TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 1 Date 5/2/88

Company Abercrombie Drilling Inc. Zone Tested Lansing "E-F"

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 3820-3840 Drill Pipe Size 4½ X.H.

Anchor Length 20 Top Choke — 1"

Top Packer Depth 3815 Bottom Choke — ¾"

Bottom Packer Depth 3820 Hole Size — 7⅞"

Total Depth 3840 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 636

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.2 lb./gal. Viscosity 40 Filtrate 10.4

Tool Open @ 12:35 A.M. Initial Blow strong- off bottom of bucket in 10 minutes

Final Blow strong- off bottom of bucket in 4 minutes

Recovery — Total Feet 945 Flush Tool?

Rec. 945 Feet of salt water (no show)

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

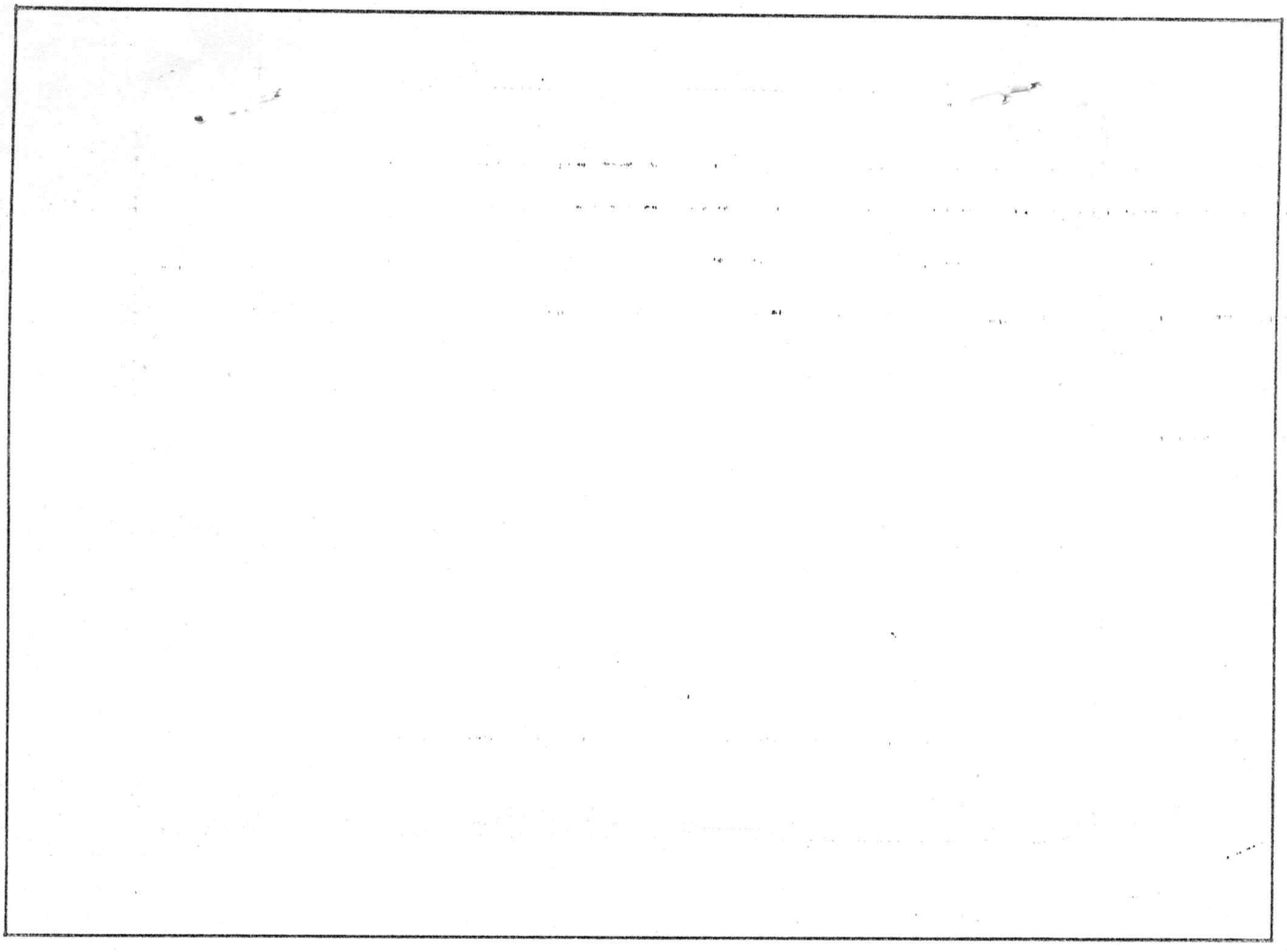
BHT 113 °F Gravity °API @ °F Corrected Gravity °API

RW .10 @ 75 °F Chlorides 75,000 ppm Recovery Clorides 7,000 ppm System

(A) Initial Hydrostatic Mud	1859.6 PSI	AK1 Recorder No. 13277	Range 4125
(B) First Initial Flow Pressure	31.1 PSI	@ (depth) 3832	w/Clock No. 27501
(C) First Final Flow Pressure	212.6 PSI	AK1 Recorder No. 13223	Range 4150
(D) Initial Shut-in Pressure	1119.8 PSI	@ (depth) 3836	w/Clock No. 27567
(E) Second Initial Flow Pressure	282.1 PSI	Initial Opening 30	
(F) Second Final Flow Pressure	444.9 PSI	Initial Shut-in 45	
(G) Final Shut-in Pressure	1102.4 PSI	Final Flow 60	
(H) Final Hydrostatic Mud	1786.8 PSI	Final Shut-in 45	

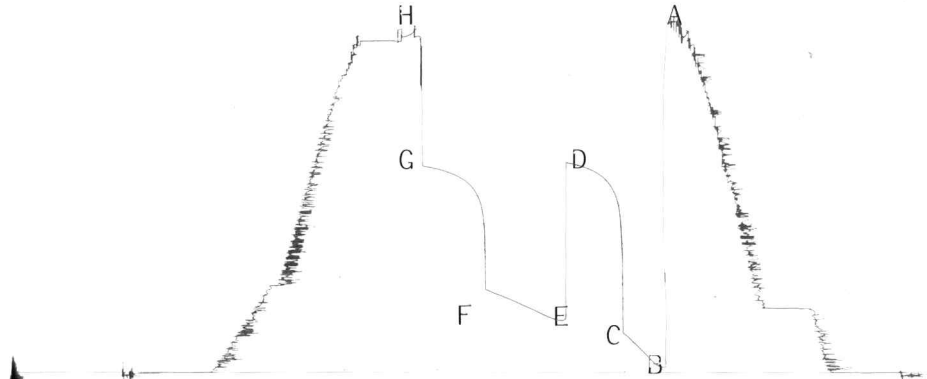
Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1881	1859.6	PSI
(B) First Initial Flow Pressure	31	31.1	PSI
(C) First Final Flow Pressure	207	212.6	PSI
(D) Initial Closed-in Pressure	1112	1119.8	PSI
(E) Second Initial Flow Pressure	280	282.1	PSI
(F) Second Final Flow Pressure	435	444.9	PSI
(G) Final Closed-in Pressure	1102	1102.4	PSI
(H) Final Hydrostatic Mud	1747	1786.8	PSI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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 2 Date 5/2/88

Company Abercrombie Drilling Inc. Zone Tested Lansing"H"

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay 2

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 3892-3911 Drill Pipe Size 4½ X.H.

Anchor Length 19 Top Choke — 1" _____

Top Packer Depth 3887 Bottom Choke — ¾" _____

Bottom Packer Depth 3892 Hole Size — 7⅞" _____

Total Depth 3911 Rubber Size — 6¾" _____

Wt. Pipe I.D. — 2.7 _____ Ft. Run 636

Drill Collar — 2.25 _____ Ft. Run _____

Mud Wt. 9 lb./gal. Viscosity 52 Filtrate 9.6

Tool Open @ 5:50 P.M. Initial Blow weak- building to ½"

Final Blow weak building to ½"

Recovery — Total Feet 65 Flush Tool? _____

Rec. 32 Feet of clean oil

Rec. 33 Feet of heavy oil cut mud 25% oil 75% mud (no water)

