



Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

Company Messman & Rinehart Oil Company Lease & Well No. Woods #1
Elevation 2076 Kelly Bushings Formation Foraker Ticket Number 7884
Date May 8, 1967 Sec. 22 Twp. 26 Range 16 County Edwards State Kansas
Test Approved by J. G. Klein Western Representative George Tew

Formation Test No. 4 O.K. Misrun Interval Tested From 2880' to 2891' Total Depth 3179'
Size Main Hole 7 7/8 at Hole 7 7/8 Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 2880 Ft. Size 6 3/4 Packer Depth 2875 Ft. Size 6 3/4

Straddle Yes No Conv. B.T. Damaged Yes No
Packer Depth 2891 Ft. Size 6 3/4
Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 XH Anchor Length 11 Ft. Size 5 1/2 OD

RECORDERS Depth 2870 Ft. Clock No. 6896 Depth 2885 Ft. Clock No. 6866
Top Make Kuster Cap. 4150 No. 2605 Inside Outside Bottom Make Kuster Cap. 4200 No. 2559 Inside Outside
Below Straddle: Depth 2897 Clock No. 155 Inside Outside Depth 2899 Ft. Clock No. 112 Inside Outside
Top Make Western Cap. 4000 No. 44 Inside Outside Bottom Make Western Cap. 4000 No. 4 Inside Outside

Time Set Packer 2:07 A M
Tool Open I.F.P. From 2:10 M to 2:20 M Hr. 10 Min. From (B) 88 P.S.I. To (C) 129 P.S.I.
Tool Closed I.C.I.P. From 2:20 M. to 2:50 M. Hr. 30 Min. (D) 997 P.S.I.
Tool Open F.F.P. From 2:50 M. to 4:20 M. 1 Hr. 30 Min. From (E) 189 P.S.I. To (F) 761 P.S.I.
Tool Closed F.C.I.P. From 4:20 M. to 5:05 M. Hr. 45 Min. (G) 987 P.S.I.
Initial Hydrostatic Pressure (A) 1552 P.S.I. Final Hydrostatic Pressure (H) 1552 P.S.I.

SURFACE Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow
INFORMATION _____ M. _____
_____ M. _____
_____ M. _____

BLOW Good throughout Bottom Choke Size 3/4 In.
Did Well Flow Yes No Recovery Total Ft. 1624' salt water

Reversed Out Yes No Mud Type starch Viscosity 53 Weight 9.9 Maximum Temp. 103 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes

Length Drill Pipe 7852 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe _____ ft. I.D. Weight Pipe _____ in. Length Drill Collars _____ ft.
I. D. Drill Collars _____ in. Length D.S.T. Tool 49 ft.

Remarks _____

WESTERN TESTING CO., INC.
Pressure Data

Date May 8, 1967

Test Ticket No. 7884

Recorder No. 2605

Capacity 4150

Location 2870 Ft.

Clock No. 6896 Elevation

2076 Kelly Bushings

Well Temperature 103 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1552</u>	P.S.I.	<u>2:10 A</u>	M
B First Initial Flow Pressure	<u>88</u>	P.S.I.	<u>10</u>	<u>8</u> Mins.
C First Final Flow Pressure	<u>129</u>	P.S.I.	<u>30</u>	<u>31</u> Mins.
D Initial Closed-in Pressure	<u>997</u>	P.S.I.	<u>90</u>	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>189</u>	P.S.I.	<u>45</u>	<u>45</u> Mins.
F Second Final Flow Pressure	<u>761</u>	P.S.I.		
G Final Closed-in Pressure	<u>987</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1552</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Press.
Breakdown: 1 Inc.
of 5 mins. and a
final inc. of 3 Min.

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 1 Min.

