



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 5443

P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Elevation _____ Formation LAYTON Eff. Pay _____ Ft.

District Platt Date 7-10-80 Customer Order No. _____

COMPANY NAME RANGE Oil Company Inc.

ADDRESS 240 Page Court 220W. Douglas Wichita, Ks. 67202

LEASE AND WELL NO. Miller #10 COUNTY Cowley STATE Ks Sec. 12 Twp 32S Rge 5E

Mail Invoice To Same Co. Name _____ Address _____ No. Copies Requested REG

Mail Charts To Same Address _____ No. Copies Requested REG

Formation Test No. 1 Interval Tested from 2356 ft. to 2377 ft. Total Depth 2377 ft.
Packer Depth 2356 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 2356 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 2361 ft. Recorder Number 11018 Cap. 4425
Bottom Recorder Depth (Outside) 2364 ft. Recorder Number 11019 Cap. 4500
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor RANGE Rig #2 Drill Collar Length 150 I. D. 2 1/4 in.
Mud Type _____ Viscosity 36 Weight Pipe Length _____ I. D. _____ in.
Weight 8.6 Water Loss _____ cc. Drill Pipe Length 2185 I. D. 4.0 in.
Chlorides 7,000 P.P.M. Test Tool Length 21 ft. Tool Size 3 1/2 in.
Jars: Make _____ Serial Number _____ Anchor Length 21 ft. Size 4 1/2 in.
Did Well Flow? _____ Reversed Out _____ Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
Main Hole Size 2 7/8 in. Tool Joint Size 4 1/2 in.

Blow: 600 Blows OFF BOTTOM OF BUCKET

Recovered 180 ft. of GAS CUT MUD - 30' GAS IN PIPE
Recovered 180 ft. of GASSY MUDDY WATER
Recovered 480 ft. of GASSY SALT WATER - CHLORIDES - 60,000 P.P.M.
Recovered 30 ft. of GROIN PIPE
Recovered 480 ft. of TOTAL MUD - OIL SPECKS THROUGHOUT
Remarks: C

ON LOC - 11:00 Pickup Tool - 11:30 OFF LOC - _____
Time Set Packer(s) 3/0 A.M. P.M. Time Started Off Bottom 6:10 A.M. P.M. Maximum Temperature 93°
Initial Hydrostatic Pressure _____ (A) 1163 P.S.I.
Initial Flow Period _____ Minutes 30 (B) 211 P.S.I. to (C) 288 P.S.I.
Initial Closed In Period _____ Minutes 30 (D) 754 P.S.I.
Final Flow Period _____ Minutes 60 (E) 355 P.S.I. to (F) 455 P.S.I.
Final Closed In Period _____ Minutes 60 (G) 809 P.S.I.
Final Hydrostatic Pressure _____ (H) 1151 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the customer when a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Joe M. Baker Signature of Customer or his authorized representative

Western Representative Stuart Stover 33

Stuart Stover

FIELD INVOICE

Open Hole Test \$ 550.00
Misrun \$ _____
Straddle Test \$ _____
Jars \$ _____
Selective Zone \$ _____
Safety Joint \$ _____
Standby \$ _____
Evaluation \$ _____
Extra Packer \$ _____
Circ. Sub. \$ _____
Mileage \$ 24.75
Fluid Sampler \$ _____
Extra Charts \$ _____
TOTAL \$ 574.75

Pressure Data

Date 7-10 Test Ticket No. 5443
 Recorder No. 11018 Capacity 4425 Location 2361 Ft
 Clock No. _____ Elevation _____ Well Temperature 93 °F

Point	Pressure	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1174</u> P.S.I.	<u>3:10 A.M.</u>	
B. First Initial Flow Pressure	<u>217</u> P.S.I.	<u>30</u> Mins	<u>30</u> Mins
C. First Final Flow Pressure	<u>291</u> P.S.I.	<u>30</u> Mins	<u>27</u> Mins
D. Initial Closed-in Pressure	<u>770</u> P.S.I.	<u>60</u> Mins	<u>55</u> Mins
E. Second Initial Flow Pressure	<u>361</u> P.S.I.	<u>60</u> Mins	<u>60</u> Mins
F. Second Final Flow Pressure	<u>453</u> P.S.I.		
G. Final Closed-in Pressure	<u>810</u> P.S.I.		
H. Final Hydrostatic Mud	<u>1161</u> P.S.I.		

PRESSURE BREAKDOWN

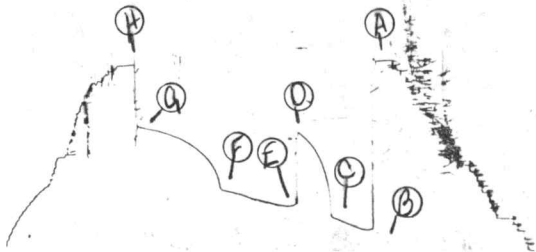
First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>9</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>11</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>217</u>	0	<u>291</u>	0	<u>361</u>	0	<u>453</u>
P 2	<u>214</u>	3	<u>489</u>	5	<u>357</u>	3	<u>544</u>
P 3	<u>224</u>	6	<u>562</u>	10	<u>362</u>	6	<u>588</u>
P 4	<u>242</u>	9	<u>622</u>	15	<u>369</u>	9	<u>620</u>
P 5	<u>258</u>	12	<u>666</u>	20	<u>380</u>	12	<u>646</u>
P 6	<u>273</u>	15	<u>697</u>	25	<u>389</u>	15	<u>668</u>
P 7	<u>291</u>	18	<u>726</u>	30	<u>398</u>	18	<u>686</u>
P 8		21	<u>746</u>	35	<u>409</u>	21	<u>701</u>
P 9		24	<u>768</u>	40	<u>422</u>	24	<u>717</u>
P10		27	<u>770</u>	45	<u>433</u>	27	<u>732</u>
P11		30		50	<u>444</u>	30	<u>742</u>
P12		33		55	<u>453</u>	33	<u>754</u>
P13		36		60		36	<u>763</u>
P14		39		65		39	<u>770</u>
P15		42		70		42	<u>780</u>
P16		45		75		45	<u>785</u>
P17		48		80		48	<u>790</u>
P18		51		85		51	<u>794</u>
P19		54		90		54	<u>799</u>
P20		57				57	<u>805</u>
		60				60	<u>810</u>

11018 - 5443

TK# 5443

I.



Company Range Oil Company, Inc. Lease & Well No. Miller 'D' #1
 Elevation ----- Formation Layton Effective Pay ----- Ft. Ticket No. 5443
 Date 7/10/80 Sec. 12 Twp. 32S Range 5E County Cowley State Kansas
 Test Approved by Joe M. Bakee Western Representative Stuart Stover

Formation Test No. 1 Interval Tested from 2356 ft. to 2377 ft. Total Depth 2377 ft.
 Packer Depth 2351 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2356 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 2361 ft. Recorder Number 11018 Cap. 4425
 Bottom Recorder Depth (Outside) 2364 ft. Recorder Number 11019 Cap. 4500
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Rig #2 Drill Collar Length 150 I. D. 2 1/4 in.
 Mud Type - Viscosity 36 Weight Pipe Length -- I. D. - in.
 Weight 8.6 Water Loss - cc. Drill Pipe Length 2185 I. D. 4.0 in.
 Chlorides 9,000 P.P.M. Test Tool Length 21 ft. Tool Size 3 1/2 in.
 Jars: Make - Serial Number - Anchor Length 21 ft. Size 4 1/2 in.
 Did Well Flow? - Reversed Out - Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Good blow off bottom of bucket

Recovered 180 ft. of gas cut mud
 Recovered 180 ft. of gassy muddy water
 Recovered 480 ft. of gassy salt water Chlorides 60,000 ppm
 Recovered 30 ft. of gas in pipe
 Recovered ft. of oil specks throughout recovery

Remarks: -----

Time Set Packer(s) 3:10 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 6:10 ~~P.M.~~ ^{A.M.} Maximum Temperature 93°
 Initial Hydrostatic Pressure (A) 1174 P.S.I.
 Initial Flow Period Minutes 30 (B) 217 P.S.I. to (C) 291 P.S.I.
 Initial Closed In Period Minutes 27 (D) 770 P.S.I.
 Final Flow Period Minutes 55 (E) 361 P.S.I. to (F) 453 P.S.I.
 Final Closed In Period Minutes 60 (G) 810 P.S.I.
 Final Hydrostatic Pressure (H) 1161 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 7-10-80

Recorder No. 11018

Test Ticket No. 5443

Clock No. --

Capacity 4425

Location 2361 Ft.

