WESTERN TESTING CO., INC.

FORMATION TESTING

Kelly Bushing . TICKET Nº 6702

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

Elevation 1432KB Formation Penns. Sand Eff. Pay — Ft.

District Augusta Date 9-25-80 Customer Order No. —

COMPANY NAME Range Oil Inc.

ADDRESS 220 W. Douglas 240 Page Court Wichita, Ks.

LEASE AND WELL NO. Pickett #3 COUNTY Butler STATE KS Sec. 4 Twp. 24S Rge. 5E

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

Mail Charts To Same No. Copies Requested 5
Address

Formation Test No. 1 Interval Tested from 2421 ft. to 2450 ft. Total Depth 2450 ft.

Packer Depth 2421 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 2416 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2443 ft. Recorder Number 1559 Cap. 4200

Bottom Recorder Depth (Outside) 2446 ft. Recorder Number 5666 Cap. 3950

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

Drilling Contractor Range Drl. #1

Mud Type Chem. Viscosity 71

Weight 9.7 Water Loss 12.4 cc.

Chlorides 1200 P.P.M.

Jars: Make — Serial Number —

Did Well Flow? NO Reversed Out No

Drill Collar Length 90 I. D. 2 1/4 in.

Weight Pipe Length — I. D. — in.

Drill Pipe Length 2311 I. D. 3.8 in.

Test Tool Length 49 ft. Tool Size 5 1/2 od in.

Anchor Length 29 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: Fair 2 hour test

Recovered 20 ft. of Free gassy oil 95% oil 5% mud

Recovered 170 ft. of Very slightly oil cut muddy salt water 2% oil 98% Muddy saltwater

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

On location 9:00 AM 9-25-80 Pick up tool 9:45 Job complete 5:00 PM 9-25-80

Time Set Packer(s) 12:01 A.M. P.M. Time Started Off Bottom 3:01 A.M. P.M. Maximum Temperature 104

Initial Hydrostatic Pressure			(A) 1210	P.S.I.		
Initial Flow Period	Minutes 30		(B) 40	P.S.I. to (C) 60	P.S.I.	
Initial Closed In Period	Minutes 30		(D) 700	P.S.I.		
Final Flow Period	Minutes 60		(E) 75	P.S.I. to (F) 105	P.S.I.	
Final Closed In Period	Minutes 60		(G) 670	P.S.I.		
Final Hydrostatic Pressure			(H) 1200	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 Stephen Kreitler
Signature of Customer or his authorized representative

Western Representative Norman Allen

RECEIVED SEP 29 1980

FIELD INVOICE

Open Hole Test	$ 550 00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage 32	$ 24 00
Fluid Sampler	$
Extra Charts	$
TOTAL	$ 574 00

WESTERN TESTING CO., INC.
Pressure Data

Date 9-25-80 Test Ticket No. 6702

Recorder No. 1559 Capacity 4200 Location 2443 Ft.

Clock No. ——— Elevation 1432 KB Well Temperature 104 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1222 P.S.I.	Open Tool	12:01 PM	
B First Initial Flow Pressure	48 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	61 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	691 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	107 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	98 P.S.I.			
G Final Closed-in Pressure	662 P.S.I.			
H Final Hydrostatic Mud	1201 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	48
P 2 5	44
P 3 10	44
P 4 15	44
P 5 20	54
P 6 25	59
P 7 30	61
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	61
3	450
6	523
9	569
12	600
15	623
18	646
21	662
24	675
27	684
30	691
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

