

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HALL #1 Test No. 1 Date 11/15/94
Company CARMEN SCHMITT INC Zone LKC 'C'
Address PO BOX 47 GREAT BEND KS 67530 Elevation 2089
Co. Rep./Geo. STEVE PARKER Cont. DUKE #4 Est. Ft. of Pay 5
Location: Sec. 2 Twp. 12S Rge. 20W Co. ELLIS State KS

Interval Tested 3392-3424 Drill Pipe Size 4.5" XH
Anchor Length 32 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3387 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3392 Mud Wt. 9.3 lb/Gal.
Total Depth 3424 Viscosity 44 Filtrate 9.6

Tool Open @ 5:45AM Initial Blow STRONG - BOTTOM OF BUCKET IN 2 MINUTES

Final Blow STRONG - BOTTOM OF BUCKET IN 6 MINUTES

Recovery - Total Feet 400 Flush Tool? _____

Rec. 184 Feet of CLEAN GASSY OIL 20%GAS/80%OIL
Rec. 92 Feet of MUD CUT GASY OIL 20%GAS/60%OIL/20%MUD
Rec. 62 Feet of FROTHY GASSY OIL
Rec. 62 Feet of SLIGHTLY OIL CUT WATERY MUD 5%OIL/40%WATER/55%MUD
Rec. _____ Feet of _____

BHT 109 °F Gravity _____ °API @ _____ °F Corrected Gravity 34 °API
RW 0.13 @ 80 °F Chlorides 50000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1651.0 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 49.2 PSI @ (depth) 3396 w / Clock No. 27501

(C) First Final Flow Pressure 93.5 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 654.1 PSI @ (depth) 3420 w / Clock No. 25110

(E) Second Initial Flow Pressure 126.0 PSI AK1 Recorder No. _____ Range _____

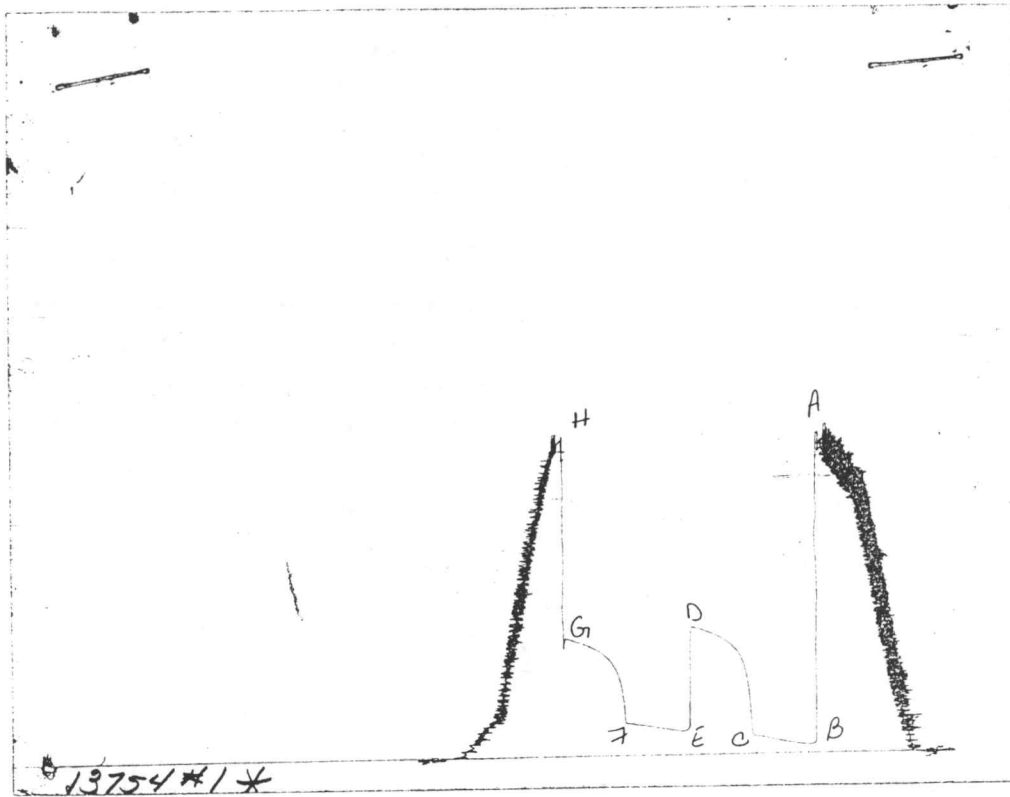
(F) Second Final Flow Pressure 164.4 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 605.7 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1633.0 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative DAN BANGLE