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

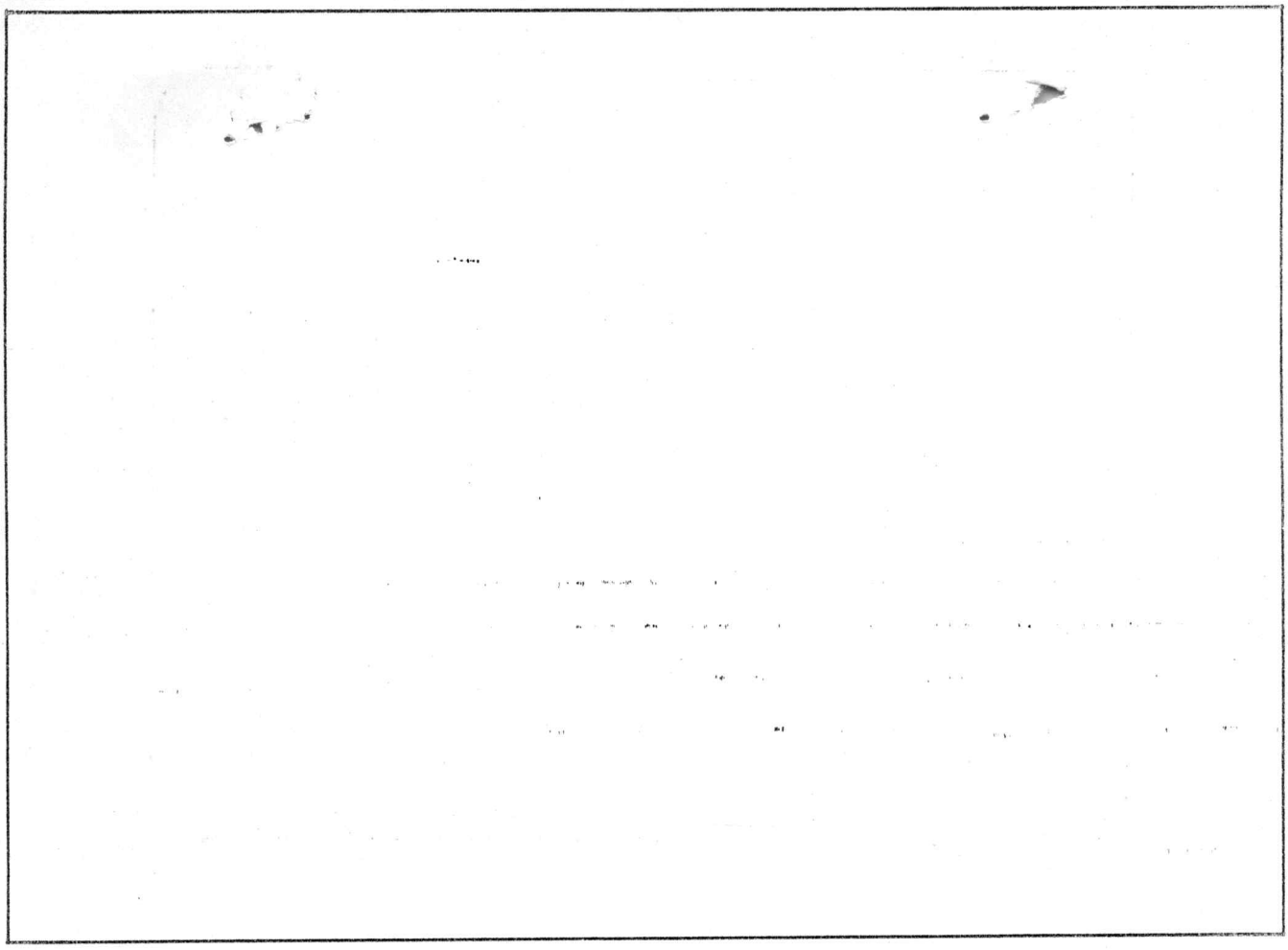
BHT 113 °F Gravity _____ °API @ _____ °F Corrected Gravity 39 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Clorides 6,0000 ppm System

(A) Initial Hydrostatic Mud	1919 PSI	AK1 Recorder No.	13277	Range	4125
(B) First Initial Flow Pressure	10.3 PSI	@ (depth)	3903	w/Clock No.	27501
(C) First Final Flow Pressure	13.4 PSI	AK1 Recorder No.	13223	Range	4150
(D) Initial Shut-in Pressure	1020.4 PSI	@ (depth)	3907	w/Clock No.	25567
(E) Second Initial Flow Pressure	41.4 PSI	Initial Opening	30		
(F) Second Final Flow Pressure	41.4 PSI	Initial Shut-in	45		
(G) Final Shut-in Pressure	973.3 PSI	Final Flow	60		
(H) Final Hydrostatic Mud	1883.2 PSI	Final Shut-in	45		

Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1922	1919	PSI
(B) First Initial Flow Pressure	20	10.3	PSI
(C) First Final Flow Pressure	20	13.4	PSI
(D) Initial Closed-in Pressure	1020	1020.4	PSI
(E) Second Initial Flow Pressure	51	41.4	PSI
(F) Second Final Flow Pressure	51	41.4	PSI
(G) Final Closed-in Pressure	979	973.3	PSI
(H) Final Hydrostatic Mud	1870	1883.2	PSI

INITIAL SHUT-IN BUILDUP
DST #2

RECORDER # 13223
INITIAL FLOW TIME (MIN.): 30

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	13.4	13.4
3	1.04121	14.5	1.1
6	.778011	15.5	1
9	.636707	20.7	5.2
12	.54397	33.1	12.4
15	.477035	52.8	19.7
18	.425892	90.2	37.4
21	.385281	165.9	75.7
24	.352119	331.9	166
27	.324453	591.1	259.2
30	.300976	794	202.9
33	.280776	888.2	94.2
36	.263194	942.6	54.4
39	.24774	977.4	34.8
42	.234041	1001	23.6
45	.221809	1020.4	19.4

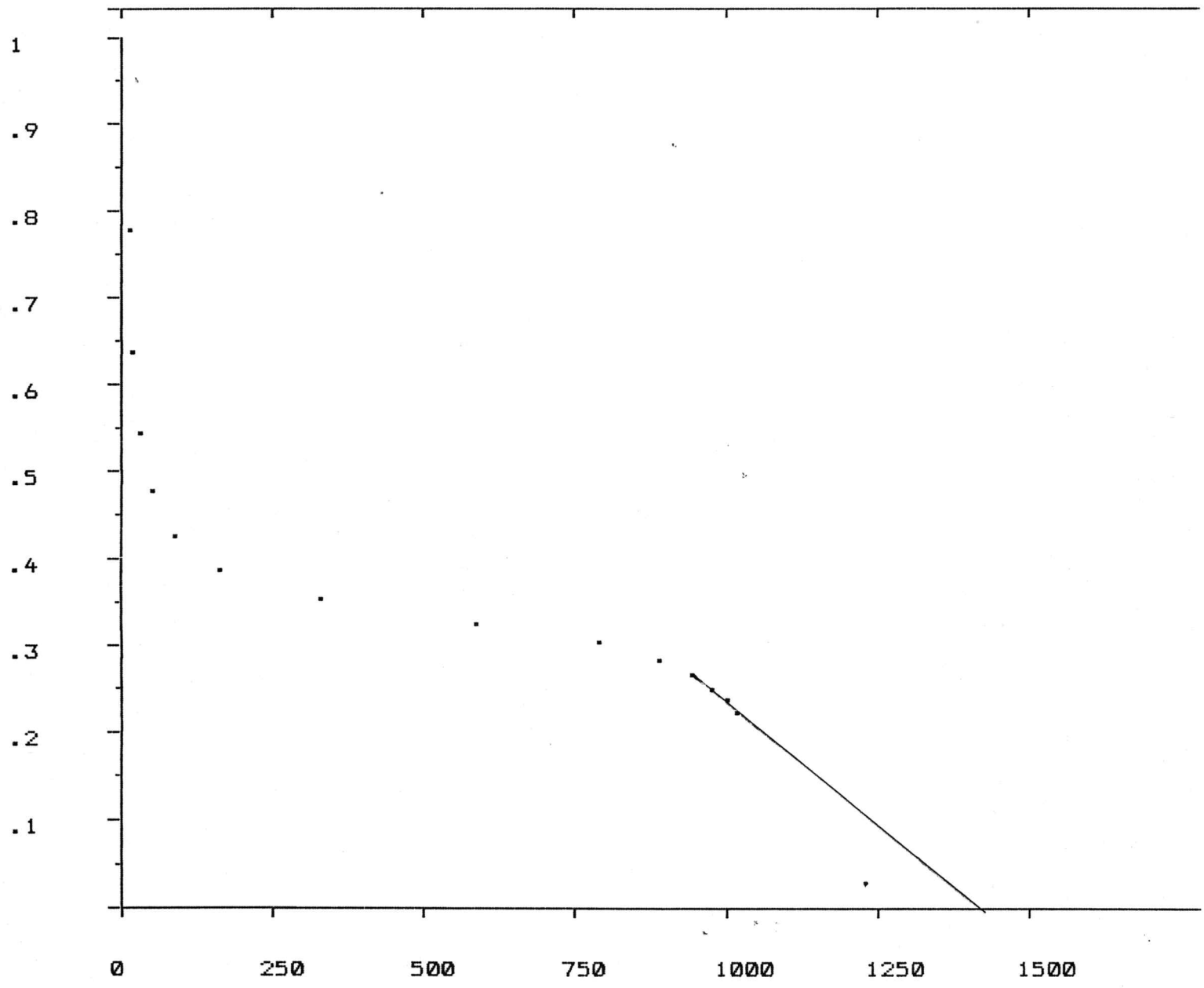
FINAL SHUT-IN BUILDUP
DST #2

RECORDER # 13223
TOTAL FLOW TIME (MIN.): 75

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	41.4	41.4
3	1.41472	44.5	3.1
6	1.13013	50.7	6.2
9	.969862	59	8.3
12	.860183	75.6	16.6
15	.778011	104.7	29.1
18	.713082	153.5	48.8
21	.659933	244.8	91.3
24	.615313	419	174.2
27	.577132	623.9	204.9
30	.54397	768.4	144.5
33	.514817	856.5	88.1
36	.488932	908.7	52.2
39	.465756	939.5	30.8
42	.444856	962	22.5
45	.425892	973.3	11.3

