

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Great Eastern Energy & Developement Corp.	Test No.	1
Well Name & Number	Hale #1	Zone Tested	Lansing "D"
Company Address	5660 S. Syracuse Circle #220 Englewood Co.	Date	6/30/85
Company Rep.	John Green	Tester	Dell Hartwell
Contractor	Stoppelwerth Drilling	Elevation	
Location: Sec.	11 Twp. 7s Rge. 23w CoGraham State KS.	Est. Feet of Pay	

Recorder No. 10983 Type AK-1 Range 4100 PSI

Recorder Depth 3779 Clock # 25829

(A) Initial Hydrostatic Mud 1881 PSI

(B) First Initial Flow Pressure 51 PSI

(C) First Final Flow Pressure 51 PSI

(D) Initial Shut-in Pressure 1276 PSI

(E) Second Initial Flow Pressure 72 PSI

(F) Second Final Flow Pressure 103 PSI

(G) Final Shut-in Pressure 1266 PSI

(H) Final Hydrostatic Mud 1799 PSI

Temperature 107

Mud Weight 9.4 Viscosity 34

Fluid Loss 13.6

Interval Tested 3738-3787

Anchor Length 49

Top Packer Depth 3733

Bottom Packer Depth 3738

Total Depth 3787

Drill Pipe Size 4 1/2 FH

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 130

Recovered 130 Feet Of Oil specked mud.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Bowen Jars & Safety Joint.

Recorder No. 13277 Type AK-1 Range 4125 PSI

Recorder Depth 3782 Clock # 25559

Tool Open Before I.S.I. 15 Mins.

Initial Shut-in 30 Mins.

Flow Period 60 Mins.

Final Shut-in 120 Mins.