Second Flow Pressure
Breakdown: 18 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>88</u>	<u>0</u>	<u>129</u>	<u>0</u>	<u>189</u>	<u>0</u>	<u>761</u>
P 2 <u>5</u>	<u>101</u>	<u>3</u>	<u>961</u>	<u>5</u>	<u>205</u>	<u>3</u>	<u>981</u>
P 3 <u>8</u>	<u>129</u>	<u>6</u>	<u>985</u>	<u>10</u>	<u>267</u>	<u>6</u>	<u>983</u>
P 4 _____		<u>9</u>	<u>991</u>	<u>15</u>	<u>324</u>	<u>9</u>	<u>985</u>
P 5 _____		<u>12</u>	<u>993</u>	<u>20</u>	<u>371</u>	<u>12</u>	<u>987</u>
P 6 _____		<u>15</u>	<u>995</u>	<u>25</u>	<u>417</u>	<u>15</u>	<u>987</u>
P 7 _____		<u>18</u>	<u>996</u>	<u>30</u>	<u>455</u>	<u>18</u>	<u>987</u>
P 8 _____		<u>21</u>	<u>997</u>	<u>35</u>	<u>495</u>	<u>21</u>	<u>987</u>
P 9 _____		<u>24</u>	<u>997</u>	<u>40</u>	<u>531</u>	<u>24</u>	<u>987</u>
P10 _____		<u>27</u>	<u>997</u>	<u>45</u>	<u>557</u>	<u>27</u>	<u>987</u>
P11 _____		<u>30</u>	<u>997</u>	<u>50</u>	<u>593</u>	<u>30</u>	<u>987</u>
P12 _____		<u>31</u>	<u>997</u>	<u>55</u>	<u>618</u>	<u>33</u>	<u>987</u>
P13 _____				<u>60</u>	<u>638</u>	<u>36</u>	<u>987</u>
P14 _____				<u>65</u>	<u>668</u>	<u>39</u>	<u>987</u>
P15 _____				<u>70</u>	<u>686</u>	<u>42</u>	<u>987</u>
P16 _____				<u>75</u>	<u>707</u>	<u>45</u>	<u>987</u>
P17 _____				<u>80</u>	<u>725</u>		
P18 _____				<u>85</u>	<u>744</u>		
P19 _____				<u>90</u>	<u>761</u>		
P20 _____							

