

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Energy Production Inc.	Test No.	1		
Well Name & Number	Keiswetter #1	Zone Tested	Topeka		
Company Address	1100 Bitting Bldg. Wichita Ks.	Date	6/15/84		
Company Rep.	Roger Welty	Tester	Russell Hearting		
Contractor	Abercrombie Drilling Inc.	Elevation	2361 KB		
Location: Sec.	16 Twp.	6sRge.	22w Co. Graham State Ks.	Est. Feet of Pay	

Recorder No. 10983 Type AK-1 Range 4100 PSI
Recorder Depth 3525 Clock # 25562
(A) Initial Hydrostatic Mud 1773 PSI
(B) First Initial Flow Pressure 91 PSI
(C) First Final Flow Pressure 336 PSI
(D) Initial Shut-in Pressure 1249 PSI
(E) Second Initial Flow Pressure 387 PSI
(F) Second Final Flow Pressure 530 PSI
(G) Final Shut-in Pressure 1259 PSI
(H) Final Hydrostatic Mud 1753 PSI
Temperature 110
Mud Weight 9.4 Viscosity 38
Fluid Loss 12
Interval Tested 3494-3533
Anchor Length 39
Top Packer Depth 3489
Bottom Packer Depth 3494
Total Depth 3533
Drill Pipe Size 4 XH
Wt. Pipe I. D. 2.37 Ft. Run 520
Recovery-Total Feet 1200

Recorder No. 13277 Type AK-1 Range 4125 PSI
Recorder Depth 3528 Clock # 25826
Tool Open Before I.S.I. 30 Mins.
Initial Shut-in 45 Mins.
Flow Period 30 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 @ 7:13 PM

Blow Remarks 1st open: Blow off bottom in 3 minutes.

2nd open: Blow off bottom in 6 minutes.

Recovered 600 Feet Of gassy oil, Gravity: 29 API corrected.
Recovered 60 Feet Of muddy oil, 75% mud, 20% oil, 5% water.
Recovered 540 Feet Of slightly oil cut water, 95% water, 3% oil, 2% mud.
Recovered Feet Of
Recovered 240 Feet Of gas in pipe.
Recovered Feet Of

Extra Equipment Price of Job \$625.00

INITIAL SHUT-IN

=====

RECORDER NO: 10983 DEPTH: 3533 FT.
 INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	355.9
3	1.041	954.9
6	0.778	1098.5
9	0.637	1144.7
12	0.544	1171.4
15	0.477	1188.8
18	0.426	1202.1
21	0.385	1211.4
24	0.352	1218.6
27	0.325	1225.7
30	0.301	1230.9
33	0.281	1233.9
36	0.263	1237.0
39	0.248	1239.1
42	0.234	1241.1
45	0.222	1243.2

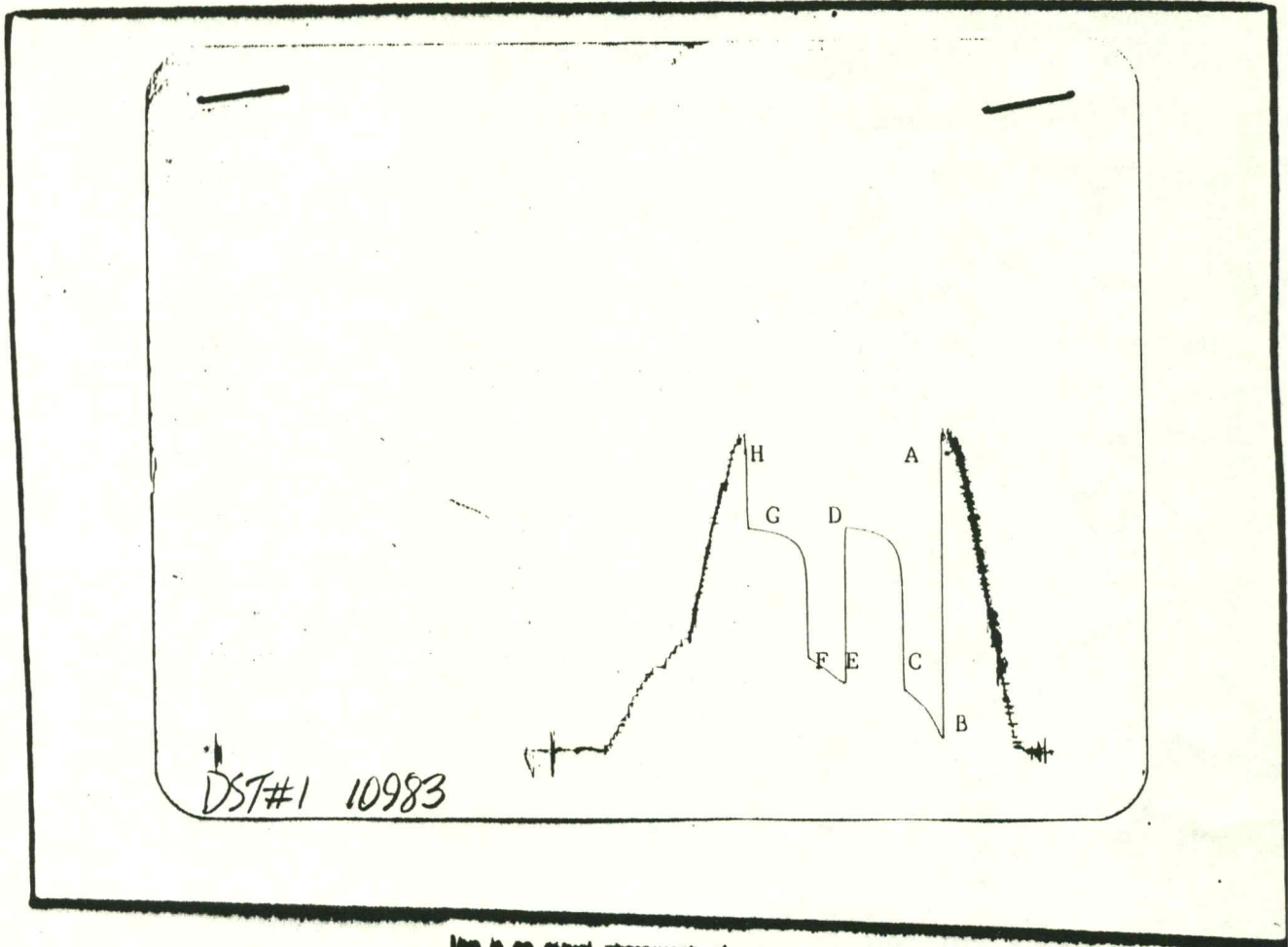
FINAL SHUT-IN

=====

RECORDER NO: 10983 DEPTH: 3533 FT.
 TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	535.4
3	1.322	1050.3
6	1.041	1122.1
9	0.885	1157.0
12	0.778	1176.5
15	0.699	1189.8
18	0.637	1200.1
21	0.586	1210.3
24	0.544	1216.5
27	0.508	1223.7
30	0.477	1228.8
33	0.450	1232.9
36	0.426	1236.0
39	0.405	1239.1
42	0.385	1241.1
45	0.368	1243.2

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This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1773	1768	PSI
(B) First Initial Flow Pressure	91	95.4	PSI
(C) First Final Flow Pressure	336	355.9	PSI
(D) Initial Closed-in Pressure	1249	1243.2	PSI
(E) Second Initial Flow Pressure	387	389.8	PSI
(F) Second Final Flow Pressure	530	535.4	PSI
(G) Final Closed-in Pressure	1259	1243.2	PSI
(H) Final Hydrostatic Mud	1753	1748	PSI

STOLEN
FROM K.G.S.