CHART PAGE

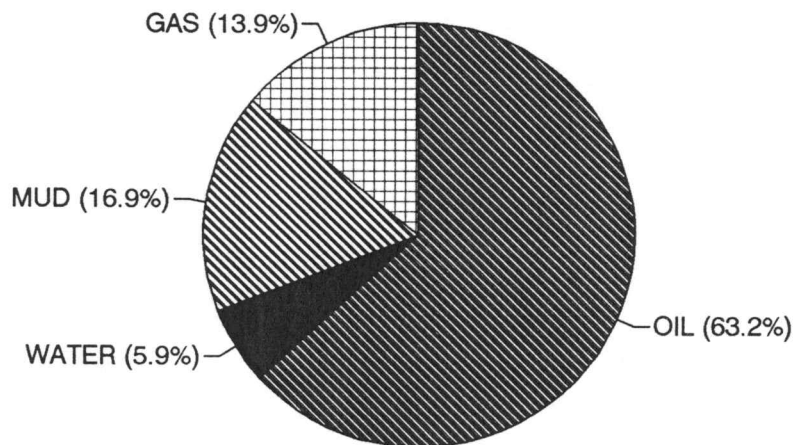


This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1686	1651
(B) FIRST INITIAL FLOW PRESSURE	49	49.2
(C) FIRST FINAL FLOW PRESSURE	88	93.5
(D) INITIAL CLOSED-IN PRESSURE	660	654.1
(E) SECOND INITIAL FLOW PRESSURE	127	126
(F) SECOND FINAL FLOW PRESSURE	167	164.4
(G) FINAL CLOSED-IN PRESSURE	610	605.7
(H) FINAL HYDROSTATIC MUD	1646	1633

CALCULATED RECOVERY ANALYSIS						DRILL	PIPE		
DST #	1		TICKET #			7777			
SAMPLE	TOTAL	GAS	OIL		WATER		MUD		
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	184	20	36.8	80	147.2	0	0	0	0
2	92	20	18.4	60	55.2		0	20	36.8
3	62	5	3.1	95	58.9		0		0
4	62		0	5	3.1	40	24.8	55	34.1
5			0		0		0		0
6			0		0		0		0
TOTAL	400	14.575	58.3	66.1	264.4	6.2	24.8	17.725	70.9

		HRS OPE	BBL/DAY	
BBL OIL=	3.759768	*	1.5	60.16
BBL WATER=	0.352656	*		5.64
BBL MUD=	1.008198			
BBL GAS	0.829026			



TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HALL #1 Test No. 2 Date 11/15/94
Company CARMEN SCHMITT INC Zone KC
Address PO BOX 47 GREAT BEND KS 67530 Elevation 2089
Co. Rep./Geo. STEVE PARKER Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 2 Twp. 12S Rge. 20W Co. ELLIS State KS

Interval Tested <u>3440-3466</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>26</u>	Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth <u>3435</u>	Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth <u>3440</u>	Mud Wt. <u>9.2</u> lb/Gal.
Total Depth <u>3466</u>	Viscosity <u>44</u> Filtrate <u>8.8</u>

Tool Open @ 7:30PM Initial Blow WEAK - BUILDING TO 3"

Final Blow WEAK - BUILDING TO 1/4"

Recovery - Total Feet 62 Flush Tool? _____

Rec. <u>62</u>	Feet of <u>WATER</u>
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT 108 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.13 @ 75 °F Chlorides 49000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1739.0 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 19.7 PSI @ (depth) 3444 w / Clock No. 27501

(C) First Final Flow Pressure 26.6 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 623.5 PSI @ (depth) 3462 w / Clock No. 25110

