



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

WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 5933

Kelly Bushing

Elevation 1437 KB Formation Mississippi Eff. Pay - Ft.

District Augusta Date 8-30-80 Customer Order No. -

COMPANY NAME Range Oil Company

ADDRESS 240 Page Court 220 W Douglas Wichita Ks 67202

LEASE AND WELL NO. Rudiger #1 COUNTY Butler STATE Ks. Sec. 12 Twp. 23S Rge. 3E

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

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 1 Interval Tested from 2500 ft. to 2515 ft. Total Depth 2515 ft.
Packer Depth 2500 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2495 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 2508 ft. Recorder Number 3354 Cap. 4200
Bottom Recorder Depth (Outside) 2511 ft. Recorder Number 1560 Cap. 4500
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Oil Co. Rig #1 Drill Collar Length 90 I. D. 2 1/2 in.
Mud Type Chem Viscosity 47 Weight Pipe Length - I. D. - in.
Weight 10.1 Water Loss 13.6 cc Drill Pipe Length 2390 I. D. 3.8 in.
Chlorides 2300 P.P.M. Test Tool Length 35 ft. Tool Size 4200 in.
Jars: Make - Serial Number - Anchor Length 15 ft. Size 4200 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 1/2 in.

Blow: Very weak 30 minutes (Reset tool arce)

Recovered 15 ft. of Slightly oil cut mud w/ good show of oil on top 10% oil 90% mud
Recovered 60 ft. of Very slightly oil cut mud (too small to measure)
Recovered - ft. of
Recovered - ft. of
Recovered - ft. of
Remarks:

On location 7:00 AM Packer up test 8:30 AM Job complete 3:00 PM 8-30-80

Final Flow Period	Minutes	(D)	580	P.S.I.	162
Final Closed In Period	30	(E)	50	P.S.I.	
Final Hydrostatic Pressure	60	(G)	680	P.S.I.	46
		(H)	1160	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: [Signature] Signature of Customer or his authorized representative

Western Representative Norman Allen

RECEIVED SEP 2- 1980

FIELD INVOICE

Open Hole Test	\$ 550.00
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$ 27.00
Fluid Sampler	\$
Extra Charts	\$
TOTAL	\$ 577.00

WESTERN TESTING CO., INC.

Pressure Data

Date 8-30-80

Test Ticket No. 5953

Recorder No. 1560

Capacity 4500

Location 2511 Ft.

