WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Graves Drilling Co., Inc. Lease & Well No. DeWitt #1

Elevation 1708 Kelly Bushings Formation Sand Effective Pay Ft. Ticket No. 13771

Date 4-5-71 Sec. 5 Twp. 18S Range 7W County Rice State Kansas

Test Approved by R. G. Miller Western Representative Dean Blagrave

Formation Test No. 1 O.K. X Misrun Interval Tested From 3144' to 3159' Total Depth 3159'

Size Main Hole 7 7/8" Rat Hole Conv. X B.T. Damaged Yes X No Conv. B.T. X Damaged Yes X No

Packer Depth 3139 Ft. Size 6 3/4" Packer Depth 3144 Ft. Size 6 3/4"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" XH Anchor Length 15 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3150 Ft. Clock No. 6899 Depth 3153 Ft. Clock No. 9102

Top Make Kuster Cap. 4000 No. 3659 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3660 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 7:24 A. M

Tool Open I.F.P. From 7:28 M. to 7:38A. M. Hr. 10 Min. From (B) 81 P.S.I. To (C) 84 P.S.I.

Tool Closed I.C.I.P. From 7:38 M. to 8:08A. M. Hr. 30 Min. (D) 725 P.S.I.

Tool Open F.F.P. From 8:08 M. to 9:08A. M. 1 Hr. Min. From (E) 96 P.S.I. To (F) 236 P.S.I.

Tool Closed F.C.I.P. From 9:08 M. to 9:38A. M. Hr. 30 Min. (G) 676 P.S.I.

Initial Hydrostatic Pressure (A) 1656 P.S.I. Final Hydrostatic Pressure (H) 1615 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	1/4 In.		M.	
			M.	
			M.	

BLOW Good thru out Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 30 feet gas in pipe - 530 feet salty water with scum of oil.

Reversed Out Yes X No Mud Type Starch Viscosity 37 Weight 9.2 Water Loss 9.8 cc. Maximum Temp. 114 °F

Type Circ. Sub Plug Did Tool Plug? No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Safety Joint No Did Packer Hold? Yes Where?

Length Drill Pipe 3125 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe None ft. I.D. Weight Pipe in. Length Drill Collars 30 ft.

I. D. Drill Collars 2.2 in. Length D.S.T. Tool 33 ft.

Remarks Slid tool approx. 10 feet to bottom

WESTERN TESTING CO., INC.
Pressure Data

Date 4-5-71 Test Ticket No. 13771

Recorder No. 3659 Capacity 4000 Location 3150 Ft.

Clock No. 6899 Elevation 1708 Kelly Bushings Well Temperature 114 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1656 P.S.I.		Open Tool	7:24 A. M	
B	First Initial Flow Pressure	81 P.S.I.		First Flow Pressure	10 Mins.	10 Mins.
C	First Final Flow Pressure	84 P.S.I.		Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	725 P.S.I.		Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	96 P.S.I.		Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	236 P.S.I.				
G	Final Closed-in Pressure	676 P.S.I.				
H	Final Hydrostatic Mud	1615 P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 2 Inc. of 5 mins. and a final inc. of ____ Min.

Point Mins.	Press.
P 1 0	81
P 2 5	78
P 3 10	84
P 4	
P 5	
P 6	
P 7	
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 ____ Min.

