

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name MAURICE FOOS #1 Test No. 1 Date 11/27/93
Company RITCHIE EXPLORATION, INC. Zone LKC-"C"
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation 2606
Co. Rep./Geo. KITT NOAH Cont. WHITE & ELLIS RIG #9 Est. Ft. of Pay _____
Location: Sec. 27 Twp. 14S Rge. 29W Co. GOVE State KS

Interval Tested 3712-3737 Drill Pipe Size 4.5" XH
Anchor Length 25 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3707 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3712 Mud Wt. 8.9 lb/Gal.
Total Depth 3737 Viscosity 51 Filtrate 9

Tool Open @ 2:10 Initial Blow VERY WEAK BLOW BUILDING TO 2"
ISI: BLED OFF BLOW - NO RETURN
Final Blow VERY WEAK BLOW BUILDING TO 3/4"
FSI: BLED OFF BLOW - NO RETURN

Recovery - Total Feet 20 Flush Tool? NO

Rec. 20 Feet of HEAVY OIL CUT MUD-32% OIL/ 68% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

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

(A) Initial Hydrostatic Mud 1816.4 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 45.3 PSI @ (depth) 3714 w / Clock No. 25828

(C) First Final Flow Pressure 46.4 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 915.3 PSI @ (depth) 3734 w / Clock No. 26199

(E) Second Initial Flow Pressure 55.3 PSI AK1 Recorder No. _____ Range _____

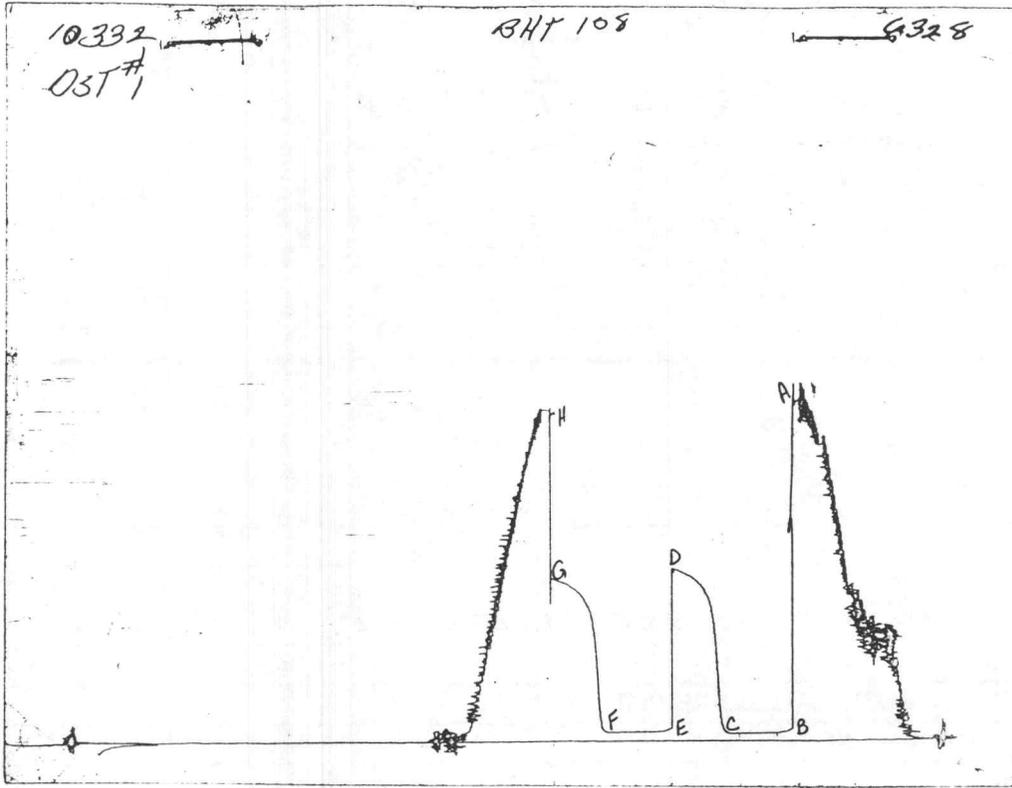
(F) Second Final Flow Pressure 55.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 864.2 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1755.3 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative PETE WAGGONER

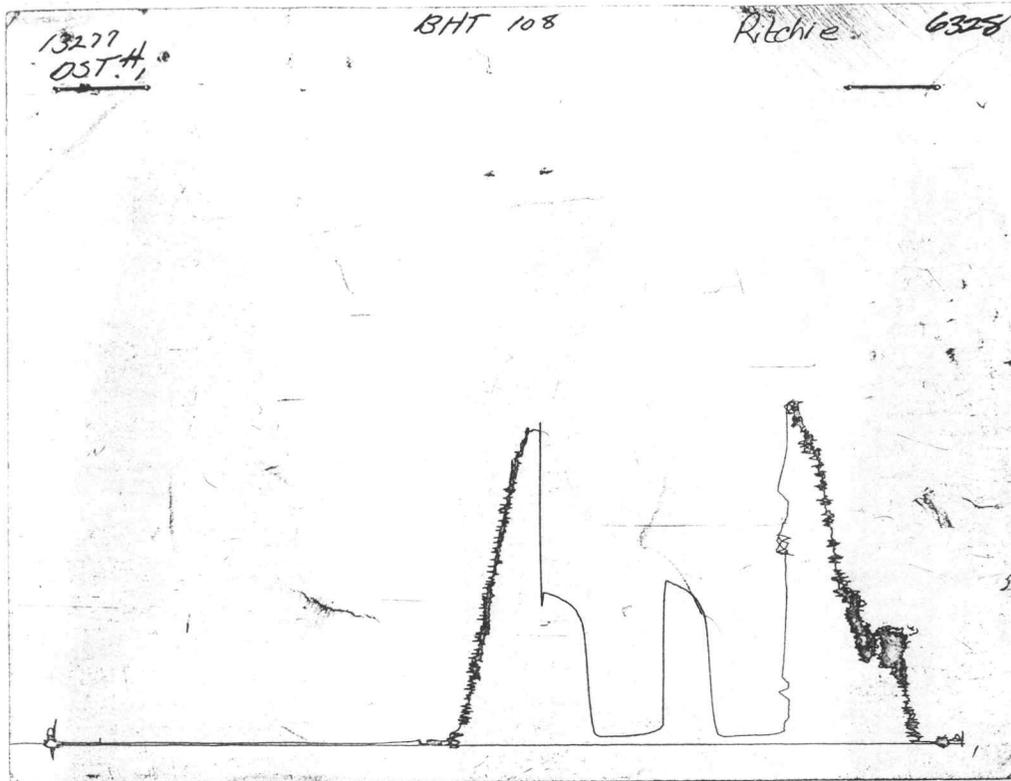
CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1804	1816.4
(B) FIRST INITIAL FLOW PRESSURE	40	45.3
(C) FIRST FINAL FLOW PRESSURE	40	46.4
(D) INITIAL CLOSED-IN PRESSURE	912	915.3
(E) SECOND INITIAL FLOW PRESSURE	50	55.3
(F) SECOND FINAL FLOW PRESSURE	50	55.3
(G) FINAL CLOSED-IN PRESSURE	861	864.2
(H) FINAL HYDROSTATIC MUD	1753	1755.3