Clock No. _____ Elevation 1437 XB

Well Temperature 102 °F

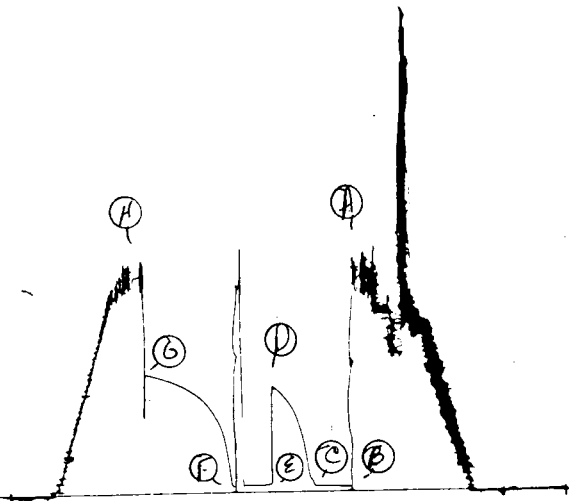
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1264</u>	P.S.I.	<u>9:30 A</u>	<u>M</u>
B First Initial Flow Pressure	<u>35</u>	P.S.I.	<u>30</u>	Mins. <u>25</u> Mins.
C First Final Flow Pressure	<u>38</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
D Initial Closed-in Pressure	<u>628</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
E Second Initial Flow Pressure	<u>46</u>	P.S.I.	<u>60</u>	Mins. <u>63</u> Mins.
F Second Final Flow Pressure	<u>39</u>	P.S.I.		
G Final Closed-in Pressure	<u>703</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1264</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>5</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>21</u> 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>35</u>	<u>0</u>	<u>38</u>	<u>0</u>	<u>46</u>	<u>0</u>	<u>39</u>
P 2 <u>5</u>	<u>35</u>	<u>3</u>	<u>81</u>	<u>5</u>	<u>44</u>	<u>3</u>	<u>183</u>
P 3 <u>10</u>	<u>36</u>	<u>6</u>	<u>218</u>	<u>10</u>	<u>43</u>	<u>6</u>	<u>306</u>
P 4 <u>15</u>	<u>37</u>	<u>9</u>	<u>329</u>	<u>15</u>	<u>43</u>	<u>9</u>	<u>386</u>
P 5 <u>20</u>	<u>37</u>	<u>12</u>	<u>405</u>	<u>20</u>	<u>43</u>	<u>12</u>	<u>433</u>
P 6 <u>25</u>	<u>38</u>	<u>15</u>	<u>468</u>	<u>25</u>	<u>Flushed Tool</u>	<u>15</u>	<u>477</u>
P 7 <u>30</u>		<u>18</u>	<u>511</u>	<u>30</u>	<u>39</u>	<u>18</u>	<u>511</u>
P 8 <u>35</u>		<u>21</u>	<u>546</u>	<u>35</u>		<u>21</u>	<u>536</u>
P 9 <u>40</u>		<u>24</u>	<u>579</u>	<u>40</u>		<u>24</u>	<u>559</u>
P10 <u>45</u>		<u>27</u>	<u>599</u>	<u>45</u>		<u>27</u>	<u>577</u>
P11 <u>50</u>		<u>30</u>	<u>628</u>	<u>50</u>		<u>30</u>	<u>599</u>
P12 <u>55</u>		<u>33</u>		<u>55</u>		<u>33</u>	<u>613</u>
P13 <u>60</u>		<u>36</u>		<u>60</u>		<u>36</u>	<u>627</u>
P14		<u>39</u>		<u>65</u>		<u>39</u>	<u>637</u>
P15		<u>42</u>		<u>70</u>		<u>42</u>	<u>650</u>
P16		<u>45</u>		<u>75</u>		<u>45</u>	<u>660</u>
P17		<u>48</u>		<u>80</u>		<u>48</u>	<u>667</u>
P18		<u>51</u>		<u>85</u>		<u>51</u>	<u>676</u>
P19		<u>54</u>		<u>90</u>		<u>54</u>	<u>685</u>
P20		<u>57</u>				<u>57</u>	<u>691</u>
		<u>60</u>				<u>60</u>	<u>696</u>
						<u>63</u>	<u>703</u>

JKP # 5933

0



Range Oil Company, Inc.

Rudiger #1

Company 1437 Kelly Bushing Mississippi Lease & Well No. ----- Ticket No. 5933
 Elevation 8/30/80 Formation 12 23S 3E Effective Pay Butler Ft. Kansas
 Date 8/30/80 Sec. 12 Twp. 23S Range 3E County Butler State Kansas
 Test Approved by Stephen M. Kreidler Western Representative Norman Allen

Formation Test No. 1 Interval Tested from 2500 ft. to 2515 ft. Total Depth 2515 ft.

Packer Depth 2500 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2495 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2508 ft.

Recorder Number 3354 Cap. 4200

Bottom Recorder Depth (Outside) 2511 ft.

Recorder Number 1560 Cap. 4500

Below Straddle Recorder Depth - ft.

Recorder Number - Cap. -

Drilling Contractor Range Drlg. Co. Rig #1

Drill Collar Length 90 I. D. 2 1/4 in.

Mud Type chemical Viscosity 47

Weight Pipe Length - I. D. - in.

Weight 10.1 Water Loss 13.6 cc.

Drill Pipe Length 2390 I. D. 3.8 in.

Chlorides 2,300 P.P.M.

Test Tool Length 35 ft. Tool Size 4 1/2 OD in.

