

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name #1 WHITE 28A Test No. 1 Date 9/19/94
Company RITCHIE EXPLORATION, INC. Zone TORONTO
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation _____
Co. Rep./Geo. ROCKY MILFORD Cont. WHITE #9 Est. Ft. of Pay _____
Location: Sec. 28 Twp. 5S Rge. 22W Co. NORTON State KS

Interval Tested	<u>3403-3445</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>42</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>3398</u>	Drill Collar - 2.25 Ft. Run	_____
Bottom Packer Depth	<u>3403</u>	Mud Wt.	<u>9.0</u> lb/Gal.
Total Depth	<u>3445</u>	Viscosity	<u>43</u>
		Filtrate	_____

Tool Open @ 7:34 A.M. Initial Blow 1/2" BLOW THROUGHOUT OPENING

Final Blow NO BLOW - FLUSH TOOL - NO BLOW

Recovery - Total Feet 10 Flush Tool? YES

Rec. <u>10</u>	Feet of	<u>MUD (OIL SPOTS IN TOOL)</u>
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____

BHT 105 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1689.9 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 23.9 PSI @ (depth) 3410 w / Clock No. 14074

(C) First Final Flow Pressure 23.9 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 755.8 PSI @ (depth) 3440 w / Clock No. 23839

(E) Second Initial Flow Pressure 29.6 PSI AK1 Recorder No. _____ Range _____

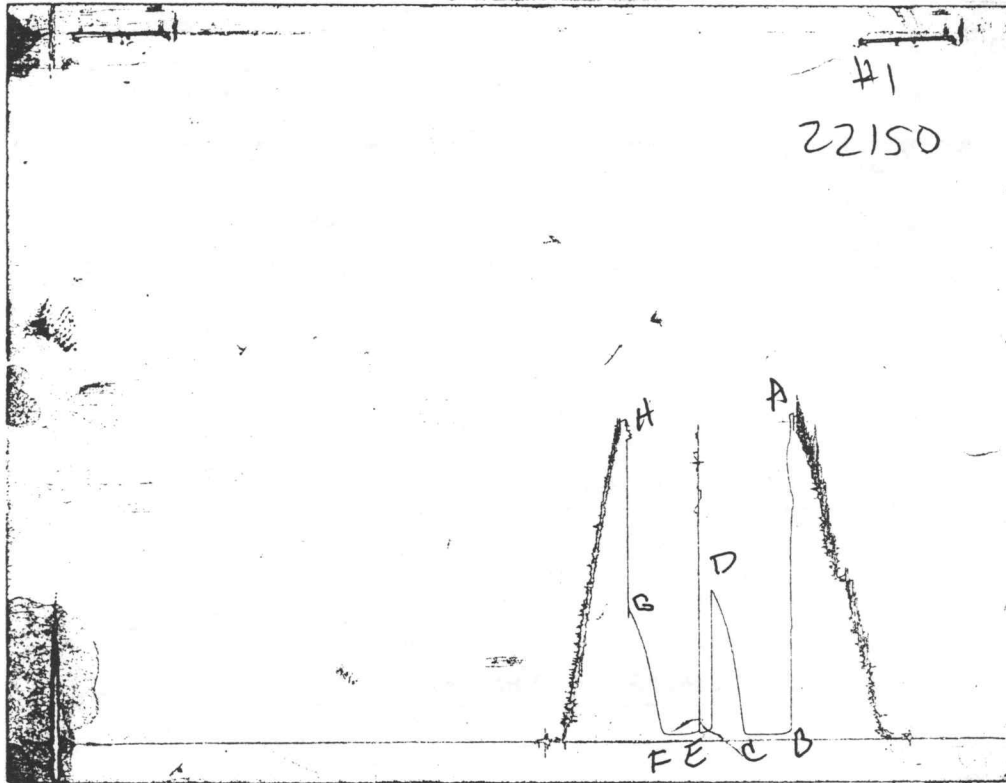
(F) Second Final Flow Pressure 29.7 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 663.7 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1618.0 PSI Initial Shut-in 30 Final Shut-in 30

