# CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

## DRILL-STEM TEST DATA

| | | | |
|---|---|---|---|
| Company | A. L. Abercrombie Inc. | Test No. | 1 |
| Well Name & Number | Pfeifer #2 | Zone Tested | Krider |
| Company Address | 801 Union Center | Date | 7-11-76 |
| Comp. Rep. | Bob McCann | Tester | Kenneth Cheney |
| Contractor | Rains & Williamson Drlg. Co. | Elevation | 3141 K.B. |
| Location: Sec. 9 Twp. 21S Rge. 35W Co. Kerney State Kan | | Est. Feet of Pay | 20 |

Recorder No. 1760 Type Kuster Range 3500 PSI
Recorder Depth 2680
(A) Initial Hydrostatic Mud 1480 PSI
(B) First Initial Flow Pressure ____ PSI
(C) First Final Flow Pressure False PSI
(D) Initial Closed-in Pressure 462 PSI
(E) Second Initial Flow Pressure 34 PSI
(F) Second Final Flow Pressure 39 PSI
(G) Final Closed-in Pressure 248 PSI
(H) Final Hydrostatic Mud 1463 PSI
Temperature ____
Mud Weight 9.8 Viscosity 40
Fluid Loss 14+
Interval Tested 2665-2685
Anchor Length 20'
Top Packer Depth 2660
Bottom Packer Depth 2665
Total Depth 2685
Drill Pipe Size 4½ Ex.H.
Wt. Pipe I. D. 2.7 Ft. Run 244
Recovery—Total Feet 60
Recovered 240 Feet Of gas in pipe.
Recovered 60 Feet Of mud.
Recovered ____ Feet Of ____
Recovered ____ Feet Of ____

Recorder No. 2836 Type Kuster Range 3550 PSI
Recorder Depth 2678
Tool Open Before I. S. I. 30 Mins.
Initial Shut-in 30 Mins.
Flow Period 60 Mins.
Final Shut-in 45 Mins.
Surface Choke Size 1"
Bottom Choke Size ½"
Main Hole Size 7 7/8"
Rubber Size 6 3/4"
Tool Open @ 6:15 P.M.
Blow weak on pre-flow
Remarks weak to strong on F.F.
(Tool plugged on pre-flow)

Drill Collar I. D. ____ Ft. Run ____

Extra Equipment ____ Price of Job $340.00

**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 Cheney 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 Cheney Testing Company, nor whether resulting from the acts or omissions of Cheney 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 Cheney Testing Company, shall not be bound by any agreement, not herein contained, and no agent or representative connected with or employed by Cheney 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*


This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 1480 | | PSI |
| (B) | First Initial Flow Pressure | | | PSI |
| (C) | First Final Flow Pressure | False | | PSI |
| (D) | Initial Closed-in Pressure | 462 | | PSI |
| (E) | Second Initial Flow Pressure | 34 | | PSI |
| (F) | Second Final Flow Pressure | 39 | | PSI |
| (G) | Final Closed-in Pressure | 248 | | PSI |
| (H) | Final Hydrostatic Mud | 1463 | | PSI |

COMPANY A.L. ABERCROMBIE INC. LEASE AND WELL NO. PFEIFER #2 SEC. 9 TWP. 21S RGE. 35W TEST NO. 1 DATE 7-11-76

Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Abercrombie Drilling, Inc. Lease & Well No. Pfeiffer #2

Elevation - Formation Marathon Effective Pay - Ft. Ticket No. 22261

Date 7-16-76 Sec. 9 Twp. 21S Range 35W County Kearny State Kansas

Test Approved by Robert E. McCann Western Representative Bill Hager

Formation Test No. 2 O.K. X Misrun - Interval Tested From 4463' to 4490' Total Depth 4490'

Size Main Hole 7 7/8 Rat Hole - Conv. X B.T. - Damaged - Yes X No Conv. X B.T. - Damaged - Yes X No

Top Packer Depth 4458 Ft. Size 6 3/4 Bottom Packer Depth 4463 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½ OD Tool Joint Size 4½ FH Anchor Length 27 Ft. Size 5½ OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4478 Ft. Clock No. 4763 Depth 4481 Ft. Clock No. 9712

Top Make Kuster Cap. 4150 No. 2604 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3660 ~~Inside~~ Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 3:06 P M

Tool Open I.F.P. From 3:08 P M. to 3:38P M. - Hr. 30 Min. From (B) 55 P.S.I. To (C) 51 P.S.I.