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

FOR: ENERGY PRODUCTION INC.
KEISWETTER #1 DST # 1
SEC 16-6S-22W FORMATION: TOPEKA
GRAHAM COUNTY, KANSAS ELEVATION: 2361 KB

TEST PARAMETERS

TEST INTERVAL: 3494 - 3533	EST PAY: 4
TIME INTERVAL: 30 - 45 - 30 - 45	VISCOSITY OF FLUID: 9
INITIAL FLOW PRESS: 95.4- 355.9	HOLE SIZE: 7.875
FINAL FLOW PRESS: 389.8- 535.4	D.C. CAPACITY:0.00492
SHUT-IN PRESS(I-F):1243.2-1243.2	W.P. CAPACITY:0.00545
BOTTOM HOLE TEMPERATURE: 110	D.P. CAPACITY:0.01026
TOTAL FEET OF RECOVERY: 1200	TOTAL BARRELS RECOVERY:12.3066

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1282
SLOPE (PSI-CYCLE): 182 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1280
SLOPE (PSI-CYCLE): 118 POINTS USED: 6

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 295.36
TRANSMISSIBILITY (MD-FT/CP)	: 406.99
PERMEABILITY (MD)	: 915.73
PRODUCTIVITY INDEX (B/D/PSI)	: 0.2307
DAMAGE RATIO	: 1.155
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 234.4
DRAWDOWN FACTOR (%)	: 0.156
POTENTIOMETRIC SURFACE (FT)	:1796.32

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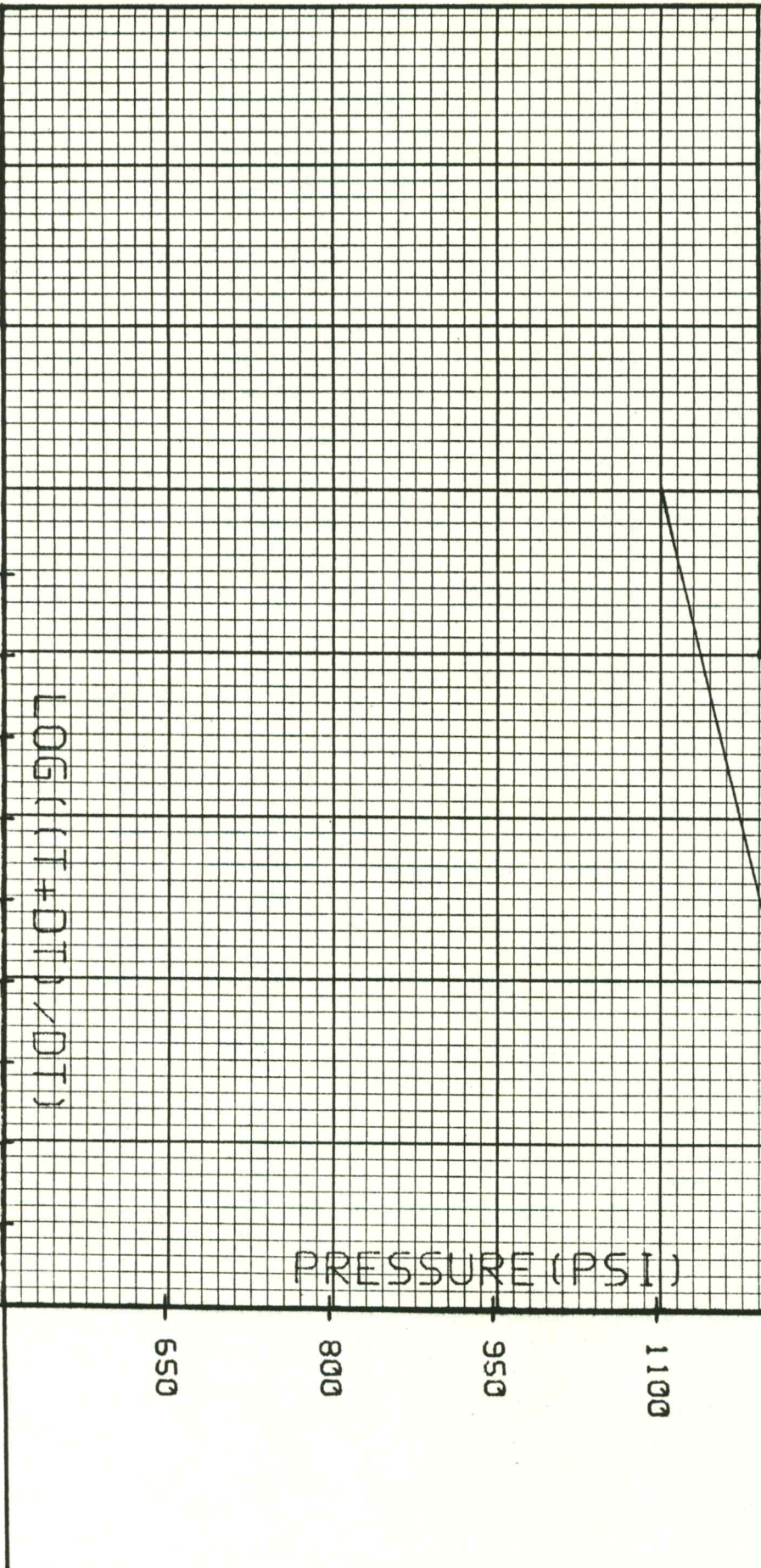
HORNER PLOT
 ENERGY PRODUCTION INC.
 KEISMETTER #1
 DST # 1 DEPTH: 3533
 RECORDER NO. 10983
 INITIAL SHUT-IN: \diamond
 FINAL SHUT-IN: \square

1.0
 0.9
 0.8
 0.7
 0.6
 0.5
 0.4
 0.3
 0.2
 0.1
 0.0

LOG ((T+DT)/DT)

PRESSURE (PSI)

1400
 1250
 1100
 950
 800
 650



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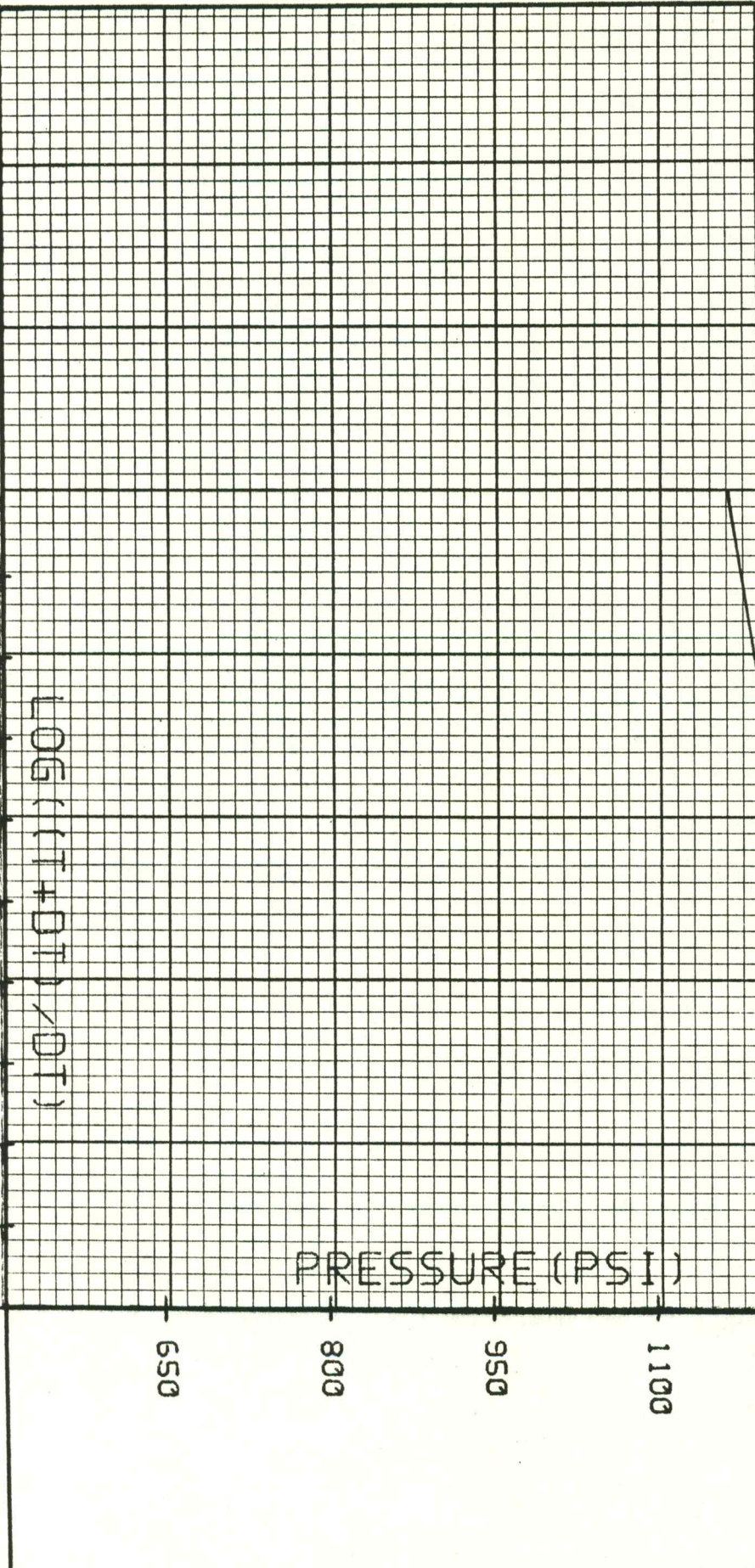
HORNER PLOT
ENERGY PRODUCTION INC.
KEISWETTER #1
OST # 1 DEPTH: 3533
RECORDER NO. 10983
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

$\text{LOG}((T+DT)/DT)$

PRESSURE (PSI)

650
800
950
1100
1250
1400



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INITIAL SHUT-IN

=====

RECORDER NO: 10983 DEPTH: 3584 FT.
 INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	367.2
3	1.041	390.8
6	0.778	1019.6
9	0.637	1110.9
12	0.544	1152.9
15	0.477	1175.5
18	0.426	1190.9
21	0.385	1203.2
24	0.352	1212.4
27	0.325	1219.6
30	0.301	1222.7
33	0.281	1227.8
36	0.263	1231.9
39	0.248	1235.0
42	0.234	1237.0
45	0.222	1242.1

