15-195-21607 31-13s-31w

# CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

## DRILL-STEM TEST DATA

| | | | |
|---|---|---|---|
| Company | Beacon Exploration Co. | Test No. | 1 |
| Well Name & Number | Bongartz #1-31 | Zone Tested | Lansing |
| Company Address | 410 17th Street, Suite 2300, Denver,Co. | Date | 10-11-84 |
| Company Rep. | Larry Benedick | Tester | Norman Walker |
| Contractor | Murfin Drilling Co. | Elevation | 2365 K.B. |
| Location: Sec. 31 Twp. ~~12~~ 13s Rge. 21w Co. Trego State Kansas | | Est. Feet of Pay | |

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3766 Clock # 27948

(A) Initial Hydrostatic Mud 1997 PSI

(B) First Initial Flow Pressure 133 PSI

(C) First Final Flow Pressure 144 PSI

(D) Initial Shut-in Pressure 1090 PSI

(E) Second Initial Flow Pressure 164 PSI

(F) Second Final Flow Pressure 174 PSI

(G) Final Shut-in Pressure 1101 PSI

(H) Final Hydrostatic Mud 1956 PSI

Temperature 127

Mud Weight 7.2 Viscosity 42

Fluid Loss 7.2

Interval Tested 3746-3769

Anchor Length 23'.

Top Packer Depth 3741

Bottom Packer Depth 3746

Total Depth 3769

Drill Pipe Size 4½ X.H.

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 325

Recorder No. 11090 Type AK-1 Range 4125 PSI

Recorder Depth 3763 Clock # 27807

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 60 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 @ 3:45 A.M.

Blow Remarks

1st Open- Good Blow, 7" In 30 minutes.

2nd Open- good blow built to 5" in 60 minutes.

Drill collars-2.25 Ft. Run- 120'

Recovered 325 Feet Of Mud

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Price of Job $1010.00

## INITIAL SHUT-IN

RECORDER NO: 11090 DEPTH: 3769 FT.
INITIAL FLOW TIME (T): 30 MIN.

| DT(MIN) | LOG((T+DT)/DT) | PRESSURE(PSIG) |
|---|---|---|
| 0 | 0.000 | 139.0 |
| 5 | 0.845 | 759.0 |
| 10 | 0.602 | 852.8 |
| 15 | 0.477 | 919.7 |
| 20 | 0.398 | 961.9 |
| 25 | 0.342 | 991.8 |
| 30 | 0.301 | 1017.5 |
| 35 | 0.269 | 1037.1 |
| 40 | 0.243 | 1054.6 |
| 45 | 0.222 | 1069.0 |
| 50 | 0.204 | 1079.3 |
| 55 | 0.189 | 1089.6 |
| 60 | 0.176 | 1099.9 |

## FINAL SHUT-IN

RECORDER NO: 11090 DEPTH: 3769 FT.
TOTAL FLOW TIME: 90 MIN.

| DT(MIN) | LOG((T+DT)/DT) | PRESSURE(PSIG) |
|---|---|---|
| 0 | 0.000 | 179.2 |
| 5 | 1.279 | 588.1 |
| 10 | 1.000 | 750.8 |
| 15 | 0.845 | 819.8 |
| 20 | 0.740 | 871.3 |
| 25 | 0.663 | 906.3 |
| 30 | 0.602 | 938.2 |
| 35 | 0.553 | 960.9 |
| 40 | 0.512 | 979.4 |
| 45 | 0.477 | 995.9 |
| 50 | 0.447 | 1008.3 |
| 55 | 0.421 | 1021.7 |
| 60 | 0.398 | 1033.0 |
| 65 | 0.377 | 1043.3 |
| 70 | 0.359 | 1051.5 |
| 75 | 0.342 | 1057.7 |
| 80 | 0.327 | 1067.0 |
| 85 | 0.314 | 1072.1 |
| 90 | 0.301 | 1078.3 |
| 95 | 0.289 | 1083.5 |
| 100 | 0.279 | 1088.6 |
| 105 | 0.269 | 1092.7 |
| 110 | 0.260 | 1096.8 |
| 115 | 0.251 | 1099.9 |
| 120 | 0.243 | 1103.0 |