DST#2
INITIAL SHUT-IN
HORNER PLOT
PRESSURE

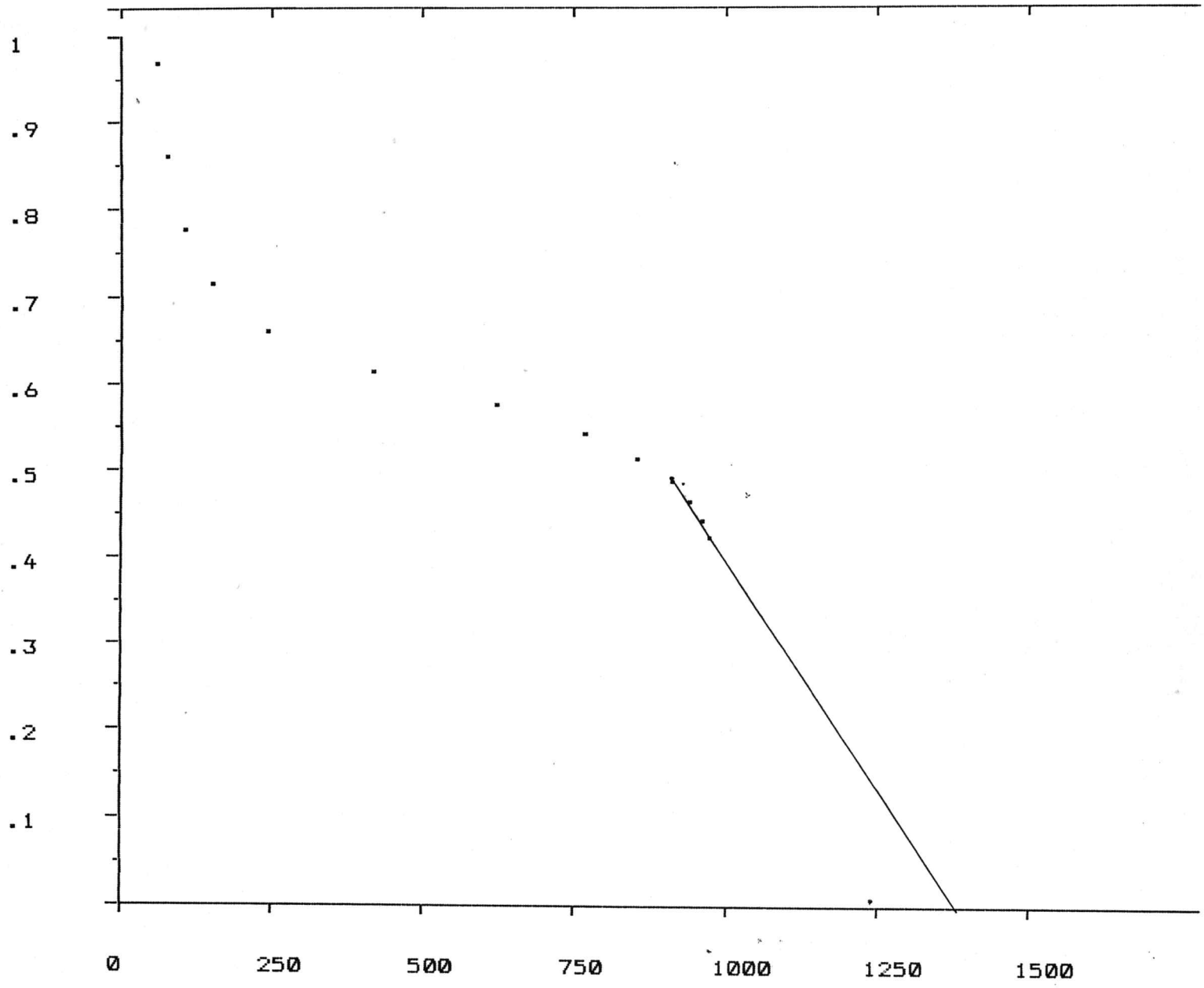
LOG(T+MIN/MIN)



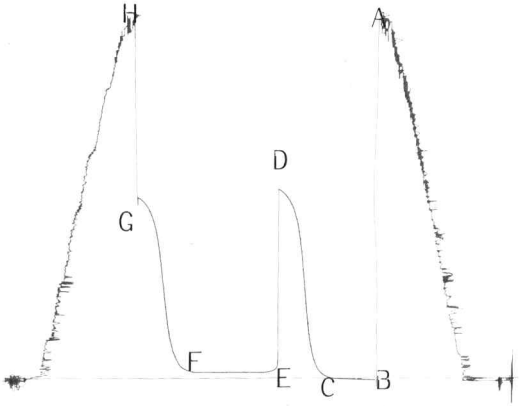
STATIC PRESSURE 1431.53
SLOPE 1853.53
POINTS USED 4

DST#2
FINAL SHUT-IN
HORNER PLOT
PRESSURE

LOG(T+MIN/MIN)



STATIC PRESSURE 1399.39
SLOPE 1000.46
POINTS USED 4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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 3 Date 5/4/88

Company Abercrombie Drilling Inc. Zone Tested Lansing "I"

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 3924-3955 Drill Pipe Size 4½ X.H.

Anchor Length 31 Top Choke — 1"

Top Packer Depth 3919 Bottom Choke — ¾"

Bottom Packer Depth 3924 Hole Size — 7⅞"

Total Depth 3955 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 636

Drill Collar — 2.25 Ft. Run

Mud Wt. 9 lb./gal. Viscosity 52 Filtrate 9.6

Tool Open @ 9:15 A.M. Initial Blow weak steady surface blow

Final Blow weak- died in 5 minutes

Recovery — Total Feet 20 Flush Tool?

Rec. 20 Feet of mud with oil spots

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

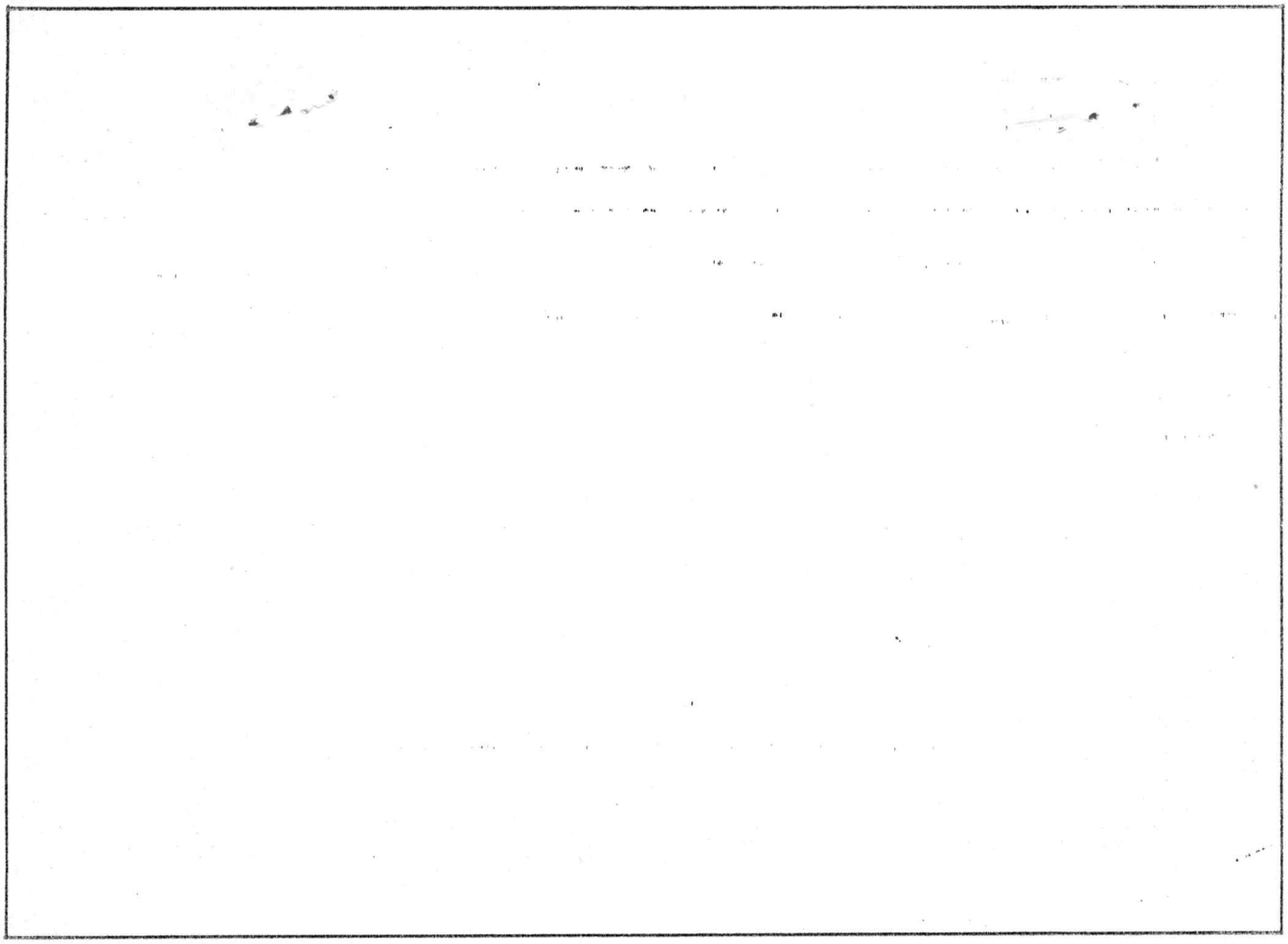
BHT 114 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Clorides ppm System

(A) Initial Hydrostatic Mud	1971.2 PSI	AK1 Recorder No.	13277	Range	4125
(B) First Initial Flow Pressure	31 PSI	@ (depth)	3947	w/Clock No.	27501
(C) First Final Flow Pressure	31 PSI	AK1 Recorder No.	13223	Range	4150
(D) Initial Shut-in Pressure	72.3 PSI	@ (depth)	3951	w/Clock No.	27567
(E) Second Initial Flow Pressure	31 PSI	Initial Opening	30		
(F) Second Final Flow Pressure	31 PSI	Initial Shut-in	45		
(G) Final Shut-in Pressure	41.3 PSI	Final Flow	30		
(H) Final Hydrostatic Mud	1909.6 PSI	Final Shut-in	30		

Our Representative Dan Bangle TOTAL PRICE ..... $ 400

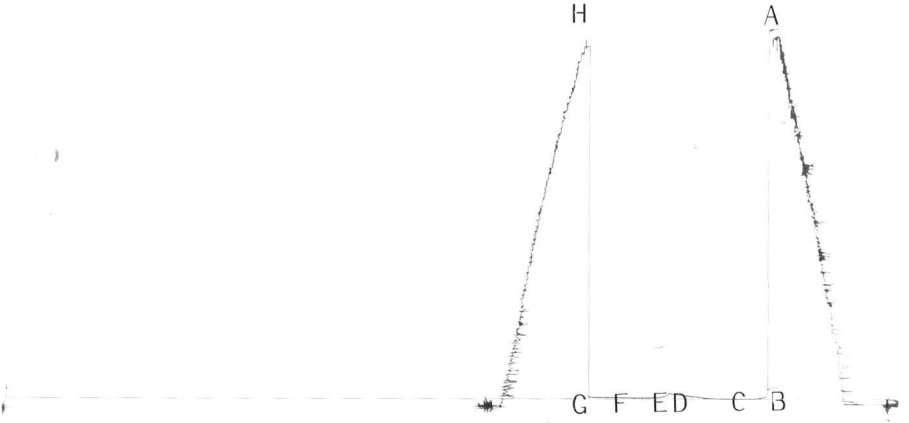
Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1971	1971.2 PSI
(B) First Initial Flow Pressure	31	31 PSI
(C) First Final Flow Pressure	31	31 PSI
(D) Initial Closed-in Pressure	72	72.3 PSI
(E) Second Initial Flow Pressure	31	31 PSI
(F) Second Final Flow Pressure	31	31 PSI
(G) Final Closed-in Pressure	41	41.3 PSI
(H) Final Hydrostatic Mud	1909	1909.6 PSI

#3



TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 4 Date 5/5/88

Company Abercrombie Drilling Inc. Zone Tested Lansing "J,K"

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 3952-4005 Drill Pipe Size 4½ X.H.

