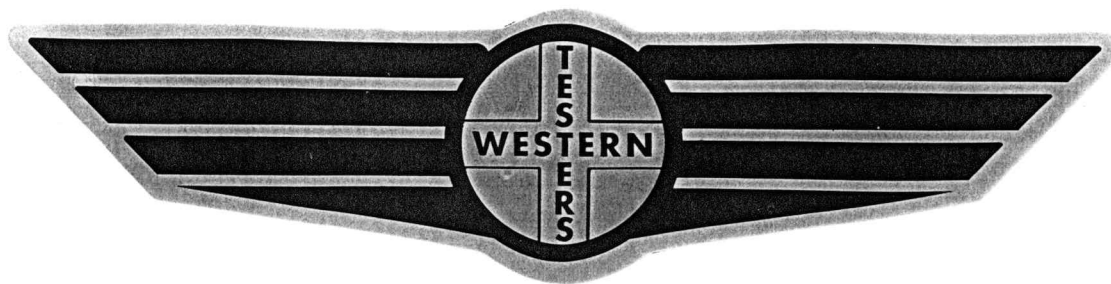


FORMATION TEST REPORT



Home Office:

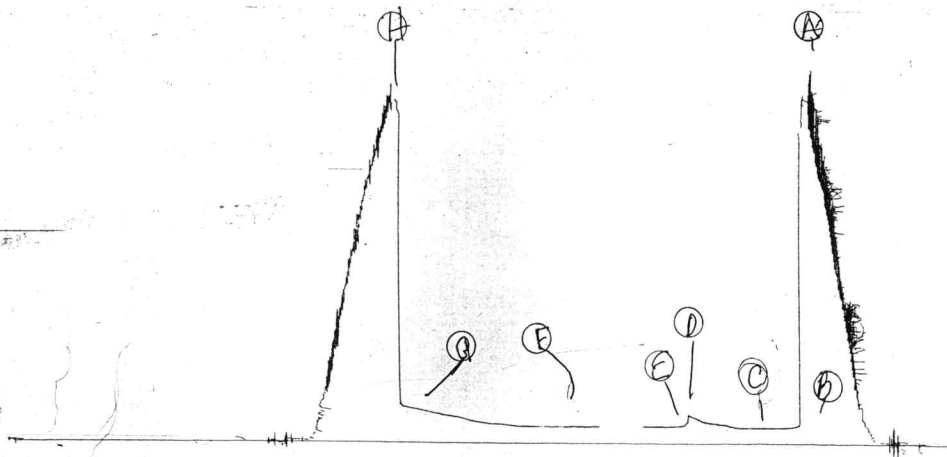
Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

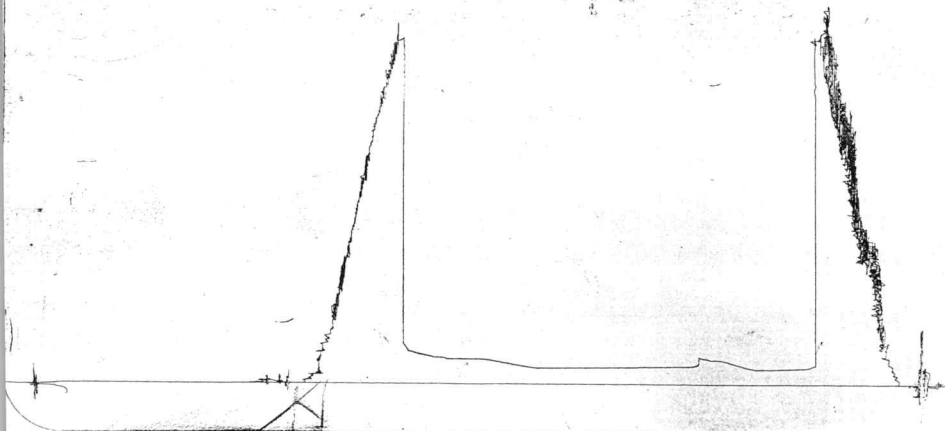
1051 DST #1
✱

TR#20584
I.



4322 DST#1

TK#20584
0.



