



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No. 8083

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 1440 KB Formation MISS Eff. Pay Ft.

R040 District AUGUSTA Date 3-19-85 Customer Order No.
COMPANY NAME RANGE Oil Company Inc.
ADDRESS 240 PACE CT. 220 W DOUGLAS WICHITA, KS 67202
LEASE AND WELL NO. KNOLLENBURG #1 COUNTY BUTLER STATE KS Sec. 35 Twp 28S Rge. 6E
Mail Invoice To SAME No. Copies Requested 1
Co. Name Address
Mail Charts To #1 KNOLLENBURG SAME No. Copies Requested 5
Address

Formation Test No. 1 Interval Tested From 2853 ft. to 2862 ft. Total Depth 2862 ft.
Packer Depth 2848 ft. Size 6.75 in. Packer Depth - ft. Size in.
Packer Depth 2853 ft. Size 6.75 in. Packer Depth - ft. Size in.
Depth of Selective Zone Set
Top Recorder Depth (Inside) 2855 ft. Recorder Number 3351 Cap. 4000
Bottom Recorder Depth (Outside) 2858 ft. Recorder Number 1565 Cap. 4900
Below Straddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor RANGE #1 Drill Collar Length 146 I. D. 2.25 in.
Mud Type CHEM Viscosity 45 Weight Pipe Length - I. D. in.
Weight 9.5 Water Loss 11 cc. Drill Pipe Length 2687 I. D. 3.8 in.
Chlorides 1800 P.P.M. Test Tool Length 20 ft. Tool Size 5.5 in.
Jars: Make - Serial Number Anchor Length 9 ft. Size 5.5 in.
Did Well Flow? Reversed Out Surface Choke Size .75 in. Bottom Choke Size .75 in.
Main Hole Size 7.78 in. Tool Joint Size 4 1/2 x 4 in.

Blow: Weak to Strong
Recovered 600 ft. of Gas in Pipe
Recovered 1 ft. of Gassy oil
Recovered 50 ft. of Slightly oil cut Muddy WATER 5900/1
Recovered 120 ft. of Water
Recovered ft. of
Chlorides 81,000 P.P.M. Sample Jars used 2 Remarks:

Time On Location 2:00 P.M. Time Pick Up Tool 5:45 P.M. Time Off Location A.M. P.M.
Time Set Packer(s) 7:15 P.M. Time Started Off Bottom 10:15 P.M. Maximum Temperature 102°F
Initial Hydrostatic Pressure (A) 1530 P.S.I.
Initial Flow Period Minutes 30 (B) 20 P.S.I. to (C) 30 P.S.I.
Initial Closed In Period Minutes 30 (D) 910 P.S.I.
Final Flow Period Minutes 60 (E) 40 P.S.I. to (F) 50 P.S.I.
Final Closed In Period Minutes 60 (G) 910 P.S.I.
Final Hydrostatic Pressure (H) 1530 P.S.I. # 3351

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 Robert Olsen
Signature of Customer or his authorized representative