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1804	1812.9
(B) FIRST INITIAL FLOW PRESSURE	40	41.3
(C) FIRST FINAL FLOW PRESSURE	40	42.5
(D) INITIAL CLOSED-IN PRESSURE	912	909.4
(E) SECOND INITIAL FLOW PRESSURE	50	57.1
(F) SECOND FINAL FLOW PRESSURE	50	57.1
(G) FINAL CLOSED-IN PRESSURE	861	859.4
(H) FINAL HYDROSTATIC MUD	1753	1749.3

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Drill-Stem Test Data

Well Name MAURICE FOOS #1 Test No. 2 Date 11/28/93
Company RITCHIE EXPLORATION, INC. Zone LKC-"E-F"
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation 2606
Co. Rep./Geo. KITT NOAH Cont. WHITE & ELLIS RIG #9 Est. Ft. of Pay _____
Location: Sec. 27 Twp. 14S Rge. 29W Co. GOVE State KS

Interval Tested 3765-3797 Drill Pipe Size 4.5" XH
Anchor Length 32 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3760 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3765 Mud Wt. 8.9 lb/Gal.
Total Depth 3797 Viscosity 51 Filtrate 9

Tool Open @ 7:20 PM Initial Blow WEAK BLOW BUILDING TO BOTTOM IN 17 MINUTES
ISI: BLED OFF BLOW - NO RETURN
Final Blow VERY WEAK BLOW BUILDING TO 9"
FSI: BLED OFF BLOW - NO RETURN

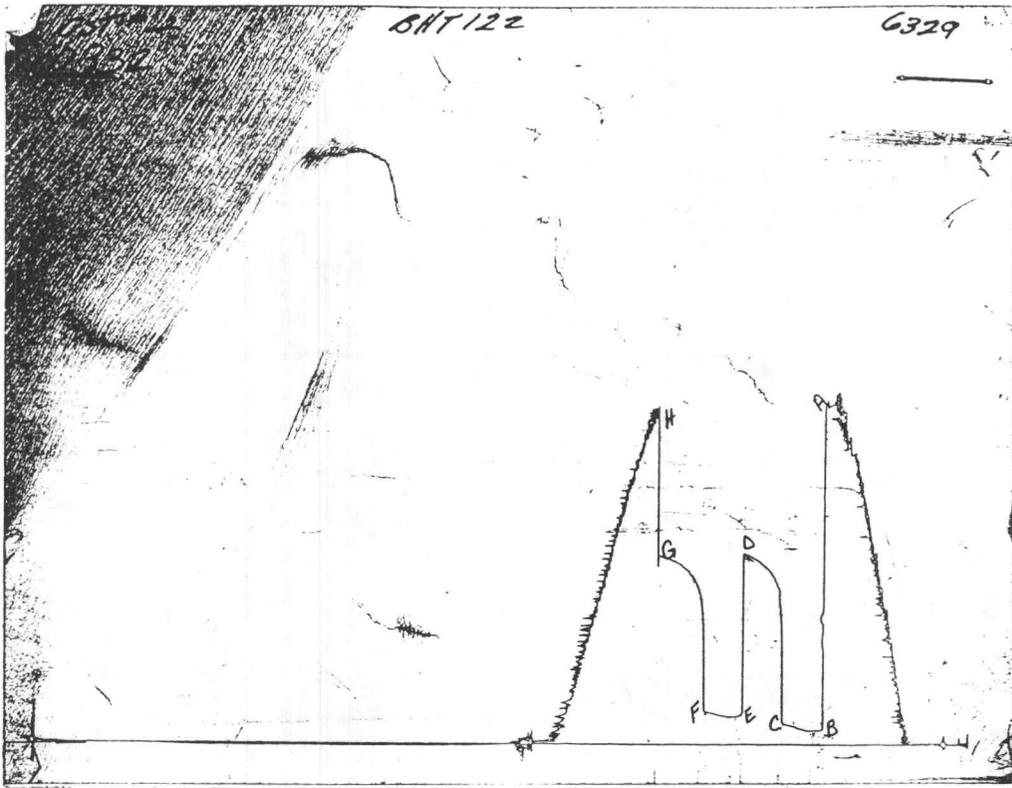
Recovery - Total Feet 260 Flush Tool? NO
Rec. 260 Feet of MUD CUT WATER- 60% WTR/ 40% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 122 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.1 @ _____ °F Chlorides 60000 ppm Recovery Chlorides 1300 ppm System

