



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8334

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation _____ Formation K.C. Eff. Pay _____ Ft.

R040 District Pratt Date 10-6-85 Customer Order No. _____

COMPANY NAME Range Oil Co., Inc
ADDRESS 240 Page Court, 220 W. Douglas Wichita, KS 67202

LEASE AND WELL NO. Rumph #1 COUNTY Butler STATE KS Sec. 12 Twp. 29s Rge. 5E

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

Mail Charts To Same No. Copies Requested Reg
Address _____

Formation Test No. 1 Interval Tested From 2190 ft. to 2213 ft. Total Depth 2213 ft.

Packer Depth 2185 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 2190 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 2203 ft. Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 2206 ft. Recorder Number 1559 Cap. 4200

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

Drilling Contractor Range #2 Drill Collar Length 180 I. D. 2.2 in.

Mud Type Chem Viscosity 34 Weight Pipe Length _____ I. D. _____ in.

Weight 9.3 Water Loss 12.8 cc. Drill Pipe Length 1990 I. D. 3.8 in.

Chlorides 1600 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make _____ Serial Number _____ Anchor Length 23 ft. Size 5 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 7/8 in. Tool Joint Size 4 1/2 x H in.

Blow: Weak - Died in 20min I.F. - NO Blow FF

Recovered 5 ft. of Mud

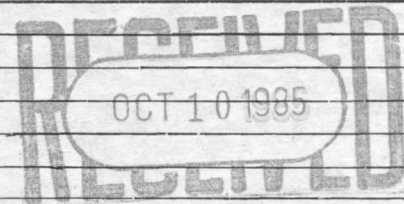
Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: _____



Time On Location 10:00 A.M. Time Pick Up Tool 11:30 P.M. Time Off Location 5:00 P.M.

Time Set Packer(s) 1:20 A.M. Time Started Off Bottom 3:20 P.M. Maximum Temperature 96°

Initial Hydrostatic Pressure _____ (A) 1135 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 19 P.S.I. to (C) 19 P.S.I.

Initial Closed In Period _____ Minutes 30 (D) 29 P.S.I.

Final Flow Period _____ Minutes 30 (E) 19 P.S.I. to (F) 19 P.S.I.

Final Closed In Period _____ Minutes 30 (G) 29 P.S.I.

Final Hydrostatic Pressure _____ (H) 1135 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 [Signature] 1625

FIELD INVOICE

Open Hole Test	\$ <u>550.00</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ _____
Telecopier	\$ _____
TOTAL	\$ <u>550.00</u>

Thank you

WESTERN TESTING CO., INC.

Pressure Data

Date 10-6

Test Ticket No. 8334

Recorder No. 13402

Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1140</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>23</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>25</u> P.S.I.	Initial Closed-in Pressure	<u>(</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>34</u> P.S.I.	Second Flow Pressure	<u>)</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>205</u> P.S.I.	Final Closed-in Pressure	<u>)</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>25</u> P.S.I.			
G Final Closed-in Pressure	<u>37</u> P.S.I.			
H Final Hydrostatic Mud	<u>1132</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 7 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: 7 Inc.
of 5 mins. and a
final inc. of 0 Min.

