TRILOBITE TESTING COMPANY, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name DANIELS #1 Test No. 1 Date 3/7/92
Company HUTCHINSON OIL CO. Zone Tested LKC-"A-B"
Address 105 S BROADWAY WICHITA KS 67202 Elevation 1878 K.B.
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE DRLG #2 Est. Ft. of Pay
Location: Sec. 17 Twp. 22S Rge. 12W Co. STAFFORD State KS

Interval Tested 3334-3378 Drill Pipe Size 4.5 XH
Anchor Length 44 Wt. Pipe I.D. - 2.7 Ft. Run 224
Top Packer Depth 3329 Drill Collar — 2.25 Ft. Run
Bottom Packer Depth 3334
Total Depth 3378

Mud Wt. 8.7 lb / gal. Viscosity 42 Filtrate 10.4

Tool Open @ 3:50 AM Initial Blow WEAK STEADY SURFACE BLOW

Final Blow NO BLOW

Recovery — Total Feet 10 Flush Tool? NO

Rec. 10 Feet of DRILLING MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 106 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 1100 ppm System

(A) Initial Hydrostatic Mud 1733.6 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 52.3 PSI @ (depth) 3338 w/Clock No. 8179

(C) First Final Flow Pressure 52.3 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 61.4 PSI @ (depth 3374 w/Clock No. 31152

(E) Second Initial Flow Pressure 52.3 PSI AK1 Recorder No. Range

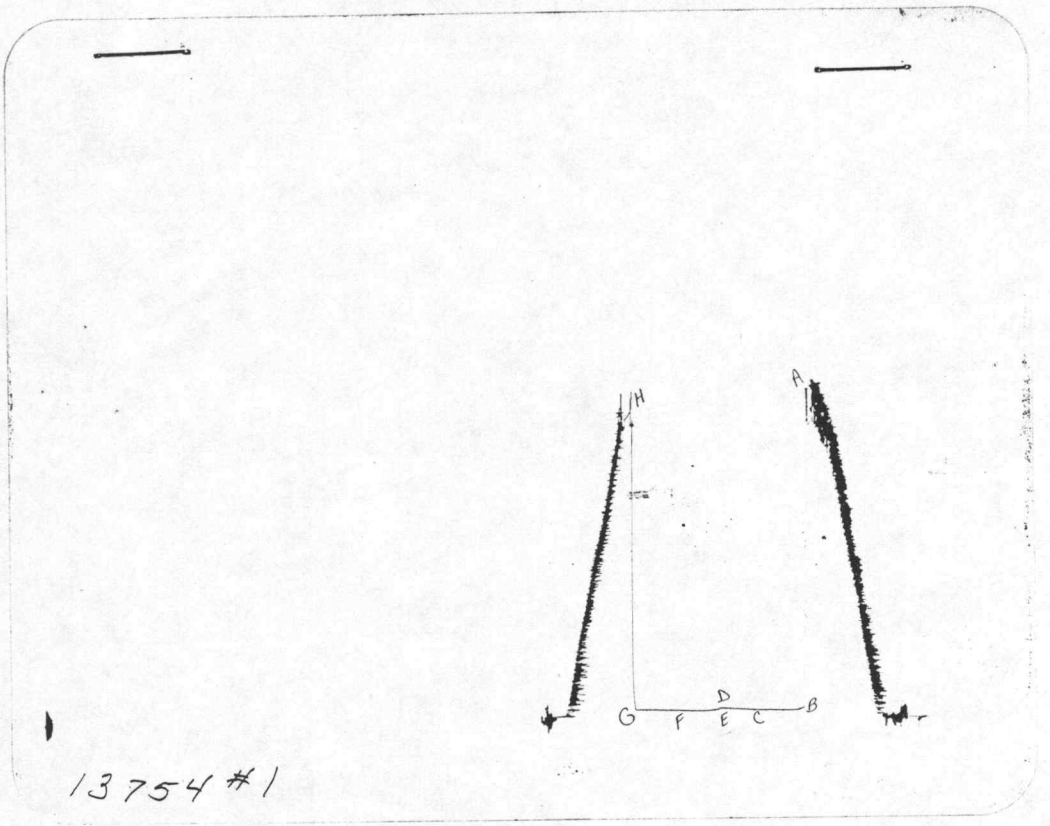
(F) Second Final Flow Pressure 52.3 PSI @ (depth) w/Clock No.