DST REPORT

GENERAL INFORMATION

DATE : 5/9/94
CUSTOMER : PHILLIPS EXPLORATION CO
WELL : #1-17A TEST: 1
ELEVATION: 1710 GL
SECTION : 17
RANGE : 9W COUNTY: RENO
GAUGE SN#: 1051 RANGE : 4250

TICKET : 20584
LEASE : BENSON
GEOLOGIST: J PHILLIPS
FORMATION: MISSISSIPPI
TOWNSHIP : 25S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3840.00 ft TO: 3900.00 ft TVD: 3900.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3857.0 ft 3860.0 ft
TEMPERATURE: 124.0

DRILL COLLAR LENGTH:	397.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	3421.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	60.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH:	3835.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3840.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : STERLING RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.300 ppg
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 47.00 cp
WATER LOSS: 6.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A 3 INCH
BLOW. FINAL FLOW PERIOD FAIR 5 TO 6 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	300 FT GAS ABOVE FLUID
20.0	0.0	5.0	0.0	95.0	GAS CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	135.0000	min.
GAS VOLUME:	0.0276	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0934	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0934	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2027.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	86.00	86.00
INITIAL SHUT-IN	60.00		161.00
FINAL FLOW	90.00	107.00	107.00
FINAL SHUT-IN	120.00		215.00

FINAL HYDROSTATIC PRESSURE: 1974.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1926.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	94.00	94.00
INITIAL SHUT-IN	54.00		163.00
FINAL FLOW	90.00	99.00	99.00
FINAL SHUT-IN	120.00		204.00

FINAL HYDROSTATIC PRESSURE: 1895.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 5/9/94	TICKET	: 20584
CUSTOMER	: PHILLIPS EXPLORATION CO	LEASE	: BENSON
WELL	: #1-17A	TEST: 1	GEOLOGIST: J PHILLIPS
ELEVATION:	1710 GL	FORMATION:	MISSISSIPPI
SECTION	: 17	TOWNSHIP	: 25S
RANGE	: 9W	STATE	: KS
GAUGE SN#:	1051	CLOCK	: 12
	COUNTY: RENO		
	RANGE : 4250		

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	94.00	94.00
5.00	94.00	0.00
10.00	94.00	0.00
15.00	94.00	0.00
20.00	94.00	0.00
25.00	94.00	0.00
30.00	94.00	0.00
35.00	94.00	0.00
40.00	94.00	0.00
45.00	94.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	94.00	94.00	0.00
6.00	94.00	0.00	0.00
9.00	94.00	0.00	0.00
12.00	94.00	0.00	0.00
15.00	94.00	0.00	0.00
18.00	97.00	3.00	0.00
21.00	101.00	4.00	0.00
24.00	108.00	7.00	0.00
27.00	110.00	2.00	0.00
30.00	112.00	2.00	0.00
33.00	114.00	2.00	0.00
36.00	118.00	4.00	0.00
39.00	123.00	5.00	0.00
42.00	128.00	5.00	0.00
45.00	138.00	10.00	0.00
48.00	148.00	10.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
51.00	154.00	6.00	0.00
54.00	163.00	9.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	99.00	99.00
5.00	99.00	0.00
10.00	99.00	0.00
15.00	99.00	0.00
20.00	99.00	0.00
25.00	99.00	0.00
30.00	99.00	0.00
35.00	99.00	0.00
40.00	99.00	0.00
45.00	99.00	0.00
50.00	99.00	0.00
55.00	99.00	0.00
60.00	99.00	0.00
65.00	99.00	0.00
70.00	99.00	0.00
75.00	99.00	0.00
80.00	99.00	0.00
85.00	99.00	0.00
90.00	99.00	0.00