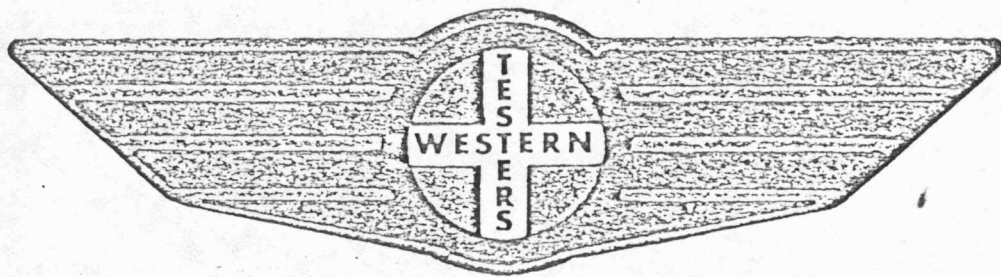
Final Shut-In
Breakdown: 11 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>23</u>	0	<u>25</u>	0	<u>205</u>	0	<u>25</u>
P 2 5	<u>(</u>	3	<u>25</u>	5	<u>205</u>	3	<u>25</u>
P 3 10	<u>)</u>	6	<u>26</u>	10	<u>(</u>	6	<u>26</u>
P 4 15		9	<u>27</u>	15	<u>)</u>	9	<u>27</u>
P 5 20	<u>23</u>	12	<u>28</u>	20		12	<u>28</u>
P 6 25	<u>24</u>	15	<u>29</u>	25		15	<u>29</u>
P 7 30	<u>25</u>	18	<u>30</u>	30	<u>25</u>	18	<u>30</u>
P 8 35		21	<u>31</u>	35		21	<u>31</u>
P 9 40		24	<u>32</u>	40		24	<u>33</u>
P10 45		27	<u>34</u>	45		27	<u>35</u>
P11 50		30		50		30	<u>37</u>
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL CO., INC. Lease & Well No. #1 RUMPH Sec. 12 Twp. 29S Rge. 5E Test No. 1 Date 10/6/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10-6-85 TICKET #8334
CUSTOMER: RANGE OIL COMPANY INC. LEASE: RUMPH
WELL: 1 TEST: 1 GEOLOGIST: H.G. MCMAHON III
ELEVATION (KB): 0 FORMATION: KANSAS CITY
SECTION: 12 TOWNSHIP: 29S
RANGE: 5E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #13402 RANGE: 4025 CLOCK: 12

INTERVAL TEST FROM: 2190 FT TO: 2213 FT TOTAL DEPTH: 2213 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2185 FT SIZE: 6 3/4 IN Packer DEPTH: 2190 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #2
MUD TYPE: CHEMICAL VISCOSITY: 34
WEIGHT: 9.3 WATER LOSS (CC): 12.8
CHLORIDES (P.P.M.): 1600

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 180 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 1990 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 23 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: INITIAL FLOW PERIOD WEAK BLOW;
DEAD IN 20 MINUTES.
FINAL FLOW PERIOD NO BLOW.

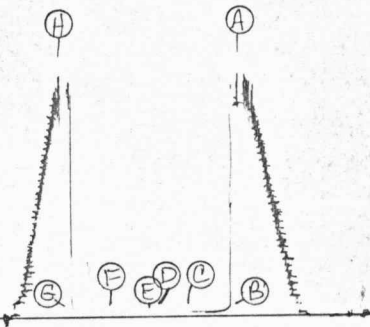
RECOVERED: 5 FT OF: MUD.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 1:20 AM TIME STARTED OFF BOTTOM: 3:20 AM
WELL TEMPERATURE: 96 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1140 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 23 PSI TO (C) 25 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 34 PSI
FINAL FLOW PERIOD MIN: 30 (E) 25 PSI TO (F) 25 PSI
FINAL CLOSED IN PERIOD MIN: 30 (G) 37 PSI
FINAL HYDROSTATIC PRESSURE (H) 1132 PSI

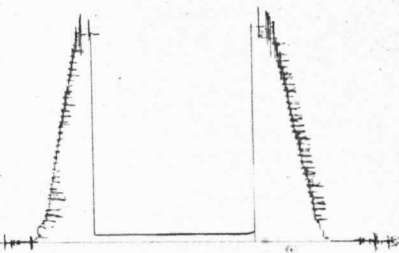
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DST.#1

Ykt. #8334
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1559
DST.#1

Ykt. #8334
O





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o 8335

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation _____ Formation MISS. Eff. Pay _____ Ft.

R040 District Pratt Date 10-8-85 Customer Order No. _____

COMPANY NAME Range Oil Co. Inc

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

LEASE AND WELL NO. Rumph #1 COUNTY Butler STATE KS Sec. 12 Twp. 29S Rge. 5E

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

Mail Charts To Same Address _____ No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 2839 ft. to 2855 ft. Total Depth 2855 ft.

