

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drilling Inc.	Test No.	1
Well Name & Number	Gano B #2	Zone Tested	
Company Address	801 Union Center Wichita Ks.	Date	5/29/84
Company Rep.	Steve Frankamp	Tester	Norman Walker
Contractor	Abercrombie Drilling Inc.	Elevation	2481 KB
Location: Sec. 30 Twp. 10s Rge. 24w Co. Graham State Ks.		Est. Feet of Pay	

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3855 Clock # 27948

(A) Initial Hydrostatic Mud 2049 PSI

(B) First Initial Flow Pressure 246 PSI

(C) First Final Flow Pressure 823 PSI

(D) Initial Shut-in Pressure 1152 PSI

(E) Second Initial Flow Pressure 895 PSI

(F) Second Final Flow Pressure 1121 PSI

(G) Final Shut-in Pressure 1163 PSI

(H) Final Hydrostatic Mud 1946 PSI

Temperature 122

Mud Weight 9.8 Viscosity 47

Fluid Loss 12

Interval Tested 3843-3858

Anchor Length 15

Top Packer Depth 3838

Bottom Packer Depth 3843

Total Depth 3858

Drill Pipe Size 4 1/2 XH

Wt. Pipe I. D. 3.0 Ft. Run 280

Recovery-Total Feet 2280

Recovered 240 Feet Of clean gassy oil, Gravity: 20 API corrected.

Recovered 60 Feet Of water cut oil, 80% oil, 20% water.

Recovered 120 Feet Of water cut oil, 70% oil, 30% water.

Recovered 120 Feet Of slightly oil cut water, 30% oil, 70% water.

Recovered 1740 Feet Of saltwater.

Recovered 360 Feet Of gas in pipe.

Extra Equipment Circulating Sub Price of Job \$655.00

Recorder No. 11090 Type AK-1 Range 4100 PSI

Recorder Depth 3852 Clock # 27785

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

Initial Shut-in 45 Mins.

Flow Period 60 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 @ 6:35 PM

Blow Remarks 1st open: Strong blow, bottom of bucket in 1 minute.

2nd open: Bottom of bucket in 1 1/4 minute, strong.

MUD CHLORIDES: 2,200 ppm

Resistivity: 2.71 ohms @ 69.9° F

MIDDLE CHLORIDES: 70,000 ppm

Resistivity: .13 ohms @ 70.7° F

INITIAL SHUT-IN

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RECORDER NO: 11090 DEPTH: 3858 FT.
INITIAL FLOW TIME (T): 30 MIN.

