Company: Beren Corporation — Lease & Well No.: Voshell #2

Elevation: 2820 Kelly Bushing — Formation: Kansas City — Effective Pay: --- Ft. — Ticket No.: 2808

Date: 10/14/79 — Sec.: 13 — Twp.: 19S — Range: 29W — County: Lane — State: Kansas

Test Approved by: Robert C. Lewellyn — Western Representative: Ken Metzler

Formation Test No.: 1 — Interval Tested from: 4244 ft. to: 4268 ft. — Total Depth: 4268 ft.

Packer Depth: 4239 ft.	Size: 6 3/4 in.	Packer Depth: - ft.	Size: - in.
Packer Depth: 4244 ft.	Size: 6 3/4 in.	Packer Depth: - ft.	Size: - in.

Depth of Selective Zone Set: -

Top Recorder Depth (Inside): 4259 ft.		Recorder Number: 1566	Cap.: 4300
Bottom Recorder Depth (Outside): 4262 ft.		Recorder Number: 3086	Cap.: 4500
Below Straddle Recorder Depth: - ft.		Recorder Number: -	Cap.: -

Drilling Contractor: Pioneer Drilling Rig #2		Drill Collar Length: -	I. D.: - in.
Mud Type: starch	Viscosity: 55	Weight Pipe Length: 753	I. D.: 2.76 in.
Weight: 10.2	Water Loss: 8.0 cc.	Drill Pipe Length: 3476	I. D.: 3.8 in.
Chlorides: 15,000 P.P.M.		Test Tool Length: 19 ft.	Tool Size: 5½ in.
Jars: Make: No	Serial Number: -	Anchor Length: 24 ft.	Size: 5½ 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: 4½FH in.

Blow: Weak blow building to fair blow both openings.

Recovered 15 ft. of oil cut mud

Recovered 250 ft. of muddy sulphur water (27,000 chlorides ppm)

Recovered ft. of Some heavy free oil in tool.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s): 4:42 A.M. ~~P.M.~~ — Time Started Off Bottom: 9:30 A.M. ~~P.M.~~ — Maximum Temperature: 122°

Initial Hydrostatic Pressure			(A) 2384	P.S.I.		
Initial Flow Period	Minutes 30	(B) 37	P.S.I. to	(C) 35	P.S.I.	
Initial Closed In Period	Minutes 45	(D) 1274	P.S.I.			
Final Flow Period	Minutes 120	(E) 69	P.S.I. to	(F) 119	P.S.I.	
Final Closed In Period	Minutes 90	(G) 1227	P.S.I.			
Final Hydrostatic Pressure			(H) 2363	P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 10/14/79 Test Ticket No. 2808

Recorder No. 1566 Capacity 4300 Location 4259 Ft.

Clock No. -- Elevation 2820 Kelly Bushing Well Temperature 122 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2384	P.S.I.
B	First Initial Flow Pressure	37	P.S.I.
C	First Final Flow Pressure	35	P.S.I.
D	Initial Closed-in Pressure	1274	P.S.I.
E	Second Initial Flow Pressure	69	P.S.I.
F	Second Final Flow Pressure	119	P.S.I.
G	Final Closed-in Pressure	1227	P.S.I.
H	Final Hydrostatic Mud	2363	P.S.I.

	Time Given	Time Computed
Open Tool	4:42A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	45 Mins.	45 Mins.
Second Flow Pressure	120 Mins.	120 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.

Point	Mins.	Press.
P 1	0	37
P 2	5	36
P 3	10	35
P 4	15	35
P 5	20	35
P 6	25	35
P 7	30	35
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	35
3	781
6	1013
9	1096
12	1143
15	1171
18	1195
21	1212
24	1227
27	1236
30	1244
33	1253
36	1259
39	1266
42	1268
45	1274

Second Flow Pressure
Breakdown: 24 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	69
5	66
10	64
15	66
20	66
25	66
30	66
35	69
40	73
45	76
50	78
55	81
60	84
65	87
70	90
75	93
80	96
85	99
90	103
95	106
100	108

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Final Shut-In
Breakdown: 30 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	119
3	826
6	955
9	1013
12	1049
15	1075
18	1096
21	1115
24	1128
27	1137
30	1148
33	1154
36	1161
39	1167
42	1173
45	1180
48	1186
51	1190
54	1195
57	1199
60	1203

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WESTERN TESTING CO., INC.
Pressure Data

Date 10/14/79 Test Ticket No. 2808

Recorder No. 1566 Capacity 4300 Location 4259 Ft.