MER OIL CO
WOODS #1

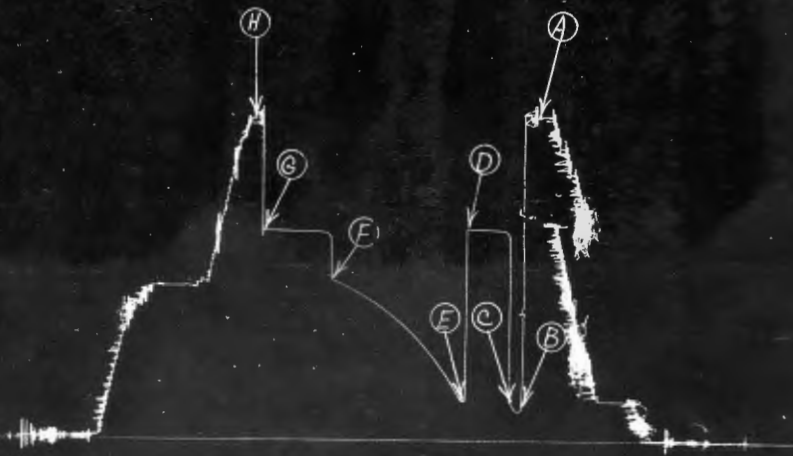
T.K.T.# 7884
Test # 4

Below straddle
selective zone



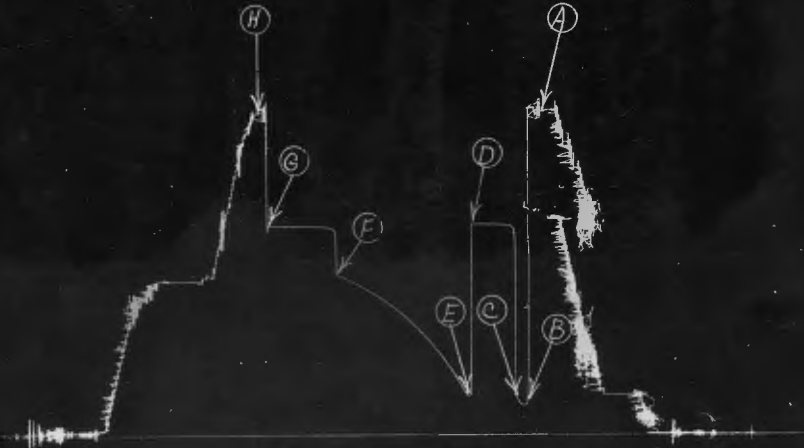
MER OIL CO
WOODS #1

Test # 4
(selective) T.K.T.# 7884
Zone



m & R O.L. Co.
 Woods #1

Test # 4
 (selective) T.K.T. # 7884
 Zone.



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1545	1552	PSI
(B) First Initial Flow Pressure	88	88	PSI
(C) First Final Flow Pressure	137	129	PSI
(D) Initial Closed-in Pressure	995	997	PSI
(E) Second Initial Flow Pressure	195	189	PSI
(F) Second Final Flow Pressure	767	761	PSI
(G) Final Closed-in Pressure	995	987	PSI
(H) Final Hydrostatic Mud	1540	1552	PSI



Home Office: Great Bend, Kansas
P. O. Box 793 SWift 3-7903

Company Messman & Rinehart Oil Company Lease & Well No. Woods #1
Elevation 2076 Kelly Bushings Formation Fort Riley Ticket Number 7882
Date May 7, 1967 Sec. 22 Twp. 26 Range 16 County Edwards State Kansas
Test Approved by J. G. Klein Western Representative George Tew

Formation Test No. 2 O.K. Misrun _____ Interval Tested From 2340' to 2450' Total Depth 3179'
Size Main Hole 7 7/8 Rat Hole 7 7/8 Conv. B.T. _____ Damaged Yes No _____ Conv. _____ B.T. Damaged Yes _____ No _____
Packer Depth 2340 Ft. Size 6 3/4 Packer Depth 2335 Ft. Size 6 3/4
Straddle Yes _____ No _____ Conv. _____ B.T. Damaged Yes _____ No _____
Packer Depth 2450 Ft. Size 6 3/4 25' 5 1/2 anchor
Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 XH Anchor Length 110 Ft. Size 85' D. C.
RECORDERS Depth 2347 Ft. Clock No. 6896 Depth 2350 Ft. Clock No. 6866
Top Make Kuster Cap. 4150 No. 2605 Inside ===== Bottom Make Kuster Cap. 4200 No. 1559 ===== Outside
Below Straddle: Depth 2463 Clock No. 155 Inside ===== Depth 2465 Ft. Clock No. 112 Outside
Top Make Western Cap. 4000 No. 44 Inside ===== Bottom Make Western Cap. 4000 No. 4 Inside ===== Outside

Time Set Packer 4:42A M
Tool Open I.F.P. From 4:45 M to 4:55 M Hr. 10 Min. From (B) 141 P.S.I. To (C) 141 P.S.I.
Tool Closed I.C.I.P. From 4:55A M. to 5:25A M. Hr. 30 Min. (D) 709 P.S.I.
Tool Open F.F.P. From 5:25A M. to 7:25 M. 2 Hr. Min. From (E) 105 P.S.I. To (F) 162 P.S.I.
Tool Closed F.C.I.P. From 7:25 M. to 8:10 M. Hr. 45 Min. (G) 664 P.S.I.
Initial Hydrostatic Pressure (A) 1256 P.S.I. Final Hydrostatic Pressure (H) 1251 P.S.I.

SURFACE Size Choke 1/2 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION _____ M. _____
SEE ATTACHED SHEET _____ M. _____
_____ M. _____

BLOW STRONG. Gas to surface in 10 minutes. Bottom Choke Size 3/4 In.
Did Well Flow Yes _____ No _____ Recovery Total Ft. 320' gas cut drilling mud

Reversed Out Yes No _____ Mud Type starch Viscosity 53 Weight 9.9 Maximum Temp. 92 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____
Type Circ. Sub. plug Did Tool Plug? no Where? _____ Did Packer Hold? yes
Length Drill Pipe 2317 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe _____ ft. I.D. Weight Pipe _____ in. Length Drill Collars _____ ft.
I. D. Drill Collars _____ in. Length D.S.T. Tool 133 ft.