Elevation --

Well Temperature 93 °F

Point

Point	Pressure	Unit	Open Tool	Time Given	A.M.	Time Computed
A Initial Hydrostatic Mud	1174	P.S.I.		3:10		
B First Initial Flow Pressure	217	P.S.I.	Open Tool			
C First Final Flow Pressure	291	P.S.I.	First Flow Pressure	30	Mins.	30 Mins.
D Initial Closed-in Pressure	770	P.S.I.	Initial Closed-in Pressure	30	Mins.	27 Mins.
E Second Initial Flow Pressure	361	P.S.I.	Second Flow Pressure	60	Mins.	55 Mins.
F Second Final Flow Pressure	453	P.S.I.	Final Closed-in Pressure	60	Mins.	60 Mins.
G Final Closed-in Pressure	810	P.S.I.				
H Final Hydrostatic Mud	1161	P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 11 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 20 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>217</u>	<u>0</u>	<u>291</u>	<u>0</u>	<u>361</u>	<u>0</u>	<u>453</u>
P 2 <u>5</u>	<u>214</u>	<u>3</u>	<u>489</u>	<u>5</u>	<u>357</u>	<u>3</u>	<u>544</u>
P 3 <u>10</u>	<u>224</u>	<u>6</u>	<u>562</u>	<u>10</u>	<u>362</u>	<u>6</u>	<u>588</u>
P 4 <u>15</u>	<u>242</u>	<u>9</u>	<u>622</u>	<u>15</u>	<u>369</u>	<u>9</u>	<u>620</u>
P 5 <u>20</u>	<u>258</u>	<u>12</u>	<u>666</u>	<u>20</u>	<u>380</u>	<u>12</u>	<u>646</u>
P 6 <u>25</u>	<u>273</u>	<u>15</u>	<u>697</u>	<u>25</u>	<u>389</u>	<u>15</u>	<u>668</u>
P 7 <u>30</u>	<u>291</u>	<u>18</u>	<u>726</u>	<u>30</u>	<u>398</u>	<u>18</u>	<u>686</u>
P 8		<u>21</u>	<u>746</u>	<u>35</u>	<u>409</u>	<u>21</u>	<u>701</u>
P 9		<u>24</u>	<u>768</u>	<u>40</u>	<u>422</u>	<u>24</u>	<u>717</u>
P10		<u>27</u>	<u>770</u>	<u>45</u>	<u>433</u>	<u>27</u>	<u>732</u>
P11				<u>50</u>	<u>444</u>	<u>30</u>	<u>743</u>
P12				<u>55</u>	<u>453</u>	<u>33</u>	<u>754</u>
P13						<u>36</u>	<u>763</u>
P14						<u>39</u>	<u>770</u>
P15						<u>42</u>	<u>780</u>
P16						<u>45</u>	<u>785</u>
P17						<u>48</u>	<u>790</u>
P18						<u>51</u>	<u>794</u>
P19						<u>54</u>	<u>799</u>
P20						<u>57</u>	<u>805</u>
						<u>60</u>	<u>810</u>



P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.

FORMATION TESTING

Kelly Bushing

TICKET NO 5826

Elevation 1364 KB. Formation Bathwill Eff. Pay Ft.

District Augusta Date 7-12-80 Customer Order No.

COMPANY NAME Range Oil Co. Inc

ADDRESS 250 Page Court Wichita Kan

LEASE AND WELL NO. Mallet #10 COUNTY Cowley STATE Ka. Sec. 12 Twp. 32S Rge 5E

Mail Invoice To same Co. Name Address No. Copies Requested 1

Mail Charts To same Co. Name Address No. Copies Requested 5

Formation Test No. 2 Interval Tested from 3024 ft. to 3041 ft. Total Depth 3041 ft.
Packer Depth 3019 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3024 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3030 ft. Recorder Number 1558 Cap 4200 PSI
Bottom Recorder Depth (Outside) 3033 ft. Recorder Number 1559 Cap 4200 PSI
Below Straddle Recorder Depth ft. Recorder Number Cap

Drilling Contractor Range Oil Co. Drill Collar Length 122 I. D. 3 3/4 in.
Mud Type Chew Viscosity 41 Weight Pipe Length I. D. in.
Weight 10 Water Loss 12 cc. Drill Pipe Length 2882 I. D. 3.8 in.
Chlorides 2000 P.P.M. Test Tool Length 37 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 17 ft. Size 5 1/2 in.
Did Well Flow? NO Reversed Out Surface Choke Size 5/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 3/8 in. Tool Joint Size 4 1/2 X H in.

Blow: Steady steady blow throughout test

Recovered 470 ft. of gas in pup
Recovered 130 ft. of of gassy muds slight oil cut (5% oil, 10% Gas, 85% Mud)
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks:

one location 1:30 Make up tool 3:20

Time Set Packer(s)	A.M.	Time Started Off Bottom	A.M.	Maximum Temperature
<u>6:45</u>	<u> </u>	<u>10:15</u>	<u> </u>	<u>108°</u>
Initial Hydrostatic Pressure	(A)	<u>1592</u>	P.S.I.	
Initial Flow Period	Minutes	<u>30</u>	(B) <u>79</u> P.S.I.	to (C) <u>89</u> P.S.I.
Initial Closed In Period	Minutes	<u>30</u>	(D) <u>558</u> P.S.I.	
Final Flow Period	Minutes	<u>60</u>	(E) <u>73</u> P.S.I.	to (F) <u>89</u> P.S.I.
Final Closed In Period	Minutes	<u>90</u>	(G) <u>794</u> P.S.I.	
Final Hydrostatic Pressure	(H)	<u>1413</u>	P.S.I.	

COMPANY TERMS

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Joe M. Baker
Signature of Customer or his authorized representative

Western Representative Fred A. Klaus
Klaus

FIELD INVOICE

Open Hole Test	\$ <u>550.00</u>
Misrun	\$ <u> </u>
Straddle Test	\$ <u> </u>
Jars	\$ <u> </u>
Selective Zone	\$ <u> </u>
Safety Joint	\$ <u> </u>
Standby	\$ <u> </u>
Evaluation	\$ <u> </u>
Extra Packer	\$ <u> </u>
Circ. Sub.	\$ <u> </u>
33 Mileage X .75	\$ <u>24.75</u>
Fluid Sampler	\$ <u> </u>
Extra Charts	\$ <u> </u>
TOTAL	\$ <u>574.75</u>

Pressure Data

Date 7-12-80 Test Ticket No. 5826
 Recorder No. 1558 Capacity 4200 Location 3030 Ft.
 Clock No. _____ Elevation 1364 XB Well Temperature 108 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1593</u> P.S.I.	<u>6:45 A M</u>	
B First Initial Flow Pressure	<u>77</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>79</u> P.S.I.	<u>30</u> Mins.	<u>24</u> Mins.
D Initial Closed-in Pressure	<u>573</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>86</u> P.S.I.	<u>90</u> Mins.	<u>90</u> Mins.
F Second Final Flow Pressure	<u>93</u> P.S.I.		
G Final Closed-in Pressure	<u>839</u> P.S.I.		
H Final Hydrostatic Mud	<u>1431</u> P.S.I.		

PRESSURE BREAKDOWN

<p>First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Initial Shut-In Breakdown: <u>8</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Final Shut-In Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.</p>
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>77</u>	0	<u>79</u>	0	<u>86</u>	0	<u>93</u>
P 2		3	<u>127</u>	5	<u>84</u>	3	<u>108</u>
P 3		6	<u>183</u>	10	<u>86</u>	6	<u>137</u>
P 4		9	<u>259</u>	15	<u>89</u>	9	<u>179</u>
P 5	<u>77</u>	12	<u>335</u>	20	<u>90</u>	12	<u>216</u>
P 6	<u>78</u>	15	<u>401</u>	25	<u>91</u>	15	<u>266</u>
P 7	<u>79</u>	18	<u>466</u>	30	<u>92</u>	18	<u>306</u>
P 8		21	<u>521</u>	35	<u>92</u>	21	<u>350</u>
P 9		24	<u>573</u>	40	<u>93</u>	24	<u>385</u>
P10		27		45	<u>93</u>	27	<u>420</u>
P11		30		50	<u>93</u>	30	<u>460</u>
P12		33		55	<u>93</u>	33	<u>489</u>
P13		36		60	<u>93</u>	36	<u>517</u>
P14		39		65		39	<u>546</u>
P15		42		70		42	<u>577</u>
P16		45		75		45	<u>599</u>
P17		48		80		48	<u>625</u>
P18		51		85		51	<u>647</u>
P19		54		90		54	<u>665</u>
P20		57				57	<u>685</u>
		60				60	<u>702</u>

cont

Location _____
 Capacity _____
 Elevation _____ Well Temperature _____
 Pressure _____ Time Given _____ Time Computed _____
 Hydrostatic Mud _____ P.S.I. _____ Open Tool _____ M _____
 Initial Flow Pressure _____ P.S.I. _____ First Flow Pressure _____ Mins _____ M _____
 Final Flow Pressure _____ P.S.I. _____ Initial Closed-in Pressure _____ Mins _____ M _____
 Closed-in Pressure _____ P.S.I. _____ Second Flow Pressure _____ Mins _____ M _____
 Initial Flow Pressure _____ P.S.I. _____ Final Closed-in Pressure _____ Mins _____ M _____
 Final Flow Pressure _____ P.S.I. _____
 Closed-in Pressure _____ P.S.I. _____
 Hydrostatic Mud _____ P.S.I. _____

