

TRILOBITE TESTING, L.L.C. ORIGINAL

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

API #15-051-24879-00-00

WOLF #7

Well Name HALLWOOD PETROLEUM INC. Test No. 1 Date 10/25/94
 Company P.O. BOX 378111 DENVER CO 80237-8111 Zone LKC
 Address JIM MUSGROVE Elevation 2076
 Co. Rep./Geo. 4 Cont. ALLEN #3 Est. Ft. of Pay KS
 Location: Sec. 13S Twp. 17W Co. ELLIS State KS

Interval Tested 3323-3384 Drill Pipe Size 4.5" XH
 Anchor Length 61 Wt. Pipe I.D. - 2.7 Ft. Run
 Top Packer Depth 3318 Drill Collar - 2.25 Ft. Run
 Bottom Packer Depth 3323 Mud Wt. 9.3 lb/Gal.
 Total Depth 3384 Viscosity 50 Filtrate 10.8

Tool Open @ 10:52 A.M. Initial Blow WEAK-DIED IN 10 MIN
 Final Blow NO BLOW-FLUSHED TOOL-GOOD SURGE-NO BLOW

Recovery - Total Feet 5 Flush Tool? YES
 Rec. 5 Feet of DRILLING MUD
 Rec. Feet of
 Rec. Feet of
 Rec. Feet of
 Rec. Feet of

3HT 106 °F Gravity °API @ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 1749.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 27.5 PSI @ (depth) 3327 w / Clock No. 25810

(C) First Final Flow Pressure 27.5 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 44.2 PSI @ (depth) 3380 w / Clock No. 27501

(E) Second Initial Flow Pressure 31.4 PSI AK1 Recorder No. Range

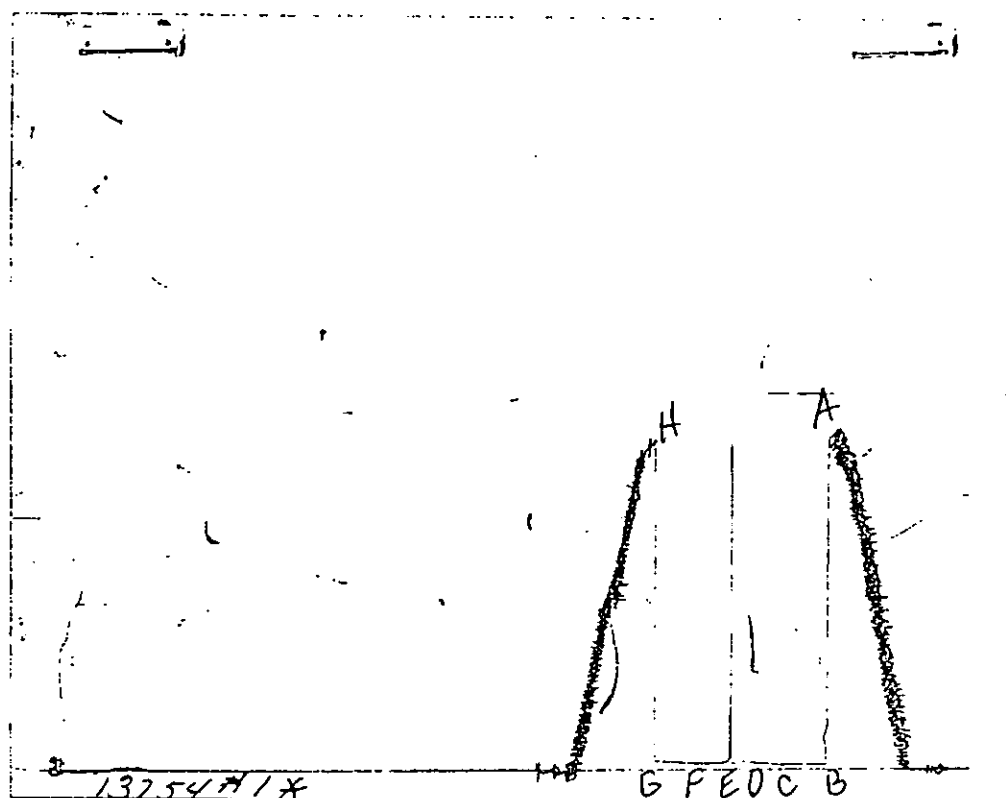
(F) Second Final Flow Pressure 39.3 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 47.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1668.9 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1746	1749.9
(B) FIRST INITIAL FLOW PRESSURE	29	27.5
(C) FIRST FINAL FLOW PRESSURE	29	27.5
(D) INITIAL CLOSED-IN PRESSURE	39	44.2
(E) SECOND INITIAL FLOW PRESSURE	29	31.4
(F) SECOND FINAL FLOW PRESSURE	39	39.3
(G) FINAL CLOSED-IN PRESSURE	49	47.2
(H) FINAL HYDROSTATIC MUD	1686	1668.9