# CHENEY TESTING CO., INC.

P. O. BOX 367 HILL CITY, KANSAS 67642

## FLUID SAMPLER DATA

| | | | |
|---|---|---|---|
| Ticket No. | 8782 | Date | 10-11-84 |
| Company Name | Beacon Exploration Co. | | |
| Lease | Bongartz #1-31 | Test No. | 1 |
| County | Trego | Sec. 31 Twp. 13s Rge. 21w | |

### SAMPLER RECOVERY

Gas ______ ML

Oil ______ ML

Mud 1000 ML

Water 1000 ML

Other ______ ML

Pressure 50 P.S.I.

Total 2000 ML

### PIT MUD ANALYSIS

Chlorides 40,000 ppm

Resistivity .17 ohms @ 74.6 °F

Viscosity 42

Wt. 9.3

Filtrate 7.2 cc

Other –

### SAMPLER ANALYSIS

Resistivity .09 ohms @ 72.9 °F

Chlorides 80000 ppm

Gravity ______ Corrected @60°F

### PIPE RECOVERY

TOP:

Resistivity ______ ohms @ ______ °F

Chlorides ______ ppm

MIDDLE:

Resistivity ______ ohms @ ______ °F

Chlorides ______ ppm

BOTTOM:

Resistivity ______ ohms @ ______ °F

Chlorides ______ ppm

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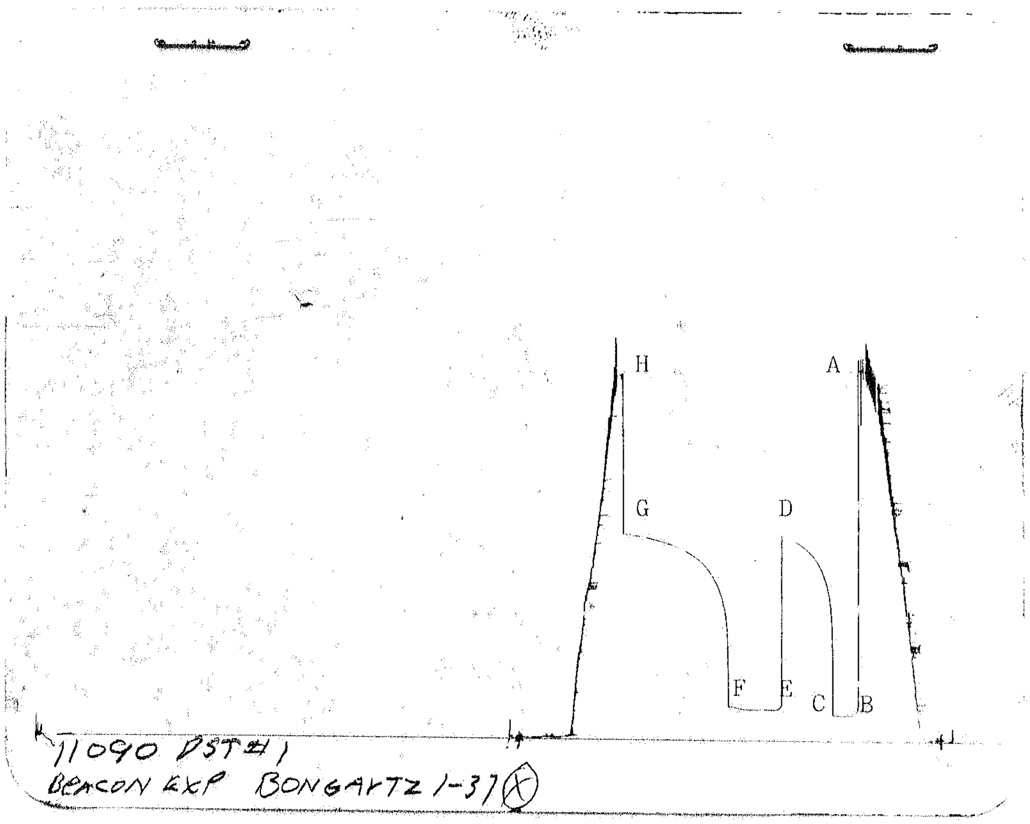