(E) Second Initial Flow Pressure 36.4 PSI AK1 Recorder No. _____ Range _____

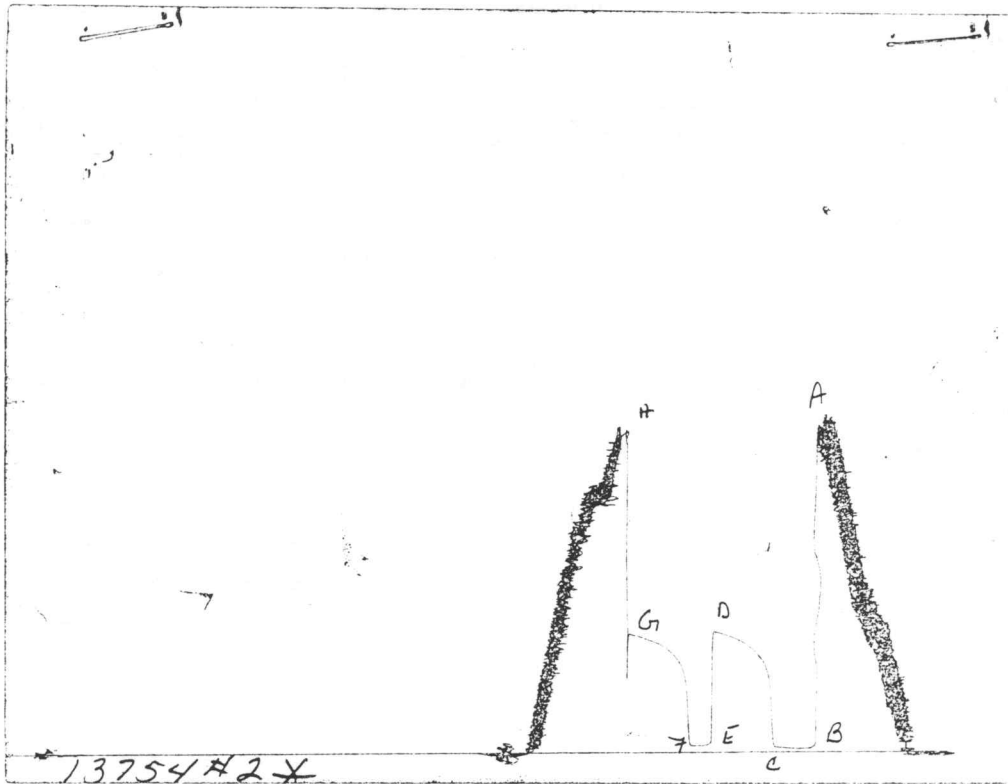
(F) Second Final Flow Pressure 36.4 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 612.6 PSI Initial Opening 30 Final Flow 15

(H) Final Hydrostatic Mud 1669.0 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1736	1739
(B) FIRST INITIAL FLOW PRESSURE	19	19.7
(C) FIRST FINAL FLOW PRESSURE	19	26.6
(D) INITIAL CLOSED-IN PRESSURE	620	623.5
(E) SECOND INITIAL FLOW PRESSURE	29	36.4
(F) SECOND FINAL FLOW PRESSURE	29	36.4
(G) FINAL CLOSED-IN PRESSURE	590	612.6
(H) FINAL HYDROSTATIC MUD	1666	1669

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HALL #1 Test No. 3 Date 11/16/94
Company CARMEN SCHMITT INC Zone KC
Address PO BOX 47 GREAT BEND KS 67530 Elevation 2089
Co. Rep./Geo. STEVE PARKER Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 2 Twp. 12S Rge. 20W Co. ELLIS State KS

Interval Tested 3466-3482 Drill Pipe Size 4.5" XH
Anchor Length 16 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3461 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3466 Mud Wt. 9 lb/Gal.
Total Depth 3482 Viscosity 43 Filtrate 8.8

Tool Open @ 6:50AM Initial Blow WEAK - DIED IN 10 MINUTES

Final Blow NO BLOW

Recovery - Total Feet 15 Flush Tool? _____

Rec. 15 Feet of DRILLING MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 110 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1725.0 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 28.5 PSI @ (depth) 3470 w / Clock No. 27501