Clock No. -- Elevation 2820 Kelly Bushing Well Temperature 122 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2384 P.S.I.		Open Tool	4:42A M	
B	First Initial Flow Pressure	37 P.S.I.		First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	35 P.S.I.		Initial Closed-in Pressure	45 Mins.	45 Mins.
D	Initial Closed-in Pressure	1274 P.S.I.		Second Flow Pressure	120 Mins.	120 Mins.
E	Second Initial Flow Pressure	69 P.S.I.		Final Closed-in Pressure	90 Mins.	90 Mins.
F	Second Final Flow Pressure	119 P.S.I.				
G	Final Closed-in Pressure	1227 P.S.I.				
H	Final Hydrostatic Mud	2363 P.S.I.				

PRESSURE BREAKDOWN

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

Initial Shut-In
Breakdown: 15 Inc.
of 3 min. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 24 Inc.
of 5 mins. and a
final inc. of 0 Min.

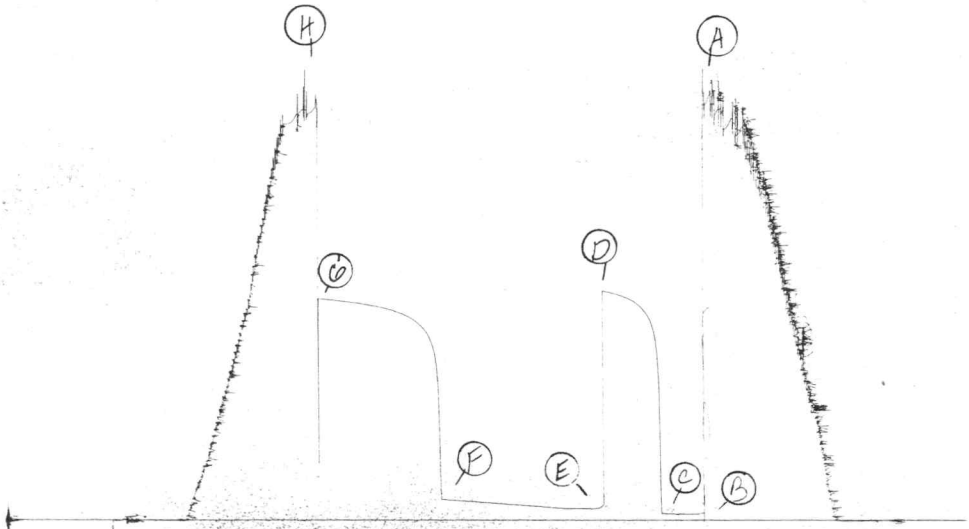
Final Shut-In
Breakdown: 30 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				105	110	63	1206
P 2				110	113	66	1209
P 3				115	116	69	1212
P 4				120	119	72	1215
P 5						75	1218
P 6						78	1220
P 7						81	1222
P 8						84	1224
P 9						87	1226
P10						90	1227
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

1566

#1

TK # 2808
I



Company Beren Corporation — Lease & Well No. Voshell #2

Elevation 2820 Kelly Bushing — Formation Kansas City — Effective Pay --- Ft. — Ticket No. 2809

Date 10/15/79 — Sec. 13 — Twp. 19S — Range 29W — County Lane — State Kansas

Test Approved by Robert C. Lewellyn — Western Representative Ken Metzler

Formation Test No. 2 — Interval Tested from 4308' ft. to 4330 ft. — Total Depth 4330 ft.

Packer Depth 4303 ft. — Size 6 3/4 in. — Packer Depth - ft. — Size - in.

Packer Depth 4308 ft. — Size 6 3/4 in. — Packer Depth - ft. — Size - in.