Anchor Length 53 Top Choke — 1"

Top Packer Depth 3947 Bottom Choke — ¾"

Bottom Packer Depth 3952 Hole Size — 7⅞"

Total Depth 4005 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 604

Drill Collar — 2.25 Ft. Run

Mud Wt. 9 lb./gal. Viscosity 55 Filtrate 12

Tool Open @ 1:45 A.M. Initial Blow weak- surface blow

Final Blow no blow

Recovery — Total Feet 15 Flush Tool?

Rec. 15 Feet of drilling mud (no show)

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 115 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Clorides ppm System

(A) Initial Hydrostatic Mud 1981.5 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 20.7 PSI @ (depth) 3997 w/Clock No. 27501

(C) First Final Flow Pressure 20.7 PSI AK1 Recorder No. 13223 Range 4150

(D) Initial Shut-in Pressure 51.8 PSI @ (depth) 4001 w/Clock No. 33181

(E) Second Initial Flow Pressure 20.7 PSI Initial Opening 30

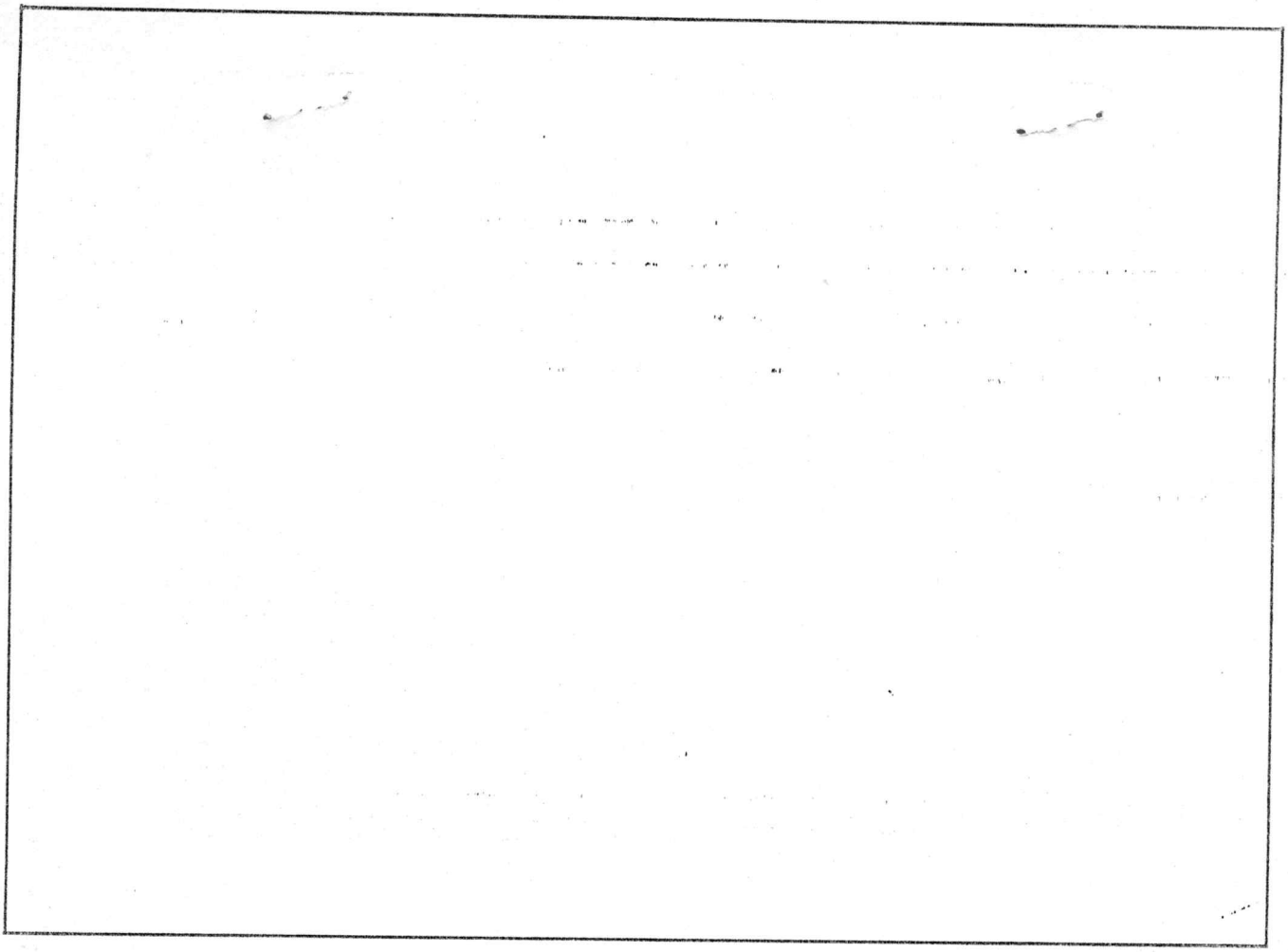
(F) Second Final Flow Pressure 20.7 PSI Initial Shut-in 30

(G) Final Shut-in Pressure 42.4 PSI Final Flow 30

(H) Final Hydrostatic Mud 1933.3 PSI Final Shut-in 30

Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1981	1981.5	PSI
(B) First Initial Flow Pressure	20	20.7	PSI
(C) First Final Flow Pressure	20	20.7	PSI
(D) Initial Closed-in Pressure	51	51.8	PSI
(E) Second Initial Flow Pressure	20	20.7	PSI
(F) Second Final Flow Pressure	20	20.7	PSI
(G) Final Closed-in Pressure	41	42.4	PSI
(H) Final Hydrostatic Mud	1930	1933.3	PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 5 Date 5/6/88

Company Abercrombie Drilling Inc. Zone Tested Myric Station

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 4187-4226 Drill Pipe Size 4½ X.H.

Anchor Length 39 Top Choke — 1"

Top Packer Depth 4182 Bottom Choke — ¾"

Bottom Packer Depth 4187 Hole Size — 7⅞"

Total Depth 4226 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 636

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.4 lb./gal. Viscosity 47 Filtrate 12

Tool Open @ 9:25 A.M. Initial Blow weak building to ½"

Final Blow no blow

Recovery — Total Feet 10 Flush Tool? final flow

Rec. 10 Feet of drilling mud(no show)

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 118 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Clorides ppm System

(A) Initial Hydrostatic Mud 2087.4 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 20.7 PSI @ (depth) 4218 w/Clock No. 27501

(C) First Final Flow Pressure 20.7 PSI AK1 Recorder No. 13223 Range 4150

(D) Initial Shut-in Pressure 51.8 PSI @ (depth) 4222 w/Clock No. 27567

(E) Second Initial Flow Pressure 20.7 PSI Initial Opening 30

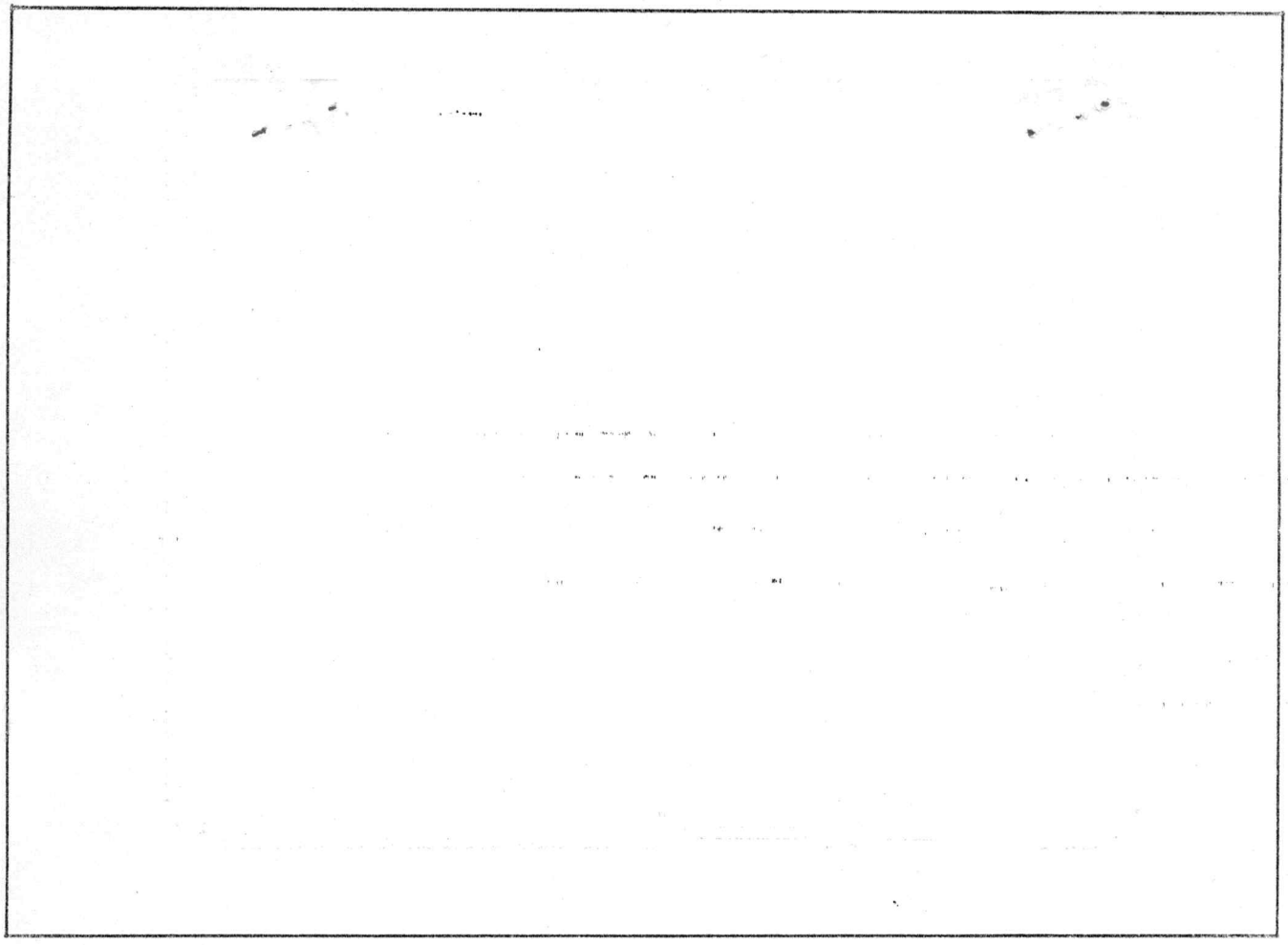
(F) Second Final Flow Pressure 31.1 PSI Initial Shut-in 45