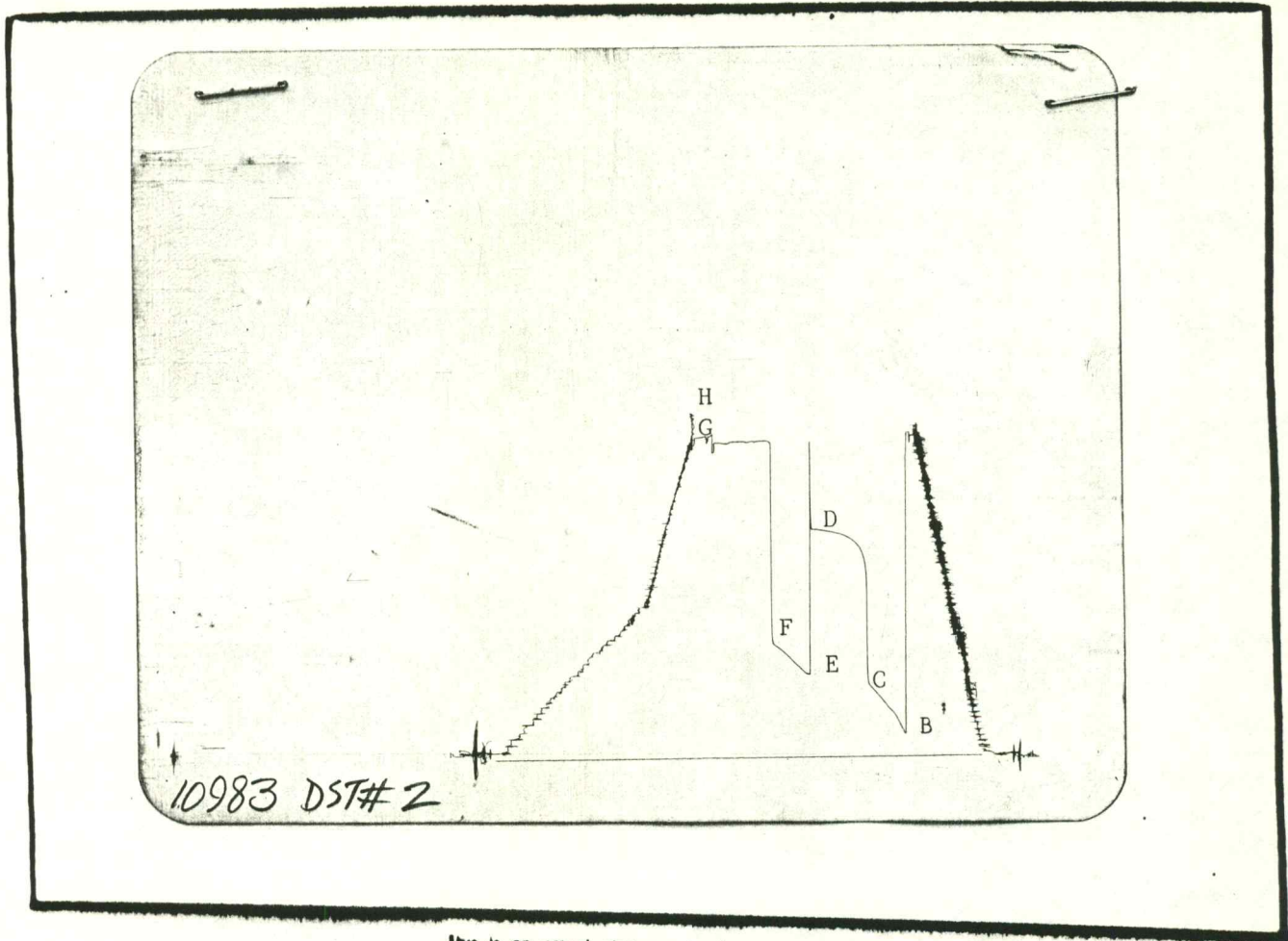
FINAL SHUT-IN

=====

RECORDER NO: 10983 DEPTH: 3584 FT.
 TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	606.2
3	1.322	616.5
6	1.041	1009.3
9	0.885	1100.6
12	0.778	1142.7
15	0.699	1165.2
18	0.637	1180.6
21	0.586	1192.9
24	0.544	1202.1
27	0.508	1209.3
30	0.477	1212.4
33	0.450	1217.5
36	0.426	1221.6
39	0.405	1224.7
42	0.385	1226.8
45	0.368	1231.9

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This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1784	1779	PSI
(B) First Initial Flow Pressure	132	116.9	PSI
(C) First Final Flow Pressure	397	367.2	PSI
(D) Initial Closed-in Pressure	1238	1242.1	PSI
(E) Second Initial Flow Pressure	448	444.1	PSI
(F) Second Final Flow Pressure	612	606.2	PSI
(G) Final Closed-in Pressure	---	1231.9	PSI
(H) Final Hydrostatic Mud	1763	1758	PSI

**STOLEN
FROM K.G.S.**

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

K. G. S. LIBRARY

FOR: ENERGY PRODUCTION INC.
KEISWETTER #1 DST # 2
SEC 16-6S-22W FORMATION: TORONTO
GRAHAM COUNTY, KANSAS ELEVATION: 2361 KB

TEST PARAMETERS

TEST INTERVAL: 3543 - 3584	EST PAY: 4
TIME INTERVAL: 30 - 45 - 30 - 45	VISCOSITY OF FLUID: 5
INITIAL FLOW PRESS: 116.9- 367.2	HOLE SIZE: 7.875
FINAL FLOW PRESS: 444.1- 606.2	D.C. CAPACITY:0.00492
SHUT-IN PRESS(I-F):1242.1-1231.9	W.P. CAPACITY:0.00545
BOTTOM HOLE TEMPERATURE: 114	D.P. CAPACITY:0.01026
TOTAL FEET OF RECOVERY: 1590	TOTAL BARRELS RECOVERY:13.8092

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1290
SLOPE (PSI-CYCLE): 234 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1285
SLOPE (PSI-CYCLE): 155 POINTS USED: 7

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 331.42
TRANSMISSIBILITY (MD-FT/CP)	: 347.67
PERMEABILITY (MD)	: 434.59
PRODUCTIVITY INDEX (B/D/PSI)	: 0.2579
DAMAGE RATIO	: 0.801
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 161.5
DRAWDOWN FACTOR (%)	: 0.388
POTENTIOMETRIC SURFACE (FT)	:1756.92

This is a final bottom hole estimate.

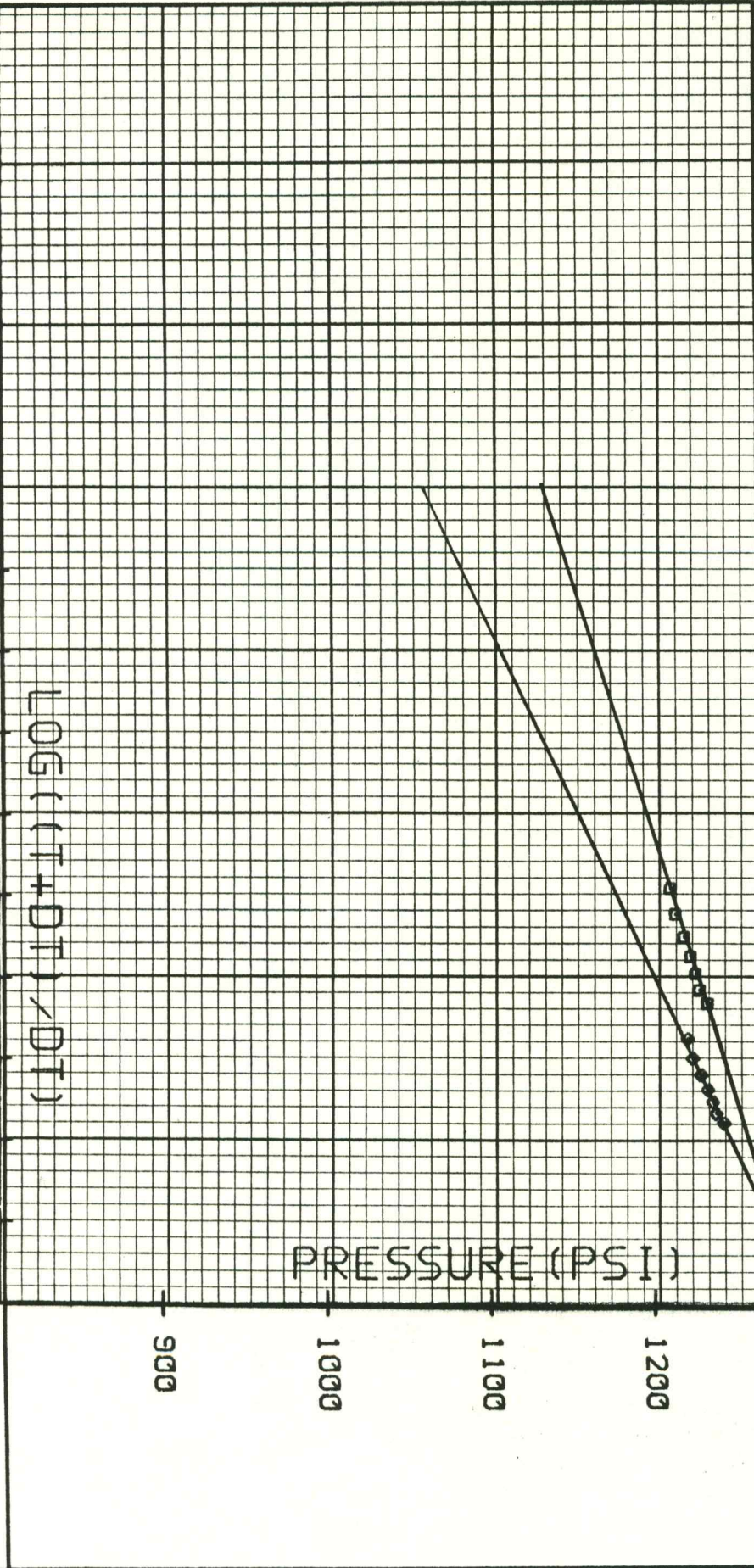
HORNER PLOT
 ENERGY PRODUCTION INC.
 KEISMETTER #1
 DST # 2 DEPTH: 3584
 RECORDER NO. 10983
 INITIAL SHUT-IN: \diamond
 FINAL SHUT-IN: \square