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

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

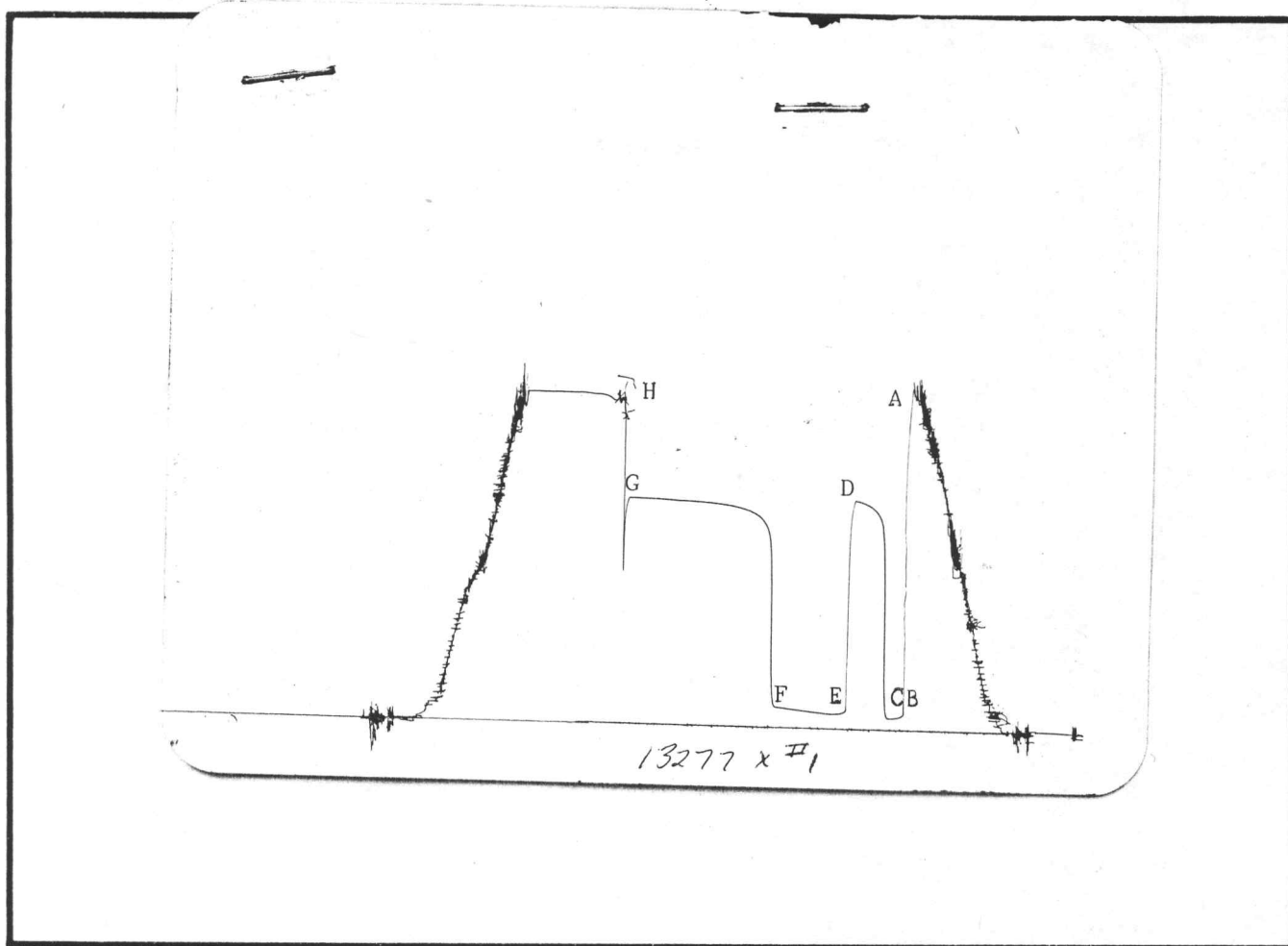
Tool Open @ 12:55 AM

Blow Remarks 1st open: Very weak 1 1/2 inch blow.

2nd open: Weak 3 inch blow.

Drill Collars I.D. 2.25 Ft. run 360.

Price of Job \$860.00



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1881	PSI
(B) First Initial Flow Pressure	51	PSI
(C) First Final Flow Pressure	51	PSI
(D) Initial Closed-in Pressure	1276	PSI
(E) Second Initial Flow Pressure	72	PSI
(F) Second Final Flow Pressure	103	PSI
(G) Final Closed-in Pressure	1266	PSI
(H) Final Hydrostatic Mud	1799	PSI

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DRILL-STEM TEST DATA

Company	Great Eastern Energy & Development Corp.	Test No.	2
Well Name & Number	Hale #1	Zone Tested	Lansing "F,G,H"
Company Address	5660 S. Syracuse Circle #220 Englewood Co.	Date	6/30/85
Company Rep.	John Green	Tester	Dell Hartwell
Contractor	Stoppelwerth Drilling	Elevation	2404 KB
Location: Sec. 11 Twp. 7s Rge. 23w Co. Graham State Ks.	Est. Feet of Pay		

Recorder No. 10983 Type AK-1 Range 4100 PSI

Recorder Depth 3834 Clock # 25829

(A) Initial Hydrostatic Mud 1952 PSI

(B) First Initial Flow Pressure 114 PSI

(C) First Final Flow Pressure 145 PSI

(D) Initial Shut-in Pressure 1286 PSI

(E) Second Initial Flow Pressure 197 PSI

(F) Second Final Flow Pressure 383 PSI

(G) Final Shut-in Pressure 1256 PSI

(H) Final Hydrostatic Mud 1942 PSI

Temperature 108

Mud Weight 9.4 Viscosity 40

Fluid Loss 13.2

Interval Tested 3790-3842

Anchor Length 52

Top Packer Depth 3785

Bottom Packer Depth 3790

Total Depth 3842

Drill Pipe Size 4 1/2 FH

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 1020

Recovered 960 Feet Of Gas in pipe.

Recovered 900 Feet Of Clean gassy oil: 30% gas.

Recovered 120 Feet Of Mud cut oil: 15% mud, 30% gas & 55% oil.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Bowen Jars, SAfety Joint, & Circulating Sub. Price of Job \$890.00

Recorder No. 13277 Type AK-1 Range 4125 PSI

Recorder Depth 3837 Clock # 25559

Tool Open Before I.S.I. 10 Mins.