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15.051.24879.00.00

WOLF #7

Well Name HALLWOOD PETROLEUM INC. Test No. 2 Date 10/26/94
Company P.O. BOX 378111 DENVER CO 80237-8111 Zone KC
Address JIM MUSGROVE Elevation 2076
Co. Rep./Geo. ALLEN #3 Est. Ft. of Pay
Location: Sec. 4 Twp. 13S Cont. Rge. 17W Co. ELLIS State KS

Interval Tested 3382-3422 Drill Pipe Size 4.5" XH
Anchor Length 40 Wt. Pipe I.D. - 2.7 Ft. Run
Top Packer Depth 3378 Drill Collar - 2.25 Ft. Run
Bottom Packer Depth 3382 Mud Wt. 9.3 lb/Gal.
Total Depth 3422 Viscosity 48 Filtrate 10.8

Tool Open @ 11:40 P.M. Initial Blow WEAK-BUILDING TO 3" FAIR BLOW

Final Blow WEAK-BUILDING TO 1"

Recovery - Total Feet 115 Flush Tool? NO

Rec. 5 Feet of OIL CUT MUD 20%OIL/80%MUD
Rec. 110 Feet of WATER CUT MUD 30%WATER/70%MUD
Rec. Feet of
Rec. Feet of
Rec. Feet of

BHT 109 °F Gravity 80 °API @ °F Corrected Gravity °API
RW 0.13 @ °F Chlorides 55000 ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 1820.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 27.5 PSI @ (depth) 3386 w / Clock No. 25810

(C) First Final Flow Pressure 39.3 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 175.1 PSI @ (depth) 3418 w / Clock No. 27501

(E) Second Initial Flow Pressure 48.2 PSI AK1 Recorder No. Range

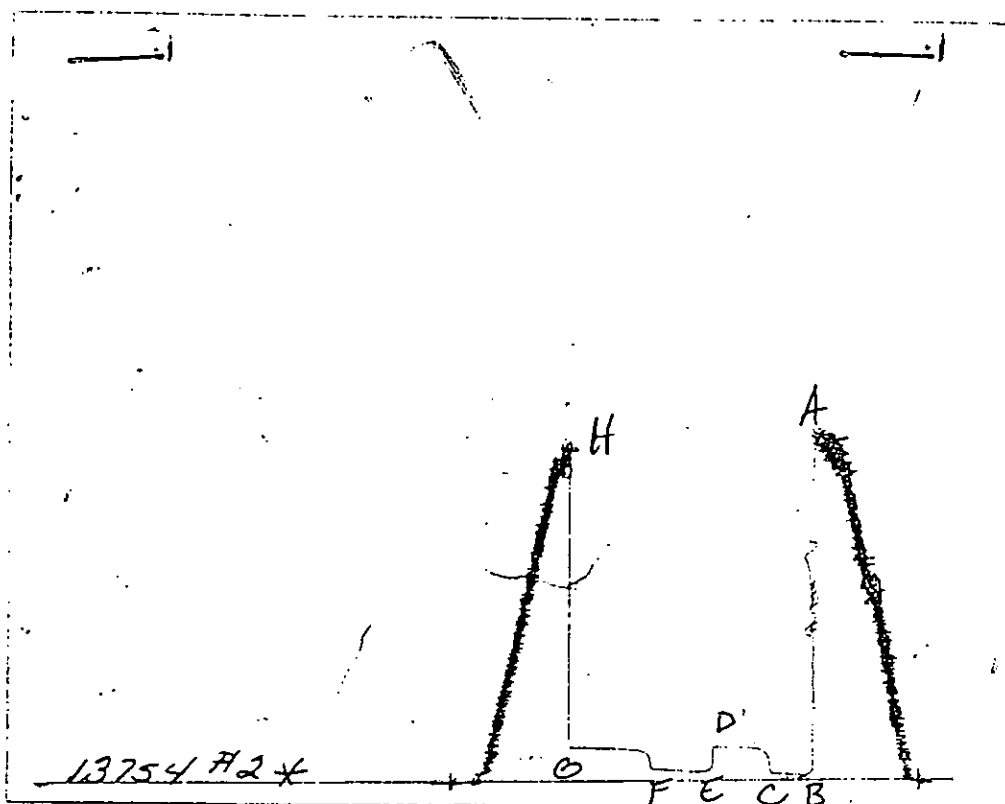
(F) Second Final Flow Pressure 63.9 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 177.1 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1720.9 PSI Initial Shut-in 45 Final Shut-in 60

