

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name WELLING #1 Test No. 1 Date 10/15/91
Company WELLING HEIRS Zone Tested HEEBNER
Address 401 ASH HAYS KS 67601 Elevation 2571 G.L.
Co. Rep./Geo. PERRY HENMAN Cont. EMPHASIS RIG #7 Est. Ft. of Pay _____
Location: Sec. 32 Twp. 8S Rge. 27W Co. SHERIDAN State KS

Interval Tested 3698-3740 Drill Pipe Size 4.5 XH
Anchor Length 42 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3693 Drill Collar - 2.25 Ft. Run 60
Bottom Packer Depth 3699
Total Depth 3740

Mud Wt. 9.2 lb / gal. Viscosity 43 Filtrate 10.2

Tool Open @ 2:30 Initial Blow WEAK THROUGHOUT 2" IN WATER

Final Blow SAME AS INITIAL

Recovery — Total Feet 100 Flush Tool? NO

Rec. 100 Feet of WATER CUT MUD

Rec. _____ Feet of _____

BHT 98 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.35 @ 65 °F Chlorides 21000 ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1999.3 PSI AK1 Recorder No. 13851 Range 4425

(B) First Initial Flow Pressure 25.4 PSI @ (depth) 3703 w/Clock No. 27585

(C) First Final Flow Pressure 35.6 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-in Pressure 1225.4 PSI @ (depth) 2740 w/Clock No. 25813

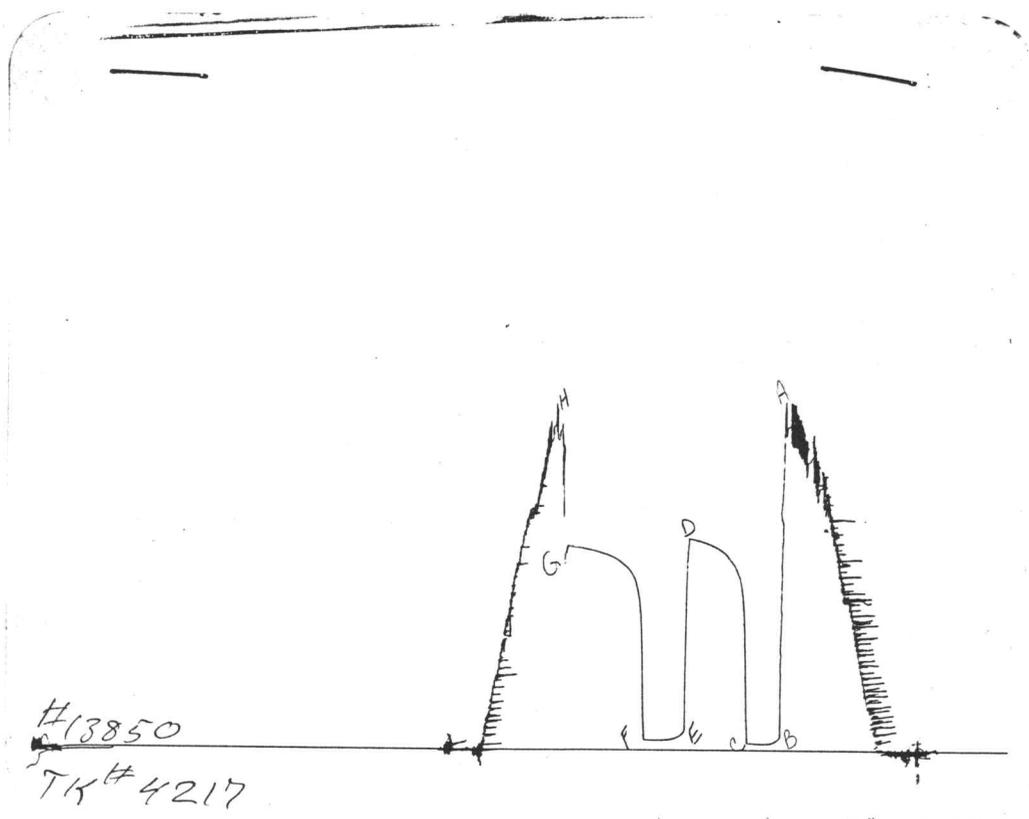
(E) Second Initial Flow Pressure 50.8 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 61.3 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 1164.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1990.6 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative HARRY SCHMIDT TOTAL PRICE \$ 550