(G) Final Shut-in Pressure 61.4 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1610.4 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE TOTAL PRICE $ 550

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart

POINT	PRESSURE FIELD READING	PRESSURE OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1721	1733.6
(B) FIRST INITIAL FLOW PRESSURE	44	52.3
(C) FIRST FINAL FLOW PRESSURE	44	52.3
(D) INITIAL CLOSED-IN PRESSURE	55	61.4
(E) SECOND INITIAL FLOW PRESSURE	44	52.3
(F) SECOND FINAL FLOW PRESSURE	44	52.3
(G) FINAL CLOSED-IN PRESSURE	55	61.4
(H) FINAL HYDROSTATIC MUD	1602	1610.4

TRILOBITE TESTING COMPANY, L.L.C.

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Drill-Stem Test Data

Well Name DANIELS #1 Test No. 2 Date 3/7/92

Company HUTCHINSON OIL CO. Zone Tested LKC-"H-I-J-K"

Address 105 S BROADWAY WICHITA KS 67202 Elevation 1878 K.B.

Co. Rep./Geo. JIM MUSGROVE Cont. DUKE DRLG #2 Est. Ft. of Pay

Location: Sec. 17 Twp. 22S Rge. 12W Co. STAFFORD State KS

Interval Tested 3473-3550 Drill Pipe Size 4.5 XH

Anchor Length 77 Wt. Pipe I.D. - 2.7 Ft. Run 162

Top Packer Depth 3468 Drill Collar — 2.25 Ft. Run

Bottom Packer Depth 3473

Total Depth 3550

Mud Wt. 8.8 lb / gal. Viscosity 45 Filtrate 10.4

Tool Open @ 10:15 PM Initial Blow WEAK 1/4" STEADY BLOW

Final Blow VERY WEAK STEADY SURFACE BLOW

Recovery — Total Feet 15 Flush Tool? NO

Rec. 15 Feet of DRILLING MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 104 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 2000 ppm System

(A) Initial Hydrostatic Mud 1780.2 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 52.3 PSI @ (depth) 3477 w/Clock No. 8179

(C) First Final Flow Pressure 52.3 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 226.9 PSI @ (depth 3546 w/Clock No. 26199

(E) Second Initial Flow Pressure 61.3 PSI AK1 Recorder No. Range

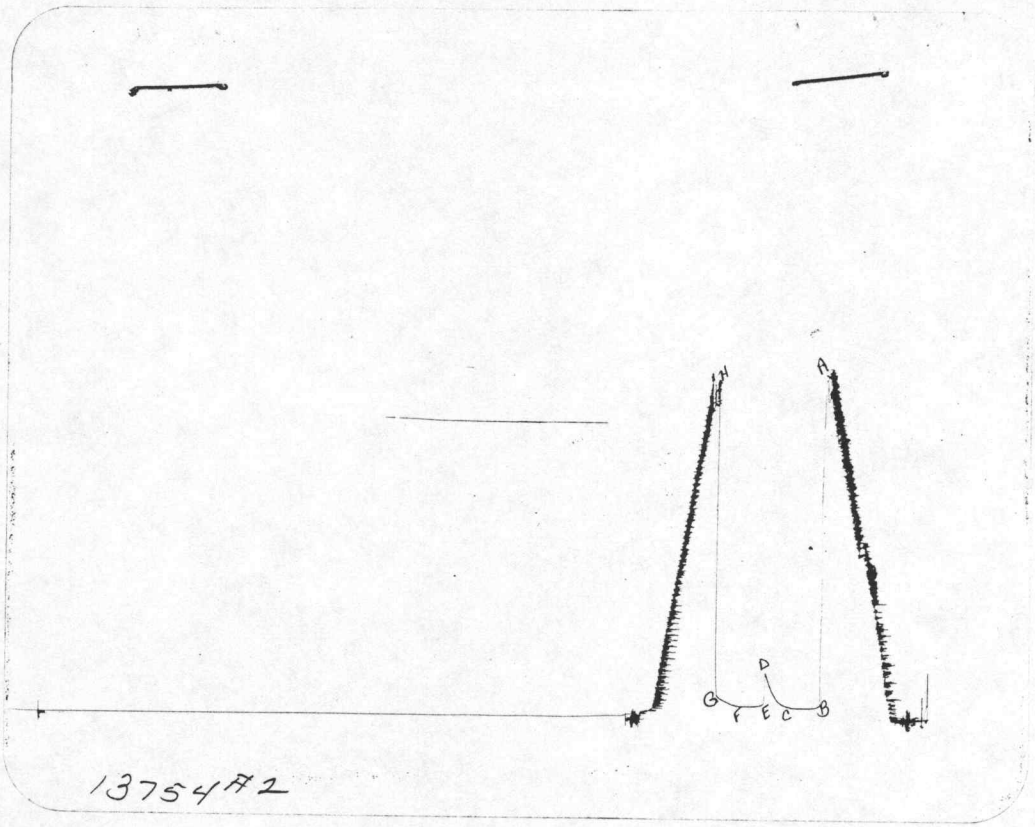
(F) Second Final Flow Pressure 61.3 PSI @ (depth) w/Clock No.