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CHART PAGE



	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1816	1820.9
(B) FIRST INITIAL FLOW PRESSURE	29	27.5
(C) FIRST FINAL FLOW PRESSURE	39	39.3
(D) INITIAL CLOSED-IN PRESSURE	177	175.1
(E) SECOND INITIAL FLOW PRESSURE	59	48.2
(F) SECOND FINAL FLOW PRESSURE	68	63.9
(G) FINAL CLOSED-IN PRESSURE	177	177.1
(H) FINAL HYDROSTATIC MUD	1736	1720.9

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Well Name WOLF #7 Test No. 3 Date 10/27/94
Company HALLWOOD PETROLEUM INC. Zone KC
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 2076
Co. Rep./Geo. JIM MUSGROVE Cont. ALLEN #3 Est. Ft. of Pay _____
Location: Sec. 4 Twp. 13S Rge. 17W Co. ELLIS State KS

Interval Tested <u>3484-3550</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>66</u>	Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth <u>3479</u>	Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth <u>3484</u>	Mud Wt. <u>9.4</u> lb/Gal.
Total Depth <u>3550</u>	Viscosity <u>53</u> Filtrate <u>10.8</u>

Tool Open @ 7:07 p.m. Initial Blow WEAK-DIED IN 10 MIN

Final Blow NO BLOW

Recovery - Total Feet 10 Flush Tool? NO

Rec. <u>10</u>	Feet of <u>DRILLING MUD WITH SHOW FREE OIL IN TOOL</u>
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT 109 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10000 ppm System

(A) Initial Hydrostatic Mud 1812.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 29.5 PSI @ (depth) 3488 w / Clock No. 25810

(C) First Final Flow Pressure 29.5 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 69.8 PSI @ (depth) 3546 w / Clock No. 27501