POINT

This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
A) INITIAL HYDROSTATIC MUD	1995	1999.3
B) FIRST INITIAL FLOW PRESSURE	22	25.4
C) FIRST FINAL FLOW PRESSURE	33	35.6
D) INITIAL CLOSED-IN PRESSURE	1222	1225.4
E) SECOND INITIAL FLOW PRESSURE	44	50.8
F) SECOND FINAL FLOW PRESSURE	55	61.3
G) FINAL CLOSED-IN PRESSURE	1156	1164.2
H) FINAL HYDROSTATIC MUD	1995	1990.6

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Drill-Stem Test Data

Well Name WELLING #1 Test No. 2 Date 10/15/91
Company WELLING HEIRS Zone Tested LKC-"J"
Address 401 ASH HAYS KS 67601 Elevation 2571 G.L.
Co. Rep./Geo. PERRY HENMAN Cont. EMPHASIS RIG #7 Est. Ft. of Pay _____
Location: Sec. 32 Twp. 8S Rge. 27W Co. SHERIDAN State KS

Interval Tested 3883-3930 Drill Pipe Size 4.5 XH
Anchor Length 47 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3878 Drill Collar — 2.25 Ft. Run _____
Bottom Packer Depth 3883
Total Depth 3930

Mud Wt. 9.2 lb / gal. Viscosity 43 Filtrate 10.2

Tool Open @ 11:30 Initial Blow WEAK THROUGHOUT-1/2" IN WATER

Final Blow SAME AS INITIAL

Recovery — Total Feet 50 Flush Tool? NO

Rec. 60 Feet of GAS IN PIPE

Rec. 50 Feet of OIL CUT MUD-10%OIL/90%MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 112 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1987.2 PSI Ak1 Recorder No. 13851 Range 4425

(B) First Initial Flow Pressure 23.3 PSI @ (depth) 3888 w/Clock No. 27585

(C) First Final Flow Pressure 23.3 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-in Pressure 1547.6 PSI @ (depth) 3930 w/Clock No. 25813

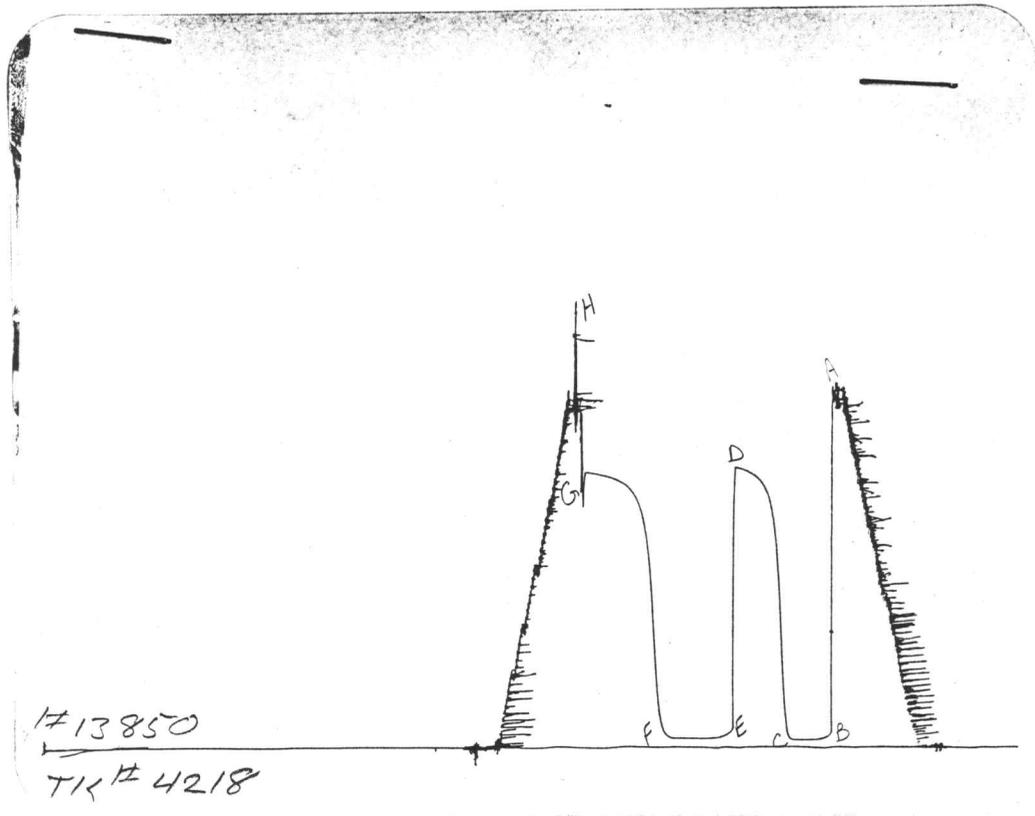
(E) Second Initial Flow Pressure 33.4 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 33.4 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 1522.4 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1980.4 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative HARRY SCHMIDT TOTAL PRICE \$ 550