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

LOG ((T+DT)/DT)

PRESSURE (PSI)

900 1000 1100 1200 1300 1400



DRILL-STEM TEST DATA

Company	Energy Production Inc.	Test No.	3
Well Name & Number	Keiswetter #1	Zone Tested	Lansing A
Company Address	1100 Bitting Bldg.	Date	6/17/84
Company Rep.	Roger Welty	Tester	Russell Hearting
Contractor	Abercrombie Drilling Inc.	Elevation	2361 KB
Location: Sec. 16 Twp. 6s Rge. 22w Co. Graham State Ks.		Est. Feet of Pay	

Recorder No. 10983 Type AK-1 Range 4100 PSIRecorder Depth 3604 Clock # 25562(A) Initial Hydrostatic Mud 1840 PSI(B) First Initial Flow Pressure 373 PSI(C) First Final Flow Pressure 907 PSI(D) Initial Shut-in Pressure 1235 PSI(E) Second Initial Flow Pressure 948 PSI(F) Second Final Flow Pressure 1102 PSI(G) Final Shut-in Pressure 1235 PSI(H) Final Hydrostatic Mud 1809 PSITemperature 114Mud Weight 9.3 Viscosity 41Fluid Loss 9.6Interval Tested 3581-3610Anchor Length 29Top Packer Depth 3576Bottom Packer Depth 3581Total Depth 3610Drill Pipe Size 4 XHWt. Pipe I. D. 2.37 Ft. Run 520Recovery-Total Feet 3000Recovered 2940 Feet Of gassy oil, Gravity: 38 API corrected.Recovered 60 Feet Of heavy mud cut oil, 65% mud, 30% oil, 5% water.

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Extra Equipment Circulating SubRecorder No. 13277 Type AK-1 Range 4125 PSIRecorder Depth 3607 Clock # 25826Tool Open Before I.S.I. 30 Mins.Initial Shut-in 45 Mins.Flow Period 30 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 @ 11:47 PMBlow Remarks 1st open: Off bottom in 2 seconds.2nd open: Off bottom in 2 seconds.

Mud Chlorides: 3,000 ppmRoger Welty let us reverse recovery:amounts are approximate.

Price of Job \$655.00

INITIAL SHUT-IN

=====

RECORDER NO: 13277 DEPTH: 3610 FT.
 INITIAL FLOW TIME (T): 30 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	899.8
3	1.041	1135.6
6	0.778	1185.0
9	0.637	1198.4
12	0.544	1206.6
15	0.477	1212.8
18	0.426	1217.9
21	0.385	1222.0
24	0.352	1225.1
27	0.325	1228.2
30	0.301	1230.3
33	0.281	1233.4
36	0.263	1236.4
39	0.248	1238.5
42	0.234	1240.6
45	0.222	1242.6

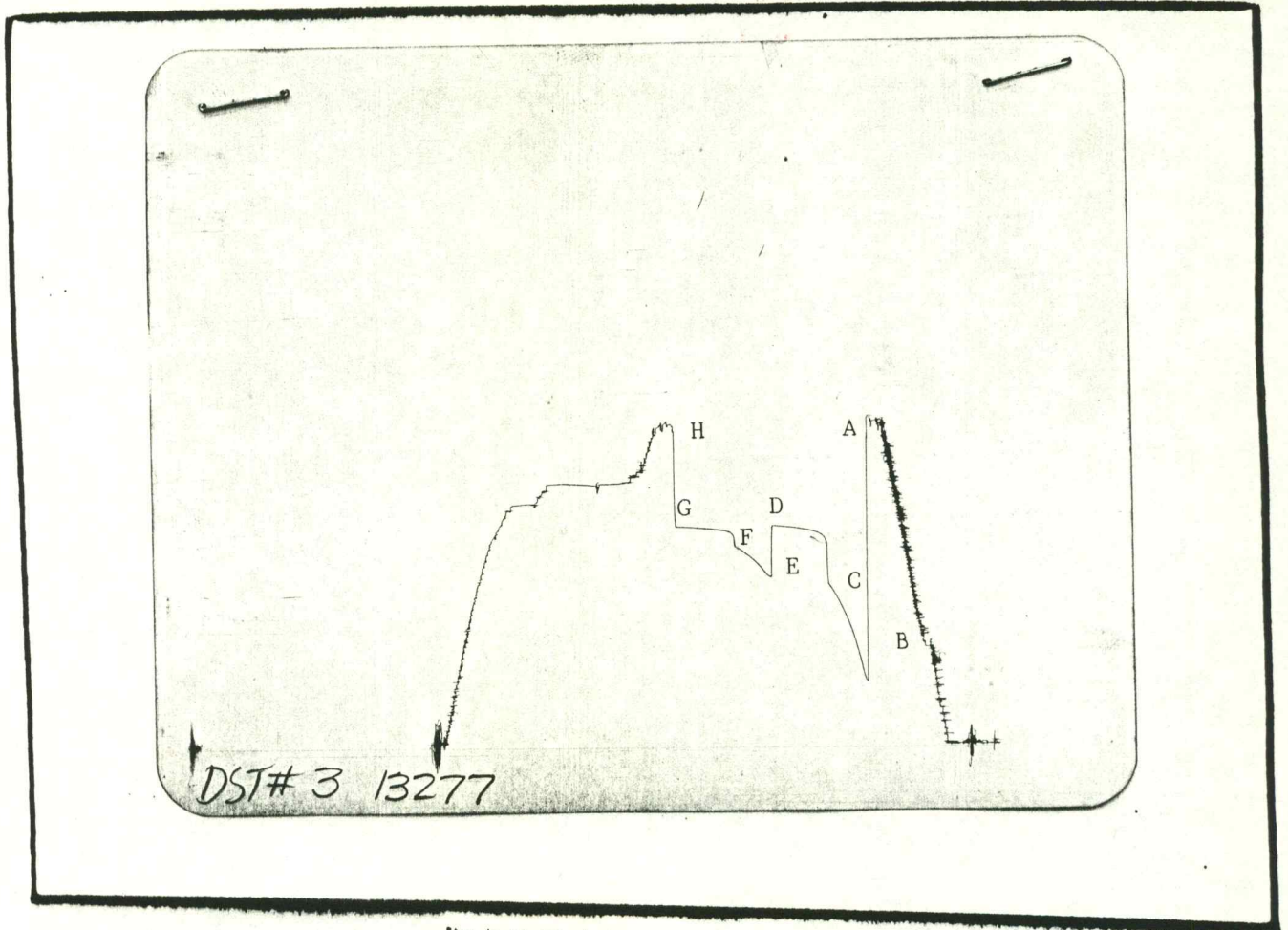
FINAL SHUT-IN

=====

RECORDER NO: 13277 DEPTH: 3610 FT.
 TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	1122.2
3	1.322	1196.3
6	1.041	1210.7
9	0.885	1214.8
12	0.778	1217.9
15	0.699	1221.0
18	0.637	1224.1
21	0.586	1226.1
24	0.544	1228.2
27	0.508	1230.3
30	0.477	1232.3
33	0.450	1233.4
36	0.426	1234.4
39	0.405	1235.4
42	0.385	1236.4
45	0.368	1237.5

S E A
 F. H. G. C. L. P. P. R. S.