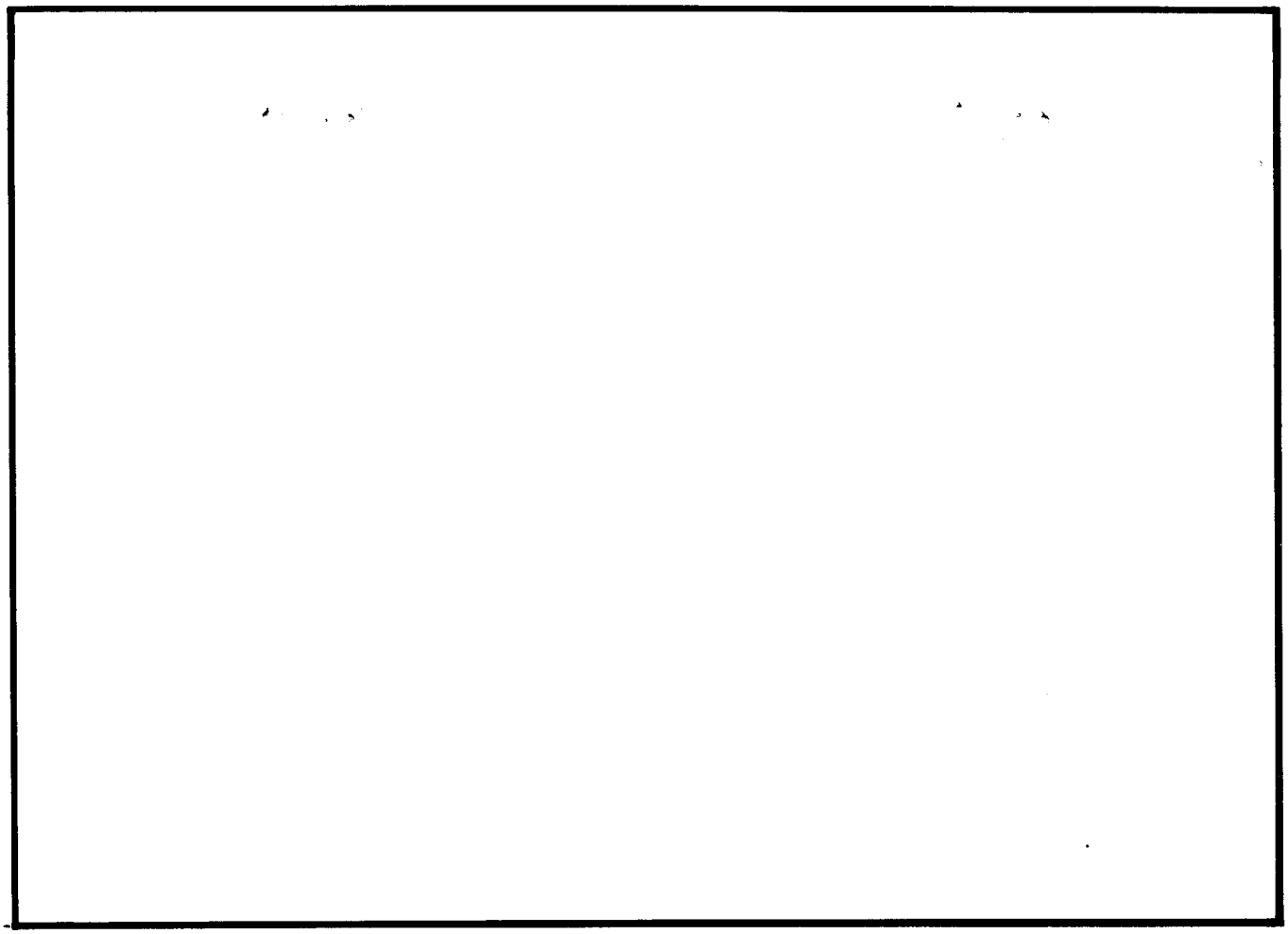
Point Minutes	Press.
0	84
3	610
6	656
9	678
12	694
15	700
18	708
21	714
24	718
27	721
30	725

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

Point Minutes	Press.
0	96
5	97
10	116
15	132
20	144
25	164
30	174
35	184
40	196
45	206
50	216
55	229
60	236

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

Point Minutes	Press.
0	236
3	580
6	611
9	631
12	642
15	651
18	659
21	664
24	670
27	674
30	676



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1650	1656	PSI
(B)	First Initial Flow Pressure	70	81	PSI
(C)	First Final Flow Pressure	80	84	PSI
(D)	Initial Closed-in Pressure	720	725	PSI
(E)	Second Initial Flow Pressure	90	96	PSI
(F)	Second Final Flow Pressure	230	236	PSI
(G)	Final Closed-in Pressure	670	676	PSI
(H)	Final Hydrostatic Mud	1610	1615	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Graves Drilling Co., Inc. Lease & Well No. DeWitt #1