POINT

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PRESSURE

	FIELD READING	OFFICE READING
A) INITIAL HYDROSTATIC MUD	1984	1987.2
B) FIRST INITIAL FLOW PRESSURE	20	23.3
C) FIRST FINAL FLOW PRESSURE	20	23.3
D) INITIAL CLOSED-IN PRESSURE	1542	1547.6
E) SECOND INITIAL FLOW PRESSURE	30	33.4
F) SECOND FINAL FLOW PRESSURE	30	33.4
G) FINAL CLOSED-IN PRESSURE	1519	1522.4
H) FINAL HYDROSTATIC MUD	1984	1980.4

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Drill-Stem Test Data

Well Name WELLING #1 Test No. 3 Date 10/16/91
Company WELLING HEIRS Zone Tested LKC-"G"
Address 401 ASH HAYS KS 67601 Elevation 2576 K.B.
Co. Rep./Geo. PERRY HENMAN Cont. EMPHASIS RIG #7 Est. Ft. of Pay _____
Location: Sec. 32 Twp. 8S Rge. 27W Co. SHERIDAN State KS

Interval Tested 3783-3817 Drill Pipe Size 4.5 XH
Anchor Length 34 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3783 Drill Collar — 2.25 Ft. Run _____
Bottom Packer Depth 3817
Total Depth 3975

Mud Wt. 9.1 lb / gal. Viscosity 49 Filtrate 9.8

Tool Open @ 6:45 PM Initial Blow WEAK-BUILDING TO 3/4"

Final Blow WEAK SURFACE BLOW

Recovery — Total Feet 50 Flush Tool? NO

Rec. 50 Feet of DRILLING MUD

Rec. _____ Feet of _____

BHT 114 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1987.2 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 61.3 PSI @ (depth) 3787 w/Clock No. 26199

(C) First Final Flow Pressure 61.3 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 812.5 PSI @ (depth) 3813 w/Clock No. 26191

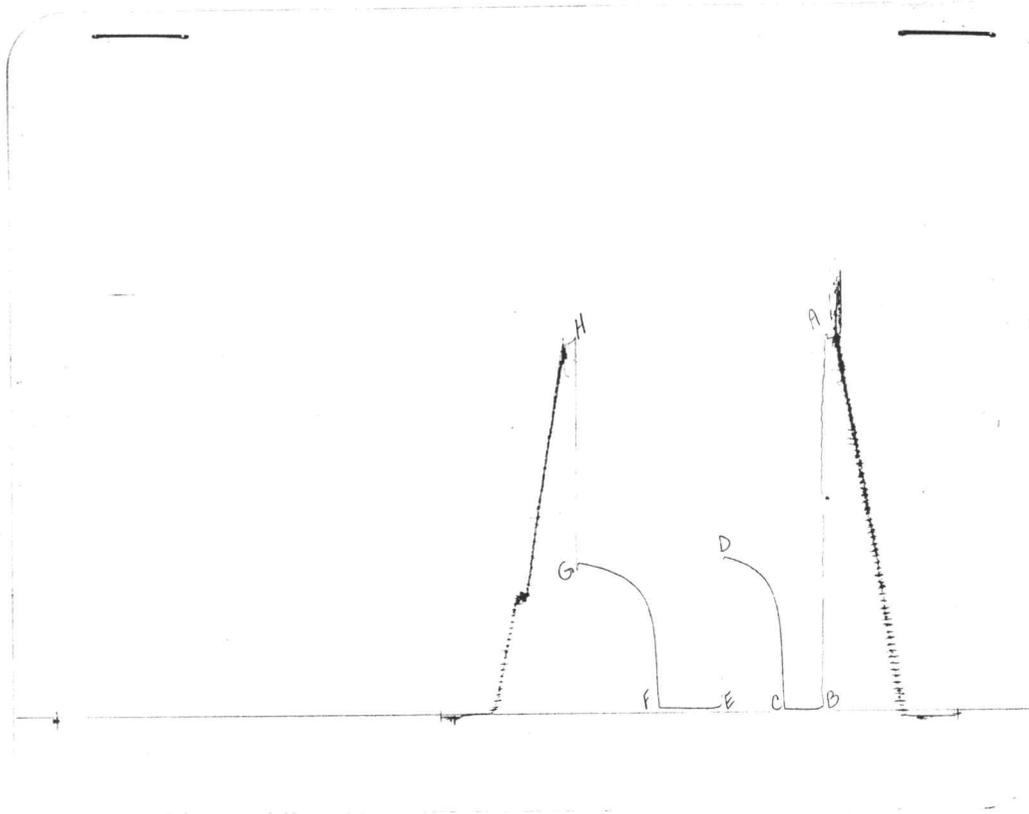
(E) Second Initial Flow Pressure 70.4 PSI AK1 Recorder No. 7437 Range 4200