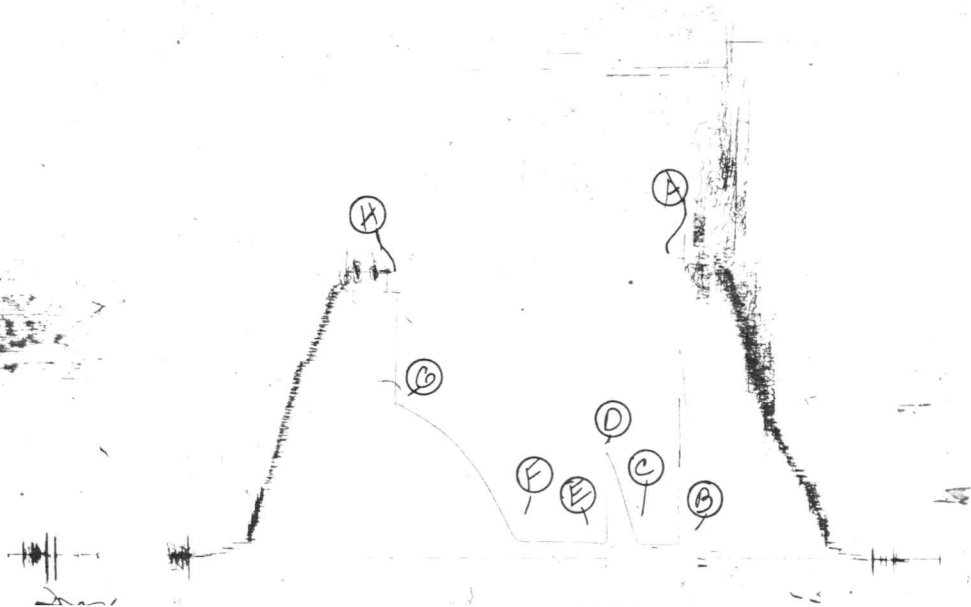
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Initial Shut-In Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Second Flow Pressure Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Final Shut-In Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.
Point Minutes	Press.	Point Minutes	Press.
63			716
66			731
69			745
72			760
75			775
78			785
81			799
84			814
87			826
90			839
93			
96			
99			
102			
105			
108			
111			
114			
117			
120			

1558

5826

Pl # 5826
I



Company Range Oil Company, Inc. Lease & Well No. Miller 'D' #1
 Elevation 1364 Kelly Bushing Formation Bartelsville Effective Pay -- Ft. Ticket No. 5826
 Date 7/12/80 Sec. 12 Twp. 32S Range 5E County Cowley State Kansas
 Test Approved by Joe M. Baker Western Representative Fred G. Klaus

Formation Test No. 2 Interval Tested from 3024 ft. to 3041 ft. Total Depth 3041 ft.
 Packer Depth 3019 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3024 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set - ft. Packer Depth - ft. Size - in.

Top Recorder Depth (Inside) 3030 ft. Recorder Number 1558 Cap. 4200 PSI
 Bottom Recorder Depth (Outside) 3033 ft. Recorder Number 1559 Cap. 4200 PSI
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Co. Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type chemical Viscosity 41 Weight Pipe Length -- I. D. - in.
 Weight 10 Water Loss 12 cc. Drill Pipe Length 2882 I. D. 3.8 in.
 Chlorides 2,000 P.P.M. Test Tool Length 37 ft. Tool Size 5 1/2 in.
 Jars: Make - Serial Number - Anchor Length 17 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Strong steady blow throughout test.

Recovered 470 ft. of gas in pipe
 Recovered 130 ft. of of gassy mud, slightly oil cut (5% oil; 10% gas; 85% mud)
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: -

Time Set Packer(s) 6:45 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 10:15 ~~P.M.~~ ^{A.M.} Maximum Temperature 108°
 Initial Hydrostatic Pressure (A) 1593 P.S.I.
 Initial Flow Period Minutes 30 (B) 77 P.S.I. to (C) 79 P.S.I.
 Initial Closed In Period Minutes 24 (D) 573 P.S.I.
 Final Flow Period Minutes 60 (E) 86 P.S.I. to (F) 93 P.S.I.
 Final Closed In Period Minutes 90 (G) 839 P.S.I.
 Final Hydrostatic Pressure (H) 1431 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 7-12-80

Recorder No. 1558

Test Ticket No. 5826

Clock No. -- Capacity 4200 Location 3030 Ft.

Elevation 1364 Kelly Bushing Well Temperature 108 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1593	P.S.I.	6:45 A. M.	
B First Initial Flow Pressure	77	P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	79	P.S.I.	30 Mins.	24 Mins.
D Initial Closed-in Pressure	573	P.S.I.	60 Mins.	60 Mins.
E Second Initial Flow Pressure	86	P.S.I.	90 Mins.	90 Mins.
F Second Final Flow Pressure	93	P.S.I.		
G Final Closed-in Pressure	839	P.S.I.		
H Final Hydrostatic Mud	1431	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 8 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 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 0	77	0	79	0	86	0	93
P 2 5	77	3	127	5	84	3	108
P 3 10	77	6	183	10	86	6	137
P 4 15	77	9	259	15	89	9	179
P 5 20	77	12	335	20	90	12	216
P 6 25	78	15	401	25	91	15	266
P 7 30	79	18	466	30	92	18	306
P 8		21	521	35	92	21	350
P 9		24	573	40	93	24	386
P10				45	93	27	420
P11				50	93	30	460
P12				55	93	33	487
P13				60	93	36	517
P14						39	546
P15						42	577
P16						45	599
P17						48	625
P18						51	647
P19						54	665
P20						57	685
						60	702

WESTERN TESTING CO., INC.
Pressure Data

Date 7-12-80

Recorder No. 1558

Test Ticket No. 5826

Clock No. -- Capacity 4200 Location 3030 Ft.

Elevation 1364 Kelly Bushing Well Temperature 108 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1593	P.S.I.	6:45 A. M.	
B First Initial Flow Pressure	77	P.S.I.		
C First Final Flow Pressure	79	P.S.I.	30 Mins.	30 Mins.
D Initial Closed-in Pressure	573	P.S.I.	30 Mins.	24 Mins.
E Second Initial Flow Pressure	86	P.S.I.	60 Mins.	60 Mins.
F Second Final Flow Pressure	93	P.S.I.	90 Mins.	90 Mins.
G Final Closed-in Pressure	839	P.S.I.		
H Final Hydrostatic Mud	1431	P.S.I.		

Open Tool
First Flow Pressure
Initial Closed-in Pressure
Second Flow Pressure
Final Closed-in Pressure

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 8 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 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.
P 1				63	716
P 2				66	731
P 3				69	745
P 4				72	760
P 5				75	775
P 6				78	785
P 7				81	799
P 8				84	814
P 9				87	826
P 10				90	839
P 11					
P 12					
P 13					
P 14					
P 15					
P 16					
P 17					
P 18					
P 19					
P 20					



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 5827

Kelly Bushing

P. O. BOX 1599 PHONE (316) 838-0601 WICHITA, KANSAS 67201

Elevation 1364 MB. Formation Bullwinkle Eff. Pay Ft.

District Augusta Date 7-13-80 Customer Order No.

COMPANY NAME Ranger Oil Co. Inc.

ADDRESS 250 Page Court Wichita Kan

LEASE AND WELL NO. Miller #10 COUNTY Cowley STATE Kan Sec. 12 Twp 33N Rge 5E

Mail Invoice To Co. Name Same Address No. Copies Requested 1

Mail Charts To Co. Name Same Address No. Copies Requested 5

Formation Test No. 2 Interval Tested from 3040 ft. to 3066 ft. Total Depth 3066 ft.

Packer Depth 3040 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3035 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3045 ft. Recorder Number 1558 Cap 4200 PSI

Bottom Recorder Depth (Outside) 3048 ft. Recorder Number 1559 Cap 4200 PSI

Below Straddle Recorder Depth - ft. Recorder Number - Cap -

Drilling Contractor Ranger Drilling Co. Drill Collar Length 122 I. D. 3 3/4 in.

Mud Type Chem Viscosity 41 Weight Pipe Length - I. D. - in.

Weight 10 Water Loss 12 cc. Drill Pipe Length 2898 I. D. 3.5 in.

Chlorides 2000 P.P.M. Test Tool Length 46 ft. Tool Size 2 5/8 in.

Jars: Make NO Serial Number NO Anchor Length 26 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out NO Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x 1 1/4 in.

Blow:

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Minimum packer seat failure.

Time Set Packer(s) 1:20 A.M. Time Started Off Bottom 3:40 A.M. Maximum Temperature 116

Initial Hydrostatic Pressure (A) 1561 P.S.I.

Initial Flow Period (B) P.S.I. to (C) P.S.I.

Initial Closed In Period (D) P.S.I.

Final Flow Period (E) P.S.I. to (F) P.S.I.

Final Closed In Period (G) P.S.I.