(A) Initial Hydrostatic Mud 1816.4 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 78.6 PSI @ (depth) 3767 w / Clock No. 25828
(C) First Final Flow Pressure 115.3 PSI AK1 Recorder No. 10332 Range 4050
(D) Initial Shut-in Pressure 1046.4 PSI @ (depth) 3794 w / Clock No. 26199
(E) Second Initial Flow Pressure 145.3 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 178.6 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 999.7 PSI Initial Opening 30 Final Flow 30
(H) Final Hydrostatic Mud 1785.3 PSI Initial Shut-in 30 Final Shut-in 30

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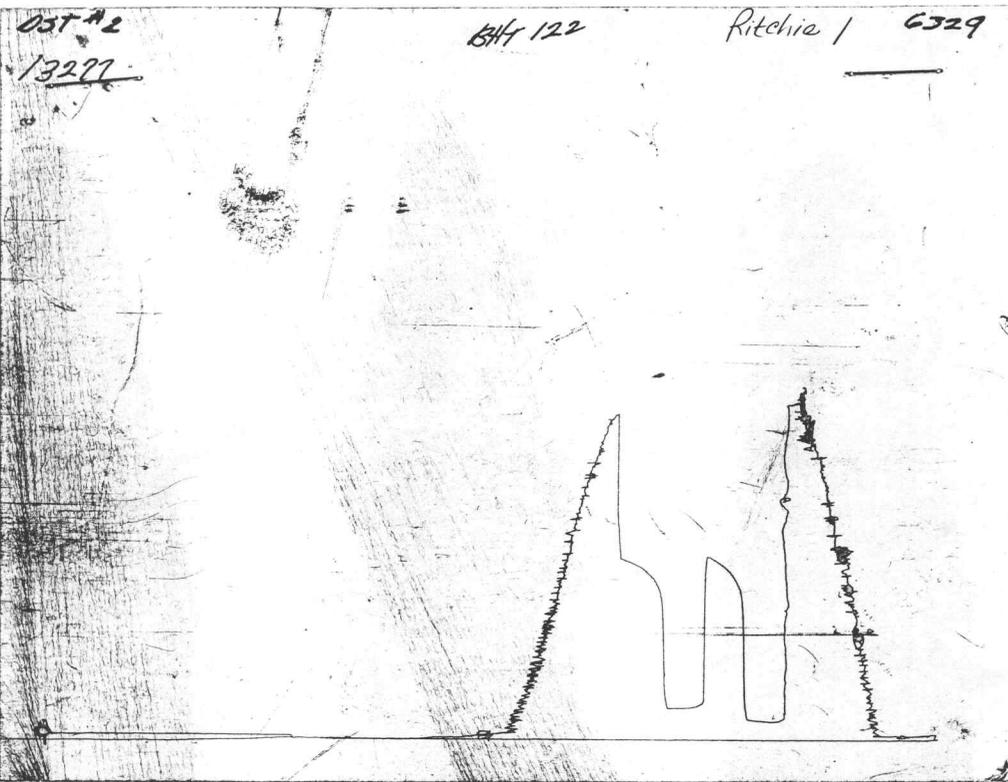
CHART PAGE



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	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1804	1816.4
(B) FIRST INITIAL FLOW PRESSURE	70	78.6
(C) FIRST FINAL FLOW PRESSURE	111	115.3
(D) INITIAL CLOSED-IN PRESSURE	1014	1046.4
(E) SECOND INITIAL FLOW PRESSURE	141	145.3
(F) SECOND FINAL FLOW PRESSURE	172	178.6
(G) FINAL CLOSED-IN PRESSURE	993	999.7
(H) FINAL HYDROSTATIC MUD	1783	1785.3

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
AL HYDROSTATIC MUD	1804	1799.2
INITIAL FLOW PRESSURE	70	68.7
FINAL FLOW PRESSURE	111	106.7
AL CLOSED-IN PRESSURE	1014	1009.7
D INITIAL FLOW PRESSURE	141	138.6
D FINAL FLOW PRESSURE	172	165.7
CLOSED-IN PRESSURE	993	991.5
HYDROSTATIC MUD	1783	1779.6

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Drill-Stem Test Data

Well Name MAURICE FOOS #1 Test No. 3 Date 11/29/93
Company RITCHIE EXPLORATION, INC. Zone LKC-"H-I-J"
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation 2606
Co. Rep./Geo. KITT NOAH Cont. WHITE & ELLIS RIG #9 Est. Ft. of Pay _____
Location: Sec. 27 Twp. 14S Rge. 29W Co. GOVE State KS

Interval Tested 3846-3940 Drill Pipe Size 4.5" XH
Anchor Length 94 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3841 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3846 Mud Wt. 9.1 lb./Gal.
Total Depth 3940 Viscosity 52 Filtrate 8.8

Tool Open @ 4:58 PM Initial Blow WEAK BLOW BUILDING TO 9"
ISI: BLED OFF BLOW - NO RETURN
Final Blow VERY WEAK BLOW BUILDING TO 5.25"
FSI: BLED OFF BLOW - NO RETURN

Recovery - Total Feet 120 Flush Tool? NO

Rec. 65 Feet of GAS IN PIPE
Rec. 90 Feet of VERY STLY GAS & OIL CUT MUD-5%GAS/5%OIL/90%MUD
Rec. 30 Feet of VRY SLTLY GAS & OIL WTRY MUD-1%GAS/4%OIL/25%WTR/70%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