(C) First Final Flow Pressure 12.8 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 812.2 PSI @ (depth) 3478 w / Clock No. 25110

(E) Second Initial Flow Pressure 25.6 PSI AK1 Recorder No. _____ Range _____

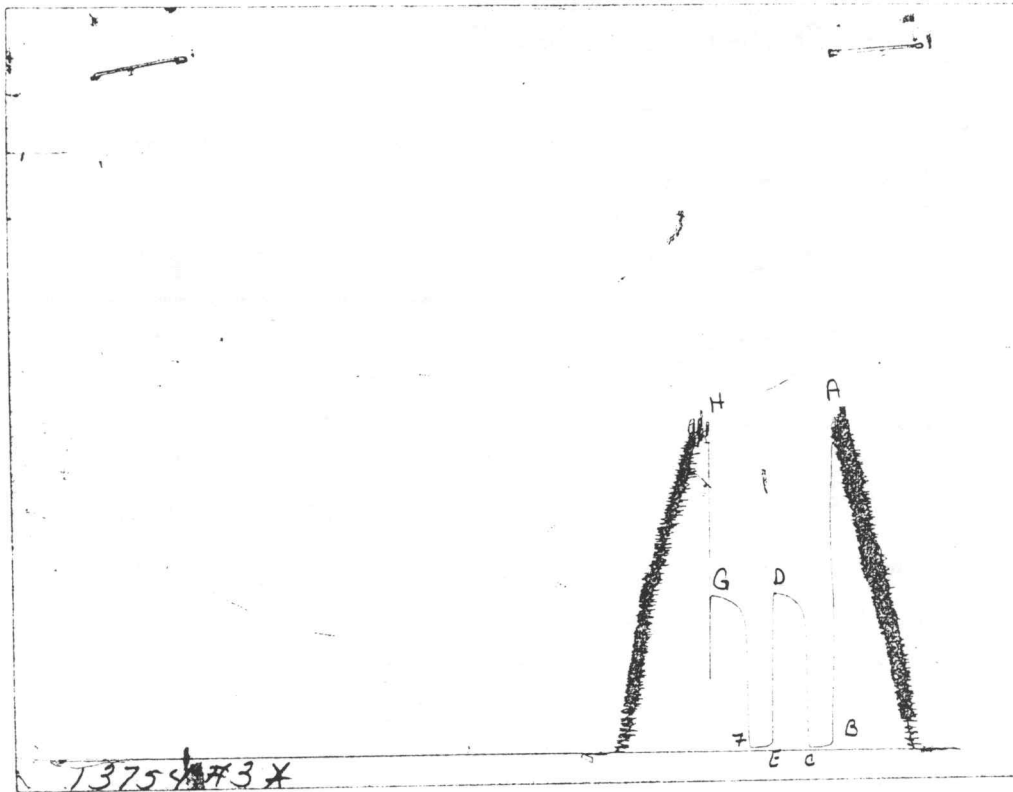
(F) Second Final Flow Pressure 15.7 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 801.4 PSI Initial Opening 15 Final Flow 15

(H) Final Hydrostatic Mud 1706.0 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1776	1725
(B) FIRST INITIAL FLOW PRESSURE	19	28.5
(C) FIRST FINAL FLOW PRESSURE	19	12.8
(D) INITIAL CLOSED-IN PRESSURE	808	812.2
(E) SECOND INITIAL FLOW PRESSURE	19	25.6
(F) SECOND FINAL FLOW PRESSURE	19	15.7
(G) FINAL CLOSED-IN PRESSURE	808	801.4
(H) FINAL HYDROSTATIC MUD	1706	1706

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HALL #1 Test No. 4 Date 11/16/94
Company CARMEN SCHMITT INC Zone KC
Address PO BOX 47 GREAT BEND KS 67530 Elevation 2089
Co. Rep./Geo. STEVE PARKER Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 2 Twp. 12S Rge. 20W Co. ELLIS State KS

Interval Tested 3566-3600
Anchor Length 34
Top Packer Depth 3561
Bottom Packer Depth 3566
Total Depth 3600

Drill Pipe Size 4.5" XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____
Mud Wt. 9.1 lb/Gal.
Viscosity 41 Filtrate 8.8