Jars: Make - Serial Number -

Anchor Length 15 ft. Size 4 1/2 OD 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

Blow: Very weak thirty minutes. (Reset tool once)

Recovered 15 ft. of slightly oil cut mud with good show of oil on top . (10% oil; 90 mud)

Recovered 60 ft. of very slightly oil cut mud (too small to measure)

Recovered - ft. of -

Recovered - ft. of -

Remarks: READ OUTSIDE CHART

Time Set Packer(s) 9:30 ~~P.M.~~ A.M. Time Started Off Bottom 12:00 ~~P.M.~~ A.M. Maximum Temperature 102°

Initial Hydrostatic Pressure 1264 (A) P.S.I.

Initial Flow Period 25 Minutes (B) 35 P.S.I. to (C) 38 P.S.I.

Initial Closed In Period 30 Minutes (D) 628 P.S.I.

Final Flow Period 30 Minutes (E) 46 P.S.I. to (F) 39 P.S.I.

Final Closed In Period 63 Minutes (G) 703 P.S.I.

Final Hydrostatic Pressure 1264 (H) P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 8-30-80 Recorder No. 1560 Capacity 4500 Test Ticket No. 5933
 Clock No. ----- Elevation 1437 Kelly Bushing Location 2511 Ft. -----
 Well Temperature 102 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1264</u>	P.S.I.	<u>9:30</u> A. <u>-----</u> M	
B First Initial Flow Pressure	<u>35</u>	P.S.I.		
C First Final Flow Pressure	<u>38</u>	P.S.I.	<u>30</u> Mins.	<u>25</u> Mins.
D Initial Closed-in Pressure	<u>628</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>46</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>39</u>	P.S.I.	<u>60</u> Mins.	<u>63</u> Mins.
G Final Closed-in Pressure	<u>703</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1264</u>	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: 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: 6 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.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>35</u>	<u>0</u>	<u>38</u>	<u>0</u>	<u>46</u>	<u>0</u>	<u>39</u>
P 2 <u>5</u>	<u>35</u>	<u>3</u>	<u>81</u>	<u>5</u>	<u>44</u>	<u>3</u>	<u>183</u>
P 3 <u>10</u>	<u>36</u>	<u>6</u>	<u>218</u>	<u>10</u>	<u>43</u>	<u>6</u>	<u>306</u>
P 4 <u>15</u>	<u>37</u>	<u>9</u>	<u>329</u>	<u>15</u>	<u>43</u>	<u>9</u>	<u>386</u>
P 5 <u>20</u>	<u>37</u>	<u>12</u>	<u>405</u>	<u>20</u>	<u>43</u>	<u>12</u>	<u>433</u>
P 6 <u>25</u>	<u>38</u>	<u>15</u>	<u>468</u>	<u>25</u>	<u>43</u>	<u>15</u>	<u>477</u>
P 7 <u>-----</u>	<u>-----</u>	<u>18</u>	<u>511</u>	<u>30</u>	<u>39</u>	<u>18</u>	<u>511</u>
P 8 <u>-----</u>	<u>-----</u>	<u>21</u>	<u>546</u>	<u>-----</u>	<u>-----</u>	<u>21</u>	<u>536</u>
P 9 <u>-----</u>	<u>-----</u>	<u>24</u>	<u>579</u>	<u>-----</u>	<u>-----</u>	<u>24</u>	<u>559</u>
P10 <u>-----</u>	<u>-----</u>	<u>27</u>	<u>599</u>	<u>-----</u>	<u>-----</u>	<u>27</u>	<u>577</u>
P11 <u>-----</u>	<u>-----</u>	<u>30</u>	<u>628</u>	<u>-----</u>	<u>-----</u>	<u>30</u>	<u>599</u>
P12 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>33</u>	<u>613</u>
P13 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>36</u>	<u>627</u>
P14 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>39</u>	<u>637</u>
P15 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>42</u>	<u>650</u>
P16 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>45</u>	<u>660</u>
P17 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>48</u>	<u>667</u>
P18 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>51</u>	<u>676</u>
P19 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>54</u>	<u>685</u>
P20 <u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>57</u>	<u>691</u>
						<u>60</u>	<u>696</u>
						<u>63</u>	<u>703</u>

Flushed Tool