Remarks _____

WESTERN TESTING CO., INC.
Pressure Data

Date May 7, 1967 Test Ticket No. 7882
 Recorder No. 2605 Capacity 4150 Location 2347 Ft.
 Clock No. 6896 Elevation 2076 Kelly Bushings Well Temperature 92 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1256	P.S.I.	4:45A	M
B First Initial Flow Pressure	141	P.S.I.	10	9
C First Final Flow Pressure	141	P.S.I.	30	30
D Initial Closed-in Pressure	709	P.S.I.	120	129
E Second Initial Flow Pressure	105	P.S.I.	45	48
F Second Final Flow Pressure	162	P.S.I.		
G Final Closed-in Pressure	664	P.S.I.		
H Final Hydrostatic Mud	1251	P.S.I.		

PRESSURE BREAKDOWN

First Flow Press. Breakdown: <u>1</u> Inc. of <u>5</u> mins. and a final inc. of <u>4</u> Min.	Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>24</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
--	---	--	---

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1	0	141	0	141	0	105	0	165
P 2	5	152	3	317	5	105	3	307
P 3	9	141	6	464	10	107	6	426
P 4			9	556	15	110	9	502
P 5			12	618	20	114	12	543
P 6			15	655	25	116	15	576
P 7			18	674	30	119	18	601
P 8			21	686	35	122	21	613
P 9			24	697	40	125	24	628
P 9			27	703	45	128	27	636
P 9			30	709	50	129	30	645
P10					55	131	33	651
P11					60	134	36	653
P12					65	137	39	657
P13					70	140	42	661
P14					75	142	45	664
P15					80	145		
P16					85	147		
P17					90	150		
P18					95	153		
P19					100	155		
P20					105	158		
					110	160		
					115	162		
					120	165		



P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Messman & Rinehart Oil Co. LEASE & WELL NO. Woods #1

TEST NO. 2 INTERVAL TESTED FROM 2340' TO 2450'

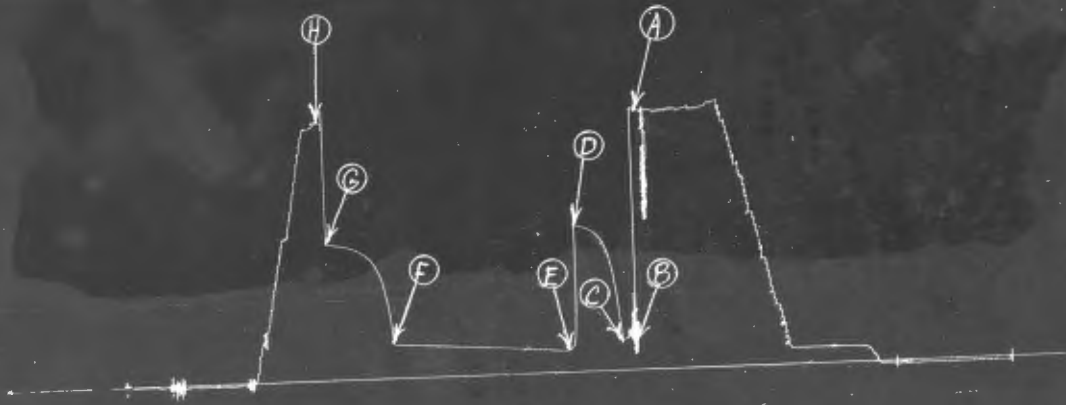
TIME PRE-FLOW	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW
10	7	92,000
20	5	77,870
30	4	70,810
40	4	70,810
50	4	70,810
60	4	70,810
65		
70	4	70,810
80	Gas sample	
90	4	70,810
100	4	70,810
110	4	70,810
120	==	====

SIZE CHOKE 1/2 SURFACE IN. 3/4 BOTTOM IN.

REMARKS Strong gas to surface in 10 minutes.