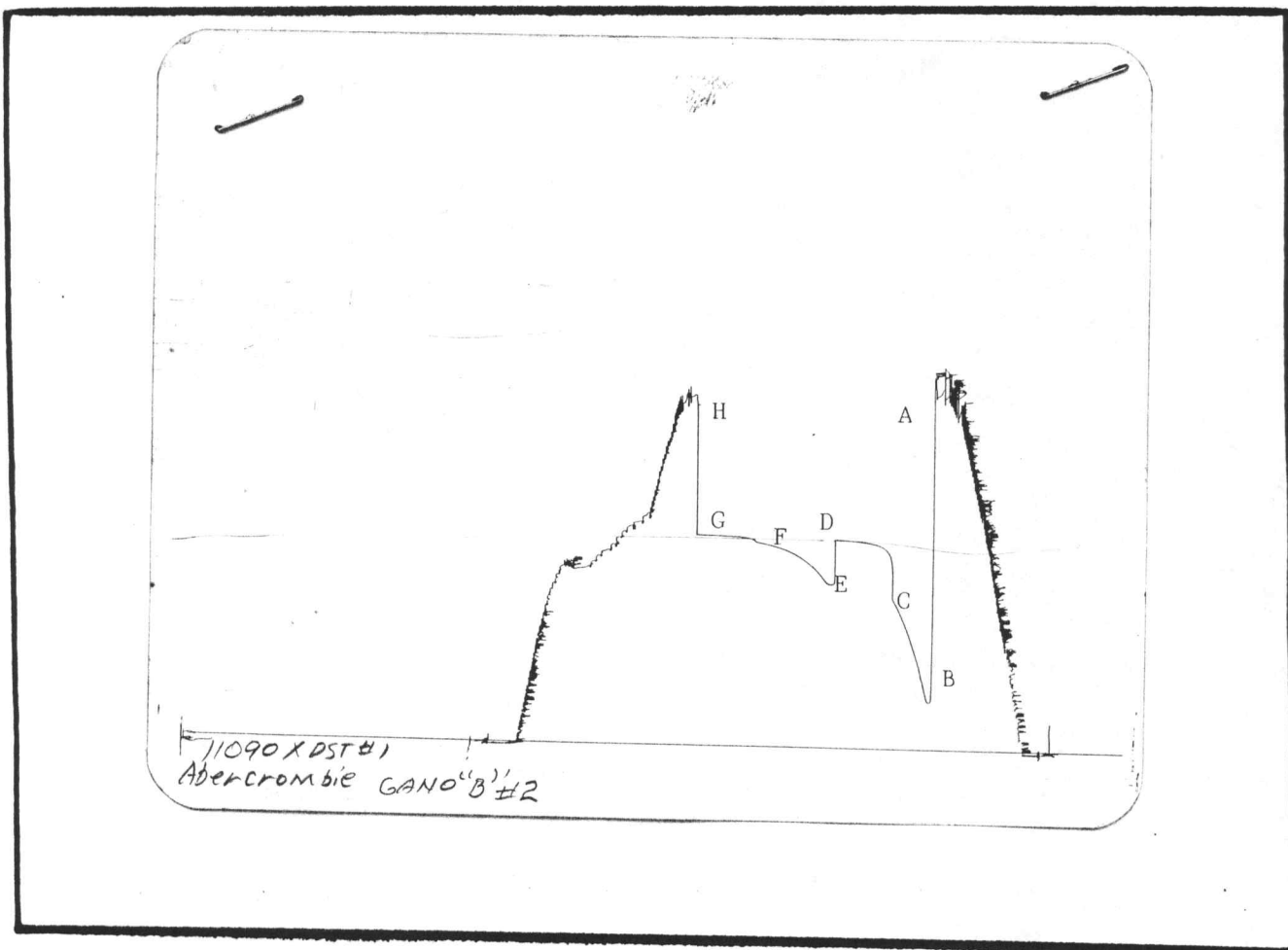
DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	824.9
5	0.845	1090.7
10	0.602	1116.4
15	0.477	1126.7
20	0.398	1131.9
25	0.342	1137.0
30	0.301	1141.1
35	0.269	1143.2
40	0.243	1145.2
45	0.222	1147.3

FINAL SHUT-IN

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RECORDER NO: 11090 DEPTH: 3858 FT.
TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	1126.7
5	1.279	1148.3
10	1.000	1153.5
15	0.845	1154.5
20	0.740	1155.5
25	0.663	1156.6
30	0.602	1157.6
35	0.553	1158.6
40	0.512	1159.7
45	0.477	1160.7



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2049	2045
(B) First Initial Flow Pressure	246	258.5
(C) First Final Flow Pressure	823	824.9
(D) Initial Closed-in Pressure	1152	1147.3
(E) Second Initial Flow Pressure	895	899.1
(F) Second Final Flow Pressure	1121	1126.7
(G) Final Closed-in Pressure	1163	1160.7
(H) Final Hydrostatic Mud	1946	1941

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

FOR: ABERCROMBIE DRILLING COMPANY
GANO "B" #2
SEC 30-10S-24W
GRAHAM COUNTY, KANSAS
DST # 1
FORMATION: KANSAS CITY
ELEVATION: 2481 KB

TEST PARAMETERS

TEST INTERVAL: 3843 - 3858	EST PAY: 4
TIME INTERVAL: 30 - 45 - 60 - 45	VISCOSITY OF FLUID: 1
INITIAL FLOW PRESS: 258.5- 824.9	HOLE SIZE: 7.875
FINAL FLOW PRESS: 899.1-1126.7	D.C. CAPACITY:0.00492
SHUT-IN PRESS(I-F):1147.3-1160.7	W.P. CAPACITY:0.00708
BOTTOM HOLE TEMPERATURE: 122	D.P. CAPACITY:0.01402
TOTAL FEET OF RECOVERY: 2280	TOTAL BARRELS RECOVERY:30.0223

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1165
SLOPE (PSI-CYCLE): 91 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1165
SLOPE (PSI-CYCLE): 16 POINTS USED: 6