(G) Final Shut-in Pressure 51.8 PSI Final Flow 30

(H) Final Hydrostatic Mud 2030 PSI Final Shut-in 45

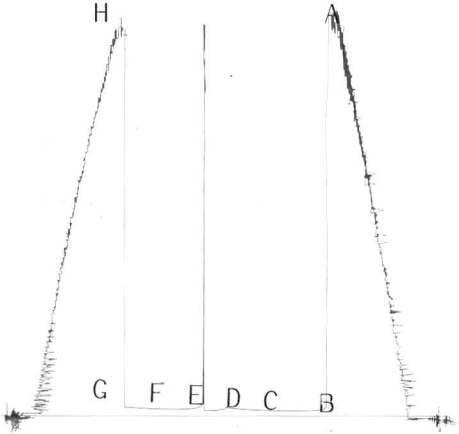
Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2087	2087.4 PSI
(B) First Initial Flow Pressure	20	20.7 PSI
(C) First Final Flow Pressure	20	20.7 PSI
(D) Initial Closed-in Pressure	51	51.8 PSI
(E) Second Initial Flow Pressure	20	20.7 PSI
(F) Second Final Flow Pressure	31	31.1 PSI
(G) Final Closed-in Pressure	51	51.8 PSI
(H) Final Hydrostatic Mud	2035	2030 PSI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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 6 Date 5/7/88

Company Abercrombie Drilling Inc. Zone Tested Conglomerate

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay 16

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

rval Tested 4290-4356 Drill Pipe Size 4½ X.H.

chor Length 66 Top Choke — 1"

p Packer Depth 4285 Bottom Choke — ¾"

ottom Packer Depth 4290 Hole Size — 7⅞"

Total Depth 4356 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 604

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.4 lb./gal. Viscosity 47 Filtrate 11.2

Tool Open @ 8:30 A.M. Initial Blow strong- off bottom of bucket in 5 seconds

Final Blow strong- off bottom of bucket in 5 seconds gas to surface 20 minutes into final flow (too small to measure

Recovery — Total Feet 3280 Flush Tool?

Rec. 3000 Feet of clean gassy oil

Rec. 154 Feet of gassy oil cut mud 20% gas 30% oil 50% mud

Rec. 126 Feet of slightly oil cut gassy mus 5% gas 15% oil 5% water

Rec. Feet of 75% mud

Rec. Feet of

BHT 118 °F Gravity °API @ °F Corrected Gravity 39 °API

RW @ °F Chlorides ppm Recovery Clorides ppm System

(A) Initial Hydrostatic Mud 2234.4 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 622.9 PSI @ (depth) 4348 w/Clock No. 27501

(C) First Final Flow Pressure 974.3 PSI AK1 Recorder No. 13223 Range 4150

(D) Initial Shut-In Pressure 1158.7 PSI @ (depth) 4352 w/Clock No. 27567

(E) Second Initial Flow Pressure 1073.7 PSI Initial Opening 30

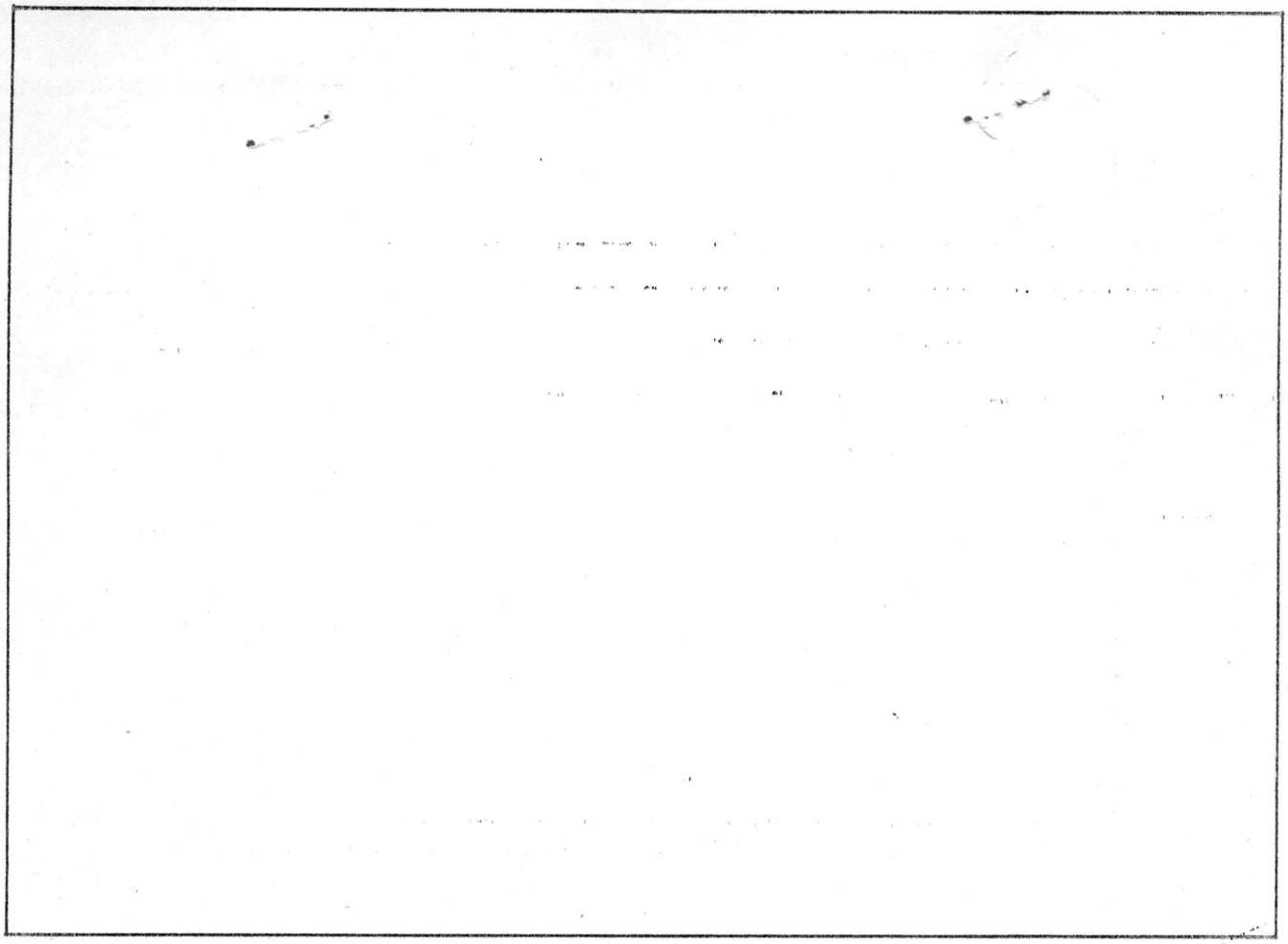
(F) Second Final Flow Pressure 1163.9 PSI Initial Shut-In 45

(G) Final Shut-In Pressure 1174.1 PSI Final Flow 60

(H) Final Hydrostatic Mud 2159.7 PSI Final Shut-In 45

Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2232	2234.4	PSI
(B) First Initial Flow Pressure	610	622.9	PSI
(C) First Final Flow Pressure	948	974.3	PSI
(D) Initial Closed-in Pressure	1143	1158.7	PSI
(E) Second Initial Flow Pressure	1071	1073.7	PSI
(F) Second Final Flow Pressure	1163	1163.9	PSI
(G) Final Closed-in Pressure	1174	1174.1	PSI
(H) Final Hydrostatic Mud	2139	2159.7	PSI

COMPUTER EVALUATION BY TRILOBITE TESTING
ABERCROMBIE DRLG. INC
REPORT FOR DST#6 FOR THE ZEIGENBALG #1
SEC 10 14S 28W GOVE KS

TEST PARAMETERS

ELEVATION:	2570 KB	EST. PAY:	22 FT
DATUM:	-1779	ZONE TESTED:	CONGLOMERATE
TEST INTERVAL:	4290-4356	TIME INTERVALS:	30-45-60-45
RECORDER DEPTH:	4348	VISCOSITY:	3.5 CP
BOTTOM HOLE TEMP:	118	HOLE SIZE:	7.875 IN

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 1250

TOTAL FEET OF RECOVERY: 3280
BARRELS IN DRILL PIPE: 38.05272
BARRELS IN WEIGHT PIPE: 4.228
GAS OIL RATIO: 29.5643 CU.FT./BBL
TOTAL BARRELS OF RECOVERY: 42.2807
UNCORR. INIT. PROD.: 676.491 BBL/DAY
API GRAVITY: 39
FLUID GRADIENT: .359
CORRECTED PIPE FILLUP: 3242.06
CORR. BARRELS OF RECOVERY: 41.7688 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 668.301 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 102.571

INITIAL SHUT-IN VALUES:
THEORETICAL STATIC PRESSURE 1186.02
SLOPE 123.149

FINAL SHUT-IN VALUES
THEORETICAL STATIC PRESSURE 1179.56
SLOPE 11.4502

TRANSMISSIBILITY	9490.29 (MD.-FT./CP.)
PERMEABILITY	1509.82 (MD.)
INDICATED FLOW CAPACITY	33216 (MD.FT)
PRODUCTIVITY INDEX	10.724 (BARRELS/DAY/PSI)
DAMAGE RATIO	.250282
RADIUS OF INVESTIGATION	368.624 (FT.)
POTENTIOMETRIC SURFACE	957.4 (FT.)
DRAWDOWN FACTOR	.544679 (%)

