

9-6-21W

CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

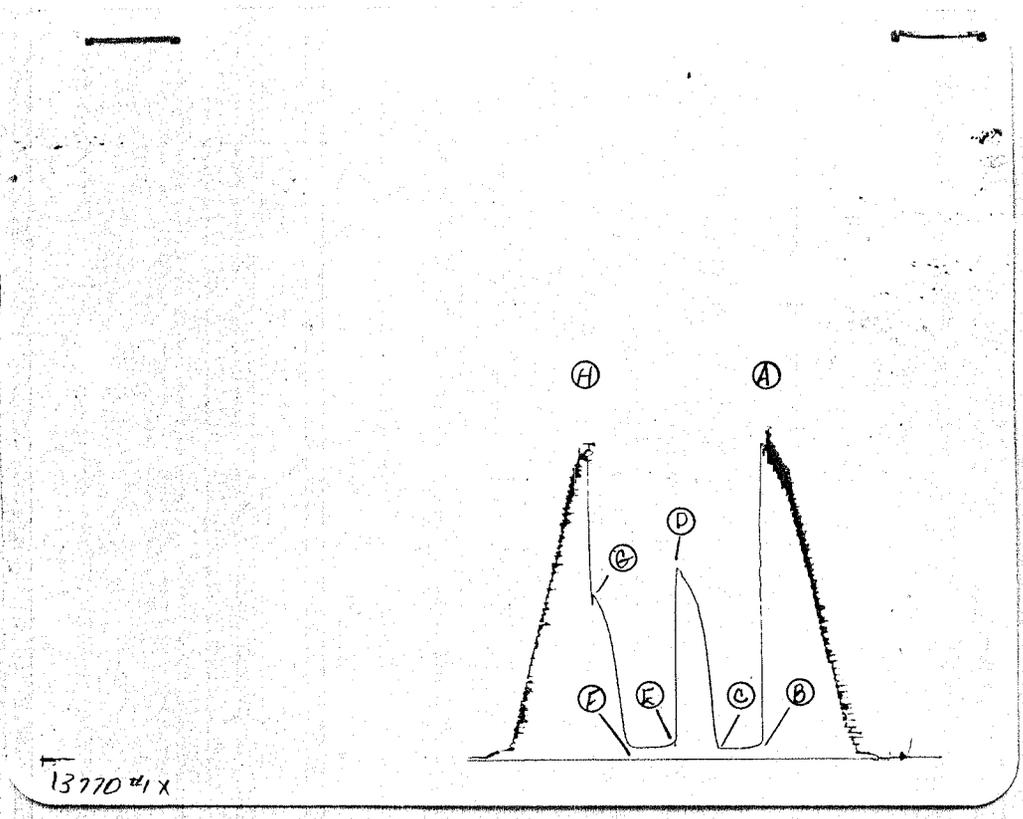
DRILL-STEM TEST DATA

Company	Ritchie Exploration Inc.	Test No.	1
Well Name & Number	Beecher #1	Zone Tested	Toronto & A
Company Address	125 N. Market #1000, Wichita, Kan.	Date	9-22-89
Company Rep.	Rocky Milford	Tester	Huck Smith
Contractor	Murfin Drlg. Co. #8	Elevation	2156 G.L.
Location: Sec. 9 Twp. 6S Rge. 21W Co.Graham State Kan.		Est. Feet of Pay	

Recorder No. 13364 Type AK-1 Range 3825 PSI
 Recorder Depth 3417 Clock # 22345
 (A) Initial Hydrostatic Mud 1730 PSI
 (B) First Initial Flow Pressure 52 PSI
 (C) First Final Flow Pressure 52 PSI
 (D) Initial Shut-in Pressure 1048 PSI
 (E) Second Initial Flow Pressure 63 PSI
 (F) Second Final Flow Pressure 63 PSI
 (G) Final Shut-in Pressure 912 PSI
 (H) Final Hydrostatic Mud 1720 PSI
 Temperature 109
 Mud Weight 9.7 Viscosity 47
 Fluid Loss 12.0
 Interval Tested 3359-3425
 Anchor Length 66'
 Top Packer Depth 3354
 Bottom Packer Depth 3359
 Total Depth 3425
 Drill Pipe Size 4 1/2 EX.H.
 Wt. Pipe I. D. - Ft. Run -
 Recovery-Total Feet 30
 Recovered 1 Feet Of F.O.
 Recovered 29 Feet Of O.C.M. (5% Oil 95% Mud)
 Recovered Feet Of
 Recovered Feet Of
 Recovered Feet Of
 Recovered Feet Of

Recorder No. 13770 Type AK-1 Range 4200 PSI
 Recorder Depth 3420 Clock # 25825
 Tool Open Before I.S.I. 30 Mins.
 Initial Shut-in 30 Mins.
 Flow Period 30 Mins.
 Final Shut-in 30 Mins.
 Top Choke Size 1" Hole Size 7 7/8"
 Bottom Choke Size 3/4" Rubber Size 6 3/4"
 Tool Open @ 1:50 P.M.
 Blow Remarks 1st open; Weak blow
2nd open; Died in 15 minutes.