(G) Final Shut-in Pressure 105.8 PSI Initial Opening 20 Final Flow 20

(H) Final Hydrostatic Mud 1715.9 PSI Initial Shut-in 20 Final Shut-in 20

Our Representative DAN BANGLE TOTAL PRICE $ 550

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart

POINT	PRESSURE	
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1765	1780.2
(B) FIRST INITIAL FLOW PRESSURE	44	52.3
(C) FIRST FINAL FLOW PRESSURE	44	52.3
(D) INITIAL CLOSED-IN PRESSURE	222	226.9
(E) SECOND INITIAL FLOW PRESSURE	55	61.3
(F) SECOND FINAL FLOW PRESSURE	55	61.3
(G) FINAL CLOSED-IN PRESSURE	100	105.8
(H) FINAL HYDROSTATIC MUD	1710	1715.9

TRILOBITE TESTING COMPANY, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name DANIELS #1 Test No. 3 Date 3/8/92

Company HUTCHINSON OIL CO. Zone Tested VIOLA

Address 105 S BROADWAY WICHITA KS 67202 Elevation 1878 K.B.

Co. Rep./Geo. JIM MUSGROVE Cont. DUKE DRLG #2 Est. Ft. of Pay 15

Location: Sec. 17 Twp. 22S Rge. 12W Co. STAFFORD State KS

Interval Tested 3600-3655 Drill Pipe Size 4.5 XH

Anchor Length 55 Wt. Pipe I.D. - 2.7 Ft. Run 192

Top Packer Depth 3595 Drill Collar — 2.25 Ft. Run

Bottom Packer Depth 3600

Total Depth 3655

Mud Wt. 9 lb / gal. Viscosity 54 Filtrate 8.8

Tool Open @ 11:30 AM Initial Blow STRONG-OFF BOTTOM OF BUCKET IN 10 SECONDS
FLUID TO SURFACE IN 28 MINUTES-GTS-COULD NOT GAUGE

Final Blow FLOWED OIL

Recovery — Total Feet FLOWED OIL Flush Tool? NO

Rec. _____ Feet of GAS TO SURFACE

Rec. 3655 Feet of CLEAN OIL

Rec. 120 Feet of WATER BELOW CIRCULATING SUB

Rec. _____ Feet of

Rec. _____ Feet of

BHT 110 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 5.56 @ 73 °F Chlorides 1000 ppm Recovery Chlorides 5500 ppm System

(A) Initial Hydrostatic Mud 1833.9 PSI Ak1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 1047 PSI @ (depth) 3604 w/Clock No. 8179

(C) First Final Flow Pressure 1183.9 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1245.9 PSI @ (depth 3651 w/Clock No. 31152

(E) Second Initial Flow Pressure 1176.9 PSI AK1 Recorder No. _____ Range _____

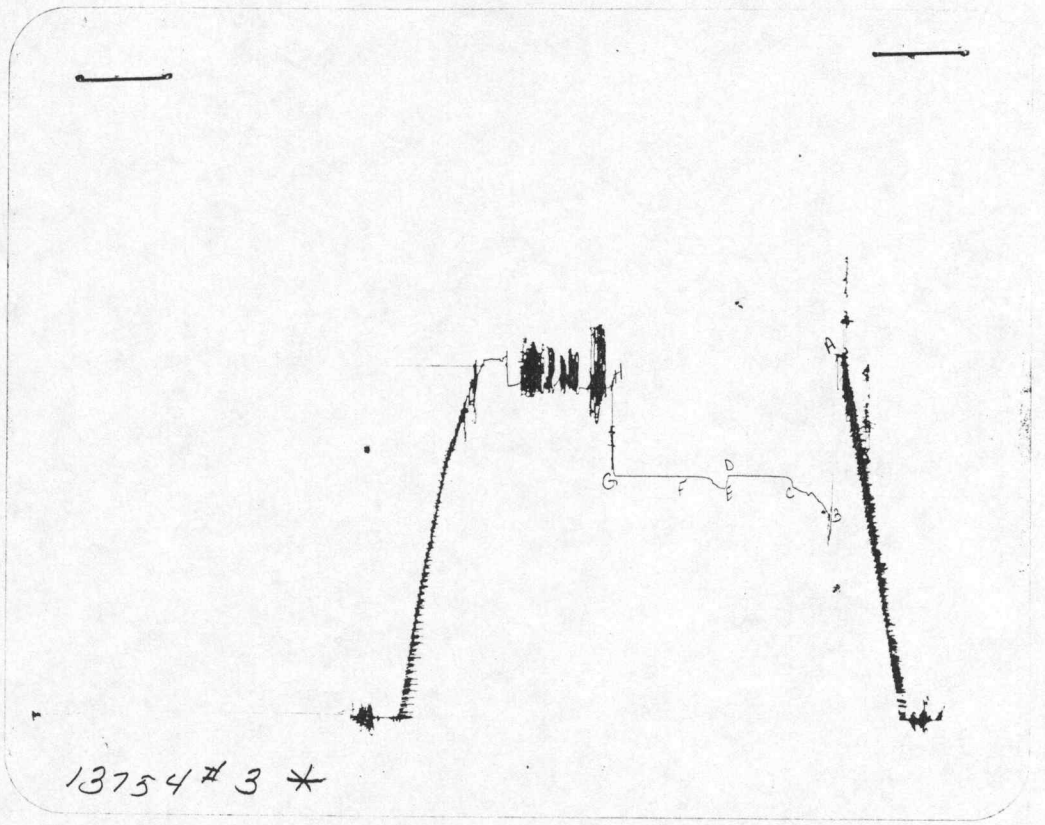
(F) Second Final Flow Pressure 1205.9 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 1240.9 PSI Initial Opening 30 Final Flow 10