INITIAL FLOW

RECORDER # 13277
DST #6

DT(MIN)	PRESSURE	<> PRESSURE
0	622.9	622.9
3	623.9	1
6	638.2	14.3
9	691.5	53.3
12	745.9	54.4
15	799.1	53.2
18	842.2	43.1
21	908.7	66.5
24	923.1	14.4
27	954.9	31.8
30	974.3	19.4

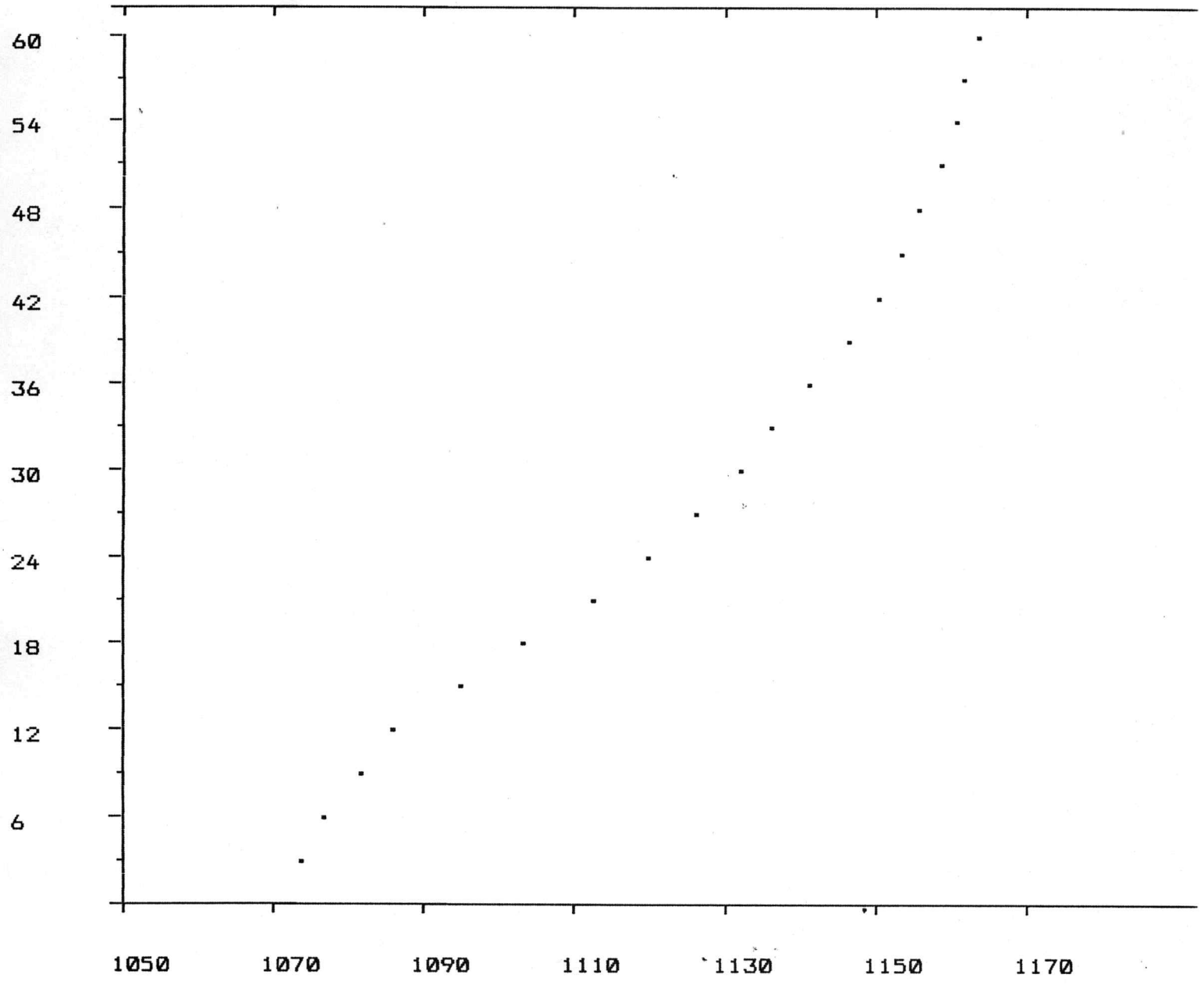
FINAL FLOW

RECORDER # 13277
DST #6

DT(MIN)	PRESSURE	<> PRESSURE
0	1073.7	1073.7
3	1073.7	0
6	1076.8	3.1
9	1081.9	5.1
12	1086	4.1
15	1095.2	9.2
18	1103.4	8.2
21	1112.7	9.3
24	1119.8	7.1
27	1126	6.2
30	1132.1	6.1
33	1136.2	4.1
36	1141.3	5.1
39	1146.4	5.1
42	1150.5	4.1
45	1153.6	3.1
48	1155.7	2.1
51	1158.7	3
54	1160.8	2.1
57	1161.8	1
60	1163.9	2.1

TIME

DST #6
FINAL FLOW PRESSURE



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 102.571 BBL/DAY

INITIAL SHUT-IN BUILDUP
DST #6

RECORDER # 13277
INITIAL FLOW TIME (MIN.): 30

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	974.3	974.3
3	1.04121	1067.6	93.3
6	.778011	1094.2	26.6
9	.636707	1110.6	16.4
12	.54397	1119.8	9.2
15	.477035	1128	8.2
18	.425892	1133.2	5.2
21	.385281	1138.2	5
24	.352119	1142.3	4.1
27	.324453	1146.4	4.1
30	.300976	1149.5	3.1
33	.280776	1151.6	2.1
36	.263194	1153.6	2
39	.24774	1155.7	2.1
42	.234041	1157.7	2
45	.221809	1158.7	1

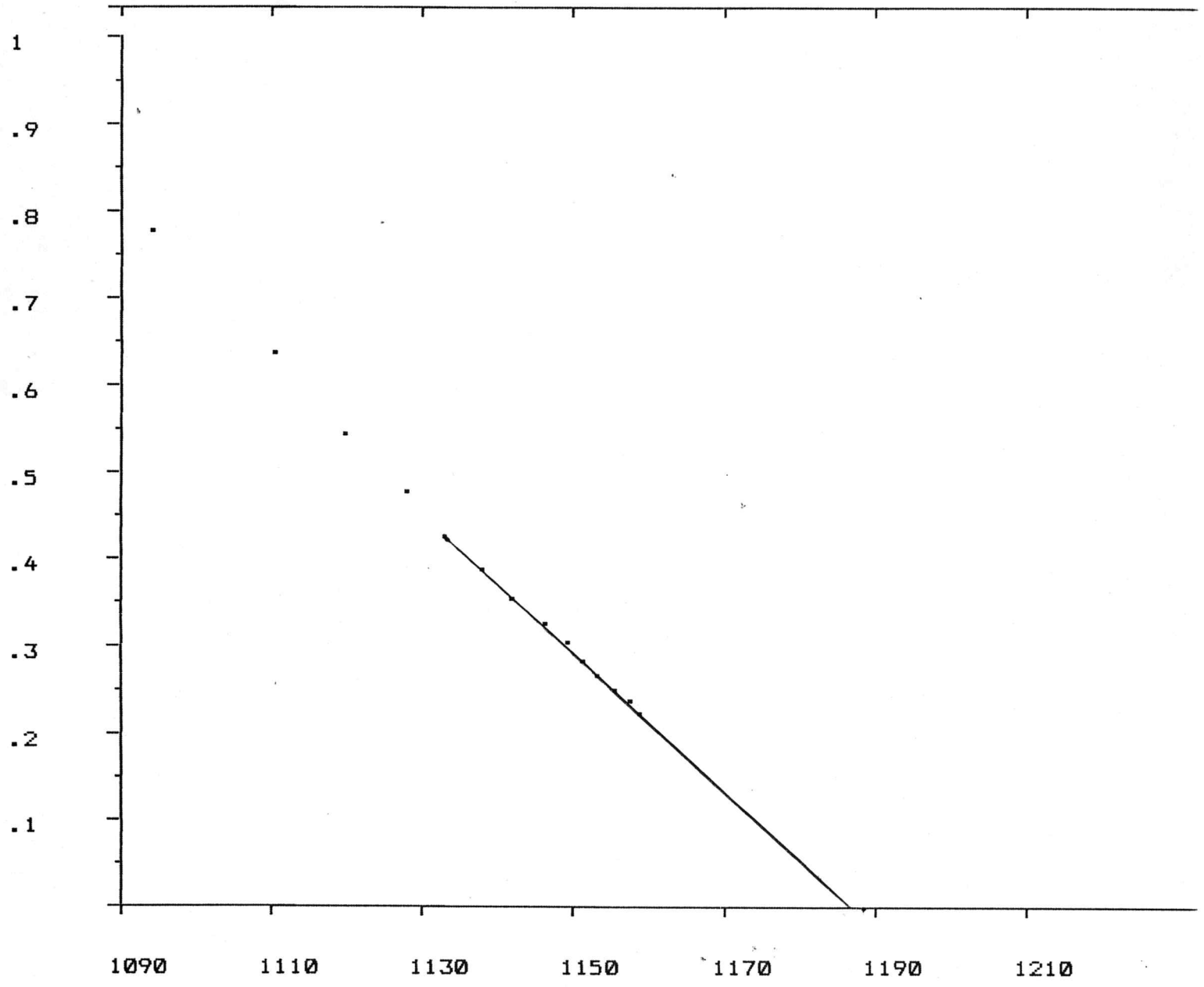
FINAL SHUT-IN BUILDUP
DST #6

RECORDER # 13277
TOTAL FLOW TIME (MIN.): 90

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	1163.9	1163.9
3	1.49109	1164.9	1
6	1.2039	1168	3.1
9	1.04121	1169	1
12	.929251	1170	1
15	.844946	1170	0
18	.778011	1170	0
21	.722973	1170	0
24	.676572	1170	0
27	.636707	1171	1
30	.601952	1172.1	1.1
33	.571288	1173.1	1
36	.54397	1174.1	1
39	.519432	1174.1	0
42	.497235	1174.1	0
45	.477035	1174.1	0

