JOHNSTON TESTERS

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0709	-	5/8"
CLOSED FOR INITIAL SHUT-IN	0714	-	"
GAS TO SURFACE	0719	-	"
RE-OPENED TOOL	0814	-	"
		INCHES OF WATER	
GAS 98 MCF/DAY	0825	1/2	1"
MUD	0827	-	"
GAS	0844	-	"
MUD CUT OIL	0845	-	"
OIL	0850	-	"
CLOSED FOR FINAL SHUT-IN	0914	-	"
PULLED PACKER LOOSE	1014	-	"

WELL FLOWED AN ESTIMATED 40 BARRELS PER HOUR OF OIL
FLOW SAMPLE: .1% WATER, .2% MUD, AND 99.7% OIL
API GRAVITY = 35 AT 60°F.

EQUIPMENT, HOLE & MUD DATA

Type Test: CONVENTIONAL OPEN HOLE
Formation Tested: MISSISSIPPI
Elevation: 1510 Ft
Net Productive Interval: 46 Ft
Estimated Porosity: 20 %
All Depths Measured From: GROUND LEVEL

EQUIPMENT SEQUENCE

COMPONENTS	Size/Type	Depth/Length/ I.D.
DRILL PIPE	4½" FH	4275'/
		4.9"
CROSS-OVER SUB	3½" FH	
4-STAGE SHUT-IN	3½"	
HYDRAULIC TOOL	3½" FH	
JARS	3½" HS-1	
CROSS-OVER SUB	4½"	
SAFETY JOINT	4½" HOMCO	
BOB-TAIL PACKER	6 5/8"	4302'
PERF. ANCHOR	3½" FH	34'
RECORDER CARRIER	4 7/8" T	6'
RECORDER CARRIER	4 7/8" J	6'

Total Depth: 4348 Ft.
Main Hole/Casing Size: 7 7/8"
Rat Hole/Liner Size: -
Bottom Choke Size: 5/8"
Mud Type: STARCH Wt. 10.2
Viscosity: 58 Water Loss 10.2 C.C.

Cushion Type	Amount	Pressure
	-	

RECOVERY DATA

Description	Amount
FREE OIL	1860' (42.97 BBLS)
MUDDY OIL	180' (4.16 BBLS)
OILY MUDDY WATER	120' (2.77 BBLS)

Remarks:

		%WATER	%OIL	%MUD
SAMPLE CHLORIDE CONTENT		.2%	99.7%	.1%
MIDDLE RECOVERY				
BOTTOM RECOVERY	100,000 PPM			
PIT MUD	50,000 PPM			

Address: BOX 223; MEDLODGE, KANSAS

Company: SINCLAIR OIL AND GAS Field: -
Well: FREEMAN #1 Location: 4-31S-6W
Test Interval: 4302' TO 4348' Test #: 1 Date: 2-28-66

County: HARPER State: KANSAS Field Report No.: 25011 A
Technician: RAYMER (PRATT) Test Approved By: MR. JACK C. ANDERSON No. Reports Requested: 6 xx

JOHNSTON TESTERS

PRESSURE DATA

Instrument No.		J-049		
Capacity (P.S.I.G.)		4700		
Instrument Depth		4342'		
Instrument Opening		OUTSIDE		
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.		137		
Initial Hydrostatic Mud	A	2374		
Initial Shut-in	B	* 1686		
Initial Flow	C	500		
	C-1	637		
	C-2	565		
Final Flow	D	1068		
Final Shut-in	E	1676		
Final Hydrostatic Mud	F	2350		

Field Report No. 25011 A

TIME DATA

	Time Given	Time Computed
	60 Mins.	61 Mins.
	5 Mins.	4 Mins.
	- Mins.	- Mins.
	- Mins.	- Mins.
	60 Mins.	59 Mins.
	60 Mins.	61 Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