Initial Shut-in 15 Mins.

Flow Period 60 Mins.

Final Shut-in 120 Mins.

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

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

Tool Open @ 7:45 PM

Blow Remarks 1st open: Strong blow, off bottom of bucket in 5 minutes.

2nd open: Very strong blow, off bottom of bucket in 2 minutes.

Pit mud Chlorides: 2,000 ppm.

Gravity 38 Corrected @ 70°F.

Dropped bar reversed out oil.

Drill Collars I.D. 2.25 Ft. run 360.

INITIAL SHUT-IN

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RECORDER NO: 13277 DEPTH: 3842 FT.
INITIAL FLOW TIME (T): 10 MIN.

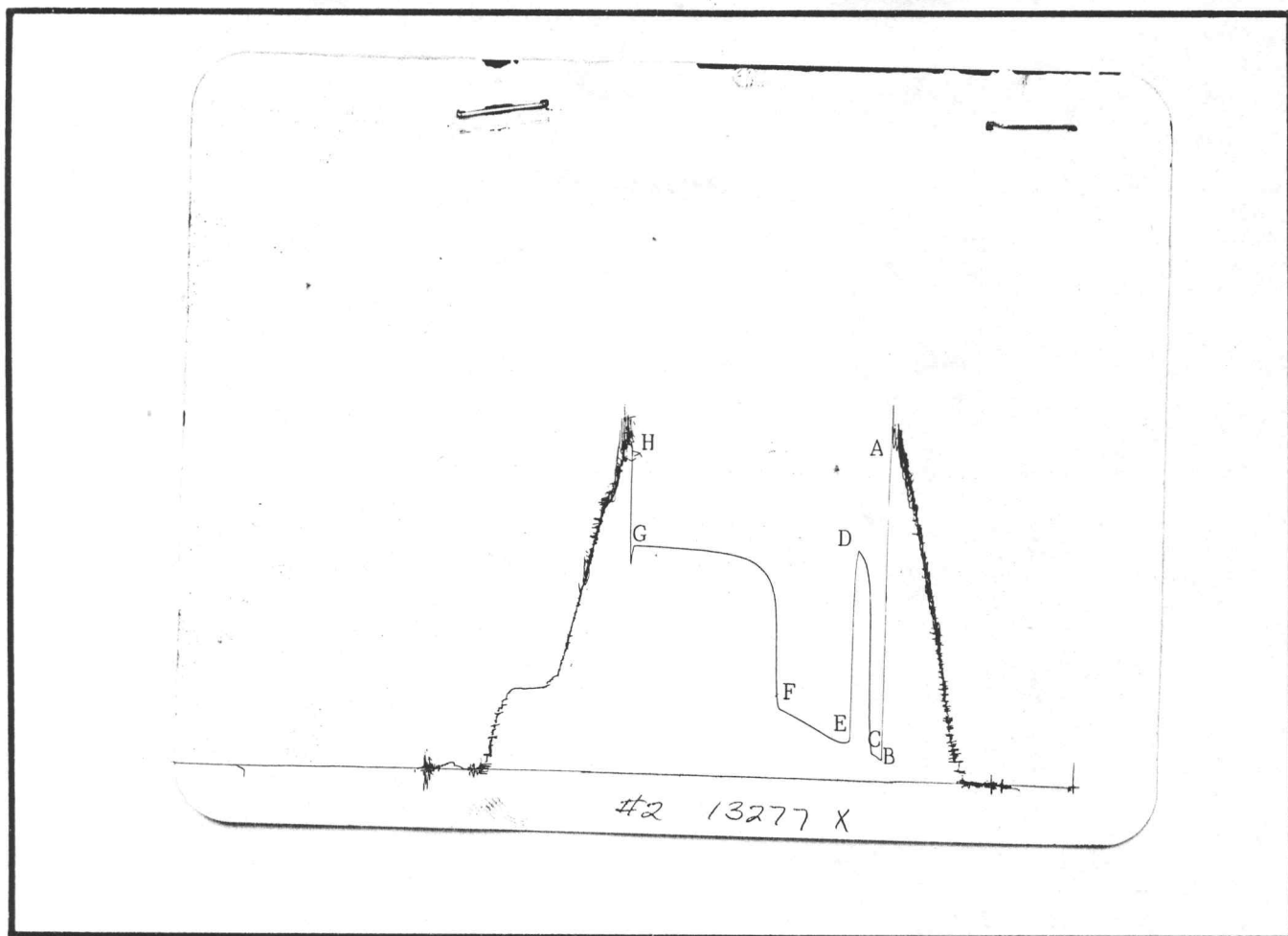
DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	153.4
5	0.477	1047.0
10	0.301	1226.1
15	0.222	1270.4