Packer Depth 2834 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 2839 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 2845 ft. Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 2848 ft. Recorder Number 1559 Cap. 4200

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

Drilling Contractor Range #2 Drill Collar Length 180 I. D. 2.2 in.

Mud Type Chem Viscosity 45 Weight Pipe Length _____ I. D. _____ in.

Weight 10.3 Water Loss 12.0 cc. Drill Pipe Length 2639 I. D. 3.8 in.

Chlorides 1200 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make _____ Serial Number _____ Anchor Length 16 ft. Size 5 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 in.

Blow: _____

Recovered 180 ft. of Mud

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: Packer Set Failure

Time On Location 1:00 A.M. Time Pick Up Tool 4:00 A.M. Time Off Location _____ A.M.

Time Set Packer(s) 5:25 P.M. Time Started Off Bottom 6:30 P.M. Maximum Temperature _____

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

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

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

Final Flow Period _____ Minutes 10 (E) _____ P.S.I. to (F) _____ P.S.I.

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

Final Hydrostatic Pressure _____ (H) _____ 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.

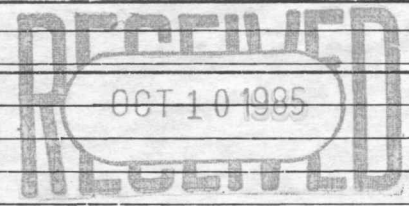
Test Approved By H.G. McMAHON III
Signature of Customer or his authorized representative

Western Representative [Signature] 1625

Thank you

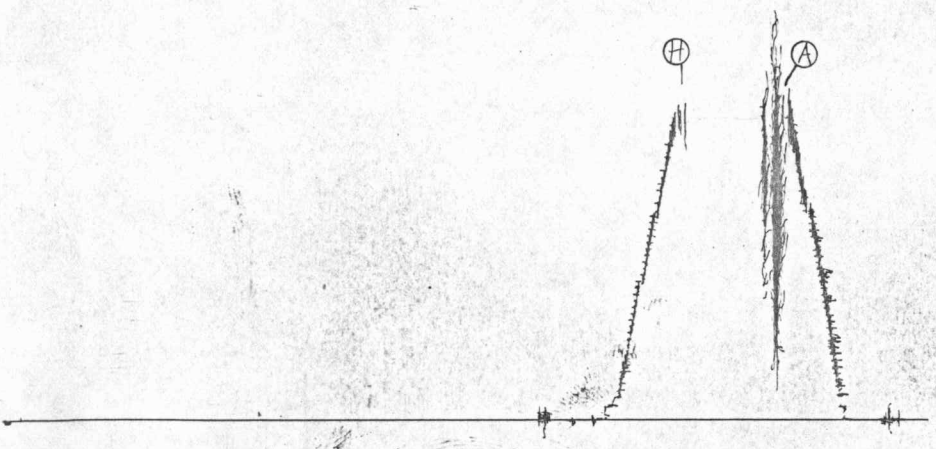
FIELD INVOICE

Open Hole Test	\$	
Misrun	\$	<u>400.00</u>
Straddle Test	\$	
Jars	\$	
Selective Zone	\$	
Safety Joint	\$	
Standby	\$	
Evaluation	\$	
Extra Packer	\$	
Circ. Sub.	\$	
Mileage	\$	
Fluid Sampler	\$	
Extra Charts	\$	
Insurance	\$	
Telecopier	\$	
TOTAL	\$	<u>400.00</u>