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 480.36
TRANSMISSIBILITY (MD-FT/CP)	:4881.63
PERMEABILITY (MD)	:1220.41
PRODUCTIVITY INDEX (B/D/PSI)	: 0.4123
DAMAGE RATIO	: 0.438
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 331.4
DRAWDOWN FACTOR (%)	: 0.000
POTENTIOMETRIC SURFACE (FT)	:1324.64

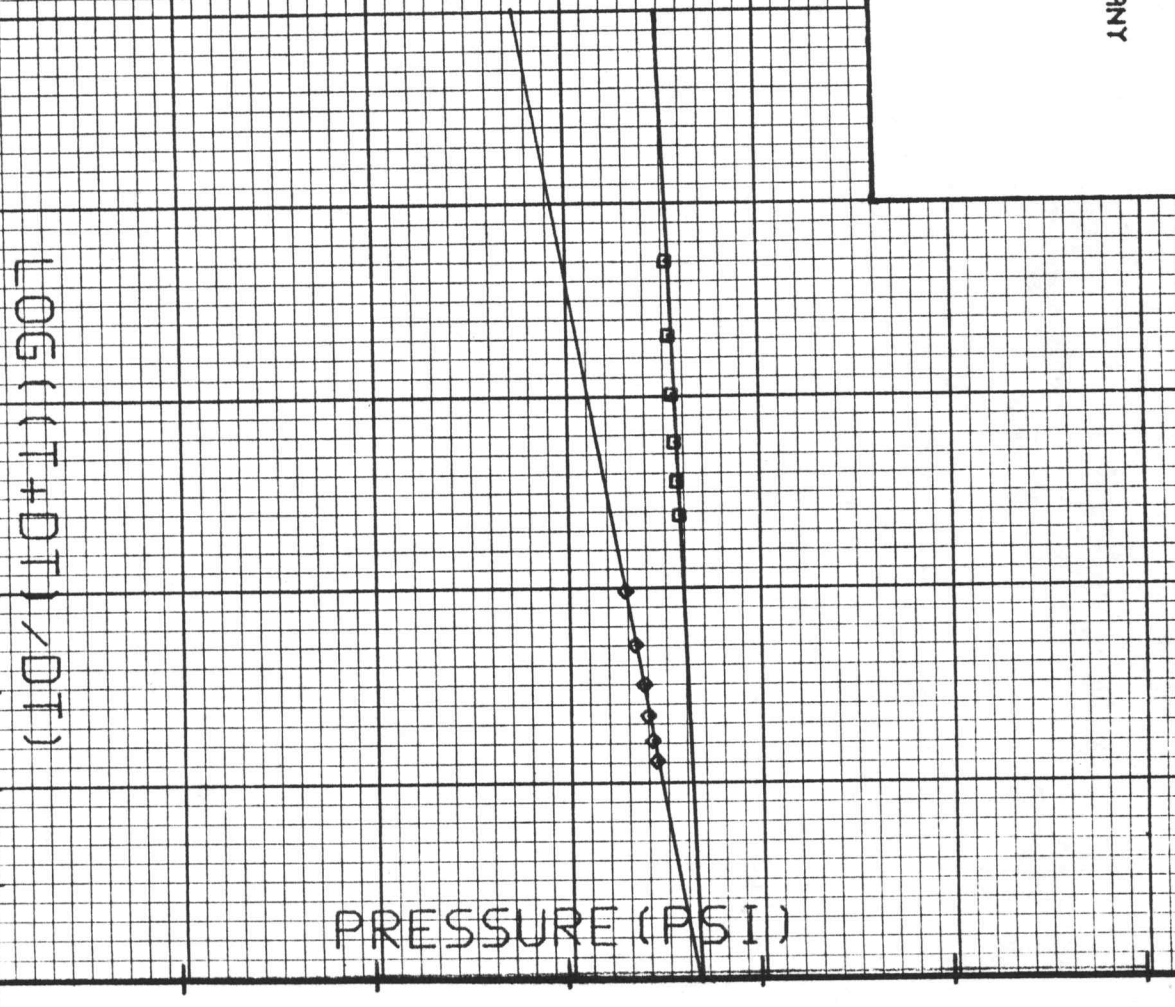
HORNER PLOT
 ABERCROMBIE DRILLING COMPANY
 GANO "B" #2
 DST # 1 DEPTH: 3858
 RECORDER NO. 11090
 INITIAL SHUT-IN: $\diamond$
 FINAL SHUT-IN: $\square$