Extra Equipment _____ Price of Job _____



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A)	Initial Hydrostatic Mud	1730	PSI
(B)	First Initial Flow Pressure	52	PSI
(C)	First Final Flow Pressure	52	PSI
(D)	Initial Closed-in Pressure	1048	PSI
(E)	Second Initial Flow Pressure	63	PSI
(F)	Second Final Flow Pressure	63	PSI
(G)	Final Closed-in Pressure	912	PSI
(H)	Final Hydrostatic Mud	1720	PSI

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DRILL-STEM TEST DATA

Company <u>Ritchie Exploration Inc.</u>	Test No. <u>2</u>
Well Name & Number <u>Beecher #1</u>	Zone Tested <u>35- 50</u>
Company Address <u>125 N. Market #1000, Wichita, Kan.</u>	Date <u>9-23-89</u>
Company Rep. <u>Rocky Milford</u>	Tester <u>Huck Smith</u>
Contractor <u>Murfin Drlg. Co. #8</u>	Elevation <u>2156 G.L.</u>
Location: Sec. <u>9</u> Twp. <u>6S</u> Rge. <u>21W</u> Co. <u>Graham</u> State <u>Kan.</u>	Est. Feet of Pay _____

Recorder No. 13364 Type AK-1 Range 3825 PSI
 Recorder Depth 3457 Clock # 22345
 (A) Initial Hydrostatic Mud 1720 PSI
 (B) First Initial Flow Pressure 148 PSI
 (C) First Final Flow Pressure 296 PSI
 (D) Initial Shut-in Pressure 954 PSI
 (E) Second Initial Flow Pressure 402 PSI
 (F) Second Final Flow Pressure 487 PSI
 (G) Final Shut-in Pressure 943 PSI
 (H) Final Hydrostatic Mud 1709 PSI

Recorder No. 13770 Type AK-1 Range 4200 PSI
 Recorder Depth 3460 Clock # 25825
 Tool Open Before I.S.I. 30 Mins.
 Initial Shut-in 30 Mins.
 Flow Period 30 Mins.
 Final Shut-in 30 Mins.
 Top Choke Size 1" Hole Size 7 7/8"
 Bottom Choke Size 3/4" Rubber Size 6 3/4"
 Tool Open @ 4:00 A.M.
 Blow Remarks Strong blow throughout test.

Temperature 110
 Mud Weight 9.7 Viscosity 47
 Fluid Loss 12.0
 Interval Tested 3428-3465
 Anchor Length 37'
 Top Packer Depth 3423
 Bottom Packer Depth 3428
 Total Depth 3465
 Drill Pipe Size 4 1/2 EX.H.

Wt. Pipe I. D. - Ft. Run -
 Recovery-Total Feet 1200

Recovered 300 Feet Of G.I.P.
 Recovered 720 Feet Of F.O. Gravity 29
 Recovered 120 Feet Of O.C.M.W. (50% Wtr. 15% Mud 35% Oil)
 Recovered 360 Feet Of S.W. Chlorides 55,000 P.P.M.
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____

Extra Equipment _____ Price of Job _____

CHENEY TESTING CO, INC.
CALCULATION OF FORMATION CHARACTERISTICS
FROM DST DATA

FOR: RITCHIE EXPLORATION
BEECHER #1 DST # 2
9-6S-21W FORMATION: KANSAS CITY
GRAHAM CO., KS. ELEVATION: 2153 KB

TEST PARAMETERS

TEST INTERVAL: 3428 - 3465	EST PAY: 4
TIME INTERVAL: 30 - 30 - 30 - 30	VISCOSITY OF FLUID: 8
INITIAL FLOW PRESS: 145.0- 328.0	HOLE SIZE: 7.875
FINAL FLOW PRESS: 421.1- 504.7	D.C. CAPACITY:0.00000
SHUT-IN PRESS(I-F): 955.9- 964.3	W.P. CAPACITY:0.00000
BOTTOM HOLE TEMPERATURE: 110	D.P. CAPACITY:0.01402
TOTAL FEET OF RECOVERY: 1200	TOTAL BARRELS RECOVERY:16.8243

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1075
SLOPE (PSI-CYCLE): 408 POINTS USED: 4