M. & R. OIL CO.
WOODS #1

T.K.T. # 7882
Test # 2



M. & R. OIL CO.
WOODS #1

Test # 2
TKT. # 7882

Below straddle
selective zone



M & R OIL CO.
Woods #1

TRT # 1882
Test # 2



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1233	1256	PSI
(B) First Initial Flow Pressure	148	141	PSI
(C) First Final Flow Pressure	148	141	PSI
(D) Initial Closed-in Pressure	715	709	PSI
(E) Second Initial Flow Pressure	105	105	PSI
(F) Second Final Flow Pressure	163	162	PSI
(G) Final Closed-in Pressure	663	664	PSI
(H) Final Hydrostatic Mud	1225	1251	PSI



Home Office: Great Bend, Kansas
P. O. Box 793 Swift 3-7903

Company Messman & Rinehart Oil Company Lease & Well No. Woods #1
Elevation 2076 Kelly Bushings Formation Tarkio Ticker Number 7883
Date May 7, 1967 Sec. 22 Twp. 26 Range 16 County Edwards State Kansas
Test Approved by J. G. Klein Western Representative George Tew

Formation Test No. 3 O.K. Misrun Interval Tested From 3066' to 3087' Total Depth 3179'
Size Main Hole 7 7/8 Net Hole 7 7/8 Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Packer Depth 3066 Ft. Size 6 3/4 Packer Depth 3061 Ft. Size 6 3/4
Straddle Yes No Conv. B.T. Damaged Yes No
Packer Depth 3087 Ft. Size 6 3/4

Tool Size 5 1/2 OD Tool Jt. Size 4 1/2 XH Anchor Length 21 Ft. Size 5 1/2 OD
RECORDERS Depth 3073 Ft. Clock No. 6896 Depth 3076 Ft. Clock No. 6866
Top Make Kuster Cap. 4150 No. 2605 ~~Inside~~ Outside Bottom Make Kuster Cap. 4200 No. 1559 ~~Inside~~ Outside
Below Straddle: Depth 3098 Clock No. 155 Inside Depth 3100 Ft. Clock No. 112 Outside
Top Make Western Cap. 4000 No. 44 Inside Bottom Make Western Cap. 4000 No. 4 Outside

Time Set Packer 6:02 P M
Tool Open I.F.P. From 6:05 M to 6:15 M Hr. 10 Min. From (B) 308 P.S.I. To (C) 308 P.S.I.
Tool Closed I.C.I.P. From 6:15 M. to 6:45 M. Hr. 30 Min. (D) 1035 P.S.I.
Tool Open F.F.P. From 6:45 M. to 7:45 M. 1 Hr. Min. From (E) 249 P.S.I. To (F) 468 P.S.I.
Tool Closed F.C.I.P. From 7:45 M. to 8:30 M. Hr. 45 Min. (G) 1023 P.S.I.
Initial Hydrostatic Pressure (A) 1657 P.S.I. Final Hydrostatic Pressure (H) 1652 P.S.I.

SURFACE Size Choke 1/2 In. Max. Press. P.S.I. Time Description of Flow
INFORMATION _____ M. _____
SEE ATTACHED SHEET _____ M. _____
_____ M. _____

BLOW STRONG Gas to surface in 3 minutes. Bottom Choke Size 3/4 In.
Did Well Flow Yes No Recovery Total Ft. 870' muddy gassy salt water

Reversed Out Yes No Mud Type starchy Viscosity 53 Weight 9.9 Maximum Temp. 101 °F

EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size _____ Make _____ Ser. No. _____