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

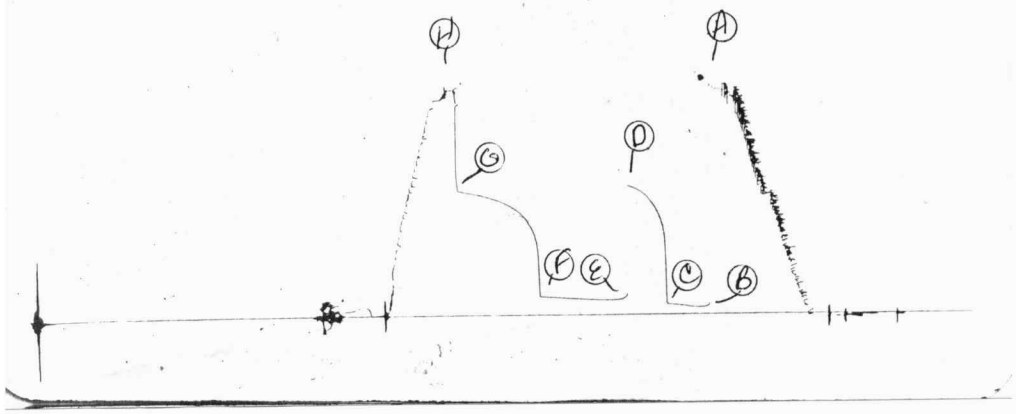
Point Minutes	Press.
0	107
5	82
10	
15	
20	
25	82
30	88
35	90
40	91
45	94
50	95
55	96
60	98
65	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	98
3	406
6	454
9	492
12	525
15	546
18	562
21	577
24	588
27	598
30	608
33	619
36	625 ~~629~~
39	629
42	635
45	641
48	647
51	650
54	654
57	658
60	662

JH #6702

I.



Company Range Oil Company, Inc. Lease & Well No. Pickett #3

Elevation 1432 Kelly Bushing Formation Pennsylvanian Sand Effective Pay - Ft. Ticket No. 6702

Date 9-25-80 Sec. 4 Twp. 24S Range 5E County Butler State Kansas

Test Approved by Stephen Kriedler Western Representative Norman Allen

Formation Test No. 1 Interval Tested from 2421 ft. to 2450 ft. Total Depth 2450 ft.

Packer Depth 2421 ft. Size 6 3/4 in. Packer Depth --------- ft. Size ------ in.

Packer Depth 2416 ft. Size 6 3/4 in. Packer Depth ---------- ft. Size ----- in.

Depth of Selective Zone Set ---------

Top Recorder Depth (Inside) 2443 ft. Recorder Number 1559 Cap. 4200

Bottom Recorder Depth (Outside) 2446 ft. Recorder Number 5666 Cap. 3950

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

Drilling Contractor Range Drilling #1 Drill Collar Length 90 I. D. 2 1/4 in.

Mud Type Chemicals Viscosity 71 Weight Pipe Length ------- I. D. ------ in.

Weight 9.7 Water Loss 12.4 cc. Drill Pipe Length 2311 I. D. 3.8 in.

Chlorides 1200 P.P.M. Test Tool Length 49 ft. Tool Size 5½ OD in.

Jars: Make --------- Serial Number------- Anchor Length 29 ft. Size 5½ 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 4½ x h in.

Blow: Fair throughout test.

Recovered 20 ft. of free gassy oil. (95% oil, 5% mud)

Recovered 170 ft. of very slightly oil cut muddy salt water. (2% oil, 98% muddy salt water)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 12:01 ~~A.M.~~ P.M. Time Started Off Bottom 3:01 ~~A.M.~~ P.M. Maximum Temperature 104

Initial Hydrostatic Pressure			(A) 1222	P.S.I.		
Initial Flow Period	Minutes 30	(B) 48	P.S.I. to	(C) 61	P.S.I.	
Initial Closed In Period	Minutes 30	(D) 691	P.S.I.			
Final Flow Period	Minutes 60	(E) 107	P.S.I. to	(F) 98	P.S.I.	
Final Closed In Period	Minutes 60	(G) 662	P.S.I.			
Final Hydrostatic Pressure			(H) 1201	P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 9-25-80 Test Ticket No. 6702

Recorder No. 1559 Capacity 4200 Location 2443 Ft.

Clock No. ------ Elevation 1432 Kelly Bushing Well Temperature 104 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1222	P.S.I.
B	First Initial Flow Pressure	48	P.S.I.
C	First Final Flow Pressure	61	P.S.I.
D	Initial Closed-in Pressure	691	P.S.I.
E	Second Initial Flow Pressure	107	P.S.I.
F	Second Final Flow Pressure	98	P.S.I.
G	Final Closed-in Pressure	662	P.S.I.
H	Final Hydrostatic Mud	1201	P.S.I.