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1060
SLOPE (PSI-CYCLE): 200 POINTS USED: 4

CALCULATIONS

PRODUCTION POTENTIAL (B/D)	: 403.78
TRANSMISSIBILITY (MD-FT/CP)	: 328.28
EFFECTIVE PERMEABILITY (MD)	: 656.55
PRODUCTIVITY INDEX (B/D/PSI)	: 0.3710
DAMAGE RATIO	: 0.508
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 198.5
DRAWDOWN FACTOR (%)	: 1.395
POTENTIOMETRIC SURFACE (FT)	:1146.14

INITIAL SHUT-IN

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RECORDER NO: 13770 DEPTH: 3465 FT.
INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	328.0
5	0.845	749.4
10	0.602	843.7
15	0.477	882.5
20	0.398	915.0
25	0.342	936.0
30	0.301	955.9

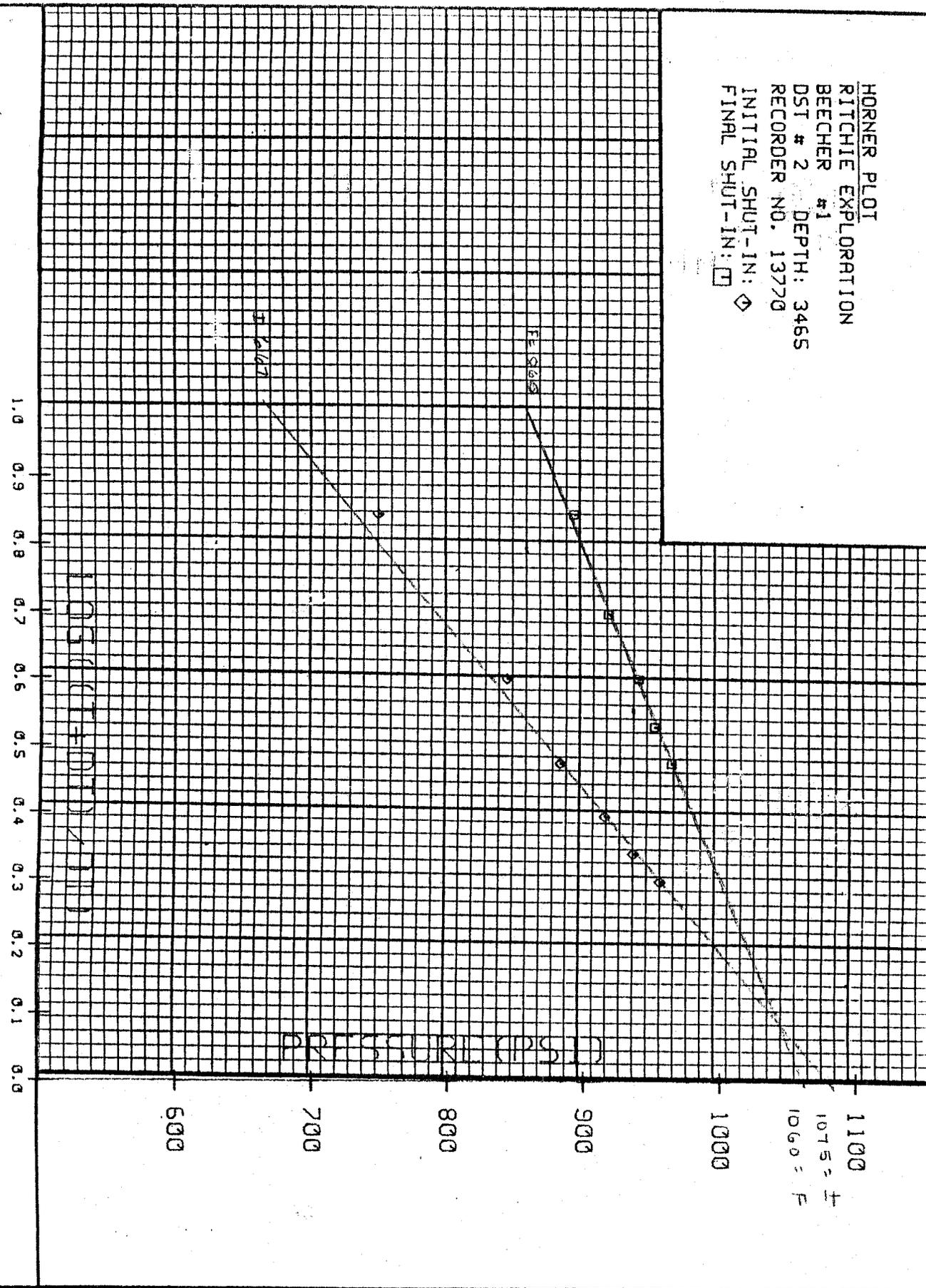
FINAL SHUT-IN

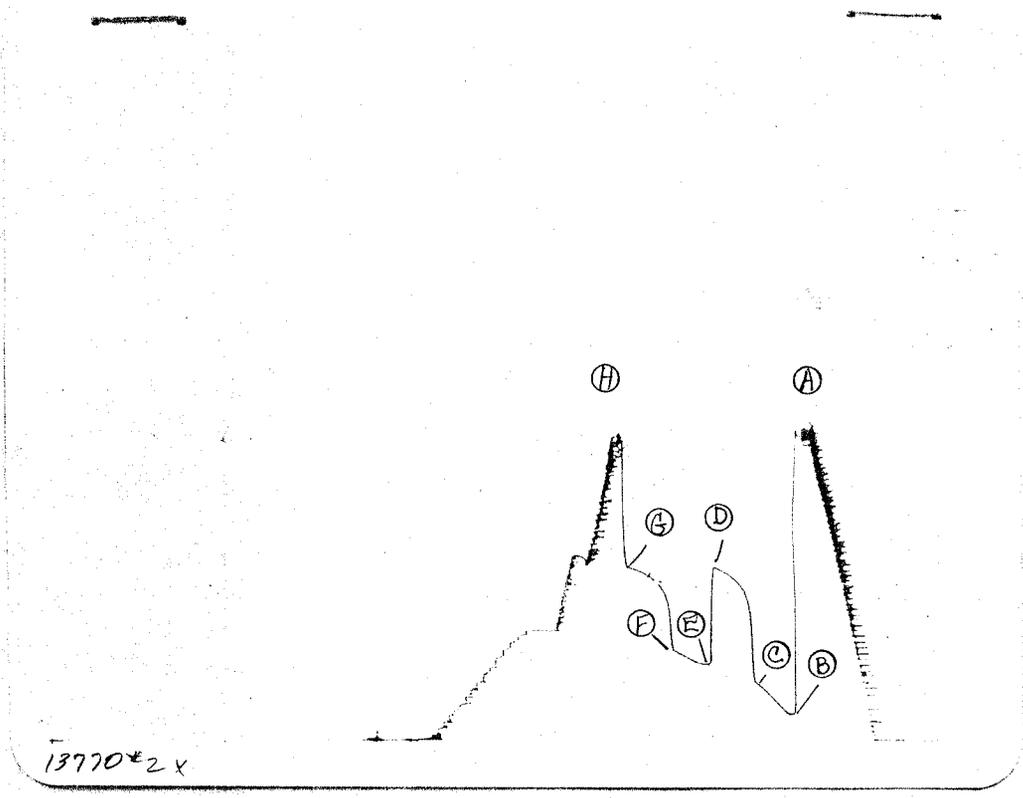
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RECORDER NO: 13770 DEPTH: 3465 FT.
TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	504.7
5	1.114	854.2
10	0.845	893.0
15	0.699	918.2
20	0.602	940.2
25	0.531	951.7
30	0.477	964.3

HORNER PLOT
 RITCHIE EXPLORATION
 BEECHER #1