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)

1400
1300
1200
1100
1000
900



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DRILL-STEM TEST DATA

Company	Abercrombie Drilling Inc.	Test No.	2
Well Name & Number	Gano B #2	Zone Tested	
Company Address	801 Union Center Wichita Ks.	Date	5/30/84
Company Rep.	Steve Frankamp	Tester	Norman Walker
Contractor	Abercrombie Drilling Inc.	Elevation	2481 KB
Location: Sec. 30 Twp. 10s Rge. 24w Co. Graham State Ks.		Est. Feet of Pay	

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 4019 Clock # 27948

(A) Initial Hydrostatic Mud 2006 PSI

(B) First Initial Flow Pressure 45 PSI

(C) First Final Flow Pressure 45 PSI

(D) Initial Shut-in Pressure 1155 PSI

(E) Second Initial Flow Pressure 60 PSI

(F) Second Final Flow Pressure 75 PSI

(G) Final Shut-in Pressure 1048 PSI

(H) Final Hydrostatic Mud 1975 PSI

Temperature 122

Mud Weight 9.6 Viscosity 61

Fluid Loss 16

Interval Tested 3940-4022

Anchor Length 82

Top Packer Depth 3935

Bottom Packer Depth 3940

Total Depth 4022

Drill Pipe Size 4 1/2 Xh

Wt. Pipe I. D. 2.7 Ft. Run 250

Recovery-Total Feet 100

Recovered 40 Feet Of slightly oil cut mud, 1% oil, 99% mud.

Recovered 60 Feet Of slightly oily watery mud, 1/2% oil, 24 1/2% water, 75% mud.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Price of Job \$675.00

Recorder No. 11090 Type AK-1 Range 4125 PSI

Recorder Depth 4016 Clock # 27785

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

Initial Shut-in 45 Mins.

Flow Period 60 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 @ 9:25 PM

Blow Remarks 1st open: Very weak blow,
1" in bucket.