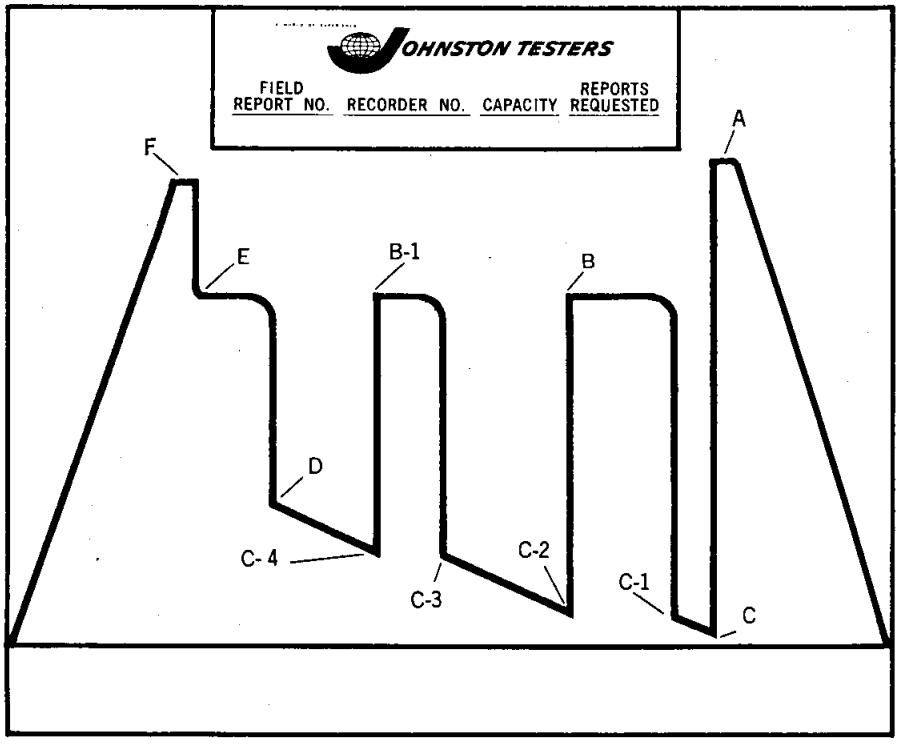
Clock Travel 0.02153 inches per min.

PRESSURE INCREMENTS

INITIAL SHUT-IN			FLOW PERIODS			FINAL SHUT-IN		
Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
C-1 0	637		INITIAL FLOW			D 0	1068	
5	1668		C 0	500		5	1659	
10	1674		C-1 4	637		10	1668	
15	1676		FINAL FLOW			15	1671	
20	1678		C-2 0	565		20	1673	
25	1679		5	593		25	1675	
30	1680		10	635		30	1676	
35	1681		15	732		35	1676	
40	1682		20	808		40	1676	
45	1682		25	836		45	1676	
50	1683		30	945		50	1676	
55	1684		35	1000		55	1676	
60	1685		40	1034		60	1676	
B 61	1686		45	1053		E 61	1676	
			50	1067				
			55	1068				
			D 59	1068				