Elevation 1708 Kelly Bushings Formation Simpson Effective Pay Ft. Ticket No. 13772

Date 4-5-71 Sec. 5 Twp. 18S Range 7W County Rice State Kansas

Test Approved by Benton S. Brooks Jr. Western Representative Dean Blagrave

Formation Test No. 2 O.K. X Misrun Interval Tested From 3205' to 3226' Total Depth 3226'

Size Main Hole 7 7/8" Rat Hole Conv. X B.T. Damaged Yes X No Conv. B.T. X Damaged Yes X No

Packer Depth 3200 Ft. Size 6 3/4" Packer Depth 3205 Ft. Size 6 3/4"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" X.H. Anchor Length 21 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3217 Ft. Clock No. 6899 Depth 3220 Ft. Clock No. 9102

Top Make Kuster Cap. 4000 No. 3659 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3660 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 10:52 PM

Tool Open I.F.P. From 10:55 M. to 11:10P M. Hr. 15 Min. From (B) 30 P.S.I. To (C) 42 P.S.I.

Tool Closed I.C.I.P. From 11:10 M. to 11:40 PM Hr. 30 Min. (D) 951 P.S.I.

Tool Open F.F.P. From 11:40 M. to 12:40A. M. 1 Hr. Min. From (E) 56 P.S.I. To (F) 103 P.S.I.

Tool Closed F.C.I.P. From 12:40 M. to 1:10A. M. Hr. 30 Min. (G) 759 P.S.I.

Initial Hydrostatic Pressure (A) 1697 P.S.I. Final Hydrostatic Pressure (H) 1676 P.S.I.

SURFACE INFORMATION	Size Choke 1/4 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak increasing to fair Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 200 feet muddy water

Reversed Out Yes X No Mud Type Starch Viscosity 42 Weight 9.8 Water Loss 5 cc. Maximum Temp. 114 °F

Type Circ. Sub. Plug Did Tool Plug? No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Safety Joint No Did Packer Hold? Yes Where?

Length Drill Pipe 3185 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe None ft. I.D. Weight Pipe in. Length Drill Collars 30 ft.

I. D. Drill Collars 2.2 in. Length D.S.T. Tool 39 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 4-5-71 Test Ticket No. 13772

Recorder No. 3659 Capacity 4000 Location 3217 Ft.

Clock No. 6899 Elevation 1708 Kelly Bushings Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1697 P.S.I.	Open Tool	10:52 P.M	
B First Initial Flow Pressure	30 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	42 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	951 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	56 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	103 P.S.I.			
G Final Closed-in Pressure	759 P.S.I.			
H Final Hydrostatic Mud	1676 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Mins.	Press.
P 1 0	30
P 2 5	32
P 3 10	36
P 4 15	42
P 5	
P 6	
P 7	
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 ____ Min.