Depth of Selective Zone Set =

Top Recorder Depth (Inside) 4322 ft. — Recorder Number 1566 — Cap. 4300

Bottom Recorder Depth (Outside) 4325 ft. — Recorder Number 3086 — Cap. 4500

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

Drilling Contractor Pioneer Drilling Rig #2 — Drill Collar Length -- — I. D. -- in.

Mud Type starch — Viscosity 55 — Weight Pipe Length 753 — I. D. 2.76 in.

Weight 10.2 — Water Loss 8.0 cc. — Drill Pipe Length 3541 — I. D. 3.8 in.

Chlorides 15,000 P.P.M. — Test Tool Length 19 ft. — Tool Size 5½ in.

Jars: Make No — Serial Number --- — Anchor Length 22 ft. — Size 5½ 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 4½FH in.

Blow: Strong blow throughout test.

Recovered 911 ft. of muddy salt water (34,000 chlorides ppm)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 4:27 A.M. P.M. — Time Started Off Bottom 7:45 A.M. P.M. — Maximum Temperature 130°

Initial Hydrostatic Pressure			(A)	2435	P.S.I.	
Initial Flow Period	Minutes 30		(B)	54 P.S.I. to (C)	173	P.S.I.
Initial Closed In Period	Minutes 45		(D)	1268	P.S.I.	
Final Flow Period	Minutes 60		(E)	205 P.S.I. to (F)	415	P.S.I.
Final Closed In Period	Minutes 60		(G)	1268	P.S.I.	
Final Hydrostatic Pressure			(H)	2400	P.S.I.	

WESTERN TESTING CO., INC.
Pressure Data

Date 10/15/79 Test Ticket No. 2809

Recorder No. 1566 Capacity 4300 Location 4322 Ft.

Clock No. --- Elevation 2820 Kelly Bushing Well Temperature 130 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2435	P.S.I.
B	First Initial Flow Pressure	54	P.S.I.
C	First Final Flow Pressure	173	P.S.I.
D	Initial Closed-in Pressure	1268	P.S.I.
E	Second Initial Flow Pressure	205	P.S.I.
F	Second Final Flow Pressure	415	P.S.I.
G	Final Closed-in Pressure	1268	P.S.I.
H	Final Hydrostatic Mud	2400	P.S.I.

	Time Given	Time Computed
Open Tool	4:27A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	45 Mins.	45 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	54
P 2 5	50
P 3 10	60
P 4 15	89
P 5 20	117
P 6 25	145
P 7 30	173
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	173
3	966
6	1124
9	1178
12	1201
15	1221
18	1232
21	1240
24	1246
27	1251
30	1255
33	1258
36	1261
39	1264
42	1266
45	1268

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

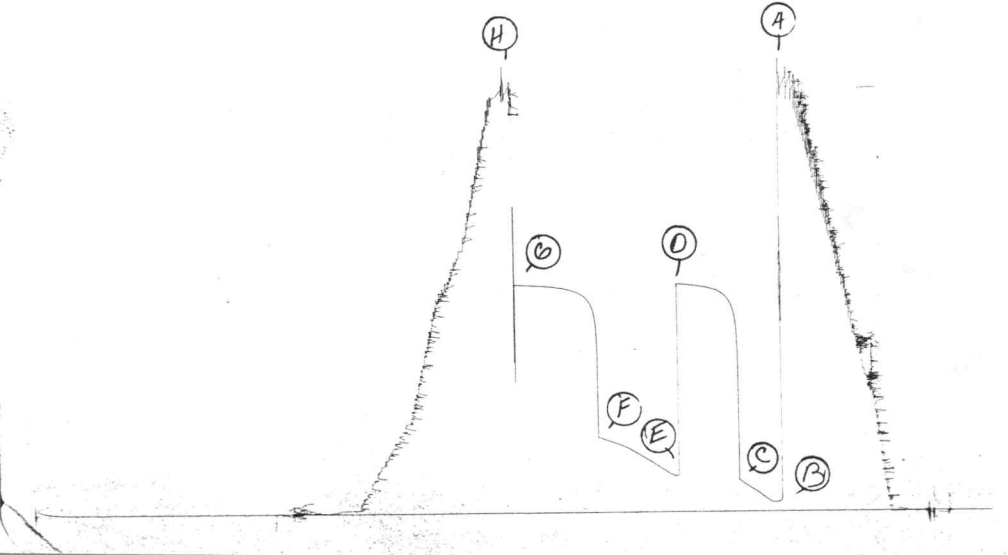
Point Minutes	Press.
0	205
5	210
10	229
15	253
20	279
25	300
30	324
35	346
40	365
45	378
50	394
55	404
60	415