FINAL SHUT IN

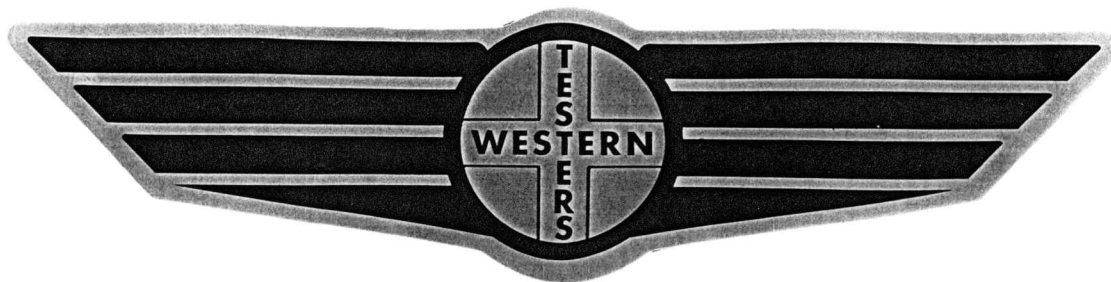
Time (min)	Pressure	Delta P	Horner T
3.00	99.00	99.00	0.00
6.00	99.00	0.00	0.00
9.00	99.00	0.00	0.00
12.00	99.00	0.00	0.00
15.00	99.00	0.00	0.00
18.00	99.00	0.00	0.00
21.00	99.00	0.00	0.00
24.00	99.00	0.00	0.00
27.00	99.00	0.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
30.00	99.00	0.00	0.00
33.00	99.00	0.00	0.00
36.00	99.00	0.00	0.00
39.00	100.00	1.00	0.00
42.00	104.00	4.00	0.00
45.00	108.00	4.00	0.00
48.00	110.00	2.00	0.00
51.00	111.00	1.00	0.00
54.00	112.00	1.00	0.00
57.00	113.00	1.00	0.00
60.00	114.00	1.00	0.00
63.00	118.00	4.00	0.00
66.00	122.00	4.00	0.00
69.00	127.00	5.00	0.00
72.00	132.00	5.00	0.00
75.00	139.00	7.00	0.00
78.00	144.00	5.00	0.00
81.00	151.00	7.00	0.00
84.00	154.00	3.00	0.00
87.00	156.00	2.00	0.00
90.00	159.00	3.00	0.00
93.00	165.00	6.00	0.00
96.00	169.00	4.00	0.00
99.00	173.00	4.00	0.00
102.00	178.00	5.00	0.00
105.00	184.00	6.00	0.00
108.00	187.00	3.00	0.00
111.00	193.00	6.00	0.00
114.00	197.00	4.00	0.00
117.00	201.00	4.00	0.00
120.00	204.00	3.00	0.00

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

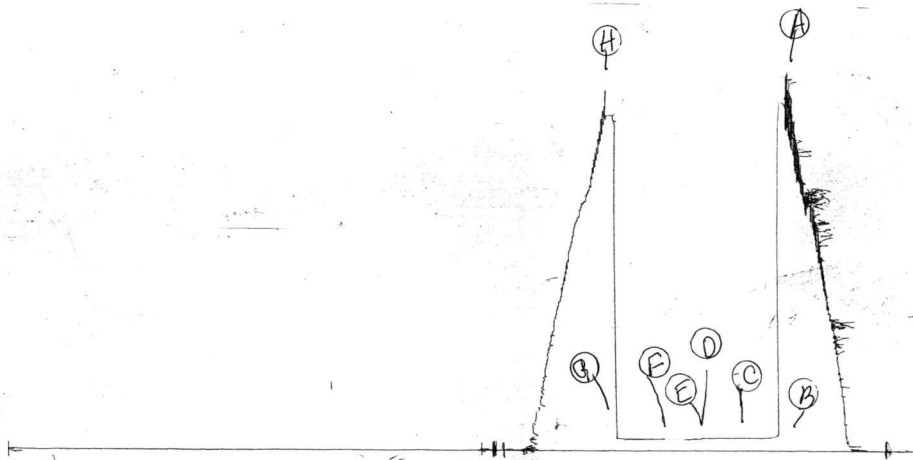
Phone 1-800-688-7021

1051 DST#2



TL#20585

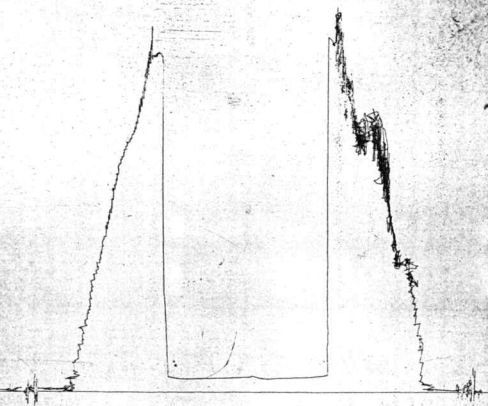
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4332 DST #2

TR4# 20585
O.