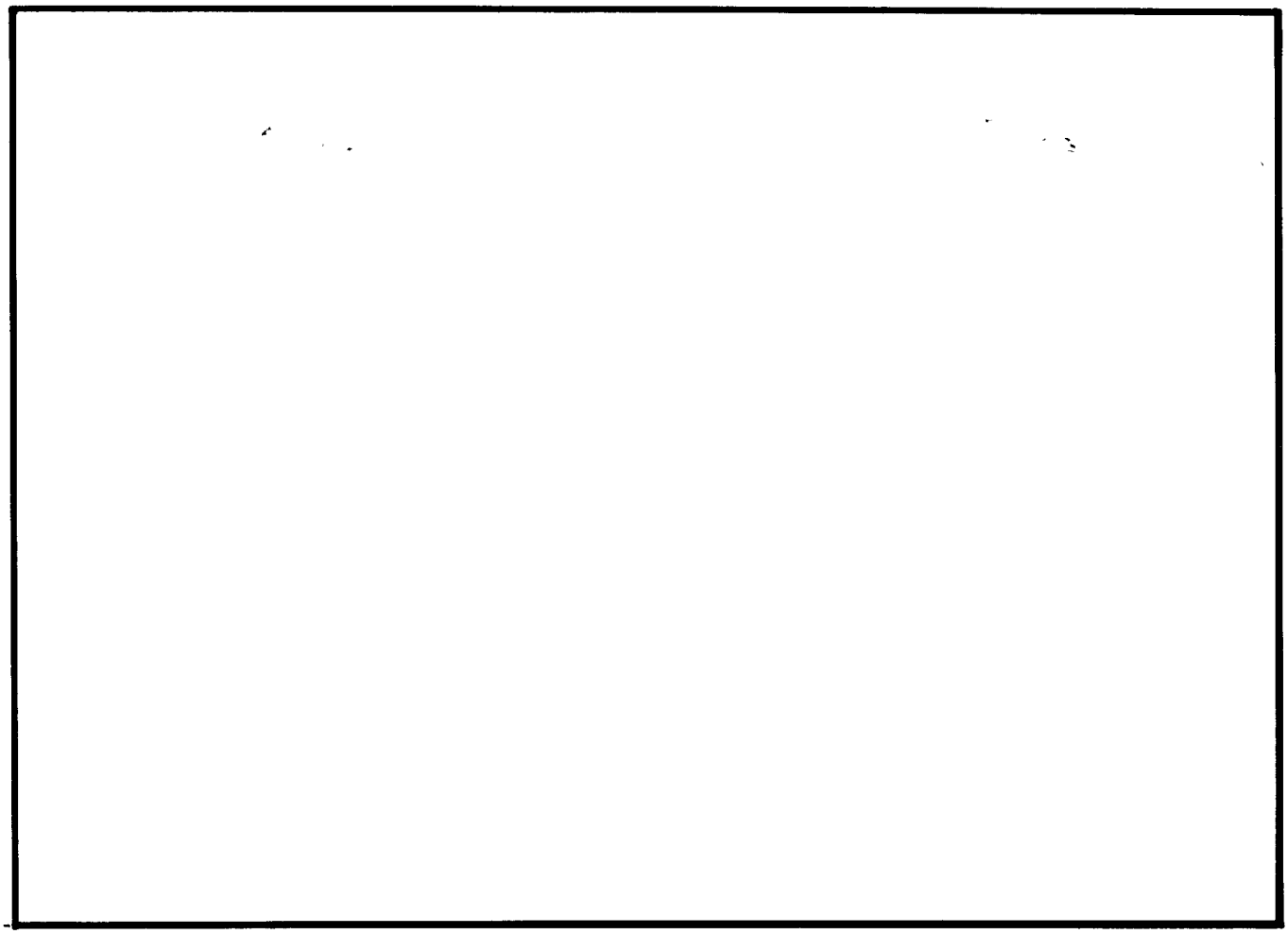
Point Minutes	Press.
0	42
3	734
6	810
9	850
12	877
15	896
18	910
21	923
24	934
27	942
30	951

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

Point Minutes	Press.
0	56
5	56
10	58
15	63
20	72
25	77
30	81
35	84
40	89
45	90
50	94
55	100
60	103

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

Point Minutes	Press.
0	103
3	514
6	598
9	640
12	665
15	686
18	705
21	722
24	734
27	746
30	759



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1700	1697	PSI
(B)	First Initial Flow Pressure	30	30	PSI
(C)	First Final Flow Pressure	40	42	PSI
(D)	Initial Closed-in Pressure	950	951	PSI
(E)	Second Initial Flow Pressure	50	56	PSI
(F)	Second Final Flow Pressure	100	103	PSI
(G)	Final Closed-in Pressure	750	759	PSI
(H)	Final Hydrostatic Mud	1680	1676	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company Graves Drilling Co., Inc. Lease & Well No. DeWitt #1

Elevation 1708 Kelly Bushings Formation Arbuckle Effective Pay Ft. Ticket No. 13773

Date 4-6-71 Sec. 5 Twp. 18S Range 7W County Rice State Kansas

Test Approved by Benton Brooks Jr. Western Representative Dean Blagrave

Formation Test No. 3 O.K. X Misrun Interval Tested From 3257' to 3267' Total Depth 3280'

Size Main Hole 7 7/8" Rat Hole 7 7/8 Conv. B.T. X Damaged Yes X No Conv. B.T. Damaged Yes No

Packer Depth 3257 Ft. Size 6 3/4" Packer Depth Ft. Size

Straddle Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3267 Ft. Size 6 3/4"

Tool Size 5 1/2" O.D. Tool Jt. Size 4 1/2" X.H. Anchor Length 10 Ft. Size 5 1/2" O.D.