	Time Given	Time Computed
Open Tool	12:01 P 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	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	48
P 2 5	44
P 3 10	44
P 4 15	44
P 5 20	54
P 6 25	59
P 7 30	61
P 8	
P 9	
P10	
P11	
P12	
P13	
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	61
3	450
6	523
9	569
12	600
15	623
18	646
21	662
24	675
27	684
30	691

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

Point Minutes	Press.
0	107
5	82
10	82
15	82
20	82
25	82
30	88
35	90
40	91
45	94
50	95
55	96
60	98

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	98
3	406
6	454
9	492
12	525
15	546
18	562
21	577
24	588
27	598
30	608
33	619
36	625
39	629
42	635
45	641
48	647
51	650
54	654
57	658
60	662

OK

WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No. a6703

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

Kelly Bushing. Elevation 1432 KB Formation Penn Sand Eff. Pay — Ft.

District Augusta Date 9-25-80 Customer Order No.

COMPANY NAME Range Oil Company Inc.

ADDRESS 240 Page Court 220 W. Douglas Wichita, Ks.

LEASE AND WELL NO. Pickett #3 COUNTY Butler STATE KS Sec. 4 Twp 24S Rge 5E

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

Mail Charts To Same No. Copies Requested 5
Address

Formation Test No. 2 Interval Tested from 2436 ft. to 2450 ft. Total Depth 2450 ft.

Packer Depth 2436 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Packer Depth 2431 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2443 ft. Recorder Number 1559 Cap. 4200

Bottom Recorder Depth (Outside) 2446 ft. Recorder Number 5466 Cap. 3950

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

Drilling Contractor Range Drlg. #1 Drill Collar Length 90 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 71 Weight Pipe Length — I. D. in.

Weight 9.7 Water Loss 12.4 cc. Drill Pipe Length 2326 I. D. 3.8 in.

Chlorides 1200 P.P.M. Test Tool Length 34 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 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Weak blow for 15 minutes.

Recovered 20 ft. of Very slightly oil cut mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Pressures Recorder # 5466

RECEIVED
SEP 29 1980
KCC WICHITA

On Location 9:00 Am Pick up tool 4:30 PM Job complete

Time Set Packer(s) 7:00 A.M. P.M. Time Started Off Bottom 9:00 A.M. P.M. Maximum Temperature 104

Initial Hydrostatic Pressure		(A) 1245	P.S.I.		
Initial Flow Period	Minutes 30	(B) 30	P.S.I. to (C)	30	P.S.I.
Initial Closed In Period	Minutes 30	(D) 630	P.S.I.		
Final Flow Period	Minutes 30	(E) 30	P.S.I. to (F)	30	P.S.I.
Final Closed In Period	Minutes 30	(G) 600	P.S.I.		
Final Hydrostatic Pressure		(H) 1245	P.S.I.		

Read Outside recorder

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 Stephen Kreisler
Signature of Customer or his authorized representative

Western Representative Norman Allen W. Wyn

FIELD INVOICE

Open Hole Test	$ 550 00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage 0	$
Fluid Sampler	$
Extra Charts	$
TOTAL	$ 550 00

WESTERN TESTING CO., INC.
Pressure Data

Date 9-25-80 Test Ticket No. 6703

Recorder No. 56666 Capacity 3950 Location 2446 Ft.

Clock No. _____ Elevation 1432 KB Well Temperature 104 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1227	P.S.I.	Open Tool 7:00 PM	
B First Initial Flow Pressure	78	P.S.I.	First Flow Pressure 30 Mins.	30 Mins.
C First Final Flow Pressure	12	P.S.I.	Initial Closed-in Pressure 30 Mins.	27 Mins.
D Initial Closed-in Pressure	633	P.S.I.	Second Flow Pressure 30 Mins.	30 Mins.
E Second Initial Flow Pressure	92	P.S.I.	Final Closed-in Pressure 30 Mins.	33 Mins.
F Second Final Flow Pressure	14	P.S.I.		
G Final Closed-in Pressure	599	P.S.I.		
H Final Hydrostatic Mud	1227	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	78
P 2 5	52
P 3 10	24
P 4 15	12
P 5 20	
P 6 25	
P 7 30	12
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: 9 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	12
3	136
6	280
9	373
12	443
15	506
18	580
21	600
24	624
27	633
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