Western Representative Allen Edgington 0525

FIELD INVOICE

Open Hole Test \$ 550
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

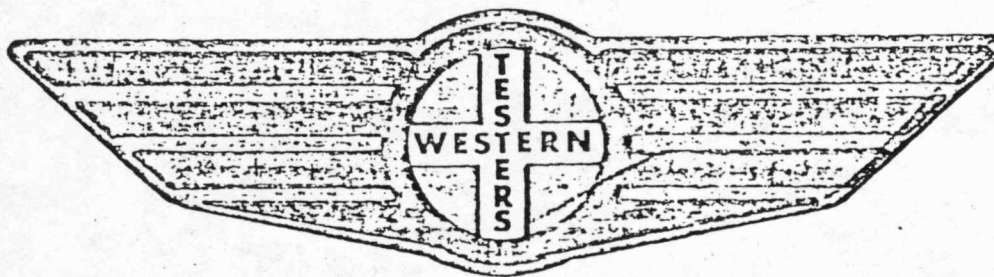
Date 3-19-85 Test Ticket No. 8083
 Recorder No. 3351 Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1535</u> P.S.I.		
B First Initial Flow Pressure	<u>22</u> P.S.I.	<u>30</u> Mins.	
C First Final Flow Pressure	<u>22</u> P.S.I.	<u>30</u> Mins.	
D Initial Closed-in Pressure	<u>906</u> P.S.I.	<u>60</u> Mins.	
E Second Initial Flow Pressure	<u>38</u> P.S.I.	<u>60</u> Mins.	
F Second Final Flow Pressure	<u>62</u> P.S.I.		
G Final Closed-in Pressure	<u>909</u> P.S.I.		
H Final Hydrostatic Mud	<u>1520</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>22</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 0	<u>22</u>	0	<u>22</u>	0	<u>38</u>	0	<u>62</u>
P 2 5		3	<u>141</u>	5	<u>38</u>	3	<u>363</u>
P 3 10		6	<u>466</u>	10	<u>42</u>	6	<u>594</u>
P 4 15		9	<u>751</u>	15	<u>45</u>	9	<u>715</u>
P 5 20		12	<u>821</u>	20	<u>48</u>	12	<u>775</u>
P 6 25		15	<u>855</u>	25	<u>51</u>	15	<u>813</u>
P 7 30	<u>22</u>	18	<u>873</u>	30	<u>53</u>	18	<u>835</u>
P 8 35		21	<u>886</u>	35	<u>55</u>	21	<u>851</u>
P 9 40		24	<u>895</u>	40	<u>57</u>	24	<u>863</u>
P10 45		27	<u>900</u>	45	<u>59</u>	27	<u>872</u>
P11 50		30	<u>904</u>	50	<u>60</u>	30	<u>879</u>
P12 55		33	<u>906</u>	55	<u>61</u>	33	<u>884</u>
P13 60		36		60	<u>62</u>	36	<u>888</u>
P14 65		39		65		39	<u>892</u>
P15 70		42		70		42	<u>895</u>
P16 75		45		75		45	<u>898</u>
P17 80		48		80		48	<u>901</u>
P18 85		51		85		51	<u>903</u>
P19 90		54		90		54	<u>905</u>
P20 95		57		95		57	<u>907</u>
100		60		100		60	<u>908</u>
						63	<u>909</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/19/85
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 1 TEST: 1
ELEVATION (KB): 1440 FORMATION: MISSISSIPPI
SECTION: 35 TOWNSHIP: 28S
RANGE: 6E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #3351 RANGE: 4000 CLOCK: 12

INTERVAL TEST FROM: 2853 FT TO: 2862 FT TOTAL DEPTH: 2862 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2848 FT SIZE: 6 3/4 IN Packer DEPTH: 2853 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 9.5 WATER LOSS (CC): 11.0
CHLORIDES (P.P.M.): 1800
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: 146 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2687 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 9 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: WEAK BLOW TO A STRONG BLOW THROUGHOUT TEST.

RECOVERED: 600 FT OF: GAS ABOVE FLUID.
RECOVERED: 1 FT OF: GASSY OIL.
RECOVERED: 50 FT OF: SLIGHTLY OIL CUT MUDDY WATER.
RECOVERED: FT OF: (5% OIL).
RECOVERED: 120 FT OF: WATER.
RECOVERED: FT OF: CHLORIDES 81000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 7:15 PM TIME STARTED OFF BOTTOM: 10:15 PM
WELL TEMPERATURE: 102 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1535 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 22 PSI TO (C) 22 PSI
INITIAL CLOSED IN PERIOD MIN: 33 (D) 906 PSI
FINAL FLOW PERIOD MIN: 60 (E) 38 PSI TO (F) 62 PSI
FINAL CLOSED IN PERIOD MIN: 63 (G) 909 PSI
FINAL HYDROSTATIC PRESSURE (H) 1520 PSI