(E) Second Initial Flow Pressure 29.5 PSI AK1 Recorder No. _____ Range _____

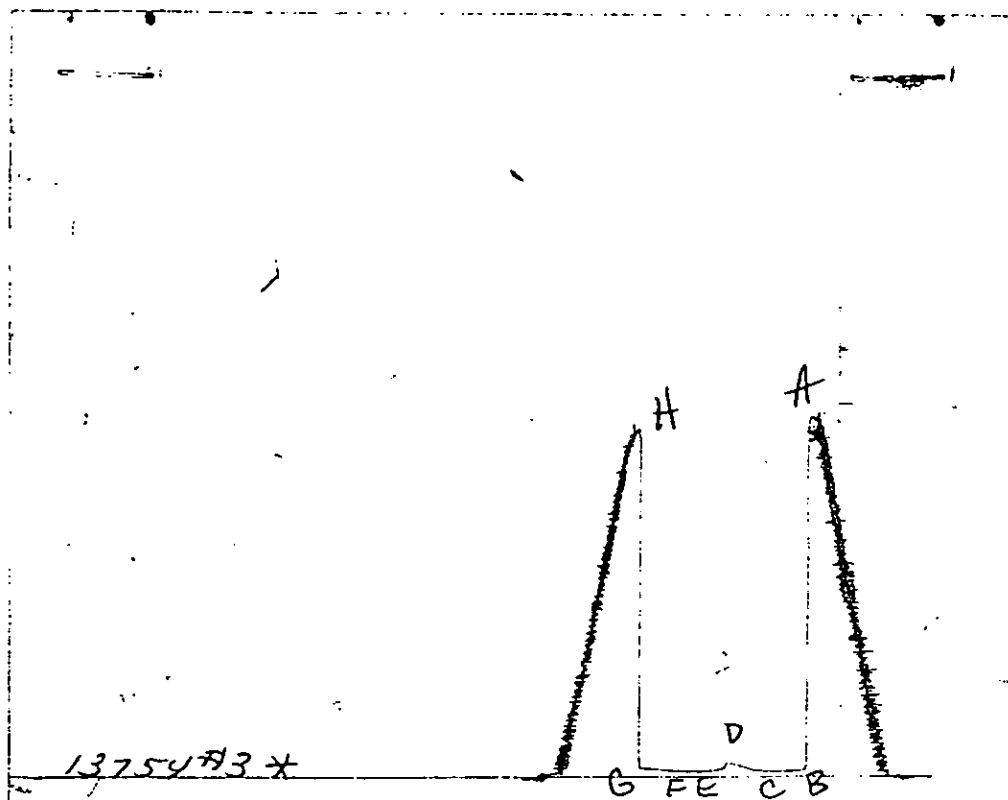
(F) Second Final Flow Pressure 29.5 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 49.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1780.9 PSI Initial Shut-in 30 Final Shut-in 30

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CHART PAGE



	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1876	1812.9
(B) FIRST INITIAL FLOW PRESSURE	39	29.5
(C) FIRST FINAL FLOW PRESSURE	39	29.5
(D) INITIAL CLOSED-IN PRESSURE	78	69.8
(E) SECOND INITIAL FLOW PRESSURE	39	29.5
(F) SECOND FINAL FLOW PRESSURE	39	29.5
(G) FINAL CLOSED-IN PRESSURE	59	49.2
(H) FINAL HYDROSTATIC MUD	1786	1780.9

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Drill-Stem Test Data

15051248790000

WOLF #7

Well Name HALLWOOD PETROLEUM INC. Test No. 4 Date 10/28/94
Company P.O. BOX 378111 DENVER CO 80237-8111 Zone ARBUCKLE
Address JIM MUSGROVE Elevation 2076
Co. Rep./Geo. ALLEN #3
Location: Sec. 4 Twp. 13S Cont. 17W Co. ELLIS Est. Ft. of Pay KS

Interval Tested 3582-3595
Anchor Length 13
Top Packer Depth 3577
Bottom Packer Depth 3582
Total Depth 3592

Drill Pipe Size 4.5" XH
Wt. Pipe I.D. - 2.7 Ft. Run
Drill Collar - 2.25 Ft. Run
Mud Wt. 9.4 lb/Gal.
Viscosity 45 Filtrate 11.2

Tool Open @ 10:20 A. ^{Initial Blow} LOST 30' OF MUD-BLED OFF BLOW-NO BLOW-FLUSHED TOOL-
NO SURGE-PLUGGED TOOL

Final Blow MISRUN

Recovery - Total Feet 90

Flush Tool? YES

Rec. 90 Feet of DRILLING MUD
Rec. Feet of
Rec. Feet of
Rec. Feet of
Rec. Feet of

3HT 111 °F Gravity °API @ °F Corrected Gravity °API
RW @ °F Chlorides ppm Recovery Chlorides 12000 ppm System