Mud Chlorides: 2,300 ppm

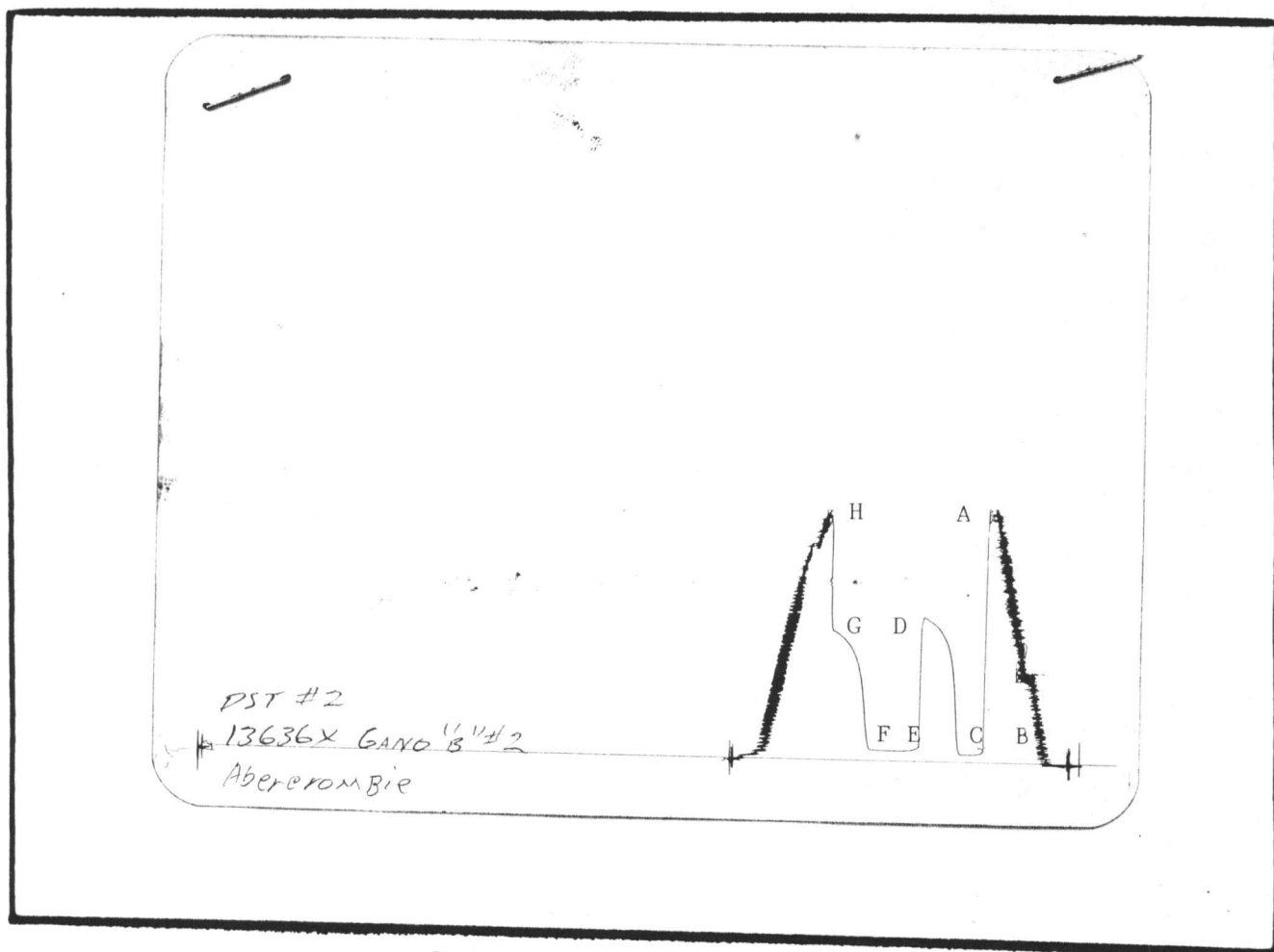
Resistivity: 2.50 ohms @ 70.1° F

TOP : Chlorides: 10,000 ppm

RW: .62 ohms @ 71.4° F

BOTTOM: Chlorides: 19,000 ppm

RW: .38 ohms @ 68.9° F



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2006	PSI
(B) First Initial Flow Pressure	45	PSI
(C) First Final Flow Pressure	45	PSI
(D) Initial Closed-in Pressure	1155	PSI
(E) Second Initial Flow Pressure	60	PSI
(F) Second Final Flow Pressure	75	PSI
(G) Final Closed-in Pressure	1048	PSI
(H) Final Hydrostatic Mud	1975	PSI

CHENEY TESTING COMPANY, INC.

P. O. Box 367

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DRILL-STEM TEST DATA

Company	Abercrombie Drilling Inc.	Test No.	3
Well Name & Number	Gano B #2	Zone Tested	
Company Address	801 Union Center Wichita Ks.	Date	5/31/84
Company Rep.	Steve Frankamp	Tester	Norman Walker
Contractor	Abercrombie Drilling Inc.	Elevation	2481 KB
Location: Sec. 30 Twp. 10s Rge. 24w Co. Graham State Ks.		Est. Feet of Pay	

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3876 Clock # 25830

(A) Initial Hydrostatic Mud 1990 PSI

(B) First Initial Flow Pressure 60 PSI

(C) First Final Flow Pressure 334 PSI

(D) Initial Shut-in Pressure 1155 PSI

(E) Second Initial Flow Pressure 364 PSI

(F) Second Final Flow Pressure 592 PSI

(G) Final Shut-in Pressure 1155 PSI

(H) Final Hydrostatic Mud 1930 PSI

Temperature 122

Mud Weight 9.6 Viscosity 61

Fluid Loss 16.

Interval Tested 3861-3880

Anchor Length 19

Top Packer Depth 3861

Bottom Packer Depth 3880

Total Depth 4090

Drill Pipe Size 4 1/2 XH

Wt. Pipe I. D. 2.7 Ft. Run 128

Recovery-Total Feet 1485

Recovered 5 Feet Of clean oil.

Recovered 1480 Feet Of oily salt water, less than 1% oil.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Straddle

Recorder No. 11090 Type AK-1 Range 4125 PSI

Recorder Depth 3873 Clock # 27785

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 @ 5:45 PM

Blow Remarks 1st open: Strong blow ,

7 minutes bottom of bucket.

2nd open: Strong blow, 5 minutes bottom of

bucket.