This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 1997 | 1992 | PSI |
| (B) | First Initial Flow Pressure | 133 | 135.9 | PSI |
| (C) | First Final Flow Pressure | 144 | 139.0 | PSI |
| (D) | Initial Closed-in Pressure | 1090 | 1099.9 | PSI |
| (E) | Second Initial Flow Pressure | 164 | 163.8 | PSI |
| (F) | Second Final Flow Pressure | 174 | 179.2 | PSI |
| (G) | Final Closed-in Pressure | 1101 | 1103.0 | PSI |
| (H) | Final Hydrostatic Mud | 1956 | 1951 | PSI |

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

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FOR: BEACON EXP
BONGARTZ 1-31
SEC 31-13-21
TREGO COUNTY KANSAS

DST # 1
FORMATION: LANSING
ELEVATION: 2365 KB

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## TEST PARAMETERS

TEST INTERVAL: 3746 - 3769
TIME INTERVAL: 30 - 60 - 60 - 120
INITIAL FLOW PRESS: 135.9- 139.0
FINAL FLOW PRESS: 163.8- 179.2
SHUT-IN PRESS(I-F):1099.9-1103.0
BOTTOM HOLE TEMPERATURE: 127
TOTAL FEET OF RECOVERY: 325

EST PAY: 5
VISCOSITY OF FLUID: 7
HOLE SIZE: 7.875
D.C. CAPACITY:0.00492
W.P. CAPACITY:0.00000
D.P. CAPACITY:0.01402
TOTAL BARRELS RECOVERY: 3.4640

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EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1210
SLOPE (PSI-CYCLE): 650 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1215
SLOPE (PSI-CYCLE): 453 POINTS USED: 7