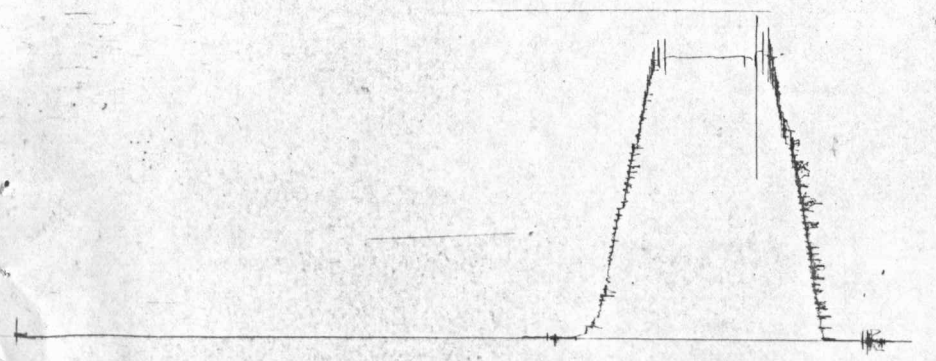
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1559
DST#2

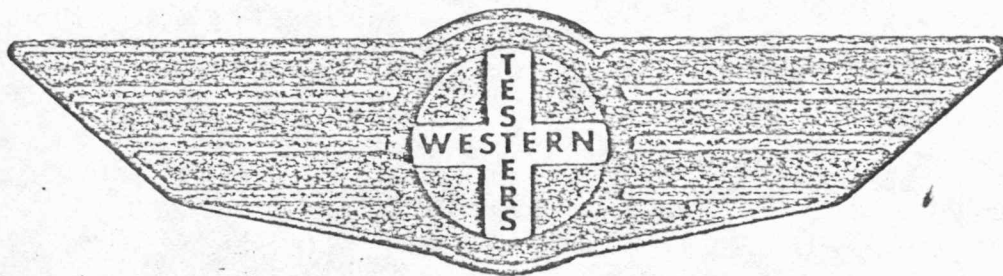
4kt. #8335
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FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10-8-85
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 1 TEST: 2
ELEVATION (KB): 0 FORMATION: MISSISSIPPI
SECTION: 12 TOWNSHIP: 29S
RANGE: 5E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #13402 RANGE: 4025 CLOCK: 12

INTERVAL TEST FROM: 2839 FT TO: 2855 FT TOTAL DEPTH: 2855 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2834 FT SIZE: 6 3/4 IN PACKER DEPTH: 2839 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #2
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 10.3 WATER LOSS (CC): 12.0
CHLORIDES (P.P.M.): 1200

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 180 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2639 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 16 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:

RECOVERED: 180 FT OF: MUD.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: MISRUN. PACKER SEAT FAILURE.

TIME SET PACKER(S): 5:25 PM TIME STARTED OFF BOTTOM: 6:30 PM
WELL TEMPERATURE: 0 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1528 PSI
INITIAL FLOW PERIOD MIN: 0 (B) 0 PSI TO (C) 0 PSI
INITIAL CLOSED IN PERIOD MIN: 0 (D) 0 PSI
FINAL FLOW PERIOD MIN: 0 (E) 0 PSI TO (F) 0 PSI
FINAL CLOSED IN PERIOD MIN: 0 (G) 0 PSI
FINAL HYDROSTATIC PRESSURE (H) 1516 PSI



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8336

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation Formation Miss Eff. Pay Ft.

R040 District Pratt Date 10-9-85 Customer Order No.

COMPANY NAME Range Oil Co. Inc

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

LEASE AND WELL NO. Rumph #1 COUNTY Butler STATE KS Sec. 12 Twp. 29s Rge. SE

Mail Invoice To Same #1 Rumph No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 3 Interval Tested From 2844 ft. to 2860 ft. Total Depth 2860 ft.

Packer Depth 2839 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2844 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2850 ft. Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 2853 ft. Recorder Number 1559 Cap. 4200

Below Saddle Recorder Depth Recorder Number Cap.

Drilling Contractor Range #2 Drill Collar Length 180 I. D. 2.2 in.

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

Weight 10.3 Water Loss 12.0 cc. Drill Pipe Length 2644 I. D. 3.8 in.

Chlorides 1200 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make Serial Number Anchor Length 14 ft. Size 5 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 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Weak Deccressing to Very Weak I.F. - NO Blow F.F.