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1840	1835	PSI
(B) First Initial Flow Pressure	373	370.6	PSI
(C) First Final Flow Pressure	907	899.8	PSI
(D) Initial Closed-in Pressure	1235	1242.6	PSI
(E) Second Initial Flow Pressure	948	955.4	PSI
(F) Second Final Flow Pressure	1102	1122.2	PSI
(G) Final Closed-in Pressure	1235	1237.5	PSI
(H) Final Hydrostatic Mud	1809	1804	PSI

STOLEN
FROM K.G.S.

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

K.G.S. LIBRARY

FOR: ENERGY PRODUCTION INC.
KEISWETTER #1 DST # 3
SEC 16-6S-22W FORMATION: LANSING A
GRAHAM COUNTY, KANSAS ELEVATION: 2361 KB

TEST PARAMETERS

TEST INTERVAL: 3581 - 3610	EST PAY: 4
TIME INTERVAL: 30 - 45 - 30 - 45	VISCOSITY OF FLUID: 3
INITIAL FLOW PRESS: 370.6- 899.8	HOLE SIZE: 7.875
FINAL FLOW PRESS: 955.4-1122.2	D.C. CAPACITY:0.00492
SHUT-IN PRESS(I-F):1242.6-1237.5	W.P. CAPACITY:0.00545
BOTTOM HOLE TEMPERATURE: 114	D.P. CAPACITY:0.01026
TOTAL FEET OF RECOVERY: 3000	TOTAL BARRELS RECOVERY:28.2694

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1277
SLOPE (PSI-CYCLE): 160 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1248
SLOPE (PSI-CYCLE): 36 POINTS USED: 6

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 678.47
TRANSMISSIBILITY (MD-FT/CP)	: 3064.41
PERMEABILITY (MD)	: 2298.30
PRODUCTIVITY INDEX (B/D/PSI)	: 0.5436
DAMAGE RATIO	: 0.640
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 371.3
DRAWDOWN FACTOR (%)	: 2.271
POTENTIOMETRIC SURFACE (FT)	: 1645.11

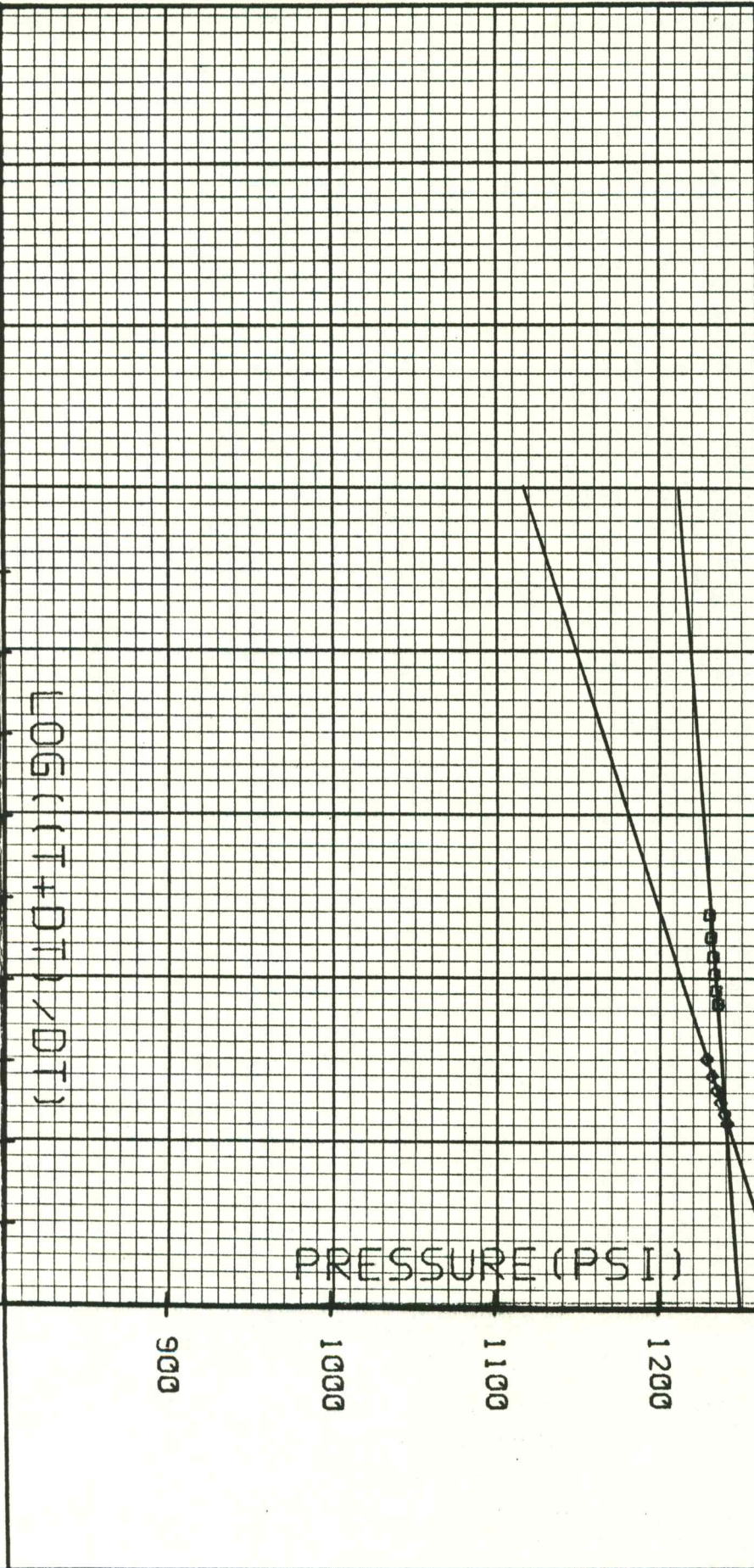
HORNER PLOT
ENERGY PRODUCTION INC.
KEISUETTER #1
DST # 3 DEPTH: 3610
RECORDER NO. 13277
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

$\text{LOG}((T+DT)/DT)$

PRESSURE (PSI)

900
1000
1100
1200
1300
1400



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CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Energy Production Inc.	Test No.	4
Well Name & Number	Keiswetter #1	Zone Tested	Lansing B
Company Address	1100 Bitting Bldg. Wichita Ks.	Date	6/17/84
Company Rep.	Roger Welty	Tester	Russell Hearting
Contractor	Abercrombie Drilling Inc.	Elevation	2361 KB
Location: Sec. 16 Twp. 6s Rge. 22w Co. Graham State Ks.		Est. Feet of Pay	

Recorder No. 10983 Type AK-1 Range 4100 PSI

Recorder Depth 3624 Clock # 25562

(A) Initial Hydrostatic Mud 1825 PSI

(B) First Initial Flow Pressure 61 PSI

(C) First Final Flow Pressure 71 PSI

(D) Initial Shut-in Pressure 1187 PSI

(E) Second Initial Flow Pressure 81 PSI

(F) Second Final Flow Pressure 102 PSI

(G) Final Shut-in Pressure 1134 PSI

(H) Final Hydrostatic Mud 1814 PSI

Temperature 114

Mud Weight 9.3 Viscosity 45

Fluid Loss 7.2

Interval Tested 3606-3630

Anchor Length 24

Top Packer Depth 3601

Bottom Packer Depth 3606

Total Depth 3630

Drill Pipe Size 4 XH

Wt. Pipe I. D. 2.37 Ft. Run 520

Recovery-Total Feet 100

Recovered 100 Feet Of drilling mud with oil specks in top of tool.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