JOHNSTON TESTERS

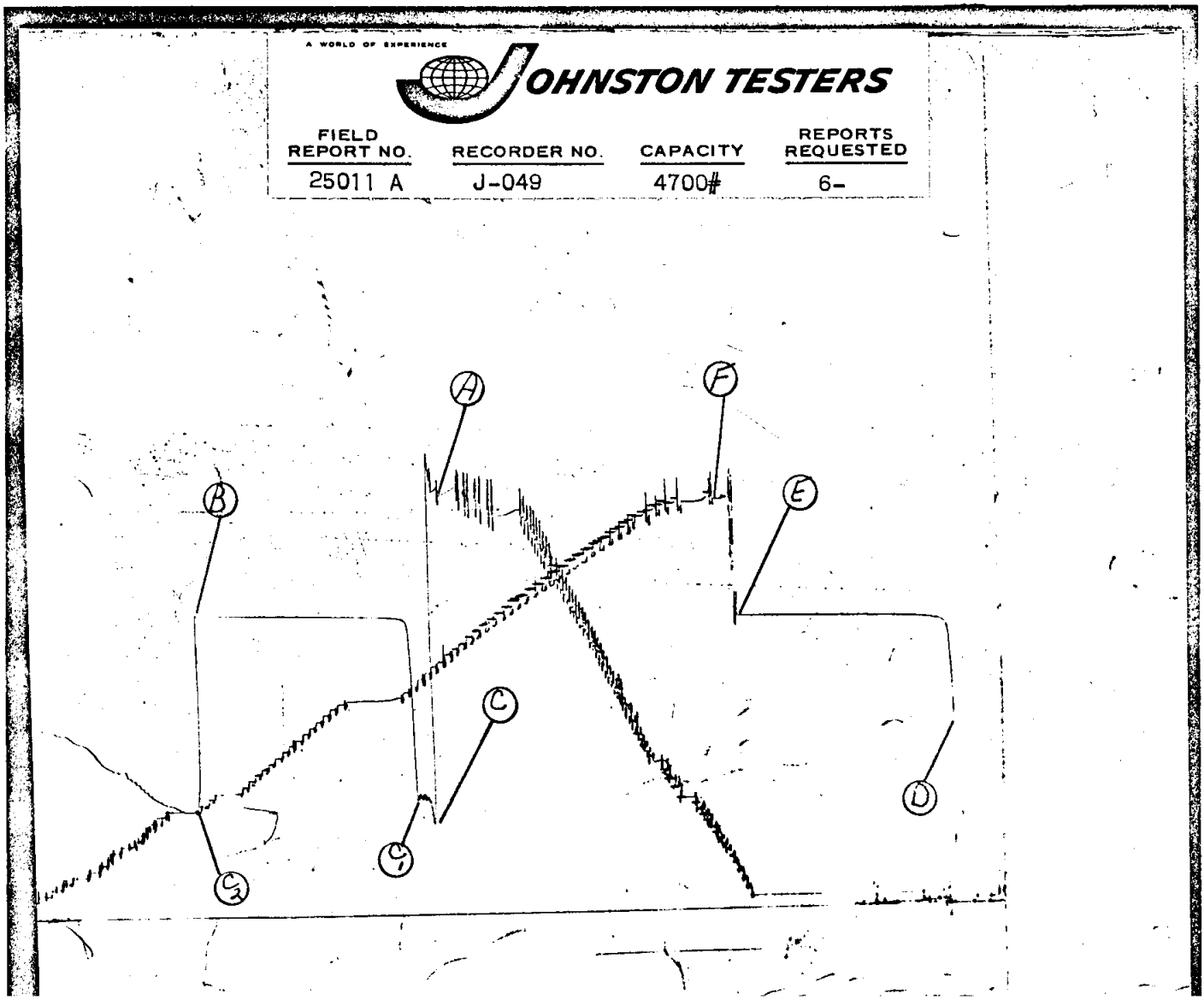
GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



A. Initial Hyd. Mud
B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures
B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
C-1, C-2, C-3, etc. Flowing Pressures
D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
Z — Special pressure points such as pumping pressure recorded for formation breakdown.



JOHNSTON TESTERS

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0718	-	5/8"
WEAK BLOW THROUGHOUT TEST			
CLOSED FOR INITIAL SHUT-IN	0723	-	"
RE-OPENED TOOL	0823	-	"
CLOSED FOR FINAL SHUT-IN	0923	-	"
PULLED PACKER LOOSE	1023	-	"

RECOVERY DATA

Description	Amount
DRILLING MUD	10'(.23 BBLS)

EQUIPMENT, HOLE & MUD DATA

Type Test: CONVENTIONAL OPEN HOLE
Formation Tested: SIMPSON
Elevation: 1510 F
Net Productive Interval: 23 F
Estimated Porosity: - %
All Depths Measured From: GROUND LEVEL