Recovered 10 ft. of Mud

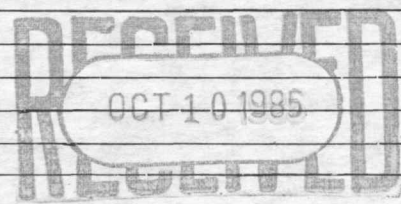
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks:



Time On Location A.M. P.M. Time Pick Up Tool 1:30 A.M. P.M. Time Off Location A.M. P.M.

Time Set Packer(s) 2:35 A.M. P.M. Time Started Off Bottom 4:35 A.M. P.M. Maximum Temperature

Initial Hydrostatic Pressure (A) 1464 P.S.I.

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

Initial Closed In Period Minutes 30 (D) 420 P.S.I.

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

Final Closed In Period Minutes 30 (G) 620 P.S.I.

Final Hydrostatic Pressure (H) 1454 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 Signature of Customer or his authorized representative

Western Representative [Signature] 1625

Thank you

FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL. Price for Open Hole Test is \$400.00 and TOTAL is \$400.00.

WESTERN TESTING CO., INC.

Pressure Data

Date 10-9

Test Ticket No. 8336

Recorder No. 13402

Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	P.S.I.	Open Tool	M	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1461</u>	P.S.I.				
B First Initial Flow Pressure	<u>204</u>	P.S.I.	First Flow Pressure		<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>614</u>	P.S.I.	Initial Closed-in Pressure		<u>(</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>617</u>	P.S.I.	Second Flow Pressure		<u>)</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>617</u>	P.S.I.	Final Closed-in Pressure		<u>)</u> Mins.	<u>27</u> Mins.
F Second Final Flow Pressure	<u>617</u>	P.S.I.				
G Final Closed-in Pressure	<u>617</u>	P.S.I.				
H Final Hydrostatic Mud	<u>1447</u>	P.S.I.				

Missrun!

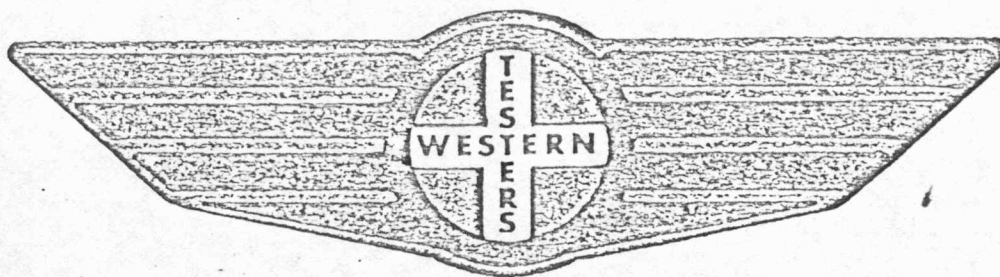
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>7</u> Inc.		Breakdown: <u>10</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>204</u>	0	<u>614</u>	0	<u>617</u>	0	<u>617</u>
P 2 5	<u>548</u>	3	<u>615</u>	5	<u>(</u>	3	<u>(</u>
P 3 10	<u>584</u>	6	<u>615</u>	10	<u>(</u>	6	<u>(</u>
P 4 15	<u>596</u>	9	<u>616</u>	15	<u>(</u>	9	<u>(</u>
P 5 20	<u>605</u>	12	<u>616</u>	20	<u>(</u>	12	<u>(</u>
P 6 25	<u>611</u>	15	<u>617</u>	25	<u>(</u>	15	<u>(</u>
P 7 30	<u>614</u>	18	<u>(</u>	30	<u>617</u>	18	<u>(</u>
P 8 35		21	<u>(</u>	35	<u>(</u>	21	<u>(</u>
P 9 40		24	<u>(</u>	40	<u>(</u>	24	<u>(</u>
P10 45		27	<u>(</u>	45	<u>(</u>	27	<u>617</u>
P11 50		30	<u>617</u>	50	<u>(</u>	30	<u>(</u>
P12 55		33	<u>(</u>	55	<u>(</u>	33	<u>(</u>
P13 60		36	<u>(</u>	60	<u>(</u>	36	<u>(</u>
P14 65		39	<u>(</u>	65	<u>(</u>	39	<u>(</u>
P15 70		42	<u>(</u>	70	<u>(</u>	42	<u>(</u>
P16 75		45	<u>(</u>	75	<u>(</u>	45	<u>(</u>
P17 80		48	<u>(</u>	80	<u>(</u>	48	<u>(</u>
P18 85		51	<u>(</u>	85	<u>(</u>	51	<u>(</u>
P19 90		54	<u>(</u>	90	<u>(</u>	54	<u>(</u>
P20 95		57	<u>(</u>	95	<u>(</u>	57	<u>(</u>
100		60	<u>(</u>	100	<u>(</u>	60	<u>(</u>