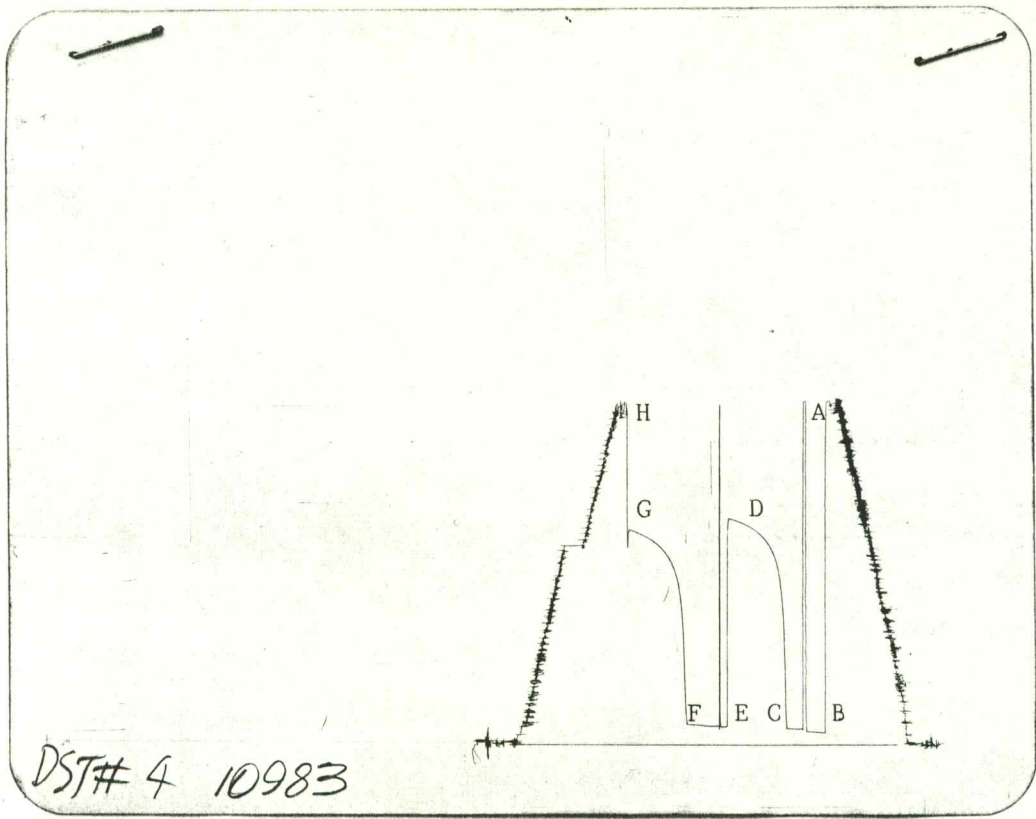
Recovered Feet Of

Recovered Feet Of

Extra Equipment Price of Job \$625.00

K. G. S. LIBRARY

MILLER PRINTERS, INC.
Great Bend, Kansas



DST# 4 10983

This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1825	PSI
(b) First Initial Flow Pressure	61	PSI
(C) First Final Flow Pressure	71	PSI
(D) Initial Closed-in Pressure	1187	PSI
(E) Second Initial Flow Pressure	81	PSI
(F) Second Final Flow Pressure	102	PSI
(G) Final Closed-in Pressure	1135	PSI
(H) Final Hydrostatic Mud	1814	PSI

STOLEN
FROM K.G.S.

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company <u>Energy Production Inc.</u>	Test No. <u>5</u>
Well Name & Number <u>Keiswetter #1</u>	Zone Tested <u>Lansing I</u>
Company Address <u>1100 Bitting Bldg. Wichita Ks.</u>	Date <u>6/18/84</u>
Company Rep. <u>Roger Welty</u>	Tester <u>Russell Hearting</u>
Contractor <u>Abercrombie Drilling Inc.</u>	Elevation <u>2361 KB</u>
Location: Sec. <u>16</u> Twp. <u>6s</u> Rge. <u>22w</u> Co. <u>Graham</u> State <u>Ks.</u>	Est. Feet of Pay _____

Recorder No. 10983 Type AK-1 Range 4100 PSI
 Recorder Depth 3730 Clock # 25562
 (A) Initial Hydrostatic Mud 1876 PSI
 (B) First Initial Flow Pressure 92 PSI
 (C) First Final Flow Pressure 102 PSI
 (D) Initial Shut-in Pressure 275 PSI
 (E) Second Initial Flow Pressure 112 PSI
 (F) Second Final Flow Pressure 163 PSI
 (G) Final Shut-in Pressure 275 PSI
 (H) Final Hydrostatic Mud 1866 PSI
 Temperature 116
 Mud Weight 9.2 Viscosity 49
 Fluid Loss 7.2
 Interval Tested 3722-3736
 Anchor Length 14
 Top Packer Depth 3712
 Bottom Packer Depth 3717
 Total Depth 3736
 Drill Pipe Size 4 XH
 Wt. Pipe I. D. 2.37 Ft. Run 520
 Recovery-Total Feet 100

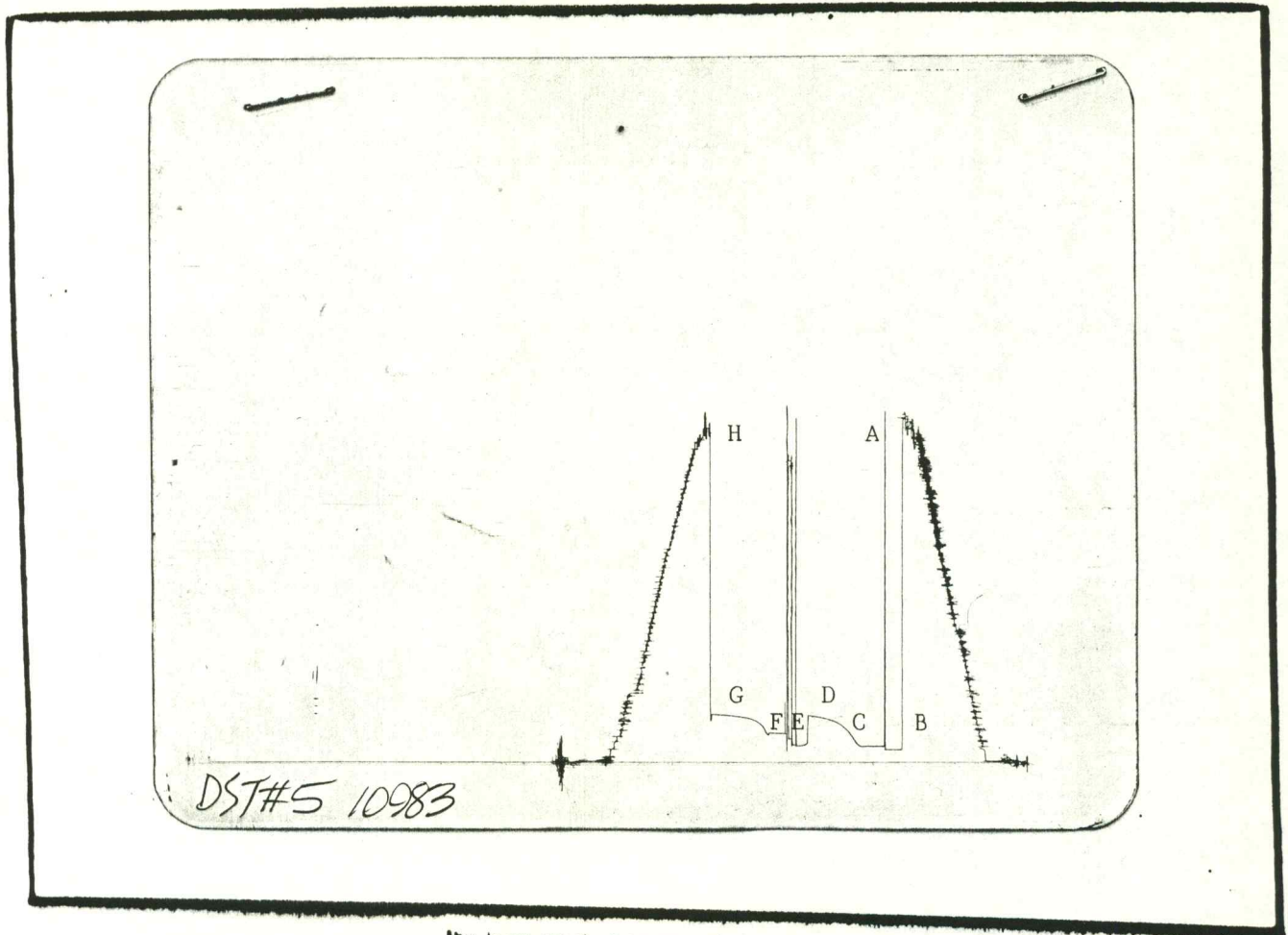
Recorder No. 13277 Type AK-1 Range 4125 PSI
 Recorder Depth 3733 Clock # 25826
 Tool Open Before I.S.I. 30 Mins.
 Initial Shut-in 45 Mins.
 Flow Period 30 Mins.
 Final Shut-in 45 Mins.
 Top Choke Size 1" Hole Size 7 7/8"
 Bottom Choke Size 3/4" Rubber Size 6 3/4"
 Tool Open @ 10:08 Am

Blow Remarks 1st open: Weak blow died in
5 minutes, flushed tool, surged, died
in 2 minutes.
2nd open: Dead blow, flushed tool, surged,
died in 1/2 minutes.