FINAL SHUT-IN

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RECORDER NO: 13277 DEPTH: 3842 FT.
TOTAL FLOW TIME: 70 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	390.2
5	1.176	511.7
10	0.903	1001.7
15	0.753	1109.8
20	0.653	1156.1
25	0.580	1185.0
30	0.523	1205.6
35	0.477	1217.9
40	0.439	1227.2
45	0.407	1235.4
50	0.380	1240.6
55	0.357	1244.7
60	0.336	1248.8
65	0.317	1252.9
70	0.301	1255.0
75	0.286	1259.1
80	0.273	1261.2
85	0.261	1262.2
90	0.250	1263.2
95	0.240	1264.2
100	0.230	1265.3
105	0.222	1266.3
110	0.214	1267.3
115	0.206	1267.3
120	0.200	1267.3



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1952	1947	PSI
(B) First Initial Flow Pressure	114	119.4	PSI
(C) First Final Flow Pressure	145	153.4	PSI
(D) Initial Closed-in Pressure	1286	1270.4	PSI
(E) Second Initial Flow Pressure	197	211.0	PSI
(F) Second Final Flow Pressure	383	390.2	PSI
(G) Final Closed-in Pressure	1256	1267.3	PSI
(H) Final Hydrostatic Mud	1942	1937	PSI

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

FOR: GREAT EASTERN ENERGY & DEVEL. CORP.
HALE #1 DST # 2
SEC 11-7S-23W FORMATION: LANSING
GRAHAM COUNTY KANSAS ELEVATION: 2404 KB

TEST PARAMETERS

TEST INTERVAL: 3790 - 3842	EST PAY: 12
TIME INTERVAL: 10 - 15 - 60 - 120	VISCOSITY OF FLUID: 2.5
INITIAL FLOW PRESS: 119.4- 153.4	HOLE SIZE: 7.875
FINAL FLOW PRESS: 211.0- 390.2	D.C. CAPACITY: 0.00492
SHUT-IN PRESS(I-F): 1270.4-1267.3	W.P. CAPACITY: 0.00000
BOTTOM HOLE TEMPERATURE: 108	D.P. CAPACITY: 0.01402
TOTAL FEET OF RECOVERY: 1020	TOTAL BARRELS RECOVERY: 11.0229

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1395
SLOPE (PSI-CYCLE): 662 POINTS USED: 2

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1272
SLOPE (PSI-CYCLE): 39 POINTS USED: 6

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 226.76
TRANSMISSIBILITY (MD-FT/CP)	: 945.40
PERMEABILITY (MD)	: 196.96
PRODUCTIVITY INDEX (B/D/PSI)	: 1.0683
DAMAGE RATIO	: 4.138
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 117.4
DRAWDOWN FACTOR (%)	: 8.817
POTENTIOMETRIC SURFACE (FT)	: 1511.77