Final Hydrostatic Pressure (H) 1532 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Joe M. Baker Signature of Customer or his authorized representative

Western Representative Fred A. Klaus Klaus

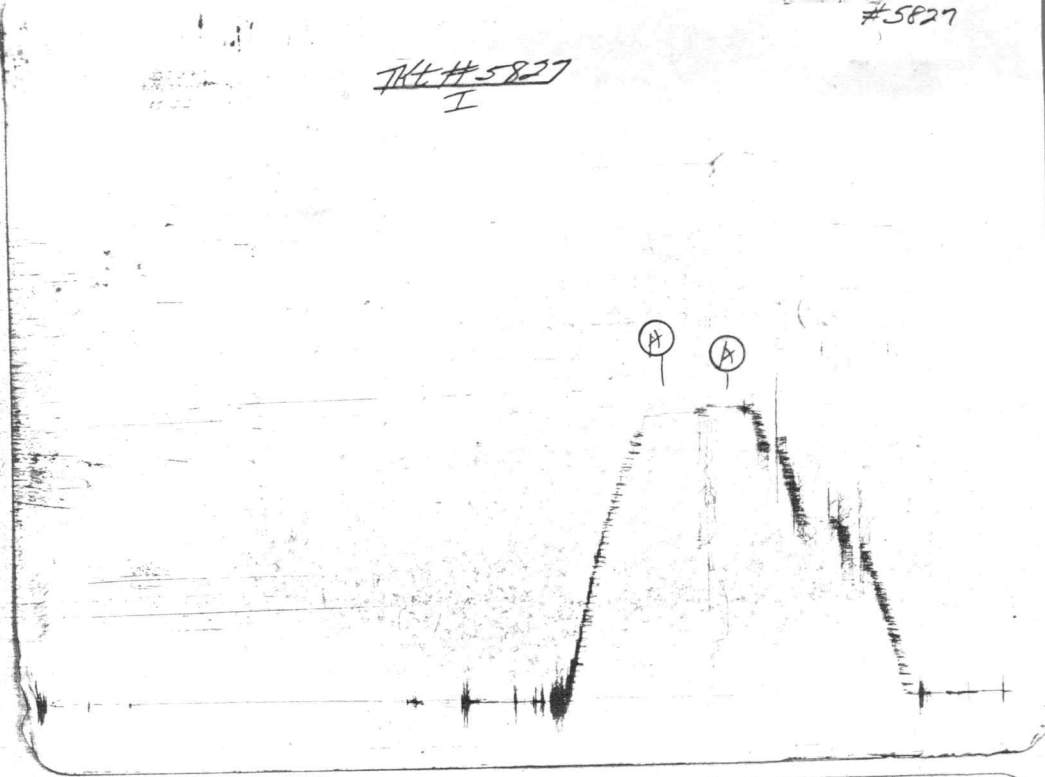
FIELD INVOICE

Open Hole Test \$ Misrun \$ 300.00 Straddle Test \$ Jars \$ Selective Zone \$ Safety Joint \$ Standby \$ Evaluation \$ Extra Packer \$ Circ. Sub. \$ Mileage \$ Fluid Sampler \$ Extra Charts \$

TOTAL \$ 300.00

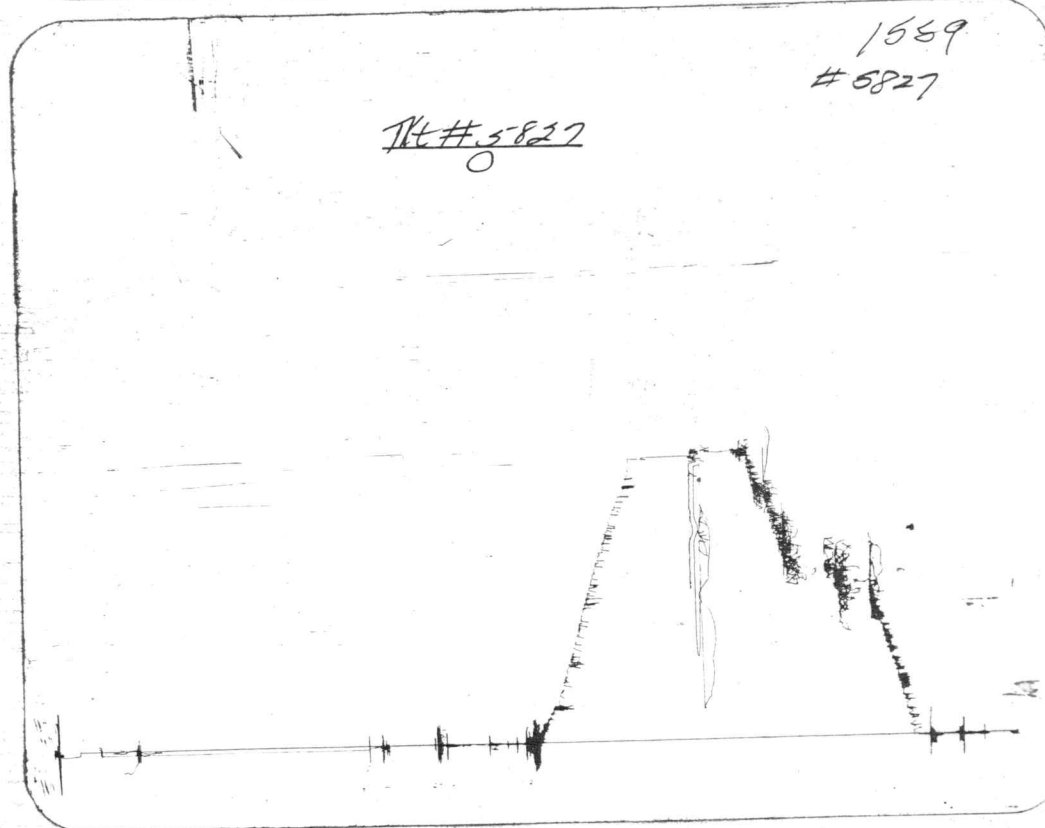
#5827

TK # 5827
I



1589
#5827

TK # 5827
O



Company Range Oil Company, Inc. Lease & Well No. Miller 'D' #1
 Elevation 1364 Kelly Bushing Formation Bartlesville Effective Pay ---- Ft. Ticket No. 5827
 Date 7/13/80 Sec. 12 Twp. 32S Range 5E County Cowley State Kansas
 Test Approved by Joe M. Baker Western Representative Fred G. Klaus

Formation Test No. 3 Interval Tested from 3040 ft. to 3066 ft. Total Depth 3066 ft.
 Packer Depth 3040 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3035 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3045 ft. Recorder Number 1558 Cap. 4200 PSI
 Bottom Recorder Depth (Outside) 3048 ft. Recorder Number 1559 Cap. 4200 PSI
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Co. Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type chemical Viscosity 41 Weight Pipe Length - I. D. - in.
 Weight 10 Water Loss 12 cc. Drill Pipe Length 2898 I. D. 3.8 in.
 Chlorides 2,000 P.P.M. Test Tool Length 46 ft. Tool Size 5 1/2 in.
 Gases: Make No Serial Number No Anchor Length 26 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Flow: MISRUN
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of MISRUN PACKER FAILURE
 Remarks: -

Time Set Packer(s) 1:20 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 3:40 ~~P.M.~~ ^{A.M.} Maximum Temperature 116°
 Initial Hydrostatic Pressure (A) 1561 P.S.I.
 Initial Flow Period (B) -- Minutes P.S.I. to (C) -- P.S.I.
 Initial Closed In Period (D) -- Minutes P.S.I.
 Final Flow Period (E) -- Minutes P.S.I. to (F) -- P.S.I.
 Final Closed In Period (G) -- Minutes P.S.I.
 Final Hydrostatic Pressure (H) 1532 P.S.I.



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 5828

Kelly Bushing

P. O. BOX 1599 PHONE (316) 838-0601 WICHITA, KANSAS 67201

Elevation 1364 KB Formation Bartlesville Eff. Pay Ft.

District August Date 7-13-80 Customer Order No.

COMPANY NAME Range Oil Co. Inc

ADDRESS 250 Page Court Wichita Kan

LEASE AND WELL NO Miller #120 COUNTY Cowley STATE Ka. Sec. 12 Twp 32S Rge 5E

Mail Invoice To Co. Name Same Address No. Copies Requested 1

Mail Charts To Co. Name Same Address No. Copies Requested 5

Formation Test No. 4 Interval Tested from 3037 ft. to 3066 ft. Total Depth 3066 ft. Packer Depth 3037 ft. Size 6 3/4 in. Packer Depth 3035 ft. Size 6 3/4 in. Packer Depth - ft. Size - in. Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3047 ft. Recorder Number 1558 Cap 4200 PSI Bottom Recorder Depth (Outside) 3050 ft. Recorder Number 1559 Cap 4200 PSI Below Straddle Recorder Depth - ft. Recorder Number - Cap -

Drilling Contractor Range Drilling Co. Mud Type Chem Viscosity 44 Weight 9.8 Water Loss cc. Chlorides P.P.M. Jars: Make - Serial Number - Did Well Flow? Reversed Out Drill Collar Length 122 I. D. 3 3/4 in. Weight Pipe Length - I. D. - in. Drill Pipe Length 2895 I. D. 3.8 in. Test Tool Length 49 ft. Tool Size 5 1/2 in. Anchor Length 29 ft. Size 5 1/2 in. Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in. Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow:

Recovered ft. of Recovered ft. of Recovered ft. of Recovered ft. of Recovered ft. of Remarks: Miss Run Packer joint failure Packer joint failure

Time Set Packer(s) 11:40 A.M. Time Started Off Bottom 11:50 A.M. Maximum Temperature Initial Hydrostatic Pressure (A) 1544 P.S.I. Initial Flow Period (B) P.S.I. to (C) P.S.I. Initial Closed In Period (D) P.S.I. Final Flow Period (E) P.S.I. to (F) P.S.I. Final Closed In Period (G) P.S.I. Final Hydrostatic Pressure (H) 1536 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount. Joe M. Baker

Test Approved By Joe M. Baker Signature of Customer or his authorized representative