RECORDERS Depth 3251 Ft. Clock No. 6899 Depth 3259 Ft. Clock No. 9102

Top Make Kuster Cap. 4000 No. 3659 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3660 ~~Inside~~ Outside

Below Straddle: Depth 3276 Clock No. 101 Inside Outside Depth 3278 Ft. Clock No. 110 Inside Outside

Top Make WTC Cap. 4000 No. 47 Inside Outside Bottom Make WCT Cap. 6000 No. 36 Inside Outside

Time Set Packer 2:02 P. M

Tool Open I.F.P. From 2:05 M. to 2:15P. M. Hr. 10 Min. From (B) 49 P.S.I. To (C) 152 P.S.I.

Tool Closed I.C.I.P. From 2:15 M. to 2:45P. M. Hr. 30 Min. (D) 1072 P.S.I.

Tool Open F.F.P. From 2:45 M. to 3:45P. M. 1 Hr. Min. From (E) 194 P.S.I. To (F) 638 P.S.I.

Tool Closed F.C.I.P. From 3:45 M. to 4:15P. M. Hr. 30 Min. (G) 1051 P.S.I.

Initial Hydrostatic Pressure (A) 1703 P.S.I. Final Hydrostatic Pressure (H) 1697 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	1/4 In.		M.	
			M.	
			M.	

BLOW Strong thru out Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 1510 feet oil cut sulphur water

Reversed Out X Yes No Mud Type Starch Viscosity 42 Weight 9.8 Water Loss 5 cc. Maximum Temp. 114 °F

Type Circ. Sub. Plug Did Tool Plug? No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers No Safety Joint No Did Packer Hold? Yes Where?

Length Drill Pipe 3215 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe None ft. I.D. Weight Pipe in. Length Drill Collars 30 ft.

I. D. Drill Collars 2.2 in. Length D.S.T. Tool 41 ft.

Remarks

WESTERN TESTING CO., INC.
Pressure Data

Date 4-6-71 Test Ticket No. 13773

Recorder No. 3659 Capacity 4000 Location 3251 Ft.

Clock No. 6899 Elevation 1708 Kelly Bushings Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1703 P.S.I.	Open Tool	2:02 P. M	
B First Initial Flow Pressure	49 P.S.I.	First Flow Pressure	10 Mins.	10 Mins.
C First Final Flow Pressure	152 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1072 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	194 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	638 P.S.I.			
G Final Closed-in Pressure	1051 P.S.I.			
H Final Hydrostatic Mud	1697 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 2 Inc.
of 5 mins. and a
final inc. of ____ Min.

Point Mins.	Press.
P 1 0	49
P 2 5	80
P 3 10	152
P 4	
P 5	
P 6	
P 7	
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 ____ Min.