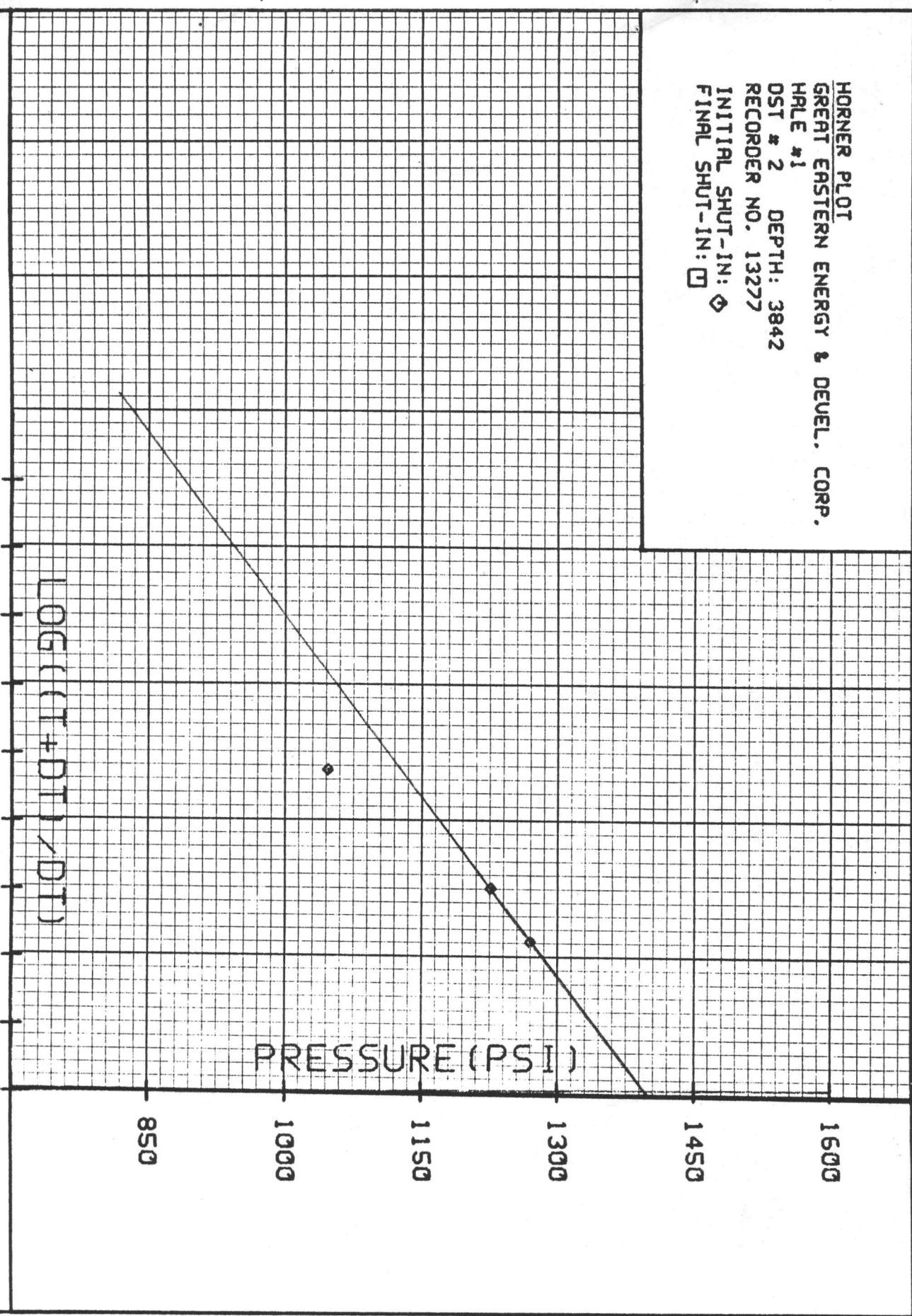
HORNER PLOT
GREAT EASTERN ENERGY & DEVEL. CORP.
HALE #1
DST # 2 DEPTH: 3842
RECORDER NO. 13227
INITIAL SHUT-IN: $\diamond$
FINAL SHUT-IN: $\square$

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)

850 1000 1150 1300 1450 1600



HORNER PLOT
GREAT EASTERN ENERGY & DEVEL. CORP.
HALE #1
DST # 2 DEPTH: 3842
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)

1600
1450
1300
1150
1000
850