Company National Oil Company — Lease & Well No. Chain #1

Elevation 1766 Ground Level — Formation Douglas Sand — Effective Pay - Ft. — Ticket No. 7603

Date 9-13-80 — Sec. 21 — Twp. 31S — Range 11W — County Barber — State Kansas

Test Approved by Jay Dirks — Western Representative Jim Wondra

Formation Test No. 1 — Interval Tested from 3720 ft. to 3780 ft. — Total Depth 3780 ft.

Packer Depth - ft. — Size - in. — Packer Depth - ft. — Size - in.

Packer Depth 3720 ft. — Size 6 3/4 in. — Packer Depth - ft. — Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3737 ft. — Recorder Number 2607 — Cap. 4150

Bottom Recorder Depth (Outside) 3740 ft. — Recorder Number 3351 — Cap. 4000

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

Drilling Contractor DaMac Drilling Rig #2 — Drill Collar Length 320 — I. D. 2¼ in.

Mud Type Premix-Starch — Viscosity 38 — Weight Pipe Length - — I. D. - in.

Weight 9.3 — Water Loss 11.6 cc. — Drill Pipe Length 3385 — I. D. 3.8 in.

Chlorides 21,000 P.P.M. — Test Tool Length 15 ft. — Tool Size 5½ OD in.

Jars: Make - — Serial Number - — Anchor Length 60 ft. — Size 5½ OD in.

Did Well Flow? Yes — 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 4½ FH in.

Blow: Strong blow throughout test. Gas to surface in 40 minutes on second opening - to small to measure.

Recovered 230 ft. of thin gassy mud

Recovered 120 ft. of muddy water

Recovered ____ ft. of

Recovered ____ ft. of

Recovered ____ ft. of

Remarks:

Time Set Packer(s) 1:00 ~~A.M.~~ P.M. — Time Started Off Bottom 10:50 ~~A.M.~~ P.M. — Maximum Temperature 120

Initial Hydrostatic Pressure		(A) 1902	P.S.I.	
Initial Flow Period	Minutes 30	(B) 125	P.S.I. to (C) 127	P.S.I.
Initial Closed In Period	Minutes 48	(D) 764	P.S.I.	
Final Flow Period	Minutes 60	(E) 146	P.S.I. to (F) 178	P.S.I.
Final Closed In Period	Minutes 51	(G) 772	P.S.I.	
Final Hydrostatic Pressure		(H) 1885	P.S.I.	

WESTERN TESTING CO., INC.
Pressure Data

Date 9-13-80 Test Ticket No. 7603

Recorder No. 2607 Capacity 4150 Location 3737 Ft.

Clock No. ----- Elevation 1766 Ground Level Well Temperature 120 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1902 P.S.I.	Open Tool	7:50 P. M	
B First Initial Flow Pressure	125 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	127 P.S.I.	Initial Closed-in Pressure	45 Mins.	48 Mins.
D Initial Closed-in Pressure	764 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	146 P.S.I.	Final Closed-in Pressure	45 Mins.	51 Mins.
F Second Final Flow Pressure	178 P.S.I.			
G Final Closed-in Pressure	772 P.S.I.			
H Final Hydrostatic Mud	1885 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	125
P 2 5	112
P 3 10	112
P 4 15	112
P 5 20	114
P 6 25	121
P 7 30	127
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 16 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	127
3	146
6	205
9	273
12	301
15	466
18	529
21	577
24	612
27	648
30	675
33	700
36	718
39	731
42	743
45	754
48	764

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

Point Minutes	Press.
0	146
5	148
10	152
15	159
20	167
25	169
30	170
35	170
40	172
45	174
50	176
55	177
60	178

Final Shut-In
Breakdown: 17 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	178
3	280
6	447
9	535
12	604
15	644
18	666
21	683
24	698
27	712
30	727
33	735
36	745
39	751
42	758
45	766
48	770
51	772

RK# 7603
I