Type Circ. Sub plug Did Tool Plug? no Where? _____ Did Packer Hold? yes

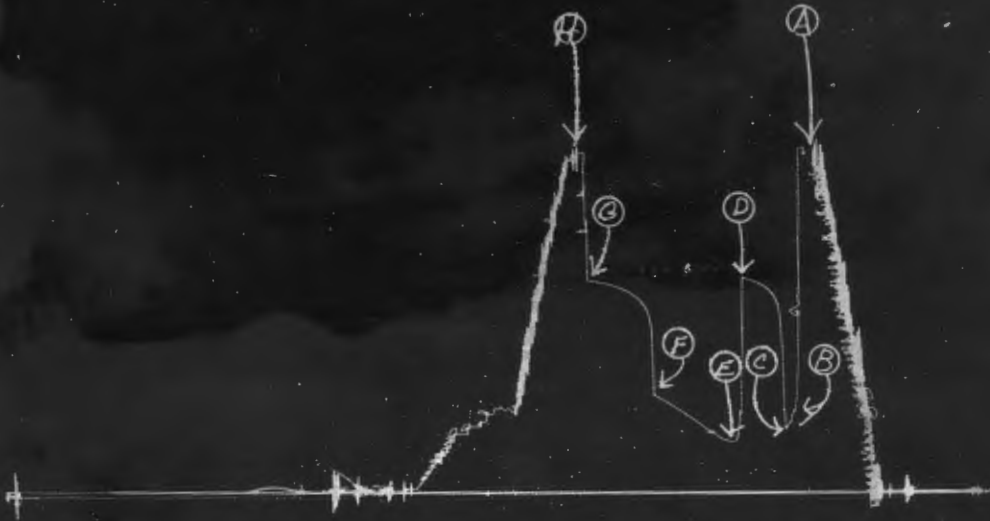
Length Drill Pipe 3043 ft. I.D. Drill Pipe 3.8 in Length Weight Pipe _____ ft. I.D. Weight Pipe _____ in. Length Drill Collars _____ ft.