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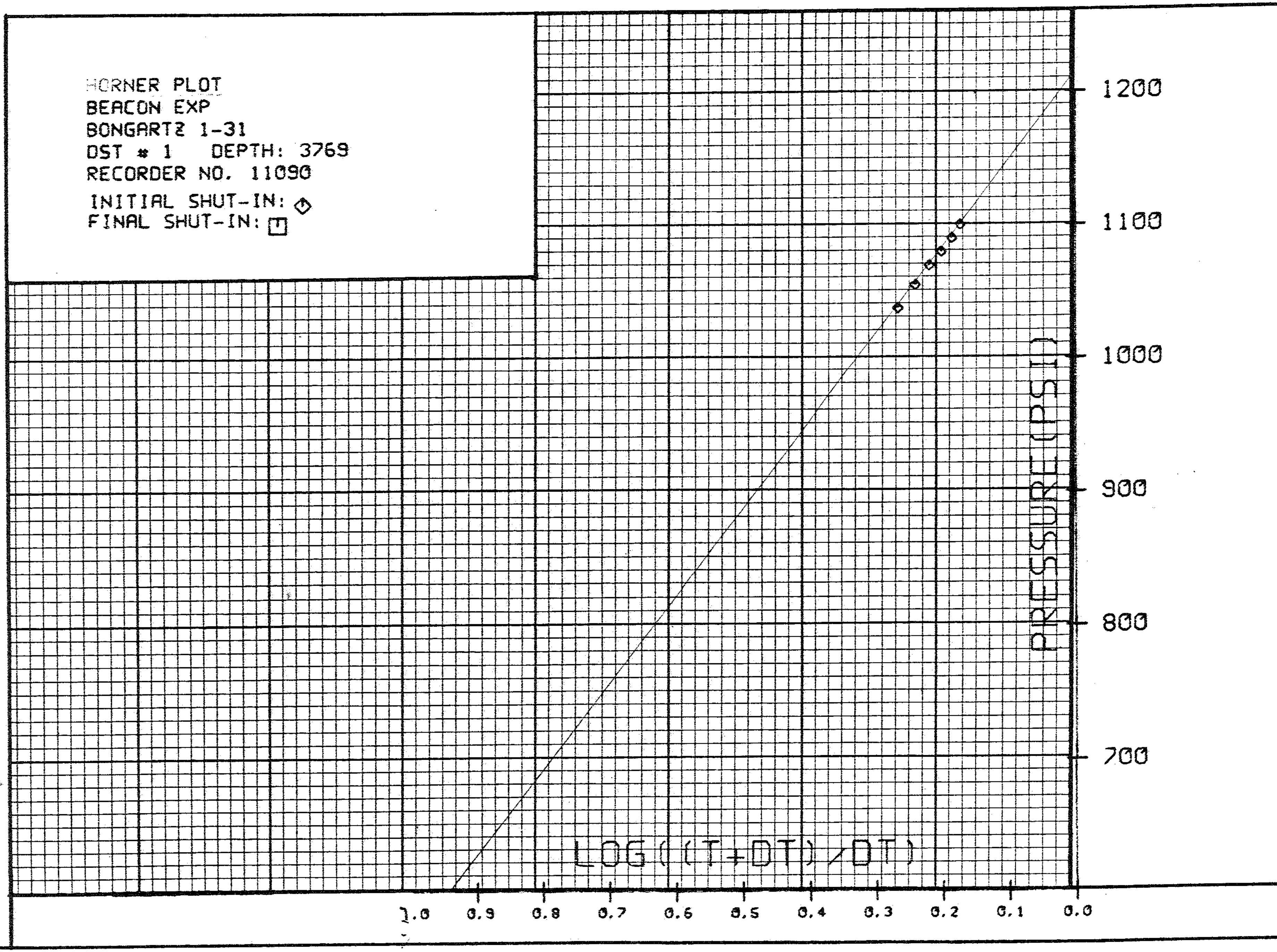