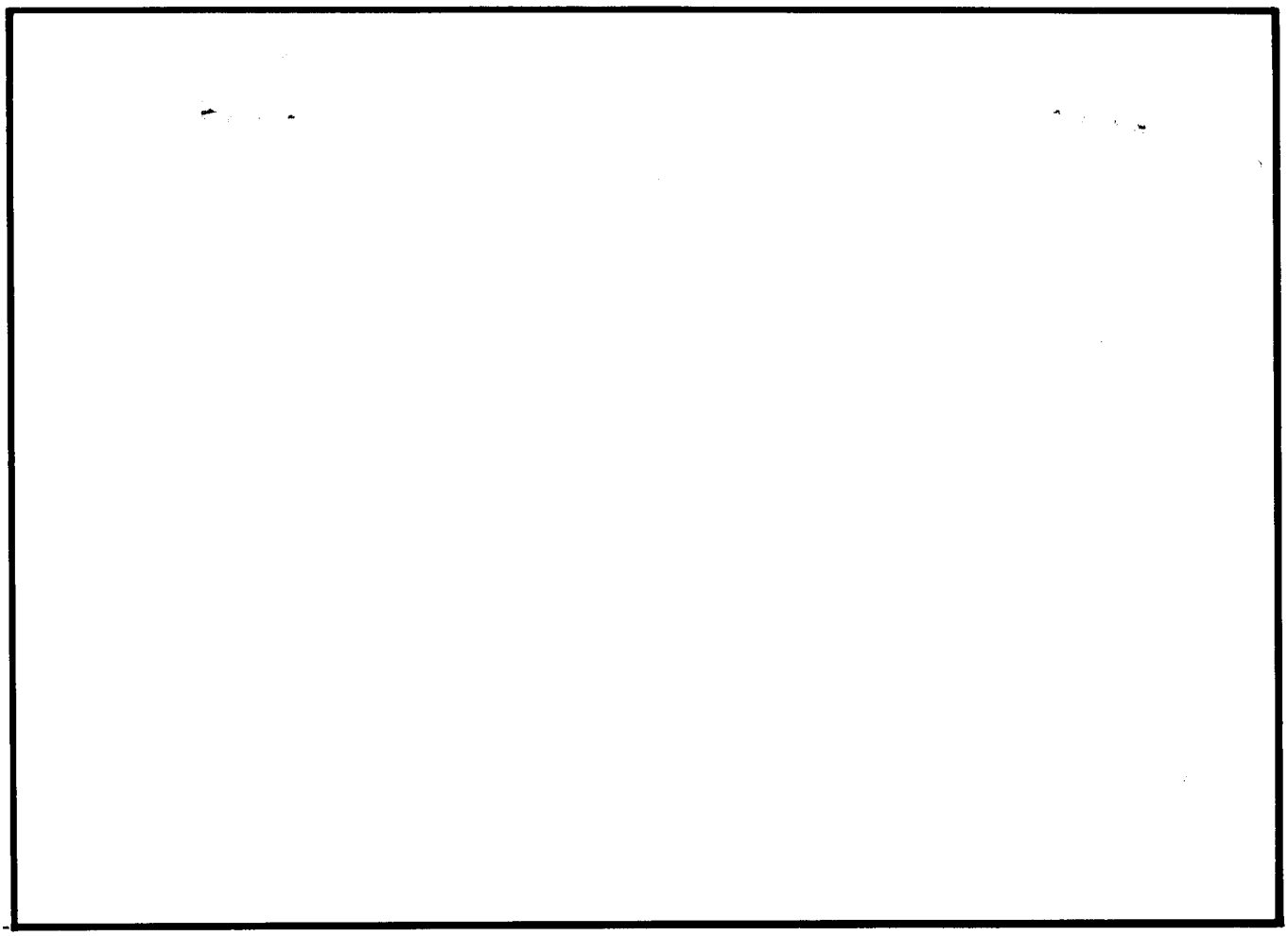
Point Minutes	Press.
0	152
3	966
6	1006
9	1028
12	1041
15	1048
18	1055
21	1060
24	1064
27	1068
30	1072

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

Point Minutes	Press.
0	194
5	232
10	291
15	345
20	390
25	432
30	472
35	506
40	540
45	571
50	596
55	622
60	638

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

Point Minutes	Press.
0	638
3	976
6	994
9	1010
12	1020
15	1028
18	1034
21	1041
24	1045
27	1048
30	1051



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1710	1703	PSI
(B)	First Initial Flow Pressure	50	49	PSI
(C)	First Final Flow Pressure	160	152	PSI
(D)	Initial Closed-in Pressure	1070	1072	PSI
(E)	Second Initial Flow Pressure	190	194	PSI
(F)	Second Final Flow Pressure	630	638	PSI
(G)	Final Closed-in Pressure	1050	1051	PSI
(H)	Final Hydrostatic Mud	1690	1697	PSI