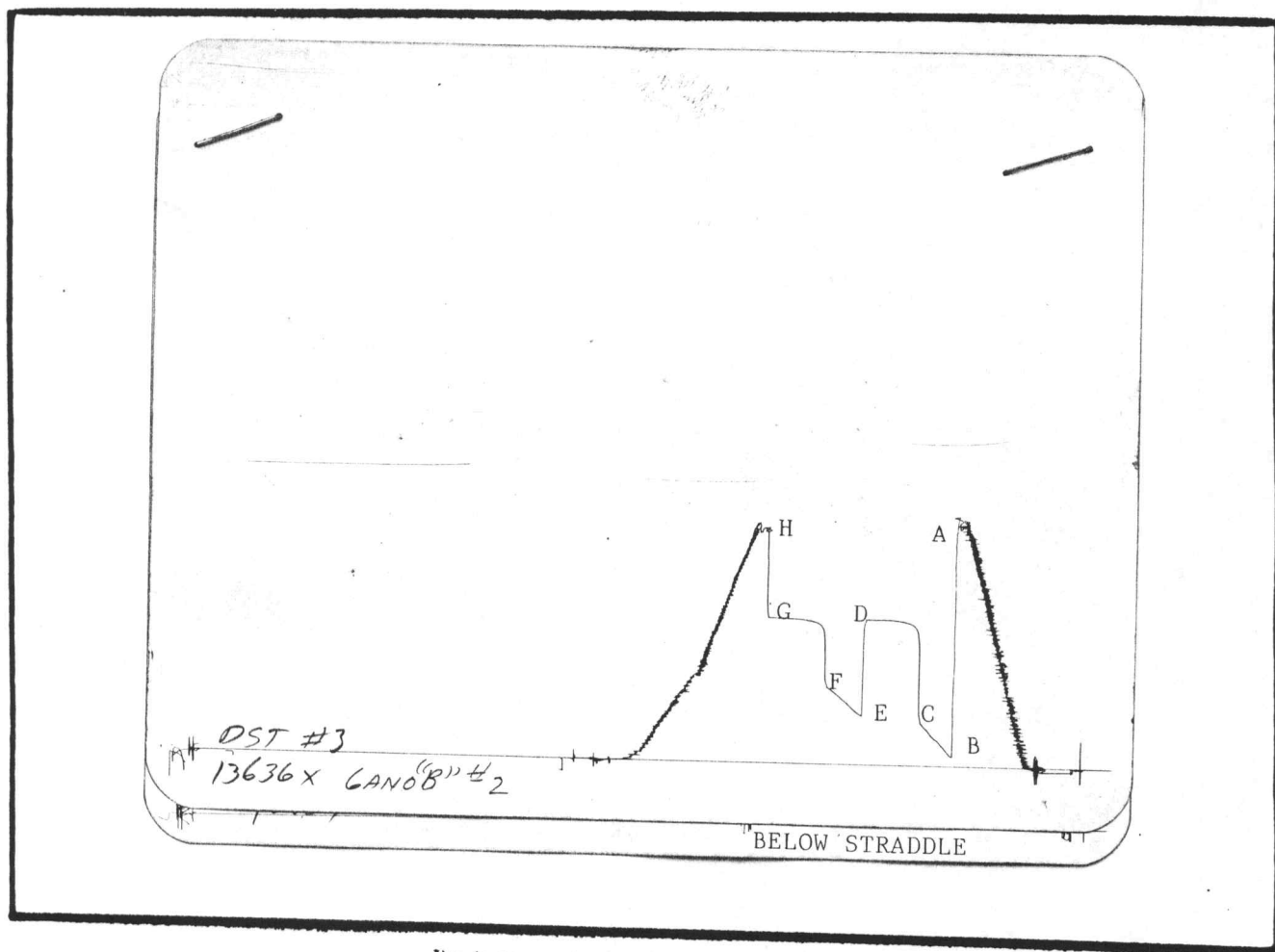
Mud Chlorides: 3,000 ppm

Resistivity: 1.06 ohms @ 82.3°F

Top Chlorides: 55,000 ppm

Resistivity: .11 ohms @ 81.6°F

Price of Job \$975.00



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1990	PSI
(B) First Initial Flow Pressure	60	PSI
(C) First Final Flow Pressure	334	PSI
(D) Initial Closed-in Pressure	1155	PSI
(E) Second Initial Flow Pressure	364	PSI
(F) Second Final Flow Pressure	592	PSI
(G) Final Closed-in Pressure	1155	PSI
(H) Final Hydrostatic Mud	1930	PSI