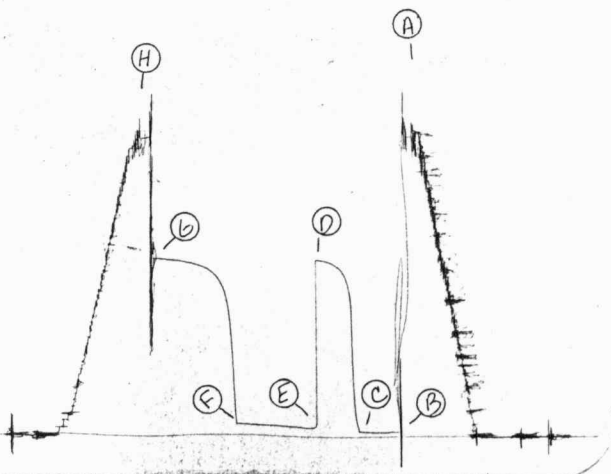
TKT # 8083

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TKT # 8083

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3351



WESTERN TESTING CO., INC. FORMATION TESTING

TICKET NO. 8084

P. O. BOX 1599 PHONE (316) 262-5861

Elevation 1440 KB Formation Miss Eff. Pay Ft.

WICHITA, KANSAS 67201

District 13 AUGUSTA Date 3-20-85 Customer Order No.

COMPANY NAME RANGE OIL CO INC

ADDRESS 240 PAGE CT. WICHITA, KS 67202

LEASE AND WELL NO. KNOLLENBURG #1 COUNTY BUTLER STATE KS Sec. 35 Twp. 28S Rge. 6E

Mail Invoice To SAME No. Copies Requested 1

Co. Name #1 KNOLLENBURG Address SAME No. Copies Requested 5

Formation Test No. 2 Interval Tested From 2864 ft. to 2868 ft. Total Depth 2868 ft.

Packer Depth 2859 ft. Size 6.75 in. Packer Depth ft. Size in.

Packer Depth 2864 ft. Size 6.75 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) AA 2852 ft. Recorder Number 3351 Cap. 4000

Bottom Recorder Depth (Outside) ft. Recorder Number Cap.

Below Saddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor RANGE #1 Drill Collar Length 146 I. D. 225 in.

Mud Type CHEM Viscosity 45 Weight Pipe Length I. D. in.

Weight 9.5 Water Loss 11.0 cc. Drill Pipe Length 2693 I. D. 3.8 in.

Chlorides 1800 P.P.M. Test Tool Length 25 ft. Tool Size 5.5 in.

Jars: Make Serial Number Anchor Length 4 ft. Size 5.5 in.

Did Well Flow? NO Reversed Out NO Surface Choke Size .75 in. Bottom Choke Size .75 in.

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

Blow: Weak thru out

Recovered 5 ft. of Very slight oil cut watery mud with few oil spots on top

Recovered 115 ft. of water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 81,000 P.P.M. Sample Jars used 2 Remarks:

Time On Location 5:30 A.M. Time Pick Up Tool 4:00 A.M. Time Off Location 10:45 A.M.

Time Set Packer(s) 5:30 A.M. Time Started Off Bottom 8:30 A.M. Maximum Temperature 102°

Initial Hydrostatic Pressure (A) 1530 P.S.I.

Initial Flow Period Minutes 30 (B) 10 P.S.I. to (C) 20 P.S.I.

Initial Closed In Period Minutes 30 (D) 930 P.S.I.

Final Flow Period Minutes 60 (E) 40 P.S.I. to (F) 50 P.S.I.

Final Closed In Period Minutes 60 (G) 930 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 Robert Olsen Signature of Customer or his authorized representative

