WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No. 3675

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

Elevation 1463KB/1458GL Formation MISSISSIPPI Eff. Pay Ft.

District AUGUSTA Date 6-7-80 Customer Order No.

COMPANY NAME RANGE OIL CO. INC.

ADDRESS 240 Page Court - Wichita Ks.

LEASE AND WELL NO. OSBORNE #1 COUNTY COWLEY STATE KANSAS Sec. 31 Twp. 30S Rge. 7E

Mail Invoice To SAME No. Copies Requested 5
Co. Name Address

Mail Charts To SAME No. Copies Requested 1
Address

Formation Test No. 1 Interval Tested from 2942 ft. to 2953 ft. Total Depth 2953 ft.

Packer Depth 2942 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 2937 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside) 2946 ft. Recorder Number 3354 Cap. 4200

Bottom Recorder Depth (Outside) 2949 ft. Recorder Number 1561 Cap. 3200

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

Drilling Contractor RANGE DRILLING #2

Mud Type CHEMICAL Viscosity 41

Weight 9.6 Water Loss 10.5 cc.

Chlorides 1800 P.P.M.

Jars: Make — Serial Number —

Did Well Flow? — Reversed Out —

Drill Collar Length 340 I. D. in.

Weight Pipe Length — I. D. — in.

Drill Pipe Length 2573 I. D. in.

Test Tool Length 31 ft. Tool Size 3 1/2 IF in.

Anchor Length 11 ft. Size 3 1/2 IF 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: A WEAK BLOW INCREASING TO FAIR BLOW IN 20 MIN. ON INITAL FLOW PERIOD
A FAIR BLOW THROUGHOUT FINAL FLOW PERIOD

Recovered 22 ft. of FREE OIL

Recovered 120 ft. of HEAVY OIL CUT MUD 60% oil 40% mud

Recovered 180 ft. of GAS IN PIPE

Recovered ft. of

Recovered ft. of

Remarks:

RECEIVED
JUN 9 - 1980

ON LOCATION @ 11:15 PM 6/6/80 TOOL MADE UP @ 12:40 AM 6/7/80 JOB COMPLETED @ 9:30

Time Set Packer(s) 2:30 A.M. P.M. Time Started Off Bottom 6:00 A.M. P.M. Maximum Temperature 117

Initial Hydrostatic Pressure			(A)	1487	P.S.I.	
Initial Flow Period	Minutes 30	(B)	31	P.S.I. to (C)	42	P.S.I.
Initial Closed In Period	Minutes 30	(D)	886	P.S.I.		
Final Flow Period	Minutes 60	(E)	63	P.S.I. to (F)	84	P.S.I.
Final Closed In Period	Minutes 90	(G)	938	P.S.I.		
Final Hydrostatic Pressure		(H)	1424	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 John Lee

FIELD INVOICE

(Open Hole Test)	$	550.00
Misrun	$	
Straddle Test	$	
Jars	$	
Selective Zone	$	
Safety Joint	$	
Standby	$	
Evaluation	$	
Extra Packer	$	
Circ. Sub.	$	
47 (Mileage) X .75¢	$	35.25
Fluid Sampler	$	
Extra Charts	$	
TOTAL	$	585.25

WESTERN TESTING CO., INC.
Pressure Data

Date 6-7-80 Test Ticket No. 3675

Recorder No. 3354 Capacity 4200 Location 2946 Ft.

Clock No. — Elevation 1463 KB / 1458 GL Well Temperature 117 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1502 P.S.I.	Open Tool	2:30 AM	
B First Initial Flow Pressure	13 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	34 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	890 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	57 P.S.I.	Final Closed-in Pressure	90 Mins.	90 Mins.
F Second Final Flow Pressure	78 P.S.I.			
G Final Closed-in Pressure	949 P.S.I.			
H Final Hydrostatic Mud	1428 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	13
P 2	5	17
P 3	10	23
P 4	15	25
P 5	20	27
P 6	25	32
P 7	30	34
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In

Breakdown: 10 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	34
3	76
6	165
9	316
12	475
15	673
18	781
21	825
24	854
27	876
30	890
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure

Breakdown: 13 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	57
5	50
10	55
15	57
20	59
25	61
30	62
35	65 ~~63~~
40	67 ~~64~~
45	70 ~~67~~
50	72 ~~68~~
55	75 ~~70~~
60	78
65	
70	
75	
80	
85	
90	

Final Shut-In

Breakdown: 30 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	78
3	105
6	169
9	148
12	365
15	485
18	654
21	745
24	795
27	823
30	846
33	859
36	871
39	884
42	892
45	901
48	909
51	916
54	920
57	924
60	928

Cont

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WESTERN TESTING CO., INC.

