



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 3638

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

Elevation 1370 KB Formation Mississippi Eff. Pay _____ Ft.

District Augusta Date 16 FEB 80 Customer Order No. _____

COMPANY NAME Range Oil Company Inc

ADDRESS _____

LEASE AND WELL NO. #1 Wallace COUNTY Marion STATE Kan Sec. 6 Twp 22S Rge 4E

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

Mail Charts To Same Address _____ No. Copies Requested 5

Formation Test No. 1 Interval Tested from 2372 ft. to 2414 ft. Total Depth 2414 ft.

Packer Depth 2367 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 2372 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 2376 ft. Recorder Number 1559 Cap 4200

Bottom Recorder Depth (Outside) 2379 ft. Recorder Number 1558 Cap 4200

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

Drilling Contractor Company Tools #1 Drill Collar Length 120' I. D. 2 1/4 in.

Mud Type Chemical Viscosity 50 Weight Pipe Length _____ I. D. _____ in.

Weight 9.8 Water Loss NT cc. Drill Pipe Length 2232' I. D. 3.8 in.

Chlorides NT P.P.M. Test Tool Length 42 ft. Tool Size 5 1/2 in.

Jars: Make _____ Serial Number _____ Anchor Length 42 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 FH in.

Blow: Weak blow on initial flow period / fan blow on final flow period

Recovered 20 ft. of mud

Recovered 60 ft. of mud with a trace of oil specks

Recovered 60 ft. of muddy water

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 12:05 P.M. Time Started Off Bottom 3:05 P.M. Maximum Temperature 105

Initial Hydrostatic Pressure (A) 1200 P.S.I.

Initial Flow Period Minutes 30 (B) 71 P.S.I. to (C) 62 P.S.I.

Initial Closed In Period Minutes 30 (D) 658 P.S.I.

Final Flow Period Minutes 60 (E) 114 P.S.I. to (F) 73 P.S.I.

Final Closed In Period Minutes 60 (G) 658 P.S.I.

Final Hydrostatic Pressure (H) 1179 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 WK Hager Thank You!

FIELD INVOICE

Open Hole Test	\$ <u>500.00</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____

TOTAL \$ 500.00

WESTERN TESTING CO., INC.

Pressure Data

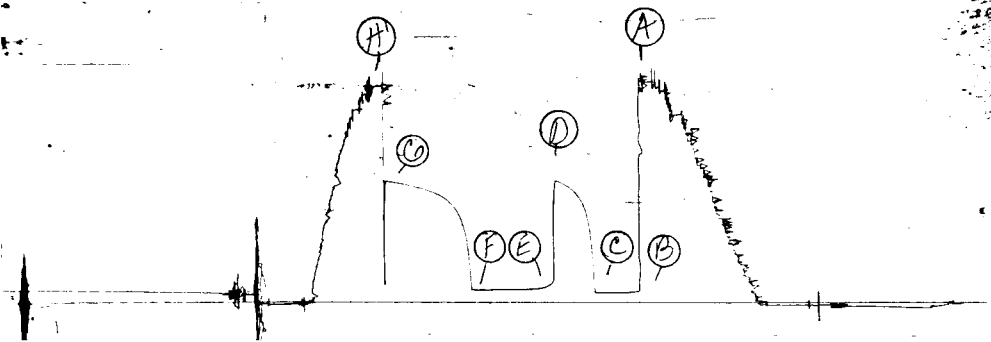
Date 2-16-80 Test Ticket No. 3638
 Recorder No. 1559 Capacity 4300 Location 2414 Ft.
 Clock No. _____ Elevation 1370 KB Well Temperature 103 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1190</u> P.S.I.	<u>12:05 P</u> M	
B First Initial Flow Pressure	<u>63</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>52</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>658</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>123</u> P.S.I.	<u>60</u> Mins.	<u>63</u> Mins.
F Second Final Flow Pressure	<u>68</u> 68 P.S.I.		
G Final Closed-in Pressure	<u>654</u> P.S.I.		
H Final Hydrostatic Mud	<u>1165</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown:		Initial Shut-In Breakdown:		Second Flow Pressure Breakdown:		Final Shut-In Breakdown:	
of <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		of <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		of <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		of <u>21</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>63</u>	0	<u>52</u>	0	<u>123</u>	0	<u>68</u> 68
P 2	<u>56</u>	3	<u>278</u>	5	<u>84</u>	3	<u>240</u>
P 3	<u>54</u>	6	<u>414</u>	10	<u>75</u>	6	<u>362</u>
P 4	<u>52</u>	9	<u>496</u>	15	<u>71</u>	9	<u>424</u>
P 5	<u>52</u>	12	<u>544</u>	20	<u>71</u>	12	<u>475</u>
P 6	<u>52</u>	15	<u>579</u>	25	<u>71</u>	15	<u>510</u>
P 7	<u>52</u>	18	<u>604</u>	30	<u>68</u>	18	<u>533</u>
P 8		21	<u>623</u>	35	<u>68</u>	21	<u>556</u>
P 9		24	<u>635</u>	40		24	<u>571</u>
P 10		27	<u>646</u>	45		27	<u>581</u>
P 11		30	<u>658</u>	50		30	<u>592</u>
P 12		33		55		33	<u>602</u>
P 13		36		60	<u>68</u>	36	<u>609</u>
P 14		39		65		39	<u>614</u>
P 15		42		70		42	<u>621</u>
P 16		45		75		45	<u>625</u>
P 17		48		80		48	<u>631</u>
P 18		51		85		51	<u>637</u>
P 19		54		90		54	<u>641</u>
P 20		57				57	<u>646</u>
		60				60	<u>650</u>
							<u>63</u> <u>654</u>

