Press. 35-35
Final Flow Press. 35-35 Final Flow Press. 35-35
Final Shut-in Press. 129 Final Shut-in Press. 129
Final Hydro Mud Press. 1704 Final Hydro Mud Press. 1707
Temperature _____ Tool Open Before I. S. I. 30 Mins.
Mud Weight 9.1 Viscosity 44 Initial Shut-in 30 Mins.
Fluid Loss 20 Flow Period 30 Mins.
Interval Tested 3256-2311 Final Shut-in 30 Mins.
Top Packer Depth 3251 Surface Choke Size 1
Bottom Packer Depth 3256 Bottom Choke Size 3/4
Total Depth 3311 Main Hole Size 7 7/8
Drill Pipe Size 4.5 XH Wt. 16.60 Rubber Size 6 3/4
Drill Collar I. D. _____ Ft. Run _____
Recovery—Total Feet _____
Recovered 10 Feet Of Mud with spots of on top
Recovered _____ Feet Of _____
Recovered _____ Feet Of _____
Recovered _____ Feet Of _____
Remarks
Very weak blow dead in 15 min

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DRILL-STEM TEST DATA

Well Name	B&D	Test No.	4
Well Number	4	Zone Tested	Arb
Company	Richlan Drilling	Date	6/19/00
Comp. Rep.	R Schreiber	Tester	Don Fabricius
Contractor	Duke Drlg	Ticket No.	3356
Location	25-17-12	Elevation	

Recorder No. 3088 Clock Range 12 Recorder No. 4377 Clock Range 12
 Depth 3323 Depth 3327
 Initial Hydro Mud Press. 1738 Initial Hydro Mud Press. 1741
 Initial Shut-in Press. 310 Initial Shut-in Press. 316
 Initial Flow Press. 58-58 Initial Flow Press. 58-58
 Final Flow Press. 58-58 Final Flow Press. 58-58
 Final Shut-in Press. -- Final Shut-in Press. --
 Final Hydro Mud Press. 1738 Final Hydro Mud Press. 1741
 Temperature 1738 Tool Open Before I. S. I. 30 Mins.
 Mud Weight 9.1 Viscosity 49 Initial Shut-in 30 Mins.
 Fluid Loss 9.6 Flow Period 5 Mins.
 Interval Tested 3256-3331 Final Shut-in -- Mins.
 Top Packer Depth 3251 Surface Choke Size 1
 Bottom Packer Depth 3256 Bottom Choke Size 3/4
 Total Depth 3331 Main Hole Size 7 7/8
 Drill Pipe Size 4.5 XH Wt. 16.60 Rubber Size 6 3/4
 Drill Collar I. D. _____ Ft. Run _____
 Recovery—Total Feet _____
 Recovered 10 Feet Of _____ Mud _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Remarks
very weak blow dead in 8 min
Second open flush tool very weak blow dead
in 1 min

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