A) Initial Hydrostatic Mud 1886.0 PSI AK1 Recorder No. 13754 Range 4000

B) First Initial Flow Pressure 0.0 PSI @ (depth) 3586 w / Clock No. 25810

C) First Final Flow Pressure 0.0 PSI AK1 Recorder No. 13849 Range 4375

D) Initial Shut-in Pressure 0.0 PSI @ (depth) 3591 w / Clock No. 27501

E) Second Initial Flow Pressure 0.0 PSI AK1 Recorder No. Range

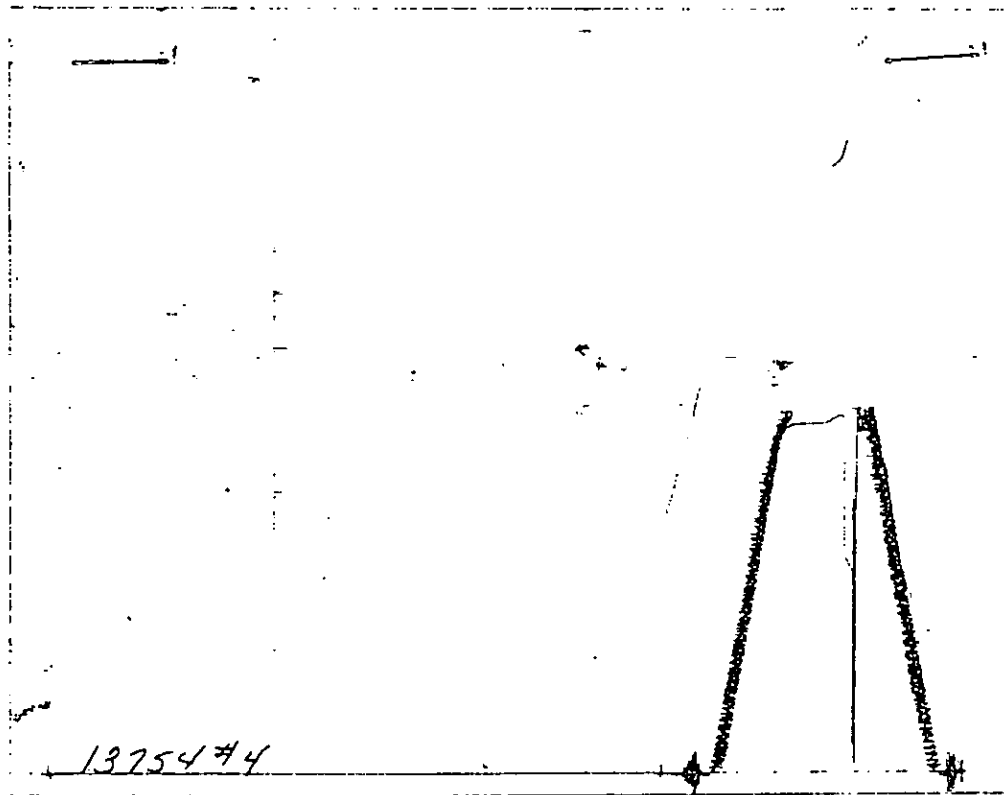
F) Second Final Flow Pressure 0.0 PSI @ (depth) w / Clock No.

G) Final Shut-in Pressure 0.0 PSI Initial Opening 10 Final Flow 0

H) Final Hydrostatic Mud 1866.0 PSI Initial Shut-in 30 Final Shut-in 0

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CHART PAGE



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

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Well Name WOLF #7 Test No. 5 Date 10/28/94
Company HALLWOOD PETROLEUM INC. Zone ARBuckle
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 2076
Co. Rep./Geo. JIM MUSGROVE Cont. ALLEN #3 Est. Ft. of Pay _____
Location: Sec. 4 Twp. 13S Rge. 17W Co. ELLIS State KS

Interval Tested <u>3548-3595</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>47</u>	Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth <u>3543</u>	Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth <u>3548</u>	Mud Wt. <u>9.4</u> lb/Gal.
Total Depth <u>3595</u>	Viscosity <u>45</u> Filtrate <u>11.2</u>

Tool Open @ 1:52 P.M. Initial Blow WEAK-STEADY SURFACE BLOW-PLUGGED ON INTIAL FLOW

Final Blow WEAK-SURFACE BLOW-FLUSHED TOOL-GOOD SURGE

Recovery - Total Feet 5 Flush Tool? YES

Rec. <u>5</u>	Feet of <u>DRILLING MUD WITH A FEW OIL SPOTS</u>
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 12000 ppm System

(A) Initial Hydrostatic Mud 1883.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 0.0 PSI @ (depth) 3552 w / Clock No. 25810

(C) First Final Flow Pressure 0.0 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 0.0 PSI @ (depth) 3591 w / Clock No. 27501