Tool Closed I.C.I.P. From 3:38P M. to 4:08P M. - Hr. 30 Min (D) 1114 P.S.I.

Tool Open F.F.P. From 4:08 P M. to 5:08P M. 1 Hr. - Min. From (E) 82 P.S.I. To (F) 80 P.S.I.

Tool Closed F.C.I.P. From 5:08 M. to 5:53 P M. - Hr. 45 Min. (G) 1096 P.S.I.

Initial Hydrostatic Pressure (A) 2252 P.S.I. Final Hydrostatic Pressure (H) 2252 P.S.I. Maximum Temp. 118

## INFORMATION

BLOW Very weak blow throughout test.

Did Well Flow - Yes X No Recovery Total Ft. 150' muddy water

Reversed Out - Yes X No Mud Type starch Viscosity 39 Weight 9.5 Water Loss 14.0 cc. Chlorides 26,000 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Yes Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Rains & Williamson Length Drill Pipe? 4190 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½XH In.

Length Weight Pipe 250 Ft. I.D. Weight Pipe 3 In. Tool Joint Size 4½FH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 50 Ft.

Remarks:

# WESTERN TESTING CO., INC.
## Pressure Data

Date 7-16-76 Test Ticket No. 22261

Recorder No. 2604 Capacity 4150 Location 4478 Ft.

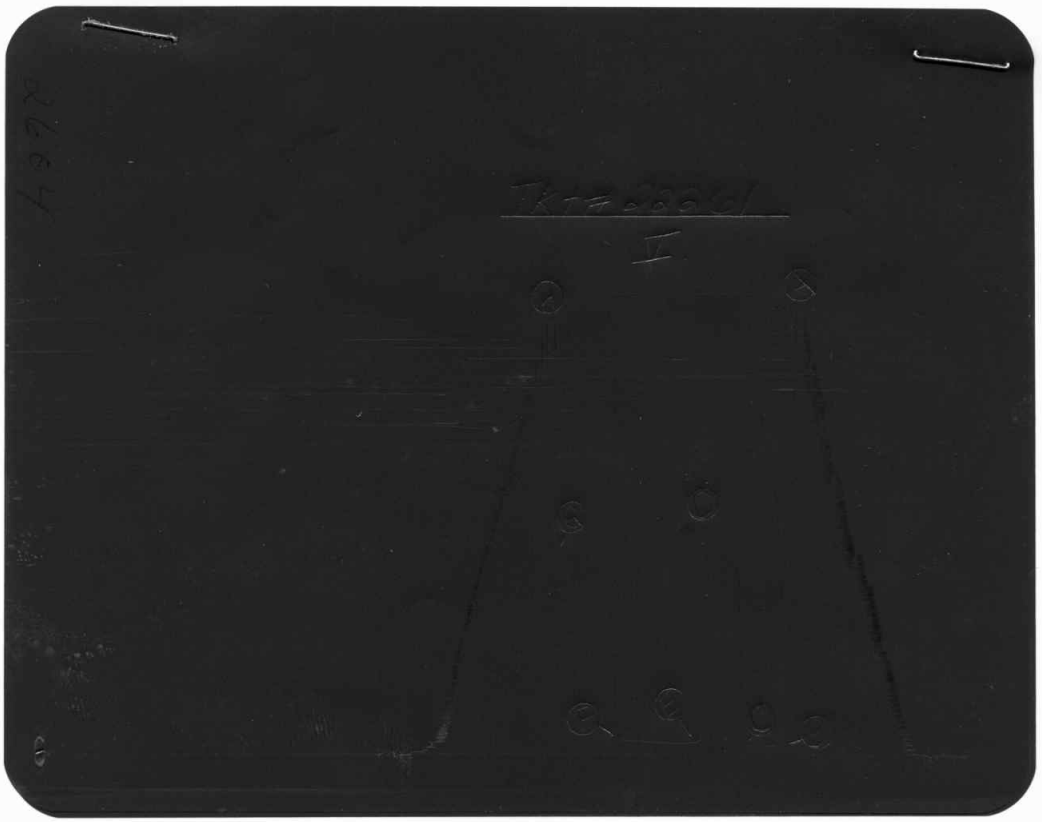
Clock No. 4763 Elevation - Well Temperature 118 °F