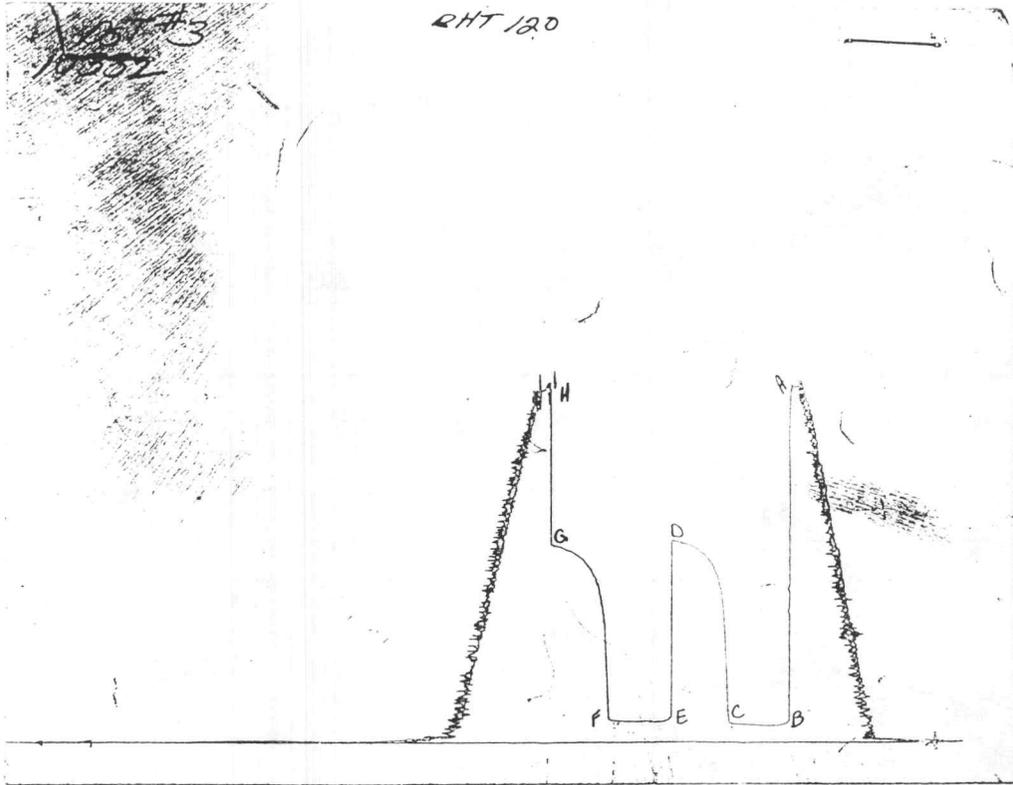
BHT 120 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.25 @ 58 °F Chlorides 38000 ppm Recovery Chlorides 1700 ppm System

(A) Initial Hydrostatic Mud 1886.4 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 85.3 PSI @ (depth) 3848 w / Clock No. 25828
(C) First Final Flow Pressure 96.4 PSI AK1 Recorder No. 10332 Range 4050
(D) Initial Shut-in Pressure 1067.5 PSI @ (depth) 3937 w / Clock No. 26199
(E) Second Initial Flow Pressure 105.3 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 116.4 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 1058.6 PSI Initial Opening 45 Final Flow 45
(H) Final Hydrostatic Mud 1866.4 PSI Initial Shut-in 45 Final Shut-in 45

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CHART PAGE

RHT 120



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1875	1886.4
(B) FIRST INITIAL FLOW PRESSURE	80	85.3
(C) FIRST FINAL FLOW PRESSURE	91	96.4
(D) INITIAL CLOSED-IN PRESSURE	1064	1067.5
(E) SECOND INITIAL FLOW PRESSURE	101	105.3
(F) SECOND FINAL FLOW PRESSURE	111	116.4
(G) FINAL CLOSED-IN PRESSURE	1054	1058.6
(H) FINAL HYDROSTATIC MUD	1865	1866.4

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1875	1869.2
(B) FIRST INITIAL FLOW PRESSURE	80	76.9
(C) FIRST FINAL FLOW PRESSURE	91	89.5
(D) INITIAL CLOSED-IN PRESSURE	1064	1067.3
(E) SECOND INITIAL FLOW PRESSURE	101	99.5
(F) SECOND FINAL FLOW PRESSURE	111	115.8
(G) FINAL CLOSED-IN PRESSURE	1054	1060.9
(H) FINAL HYDROSTATIC MUD	1865	1857.4

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Drill-Stem Test Data

Well Name MAURICE FOOS #1 Test No. 4 Date 11/29/93
Company RITCHIE EXPLORATION, INC. Zone LKC-"K-L"
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation 2606
Co. Rep./Geo. KITT NOAH Cont. WHITE & ELLIS RIG #9 Est. Ft. of Pay _____
Location: Sec. 27 Twp. 14S Rge. 29W Co. GOVE State KS

Interval Tested 3936-4010 Drill Pipe Size 4.5" XH
Anchor Length 74 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3931 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3936 Mud Wt. 9.1 lb/Gal.
Total Depth 4010 Viscosity 48 Filtrate 8.4

Tool Open @ 9:45 PM Initial Blow STRONG BLOW-OFF BOTTOM IN 48 SECONDS
ISI: BLED OFF BLOW-STRONG BLOW BACK OFF BOTTOM IN 8 MINUTES
Final Blow STRONG BLOW-OFF BOTTOM IMMEDIATELY -GAS TO SURFACE IN 20 MIN
FSI: BLED OFF BLOW-STRONG BLOW BUILDING TO 10"-GAS WOULD BURN