(E) Second Initial Flow Pressure 32.4 PSI AK1 Recorder No. _____ Range _____

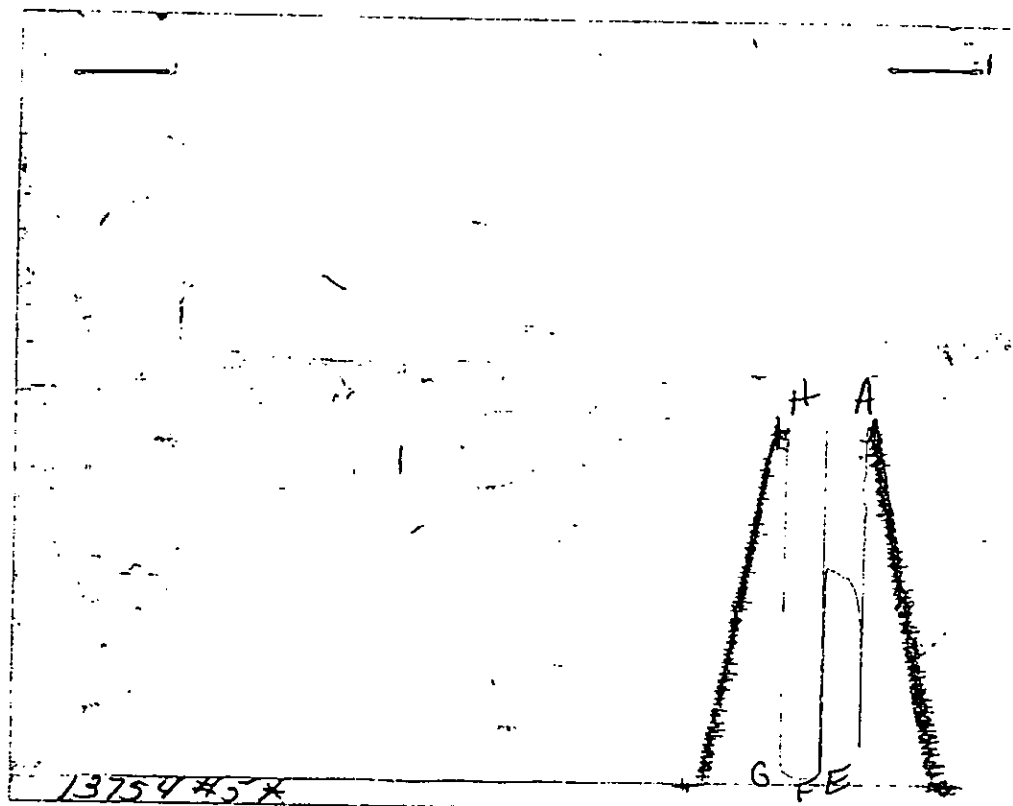
(F) Second Final Flow Pressure 32.4 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 71.8 PSI Initial Opening 15 Final Flow 15

(H) Final Hydrostatic Mud 1851.9 PSI Initial Shut-in 15 Final Shut-in 15

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	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1886	1883.9
(B) FIRST INITIAL FLOW PRESSURE	0	0
(C) FIRST FINAL FLOW PRESSURE	0	0
(D) INITIAL CLOSED-IN PRESSURE	0	0
(E) SECOND INITIAL FLOW PRESSURE	39	32.4
(F) SECOND FINAL FLOW PRESSURE	39	32.4
(G) FINAL CLOSED-IN PRESSURE	59	71.8
(H) FINAL HYDROSTATIC MUD	1836	1851.9

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15051-24879-0000

Drill-Stem Test Data

Well Name WOLF #7 Test No. 6 Date 10/28/94
Company HALLWOOD PETROLEUM INC. Zone ARBUCKLE
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 2076
Co. Rep./Geo. JIM MUSGROVE Cont. ALLEN #3 Est. Ft. of Pay _____
Location: Sec. 4 Twp. 13S Rge. 17W Co. ELLIS State KS

Interval Tested 3595-3604 Drill Pipe Size 4.5" XH
Anchor Length 9 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3590 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3595 Mud Wt. 9.4 lb/Gal.
Total Depth 3604 Viscosity 48 Filtrate 11.2