EQUIPMENT SEQUENCE

COMPONENTS	Size/Type	Depth/Length/ I.D.
DRILL PIPE	4½" FH	4645'/ 4.9"
CROSS-OVER SUB	3½" FH	
4-STAGE SHUT-IN	3½" FH	
HYDRAULIC TOOL	3½" FH	
JARS	3½" HS-1	
CROSS-OVER SUB	4½"	
SAFETY JOINT	4½" HOMCO	
BOB-TAIL PACKER	6 5/8"	4677'
PERF. ANCHOR	3½" FH	11'
RECORDER CARRIER	4 7/8" T	6'
RECORDER CARRIER	4 7/8" J	6'

Total Depth: 4700 Ft
Main Hole/Casing Size: 7 7/8"
Rat Hole/Liner Size: -
Bottom Choke Size: 5/8"
Mud Type: STARCH Wt. 9.3
Viscosity: 49 Water Loss 8.4 C.C

Cushion Type	Amount	Pressure
	-	

Remarks: CHLORIDE CONTENT OF PIT MUD SAMPLE: 34,000 PPM

Address: BOX 223; MEDLODGE, KANSAS

Company: SINCLAIR OIL AND GAS Field: -
Well: FREEMAN #1 Location: 4-31s-6w
Test Interval: 4677' TO 4700' Test #: 2 Date: 3-3-66

County: HARPER State: KANSAS Field Report No.: 25012 A
Technician: RAYMER(PRATT) Test Approved By: MR. J. C. ANDERSON No. Reports Requested: 6 xx

JOHNSTON TESTERS

PRESSURE DATA

Instrument No.		J-049			
Capacity (P.S.I.G.)		4700			Field Report No. 25012 A
Instrument Depth		4694'			
Instrument Opening		OUTSIDE			TIME DATA
Pressure Gradient P.S.I./Ft.					
Well Temperature °F.		137			Time Given / Time Computed
Initial Hydrostatic Mud	A	2559			
Initial Shut-in	B	* 1467			60 Mins. / 61 Mins.
Initial Flow	C	29			5 Mins. / 6 Mins.
	C-1	25			- Mins. / - Mins.
	C-2	29			- Mins. / - Mins.
Final Flow	D	30			60 Mins. / 59 Mins.
Final Shut-in	E	* 887			60 Mins. / 59 Mins.
Final Hydrostatic Mud	F	2557			

Remarks:

*Shut in pressure did not reach static reservoir pressure.

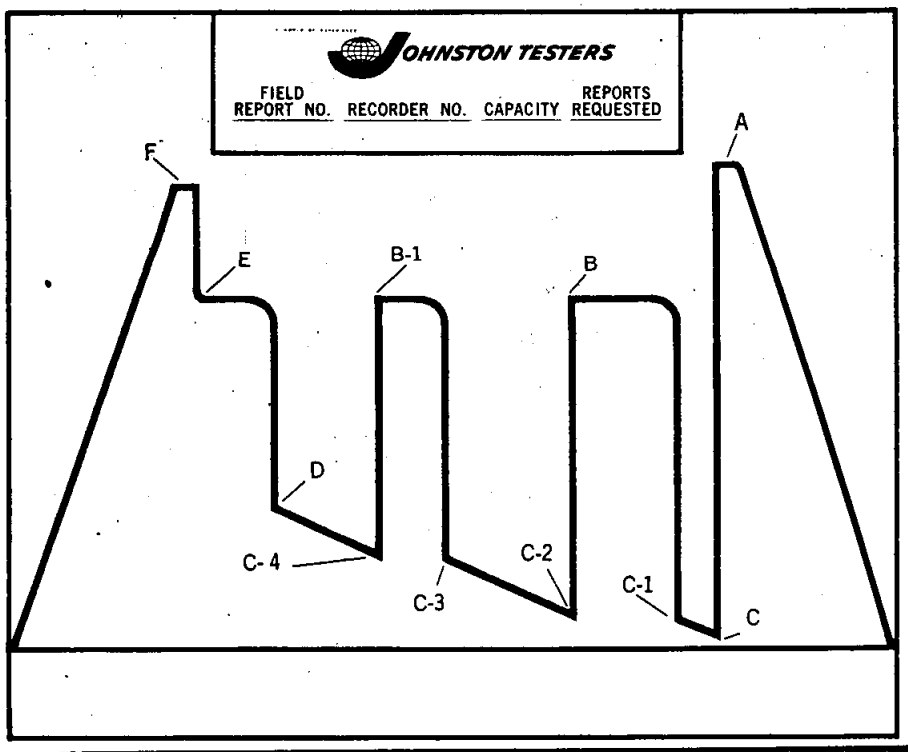
Clock Travel 0.02202 inches per min.