TR4# 20585



DST REPORT

GENERAL INFORMATION

DATE : 5/10/94
CUSTOMER : PHILLIPS EXPLORATION CO
WELL : #1-17A TEST: 2
ELEVATION: 1710 GL
SECTION : 17
RANGE : 9W COUNTY: RENO
GAUGE SN#: 1051 RANGE : 4250

TICKET : 20585
LEASE : BENSON
GEOLOGIST: J PHILLIPS
FORMATION: MISSISSIPPI
TOWNSHIP : 25S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3895.00 ft TO: 3914.00 ft TVD: 3914.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3902.0 ft 3905.0 ft
TEMPERATURE: 122.0

DRILL COLLAR LENGTH:	397.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	3476.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	19.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH:	3890.0 ft	SIZE:	6.630 in
PACKER DEPTH:	3895.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : STERLING RIG 4
MUD TYPE : CHEMICAL
WEIGHT : 9.200 ppg
CHLORIDES : 4000 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 51.00 cp
WATER LOSS: 6.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD VERY WEAK BLOW BUILDING TO A
3/4 INCH BLOW. FINAL FLOW PERIOD VERY WEAK 1/2 TO
3/4 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
15.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB		
GAS VOLUME:	0.0000	SCF	TOTAL FLOW TIME:	60.0000 min.
MUD VOLUME:	0.0738	STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000	STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.0738	STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1974.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	64.00	64.00
INITIAL SHUT-IN	30.00		64.00
FINAL FLOW	30.00	64.00	64.00
FINAL SHUT-IN	30.00		64.00

FINAL HYDROSTATIC PRESSURE: 1920.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1972.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	74.00	74.00
INITIAL SHUT-IN	27.00		74.00
FINAL FLOW	30.00	68.00	68.00
FINAL SHUT-IN	30.00		68.00

FINAL HYDROSTATIC PRESSURE: 1884.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 5/10/94	TICKET : 20585
CUSTOMER : PHILLIPS EXPLORATION CO	LEASE : BENSON
WELL : #1-17A TEST: 2	GEOLOGIST: J PHILLIPS
ELEVATION: 1710 GL	FORMATION: MISSISSIPPI
SECTION : 17	TOWNSHIP : 25S
RANGE : 9W COUNTY: RENO	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	74.00	74.00
5.00	74.00	0.00
10.00	74.00	0.00
15.00	74.00	0.00
20.00	74.00	0.00
25.00	74.00	0.00
30.00	74.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	74.00	74.00	0.00
6.00	74.00	0.00	0.00
9.00	74.00	0.00	0.00
12.00	74.00	0.00	0.00
15.00	74.00	0.00	0.00
18.00	74.00	0.00	0.00
21.00	74.00	0.00	0.00
24.00	74.00	0.00	0.00
27.00	74.00	0.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	68.00	68.00
5.00	68.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
10.00	68.00	0.00
15.00	68.00	0.00
20.00	68.00	0.00
25.00	68.00	0.00
30.00	68.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	68.00	68.00	0.00
6.00	68.00	0.00	0.00
9.00	68.00	0.00	0.00
12.00	68.00	0.00	0.00
15.00	68.00	0.00	0.00
18.00	68.00	0.00	0.00
21.00	68.00	0.00	0.00
24.00	68.00	0.00	0.00
27.00	68.00	0.00	0.00
30.00	68.00	0.00	0.00

WESTERN TESTING CO., INC.

Pressure Data

Date 5-5-54

Test Ticket No. 20584

Recorder No. 1051

Capacity _____ Location _____ Ft.