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL CO., INC. Lease & Well No. #1 RUMPH Sec. 12 Twp. 29S Rge. 5E Test No. 3 Date 10/9/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10-9-85 TICKET #8336
CUSTOMER: RANGE OIL COMPANY INC. LEASE: RUMPH
WELL: 1 TEST: 3 GEOLOGIST: H.G. MCMAHON III
ELEVATION (KB): 0 FORMATION: MISSISSIPPI
SECTION: 12 TOWNSHIP: 29S
RANGE: 5E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #13402 RANGE: 4025 CLOCK: 12

INTERVAL TEST FROM: 2844 FT TO: 2860 FT TOTAL DEPTH: 2860 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2839 FT SIZE: 6 3/4 IN PACKER DEPTH: 2844 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #2
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 10.3 WATER LOSS (CC): 12.0
CHLORIDES (P.P.M.): 1200
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 180 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2644 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 16 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: INITIAL FLOW PERIOD WEAK BLOW
DECREASING TO VERY WEAK BLOW.
FINAL FLOW PERIOD NO BLOW.

RECOVERED: 10 FT OF: MUD.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: MISRUN.

TIME SET PACKER(S): 2:35 AM TIME STARTED OFF BOTTOM: 4:35 AM
WELL TEMPERATURE: 0 'F
INITIAL HYDROSTATIC PRESSURE: (A) 1461 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 204 PSI TO (C) 614 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 617 PSI
FINAL FLOW PERIOD MIN: 30 (E) 617 PSI TO (F) 617 PSI
FINAL CLOSED IN PERIOD MIN: 27 (G) 617 PSI
FINAL HYDROSTATIC PRESSURE (H) 1447 PSI

13402
DST #3

Ykt. #8336
I

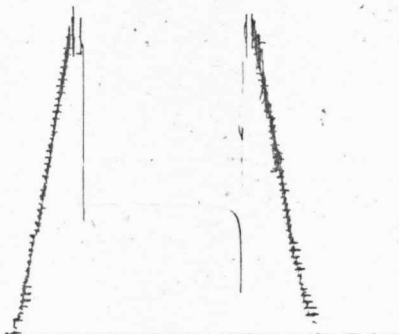
(H) (A)

(G) (P) (E) (D) (C)

(B)

1559
DST #3

Ykt. #8336
O





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 8337

P. O. BOX 1599 WICHITA, KANSAS 67201

Elevation Formation Miss. Eff. Pay Ft.

RO40 District Pratt Date 10-9-85 Customer Order No.

COMPANY NAME Range Oil Co

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

LEASE AND WELL NO. Rumph #1 COUNTY Butler STATE KS Sec. 12 Twp. 29S Rge. 5E

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

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 4 Interval Tested From 2844 ft. to 2860 ft. Total Depth 2860 ft.
Packer Depth 2839 ft. Size 6 3/4 in.
Packer Depth 2844 ft. Size 6 3/4 in.

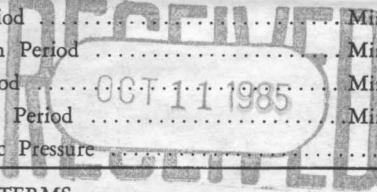
Top Recorder Depth (Inside) 2850 ft. Recorder Number 13402 Cap. 4025
Bottom Recorder Depth (Outside) 2853 ft. *Recorder Number 1559 Cap. 4200
Below Straddle Recorder Depth Recorder Number Cap.