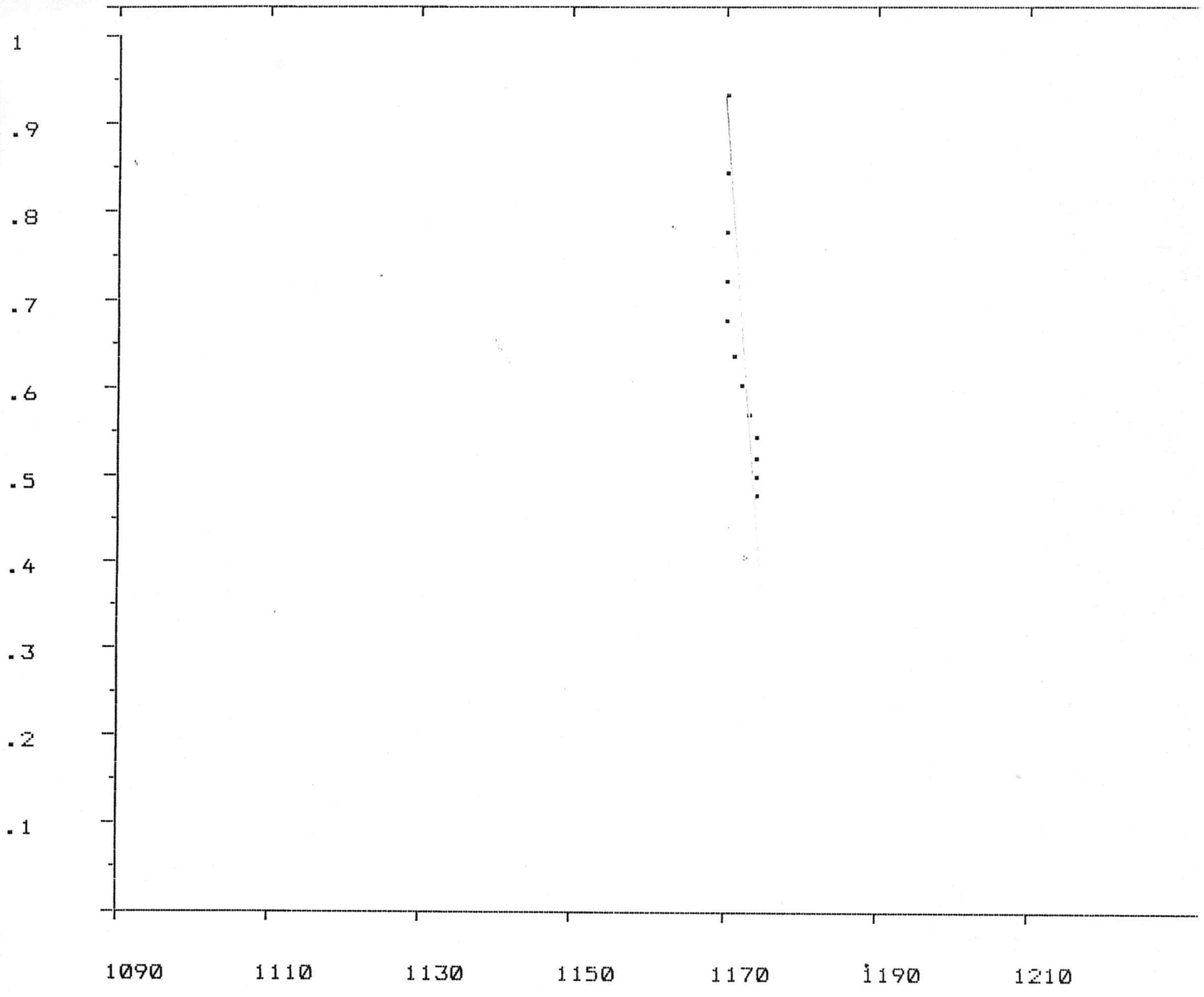
DST#6
INITIAL SHUT-IN
HORNER PLOT
PRESSURE

LOG(T+MIN/MIN)

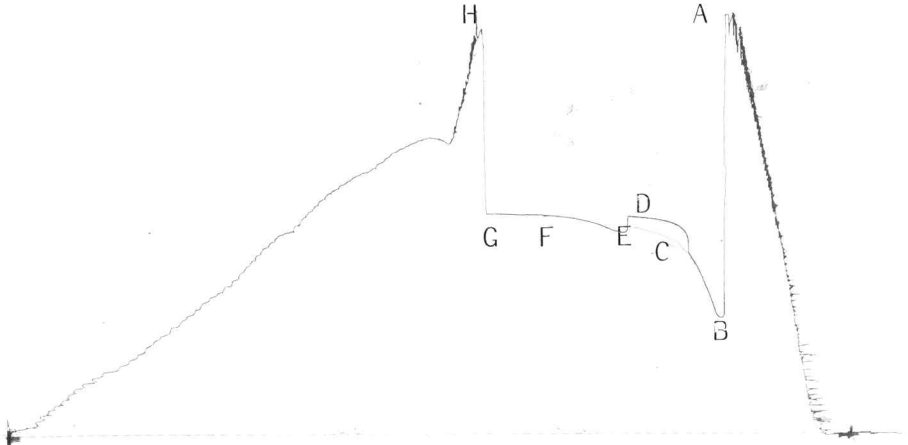


STATIC PRESSURE 1186.02
SLOPE 123.149
POINTS USED 10

DST#6
FINAL SHUT-IN
HORNER PLOT
PRESSURE



STATIC PRESSURE 1179.56
SLOPE 11.4502
POINTS USED 12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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 7 Date 5/8/88

Company Abercrombie Drilling Inc. Zone Tested Mississippian

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 4357-4366 Drill Pipe Size 4½ X.H.

Anchor Length 9 Top Choke — 1"

Top Packer Depth 4352 Bottom Choke — ¾"

Bottom Packer Depth 4357 Hole Size — 7⅞"

Total Depth 4366 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 636

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.6 lb./gal. Viscosity 49 Filtrate 12

Tool Open @ 4:07 A.M. Initial Blow weak building to 3"

Final Blow weak building to 3"

Recovery — Total Feet 109 Flush Tool?

Rec. 1178 Feet of gas

Rec. 40 Feet of clean Oil

Rec. 69 Feet of slightly oil cut water 5% oil, 90% water, 5% mud

Rec. Feet of

Rec. Feet of

BHT 118 °F Gravity °API @ °F Corrected Gravity 39 °API

RW .10 @ 70 °F Chlorides 78,000 ppm Recovery Clorides 8000 ppm System

(A) Initial Hydrostatic Mud 2269.1 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 10.3 PSI @ (depth) 4358 w/Clock No. 27501

(C) First Final Flow Pressure 20.7 PSI AK1 Recorder No. 13223 Range 4150

(D) Initial Shut-In Pressure 1177.4 PSI @ (depth) 4362 w/Clock No. 27567

(E) Second Initial Flow Pressure 41.3 PSI Initial Opening 30

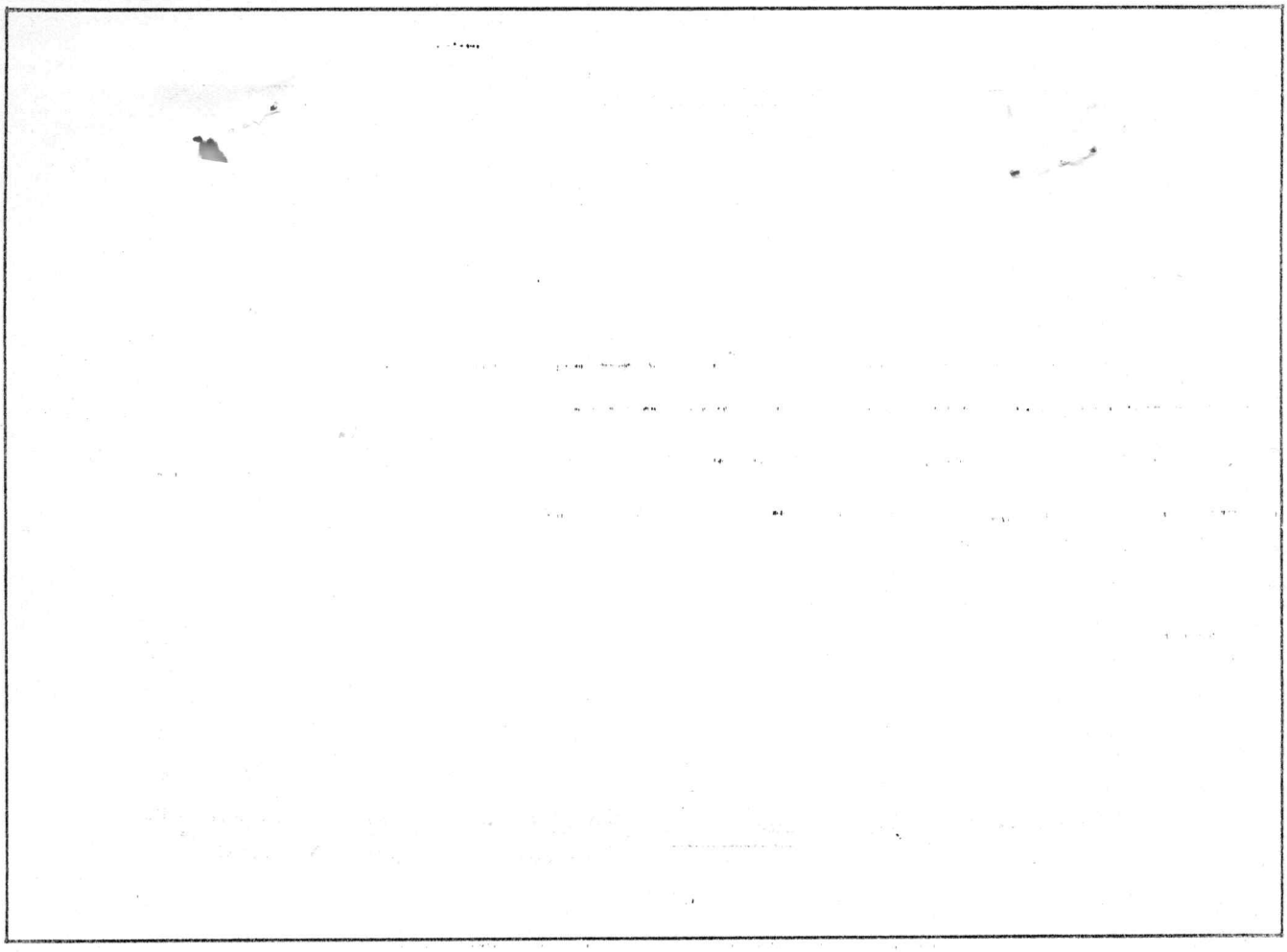
(F) Second Final Flow Pressure 51.7 PSI Initial Shut-In 45