(F) Second Final Flow Pressure 70.4 PSI @ (depth) 3971 w/Clock No. N/A

(G) Final Shut-in Pressure 794.2 PSI Initial Opening 30 Final Flow 45

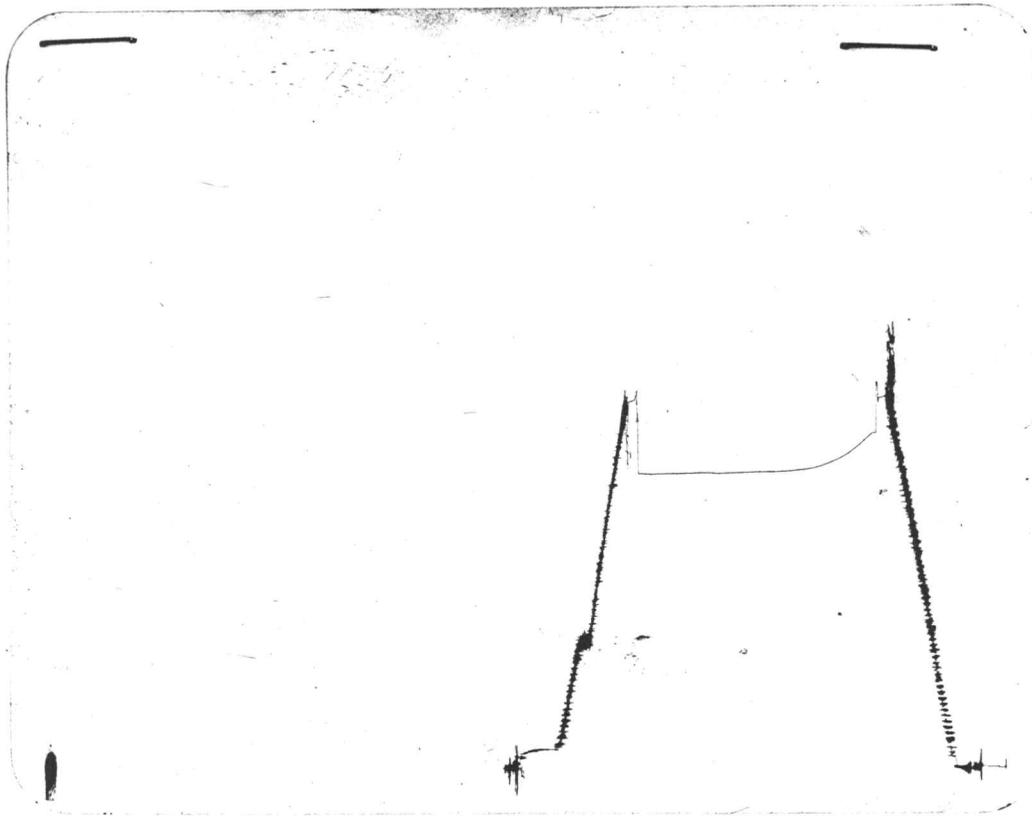
(H) Final Hydrostatic Mud 1933.4 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE TOTAL PRICE \$ 950



POINT This is an actual photograph of recorder chart PRESSURE

POINT	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1982	1987.2
(B) FIRST INITIAL FLOW PRESSURE	55	61.3
(C) FIRST FINAL FLOW PRESSURE	55	61.3
(D) INITIAL CLOSED-IN PRESSURE	808	812.5
(E) SECOND INITIAL FLOW PRESSURE	66	70.4
(F) SECOND FINAL FLOW PRESSURE	66	70.4
(G) FINAL CLOSED-IN PRESSURE	786	794.2
(H) FINAL HYDROSTATIC MUD	1928	1933.4



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FIELD
READING

OFFICE
READING

- (A) INITIAL HYDROSTATIC MUD
- (B) FIRST INITIAL FLOW PRESSURE
- (C) FIRST FINAL FLOW PRESSURE
- (D) INITIAL CLOSED-IN PRESSURE
- (E) SECOND INITIAL FLOW PRESSURE
- (F) SECOND FINAL FLOW PRESSURE
- (G) FINAL CLOSED-IN PRESSURE
- (H) FINAL HYDROSTATIC MUD