(H) Final Hydrostatic Mud 1693.9 PSI Initial Shut-in 45 Final Shut-in 65

Our Representative DAN BANGLE TOTAL PRICE $ 550

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart

POINT	PRESSURE FIELD READING	PRESSURE OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1886	1833.9
(B) FIRST INITIAL FLOW PRESSURE	1056	1047
(C) FIRST FINAL FLOW PRESSURE	1186	1183.9
(D) INITIAL CLOSED-IN PRESSURE	1246	1245.9
(E) SECOND INITIAL FLOW PRESSURE	1186	1176.9
(F) SECOND FINAL FLOW PRESSURE	1216	1205.9
(G) FINAL CLOSED-IN PRESSURE	1256	1240.9
(H) FINAL HYDROSTATIC MUD	1736	1693.9

COMPUTER EVALUATION BY TRILOBITE TESTING
HUTCHINSON OIL CO.
REPORT FOR DST#3 FOR THE DANIELS #1
17-22S-12W STAFFORD KANSAS

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TEST PARAMETERS

ELEVATION:	1878 KB	EST. PAY:	15 FT
DATUM:	-1727	ZONE TESTED:	VIOLA
TEST INTERVAL:	3600-3655		
		TIME INTERVALS:	30-45-10-65
RECORDER DEPTH:	3604	VISCOSITY:	10.81886 CP
BOTTOM HOLE TEMP:	110	HOLE SIZE:	7.875 IN

****

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 138.8889

TOTAL FEET OF RECOVERY: 3655
BARRELS IN DRILL PIPE: 49.24386
BARRELS IN WEIGHT PIPE: 1.344
GAS OIL RATIO: 2.745498 CU.FT./BBL
BUBBLE POINT PRESSURE: ; .1366343
TOTAL BARRELS OF RECOVERY: 50.58787
UNCORR. INIT. PROD.: 1821.163 BBL/DAY
API GRAVITY: 36
FLUID GRADIENT: .366
CORRECTED PIPE FILLUP: 3294.809
CORR. BARRELS OF RECOVERY: 45.45444 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 1636.36 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
141.8361

****

INITIAL SLOPE 9.74 PSI/CYCLE
INITIAL P* 1248 PSI

FINAL SLOPE 2.85 PSI/CYCLE
FINAL P* 1242 PSI

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TRANSMISSIBILITY	93358.64 (MD.-FT./CP.)
PERMEABILITY	67335.6 (MD.)
INDICATED FLOW CAPACITY	1010034 (MD.FT)
PRODUCTIVITY INDEX	105.4953 (BARRELS/DAY/PSI)
DAMAGE RATIO	2.317999
RADIUS OF INVESTIGATION	1641.165 (FT.)
THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE	3793.08 BBL/DAY
THEORITICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE	328.7759 BBL/DAY
POTENTIOMETRIC SURFACE	1154.198 (FT.)
DRAWDOWN FACTOR	.4807711 (%)