 DST # 2 DEPTH: 3465
 RECORDER NO. 13720
 INITIAL SHUT-IN: \diamond
 FINAL SHUT-IN: \square





POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1720	1762.71	PSI
(B) First Initial Flow Pressure	148	145	PSI
(C) First Final Flow Pressure	296	328	PSI
(D) Initial Closed-in Pressure	954	955.9	PSI
(E) Second Initial Flow Pressure	402	421.1	PSI
(F) Second Final Flow Pressure	487	504.7	PSI
(G) Final Closed-in Pressure	943	964.3	PSI
(H) Final Hydrostatic Mud	1709	1709.75	PSI

CHENEY TESTING CO. INC.
CALCULATION OF FORMATION CHARACTERISTICS
FROM DST DATA

FOR: RITCHIE EXPLORATION INC.
BEECHER #1 DST # 3
9-6S-21W FORMATION: KANSAS CITY
GRAHAM CO., KS. ELEVATION: 2153 KB

TEST PARAMETERS

TEST INTERVAL: 3434 - 3486	EST PAY: 4
TIME INTERVAL: 30 - 30 - 30 - 30	VISCOSITY OF FLUID: 2.5
INITIAL FLOW PRESS: 232.8- 333.3	HOLE SIZE: 7.875
FINAL FLOW PRESS: 420.1- 552.4	D.C. CAPACITY:0.00000
SHUT-IN PRESS(I-F):1076.4-1058.6	W.P. CAPACITY:0.00000
BOTTOM HOLE TEMPERATURE: 112	D.P. CAPACITY:0.01402
TOTAL FEET OF RECOVERY: 1200	TOTAL BARRELS RECOVERY:16.8243