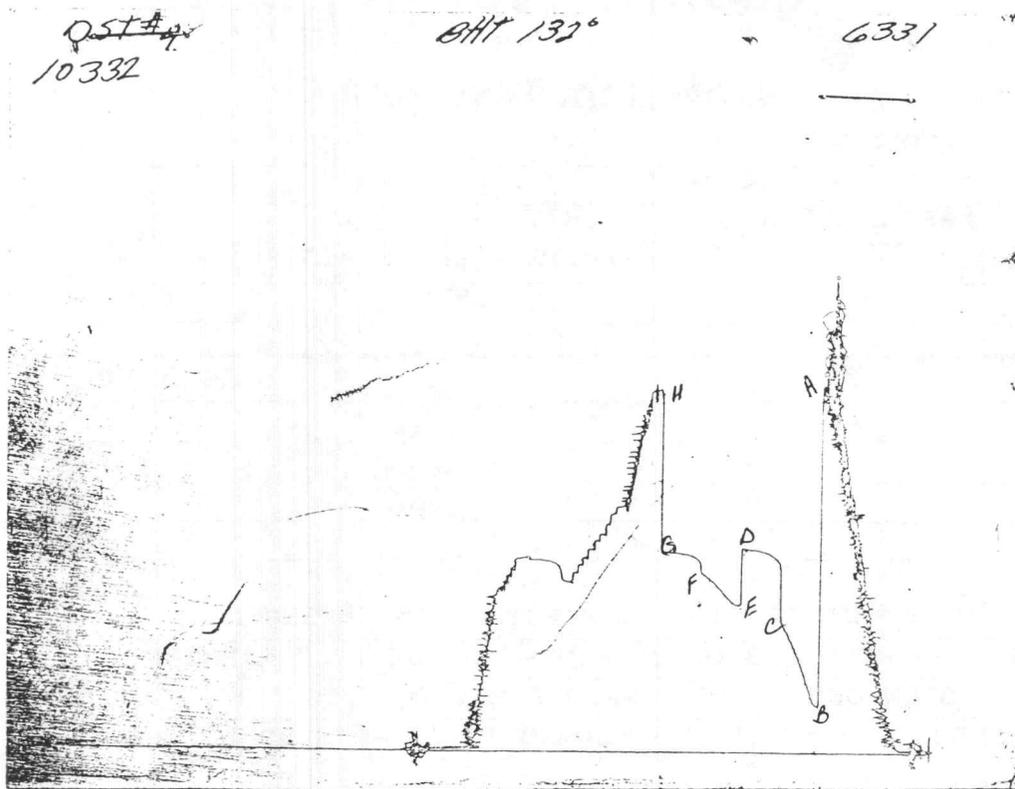
Recovery - Total Feet 3110 Flush Tool? NO
Rec. 3050 Feet of CLEAN GASSY OIL- 50% GAS/ 50% OIL
Rec. 60 Feet of GASSY OIL CUT MUD-20% GAS/ 20% OIL/ 60% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 132 °F Gravity 37 °API @ 70 °F Corrected Gravity 36 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1955.3 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 245.3 PSI @ (depth) 3940 w / Clock No. 25828
(C) First Final Flow Pressure 684.2 PSI AK1 Recorder No. 10332 Range 4050
(D) Initial Shut-in Pressure 1083.1 PSI @ (depth) 4007 w / Clock No. 26199
(E) Second Initial Flow Pressure 774.2 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 953.1 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 1073.1 PSI Initial Opening 30 Final Flow 30
(H) Final Hydrostatic Mud 1924.2 PSI Initial Shut-in 30 Final Shut-in 30

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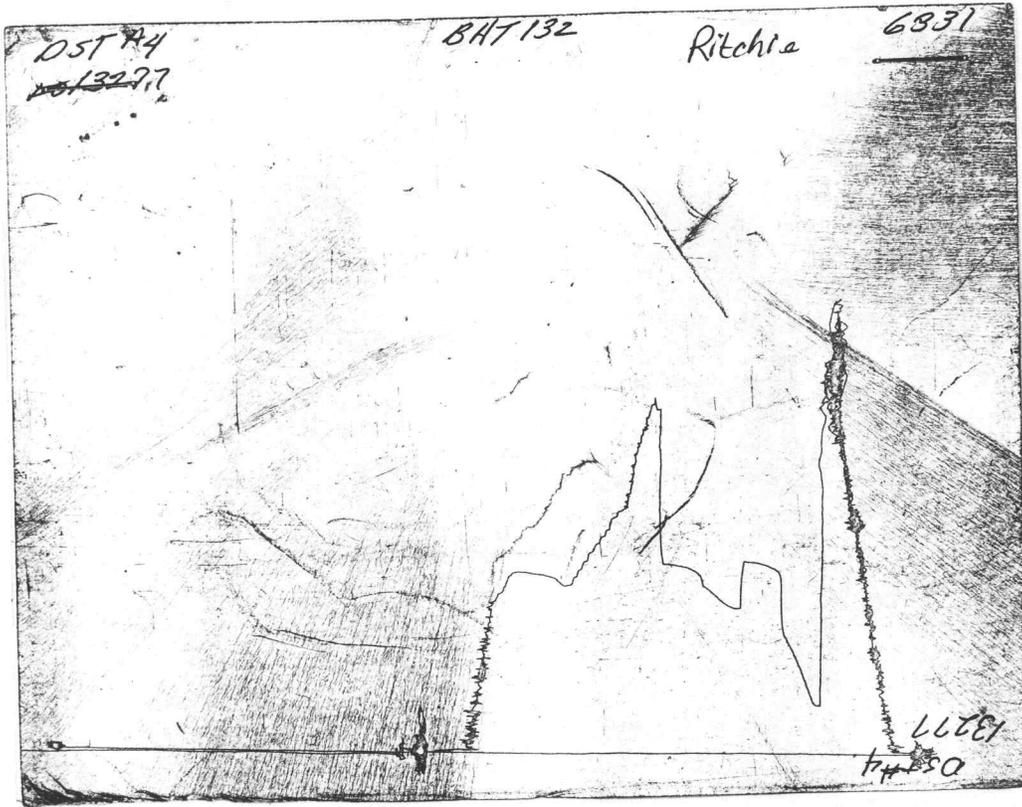
CHART PAGE