| Point | Pressure | | Time Given | Time Computed |
|---|---|---|---|---|
| A Initial Hydrostatic Mud | 2252 P.S.I. | Open Tool | 3:06 PM | |
| B First Initial Flow Pressure | 55 P.S.I. | First Flow Pressure | 30 Mins. | 30 Mins. |
| C First Final Flow Pressure | 51 P.S.I. | Initial Closed-in Pressure | 30 Mins. | 33 Mins. |
| D Initial Closed-in Pressure | 1114 P.S.I. | Second Flow Pressure | 60 Mins. | 60 Mins. |
| E Second Initial Flow Pressure | 82 P.S.I. | Final Closed-in Pressure | 45 Mins. | 51 Mins. |
| F Second Final Flow Pressure | 80 P.S.I. | | | |
| G Final Closed-in Pressure | 1096 P.S.I. | | | |
| H Final Hydrostatic Mud | 2252 P.S.I. | | | |

## PRESSURE BREAKDOWN

| First Flow Pressure | | Initial Shut-In | | Second Flow Pressure | | Final Shut-In | |
|---|---|---|---|---|---|---|---|
| Breakdown: 6 Inc. | | Breakdown: 11 Inc. | | Breakdown: 12 Inc. | | Breakdown: 17 Inc. | |
| of 5 mins. and a | | of 3 mins. and a | | of 5 mins. and a | | of 3 mins. and a | |
| final inc. of 0 Min. | | final inc. of 0 Min. | | final inc. of 0 Min. | | final inc. of 0 Min. | |
| Point Mins. | Press. | Point Minutes | Press. | Point Minutes | Press. | Point Minutes | Press. |
| P 1 0 | 55 | 0 | 51 | 0 | 82 | 0 | 80 |
| P 2 5 | 51 | 3 | 254 | 5 | 67 | 3 | 170 |
| P 3 10 | 48 | 6 | 765 | 10 | 64 | 6 | 423 |
| P 4 15 | 47 | 9 | 996 | 15 | 62 | 9 | 805 |
| P 5 20 | 47 | 12 | 1044 | 20 | 63 | 12 | 977 |
| P 6 25 | 50 | 15 | 1065 | 25 | 64 | 15 | 1013 |
| P 7 30 | 51 | 18 | 1079 | 30 | 66 | 18 | 1031 |
| P 8 | | 21 | 1088 | 35 | 68 | 21 | 1046 |
| P 9 | | 24 | 1098 | 40 | 71 | 24 | 1056 |
| P10 | | 27 | 1104 | 45 | 74 | 27 | 1065 |
| P11 | | 30 | 1109 | 50 | 75 | 30 | 1070 |
| P12 | | 33 | 1114 | 55 | 77 | 33 | 1077 |
| P13 | | | | 60 | 80 | 36 | 1081 |
| P14 | | | | | | 39 | 1085 |
| P15 | | | | | | 42 | 1089 |
| P16 | | | | | | 45 | 1092 |
| P17 | | | | | | 48 | 1094 |
| P18 | | | | | | 51 | 1096 |
| P19 | | | | | | | |
| P20 | | | | | | | |

COMPANY Abercrombie Drilling, Inc. LEASE AND WELL NO. Pfeiffer #2 SEC. 9 TWP. 21S RGE. 35W TEST NO. 2 DATE 7-16-76



This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 2253 | 2252 | PSI |
| (B) | First Initial Flow Pressure | 31 | 55 | PSI |
| (C) | First Final Flow Pressure | 42 | 51 | PSI |
| (D) | Initial Closed-in Pressure | 1108 | 1114 | PSI |
| (E) | Second Initial Flow Pressure | 53 | 82 | PSI |
| (F) | Second Final Flow Pressure | 74 | 80 | PSI |
| (G) | Final Closed-in Pressure | 1077 | 1096 | PSI |
| (H) | Final Hydrostatic Mud | 2253 | 2252 | PSI |