Tool Open @ 9:00PM Initial Blow WEAK - STEADY SURFACE BLOW

Final Blow WEAK - STEADY SURFACE BLOW

Recovery - Total Feet 45 Flush Tool? _____

Rec. 45 Feet of MUDDY WATER
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.12 @ 78 °F Chlorides 59000 ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1865.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 24.6 PSI @ (depth) 3570 w / Clock No. 27501

(C) First Final Flow Pressure 24.6 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1102.0 PSI @ (depth) 3596 w / Clock No. 25110

(E) Second Initial Flow Pressure 31.5 PSI AK1 Recorder No. _____ Range _____

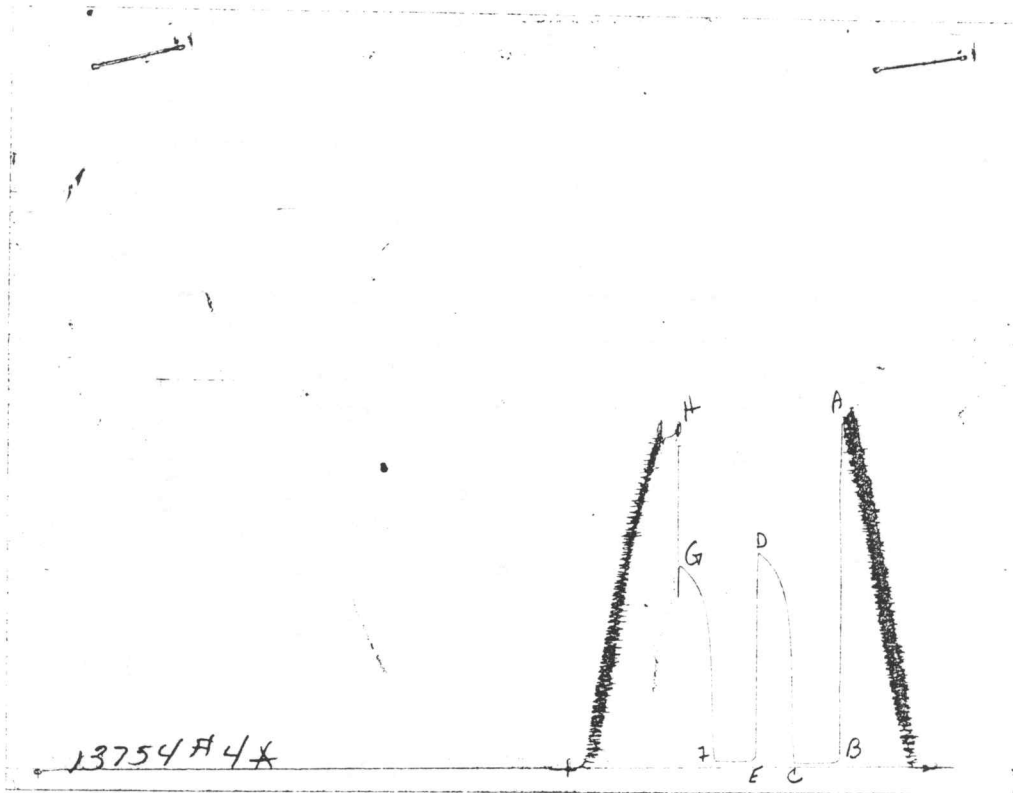
(F) Second Final Flow Pressure 31.5 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1038.1 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1788.1 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1866	1865.9
(B) FIRST INITIAL FLOW PRESSURE	19	24.6
(C) FIRST FINAL FLOW PRESSURE	19	24.6
(D) INITIAL CLOSED-IN PRESSURE	1106	1102
(E) SECOND INITIAL FLOW PRESSURE	39	31.5
(F) SECOND FINAL FLOW PRESSURE	39	31.5
(G) FINAL CLOSED-IN PRESSURE	1036	1038.1
(H) FINAL HYDROSTATIC MUD	1786	1788.1

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name HALL #1 Test No. 5 Date 11/17/94
Company CARMEN SCHMITT INC Zone ARBUCKLE
Address PO BOX 47 GREAT BEND KS 67530 Elevation 2089
Co. Rep./Geo. STEVE PARKER Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 2 Twp. 12S Rge. 20W Co. ELLIS State KS