PRESSURE INCREMENTS

INITIAL SHUT-IN			FLOW PERIODS			FINAL SHUT-IN		
Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
C-1 0	25		INITIAL FLOW			D 0	30	
5	68		C 0	29		5	48	
10	142		5	24		10	68	
15	319		C-1 6	25		15	92	
20	622		FINAL FLOW			20	127	
25	859		C-2 0	29		25	179	
30	1022		5	26		30	260	
35	1212		10	26		35	374	
40	1230		15	26		40	514	
45	1304		20	26		45	639	
50	1365		25	27		50	744	
55	1418		30	27		55	829	
60	1464		35	28		E 59	887	
61	1467		40	28				
			45	29				
			50	29				
			55	29				
			D 59	30				

JOHNSTON TESTERS

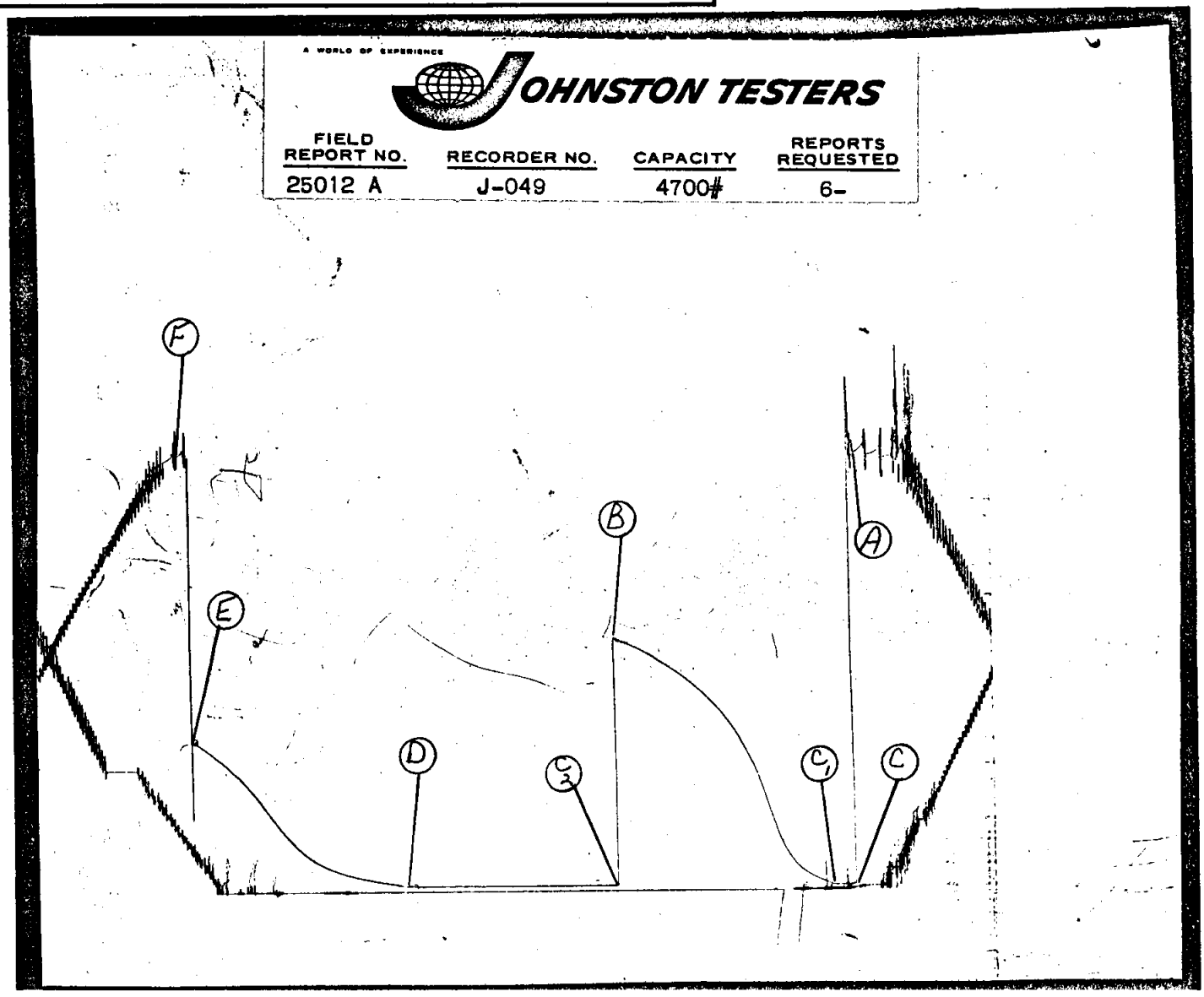
GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