WESTERN

Home Office: Wichita, Kansas 67201

P. O. Box 1599 (316) 838-0601

Company Abercrombie Drilling, Inc. Lease & Well No. Pfeiffer #2

Elevation - Formation Marathon Effective Pay - Ft. Ticket No. 22262

Date 7-17-76 Sec. 9 Twp. 21S Range 35W County Kearny State Kansas

Test Approved by Robert E. McCann Western Representative Bill Hager

Formation Test No. 3 O.K. X Misrun - Interval Tested From 4539' to 4565' Total Depth 4565'

Size Main Hole 77/8 Rat Hole - Conv. X B.T. - Damaged - Yes X No Conv. X B.T. - Damaged - Yes X No

Top Packer Depth 4534 Ft. Size 6 3/4 Bottom Packer Depth 4539 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½ OD Tool Joint Size 4½FH Anchor Length 26 Ft. Size 5½ OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4553 Ft. Clock No. 4763 Depth 4556 Ft. Clock No. 9712

Top Make Kuster Cap. 4150 No. 2604 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3660 ~~Inside~~ Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 12:03P M

Tool Open I.F.P. From 12:05 PM. to 12:35PM. - Hr. 30 Min. From (B) 34 P.S.I. To (C) 21 P.S.I.

Tool Closed I.C.I.P. From 12:35M. to 1:05 PM. - Hr. 30 Min (D) 1033 P.S.I.

Tool Open F.F.P. From 1:05 PM. to 1:35 PM. - Hr. 30 Min. From (E) 55 P.S.I. To (F) 29 P.S.I.

Tool Closed F.C.I.P. From 1:35M. to 2:05PM. - Hr. 30 Min. (G) 984 P.S.I.

Initial Hydrostatic Pressure (A) 2192 P.S.I. Final Hydrostatic Pressure (H) 2200 P.S.I. Maximum Temp. 114

## INFORMATION

BLOW Very weak blow, died in 10 minutes. By-pass tool in 2nd opening.

Did Well Flow - Yes X No Recovery Total Ft. 30' drilling mud with few oil spots.

Reversed Out - Yes X No Mud Type starch Viscosity 44 Weight 9.3 Water Loss 14.0 cc. Chlorides 24,000 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Yes Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Rains & Williamson Length Drill Pipe? 4266 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½XH In.

Length Weight Pipe 250 Ft. I.D. Weight Pipe 3 In. Tool Joint Size 4½FH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 49 Ft.

Remarks:

FORM WTC 2

# WESTERN TESTING CO., INC.
## Pressure Data

Date 7-17-76 Test Ticket No. 22262

Recorder No. 2604 Capacity 4150 Location 4553 Ft.

Clock No. 4763 Elevation - Well Temperature 114 °F

| Point | | Pressure | | | Time Given | Time Computed |
|---|---|---|---|---|---|---|
| A | Initial Hydrostatic Mud | 2192 P.S.I. | | Open Tool | 12:03 P M | |
| B | First Initial Flow Pressure | 34 P.S.I. | | First Flow Pressure | 30 Mins. | 30 Mins. |
| C | First Final Flow Pressure | 21 P.S.I. | | Initial Closed-in Pressure | 30 Mins. | 30 Mins. |
| D | Initial Closed-in Pressure | 1033 P.S.I. | | Second Flow Pressure | 30 Mins. | 30 Mins. |
| E | Second Initial Flow Pressure | 55 P.S.I. | | Final Closed-in Pressure | 30 Mins. | 33 Mins. |
| F | Second Final Flow Pressure | 29 P.S.I. | | | | |
| G | Final Closed-in Pressure | 984 P.S.I. | | | | |
| H | Final Hydrostatic Mud | 2200 P.S.I. | | | | |

## PRESSURE BREAKDOWN

**First Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

| Point Mins. | Press. |
|---|---|
| P 1 0 | 34 |
| P 2 5 | 23 |
| P 3 10 | 21 |
| P 4 15 | 19 |
| P 5 20 | 19 |
| P 6 25 | 20 |
| P 7 30 | 21 |
| P 8 | |
| P 9 | |
| P10 | |
| P11 | |
| P12 | |
| P13 | |
| P14 | |
| P15 | |
| P16 | |
| P17 | |
| P18 | |
| P19 | |
| P20 | |