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(A) INITIAL HYDROSTATIC MUD	1655	1689.9
(B) FIRST INITIAL FLOW PRESSURE	29	23.9
(C) FIRST FINAL FLOW PRESSURE	29	23.9
(D) INITIAL CLOSED-IN PRESSURE	760	755.8
(E) SECOND INITIAL FLOW PRESSURE	38	29.6
(F) SECOND FINAL FLOW PRESSURE	38	29.69
(G) FINAL CLOSED-IN PRESSURE	663	663.7
(H) FINAL HYDROSTATIC MUD	1626	1618

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Drill-Stem Test Data

Well Name #1 WHITE 28A Test No. 2 Date 9/19/94
Company RITCHIE EXPLORATION, INC. Zone LKC TOP & 35
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation _____
Co. Rep./Geo. ROCKY MILFORD Cont. WHITE #9 Est. Ft. of Pay _____
Location: Sec. 28 Twp. 5S Rge. 22W Co. NORTON State KS

Interval Tested	<u>3445-3496</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>51</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>3440</u>	Drill Collar - 2.25 Ft. Run	_____
Bottom Packer Depth	<u>3445</u>	Mud Wt.	<u>9.1</u> lb/Gal.
Total Depth	<u>3496</u>	Viscosity	<u>43</u>
		Filtrate	<u>11.3</u>

Tool Open @ 8:25 P.M. Initial Blow 1/2" BLOW BUILDING TO BOTTOM OF BUCKET IN 15 MIN

Final Blow WEAK SURFACE BLOW BUILDING TO BOTTOM OF BUCKET IN 31 MIN

Recovery - Total Feet 425 Flush Tool? NO

Rec. <u>5</u>	Feet of	<u>OIL & MUD CUT WATER 20%OIL/55%WATER/25%MUD</u>
Rec. <u>420</u>	Feet of	<u>SLIGHT OIL STAINED MUDDY WATER 75%WATER/25%MUD</u>
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____

BHT 106 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.17 @ _____ °F Chlorides 52000 ppm Recovery Chlorides 600 ppm System

(A) Initial Hydrostatic Mud 1708.1 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 64.5 PSI @ (depth) 3451 w / Clock No. 23935

(C) First Final Flow Pressure 117.6 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 1073.2 PSI @ (depth) 3492 w / Clock No. 14074

(E) Second Initial Flow Pressure 158.9 PSI AK1 Recorder No. _____ Range _____

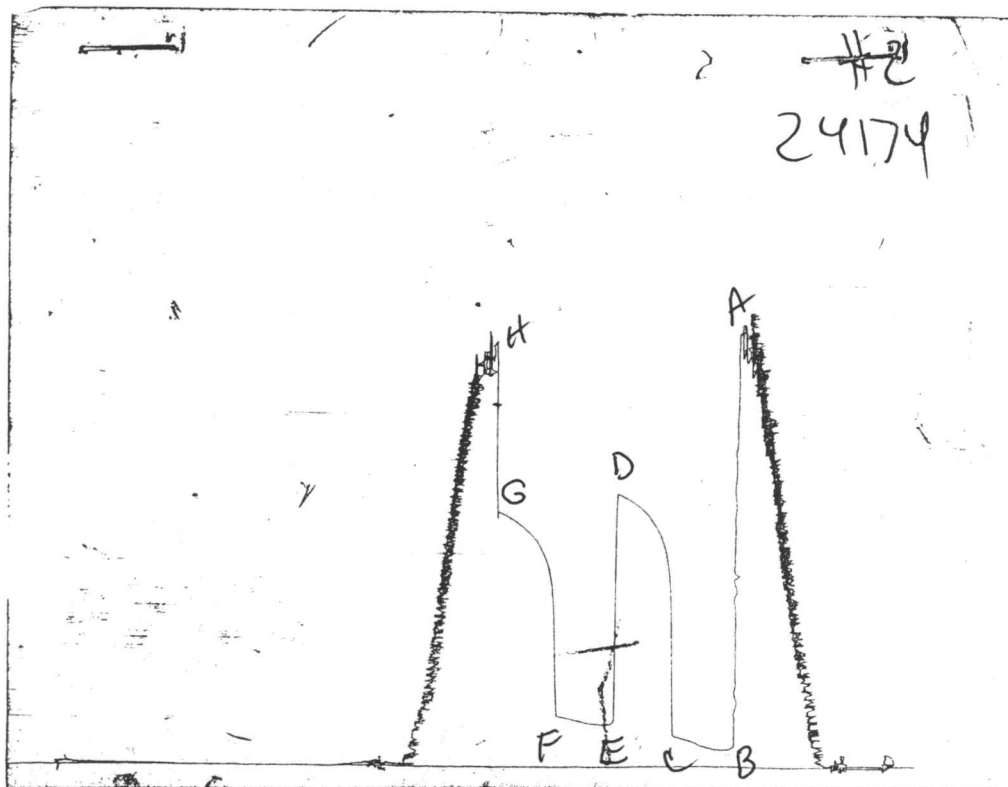
(F) Second Final Flow Pressure 188.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 995.4 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1662.4 PSI Initial Shut-in 45 Final Shut-in 45

