



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o 6325

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

WICHITA, KANSAS 67201

Elevation 1396 Kb

Formation Viola

Eff. Pay Ft.

COMPANY NAME Range Oil Co Inc District Augusta Date 2-23-85 Customer Order No. 240 Page Court

ADDRESS 220 West Douglas Wichita Kb

LEASE AND WELL NO. Minard #2 COUNTY Butler STATE Kb Sec. 8 Twp. 27 Rge. 6E

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

Mail Charts To Same #2 MINARD Address No. Copies Requested 5

Formation Test No. 1 Interval Tested From 3130 ft. to 3143 ft. Total Depth 3143 ft.
Packer Depth 3130 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3125 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3134 ft. Recorder Number 3474 Cap. 3000
Bottom Recorder Depth (Outside) 31 ft. Recorder Number 2605 Cap. 4150
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range #1 Drill Collar Length 150 I. D. 2.25 in.
Mud Type Chen Viscosity 45 Weight Pipe Length I. D. in.
Weight 10 Water Loss 10.2 cc. Drill Pipe Length 2960 I. D. 3.8 in.
Chlorides 1700 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make NV Serial Number Anchor Length 13 ft. Size 5 1/2 in.
Did Well Flow? NV Reversed Out NV Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 1 7/8 in. Tool Joint Size 4 1/2 x H in.

Blow: Weak blow throughout test

Recovered 3 ft. of heavy oil cut mud
Recovered 130 ft. of muddy salt water
Recovered ft. of
Recovered ft. of
Recovered ft. of
Chlorides 18,000 P.P.M. Sample Jars used Remarks:

Time On Location 9:00 A.M. Time Pick Up Tool 10:30 A.M. Time Off Location A.M.
Time Set Packer(s) 12:10 A.M. Time Started Off Bottom A.M. Maximum Temperature 112° P.M.
Initial Hydrostatic Pressure (A) 1698 P.S.I.
Initial Flow Period Minutes 30 (B) 37 P.S.I.
Initial Loss In Period Minutes 30 (C) 53 P.S.I.
Final Flow Period Minutes 60 (D) 554 P.S.I.
Final Closed In Period Minutes 60 (E) 60 P.S.I.
Final Hydrostatic Pressure (F) 90 P.S.I.
Final Flow Period Minutes 60 (G) 560 P.S.I.
Final Closed In Period Minutes 60 (H) 1698 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 Kenneth Kunka
Signature of Customer or his authorized representative

Western Representative Kenneth Kunka

FIELD INVOICE

Open Hole Test \$ 350
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 2/23/85

Test Ticket No. 6325

Recorder No. 3474

Capacity _____ Location _____

Clock No. _____ Elevation _____ Well Temperature _____

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>11694</u> P.S.I.	Open Tool		M
B. First Initial Flow Pressure	<u>36</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	Mir
C. First Final Flow Pressure	<u>46</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	Mir
D. Initial Closed-in Pressure	<u>548</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	Mir
E. Second Initial Flow Pressure	<u>60</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	Mir
F. Second Final Flow Pressure	<u>80</u> P.S.I.			
G. Final Closed-in Pressure	<u>561</u> P.S.I.			
H. Final Hydrostatic Mud	<u>11674</u> P.S.I.			