**Initial Shut-In**
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 0 Min.

| Point Minutes | Press. |
|---|---|
| 0 | 21 |
| 3 | 53 |
| 6 | 198 |
| 9 | 406 |
| 12 | 607 |
| 15 | 753 |
| 18 | 853 |
| 21 | 917 |
| 24 | 964 |
| 27 | 1003 |
| 30 | 1033 |

**Second Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

| Point Minutes | Press. |
|---|---|
| 0 | 55 flushed tool |
| 5 | 43 |
| 10 | 32 |
| 15 | 29 |
| 20 | 29 |
| 25 | 30 |
| 30 | 29 |

**Final Shut-In**
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 0 Min.

| Point Minutes | Press. |
|---|---|
| 0 | 29 |
| 3 | 43 |
| 6 | 130 |
| 9 | 310 |
| 12 | 502 |
| 15 | 654 |
| 18 | 765 |
| 21 | 843 |
| 24 | 893 |
| 27 | 937 |
| 30 | 969 |
| 33 | 984 |

COMPANY Abercrombie Drilling, Inc. LEASE AND WELL NO. Pfeiffer #2 SEC. 9 TWP. 21S RGE. 35W TEST NO. 3 DATE 7-17-76

This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 2179 | 2192 | PSI |
| (B) | First Initial Flow Pressure | 21 | 34 | PSI |
| (C) | First Final Flow Pressure | 21 | 21 | PSI |
| (D) | Initial Closed-in Pressure | 1014 | 1033 | PSI |
| (E) | Second Initial Flow Pressure | 21 | 55 | PSI |
| (F) | Second Final Flow Pressure | 21 | 29 | PSI |
| (G) | Final Closed-in Pressure | 972 | 984 | PSI |
| (H) | Final Hydrostatic Mud | 2179 | 2200 | PSI |

Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Abercrombie Drilling, Inc. Lease & Well No. Pfeiffer #2

Elevation - Formation - Effective Pay - Ft. Ticket No. 22263

Date 7-18-76 Sec. 9 Twp. 21S Range 35W County Kearny State Kansas

Test Approved by Robert E. McCann Western Representative Bill Hager

Formation Test No. 4 O.K. X Misrun - Interval Tested From 4569' to 4595' Total Depth 4595'

Size Main Hole 77/8 Rat Hole - Conv. X B.T. - Damaged - Yes X No Conv. X B.T. - Damaged - Yes X No

Top Packer Depth 4564 Ft. Size 6 3/4 Bottom Packer Depth 4569 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 26 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4583 Ft. Clock No. 4763 Depth 4586 Ft. Clock No. 9712

Top Make Kuster Cap. 4150 No. 2604 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3660 ~~Inside~~ Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 2:25 M

Tool Open I.F.P. From 2:27 M. to 2:57 M. - Hr. 30 Min. From (B) 47 P.S.I. To (C) 29 P.S.I.

Tool Closed I.C.I.P. From 2:57 M. to 3:27 M. - Hr. 30 Min (D) 49 P.S.I.

Tool Open F.F.P. From 3:27 M. to 3:57 M. - Hr. 30 Min. From (E) 49 P.S.I. To (F) 29 P.S.I.

Tool Closed F.C.I.P. From 3:57 M. to 4:27 M. - Hr. 30 Min. (G) 36 P.S.I.

Initial Hydrostatic Pressure (A) 2276 P.S.I. Final Hydrostatic Pressure (H) 2263 P.S.I. Maximum Temp. 114

## INFORMATION

BLOW Very weak blow, died in 12 minutes.

Did Well Flow - Yes X No Recovery Total Ft. 10' drilling mud.

Reversed Out - Yes X No Mud Type starch Viscosity 44 Weight 9.3 Water Loss 14.0 cc. Chlorides 24,000 P.P.M.

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Yes Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

**DRILLING CONTRACTOR** Rains & Williamson Length Drill Pipe? 4296 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½XH In.