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	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1742	1708.1
(B) FIRST INITIAL FLOW PRESSURE	52	64.5
(C) FIRST FINAL FLOW PRESSURE	112	117.6
(D) INITIAL CLOSED-IN PRESSURE	1092	1073.2
(E) SECOND INITIAL FLOW PRESSURE	164	158.9
(F) SECOND FINAL FLOW PRESSURE	194	188.3
(G) FINAL CLOSED-IN PRESSURE	1009	995.4
(H) FINAL HYDROSTATIC MUD	1674	1662.4

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Drill-Stem Test Data

Well Name #1 WHITE 28A Test No. 3 Date 9/19/94
Company RITCHIE EXPLORATION, INC. Zone LKC 50-90
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation _____
Co. Rep./Geo. ROCKY MILFORD Cont. WHITE #9 Est. Ft. of Pay _____
Location: Sec. 28 Twp. 5S Rge. 22W Co. NORTON State KS

Interval Tested 3491-3526 Drill Pipe Size 4.5" XH
Anchor Length 37 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth _____ Drill Collar - 2.25 Ft. Run 9.2
Bottom Packer Depth 3491 Mud Wt. _____ lb/Gal.
Total Depth 3526 Viscosity 47 Filtrate 11.2

Tool Open @ 11:02 A.M. Initial Blow WEAK 1/4" BLOW BUILDING TO 5"

Final Blow SURFACE BLOW BUILDING TO 3 1/2"

Recovery - Total Feet 105 Flush Tool? NO

Rec. 45 Feet of MUDDY WATER WITH OIL SPOTS 60%WATER/40%MUD
Rec. 60 Feet of MUDDY WATER 60%WATER/40%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 108 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.185 @ _____ °F Chlorides 34000 ppm Recovery Chlorides 1000 ppm System

(A) Initial Hydrostatic Mud 1733.2 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 38.5 PSI @ (depth) 3494 w / Clock No. 23839

(C) First Final Flow Pressure 45.9 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 1237.7 PSI @ (depth) 3521 w / Clock No. 23935