Pressure Data

Test Ticket No. 3675

rder No. _____ Capacity _____ Location _____

k No. _____ Elevation _____ Well Temperature _____

nt	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	P.S.I.	Open Tool	M	
First Initial Flow Pressure	P.S.I.	First Flow Pressure	Mins.	M
First Final Flow Pressure	P.S.I.	Initial Closed-in Pressure	Mins.	M
Initial Closed-in Pressure	P.S.I.	Second Flow Pressure	Mins.	M
Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	Mins.	M
Second Final Flow Pressure	P.S.I.			
Final Closed-in Pressure	P.S.I.			
Final Hydrostatic Mud	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: _____ Inc.

of 5 mins. and a

final inc. of 0 Min.

int ns.	Press.
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Initial Shut-In

Breakdown: _____ Inc.

of 3 mins. and a

final inc. of 0 Min.

Point Minutes	Press.
63	
66	
69	
72	
75	
78	
81	
84	
87	
90	
93	
96	
99	
102	
105	
108	
111	
114	
117	
120	

Second Flow Pressure

Breakdown: _____ Inc.

of 5 mins. and a

final inc. of 0 Min.

Point Minutes	Press.

Final Shut-In

Breakdown: _____ Inc

of 3 mins. and a

final inc. of 0 Min

Point Minutes	Press.
63	932
66	937
69	939 940
72	940
75	943
78	945
81	946
84	947
87	948
90	949
93	
96	
99	
102	
105	
108	
111	
114	
117	
120	

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TKC #3675
I

3354
3675

Company Range Oil Company, Inc. Lease & Well No. Osborne #1

Elevation 1463 Kelly Bushing 1458 Ground Level Formation Mississippi Effective Pay --- Ft. Ticket No. 3675

Date 6/7/80 Sec. 31 Twp. 30S Range 7E County Cowley State Kansas

Test Approved by Robert Olsen Western Representative John Lee

Formation Test No. 1 Interval Tested from 2942 ft. to 2953 ft. Total Depth 2953 ft.

Packer Depth 2942 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2937 ft. Size 6 3/4 in. Packer Depth - - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2946 ft. Recorder Number 3354 Cap. 4200

Bottom Recorder Depth (Outside) 2949 ft. Recorder Number 1561 Cap. 3200

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

Drilling Contractor Range Drilling Rig #2 Drill Collar Length 340 I. D. - in.

Mud Type chemical Viscosity 41 Weight Pipe Length - I. D. - in.

Weight 9.6 Water Loss 10.5 cc. Drill Pipe Length 2573 I. D. - in.

Chlorides 1,800 P.P.M. Test Tool Length 31 ft. Tool Size 3½IF in.

Jars: Make -- Serial Number - Anchor Length 11 ft. Size 3½IF in.

Did Well Flow? - Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½XH in.

Blow: A weak blow increasing to fair blow in twenty minutes on initial flow period. A fair blow throughout final flow period.

Recovered 22 ft. of free oil

Recovered 120 ft. of heavy oil cut mud (60% oil, 40% mud)

Recovered 180 ft. of gas in pipe

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 2:30 A.M. ~~P.M.~~ Time Started Off Bottom 6:00 A.M. ~~P.M.~~ Maximum Temperature 117°

Initial Hydrostatic Pressure			(A) 1502	P.S.I.		
Initial Flow Period	Minutes 30	(B) 13	P.S.I. to	(C) 34	P.S.I.	
Initial Closed In Period	Minutes 30	(D) 890	P.S.I.			
Final Flow Period	Minutes 60	(E) 57	P.S.I. to	(F) 78	P.S.I.	
Final Closed In Period	Minutes 90	(G) 949	P.S.I.			
Final Hydrostatic Pressure			(H) 1428	P.S.I.		

WTC-1

WESTERN TESTING CO., INC.
Pressure Data

Date 6/7/80 Test Ticket No. 3675

Recorder No. 3354 Capacity 4200 Location 2946 Ft.

Clock No. - Elevation 1463 KB/1458 Ground Level Well Temperature 117 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1502	P.S.I.
B	First Initial Flow Pressure	13	P.S.I.
C	First Final Flow Pressure	34	P.S.I.
D	Initial Closed-in Pressure	890	P.S.I.
E	Second Initial Flow Pressure	57	P.S.I.
F	Second Final Flow Pressure	78	P.S.I.
G	Final Closed-in Pressure	949	P.S.I.
H	Final Hydrostatic Mud	1428	P.S.I.

	Time Given	Time Computed
Open Tool	2:30A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	30 Mins.	30 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	90 Mins.	90 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 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: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 30 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						63	932
P 2						66	937
P 3						69	939
P 4						72	940
P 5						75	943
P 6						78	945
P 7						81	946
P 8						84	947
P 9						87	948
P10						90	949
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							