A. Initial Hyd. Mud
B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

A-1, A-2, A-3, etc. Initial Hyd. Pressures
B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
C-1, C-2, C-3, etc. Flowing Pressures
D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
Z — Special pressure points such as pumping pressure recorded for formation breakdown.



JOHNSTON TESTERS

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0640	-	5/8"
CLOSED FOR INITIAL SHUT-IN	0645	-	"
RE-OPENED TOOL	0745	-	"
CLOSED FOR FINAL SHUT-IN	0845	-	"
PULLED PACKER LOOSE	0945	-	"
HAD A VERY WEAK BLOW FOR			
45 MINUTES			

RECOVERY DATA

Description	Amount
THIN DRILLING MUD	65'(1.50 BBLS)

EQUIPMENT, HOLE & MUD DATA

Type Test: CONVENTIONAL OPEN HOLE
Formation Tested: SIMPSON
Elevation: 1510 Ft
Net Productive Interval: 14 Ft
Estimated Porosity: - %
All Depths Measured From: GROUND LEVEL

EQUIPMENT SEQUENCE

COMPONENTS	Size/Type	Depth/Length/ I.D.
DRILL PIPE	4½" FH	4666'/ 4.9"
CROSS-OVER SUB	3½" FH	
4-STAGE SHUT-IN	3½" FH	
HYDRAULIC TOOL	3½" FH	
JARS	3½" HS-1	
CROSS-OVER SUB	4½"	
SAFETY JOINT	4½" HOMCO	
BOB-TAIL PACKER	6 5/8"	4698'
PERF. ANCHOR	3½" FH	2'
RECORDER CARRIER	4 7/8" T	6'
RECORDER CARRIER	4 7/8" J	6'

Total Depth: 4712 Ft.
Main Hole/Casing Size: 7 7/8"
Rat Hole/Liner Size: -
Bottom Choke Size: 5/8"
Mud Type: STARCH Wt. 10.2
Viscosity: 59 Water Loss 4 C.C.

Cushion Type	Amount	Pressure
	-	

Remarks:

SAMPLE	CHLORIDE CONTENT
BOTTOM RECOVERY	40,000 PPM
PIT MUD	34,000 PPM

Address: BOX 223; MEDLODGE, KANSAS

Company: SINCLAIR OIL AND GAS Field: -
Well: FREEMAN #1 Location: 4-31S-6W
Test Interval: 4698' TO 4712' Test #: 3 Date: 3-4-66

County: HARPER State: KANSAS Field Report No.: 25013 A
Technician: RAYMER (PRATT) Test Approved By: MR. JACK ANDERSON No. Reports Requested: 6 xx