Length Weight Pipe 250 Ft. I.D. Weight Pipe 3 In. Tool Joint Size 4½FH In. Length Drill Collars - Ft. I.D. Drill Collars - In.

Tool Joint Size - In. Length D.S.T. Tool 49 Ft.

Remarks:

# WESTERN TESTING CO., INC.
## Pressure Data

ate 7-18-76 Test Ticket No. 22263

corder No. 2604 Capacity 4150 Location 4583 Ft.

ock No. 4763 Elevation - Well Temperature 114 °F

| int | Pressure | | Time Given | Time Computed |
|---|---|---|---|---|
| Initial Hydrostatic Mud | 2276 P.S.I. | Open Tool | 2:25 M | |
| First Initial Flow Pressure | 47 P.S.I. | First Flow Pressure | 30 Mins. | 30 Mins. |
| First Final Flow Pressure | 29 P.S.I. | Initial Closed-in Pressure | 30 Mins. | 30 Mins. |
| Initial Closed-in Pressure | 49 P.S.I. | Second Flow Pressure | 30 Mins. | 30 Mins. |
| Second Initial Flow Pressure | 49 P.S.I. | Final Closed-in Pressure | 30 Mins. | 35 Mins. |
| Second Final Flow Pressure | 29 P.S.I. | | | |
| Final Closed-in Pressure | 36 P.S.I. | | | |
| Final Hydrostatic Mud | 2263 P.S.I. | | | |

## PRESSURE BREAKDOWN

**First Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

**Initial Shut-In**
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

**Second Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

**Final Shut-In**
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 2 Min.

| int ins. | Press. | Point Minutes | Press. | Point Minutes | Press. | Point Minutes | Press. |
|---|---|---|---|---|---|---|---|
| 1 0 | 47 | 0 | 29 | 0 | 49 | 0 | 29 |
| 2 5 | 36 | 3 | 29 | 5 | 34 | 3 | 29 |
| 3 10 | 31 | 6 | 30 | 10 | 31 | 6 | 29 |
| 4 15 | 30 | 9 | 31 | 15 | 30 | 9 | 29 |
| 5 20 | 30 | 12 | 33 | 20 | 30 | 12 | 30 |
| 6 25 | 29 | 15 | 36 | 25 | 29 | 15 | 31 |
| 7 30 | 29 | 18 | 38 | 30 | 29 | 18 | 32 |
| 8 | | 21 | 40 | | | 21 | 33 |
| 9 | | 24 | 42 | | | 24 | 34 |
| 0 | | 27 | 44 | | | 27 | 35 |
| 1 | | 30 | 49 | | | 30 | 36 |
| 2 | | | | | | 33 | 37 |
| 3 | | | | | | 35 | 36 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 0 | | | | | | | |

This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 2177 | 2276 | PSI |
| (B) | First Initial Flow Pressure | 31 | 47 | PSI |
| (C) | First Final Flow Pressure | 31 | 29 | PSI |
| (D) | Initial Closed-in Pressure | 53 | 49 | PSI |
| (E) | Second Initial Flow Pressure | 31 | 49 | PSI |
| (F) | Second Final Flow Pressure | 31 | 29 | PSI |
| (G) | Final Closed-in Pressure | 42 | 36 | PSI |
| (H) | Final Hydrostatic Mud | 2177 | 2263 | PSI |

COMPANY Abercrombie Drilling, Inc. LEASE AND WELL NO. Pfeiffer #2 SEC. 9 TWP. 21S RGE. 35W TEST NO. 4 DATE 7-18-76

DATE 7-21-76

SEC. 9 TWN 21 RG 35

LEGAL DESCRIPTION C/SE/SW

# MILLER TESTING COMPANY

P. O. BOX 547 PHONE (316) 793-3370

GREAT BEND, KANSAS

TICKET Nº 14790

TEST NO. 5

COMPANY Abercrombie Drlg. Inc.

ADDRESS 801 Union Center Wichita, Kans. 67202

LEASE PFEIFER WELL NO. 2 COUNTY Kerney STATE Kans.