DANIELS #1
INITIAL

DST #3
SHUTIN
30 FLOW TIME

Slope	-9.74 psi/cycle
P *	1,248 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	1228.9	11	1.041	1228.9
	6	1238.9	6	0.778	10.0
	9	1239.9	4	0.637	1.0
	12	1241.9	4	0.544	2.0
	15	1242.9	3	0.477	1.0
	18	1243.5	3	0.426	0.6
	21	1243.9	2	0.385	0.4
	24	1244.5	2	0.352	0.6
X	27	1244.9	2	0.325	0.4
	30	1245.9	2	0.301	1.0
	33	1245.9	2	0.281	0.0
	36	1245.9	2	0.263	0.0
	39	1245.9	2	0.248	0.0
	42	1245.9	2	0.234	0.0
X	45	1245.9	2	0.222	0.0

DANIELS #1
FINAL

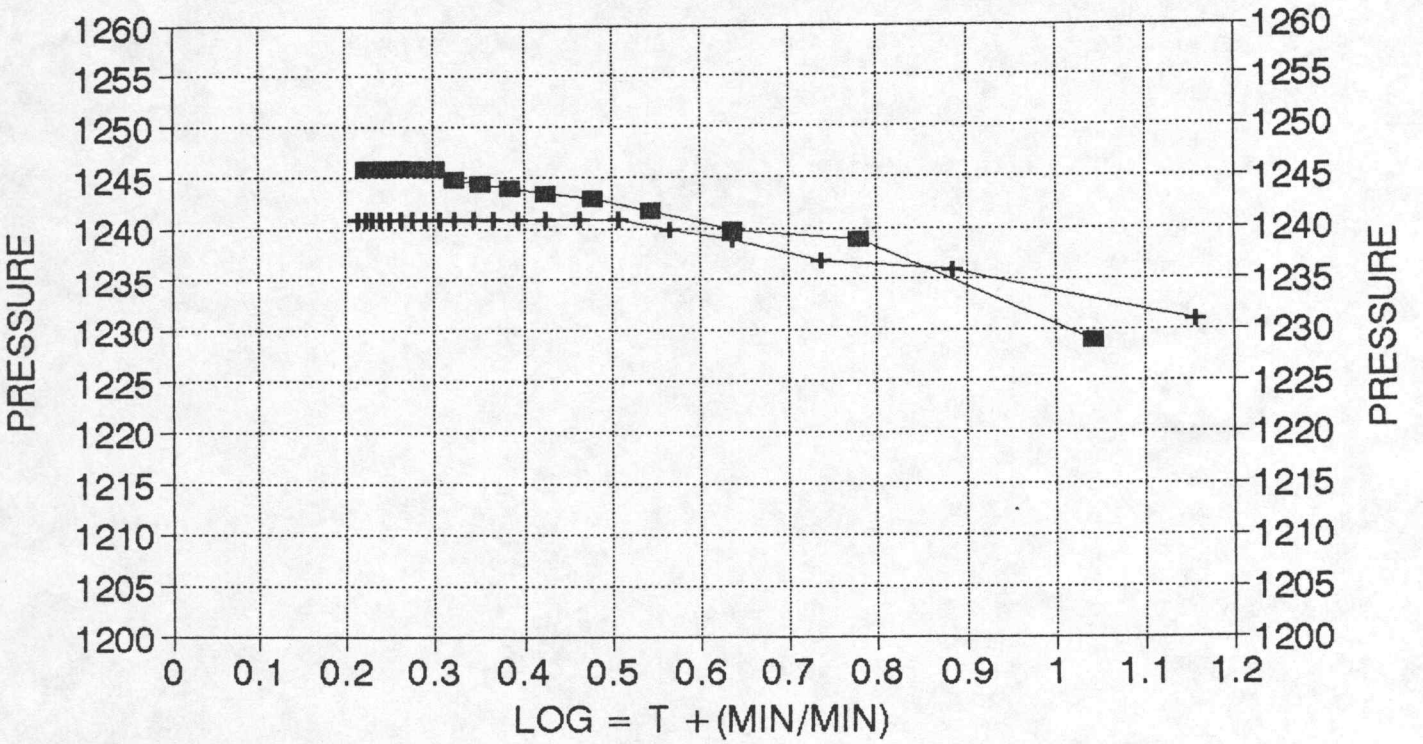
DST #3
SHUTIN
40 TOTAL FLOW TIME

Slope	-2.85 psi/cycle
P *	1,242 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	1230.9	14	1.156	1230.9
	6	1235.9	8	0.885	5.0
	9	1236.9	5	0.736	1.0
	12	1238.9	4	0.637	2.0
X	15	1239.9	4	0.564	1.0
	18	1240.9	3	0.508	1.0
	21	1240.9	3	0.463	0.0
	24	1240.9	3	0.426	0.0
	27	1240.9	2	0.395	0.0
	30	1240.9	2	0.368	0.0
	33	1240.9	2	0.345	0.0
	36	1240.9	2	0.325	0.0
	39	1240.9	2	0.307	0.0
	42	1240.9	2	0.291	0.0
	45	1240.9	2	0.276	0.0
	48	1240.9	2	0.263	0.0
	51	1240.9	2	0.251	0.0
	54	1240.9	2	0.241	0.0
	57	1240.9	2	0.231	0.0
	60	1240.9	2	0.222	0.0
X	63	1240.9	2	0.213	0.0