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1170
SLOPE (PSI-CYCLE): 325 POINTS USED: 3

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1155
SLOPE (PSI-CYCLE): 205 POINTS USED: 5

CALCULATIONS

PRODUCTION POTENTIAL (B/D)	: 403.78
TRANSMISSIBILITY (MD-FT/CP)	: 320.27
EFFECTIVE PERMEABILITY (MD)	: 200.17
PRODUCTIVITY INDEX (B/D/PSI)	: 0.3619
DAMAGE RATIO	: 0.538
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 109.6
DRAWDOWN FACTOR (%)	: 1.282
POTENTIOMETRIC SURFACE (FT)	:1345.45

INITIAL SHUT-IN

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RECORDER NO: 13770 DEPTH: 3486 FT.
INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	333.3
5	0.845	896.1
10	0.602	982.1
15	0.477	1021.9
20	0.398	1043.9
25	0.342	1061.7
30	0.301	1076.4

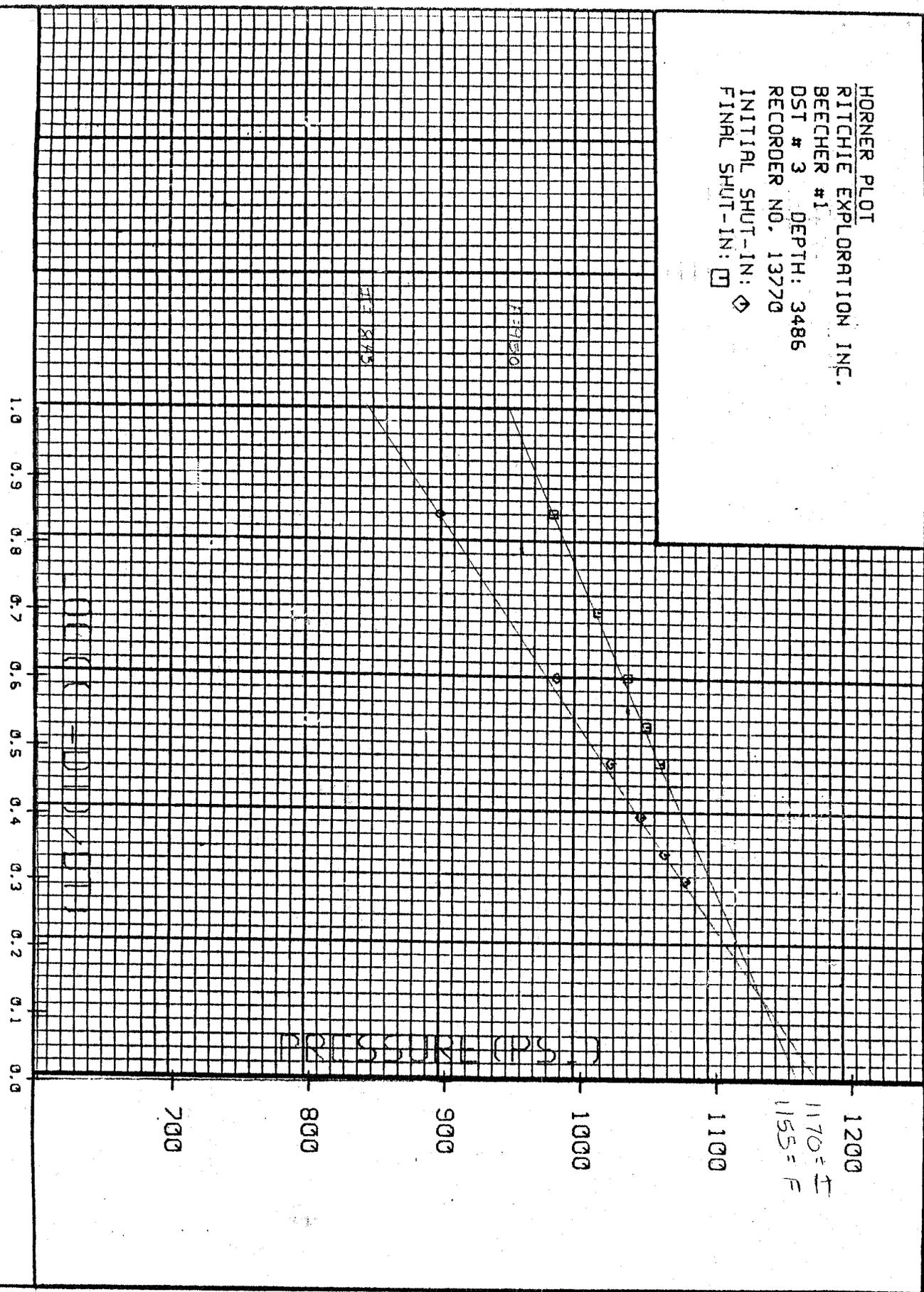
FINAL SHUT-IN

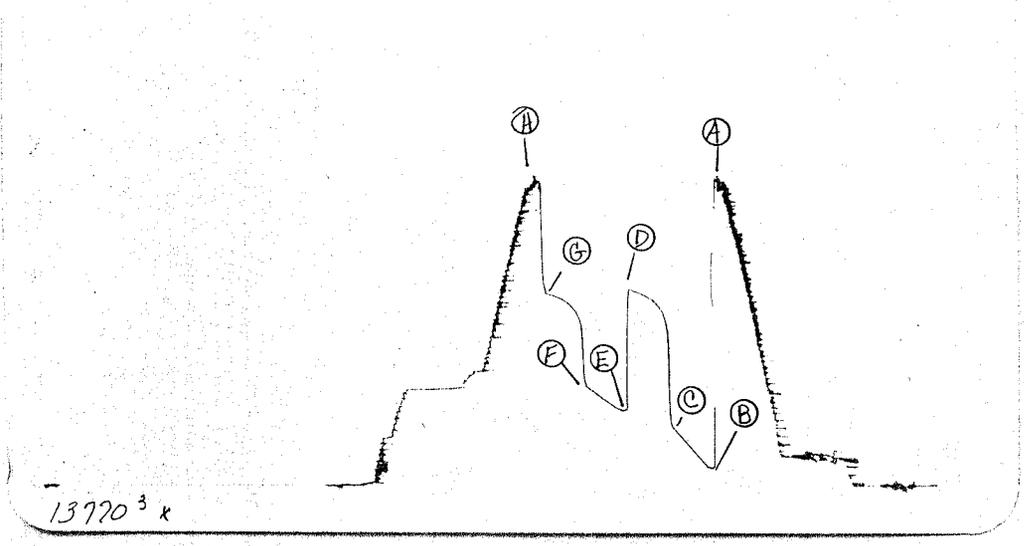
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RECORDER NO: 13770 DEPTH: 3486 FT.
TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	552.4
5	1.114	909.8
10	0.845	980.0
15	0.699	1012.5
20	0.602	1034.5
25	0.531	1048.1
30	0.477	1058.6

HORNER PLOT
 RITCHIE EXPLORATION INC.
 BEECHER #1
 DST # 3 DEPTH: 3486
 RECORDER NO. 13770
 INITIAL SHUT-IN: \diamond
 FINAL SHUT-IN: \square





POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1720	1761	PSI
(B) First Initial Flow Pressure	84	232.8	PSI