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	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1946	1955.3
(B) FIRST INITIAL FLOW PRESSURE	242	245.3
(C) FIRST FINAL FLOW PRESSURE	678	684.2
(D) INITIAL CLOSED-IN PRESSURE	1074	1083.1
(E) SECOND INITIAL FLOW PRESSURE	770	774.2
(F) SECOND FINAL FLOW PRESSURE	943	953.1
(G) FINAL CLOSED-IN PRESSURE	1064	1073.1
(H) FINAL HYDROSTATIC MUD	1916	1924.2

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1946	1952.8
(B) FIRST INITIAL FLOW PRESSURE	242	240.9
(C) FIRST FINAL FLOW PRESSURE	678	677.2
(D) INITIAL CLOSED-IN PRESSURE	1074	1078.6
(E) SECOND INITIAL FLOW PRESSURE	770	771.6
(F) SECOND FINAL FLOW PRESSURE	943	946.3
(G) FINAL CLOSED-IN PRESSURE	1064	1066.9
(H) FINAL HYDROSTATIC MUD	1916	1918.7

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P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name MAURICE FOOS #1 Test No. 5 Date 11/30/93
Company RITCHIE EXPLORATION, INC. Zone MARM/MYK ST
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation 2606
Co. Rep./Geo. KITT NOAH Cont. WHITE & ELLIS RIG #9 Est. Ft. of Pay _____
Location: Sec. 27 Twp. 14S Rge. 29W Co. GOVE State KS

Interval Tested	<u>4035-4186</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>151</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>4030</u>	Drill Collar - 2.25 Ft. Run	_____
Bottom Packer Depth	<u>4035</u>	Mud Wt.	<u>9.1</u> lb/Gal.
Total Depth	<u>4186</u>	Viscosity	<u>47</u>
		Filtrate	<u>8.4</u>

Tool Open @ 12:36 AM Initial Blow WEAK BLOW BUILDING TO 10"
ISI: BLED OFF BLOW-NO RETURN
Final Blow WEAK BLOW BUILDING TO BOTTOM IN 20 MINUTES
FSI: BLED OFF BLOW - NO RETURN

Recovery - Total Feet 50 Flush Tool? NO

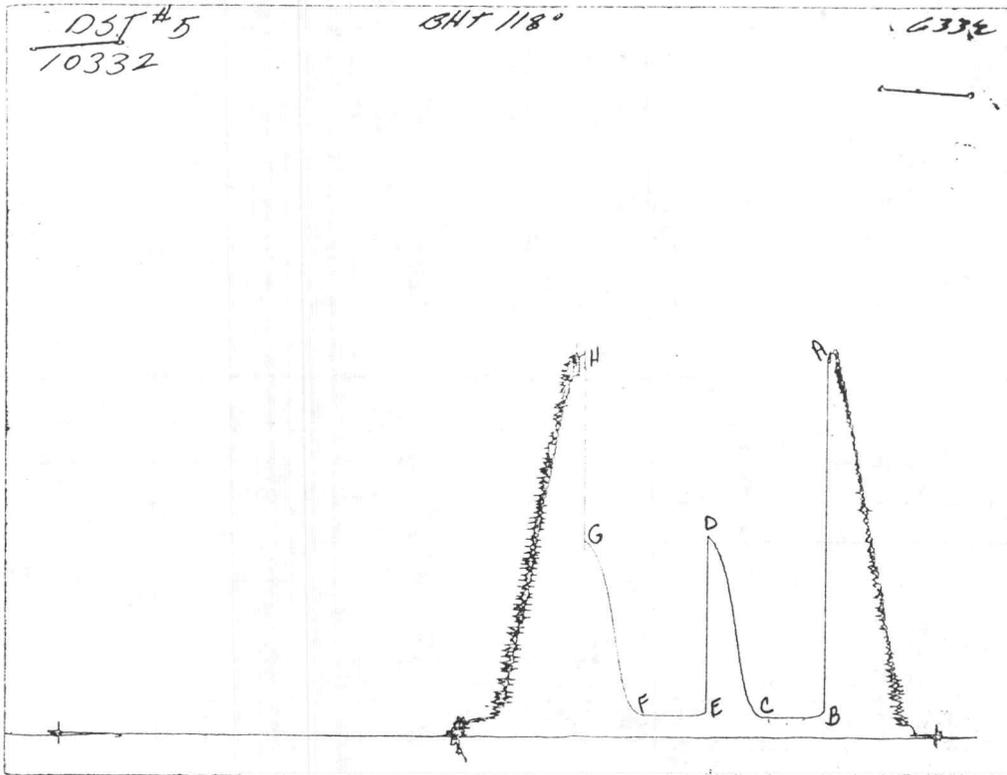
Rec. <u>130</u>	Feet of	<u>GAS IN PIPE</u>
Rec. <u>50</u>	Feet of	<u>SLTLY GAS & OIL CUT MUD-5%GAS/ 15%OIL/ 80% MUD</u>
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____

BHT 118 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud	<u>2033.1</u> PSI	AK1 Recorder No. <u>13277</u>	Range <u>4125</u>
(B) First Initial Flow Pressure	<u>105.3</u> PSI	@ (depth) <u>4037</u>	w / Clock No. <u>25828</u>
(C) First Final Flow Pressure	<u>106.4</u> PSI	AK1 Recorder No. <u>10332</u>	Range <u>4050</u>
(D) Initial Shut-in Pressure	<u>1077.5</u> PSI	@ (depth) <u>4183</u>	w / Clock No. <u>26199</u>
(E) Second Initial Flow Pressure	<u>125.3</u> PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure	<u>126.4</u> PSI	@ (depth) _____	w / Clock No. _____
(G) Final Shut-in Pressure	<u>1039.7</u> PSI	Initial Opening <u>45</u>	Final Flow <u>45</u>
(H) Final Hydrostatic Mud	<u>2014.2</u> PSI	Initial Shut-in <u>45</u>	Final Shut-in <u>45</u>