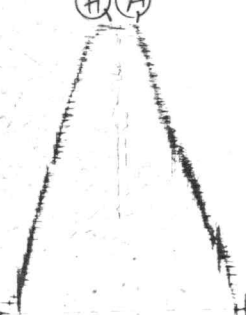
Western Representative Fred Klaus Klaus

FIELD INVOICE

Open Hole Test \$ Misrun \$ 300.00 Straddle Test \$ Jars \$ Selective Zone \$ Safety Joint \$ Standby \$ Evaluation \$ Extra Packer \$ Circ. Sub. \$ Mileage \$ Fluid Sampler \$ Extra Charts \$ TOTAL \$ 300.00

TKT # 5828
I

(H) (A)



5828
1558

TKT # 5828
O



5828
1559

Company Range Oil Co., Inc. Lease & Well No. Miller #1-D
 Elevation 1364 Kelly Bushing Formation Bartlesville Effective Pay ---- Ft. Ticket No. 5828
 Date 7-13-80 Sec. 12 Twp. 32 S Range 5 E County Cowley State KS
 Test Approved by Joe M. Baker Western Representative Fred G. Klaus

Formation Test No. 4 Interval Tested from 3037 ft. to 3066 ft. Total Depth 3066 ft.
 Packer Depth 3037 ft. Size 6 3/4 in. Packer Depth ---- ft. Size ---- in.
 Packer Depth 3035 ft. Size 6 3/4 in. Packer Depth ---- ft. Size ---- in.

Depth of Selective Zone Set ----
 Top Recorder Depth (Inside) 3047 ft. Recorder Number 1558 Cap. 4200 PSI
 Bottom Recorder Depth (Outside) 3050 ft. Recorder Number 1559 Cap. 4200 PSI
 Below Straddle Recorder Depth ----- ft. Recorder Number ----- Cap. -----

Drilling Contractor Range Drilling Co. Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type Chemical Viscosity 44 Weight Pipe Length ---- I. D. ---- in.
 Weight 9.8 Water Loss --- cc. Drill Pipe Length 2895 I. D. 3.8 in.
 Chlorides ----- P.P.M. Test Tool Length 49 ft. Tool Size 5 1/2 in.
 Jars: Make ---- Serial Number ---- Anchor Length 29 ft. Size 5 1/2 in.
 Did Well Flow? ---- Reversed Out ---- Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: _____

 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of MISSRUN-- PACKER SEAT FAILURE
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Remarks: _____

Time Set Packer(s) 11:40 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 11:50 ~~P.M.~~ ^{A.M.} Maximum Temperature ---
 Initial Hydrostatic Pressure (A) 1544 P.S.I.
 Initial Flow Period Minutes -- (B) ---- P.S.I. to (C) ----- P.S.I.
 Initial Closed In Period Minutes -- (D) ---- P.S.I.
 Final Flow Period Minutes -- (E) ---- P.S.I. to (F) ----- P.S.I.
 Final Closed In Period Minutes -- (G) ---- P.S.I.
 Final Hydrostatic Pressure (H) 1536 P.S.I.



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 5829

P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 838-0601

Elevation 1364 Kelly Bushington Bentonville Eff. Pay Ft.

District Augusta Date 7-13-80 Customer Order No.

COMPANY NAME Range Oil Co Inc

ADDRESS 250 Page Court Wichita Kan

LEASE AND WELL NO Miller #10 COUNTY Cowley STATE Kan Sec 12 Twp 30S Rge 5E

Mail Invoice To Co. Name Address No. Copies Requested 1

Mail Charts To Co. Name Address No. Copies Requested 5

Formation Test No. 5 Interval Tested from 3048 ft. to 3066 ft. Total Depth 3066 ft. Packer Depth 3048 ft. Size 6 3/4 in. Packer Depth 3043 ft. Size 6 3/4 in. Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3053 ft. Recorder Number 1558 Cap 4200 PSI Bottom Recorder Depth (Outside) 3052 ft. Recorder Number 1559 Cap 4200 PSI Below Straddle Recorder Depth - ft. Recorder Number - Cap -

Drilling Contractor Range Oil Co Mud Type Chem Viscosity 41 Weight 9.8 Water Loss 12.8 cc. Chlorides 2900 P.P.M. Jars: Make - Serial Number - Did Well Flow? NO Reversed Out - Drill Collar Length 122 I. D. 3 3/4 in. Weight Pipe Length - I. D. - in. Drill Pipe Length 2906 I. D. 3.8 in. Test Tool Length 38 ft. Tool Size 5 1/2 in. Anchor Length 18 ft. Size 5 1/2 in. Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in. Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x 14 in.

Blow: fair to steady below throughout test

Recovered 68 ft. of of gray mud very slight oil cut Recovered ft. of of gray mud Recovered ft. of Recovered ft. of Recovered ft. of

Remarks:

Table with 4 columns: Time Set Packer(s), Time Started Off Bottom, Maximum Temperature, and various pressure/flow period measurements (A-H).

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Joe M Baber Signature of Customer or his authorized representative

Western Representative Fred A Klaus

FIELD INVOICE

Table listing items and costs: Open Hole Test \$550.00, Misrun \$, Straddle Test \$, Jars \$, Selective Zone \$, Safety Joint \$, Standby \$, Evaluation \$, Extra Packer \$, Circ. Sub. \$, Mileage \$, Fluid Sampler \$, Extra Charts \$, TOTAL \$550.00

WESTERN TESTING CO., INC.
Pressure Data

Date 7-13-80 Test Ticket No. 5839
 Recorder No. 1558 Capacity 4200 Location 3053
 Clock No. _____ Elevation 1264 HB Well Temperature 118 °F

Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1569</u>	P.S.I.		<u>3:40 P.M.</u>	
B First Initial Flow Pressure	<u>25</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>35</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>475</u>	P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>64</u>	P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>87</u> Mins.
F Second Final Flow Pressure	<u>63</u>	P.S.I.			
G Final Closed-in Pressure	<u>1190</u>	P.S.I.			
H Final Hydrostatic Mud	<u>1489</u>	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>9</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>29</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	<u>0</u> <u>25</u>	<u>0</u> <u>35</u>	<u>0</u> <u>64</u>	<u>0</u> <u>63</u>			
P 2	<u>5</u> <u>25</u>	<u>3</u> <u>44</u>	<u>5</u> <u>59</u>	<u>3</u> <u>72</u>			
P 3	<u>10</u> <u>26</u>	<u>6</u> <u>55</u>	<u>10</u> <u>59</u>	<u>6</u> <u>78</u>			
P 4	<u>15</u> <u>27</u>	<u>9</u> <u>72</u>	<u>15</u> <u>59</u>	<u>9</u> <u>90</u>			
P 5	<u>20</u> <u>29</u>	<u>12</u> <u>95</u>	<u>20</u> <u>59</u>	<u>12</u> <u>108</u>			
P 6	<u>25</u> <u>31</u>	<u>15</u> <u>137</u>	<u>25</u> <u>59</u>	<u>15</u> <u>127</u>			
P 7	<u>30</u> <u>35</u>	<u>18</u> <u>204</u>	<u>30</u> <u>59</u>	<u>18</u> <u>158</u>			
P 8	<u>35</u> _____	<u>21</u> <u>299</u>	<u>35</u> <u>63</u>	<u>21</u> <u>219</u>			
P 9	<u>40</u> _____	<u>24</u> <u>388</u>	<u>40</u> <u>63</u>	<u>24</u> <u>304</u>			
P10	<u>45</u> _____	<u>27</u> <u>475</u>	<u>45</u> _____	<u>27</u> <u>399</u>			
P11	<u>50</u> _____	<u>30</u> _____	<u>50</u> _____	<u>30</u> <u>492</u>			
P12	<u>55</u> _____	<u>33</u> _____	<u>55</u> _____	<u>33</u> <u>577</u>			
P13	<u>60</u> _____	<u>36</u> _____	<u>60</u> <u>63</u>	<u>36</u> <u>677</u>			
P14	_____	<u>39</u> _____	<u>65</u> _____	<u>39</u> <u>756</u>			
P15	_____	<u>42</u> _____	<u>70</u> _____	<u>42</u> <u>818</u>			
P16	_____	<u>45</u> _____	<u>75</u> _____	<u>45</u> <u>872</u>			
P17	_____	<u>48</u> _____	<u>80</u> _____	<u>48</u> <u>921</u>			
P18	_____	<u>51</u> _____	<u>85</u> _____	<u>51</u> <u>960</u>			
P19	_____	<u>54</u> _____	<u>90</u> _____	<u>54</u> <u>994</u>			
P20	_____	<u>57</u> _____	_____	<u>57</u> <u>1023</u>			
	_____	<u>60</u> _____	_____	<u>60</u> <u>1046</u>			

cont.