Drilling Contractor Range #2 Drill Collar Length 180 I. D. 2.2 in.
Mud Type Chem Viscosity 45 Weight Pipe Length I. D. in.
Weight 10.3 Water Loss 12.0 cc. Drill Pipe Length 2644 I. D. 3.8 in.
Chlorides 1200 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.
Jars: Make Serial Number Anchor Length 16 ft. Size 5 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 x H in.

Blow: Strong thru Both Flow Periods - GTS 10 min FF. - TSTM

Recovered 10 ft. of Slightly O.I. + Gas Cut Mud 5% Oil 5% Gas 90% Mud
Recovered 150 ft. of O.I. + Gas Cut Mud 25% Oil 30% Mud 45% Gas
Recovered 210 ft. of Water
Recovered ft. of
Recovered ft. of
Chlorides 6/1000 P.P.M. Sample Jars used 3 Remarks: Read Bottom Recorder #1559

Time On Location A.M. P.M. Time Pick Up Tool 10:30 A.M. P.M. Time Off Location 5:00 A.M. P.M.
Time Set Packer(s) 11:20 A.M. P.M. Time Started Off Bottom 2:20 A.M. P.M. Maximum Temperature 104°
Initial Hydrostatic Pressure (A) 1525 P.S.I.
Initial Flow Period Minutes 30 (B) 94 P.S.I. to (C) 104 P.S.I.
Initial Closed In Period Minutes 30 (D) 449 P.S.I.
Final Flow Period Minutes 60 (E) 125 P.S.I. to (F) 146 P.S.I.
Final Closed In Period Minutes 60 (G) 439 P.S.I.
Final Hydrostatic Pressure (H) 1493 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 H.G. McMAHON, III Signature of Customer or his authorized representative

Western Representative [Signature]

Thank you

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 \$
Insurance \$
Telecopier \$
TOTAL \$ 550.00

WESTERN TESTING CO., INC.

Pressure Data

Date 10-9-85
 Recorder No. 1359
 Clock No. _____

Capacity 4200
 Location _____ Ft
 Well Temperature 104 °F

Test Ticket No. 8337

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1542</u>	P.S.I.	<u>11:20 A</u>	<u>2:20 P</u>
B First Initial Flow Pressure	<u>102</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>111</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>442</u>	P.S.I.	<u>60</u> Mins.	<u>55</u> Mins.
E Second Initial Flow Pressure	<u>139</u>	P.S.I.	<u>60</u> Mins.	<u>63</u> Mins.
F Second Final Flow Pressure	<u>157</u>	P.S.I.		
G Final Closed-in Pressure	<u>449</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1526</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 7 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.