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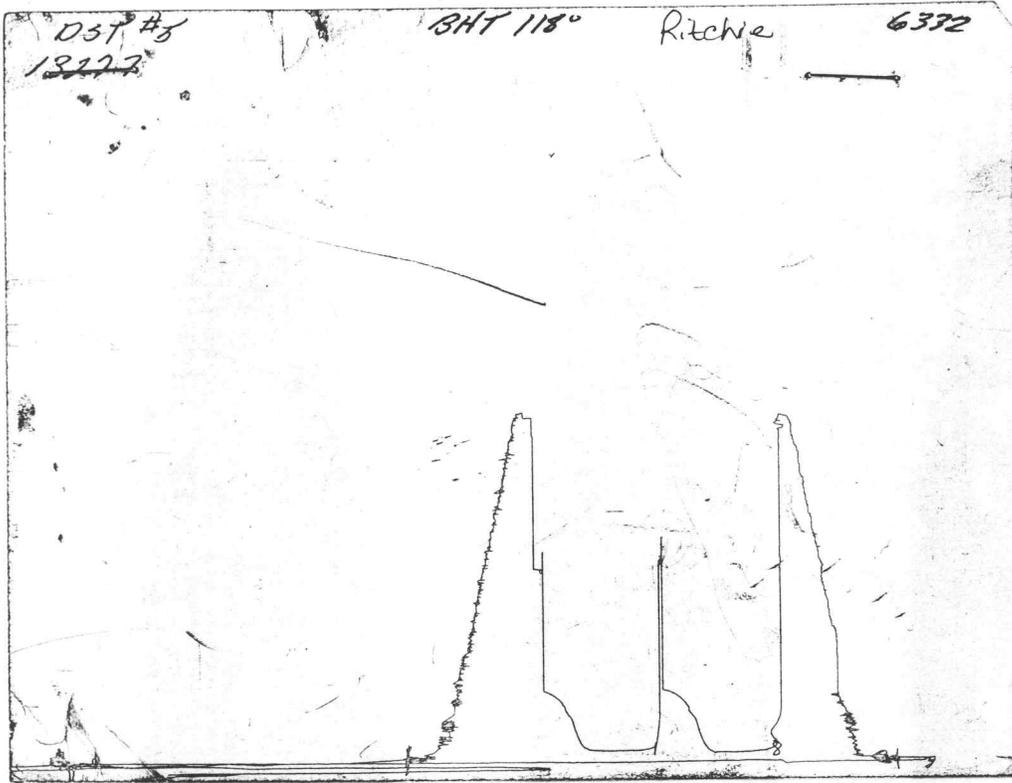
CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2028	2033.1
(B) FIRST INITIAL FLOW PRESSURE	101	105.3
(C) FIRST FINAL FLOW PRESSURE	101	106.4
(D) INITIAL CLOSED-IN PRESSURE	1074	1077.5
(E) SECOND INITIAL FLOW PRESSURE	121	125.3
(F) SECOND FINAL FLOW PRESSURE	121	126.4
(G) FINAL CLOSED-IN PRESSURE	1034	1039.7
(H) FINAL HYDROSTATIC MUD	2008	2014.2

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2028	2021.9
(B) FIRST INITIAL FLOW PRESSURE	101	invalid
(C) FIRST FINAL FLOW PRESSURE	101	invalid
(D) INITIAL CLOSED-IN PRESSURE	1074	invalid
(E) SECOND INITIAL FLOW PRESSURE	121	invalid
(F) SECOND FINAL FLOW PRESSURE	121	invalid
(G) FINAL CLOSED-IN PRESSURE	1034	invalid
(H) FINAL HYDROSTATIC MUD	2008	2003.8

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name MAURICE FOOS #1 Test No. 6 Date 12/1/93
Company RITCHIE EXPLORATION, INC. Zone FT SCT/JOHNS
Address 125 N MARKET SUITE 1000 WICHITA KS 67202 Elevation 2606
Co. Rep./Geo. KITT NOAH Cont. WHITE & ELLIS RIG #9 Est. Ft. of Pay _____
Location: Sec. 27 Twp. 14S Rge. 29W Co. GOVE State KS

Interval Tested 4176-4290 Drill Pipe Size 4.5" XH
Anchor Length 114 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4171 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4176 Mud Wt. 9.1 lb/Gal.
Total Depth 4290 Viscosity 47 Filtrate 8.6

Tool Open @ 10:30 PM Initial Blow WEAK BLOW BUILDING TO 6"
ISI: BLED OFF BLOW - NO RETURN
Final Blow WEAK BLOW BUILDING TO 3.5"
FSI: BLED OFF BLOW - NO RETURN