Interval Tested 3670-3707 Drill Pipe Size 4.5" XH
Anchor Length 37 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3665 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3670 Mud Wt. 9.2 lb/Gal.
Total Depth 3707 Viscosity 50 Filtrate 9.6

Tool Open @ 2:50PM Initial Blow WEAK - BUILDING TO 2"

Final Blow WEAK - BUILDING TO 1/4"

Recovery - Total Feet 80 Flush Tool? _____

Rec. 80 Feet of MUD WITH SHOW OF FREE OIL ON TOP
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 2085.4 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 23.6 PSI @ (depth) 3674 w / Clock No. 27501

(C) First Final Flow Pressure 23.6 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1016.1 PSI @ (depth) 3703 w / Clock No. 25110

(E) Second Initial Flow Pressure 46.3 PSI AK1 Recorder No. _____ Range _____

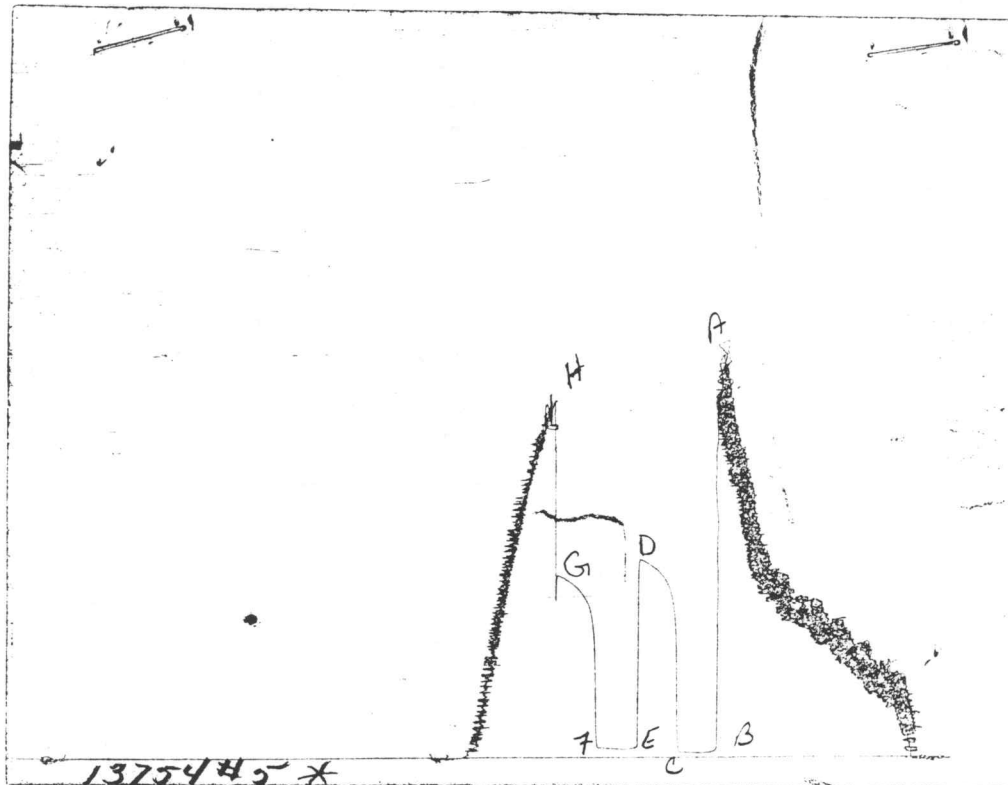
(F) Second Final Flow Pressure 46.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 934.8 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1846.0 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2087	2085.4
(B) FIRST INITIAL FLOW PRESSURE	19	23.6
(C) FIRST FINAL FLOW PRESSURE	19	23.6
(D) INITIAL CLOSED-IN PRESSURE	1016	1016.1
(E) SECOND INITIAL FLOW PRESSURE	49	46.3
(F) SECOND FINAL FLOW PRESSURE	49	46.3
(G) FINAL CLOSED-IN PRESSURE	936	934.8
(H) FINAL HYDROSTATIC MUD	1866	1846