(C) First Final Flow Pressure	328	333.3	PSI
(D) Initial Closed-in Pressure	1079	1076.4	PSI
(E) Second Initial Flow Pressure	402	420.1	PSI
(F) Second Final Flow Pressure	549	552.4	PSI
(G) Final Closed-in Pressure	1058	1058.6	PSI
(H) Final Hydrostatic Mud	1688	1689	PSI

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DRILL-STEM TEST DATA

Company <u>Ritchie Exploration Inc.</u>	Test No. <u>4</u>
Well Name & Number <u>Beecher #1</u>	Zone Tested <u>140--180</u>
Company Address <u>125 N. Market #1000, Wichita, Kan.</u>	Date <u>9-24-89</u>
Company Rep. <u>Rocky Milford</u>	Tester <u>Huck Smith</u>
Contractor <u>Murfin Drlg. Co. #8</u>	Elevation <u>2156 G.L.</u>
Location: Sec. <u>9</u> Twp. <u>6S</u> Rge. <u>21W</u> Co. <u>Graham</u> State <u>Kan.</u>	Est. Feet of Pav _____

Recorder No. 13364 Type AK-1 Range 3825 PSI

Recorder Depth 3562 Clock # 22345

(A) Initial Hydrostatic Mud 1762 PSI

(B) First Initial Flow Pressure 52 PSI

(C) First Final Flow Pressure 52 PSI

(D) Initial Shut-in Pressure 1027 PSI

(E) Second Initial Flow Pressure 63 PSI

(F) Second Final Flow Pressure 63 PSI

(G) Final Shut-in Pressure 943 PSI

(H) Final Hydrostatic Mud 1741 PSI

Temperature 112

Mud Weight 9.4 Viscosity 41

Fluid Loss 8.0

Interval Tested 3511-3570

Anchor Length 59'

Top Packer Depth 3506

Bottom Packer Depth 3511

Total Depth 3570

Drill Pipe Size 4½ EX.H.