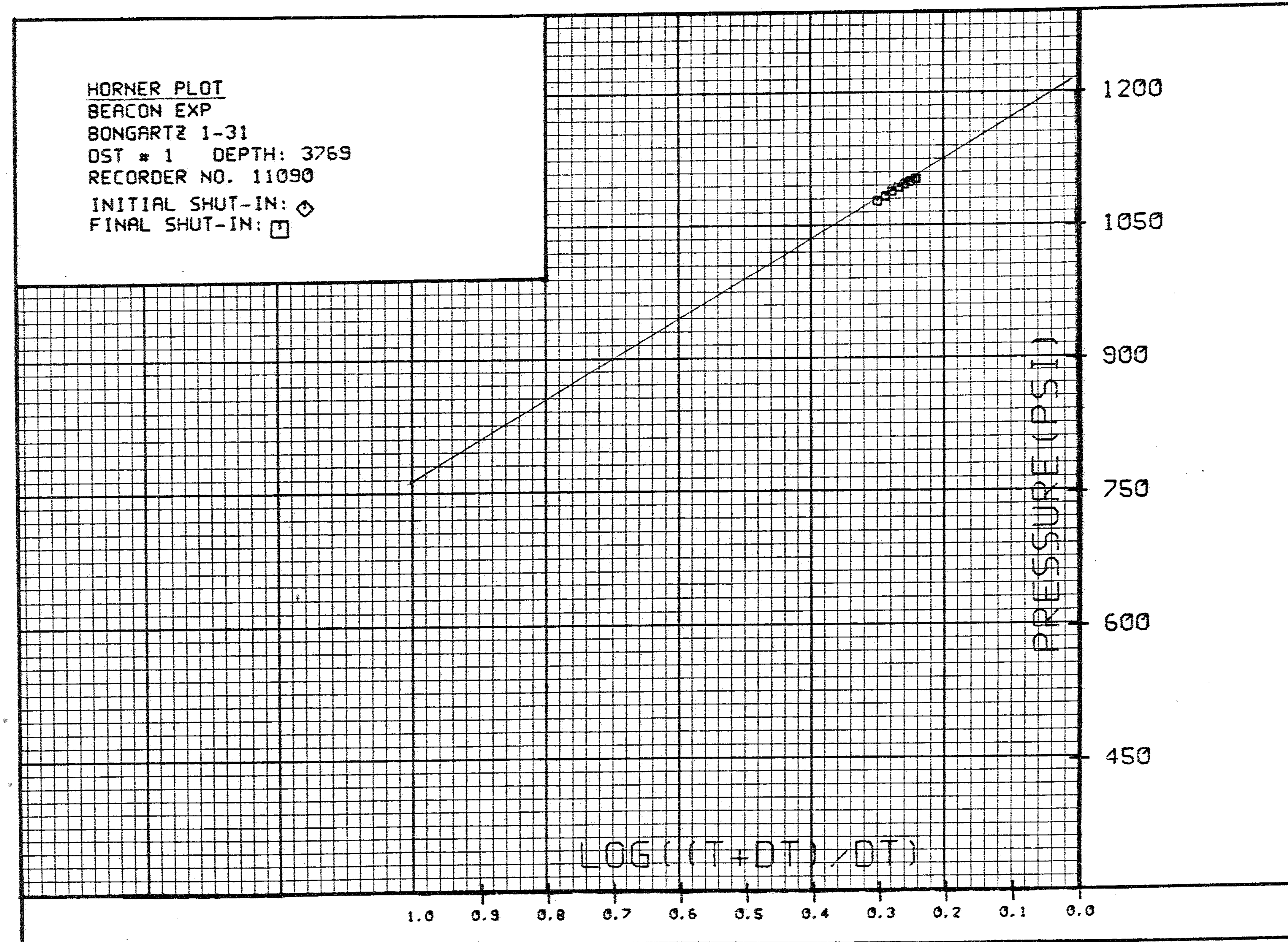
## CALCULATIONS