Mud Chlorides: 3,000 ppm

Recovered 100 Feet Of drilling mud with few oil specks in top of tool.
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____

Extra Equipment _____ Price of Job \$625.00



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1876	PSI
(B) First Initial Flow Pressure	92	PSI
(C) First Final Flow Pressure	102	PSI
(D) Initial Closed-in Pressure	275	PSI
(E) Second Initial Flow Pressure	112	PSI
(F) Second Final Flow Pressure	163	PSI
(G) Final Closed-in Pressure	275	PSI
(H) Final Hydrostatic Mud	1866	PSI

STOLEN
FROM KLG

CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Energy Production Inc.	Test No.	6
Well Name & Number	Keiswetter #1	Zone Tested	Lansing I&J
Company Address	1100 Bitting Bldg. Wichita Ks.	Date	6/18/84
Company Rep.	Roger Welty	Tester	Russell Hearting
Contractor	Abercrombie Drilling Inc.	Elevation	2361 KB
Location: Sec. 16 Twp. 6s Rge. 22w CoGraham State Ks.		Est. Feet of Pay	

Recorder No. 10983 Type AK-1 Range 4100 PSI
 Recorder Depth 3749 Clock # 25562
 (A) Initial Hydrostatic Mud 1979 PSI
 (B) First Initial Flow Pressure 71 PSI
 (C) First Final Flow Pressure 102 PSI
 (D) Initial Shut-in Pressure 1012 PSI
 (E) Second Initial Flow Pressure 112 PSI
 (F) Second Final Flow Pressure 132 PSI
 (G) Final Shut-in Pressure 1002 PSI
 (H) Final Hydrostatic Mud 1938 PSI
 Temperature 115
 Mud Weight 9.2 Viscosity 49
 Fluid Loss 7.2
 Interval Tested 3722-3755
 Anchor Length 33
 Top Packer Depth 3717
 Bottom Packer Depth 3722
 Total Depth 3755
 Drill Pipe Size 4 XH
 Wt. Pipe I. D. 2.37 Ft. Run 520
 Recovery-Total Feet 180

Recorder No. 13277 Type AK-1 Range 4125 PSI
 Recorder Depth 3752 Clock # 25826
 Tool Open Before I.S.I. 30 Mins.
 Initial Shut-in 45 Mins.
 Flow Period 30 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 @ 9:30 PM
 Blow Remarks 1st open: Weak decreasing blow,
died in 4 minutes.
2nd open: No blow, flushed tool, died in
2 minutes.
 Mud Chlorides: 3,000 ppm

Recovered 20 Feet Of clean oil, Gravity: 36 API corrected.
 Recovered 160 Feet Of heavy oil cut mud, 85% mud, 10% oil, 5% water.
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Extra Equipment _____ Price of Job \$625.00

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INITIAL SHUT-IN

=====

RECORDER NO: 10983 DEPTH: 3755 FT.
 INITIAL FLOW TIME (T): 30 MIN.

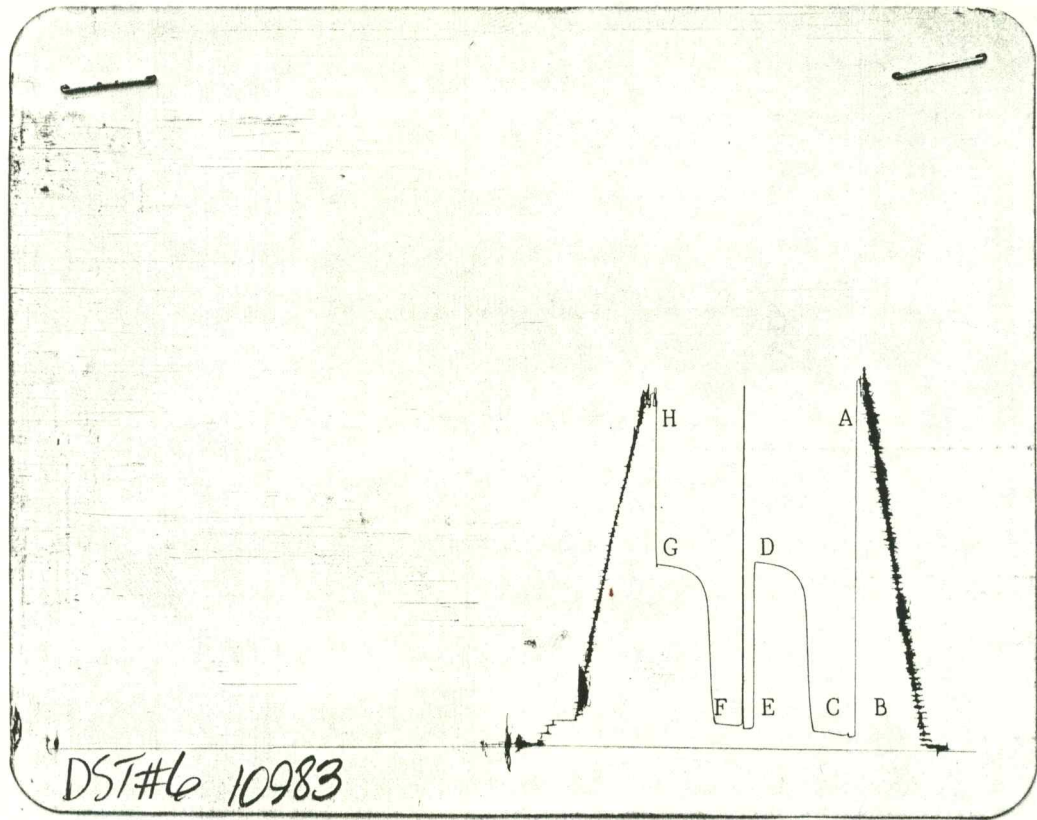
DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	97.4
3	1.041	153.9
6	0.778	326.2
9	0.637	695.4
12	0.544	861.6
15	0.477	904.7
18	0.426	929.3
21	0.385	946.7
24	0.352	959.0
27	0.325	967.3
30	0.301	974.4
33	0.281	980.6
36	0.263	983.7
39	0.248	986.7
42	0.234	988.8
45	0.222	990.8

FINAL SHUT-IN

=====

RECORDER NO: 10983 DEPTH: 3755 FT.
 TOTAL FLOW TIME: 60 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	134.4
3	1.322	215.4
6	1.041	415.4
9	0.885	778.5
12	0.778	851.3
15	0.699	898.5
18	0.637	920.1
21	0.586	935.5
24	0.544	944.7
27	0.508	953.9
30	0.477	959.0
33	0.450	963.2
36	0.426	968.3
39	0.405	972.4
42	0.385	974.4
45	0.368	976.5



This is an actual photograph of recorder chart.

	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	<u>1979</u>	<u>1974</u>	PSI
(B) First Initial Flow Pressure	<u>71</u>	<u>71.8</u>	PSI
(C) First Final Flow Pressure	<u>102</u>	<u>97.4</u>	PSI
(D) Initial Closed-In Pressure	<u>1012</u>	<u>990.8</u>	PSI
(E) Second Initial Flow Pressure	<u>112</u>	<u>107.7</u>	PSI
(F) Second Final Flow Pressure	<u>132</u>	<u>134.4</u>	PSI
(G) Final Closed-In Pressure	<u>1002</u>	<u>976.5</u>	PSI
(H) Final Hydrostatic Mud	<u>1938</u>	<u>1933</u>	PSI

STOLEN
FROM K.G.S.

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

FOR: ENERGY PRODUCTION INC.
KEISWETTER #1 DST # 6
SEC 16-6S-22W FORMATION: LANSING I & J
GRAHAM COUNTY, KANSAS ELEVATION: 2361 KB

TEST PARAMETERS

TEST INTERVAL: 3722 - 3755	EST PAY: 8
TIME INTERVAL: 30 - 45 - 30 - 45	VISCOSITY OF FLUID: 4
INITIAL FLOW PRESS: 71.8- 97.4	HOLE SIZE: 7.875
FINAL FLOW PRESS: 107.7- 134.4	D.C. CAPACITY: 0.00492
SHUT-IN PRESS(I-F): 990.8- 976.5	W.P. CAPACITY: 0.00545
BOTTOM HOLE TEMPERATURE: 115	D.P. CAPACITY: 0.01026
TOTAL FEET OF RECOVERY: 180	TOTAL BARRELS RECOVERY: 0.9817

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1033
SLOPE (PSI-CYCLE): 197 POINTS USED: 5

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1023
SLOPE (PSI-CYCLE): 134 POINTS USED: 4

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 23.56
TRANSMISSIBILITY (MD-FT/CP)	: 28.59
PERMEABILITY (MD)	: 14.29
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0230
DAMAGE RATIO	: 1.214
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 29.3
DRAWDOWN FACTOR (%)	: 0.968
POTENTIOMETRIC SURFACE (FT)	: 978.34