Capacity _____ Location _____

Elevation _____ Well Temperature _____

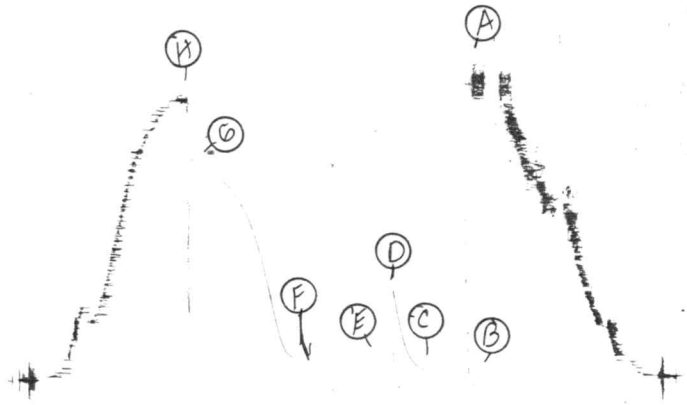
Pressure	Time Given	Time Computed
Hydrostatic Mud _____ P.S.I.	_____ M	_____ M
Initial Flow Pressure _____ P.S.I.	_____ Mins.	_____ M
Final Flow Pressure _____ P.S.I.	_____ Mins.	_____ M
Initial Closed-in Pressure _____ P.S.I.	_____ Mins.	_____ M
Second Flow Pressure _____ P.S.I.	_____ Mins.	_____ M
Final Closed-in Pressure _____ P.S.I.	_____ Mins.	_____ M

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Initial Shut-In Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Second Flow Pressure Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Final Shut-In Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.
_____ Press.	Point Minutes _____ Press. _____	Point Minutes _____ Press. _____	Point Minutes _____ Press. _____
_____	63 _____	_____	63 <u>1067</u>
_____	66 _____	_____	66 <u>1090</u>
_____	69 _____	_____	69 <u>1109</u>
_____	72 _____	_____	72 <u>1125</u>
_____	75 _____	_____	75 <u>1140</u>
_____	78 _____	_____	78 <u>1156</u>
_____	81 _____	_____	81 <u>1169</u>
_____	84 _____	_____	84 <u>1180</u>
_____	87 _____	_____	87 <u>1190</u>
_____	90 _____	_____	90 _____
_____	93 _____	_____	93 _____
_____	96 _____	_____	96 _____
_____	99 _____	_____	99 _____
_____	102 _____	_____	102 _____
_____	105 _____	_____	105 _____
_____	108 _____	_____	108 _____
_____	111 _____	_____	111 _____
_____	114 _____	_____	114 _____
_____	117 _____	_____	117' _____
_____	120 _____	_____	120 _____

5289

TKL #5829
I



Company Range Oil Company, Inc. Lease & Well No. Miller #1-D
 Elevation 1364 Kelly Bushing Formation Bartlesville Effective Pay --- Ft. Ticket No. 5829
 Date 7-13-80 Sec. 12 Twp. 32 S Range 5 E County Cowley State KS
 Test Approved by Joe M. Baker Western Representative Fred G. Klaus

Formation Test No. 5 Interval Tested from 3048 ft. to 3066 ft. Total Depth 3066 ft.
 Packer Depth 3048 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.
 Packer Depth 3043 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set ----
 Top Recorder Depth (Inside) 3053 ft. Recorder Number 1588 Cap. 4200 PSI
 Bottom Recorder Depth (Outside) 3058 ft. Recorder Number 1559 Cap. 4200 PSI
 Below Straddle Recorder Depth ---- ft. Recorder Number ----- Cap. -----

Drilling Contractor Range Drilling Co. Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type Chemical Viscosity 41 Weight Pipe Length ---- I. D. ---- in.
 Weight 9.8 Water Loss 12.8 cc. Drill Pipe Length 2,906 I. D. 3.8 in.
 Chlorides 2,000 P.P.M. Test Tool Length 38 ft. Tool Size 5 1/2 in.
 Bars: Make --- Serial Number --- Anchor Length 18 ft. Size 5 1/2 in.
 Did Well Flow? NO Reversed Out -- Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Fair to steady blow throughout test.

Recovered 68 ft. of Gassy mud; very slightly oil cut.
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 3:40 ~~5:04~~ P.M. Time Started Off Bottom 7:15 ~~5:06~~ P.M. Maximum Temperature 118° F.
 Initial Hydrostatic Pressure (A) 1569 P.S.I.
 Initial Flow Period Minutes 30 (B) 25 P.S.I. to (C) 35 P.S.I.
 Initial Closed In Period Minutes 27 (D) 475 P.S.I.
 Final Flow Period Minutes 60 (E) 64 P.S.I. to (F) 63 P.S.I.
 Final Closed In Period Minutes 87 (G) 1190 P.S.I.
 Final Hydrostatic Pressure (H) 1489 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 7-13-80

Test Ticket No. 5829

Recorder No. 1558

Capacity 4200

Location 3053

Clock No. --

Elevation 1364 Kelly Bushing

Well Temperature 118

Point	Pressure	P.S.I.	Time Given	Time Computed
A Initial Hydrostatic Mud	1569	P.S.I.	3:40 P.M.	
B First Initial Flow Pressure	25	P.S.I.	30 Mins	30 Min
C First Final Flow Pressure	35	P.S.I.	30 Mins	27 Min
D Initial Closed-in Pressure	475	P.S.I.	60 Mins	60 Min
E Second Initial Flow Pressure	64	P.S.I.	90 Mins	87 Min
F Second Final Flow Pressure	63	P.S.I.		
G Final Closed-in Pressure	1190	P.S.I.		
H Final Hydrostatic Mud	1489	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 29 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0	25	0	35	0	64	0	63
P 2	5	25	3	44	5	59	3	72
P 3	10	26	6	55	10	59	6	78
P 4	15	27	9	72	15	59	9	90
P 5	20	29	12	95	20	59	12	108
P 6	25	31	15	137	25	59	15	127
P 7	30	35	18	206	30	59	18	158
P 8			21	299	35	63	21	219
P 9			24	388	40	63	24	304
P10			27	475	45	63	27	399
P11					50	63	30	492
P12					55	63	33	577
P13					60	63	36	677
P14							39	756
P15							42	818
P16							45	872
P17							48	921
P18							51	960
P19							54	994
P20							57	1023
							60	1046

WESTERN TESTING CO., INC.

Pressure Data

Date 7-13-80

Recorder No. 1558

Test Ticket No. 5829

Capacity 4200

Location 3053

Clock No. --

Elevation 1364 Kelly Bushing

Well Temperature -118

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1569	P.S.I.	3:40 P.M.	
B First Initial Flow Pressure	25	P.S.I.	30 Mins.	30 Mi
C First Final Flow Pressure	35	P.S.I.	30 Mins.	27 Mi
D Initial Closed-in Pressure	475	P.S.I.	60 Mins.	60 Mi
E Second Initial Flow Pressure	64	P.S.I.	90 Mins.	87 Mi
F Second Final Flow Pressure	63	P.S.I.		
G Final Closed-in Pressure	1190	P.S.I.		
H Final Hydrostatic Mud	1489	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 9 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 29 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	Press.	Point	Press.	Point	Press.	Point	Press.
Mins.		Minutes		Minutes		Minutes	
P 1						63	1067
P 2						66	1090
P 3						69	1109
P 4						72	1125
P 5						75	1140
P 6						78	1156
P 7						81	1169
P 8						84	1180
P 9						87	1190
P 10							
P 11							
P 12							
P 13							
P 14							
P 15							
P 16							
P 17							
P 18							
P 19							
P 20							



P. O. BOX 1599 PHONE (316) 838-0601
 WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
 FORMATION TESTING

Kelly Bushing

TICKET NO 5830
 Mississippi

Elevation 1364 KB Formation Missi Eff. Pay Ft.

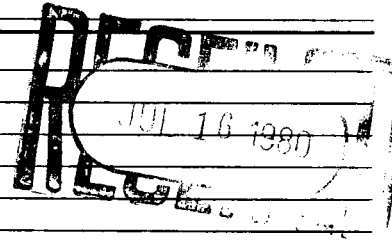
District Angada Date 7-14-80 Customer Order No. _____
 COMPANY NAME Range Oil Company, Inc.
 ADDRESS 250 PAGE COURT, 220 W. Angada, Wichita
 LEASE AND WELL NO. Miller #1-D COUNTY Cowley STATE Kan. Sec. 12 Twp. 32S Rge. 5E
 Mail Invoice To Same Co. Name _____ Address _____ No. Copies Requested 1
 Mail Charts To Same Co. Name _____ Address _____ No. Copies Requested 5

Formation Test No. 6 Interval Tested from 3079 ft. to 3092 ft. Total Depth 3092 ft.
 Packer Depth 3079 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3074 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3084 ft. Recorder Number 1558 Cap 4200 PSI
 Bottom Recorder Depth (Outside) 3087 ft. Recorder Number 1559 Cap 4200 PSI
 Below Straddle Recorder Depth - ft. Recorder Number - Cap -
 Drilling Contractor Range Oil Co. Rig #2 Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type Chen Viscosity 48 Weight Pipe Length - I. D. - in.
 Weight 9.8 Water Loss 12 cc. Drill Pipe Length 2937 I. D. 3.8 in.
 Chlorides 2000 P.P.M. Test Tool Length 33 ft. Tool Size 5 1/2 in.
 Jars: Make NO Serial Number - Anchor Length 13 ft. Size 5 1/2 in.
 Did Well Flow? NO Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 X H in.

Blow: String blow throughout test

Recovered 13 ft. of of gassy very light oil out mud.
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____



Remarks: Called 9:00 AM on location 10:50 made up tool 11:30 on back 6:00 PM.