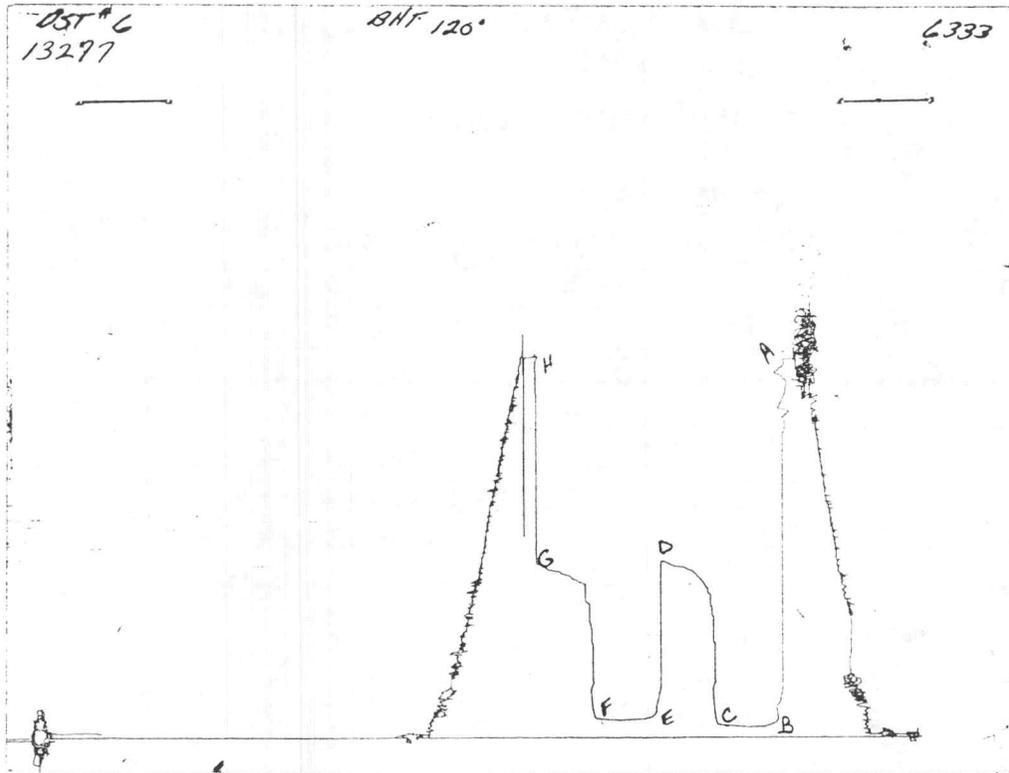
Recovery - Total Feet 140 Flush Tool? NO
Rec. 140 Feet of SLIGHTLY OIL CUT MUD-5% OIL/ 95% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 120 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2066.9 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 62.5 PSI @ (depth) 4178 w / Clock No. 25828
(C) First Final Flow Pressure 78.1 PSI AK1 Recorder No. 10332 Range 4050
(D) Initial Shut-in Pressure 984.7 PSI @ (depth) 4287 w / Clock No. 26199
(E) Second Initial Flow Pressure 115.8 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 116.9 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 966.9 PSI Initial Opening 45 Final Flow 45
(H) Final Hydrostatic Mud 2064.7 PSI Initial Shut-in 45 Final Shut-in 45

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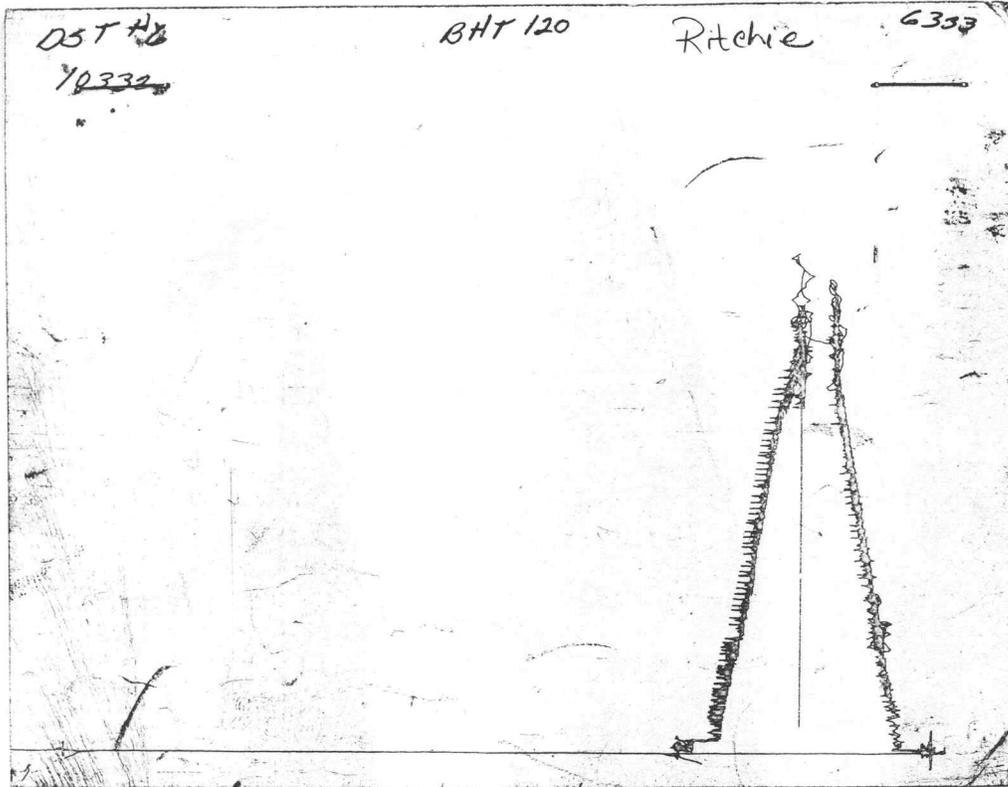
CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2060	2066.9
(B) FIRST INITIAL FLOW PRESSURE	64	62.5
(C) FIRST FINAL FLOW PRESSURE	75	78.1
(D) INITIAL CLOSED-IN PRESSURE	978	984.7
(E) SECOND INITIAL FLOW PRESSURE	108	115.8
(F) SECOND FINAL FLOW PRESSURE	108	116.9
(G) FINAL CLOSED-IN PRESSURE	968	966.9
(H) FINAL HYDROSTATIC MUD	2060	2064.7

CHART PAGE



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FIELD
READING

OFFICE
READING

(A) INITIAL HYDROSTATIC MUD	2060	clock stop
(B) FIRST INITIAL FLOW PRESSURE	64	
(C) FIRST FINAL FLOW PRESSURE	75	
(D) INITIAL CLOSED-IN PRESSURE	978	
(E) SECOND INITIAL FLOW PRESSURE	108	
(F) SECOND FINAL FLOW PRESSURE	108	
(G) FINAL CLOSED-IN PRESSURE	968	
(H) FINAL HYDROSTATIC MUD	2060	