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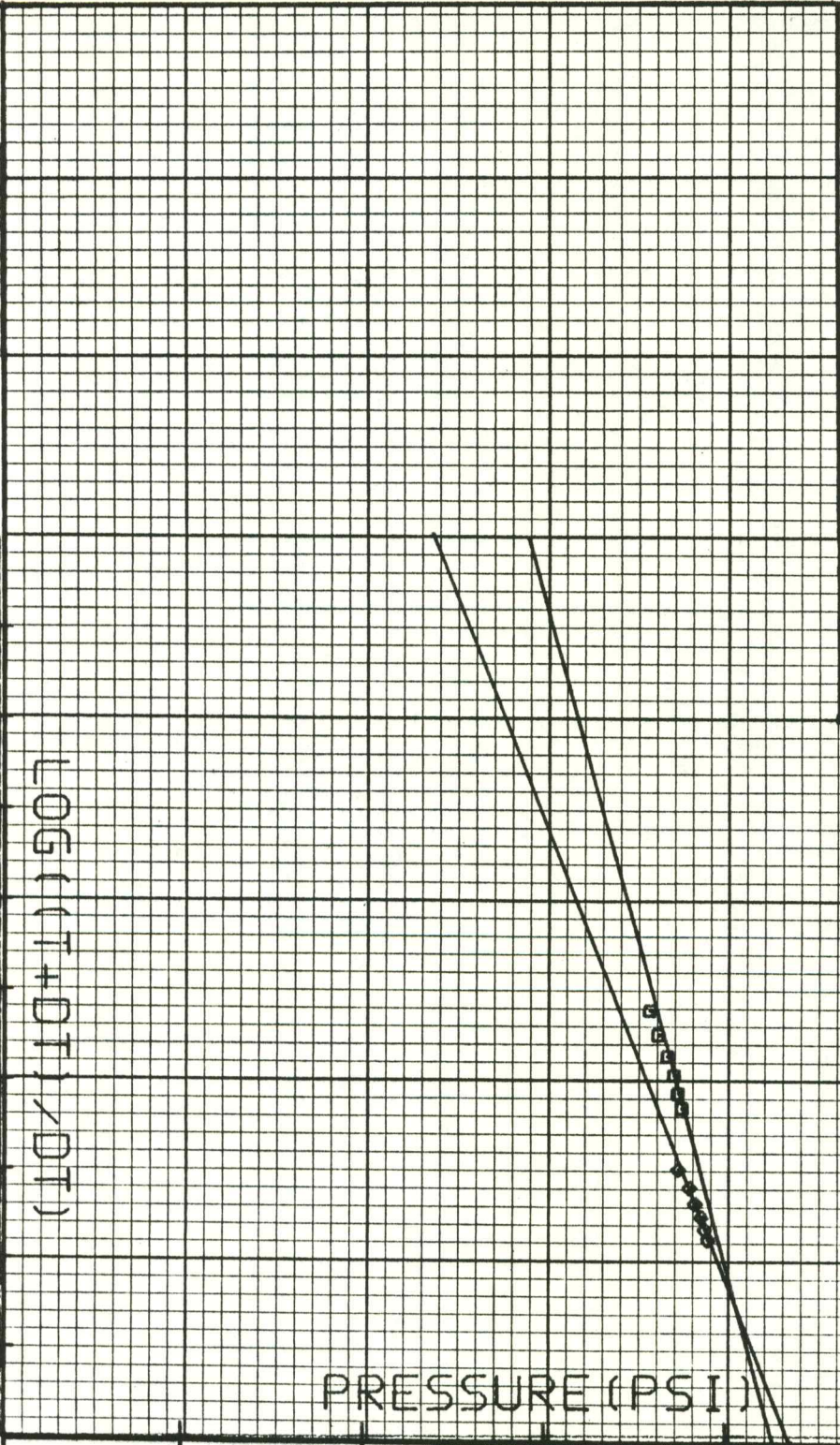
HORNER PLOT
ENERGY PRODUCTION INC.
KEISMETTER #1
DST # 6 DEPTH: 3755
RECORDER NO. 10983
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

LOG((T+DT)/DT)

PRESSURE (PSI)

700
800
900
1000
1100
1200



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CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company <u>Energy Production Inc.</u>	Test No. <u>7</u>
Well Name & Number <u>Keiswetter #1</u>	Zone Tested <u>Marmaton</u>
Company Address <u>1100 Bitting Bldg. Wichita Ks.</u>	Date <u>6/19/84</u>
Company Rep. <u>Roger Welty</u>	Tester <u>Russell Hearting</u>
Contractor <u>Abercrombie Drilling Inc.</u>	Elevation <u>2361 KB</u>
Location: Sec. <u>16</u> Twp. <u>6s</u> Rge. <u>22w</u> Co. <u>Graham State Ks.</u>	Est. Feet of Pay _____

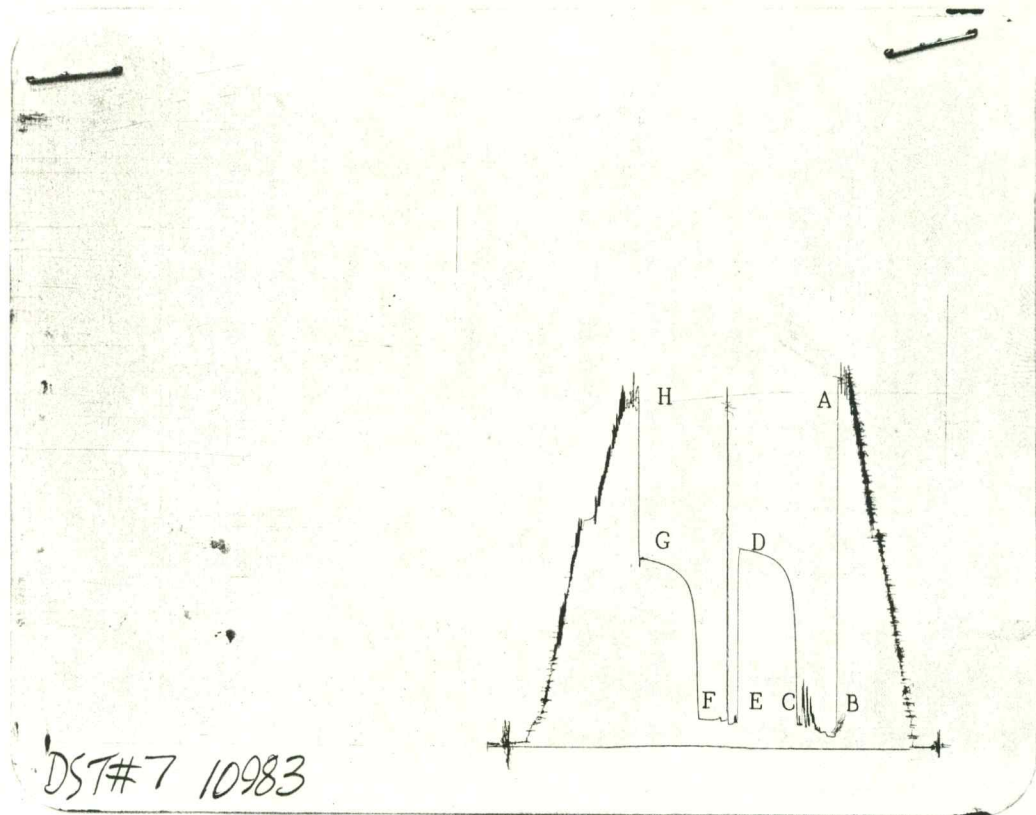
Recorder No. 10983 Type AK-1 Range 4100 PSI
 Recorder Depth 3795 Clock # 25562
 (A) Initial Hydrostatic Mud 2020 PSI
 (B) First Initial Flow Pressure 102 PSI
 (C) First Final Flow Pressure 122 PSI
 (D) Initial Shut-in Pressure 1074 PSI
 (E) Second Initial Flow Pressure 142 PSI
 (F) Second Final Flow Pressure 153 PSI
 (G) Final Shut-in Pressure 991 PSI
 (H) Final Hydrostatic Mud 2000 PSI
 Temperature 116
 Mud Weight 9.1 Viscosity 60
 Fluid Loss 8.0
 Interval Tested 3779-3840
 Anchor Length 61
 Top Packer Depth 3774
 Bottom Packer Depth 3779
 Total Depth 3840
 Drill Pipe Size 4 XH
 Wt. Pipe I. D. 2.37 Ft. Run 520
 Recovery-Total Feet 240

Recorder No. 13277 Type AK-1 Range 4125 PSI
 Recorder Depth 3798 Clock # 25826
 Tool Open Before I.S.I. 30 Mins.
 Initial Shut-in 45 Mins.
 Flow Period 30 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 @ 3:22 PM
 Blow Remarks 1st open: WEak decreasing
blow, died in 6 minutes.
2nd open: No blow, flushed tool, died in
1 minute.
 Mud Chlorides: 3,000 ppm

Recovered 240 Feet Of drilling mud with few oil specks in top of tool.
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Extra Equipment _____ Price of Job \$625.00

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MILLER PRINTERS, INC.
Great Bend, Kansas



DST#7 10983

This is an actual photograph of recorder chart.

	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	<u>2020</u>		PSI
(B) First Initial Flow Pressure	<u>102</u>		PSI
(C) First Final Flow Pressure	<u>122</u>		PSI
(D) Initial Closed-In Pressure	<u>1074</u>		PSI
(E) Second Initial Flow Pressure	<u>142</u>		PSI
(F) Second Final Flow Pressure	<u>153</u>		PSI
(G) Final Closed-In Pressure	<u>991</u>		PSI
(H) Final Hydrostatic Mud	<u>2000</u>		PSI

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