Time Set Packer(s) 1:10 P.M. Time Started Off Bottom 4:10 A.M. Maximum Temperature 116
 Initial Hydrostatic Pressure (A) 1757 P.S.I.
 Initial Flow Period Minutes 30 (B) 34 P.S.I. to (C) 42 P.S.I.
 Initial Closed In Period Minutes 30 (D) 639 P.S.I.
 Final Flow Period Minutes 60 (E) 41 P.S.I. to (F) 29 P.S.I.
 Final Closed In Period Minutes 60 (G) 1031 P.S.I.
 Final Hydrostatic Pressure (H) 1498 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Joe M. Baker
 Signature of Customer or his authorized representative

Western Representative Fred & Klaus
Klaus

FIELD INVOICE

Open Hole Test	\$ 550.00
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
TOTAL	\$ 550.00

WESTERN TESTING CO., INC.

Pressure Data

Date 7-14-80

Test Ticket No. 5830

Recorder No. 1558

Capacity 4200

Location 3084 Ft.

Clock No. _____ Elevation 1364 NB

Well Temperature 116 °F

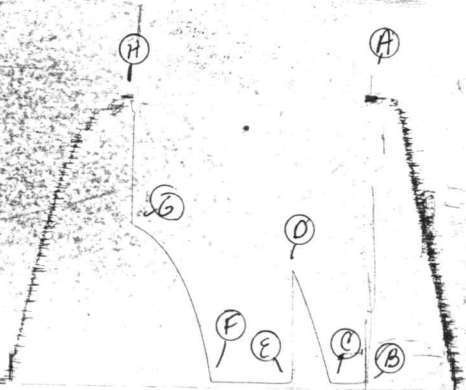
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1702</u> P.S.I.	Open Tool	<u>1:10 P</u> M	
B First Initial Flow Pressure	<u>40</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>25</u> Mins
C First Final Flow Pressure	<u>36</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins	<u>30</u> Mins
D Initial Closed-in Pressure	<u>635</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins	<u>60</u> Mins
E Second Initial Flow Pressure	<u>32</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins	<u>63</u> Mins
F Second Final Flow Pressure	<u>28</u> P.S.I.			
G Final Closed-in Pressure	<u>873</u> P.S.I.?			
H Final Hydrostatic Mud	<u>1582</u> P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
	final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 <u>0</u>	<u>40</u>	<u>0</u>	<u>36</u>	<u>0</u>	<u>32</u>	<u>0</u>	<u>28</u>	
P 2 <u>5</u>	<u>36</u>	<u>3</u>	<u>99</u>	<u>3</u>	<u>28</u>	<u>3</u>	<u>139</u>	
P 3 <u>10</u>	<u>36</u>	<u>6</u>	<u>175</u>	<u>6</u>		<u>6</u>	<u>219</u>	
P 4 <u>15</u>	<u>36</u>	<u>9</u>	<u>245</u>	<u>9</u>		<u>9</u>	<u>306</u>	
P 5 <u>20</u>	<u>36</u>	<u>12</u>	<u>310</u>	<u>12</u>		<u>12</u>	<u>378</u>	
P 6 <u>25</u>	<u>36</u>	<u>15</u>	<u>371</u>	<u>15</u>		<u>15</u>	<u>441</u>	
P 7 <u>30</u>		<u>18</u>	<u>437</u>	<u>18</u>		<u>18</u>	<u>498</u>	
P 8 <u>35</u>		<u>21</u>	<u>492</u>	<u>21</u>		<u>21</u>	<u>546</u>	
P 9 <u>40</u>		<u>24</u>	<u>542</u>	<u>24</u>		<u>24</u>	<u>592</u>	
P10 <u>45</u>		<u>27</u>	<u>589</u>	<u>27</u>		<u>27</u>	<u>629</u>	
P11 <u>50</u>		<u>30</u>	<u>635</u>	<u>30</u>		<u>30</u>	<u>664</u>	
P12 <u>55</u>		<u>33</u>		<u>33</u>		<u>33</u>	<u>696</u>	
P13 <u>60</u>		<u>36</u>		<u>36</u>	<u>28</u>	<u>36</u>	<u>725</u>	
P14 _____		<u>39</u>		<u>39</u>		<u>39</u>	<u>754</u>	
P15 _____		<u>42</u>		<u>42</u>		<u>42</u>	<u>772</u>	
P16 _____		<u>45</u>		<u>45</u>		<u>45</u>	<u>795</u>	
P17 _____		<u>48</u>		<u>48</u>		<u>48</u>	<u>816</u>	
P18 _____		<u>51</u>		<u>51</u>		<u>51</u>	<u>833</u>	
P19 _____		<u>54</u>		<u>54</u>		<u>54</u>	<u>845</u>	
P20 _____		<u>57</u>		<u>57</u>		<u>57</u>	<u>858</u>	
		<u>60</u>		<u>60</u>		<u>60</u>	<u>866</u>	
						<u>63</u>	<u>873</u>	

SK # 5830

I



8551

Company Range Oil Company, Inc. Lease & Well No. Miller 'D' #1
 Elevation 1364 Kelly Bushing Mississippi Formation Effective Pay ----- Ft. Ticket No. 5830
 Date 7/14/80 Sec. 12 Twp. 32S Range 5E County Cowley State Kansas
 Test Approved by Joe M. Baker Western Representative Fred G. Klaus

Formation Test No. 6 Interval Tested from 3079 ft. to 3092 ft. Total Depth 3092 ft.
 Packer Depth 3079 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3074 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3084 ft. Recorder Number 1558 Cap. 4200 PSI
 Bottom Recorder Depth (Outside) 3087 ft. Recorder Number 1559 Cap. 4200 PSI
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Co. Rig #2 Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type chemical Viscosity 41 Weight Pipe Length - I. D. - in.
 Weight 9.8 Water Loss 12 cc. Drill Pipe Length 2937 I. D. 3.8 in.
 Chlorides 2,000 P.P.M. Test Tool Length 33 ft. Tool Size 5 1/2 in.
 Jars: Make No Serial Number - Anchor Length 13 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Strong blow throughout test.

Recovered 13 ft. of gassy very light oil cut mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 1:10 A.M. Time Started Off Bottom 4:10 P.M. Maximum Temperature 116°
 Initial Hydrostatic Pressure 1702 P.S.I. (A)
 Initial Flow Period 25 Minutes (B) 40 P.S.I. to (C) 36 P.S.I.
 Initial Closed In Period 30 Minutes (D) 635 P.S.I.
 Final Flow Period 60 Minutes (E) 32 P.S.I. to (F) 28 P.S.I.
 Final Closed In Period 63 Minutes (G) 873 P.S.I.
 Final Hydrostatic Pressure 1582 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 7-14-80

Test Ticket No. 5830

Recorder No. 1558

Capacity 4200

Location 3084 Ft.

Clock No. --

Elevation 1364 Kelly Bushing

Well Temperature 116 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	1702 P.S.I.	1:10 P.M.	
B First Initial Flow Pressure	40 P.S.I.	30 Mins.	25 Mins.
C First Final Flow Pressure	36 P.S.I.	30 Mins.	30 Mins.
D Initial Closed-in Pressure	635 P.S.I.	60 Mins.	60 Mins.
E Second Initial Flow Pressure	32 P.S.I.	60 Mins.	63 Mins.
F Second Final Flow Pressure	28 P.S.I.		
G Final Closed-in Pressure	873 P.S.I.		
H Final Hydrostatic Mud	1582 P.S.I.		

PRESSURE BREAKDOWN

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

Initial Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 21 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	40	0	36	0	32	0	28	0
P 2	36	5	99	3	28	5	129	3
P 3	36	10	175	6	28	10	219	6
P 4	36	15	245	9	28	15	306	9
P 5	36	20	310	12	28	20	378	12
P 6	36	25	371	15	28	25	441	15
P 7			437	18	28	30	498	18
P 8			492	21	28	35	546	21
P 9			542	24	28	40	592	24
P10			589	27	28	45	629	27
P11			635	30	28	50	664	30
P12					28	55	696	33
P13					28	60	725	36
P14							754	39
P15							772	42
P16							795	45
P17							816	48
P18							833	51
P19							845	54
P20							858	57
							866	60
							873	63



WESTERN TESTING CO., INC.

FORMATION TESTING

Kelly Bushing

TICKET No 5831
Mississippi

5831

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 838-0601

Elevation 1364 KB Formation Miss. Eff. Pay Ft.

District Augusta Date 7-14-80 Customer Order No.

COMPANY NAME Range oil Co.

ADDRESS 250 PAGE COURT Wichita 12 325 SE

LEASE AND WELL NO Miller #1-D COUNTY Crowley STATE Ka Sec 12 Twp 325 Rge 5E

Mail Invoice To same Co. Name Address No. Copies Requested 1

Mail Charts To same Address No. Copies Requested 5

Formation Test No. 7 Interval Tested from 3097 ft. to 3115 ft. Total Depth 3115 ft.
Packer Depth 3092 ft. Size 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 3097 ft. Size 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3002 ft. Recorder Number 1559 Cap. 4200 PSI
Bottom Recorder Depth (Outside) 3105 ft. Recorder Number 1558 Cap. 4200 PSI
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range oil Co. Rig #2 Drill Collar Length 122 I. D. 3 3/4 in.
Mud Type Chem Viscosity 45 Weight Pipe Length - I. D. - in.
Weight 9.8 Water Loss 12 cc. Drill Pipe Length 2955 I. D. 3.8 in.
Chlorides 2000 P.P.M. Test Tool Length 38 ft. Tool Size 5 1/2 in.
Jars: Make NO Serial Number - Anchor Length 18 ft. Size 5 1/2 in.
Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 x 4 in.