Western Representative Allen Edgington

FIELD INVOICE 550

Open Hole Test \$ 550
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

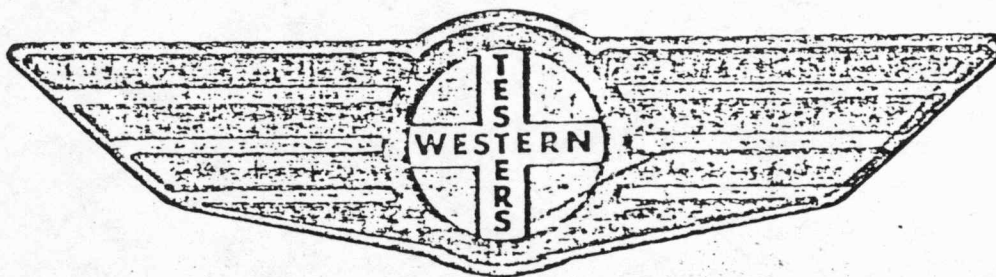
Date 3-20-85 Test Ticket No. 8084
 Recorder No. 3351 Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1527</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>11</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	
C First Final Flow Pressure	<u>18</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	
D Initial Closed-in Pressure	<u>917</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	
E Second Initial Flow Pressure	<u>42</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	
F Second Final Flow Pressure	<u>62</u> P.S.I.			
G Final Closed-in Pressure	<u>923</u> P.S.I.			
H Final Hydrostatic Mud	<u>1504</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>22</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 0	<u>11</u>	0	<u>18</u>	0	<u>42</u>	0	<u>62</u>
P 2 5	<u>11</u>	3	<u>124</u>	5	<u>42</u>	3	<u>126</u>
P 3 10	<u>12</u>	6	<u>600</u>	10	<u>43</u>	6	<u>257</u>
P 4 15	<u>13</u>	9	<u>803</u>	15	<u>44</u>	9	<u>691</u>
P 5 20	<u>14</u>	12	<u>863</u>	20	<u>45</u>	12	<u>842</u>
P 6 25	<u>16</u>	15	<u>884</u>	25	<u>48</u>	15	<u>875</u>
P 7 30	<u>18</u>	18	<u>899</u>	30	<u>50</u>	18	<u>892</u>
P 8 35		21	<u>906</u>	35	<u>52</u>	21	<u>902</u>
P 9 40		24	<u>910</u>	40	<u>54</u>	24	<u>908</u>
P10 45	<u>56</u>	27	<u>914</u>	45	<u>56</u>	27	<u>912</u>
P11 50		30	<u>917</u>	50	<u>58</u>	30	<u>914</u>
P12 55		33		55	<u>60</u>	33	<u>915</u>
P13 60	<u>62</u>	36		60	<u>62</u>	36	<u>916</u>
P14 65		39		65		39	<u>917</u>
P15 70		42		70		42	<u>918</u>
P16 75		45		75		45	<u>919</u>
P17 80		48		80		48	<u>920</u>
P18 85		51		85		51	<u>921</u>
P19 90		54		90		54	<u>922</u>
P20 95		57		95		57	<u>922</u>
100		60		100		60	<u>923</u>
						<u>63</u>	<u>923</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/20/85
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 1 TEST: 2
ELEVATION (KB): 1440 FORMATION: MISSISSIPPI
SECTION: 35 TOWNSHIP: 28S
RANGE: 6E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #3351 RANGE: 4000 CLOCK: 12

INTERVAL TEST FROM: 2864 FT TO: 2868 FT TOTAL DEPTH: 2868 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2859 FT SIZE: 6 3/4 IN Packer DEPTH: 2864 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 9.5 WATER LOSS (CC): 11.0
CHLORIDES (P.P.M.): 1800
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 146 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2693 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 25 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 4 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: WEAK BLOW THROUGHOUT TEST.

RECOVERED: 5 FT OF: VERY SLIGHT OIL CUT WATERY MUD.
RECOVERED: FT OF: (A FEW OIL SPOTS ON TOP).
RECOVERED: 115 FT OF: WATER.
RECOVERED: FT OF: CHLORIDES 81000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 5:30 AM TIME STARTED OFF BOTTOM: 8:30 AM
WELL TEMPERATURE: 102 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1527 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 11 PSI TO (C) 18 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 917 PSI
FINAL FLOW PERIOD MIN: 60 (E) 42 PSI TO (F) 62 PSI
FINAL CLOSED IN PERIOD MIN: 63 (G) 923 PSI
FINAL HYDROSTATIC PRESSURE (H) 1504 PSI

TKT # 8084

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