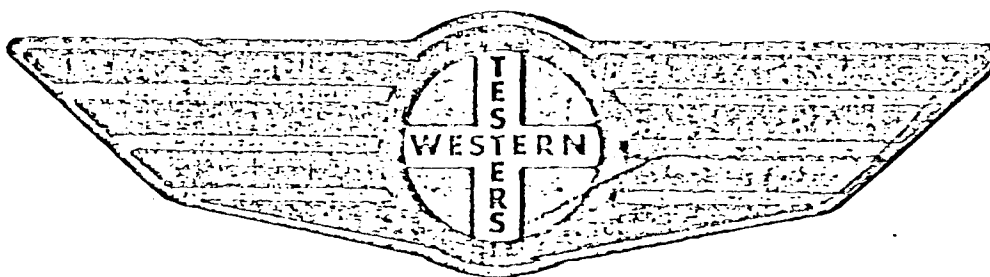
PRESSURE BREAKDOWN

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>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 0	<u>36</u>	0	<u>40</u>	0	<u>60</u>	0	<u>80</u>
P 2 5	<u>1</u>	3	<u>359</u>	5		3	<u>350</u>
P 3 10	<u>76</u>	6	<u>441</u>	10		6	<u>438</u>
P 4 15	<u>38</u>	9	<u>471</u>	15	<u>60</u>	9	<u>470</u>
P 5 20	<u>40</u>	12	<u>492</u>	20	<u>62</u>	12	<u>489</u>
P 6 25	<u>43</u>	15	<u>506</u>	25	<u>64</u>	15	<u>505</u>
P 7 30	<u>46</u>	18	<u>518</u>	30	<u>66</u>	18	<u>515</u>
P 8 35		21	<u>528</u>	35	<u>68</u>	21	<u>523</u>
P 9 40		24	<u>536</u>	40	<u>70</u>	24	<u>530</u>
P10 45		27	<u>541</u>	45	<u>72</u>	27	<u>536</u>
P11 50		30	<u>548</u>	50	<u>74</u>	30	<u>540</u>
P12 55		33		55	<u>77</u>	33	<u>543</u>
P13 60		36		60	<u>80</u>	36	<u>546</u>
P14 65		39		65		39	<u>549</u>
P15 70		42		70		42	<u>552</u>
P16 75		45		75		45	<u>555</u>
P17 80		48		80		48	<u>557</u>
P18 85		51		85		51	<u>558</u>
P19 90		54		90		54	<u>559</u>
P20 95		57		95		57	<u>560</u>
100		60		100		60	<u>561</u>

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 2/23/85

TICKET #6325

CUSTOMER: RANGE OIL COMPANY INC.

LEASE: MINARD

WELL: #2

TEST: 1

GEOLOGIST: MCMAHON

ELEVATION (KB): 1396

FORMATION: VIOLA

SECTION: 8

TOWNSHIP: 27S

RANGE: 6E

COUNTY: BUTLER

STATE: KANSAS

GAUGE SN #3474

RANGE: 3000

CLOCK: 12

INTERVAL TEST FROM: 3130 FT TO: 3143 FT TOTAL DEPTH: 3143 FT

DEPTH OF SELECTIVE ZONE: FT

PACKER DEPTH: 3130 FT SIZE: 6 3/4 IN PACKER DEPTH: 3125 FT SIZE: 6 3/4 IN

PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE

MUD TYPE: CHEM

VISCOSITY: 45

WEIGHT: 10

WATER LOSS (CC): 10.2

CHLORIDES (P.P.M.): 1700

JARS - MAKE:

SERIAL NUMBER:

DID WELL FLOW?

REVERSED OUT?

DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN

WEIGHT PIPE LENGTH: FT I.D.: IN

DRILL PIPE LENGTH: 2960 FT I.D.: 3.8 IN

TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN

ANCHOR LENGTH: 13 FT SIZE: 5 1/2 O.D. 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: 3 FT OF: HEAVY OIL CUT MUD.

RECOVERED: 130 FT OF: MUDDY SALT WATER. CHLORIDES 18000 P.P.M.

RECOVERED: FT OF:

RECOVERED: FT OF:

RECOVERED: FT OF:

RECOVERED: FT OF:

RECOVERED: FT OF:

RECOVERED: FT OF:

RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 12:10 A.M.

TIME STARTED OFF BOTTOM:

WELL TEMPERATURE: 112 °F

INITIAL HYDROSTATIC PRESSURE:

(A) 1694 PSI

INITIAL FLOW PERIOD MIN: 30

(B) 36 PSI TO (C) 46 PSI

INITIAL CLOSED IN PERIOD MIN: 30

(D) 548 PSI

FINAL FLOW PERIOD MIN: 60

(E) 60 PSI TO (F) 80 PSI

FINAL CLOSED IN PERIOD MIN: 60

(G) 561 PSI

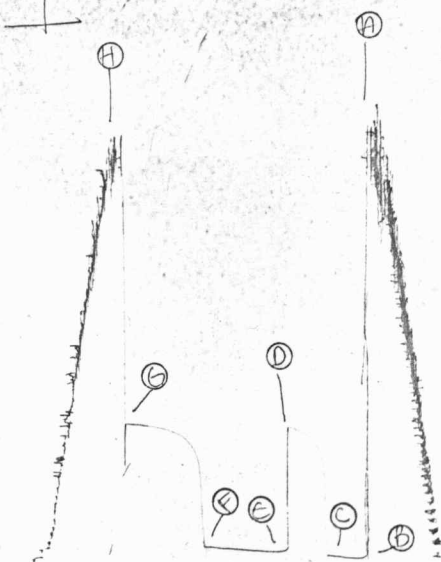
FINAL HYDROSTATIC PRESSURE

(H) 1674 PSI

TK# 6325

04/14
DST#1

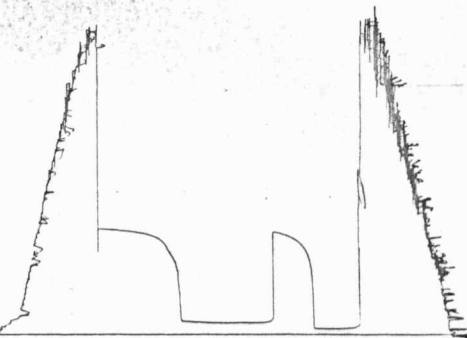
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2605