Wt. Pipe I. D. - Ft. Run -

Recovery-Total Feet 40

Recovered 40 Feet Of Mud w/few oil spots

Recovered _____ Feet Of _____

Extra Equipment _____ Price of Job _____

Recorder No. 13770 Type AK-1 Range 4200 PSI

Recorder Depth 3565 Clock # 25825

Tool Open Before I.S.I. 45 Mins.

Initial Shut-in 45 Mins.

Flow Period 45 Mins.

Final Shut-in 45 Mins.

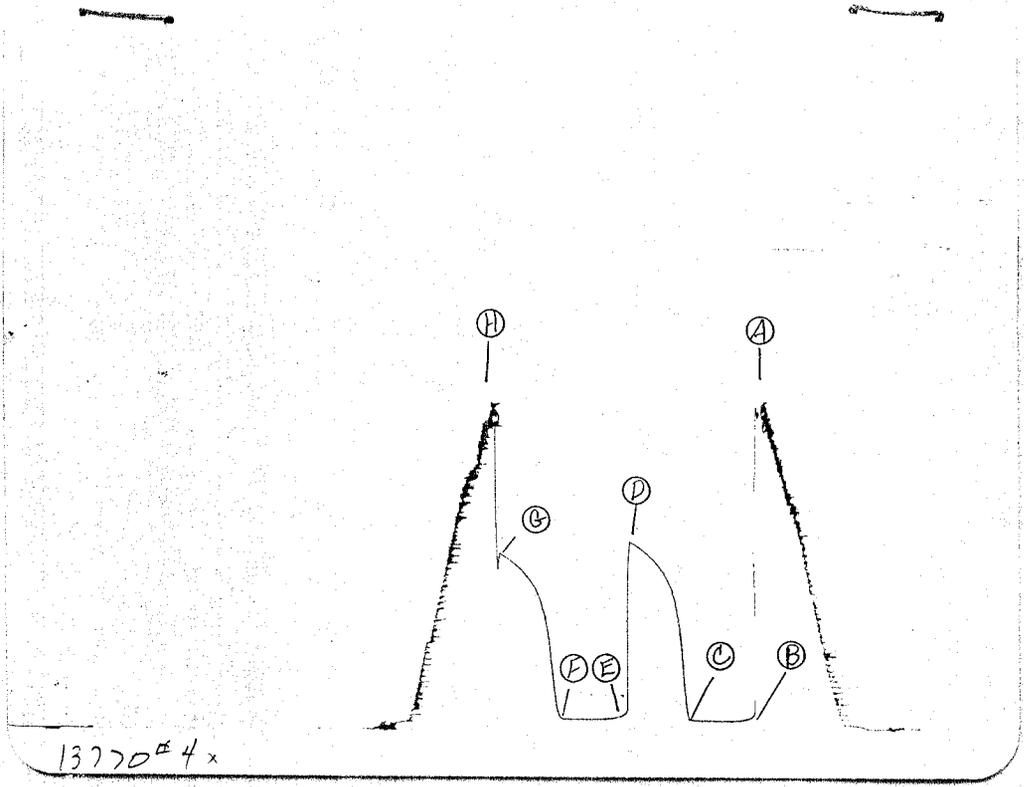
Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 12:10 P.M.

Blow Remarks 1st open; Weak blow 2"

2nd open; 1½" blow



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A)	Initial Hydrostatic Mud	1762	PSI
(B)	First Initial Flow Pressure	52	PSI
(C)	First Final Flow Pressure	52	PSI
(D)	Initial Closed-in Pressure	1027	PSI
(E)	Second Initial Flow Pressure	63	PSI
(F)	Second Final Flow Pressure	63	PSI
(G)	Final Closed-in Pressure	943	PSI
(H)	Final Hydrostatic Mud	1741	PSI