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

Point Minutes	Press.
0	415
3	1068
6	1150
9	1186
12	1208
15	1218
18	1231
21	1238
24	1243
27	1248
30	1253
33	1255
36	1257
39	1259
42	1260
45	1261
48	1263
51	1265
54	1266
57	1267
60	1268

1566

Kt #2809
I



Company Beren Corporation Lease & Well No. Voshell #2

Elevation 2820 Kelly Bushing Formation Kansas City Effective Pay --- Ft. Ticket No. 2811

Date 10/16/79 Sec. 13 Twp. 19S Range 29W County Lane State Kansas

Test Approved by Robert C. Lewellyn Western Representative Ken Metzler

Formation Test No. 3 Interval Tested from 4350 ft. to 4357 ft. Total Depth 4357 ft.

Packer Depth 4345 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4350 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4337 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 4352 ft. Recorder Number 3086 Cap. 4500

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

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

Mud Type starch Viscosity 50 Weight Pipe Length 753 I. D. 2.76 in.

Weight 9.9 Water Loss 9.2 cc. Drill Pipe Length 3583 I. D. 3.8 in.

Chlorides 17,000 P.P.M. Test Tool Length 24 ft. Tool Size 5½ in.

Jars: Make No Serial Number -- Anchor Length 7 ft. Size 5½ 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 4½FH in.

Blow: Very weak blow;died in twenty-four minutes of first opening.

Recovered 3 ft. of drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 1:57 A.M. P.M. Time Started Off Bottom 4:00 A.M. P.M. Maximum Temperature 127°

Initial Hydrostatic Pressure ..... (A) 2448 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 19 P.S.I. to (C) 15 P.S.I.

Initial Closed In Period ..... Minutes 30 (D) 15 P.S.I.

Final Flow Period ..... Minutes 30 (E) 15 P.S.I. to (F) 15 P.S.I.

Final Closed In Period ..... Minutes 30 (G) 15 P.S.I.

Final Hydrostatic Pressure ..... (H) 2432 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 10/16/79 Test Ticket No. 2811

Recorder No. 1566 Capacity 4300 Location 4377 Ft.

Clock No. --- Elevation 2820 Kelly Bushing Well Temperature 127 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2448 P.S.I.		Open Tool	1:57A M	
B	First Initial Flow Pressure	19 P.S.I.		First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	15 P.S.I.		Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	15 P.S.I.		Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	15 P.S.I.		Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	15 P.S.I.				
G	Final Closed-in Pressure	15 P.S.I.				
H	Final Hydrostatic Mud	2432 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	19
P 2	5	15
P 3	10	15
P 4	15	15
P 5	20	15
P 6	25	15
P 7	30	15
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	15
3	15
6	15
9	15
12	15
15	15
18	15
21	15
24	15
27	15
30	15

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

Point Minutes	Press.
0	15
5	15
10	15
15	15
20	15
25	15
30	15

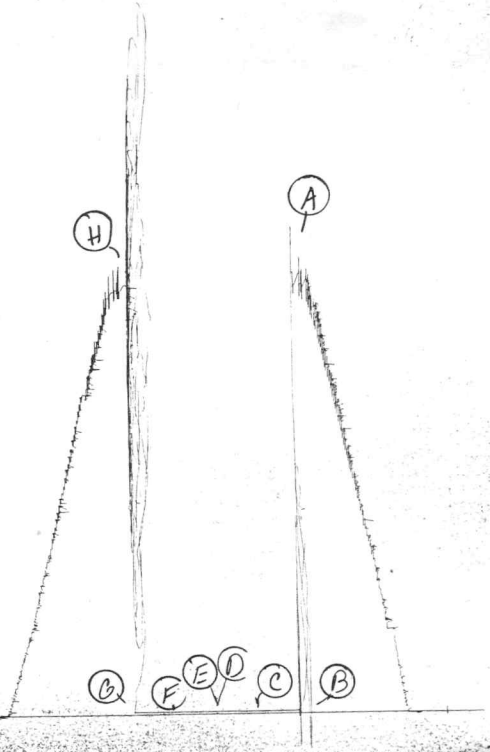
Final Shut-In
Breakdown: 10 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	15
3	15
6	15
9	15
12	15
15	15
18	15
21	15
24	15
27	15
30	15