PL # 338
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Company Range Oil Company, Inc. Lease & Well No. Wallace#1
 Elevation 1370 Kelly Bushing Mississippi Effective Pay --- Ft. Ticket No. 3638
 Date 2/16/80 Sec. 6 Twp. 22S Range 4E County Marion State Kanas
 Test Approved by Stephen M. Kreidler Western Representative W. K. Hager

Formation Test No. 1 Interval Tested from 2372 ft. to 2414 ft. Total Depth 2414 ft.
 Packer Depth 2367 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2372 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2376 ft. Recorder Number 1559 Cap. 4200
 Bottom Recorder Depth (Outside) 2379 ft. Recorder Number 1558 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Drilling Rig #1 Drill Collar Length 120 I. D. 2 1/2 in.
 Mud Type chemical Viscosity 50 Weight Pipe Length - I. D. - in.
 Weight 9.8 Water Loss NT cc. Drill Pipe Length 2232 I. D. 3.8 in.
 Chlorides NT P.P.M. Test Tool Length 62 ft. Tool Size 5 1/2 in.
 Jars: Make - Serial Number - Anchor Length 42 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 FH in.

Blow: Weak blow on initial flow period. Fiar blow on final flow period.

Recovered 20 ft. of mud
 Recovered 60 ft. of mud with a trace of oil specks
 Recovered 60 ft. of muddy water
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 12:05 ~~A.M.~~ P.M. Time Started Off Bottom 3:05 ~~A.M.~~ P.M. Maximum Temperature 103°
 Initial Hydrostatic Pressure 1190 P.S.I. (A)
 Initial Flow Period 30 Minutes (B) 63 P.S.I. to (C) 52 P.S.I.
 Initial Closed In Period 30 Minutes (D) 658 P.S.I.
 Final Flow Period 60 Minutes (E) 123 P.S.I. to (F) 68 P.S.I.
 Final Closed In Period 63 Minutes (G) 654 P.S.I.
 Final Hydrostatic Pressure 1165 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 2-16-80 Test Ticket No. 3638
 Recorder No. 1559 Capacity 4200 Location 2414 Ft.
 Clock No. --- Elevation 1370 Kelly Bushing Well Temperature 103 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1190</u> P.S.I.	Open Tool	<u>12:05</u> P M	
B First Initial Flow Pressure	<u>63</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>52</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>658</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>123</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>63</u> Mins.
F Second Final Flow Pressure	<u>68</u> P.S.I.			
G Final Closed-in Pressure	<u>654</u> P.S.I.			
H Final Hydrostatic Mud	<u>1165</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>10</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>21</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>	<u>63</u>	<u>0</u>	<u>52</u>	<u>0</u>	<u>123</u>	<u>0</u>	<u>171</u>
P 2 <u>5</u>	<u>56</u>	<u>3</u>	<u>278</u>	<u>5</u>	<u>84</u>	<u>3</u>	<u>240</u>
P 3 <u>10</u>	<u>54</u>	<u>6</u>	<u>414</u>	<u>10</u>	<u>75</u>	<u>6</u>	<u>362</u>
P 4 <u>15</u>	<u>52</u>	<u>9</u>	<u>496</u>	<u>15</u>	<u>71</u>	<u>9</u>	<u>424</u>
P 5 <u>20</u>	<u>52</u>	<u>12</u>	<u>544</u>	<u>20</u>	<u>71</u>	<u>12</u>	<u>475</u>
P 6 <u>25</u>	<u>52</u>	<u>15</u>	<u>579</u>	<u>25</u>	<u>71</u>	<u>15</u>	<u>510</u>
P 7 <u>30</u>	<u>52</u>	<u>18</u>	<u>604</u>	<u>30</u>	<u>68</u>	<u>18</u>	<u>533</u>
P 8		<u>21</u>	<u>623</u>	<u>35</u>	<u>68</u>	<u>21</u>	<u>556</u>
P 9		<u>24</u>	<u>635</u>	<u>40</u>	<u>68</u>	<u>24</u>	<u>571</u>
P10		<u>27</u>	<u>646</u>	<u>45</u>	<u>68</u>	<u>27</u>	<u>581</u>
P11		<u>30</u>	<u>658</u>	<u>50</u>	<u>68</u>	<u>30</u>	<u>592</u>
P12				<u>55</u>	<u>68</u>	<u>33</u>	<u>602</u>
P13				<u>60</u>	<u>68</u>	<u>36</u>	<u>609</u>
P14						<u>39</u>	<u>614</u>
P15						<u>42</u>	<u>621</u>
P16						<u>45</u>	<u>625</u>
P17						<u>48</u>	<u>631</u>
P18						<u>51</u>	<u>637</u>
P19						<u>54</u>	<u>641</u>
P20						<u>57</u>	<u>646</u>
						<u>60</u>	<u>650</u>
						<u>63</u>	<u>654</u>