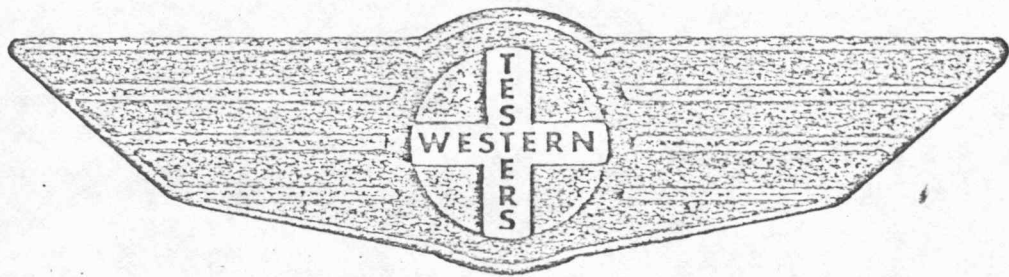
Final Shut-In
 Breakdown: 22 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>102</u>	0	<u>111</u>	0	<u>139</u>	0	<u>157</u>
P 2 5	<u>↓</u>	3	<u>209</u>	5	<u>↓</u>	3	<u>238</u>
P 3 10	<u>102</u>	6	<u>264</u>	10	<u>139</u>	6	<u>280</u>
P 4 15	<u>108</u>	9	<u>309</u>	15	<u>140</u>	9	<u>298</u>
P 5 20	<u>109</u>	12	<u>346</u>	20	<u>143</u>	12	<u>322</u>
P 6 25	<u>110</u>	15	<u>369</u>	25	<u>145</u>	15	<u>338</u>
P 7 30	<u>111</u>	18	<u>390</u>	30	<u>147</u>	18	<u>356</u>
P 8 35		21	<u>407</u>	35	<u>148</u>	21	<u>365</u>
P 9 40		24	<u>423</u>	40	<u>149</u>	24	<u>376</u>
P10 45		27	<u>434</u>	45	<u>150</u>	27	<u>381</u>
P11 50		30	<u>442</u>	50	<u>154</u>	30	<u>389</u>
P12 55		33		55	<u>157</u>	33	<u>397</u>
P13 60		36		60		36	<u>405</u>
P14 65		39		65		39	<u>411</u>
P15 70		42		70		42	<u>417</u>
P16 75		45		75		45	<u>422</u>
P17 80		48		80		48	<u>427</u>
P18 85		51		85		51	<u>432</u>
P19 90		54		90		54	<u>437</u>
P20 95		57		95		57	<u>442</u>
100		60		100		60	<u>447</u>
						<u>63</u>	<u>449</u>

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company RANGE OIL COMPANY, INC. Lease & Well No. #1 KUMPH Sec. 12 Twp. 29S Rge. 5E Test No. 4 Date 10/9/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 10/9/85 TICKET #8337
CUSTOMER: RANGE OIL COMPANY INC. LEASE: RUMPH
WELL: 1 TEST: 4 GEOLOGIST: MCMAHON
ELEVATION (KB): 0 FORMATION: MISSISSIPPI
SECTION: 12 TOWNSHIP: 29S
RANGE: 5E COUNTY: BUTLER STATE: KANSAS
GAUGE SN #1559 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 2844 FT TO: 2860 FT TOTAL DEPTH: 2860 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2839 FT SIZE: 6 3/4 IN PACKER DEPTH: 2844 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: 10.3 WATER LOSS (CC): 12.0
CHLORIDES (P.P.M.): 1200
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 180 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2644 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 16 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: STRONG BLOW THROUGHOUT TEST. GAS
TO SURFACE IN 10 MINUTES ON THE
FINAL FLOW PERIOD. TOO SMALL TO
MEASURE.

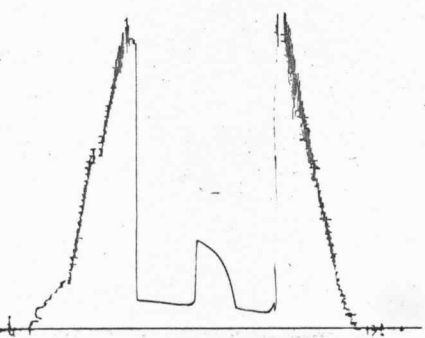
RECOVERED: 10 FT OF: SLIGHTLY OIL & GAS CUT MUD.
RECOVERED: FT OF: (5% OIL; 5% GAS; 90% MUD).
RECOVERED: 150 FT OF: OIL & GAS CUT MUD.
RECOVERED: FT OF: (25% OIL; 30% MUD; 45% GAS).
RECOVERED: 210 FT OF: WATER. CHLORIDES 61000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ OUTSIDE CHART.

TIME SET PACKER(S): 11:20 AM TIME STARTED OFF BOTTOM: 2:20 PM
WELL TEMPERATURE: 104 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1542 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 102 PSI TO (C) 111 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 442 PSI
FINAL FLOW PERIOD MIN: 55 (E) 139 PSI TO (F) 157 PSI
FINAL CLOSED IN PERIOD MIN: 63 (G) 449 PSI
FINAL HYDROSTATIC PRESSURE (H) 1526 PSI

15402
DST #4

Ykt. #8337
I



4559
DST #4

Ykt. #8337
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