INVOICES SENT TO: Same

DST COPIES SENT TO: " "

## GENERAL INFORMATION

TOOL JT. 4½ XH HOLE SIZE 7⅞ PACKER O.D. 6¾

ELEV. ____ TOTAL DEPTH 5010

TESTED FROM 4844 TO 4890

ANCHOR LENGTH BELOW 126 ft. BETWEEN 76 ft.

TOOL OPEN 1ST FLOW ____ A.M. 3:00 P.M.

TOOL CLOSED INITIAL SHUT-IN ____ A.M. ____ P.M.

TOOL OPEN 2ND FLOW ____ A.M. ____ P.M.

TOOL CLOSED FINAL SHUT-IN ____ A.M. ____ P.M.

MUD WT 9.5 VISCOSITY 49 W.L. 8.4 C.C.

SP. GRAVITY OIL ____ BOTTOM HOLE TEMPERATURE ____

LENGTH DRILL COLLAR 440 ft. I.D. 2.25

LENGTH WEIGHT PIPE 245 ft. I.D. 2.76

SUCCESSFUL TEST NO. ____ MISRUN NO. 1

CHOKES: TOP ½ BOTTOM ½

## PRESSURE DATA & TIME

| | FIELD READINGS | CORRECTED READINGS |
|---|---|---|
| INITIAL HYDROSTATIC | | |
| INITIAL 1ST FLOW | | |
| FINAL 1ST FLOW | | |
| INITIAL SHUT-IN | | |
| INITIAL 2ND FLOW | | |
| FINAL 2ND FLOW | | |
| FINAL SHUT-IN | | |
| FINAL HYDROSTATIC | | |

TOOL OPEN: 1ST FLOW ____ HR. ____ MIN.

INITIAL SHUT-IN ____ HR. ____ MIN.

2ND FLOW ____ HR. ____ MIN.

FINAL SHUT-IN ____ HR. ____ MIN.

TOP RECORDER NO. 4339 BOTTOM RECORDER NO. 4332

TYPE BLOW Packer failure

RECOVERY: 150 ft. Drilling mud

TOP PACKER FAILED TO HOLD.

EXTRA EQUIPMENT ____

APPROVED BY: Robert E. McCamm

TESTER: Glen Scott

FORMATION TESTED Miss

OPERATOR TIME: ____

**MILLER TESTING COMPANY**

SHALL NOT BE LIABLE FOR ANY DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST WAS MADE.

## CHARGES

| | |
|---|---|
| TEST CHARGE | $ ____ |
| EXTRA PACKERS | $ ____ |
| JARS | $ ____ |
| SAFETY JOINT | $ 30.00 |
| HOOK WALL | $ ____ |
| MISRUN CHARGE | $ 130.00 |
| STAND-BY CHARGE | $ ____ |
| DST EVALUATION | $ ____ |
| STRADDLE | $ 125.00 |
| TOTAL | $ 285.00 |

DATE 7-21-76

SEC. 9 TWN 21 RG 35

LEGAL DESCRIPTION C/SE/SW

**MILLER**
**TESTING COMPANY**
P. O. BOX 547 PHONE (316) 793-3370
GREAT BEND, KANSAS

TICKET Nº 14791

TEST NO. 6

COMPANY Abercrombie Drlg, Inc.

ADDRESS 801 Union Center Wichita, Kans. 67202

LEASE PFEIFER WELL NO. 2 COUNTY Kearney STATE Kans

INVOICES SENT TO: Same

DST COPIES SENT TO: " "

## GENERAL INFORMATION

TOOL JT. 4½ XH HOLE SIZE 7⅞ PACKER O.D. 6¾

ELEV. _____ TOTAL DEPTH 5010

TESTED FROM 4767 TO 4879

ANCHOR LENGTH BELOW 127 ft. BETWEEN 112 ft.

TOOL OPEN 1ST FLOW _____ A.M. 8:00 P.M.

TOOL CLOSED INITIAL SHUT-IN _____ A.M. 8:30 P.M.

TOOL OPEN 2ND FLOW _____ A.M. 9:00 P.M.

TOOL CLOSED FINAL SHUT-IN _____ A.M. 9:45 P.M.

MUD WT 9.5 VISCOSITY 49 W.L. 8.4 C.C.