(E) Second Initial Flow Pressure 67.5 PSI AK1 Recorder No. _____ Range _____

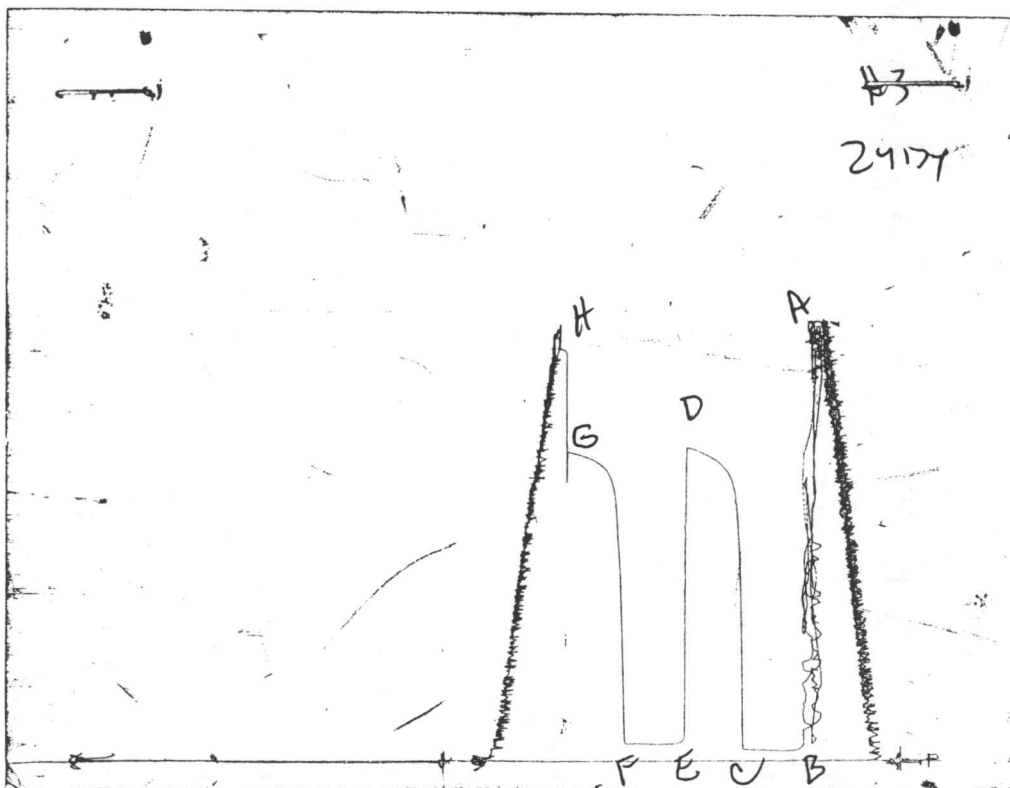
(F) Second Final Flow Pressure 67.5 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1220.4 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1715.7 PSI Initial Shut-in 45 Final Shut-in 45

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	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1736	1733.2
(B) FIRST INITIAL FLOW PRESSURE	37	38.5
(C) FIRST FINAL FLOW PRESSURE	44	45.9
(D) INITIAL CLOSED-IN PRESSURE	1236	1237.7
(E) SECOND INITIAL FLOW PRESSURE	52	67.5
(F) SECOND FINAL FLOW PRESSURE	67	67.5
(G) FINAL CLOSED-IN PRESSURE	1213	1220.4
(H) FINAL HYDROSTATIC MUD	1713	1715.7

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Drill-Stem Test Data

Well Name #1 WHITE 28A Test No. 4 Date 9/21/94
Company RITCHIE EXPLORATION, INC. Zone LKC
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation _____
Co. Rep./Geo. ROCKY MILFORD Cont. WHITE #9 Est. Ft. of Pay _____
Location: Sec. 28 Twp. 5S Rge. 22W Co. NORTON State KS

Interval Tested 3582-3615 Drill Pipe Size 4.5" XH
Anchor Length 33 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3577 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3582 Mud Wt. 9.2 lb/Gal.
Total Depth 3615 Viscosity 48 Filtrate 11.2

Tool Open @ 4:15 A.M. Initial Blow 1" BLOW BUILDING TO BOTTOM OF BUCKET IN 4 MIN (BLOW BA TO 7")

Final Blow 1" BLOW BUILDING TO BOTTOM OF BUCKET IN 7 MIN (BLOW BACK BUILT TO BOTTOM OF BUCKET)

Recovery - Total Feet 350 Flush Tool? NO

Rec. 515 Feet of GAS IN PIPE
Rec. 230 Feet of CLEAN GASSY OIL 15%GAS/85%OIL
Rec. 120 Feet of GASSY HEAVY OIL CUT MUD 10%GAS/40%OIL/50%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 108 °F Gravity 39 °API @ 80 °F Corrected Gravity 37 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1783.4 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 91.9 PSI @ (depth) 3587 w / Clock No. 30416