Blow: Low blow throughout test

Recovered 1477 ft. of gas in pipe
Recovered 30 ft. of gas very light oil cut mud
Recovered 27 ft. of gas oil cut mud
Recovered 4 ft. of heavy oil cut mud -> all 20% oil
Recovered 3 ft. of free oil -> 80% oil

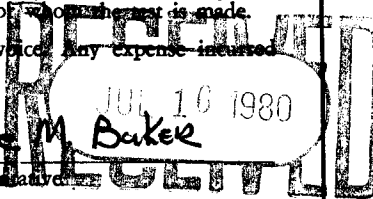
Remarks: on location 9:30 PM started out 11:55 on bank made up tool 1:55 AM (7-14)

Time Set Packer(s)	A.M.	Time Started Off Bottom	A.M.	Maximum Temperature
4:05		7:05		116
Initial Hydrostatic Pressure	(A)	1611	P.S.I.	
Initial Flow Period	Minutes	30	(B)	37 P.S.I. to (C)
Initial Closed In Period	Minutes	30	(D)	713 P.S.I.
Final Flow Period	Minutes	60	(E)	42 P.S.I. to (F)
Final Closed In Period	Minutes	60	(G)	737 P.S.I.
Final Hydrostatic Pressure	(H)	1510	P.S.I.	

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made. All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Joe M. Baker Signature of Customer or his authorized representative
Western Representative Fred H. Klaus Klaus



FIELD INVOICE

Open Hole Test	\$ 550.00
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$ 31.50
Fluid Sampler	\$
Extra Charts	\$
TOTAL	\$ 581.50

WESTERN TESTING CO., INC.
Pressure Data

Date 7-14-80

Test Ticket No. 5831

Recorder No. 1559

Capacity 4200

Location 3102 Ft.

Clock No. _____ Elevation 1364 KB

Well Temperature 116 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1608</u> P.S.I.	Open Tool	<u>4:05 A</u> M	
B First Initial Flow Pressure	<u>33</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>29</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>627</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>42</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>69</u> Mins.
F Second Final Flow Pressure	<u>46</u> P.S.I.			
G Final Closed-in Pressure	<u>750</u> P.S.I.			
H Final Hydrostatic Mud	<u>1519</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

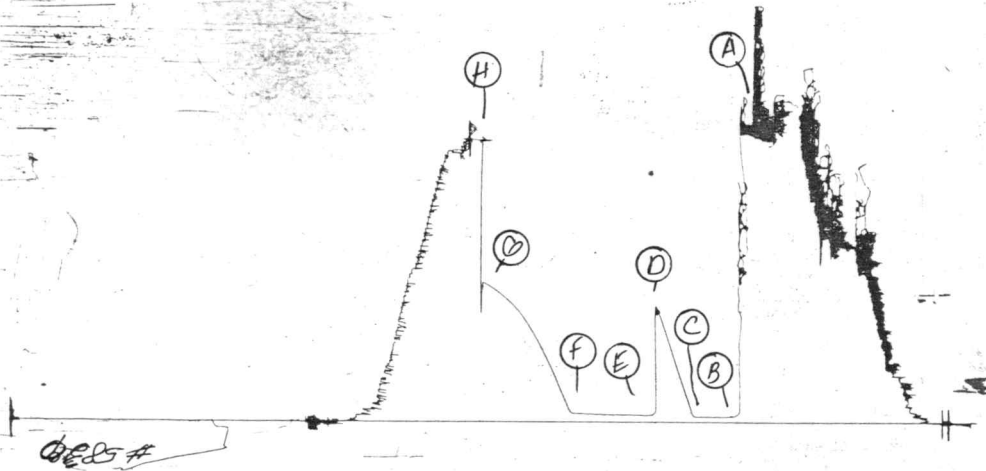
Initial Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 23 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	0	0	29	0	42	0	46
P 2	5	3	31	5	36	3	67
P 3	10	6	728 136	10	39	6	113
P 4	15	9	126 178	15	39	9	161
P 5	20	12	201	20	39	12	213
P 6	25	15	263	25	39	15	261
P 7	30	18	336	30	39	18	314
P 8	35	21	397	35	41	21	353
P 9	40	24	458	40	42	24	397
P10	45	27	521	45	42	27	435
P11	50	30	577	50	44	30	475
P12	55	33	627	55	45	33	512
P13	60	36		60	46	36	546
P14		39		65		39	575
P15		42		70		42	600
P16		45		75		45	627
P17		48		80		48	648
P18		51		85		51	668
P19		54		90		54	685
P20		57				57	700
		60				60	718
						63	733
						66	741
						69	750

JKT # 5831



Company Range Oil Company, Inc. Lease & Well No. Miller #1-D
 Elevation 1364 Kelly Bushing Formation Mississippi Effective Pay -- Ft. Ticket No. 5831
 Date 7-14-80 Sec. 12 Twp. 32 S Range 5 E County Cowley State Kansas
 Test Approved by Joe M. Baker Western Representative Fred G. Klaus

Formation Test No. 7 Interval Tested from 3097 ft. to 3115 ft. Total Depth 3115 ft.
 Packer Depth 3092 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.
 Packer Depth 3097 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.

Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 3102 ft. Recorder Number 1559 Cap. 5200 PSI
 Bottom Recorder Depth (Outside) 3105 ft. Recorder Number 1558 Cap. 4200 PSI
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. --

Drilling Contractor Range Drilling Rig #2 Drill Collar Length 122 I. D. 3 3/4 in.
 Mud Type Chemical Viscosity 45 Weight Pipe Length -- I. D. -- in.
 Weight 9.8 Water Loss 12 cc. Drill Pipe Length 2955 I. D. 3.8 in.
 Chlorides 2,000 P.P.M. Test Tool Length 38 ft. Tool Size 5 1/2 in.
 Jars: Make NO Serial Number -- Anchor Length 18 ft. Size 5 1/2 in.
 Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Fair blow throughout test

Recovered 1477 ft. of Gas in pipe
 Recovered 30 ft. of Gasey very light oil cut mud.
 Recovered 27 ft. of Gasey oil cut mud. 20% Oil
 Recovered 6 ft. of Heavy oil cut mud 80% Oil
 Recovered 3 ft. of Free Oil

Remarks: _____

Time Set Packer(s) 4:05 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 7:05 ~~P.M.~~ ^{A.M.} Maximum Temperature 116⁰
 Initial Hydrostatic Pressure (A) 1608 P.S.I.
 Initial Flow Period Minutes 30 (B) 33 P.S.I. to (C) 29 P.S.I.
 Initial Closed In Period Minutes 33 (D) 627 P.S.I.
 Final Flow Period Minutes 60 (E) 42 P.S.I. to (F) 46 P.S.I.
 Final Closed In Period Minutes 69 (G) 750 P.S.I.
 Final Hydrostatic Pressure (H) 1519 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 7-14-80 Test Ticket No. 5831
 Recorder No. 1559 Capacity 4200 Location 3102 Ft.
 Clock No. -- Elevation 1364 Kelly Bushing Well Temperature 116 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1608</u> P.S.I.	Open Tool	<u>4:05</u> A.M.	
B First Initial Flow Pressure	<u>33</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>29</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>627</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>42</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>69</u> Mins.
F Second Final Flow Pressure	<u>46</u> P.S.I.			
G Final Closed-in Pressure	<u>750</u> P.S.I.			
H Final Hydrostatic Mud	<u>1519</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>11</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>23</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>0</u> 33	<u>0</u> 29	<u>0</u> 42	<u>0</u> 46			
P 2	<u>5</u> 30	<u>3</u> 31	<u>5</u> 36	<u>3</u> 67			
P 3	<u>10</u> 29	<u>6</u> 136	<u>10</u> 39	<u>6</u> 113			
P 4	<u>15</u> 29	<u>9</u> 178	<u>15</u> 39	<u>9</u> 161			
P 5	<u>20</u> 29	<u>12</u> 201	<u>20</u> 39	<u>12</u> 213			
P 6	<u>25</u> 29	<u>15</u> 263	<u>25</u> 39	<u>15</u> 261			
P 7	<u>30</u> 29	<u>18</u> 336	<u>30</u> 39	<u>18</u> 314			
P 8		<u>21</u> 397	<u>35</u> 41	<u>21</u> 353			
P 9		<u>24</u> 458	<u>40</u> 42	<u>24</u> 397			
P10		<u>27</u> 521	<u>45</u> 42	<u>27</u> 435			
P11		<u>30</u> 577	<u>50</u> 44	<u>30</u> 475			
P12		<u>33</u> 627	<u>55</u> 45	<u>33</u> 512			
P13			<u>60</u> 46	<u>36</u> 546			
P14				<u>39</u> 575			
P15				<u>42</u> 600			
P16				<u>45</u> 627			
P17				<u>48</u> 648			
P18				<u>51</u> 668			
P19				<u>54</u> 685			
P20				<u>57</u> 700			
				<u>60</u> 718			
				<u>63</u> 733			
				<u>66</u> 741			
				<u>69</u> 750			