#4

1566

JKL # 2811
I



Company Beren Corporation — Lease & Well No. Voshell #2

Elevation 2820 Kelly Bushing — Formation Johnson — Effective Pay -- Ft. — Ticket No. 2812

Date 10/18/79 — Sec. 13 — Twp. 19S — Range 29W — County Lane — State Kansas

Test Approved by Robert C. Lewellyn — Western Representative Ken Metzler

Formation Test No. 4 — Interval Tested from 4554 ft. to 4650 ft. — Total Depth 4650 ft.

Packer Depth 4549 ft. — Size 6 3/4 in. — Packer Depth - ft. — Size - in.

Packer Depth 4554 ft. — Size 6 3/4 in. — Packer Depth - ft. — Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4641 ft. — Recorder Number 1566 — Cap. 4300

Bottom Recorder Depth (Outside) 4644 ft. — Recorder Number 3086 — Cap. 4500

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

Drilling Contractor Pioneer Drilling Rig #2 — Drill Collar Length -- — I. D. -- in.

Mud Type starch — Viscosity 45 — Weight Pipe Length 753 — I. D. 2.76 in.

Weight 9.9 — Water Loss 12.0 cc. — Drill Pipe Length 3868 — I. D. 3.8 in.

Chlorides 11,000 P.P.M. — Test Tool Length 24 ft. — Tool Size 5½ in.

Jars: Make No — Serial Number -- — Anchor Length 96 ft. — Size 5½ 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 4½FH in.

Blow: Very weak blow;dead on second opening.

Recovered 10 ft. of drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 3:27 ~~A.M.~~ P.M. — Time Started Off Bottom 6:00 ~~A.M.~~ P.M. — Maximum Temperature 132°

Initial Hydrostatic Pressure			(A) 2594	P.S.I.		
Initial Flow Period	Minutes 30	(B) 89	P.S.I. to	(C) 77	P.S.I.	
Initial Closed In Period	Minutes 45	(D) 905	P.S.I.			
Final Flow Period	Minutes 30	(E) 86	P.S.I. to	(F) 78	P.S.I.	
Final Closed In Period	Minutes 48	(G) 865	P.S.I.			
Final Hydrostatic Pressure			(H) 2531	P.S.I.		

WTC-1

WESTERN TESTING CO., INC.
Pressure Data

Date 10/18/79 | Test Ticket No. 2812

Recorder No. 1566 | Capacity 4300 | Location 4641 Ft.

Clock No. -- | Elevation 2820 Kelly Bushing | Well Temperature 132 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2594	P.S.I.	Open Tool	3:27P M	
B	First Initial Flow Pressure	89	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	77	P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D	Initial Closed-in Pressure	905	P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	86	P.S.I.	Final Closed-in Pressure	45 Mins.	48 Mins.
F	Second Final Flow Pressure	78	P.S.I.			
G	Final Closed-in Pressure	865	P.S.I.			
H	Final Hydrostatic Mud	2531	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	89
P 2 5	86
P 3 10	80
P 4 15	77
P 5 20	77
P 6 25	77
P 7 30	77
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	77
3	77
6	77
9	130
12	235
15	326
18	424
21	502
24	566
27	635
30	690
33	738
36	781
39	822
42	858
45	905

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

Point Minutes	Press.
0	86
5	84
10	80
15	78
20	78
25	78
30	78

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	78
3	80
6	125
9	220
12	303
15	385
18	452
21	514
24	575
27	624
30	667
33	712
36	746
39	776
42	807
45	833
48	865

#4

Tkt # 2812
I