| | |
|---|---|
| AVERAGE PRODUCTION RATE (B/D) | : 55.42 |
| TRANSMISSIBILITY (MD-FT/CP) | : 19.89 |
| PERMEABILITY (MD) | : 27.85 |
| PRODUCTIVITY INDEX (B/D/PSI) | : 0.0456 |
| DAMAGE RATIO | : 0.418 |
| APPROXIMATE RADIUS OF INVESTIGATION (FT) | : 50.1 |
| DRAWDOWN FACTOR (%) | :-0.413 |
| POTENTIOMETRIC SURFACE (FT) | :1413.59 |



HORNER PLOT
BEACON EXP
BONGARTZ 1-31
DST # 1 DEPTH: 3769
RECORDER NO. 11090
INITIAL SHUT-IN:
FINAL SHUT-IN:
1200
1100
1000
900
800
700
PRESSURE(PSI)
LOG((T+DT)/DT)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0


HORNER PLOT
BEACON EXP
BONGARTZ 1-31
DST # 1 DEPTH: 3769
RECORDER NO. 11090
INITIAL SHUT-IN:
FINAL SHUT-IN:
1200
1050
900
750
600
450
PRESSURE (PSI)
LOG((T+DT)/DT)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

# CHENEY TESTING COMPANY, INC.

P. O. Box 367 HILL CITY, KANSAS 67642

## DRILL-STEM TEST DATA

| | | | |
|---|---|---|---|
| Company | Beacon Exploration | Test No. | 2 |
| Well Name & Number | Bongartz 1-31 | Zone Tested | Cherokee |
| Company Address | 410 17th st. suite #2300 Denver, Co. | Date | 10/12/84 |
| Company Rep. | Larry Benedick | Tester | Norman Walker |
| Contractor | Murfin Drilling | Elevation | 2365 K.B. |
| Location: Sec. 31 Twp. 13s Rge. 21w Co. Trego State Ks. | | Est. Feet of Pay | |

Recorder No. 13626 Type AK-1 Range 6075 PSI

Recorder Depth 4107 Clock # 27948

(A) Initial Hydrostatic Mud 2111 PSI

(B) First Initial Flow Pressure 212 PSI

(C) First Final Flow Pressure 212 PSI

(D) Initial Shut-in Pressure 562 PSI

(E) Second Initial Flow Pressure 273 PSI

(F) Second Final Flow Pressure 288 PSI

(G) Final Shut-in Pressure 592 PSI

(H) Final Hydrostatic Mud 2081 PSI

Temperature 122

Mud Weight 9.9 Viscosity 48

Fluid Loss 7.6

Interval Tested 4033-4110

Anchor Length 77

Top Packer Depth 4028

Bottom Packer Depth 4033

Total Depth 4110

Drill Pipe Size 4½ XH

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 170

Recorder No. 11090 Type AK-1 Range 4125 PSI

Recorder Depth 4104 Clock # 27807

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

Initial Shut-in 30 Mins.

Flow Period 30 Mins.

Final Shut-in 60 Mins.

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

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

Tool Open @ 8:15 PM

Blow Remarks 1st open: ½ inch blow in bucket, died in 15 minutes.

2nd open: No blow.

Drill Collars I.D. 2.25 Ft. run 120.

Recovered 170 Feet Of Mud.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Sampler, Extra copies, Bowen Jars & Price of Job $1120.00

Sarety Joint.

# CHENEY TESTING CO., INC.

P. O. BOX 367 HILL CITY, KANSAS 67642

## FLUID SAMPLER DATA

| | |
|---|---|
| Ticket No. 8783 | Date 10/12/84 |
| Company Name Beacon Exploration Company | |
| Lease Bongartz 1-31 | Test No. 2 |
| County Trego | Sec. 31 Twp. 13s Rge. 21w |

### SAMPLER RECOVERY

Gas ______ ML
Oil ______ ML
Mud 2000 ML
Water ______ ML
Other ______ ML
Pressure 30 P.S.I.
Total 2000 ML

### PIT MUD ANALYSIS

Chlorides 40,000 ppm
Resistivity .18 ohms @ 66.4 °F
Viscosity 48
Wt. 9.9
Filtrate 7.6 cc
Other ______

### SAMPLER ANALYSIS

Resistivity .19 ohms @ 71.4 °F

Chlorides 39,000 ppm

Gravity ______ Corrected @60°F

### PIPE RECOVERY

TOP:

Resistivity .17 ohms @ 74.2 °F
Chlorides 40,000 ppm

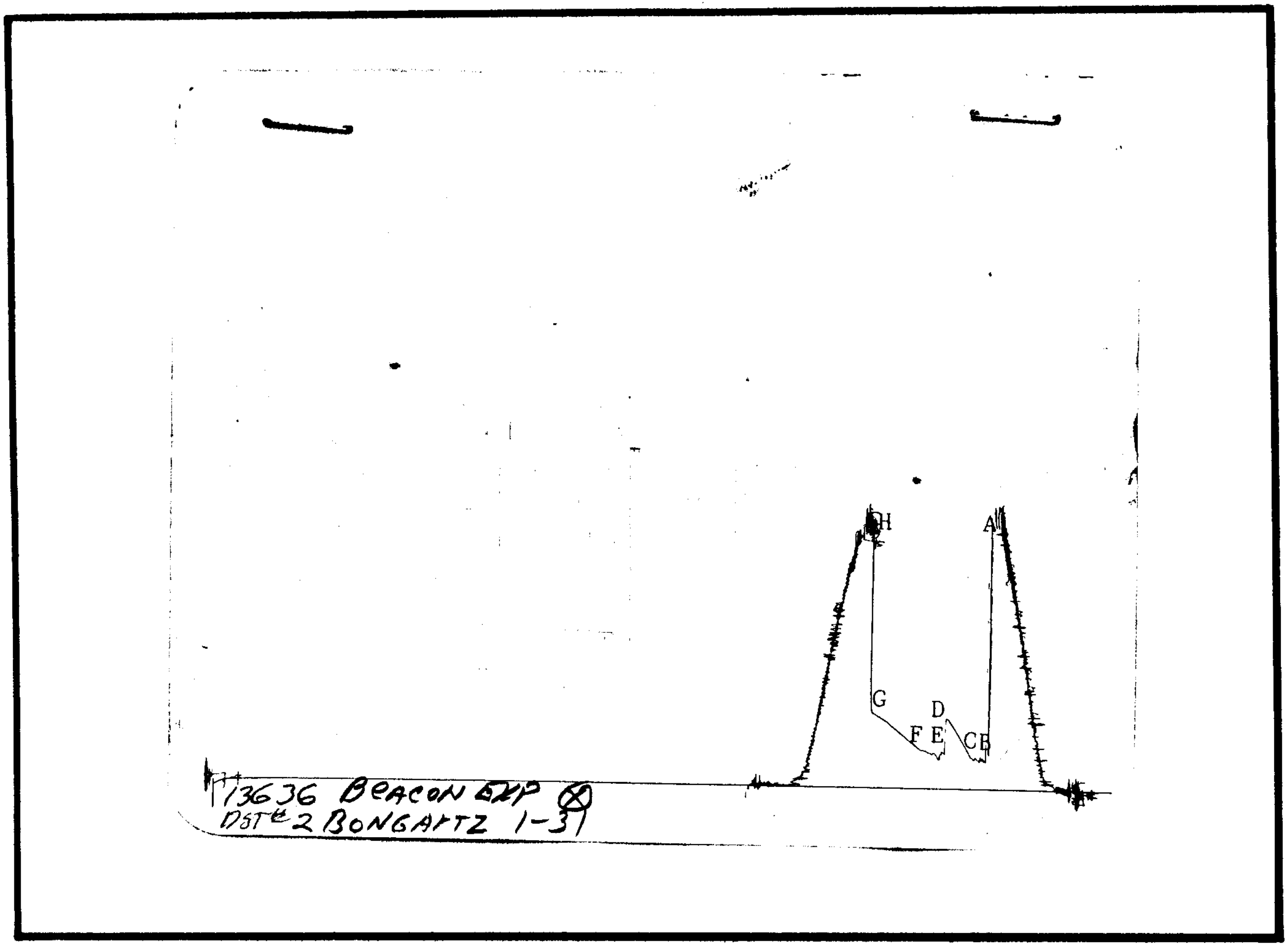
MIDDLE:

Resistivity ______ ohms @ ______ °F
Chlorides ______ ppm

BOTTOM:

Resistivity ______ ohms @ ______ °F
Chlorides ______ ppm

MILLER PRINTERS, INC. — Great Bend, Kansas




This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | PRESSURE Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 2111 | | PSI |
| (B) | First Initial Flow Pressure | 212 | | PSI |
| (C) | First Final Flow Pressure | 212 | | PSI |
| (D) | Initial Closed-in Pressure | 562 | | PSI |
| (E) | Second Initial Flow Pressure | 273 | | PSI |
| (F) | Second Final Flow Pressure | 288 | | PSI |
| (G) | Final Closed-in Pressure | 592 | | PSI |
| (H) | Final Hydrostatic Mud | 2081 | | PSI |