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DRILL-STEM TEST DATA

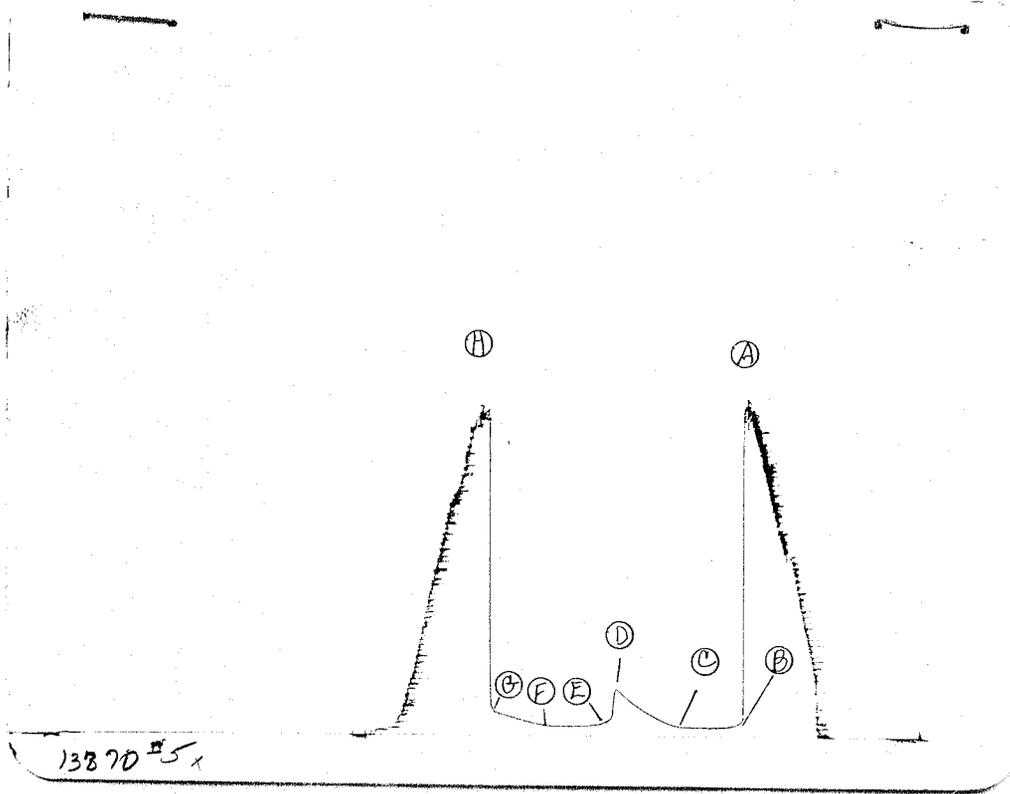
Company <u>Ritchie Exploration Inc.</u>	Test No. <u>5</u>
Well Name & Number <u>Beecher #1</u>	Zone Tested <u>Arbuckle</u>
Company Address <u>125 N. Market #1000, Wichita, Kan.</u>	Date <u>9-25-89</u>
Company Rep. <u>Rocky Milford</u>	Tester <u>Huck Smith</u>
Contractor <u>Murfin Drlg. Co. #8</u>	Elevation <u>2156 G.L.</u>
Location: Sec. <u>9</u> Twp. <u>6S</u> Rge. <u>21W</u> Co. <u>Graham</u> State <u>Kan.</u>	Est. Feet of Pay _____

Recorder No. 13364 Type AK-1 Range 3825 PSI
 Recorder Depth 3670 Clock # 22345
 (A) Initial Hydrostatic Mud 1783 PSI
 (B) First Initial Flow Pressure 52 PSI
 (C) First Final Flow Pressure 52 PSI
 (D) Initial Shut-in Pressure 277 PSI
 (E) Second Initial Flow Pressure 52 PSI
 (F) Second Final Flow Pressure 52 PSI
 (G) Final Shut-in Pressure 127 PSI
 (H) Final Hydrostatic Mud 1773 PSI
 Temperature 115
 Mud Weight 9.4 Viscosity 43
 Fluid Loss 9.6
 Interval Tested 3596-3678
 Anchor Length 82'
 Top Packer Depth -
 Bottom Packer Depth 3596
 Total Depth 3678
 Drill Pipe Size 4½ EX.H.

Recorder No. 13770 Type AK-1 Range 4200 PSI
 Recorder Depth 3673 Clock # 25825
 Tool Open Before I.S.I. 45 Mins.
 Initial Shut-in 45 Mins.
 Flow Period 45 Mins.
 Final Shut-in 45 Mins.
 Top Choke Size 1" Hole Size 7 7/8"
 Bottom Choke Size 3/4" Rubber Size 6 3/4"
 Tool Open @ 8:30 A.M.
 Blow Remarks 1st open; Weak blow 2½"
2nd open; ½" blow

Recovery-Total Feet 35
 Recovered 35 Feet Of Mud w/oil spots
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____

Extra Equipment _____ Price of Job _____



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A)	Initial Hydrostatic Mud	1783	PSI
(B)	First Initial Flow Pressure	52	PSI
(C)	First Final Flow Pressure	52	PSI
(D)	Initial Closed-in Pressure	277	PSI
(E)	Second Initial Flow Pressure	52	PSI
(F)	Second Final Flow Pressure	52	PSI
(G)	Final Closed-in Pressure	127	PSI
(H)	Final Hydrostatic Mud	1773	PSI