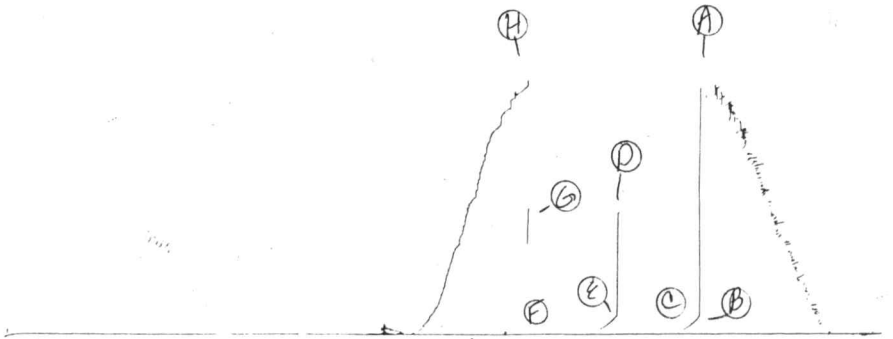
Second Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	92
5	65
10	37
15	22
20	14
25	14
30	14
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	

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

Point Minutes	Press.
0	14
3	65
6	214
9	324
12	396
15	454
18	499
21	530
24	550
27	570
30	591
33	599
36	
39	
42	
45	
48	
51	
54	
57	
60	

JK4 #6703



Company Range Oil Company, Inc. Lease & Well No. Pickett #3

Elevation 1432 Kelly Bushing Formation Pennsyvanian Sand Effective Pay - Ft. Ticket No. 6703

Date 9-25-80 Sec. 4 Twp. 24 Range 5E County Butler, State Kansas

Test Approved by Stephen Kreidler Western Representative Norman Allen

Formation Test No. #2 Interval Tested from 2436 ft. to 2450 ft. Total Depth 2450 ft.

Packer Depth 2436 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2431 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2443 ft. Recorder Number 1559 Cap. 4200

Bottom Recorder Depth (Outside) 2446 ft. Recorder Number 5666 Cap. 3950

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

Drilling Contractor Range Drilling Co. #1 Rig Drill Collar Length 90 I. D. 2¼ in.

Mud Type Chemical Viscosity 71 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 12.4 cc. Drill Pipe Length 2326 I. D. 3.8 in.

Chlorides 1200 P.P.M. Test Tool Length 34 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 14 ft. Size 5½OD 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 7 7/8 in.

Blow: Weak blow for fifteen minutes

Recovered 20 ft. of Very slightly oil cut mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Read outside recorder

Time Set Packer(s) 7:00 ~~A.M.~~ P.M. Time Started Off Bottom 9:00 ~~A.M.~~ P.M. Maximum Temperature 104°

Initial Hydrostatic Pressure ..... (A) 1227 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 78 P.S.I. to (C) 12 P.S.I.

Initial Closed In Period ..... Minutes 27 (D) 633 P.S.I.

Final Flow Period ..... Minutes 30 (E) 92 P.S.I. to (F) 14 P.S.I.

Final Closed In Period ..... Minutes 33 (G) 599 P.S.I.

Final Hydrostatic Pressure ..... (H) 1227 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 9-25-80 Test Ticket No. 6703

Recorder No. 5666 Capacity 3950 Location 2446 Ft.

Clock No. Elevation 1432 Kelly Bushing Well Temperature 104 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1227 P.S.I.	Open Tool	7:00 P M	
B First Initial Flow Pressure	78 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	12 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D Initial Closed-in Pressure	633 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	92 P.S.I.	Final Closed-in Pressure	30 Mins.	33 Mins.
F Second Final Flow Pressure	14 P.S.I.			
G Final Closed-in Pressure	599 P.S.I.			
H Final Hydrostatic Mud	1227 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: 6 Inc.		Breakdown: 9 Inc.		Breakdown: 6 Inc.		Breakdown: 11 Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	78	0	12	0	92	0	14
P 2 5	52	3	136	5	65	3	65
P 3 10	24	6	280	10	37	6	214
P 4 15	12	9	373	15	22	9	324
P 5 20	12	12	443	20	14	12	396
P 6 25	12	15	506	25	14	15	454
P 7 30	12	18	580	30	14	18	499
P 8		21	600			21	530
P 9 30		24	624			24	550
P10		27	633			27	570
P11						30	591
P12						33	599
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							