JOHNSTON TESTERS

PRESSURE DATA

Instrument No.		J-049			
Capacity (P.S.I.G.)		4700			
Instrument Depth		4706'			
Instrument Opening		OUTSIDE			
Pressure Gradient P.S.I./Ft.		-			
Well Temperature °F.		140			
Initial Hydrostatic Mud	A	2540			
Initial Shut-in	B	* 1646			
Initial Flow	C	29			
	C-1	28			
	C-2	43			
Final Flow	D	47			
Final Shut-in	E	* 1302			
Final Hydrostatic Mud	F	2548			

Field Report No. 25013 A

TIME DATA

	Time Given	Time Computed
Initial Flow	60 Mins.	60 Mins.
Initial Shut-in	5 Mins.	5 Mins.
	- Mins.	- Mins.
	- Mins.	- Mins.
Final Flow	60 Mins.	59 Mins.
Final Shut-in	60 Mins.	61 Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

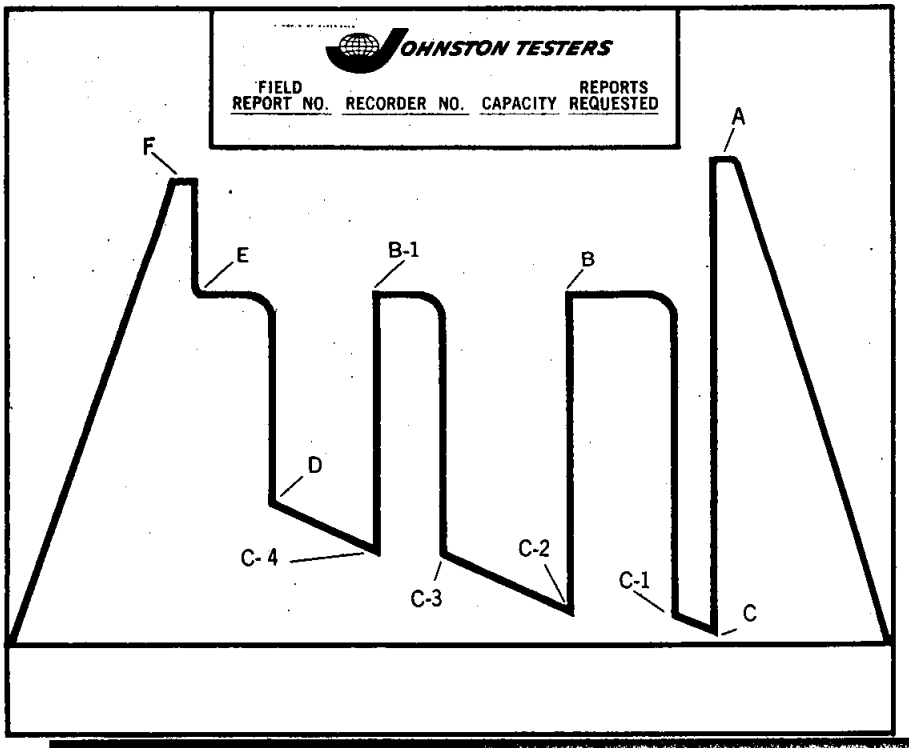
Clock Travel 0.021908 inches per min.

PRESSURE INCREMENTS

Initial Shut-In			Flow Periods			Final Shut-In		
Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
C-1 0	28		Initial Flow			D 0	47	
5	760		C 0	29		5	51	
10	1174		C-1 5	28		10	469	
15	1346		Final Flow			15	716	
20	1439		C-2 0	43		20	867	
25	1499		5	42		25	970	
30	1537		10	41		30	1049	
35	1569		15	42		35	1113	
40	1591		20	43		40	1163	
45	1611		25	43		45	1205	
50	1625		30	44		50	1240	
55	1635		35	45		55	1271	
B 60	1646		40	45		60	1300	
			45	45		E 61	1302	
			50	46				
			55	46				
			D 59	47				

JOHNSTON TESTERS

GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



A. Initial Hyd. Mud
B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

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B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
C-1, C-2, C-3, etc. Flowing Pressures
D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
Z — Special pressure points such as pumping pressure recorded for formation breakdown.