(C) First Final Flow Pressure 100.5 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 891.4 PSI @ (depth) 3610 w / Clock No. 23839

(E) Second Initial Flow Pressure 142.7 PSI AK1 Recorder No. _____ Range _____

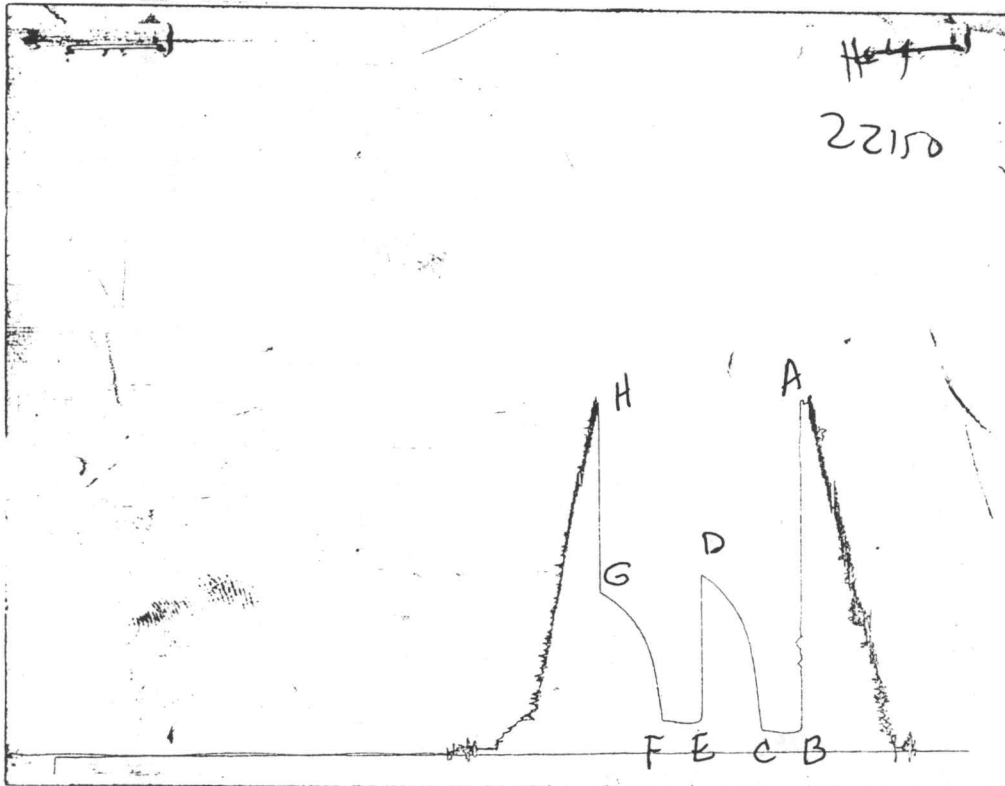
(F) Second Final Flow Pressure 155.1 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 805.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1772.6 PSI Initial Shut-in 45 Final Shut-in 45

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(A) INITIAL HYDROSTATIC MUD	1783	1783.4
(B) FIRST INITIAL FLOW PRESSURE	86	91.9
(C) FIRST FINAL FLOW PRESSURE	105	100.5
(D) INITIAL CLOSED-IN PRESSURE	895	891.4
(E) SECOND INITIAL FLOW PRESSURE	144	142.7
(F) SECOND FINAL FLOW PRESSURE	163	155.1
(G) FINAL CLOSED-IN PRESSURE	798	805.2
(H) FINAL HYDROSTATIC MUD	1774	1772.6

DST #	CALCULATED RECOVERY ANALYSIS					DRILL	PIPE		
	4	TICKET					7419		
SAMPLE	TOTAL	GAS	OIL			WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	230	15	34.5	85	195.5		0		0
2	120	10	12	40	48		0	50	60
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	350	13.285714	46.5	69.6	243.5	0	0	17.1	60

		HRS	BBL/DAY
BBL OIL=	3.46257	*	1 83.102
BBL WATER=	0	*	0
BBL MUD=	0.8532		
BBL GAS	0.66123		