Tool Open @ 11:45 P.M. Initial Blow WEAK-BUILDING TO 1/2"

Final Blow NO BLOW-FLUSHED TOOL-WEAK BLOW FOR 10 MIN

Recovery - Total Feet 10 Flush Tool? YES

Rec. 1 Feet of CLEAN OIL
Rec. 9 Feet of DRILLING MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

RT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 12000 ppm System

A) Initial Hydrostatic Mud 1898.9 PSI AK1 Recorder No. 13754 Range 4000

B) First Initial Flow Pressure 18.7 PSI @ (depth) 3597 w / Clock No. 25810

(C) First Final Flow Pressure 18.7 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 47.2 PSI @ (depth) 3600 w / Clock No. 27501

(E) Second Initial Flow Pressure 18.7 PSI AK1 Recorder No. _____ Range _____

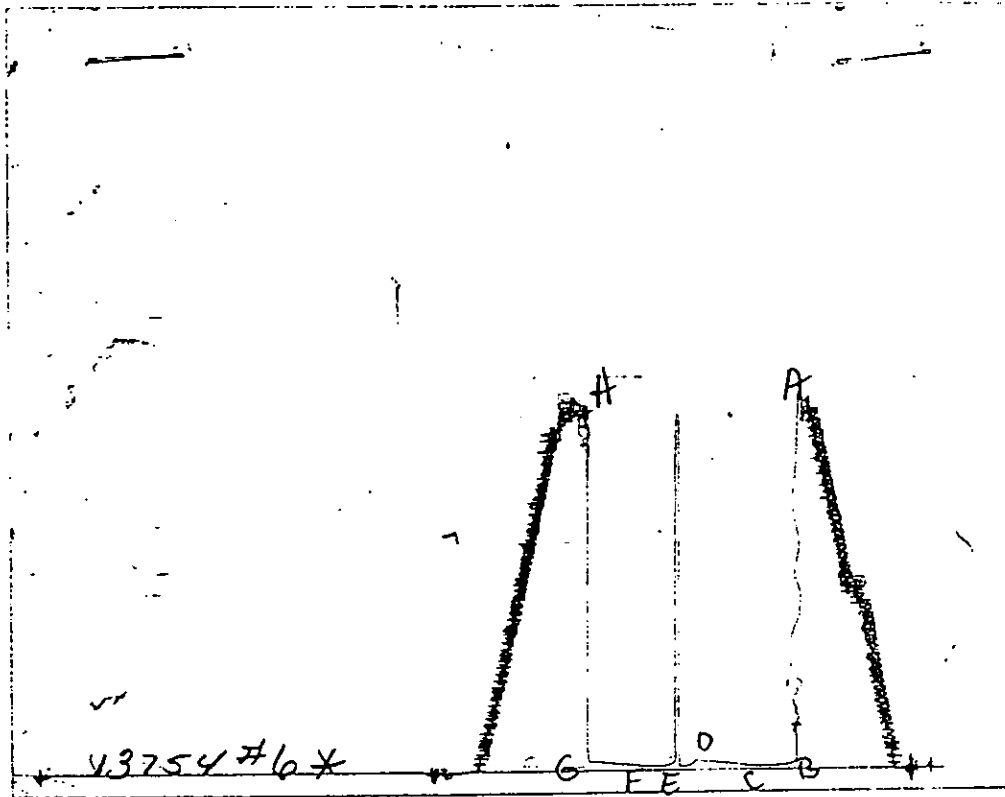
(F) Second Final Flow Pressure 18.7 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 49.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1840.9 PSI Initial Shut-in 45 Final Shut-in 45

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CHART PAGE



	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1916	1898.9
(B) FIRST INITIAL FLOW PRESSURE	29	18.7
(C) FIRST FINAL FLOW PRESSURE	29	18.7
(D) INITIAL CLOSED-IN PRESSURE	49	47.2
(E) SECOND INITIAL FLOW PRESSURE	29	18.7
(F) SECOND FINAL FLOW PRESSURE	29	18.7
(G) FINAL CLOSED-IN PRESSURE	49	49.2
(H) FINAL HYDROSTATIC MUD	1886	1840.9