(G) Final Shut-In Pressure 1177.4 PSI Final Flow 60

(H) Final Hydrostatic Mud 2084.9 PSI Final Shut-In 45

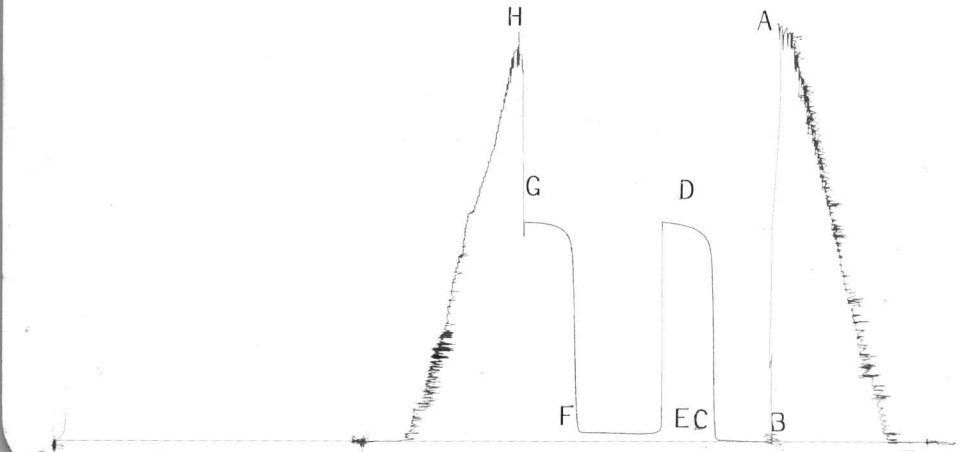
Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2271	2269.1	PSI
(B) First Initial Flow Pressure	10	10.3	PSI
(C) First Final Flow Pressure	20	20.7	PSI
(D) Initial Closed-in Pressure	1177	1177.4	PSI
(E) Second Initial Flow Pressure	41	41.3	PSI
(F) Second Final Flow Pressure	51	51.7	PSI
(G) Final Closed-in Pressure	1177	1177.4	PSI
(H) Final Hydrostatic Mud	2084	2084.9	PSI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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. Zeigenbalg #1 Test No. 8 Date 5-8-88

Company Abercrombie Drilling Inc. Zone Tested Mississippi

Address 801 Union Center Wichita, KS 67202 Elevation 2570

Co. Rep./Geo. Mark Galyon Cont. Abercrombie #8 Est. Ft. of Pay

Location: Sec. 10 Twp. 14s Rge. 28w Co. Gove State KS

Interval Tested 4371 - 4390 Drill Pipe Size 4½ X.H.

Anchor Length 19 Top Choke — 1"

Top Packer Depth 4366 Bottom Choke — ¾"

Bottom Packer Depth 4371 Hole Size — 7⅞"

Total Depth 4390 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 636

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.4 lb./gal. Viscosity 57 Filtrate 9.6

Tool Open @ 8:55 p.m. Initial Blow weak building to 8" fair blow

Final Blow no blow

Recovery — Total Feet 285 Flush Tool? 2nd. open

Rec. 285 Feet of muddy water with scum of oil

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 119 °F Gravity °API @ °F Corrected Gravity °API

RW .10 @ 69 °F Chlorides 77,000 ppm Recovery Clorides 8,000 ppm System

(A) Initial Hydrostatic Mud 2209.1 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 20.7 PSI @ (depth) 4382 w/Clock No. 27501

(C) First Final Flow Pressure 84.7 PSI AK1 Recorder No. 13223 Range 4150

(D) Initial Shut-in Pressure 1104.8 PSI @ (depth) 4386 w/Clock No. 27567

(E) Second Initial Flow Pressure 95 PSI Initial Opening 30

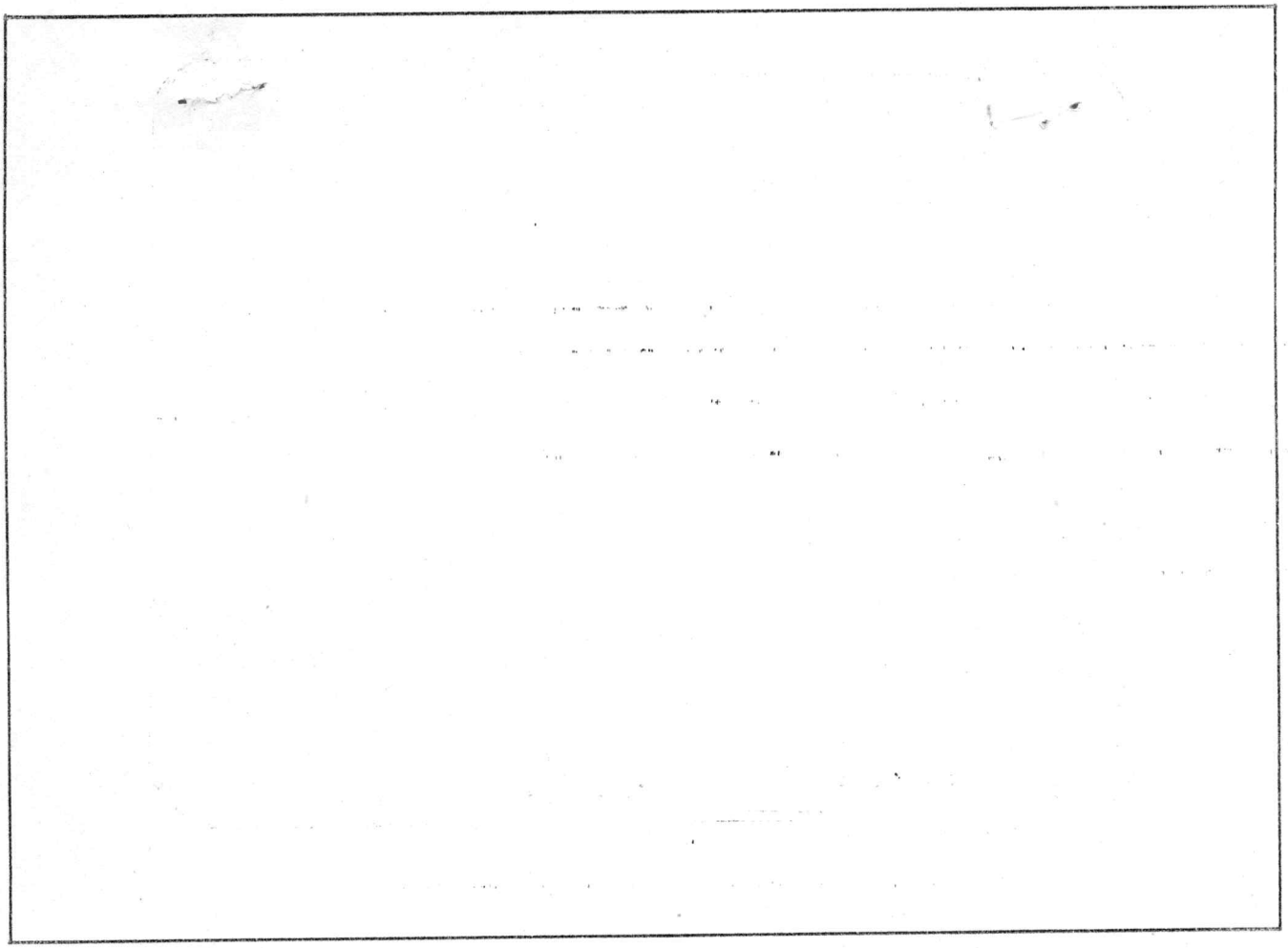
(F) Second Final Flow Pressure 128.1 PSI Initial Shut-in 45

(G) Final Shut-in Pressure 1073.7 PSI Final Flow 30

(H) Final Hydrostatic Mud 2167.7 PSI Final Shut-in 45

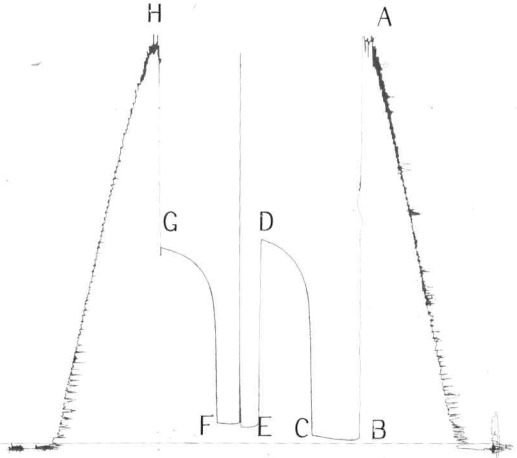
Our Representative Dan Bangle TOTAL PRICE ..... $ 400

Printcraft Printers • Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2209	2209.1	PSI
(B) First Initial Flow Pressure	20	20.7	PSI
(C) First Final Flow Pressure	82	84.7	PSI
(D) Initial Closed-in Pressure	1104	1104.8	PSI
(E) Second Initial Flow Pressure	93	95	PSI
(F) Second Final Flow Pressure	124	128.1	PSI
(G) Final Closed-in Pressure	1073	1073.7	PSI
(H) Final Hydrostatic Mud	2167	2167.7	PSI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