HORNER PLOT

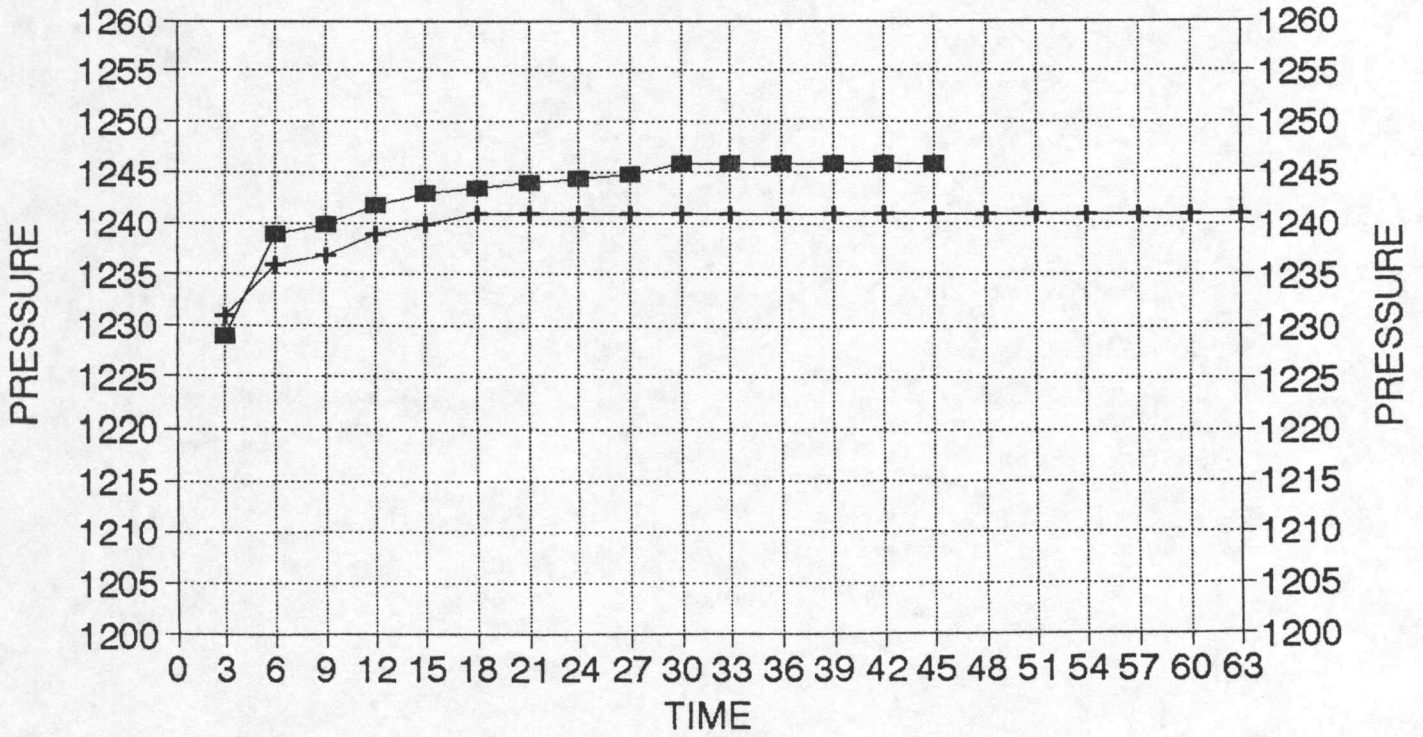
DST #3 / DANIELS #1



INITIAL FINAL

DELTA T DELTA P

DST #3 / DANIELS #1



INITIAL FLOW

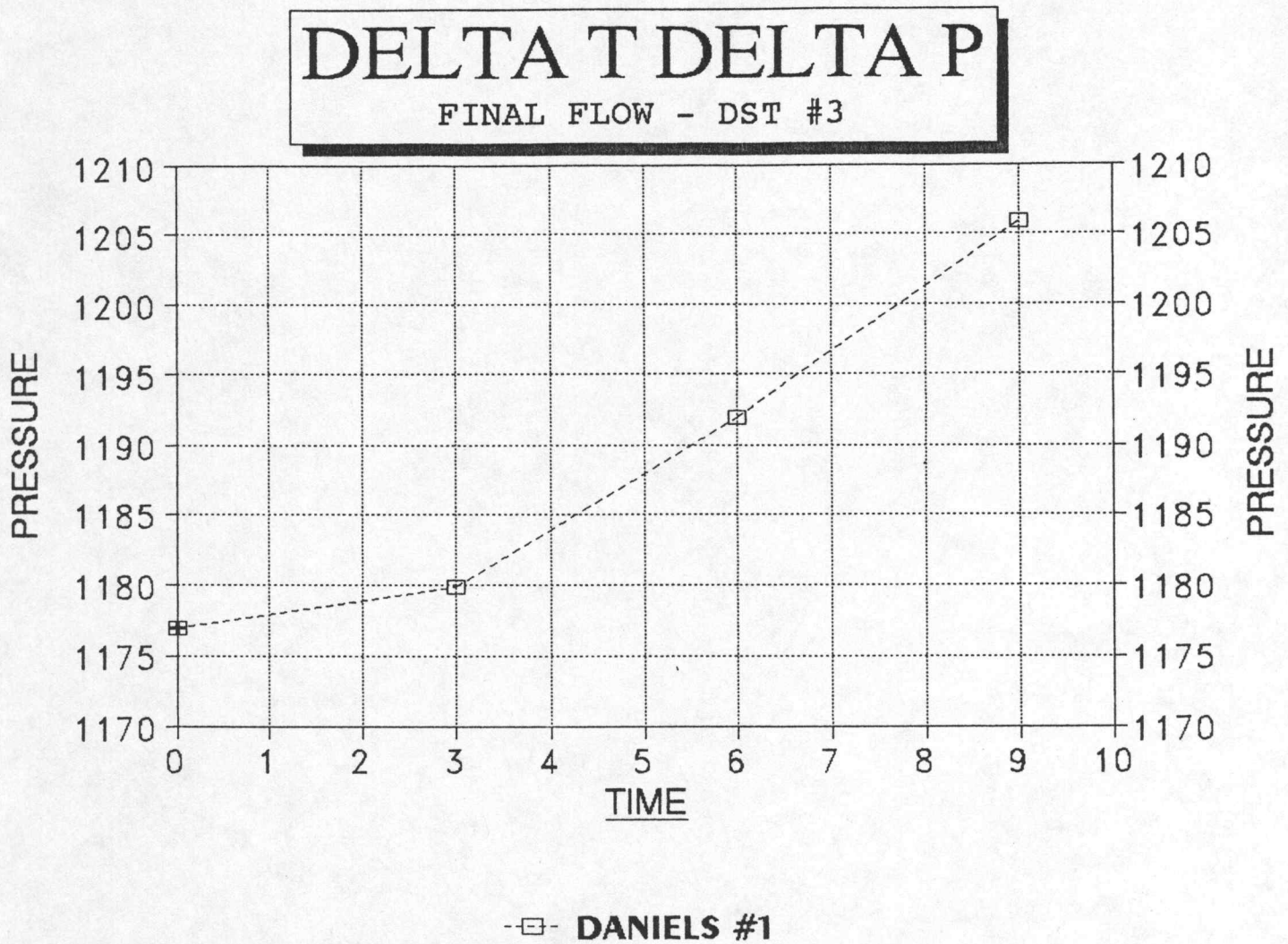
RECORDER # 13754
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	1047	1047
3	1079	32
6	1107.9	28.90003
9	1127.9	20
12	1152.9	25
15	1153.9	1
18	1159.9	6
21	1163.9	4
24	1173.9	10
27	1183.9	10

FINAL FLOW

RECORDER # 13754
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	1176.9	1176.9
3	1179.9	3
6	1191.9	12
9	1205.9	14



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 141.8361 BBL/DAY

TRILOBITE TESTING COMPANY, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name DANIELS #1 Test No. 4 Date 3/9/92

Company HUTCHINSON OIL CO. Zone Tested ARBUCKLE

Address 105 S BROADWAY WICHITA KS 67202 Elevation 1878 K.B.