I. D. Drill Collars _____ in. Length D.S.T. Tool 136 ft.

Remarks _____

M & R Oil Co.
Woods #1

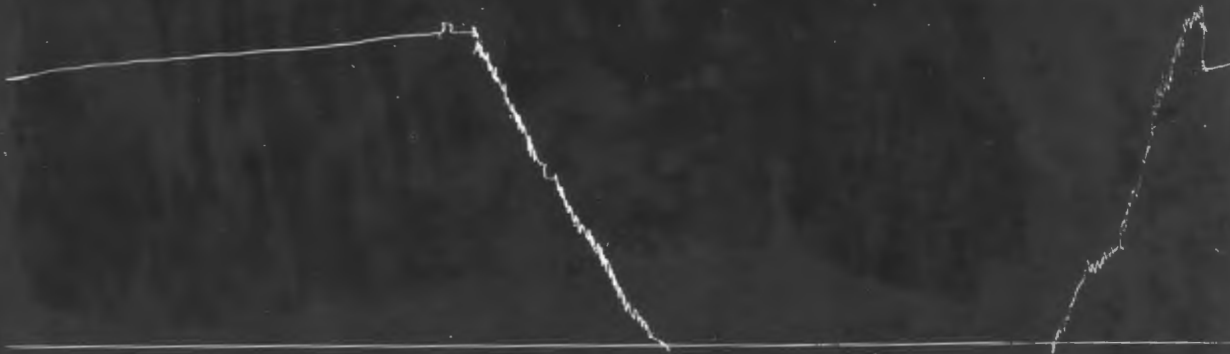
TKT-7883
Test #3



M. & R. Oil Co.
Woods #1

T.K.T. # 7883
Test # 3

Below Straddle
Selective Zone





P. O. BOX 793
GREAT BEND, KANSAS

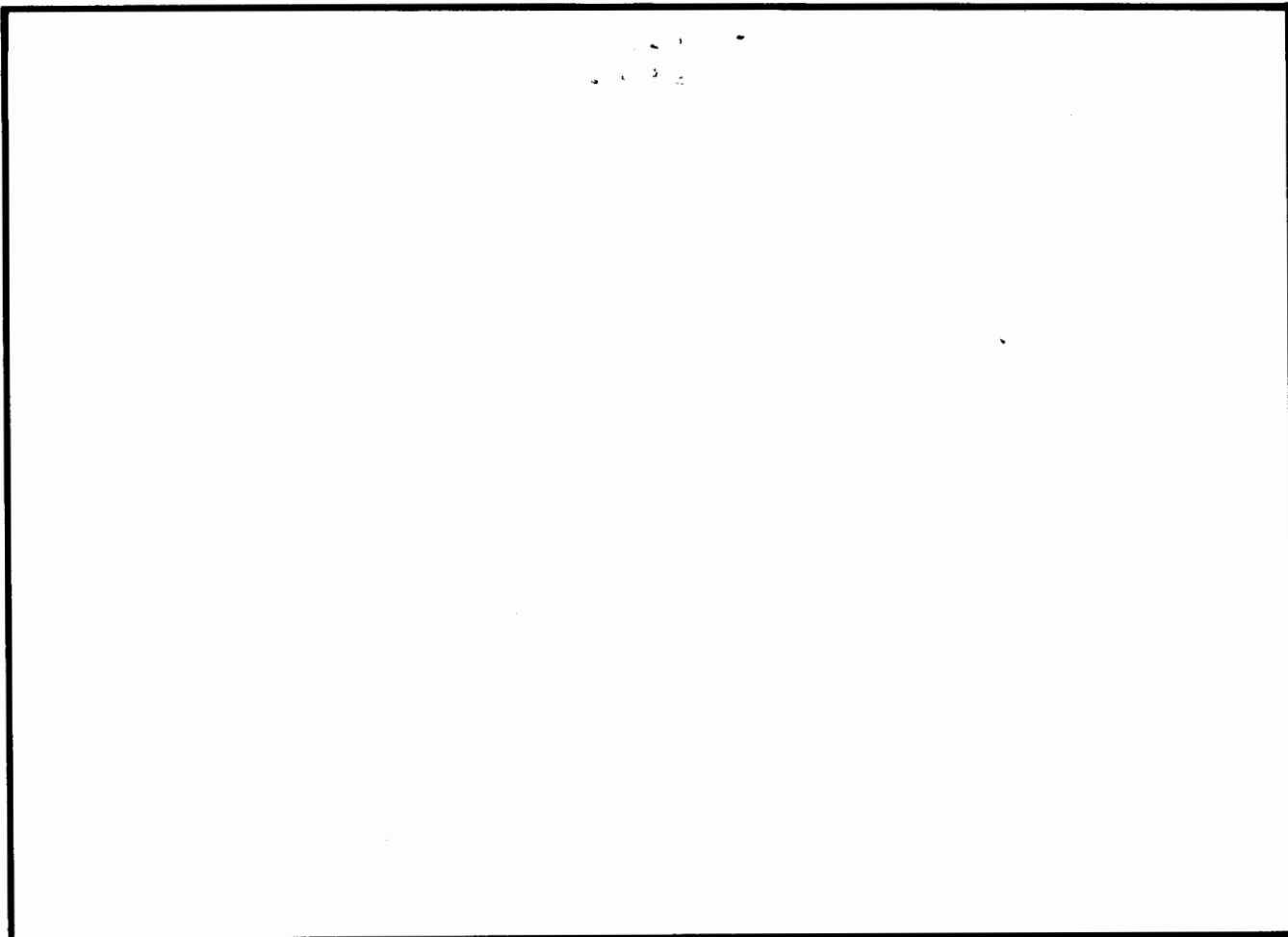
COMPANY Messman & Rinehart Oil Co. LEASE & WELL NO. Woods #1

TEST NO. 3 INTERVAL TESTED FROM 3066' TO 3087'

TIME PRE-FLOW	Ins. of water =====	DESCRIPTION OF FLOW
5	6	340,000
10	5	310,000
15	3	240,000
20	21	156,000
25	21	156,700
35	21	156,700
SECOND FLOW		
50	21	156,700
60	21	156,700

SIZE CHOKE SURFACE 1/2 IN. BOTTOM 3/4 IN.

REMARKS Gas to surface in 3 minutes.



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1641	1657	PSI
(B) First Initial Flow Pressure	313	308	PSI
(C) First Final Flow Pressure	313	308	PSI
(D) Initial Closed-in Pressure	1022	1035	PSI
(E) Second Initial Flow Pressure	245	249	PSI
(F) Second Final Flow Pressure	470	468	PSI
(G) Final Closed-in Pressure	1022	1023	PSI
(H) Final Hydrostatic Mud	1630	1652	PSI