Clock No. _____

Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud <u>1924</u>	P.S.I.		M
B First Initial Flow Pressure _____	P.S.I.		Mins. _____ Mins.
C First Final Flow Pressure _____	P.S.I.		Mins. _____ Mins.
D Initial Closed-in Pressure _____	P.S.I.		Mins. _____ Mins.
E Second Initial Flow Pressure _____	P.S.I.		Mins. _____ Mins.
F Second Final Flow Pressure _____	P.S.I.		Mins. _____ Mins.
G Final Closed-in Pressure _____	P.S.I.		
H Final Hydrostatic Mud <u>1875</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ 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 <u>0</u>	<u>94</u>	<u>0</u>	<u>94</u>	<u>0</u>	<u>99</u>	<u>0</u>	<u>99</u>
P 2 <u>5</u>		<u>3</u>	<u>94</u>	<u>5</u>		<u>3</u>	
P 3 <u>10</u>		<u>6</u>		<u>10</u>		<u>6</u>	
P 4 <u>15</u>		<u>9</u>		<u>15</u>		<u>9</u>	
P 5 <u>20</u>		<u>12</u>		<u>20</u>		<u>12</u>	
P 6 <u>25</u>		<u>15</u>	<u>94</u>	<u>25</u>		<u>15</u>	
P 7 <u>30</u>	<u>94</u>	<u>18</u>	<u>97</u>	<u>30</u>		<u>18</u>	
P 8 <u>35</u>	<u>2</u>	<u>21</u>	<u>101</u>	<u>35</u>		<u>21</u>	
P 9 <u>40</u>	<u>2</u>	<u>24</u>	<u>108</u>	<u>40</u>		<u>24</u>	
P10 <u>45</u>	<u>94</u>	<u>27</u>	<u>110</u>	<u>45</u>		<u>27</u>	
P11 <u>50</u>		<u>30</u>	<u>112</u>	<u>50</u>		<u>30</u>	<u>99</u>
P12 <u>55</u>		<u>33</u>	<u>114</u>	<u>55</u>		<u>33</u>	<u>99</u>
P13 <u>60</u>		<u>36</u>	<u>118</u>	<u>60</u>		<u>36</u>	<u>99</u>
P14 <u>65</u>		<u>39</u>	<u>122</u>	<u>65</u>		<u>39</u>	<u>100</u>
P15 <u>70</u>		<u>42</u>	<u>128</u>	<u>70</u>		<u>42</u>	<u>104</u>
P16 <u>75</u>		<u>45</u>	<u>138</u>	<u>75</u>		<u>45</u>	<u>108</u>
P17 <u>80</u>		<u>48</u>	<u>148</u>	<u>80</u>		<u>48</u>	<u>110</u>
P18 <u>85</u>		<u>51</u>	<u>154</u>	<u>85</u>		<u>51</u>	<u>112</u>
P19 <u>90</u>		<u>54</u>	<u>162</u>	<u>90</u>	<u>99</u>	<u>54</u>	<u>114</u>
P20 <u>95</u>		<u>57</u>		<u>95</u>		<u>57</u>	<u>112</u>
<u>100</u>		<u>60</u>		<u>100</u>		<u>60</u>	<u>114</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 20584

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____ P.S.I.	Open Tool _____ M _____			
B First Initial Flow Pressure _____ P.S.I.	First Flow Pressure _____ Mins. _____ Mins.			
C First Final Flow Pressure _____ P.S.I.	Initial Closed-in Pressure _____ Mins. _____ Mins.			
D Initial Closed-in Pressure _____ P.S.I.	Second Flow Pressure _____ Mins. _____ Mins.			
E Second Initial Flow Pressure _____ P.S.I.	Final Closed-in Pressure _____ Mins. _____ Mins.			
F Second Final Flow Pressure _____ P.S.I.				
G Final Closed-in Pressure _____ P.S.I.				
H Final Hydrostatic Mud _____ P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of _____ mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105		63		105		63	118
P 2 110		66		110		66	120
P 3 115		69		115		69	127
P 4 120		72		120		72	132
P 5 125		75		125		75	139
P 6 130		78		130		78	144
P 7 135		81		135		81	151
P 8 140		84		140		84	154
P 9 145		87		145		87	156
P10 150		90		150		90	159
P11 155		93		155		93	165
P12 160		96		160		96	169
P13 165		99		165		99	173
P14 170		102		170		102	178
P15 175		105		175		105	184
P16 180		108		180		108	187
P17 185		111		185		111	193
P18 190		114		190		114	197
P19 195		117		195		117	201
P20 200		120		200		120	204