Co. Rep./Geo. JIM MUSGROVE Cont. DUKE DRLG #2 Est. Ft. of Pay

Location: Sec. 17 Twp. 22S Rge. 12W Co. STAFFORD State KS

Interval Tested 3736-3742 Drill Pipe Size 4.5 XH

Anchor Length 6 Wt. Pipe I.D. - 2.7 Ft. Run 224

Top Packer Depth 3731 Drill Collar — 2.25 Ft. Run

Bottom Packer Depth 3736

Total Depth 3742

Mud Wt. 9 lb / gal. Viscosity 49 Filtrate 8.8

Tool Open @ 6:10 AM Initial Blow STRONG-OFF BOTTOM OF BUCKET IN 13 MINUTES

Final Blow STRONG-OFF BOTTOM OF BUCKET IN 18 MINUTES

Recovery — Total Feet 744 Flush Tool? NO

Rec. 744 Feet of SALT WATER

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

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

RW 0.54 @ 70 °F Chlorides 14000 ppm Recovery Chlorides 5500 ppm System

(A) Initial Hydrostatic Mud 1906.5 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 61.4 PSI @ (depth) 3722 w/Clock No. 26199

(C) First Final Flow Pressure 170.3 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1278.9 PSI @ (depth 3738 w/Clock No. 8179

(E) Second Initial Flow Pressure 206.3 PSI AK1 Recorder No. Range

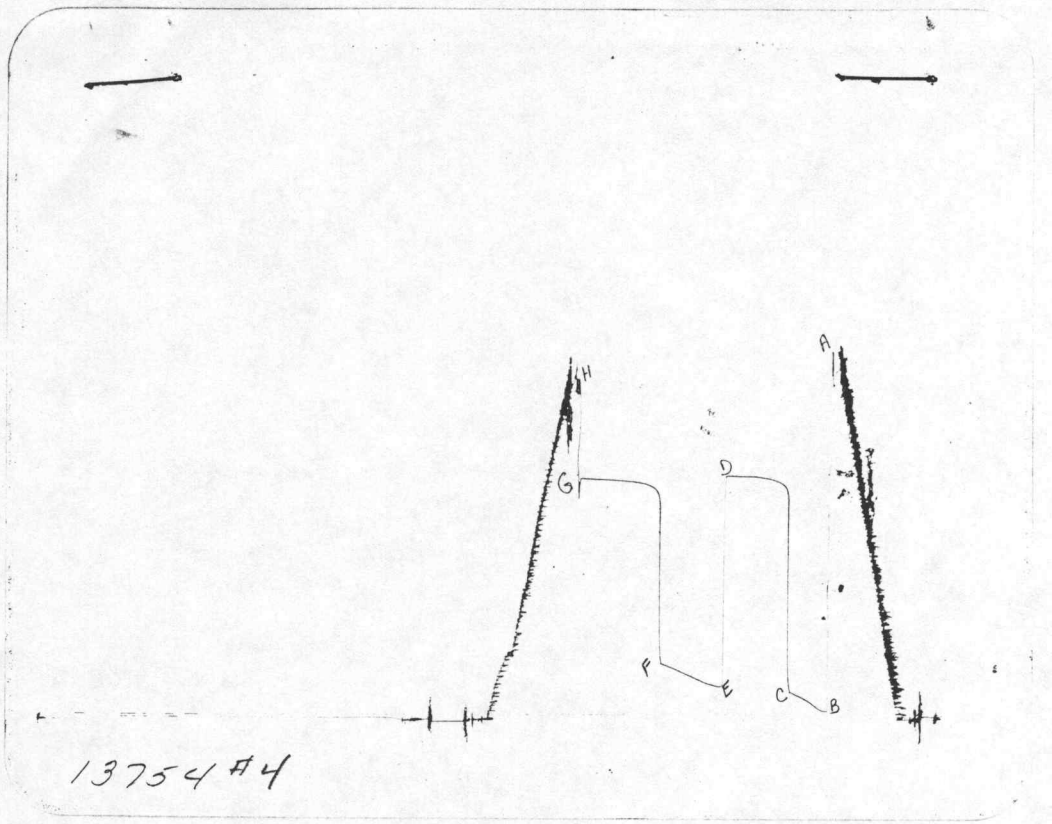
(F) Second Final Flow Pressure 318.7 PSI @ (depth) w/Clock No.

(G) Final Shut-in Pressure 1278.9 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1866.3 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE TOTAL PRICE $ 550

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart

POINT	PRESSURE	
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1895	1906.5
(B) FIRST INITIAL FLOW PRESSURE	55	61.4
(C) FIRST FINAL FLOW PRESSURE	166	170.3
(D) INITIAL CLOSED-IN PRESSURE	1272	1278.9
(E) SECOND INITIAL FLOW PRESSURE	200	206.3
(F) SECOND FINAL FLOW PRESSURE	311	318.7
(G) FINAL CLOSED-IN PRESSURE	1272	1278.9
(H) FINAL HYDROSTATIC MUD	1863	1866.3