SP. GRAVITY OIL _____ BOTTOM HOLE TEMPERATURE 129°

LENGTH DRILL COLLAR 440 ft. I.D. 2.25

LENGTH WEIGHT PIPE 245 ft. I.D. 2.76

SUCCESSFUL TEST NO. 1 MISRUN NO. _____

CHOKES: TOP ½ BOTTOM ½

## PRESSURE DATA & TIME

| | FIELD READINGS | CORRECTED READINGS |
|---|---|---|
| INITIAL HYDROSTATIC | 2558 | 2488 |
| INITIAL 1ST FLOW | 92 | 46 |
| FINAL 1ST FLOW | 507 | 438 |
| INITIAL SHUT-IN | 1175 | 1186 |
| INITIAL 2ND FLOW | 507 | 529 |
| FINAL 2ND FLOW | 797 | 797 |
| FINAL SHUT-IN | False Reading | LEAKED |
| FINAL HYDROSTATIC | 2538 | 2547 |

TOOL OPEN: 1ST FLOW HR. 30 MIN.

INITIAL SHUT-IN HR. 30 MIN.

2ND FLOW HR. 45 MIN.

FINAL SHUT-IN HR. 45 MIN.

TOP RECORDER NO. 4339 BOTTOM RECORDER NO. 4332

TYPE BLOW Weak to good strong blow throughout test

RECOVERY: 1440 ft. Salt water

Shut-in Tool Leaked on Final BHP.

EXTRA EQUIPMENT _____

APPROVED BY: Robert E. McCann

TESTER: Lee Bell

FORMATION TESTED Miss

OPERATOR TIME: _____

**MILLER TESTING COMPANY**

SHALL NOT BE LIABLE FOR ANY DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE. OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST WAS MADE.

## CHARGES

| | |
|---|---|
| TEST CHARGE | $ 405.00 |
| EXTRA PACKERS | $ _____ |
| JARS | $ _____ |
| SAFETY JOINT | $ 30.00 |
| HOOK WALL | $ _____ |
| MISRUN CHARGE | $ _____ |
| STAND-BY CHARGE | $ _____ |
| DST EVALUATION | $ _____ |
| STRADDLE | $ 125.00 |
| TOTAL | $ 560.00 |

# MILLER TESTING COMPANY

Box 547

GREAT BEND, KANSAS

Company ABERCROMBIE DRILLING, INC.

Lease and Well No. PFEIFER #2

County KERNEY State KANSAS Date JULY 21, 1976

Formation Test No. 6 Total Depth 5010 Elev.

Interval Tested 4767 To 4879 Anchor Length BETWEEN 112' & BELOW 127'

Size Hole 7 7/8 Size Drill Pipe 4 1/2 X.H. F.H. Size Packer 6 3/4

Mud Weight 9.5 Viscosity 49 Water Loss 8.4 c.c. Bottom Hole Temp. 128 °F

Chokes: Top 1/2 Bottom 1/2 Ticket No. 14791

Length of Drill Collar 440' I. D. 2.25 Length Flexweight 245' I. D. 2.76

## RECOVERY

WEAK TO GOOD STRONG BLOW THROUGHOUT TEST.

1440 FEET OF SALT WATER.

SHUT-IN TOOL LEAKED ON FINAL BHP.

Lease and Well No. PFEIFER #2 9-21S-35W C-SE-SW Formation Test No. 6


Tool Open: 1st Flow ___ hr. 30 mins: Shut-in Initial ___ hr. 30 min: 2nd Flow ___ hr. 45 min: Shut-in Final ___ hr. 45

| | Field Reading | Corrected Reading |
|---|---|---|
| (A) Initial Hydrostatic Pressure | 2558 | 2688 |
| (B) Initial 1st Flow Pressure | 92 | 46 |
| (C) Final 1st Flow Pressure | 507 | 438 |
| (D) Initial Shut-in Pressure | 1175 | 1186 |
| (E) Initial 2nd Flow Pressure | 507 | 529 |
| (F) Final 2nd Flow Pressure | 797 | 797 |
| (G) Final Shut-in Pressure | FALSE | FALSE |
| (H) Final Hydrostatic Pressure | 2538 | 2547 |

14791