WESTERN TESTERS

Home Office: Great Bend, Kansas

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

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

Elevation 1611 Kelly Bushings Formation Mississippian Effective Pay Ft. Ticket No. 14969

Date 11-13-70 Sec. 4 Twp. 35S Range 13W County Barber State Kansas

Test Approved by Edgar E. Smith Western Representative Dean Blagrave

Formation Test No. 1 O.K. X Misrun Interval Tested From 4910' to 4930' Total Depth 4930'

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

Packer Depth 4906 Ft. Size 6 3/4" Packer Depth 4910 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 20 Ft. Size 5 1/2" O.D.

RECORDERS Depth 4921 Ft. Clock No. 4964 Depth 4924 Ft. Clock No. 6899

Top Make Amerada Cap. 4000 No. 3659 Inside Outside Bottom Make Amerada 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 6:42 A. M

Tool Open I.F.P. From 6:44 M. to 7:14A. M. Hr. 30 Min. From (B) 32 P.S.I. To (C) 33 P.S.I.

Tool Closed I.C.I.P. From 7:14 M. to 7:44A. M. Hr. 30 Min. (D) 96 P.S.I.

Tool Open F.F.P. From 7:44 M. to 8:44A. M. 1 Hr. Min. From (E) 30 P.S.I. To (F) 33 P.S.I.

Tool Closed F.C.I.P. From 8:44 M. to 9:14A. M. Hr. 30 Min. (G) 148 P.S.I.

Initial Hydrostatic Pressure (A) 2578 P.S.I. Final Hydrostatic Pressure (H) 2530 P.S.I.

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

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

Did Well Flow Yes X No Recovery Total Ft. 5 feet mud

Reversed Out Yes X No Mud Type Starch Viscosity 45 Weight 9.9 Water Loss 10.6 cc. Maximum Temp. 124 °F

Type Circ. Sub. Plug Did Tool Plug? No Jars: Size 4½ O.D. Make WTC Ser. No. 403

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

Length Drill Pipe 4805 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe None ft. I.D. Weight Pipe in. Length Drill Collars 90 ft.

I. D. Drill Collars 2.2 in. Length D.S.T. Tool 44 ft.

Remarks

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 11-13-70 Test Ticket No. 14969

Recorder No. 3659 Capacity 4000 Location 4921 Ft.

Clock No. 4964 Elevation 1611 Kelly Bushings Well Temperature 124 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2578 P.S.I.		Open Tool	6:42 A.M	
B	First Initial Flow Pressure	32 P.S.I.		First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	33 P.S.I.		Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	96 P.S.I.		Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	30 P.S.I.		Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	33 P.S.I.				
G	Final Closed-in Pressure	148 P.S.I.				
H	Final Hydrostatic Mud	2530 P.S.I.				

PRESSURE BREAKDOWN

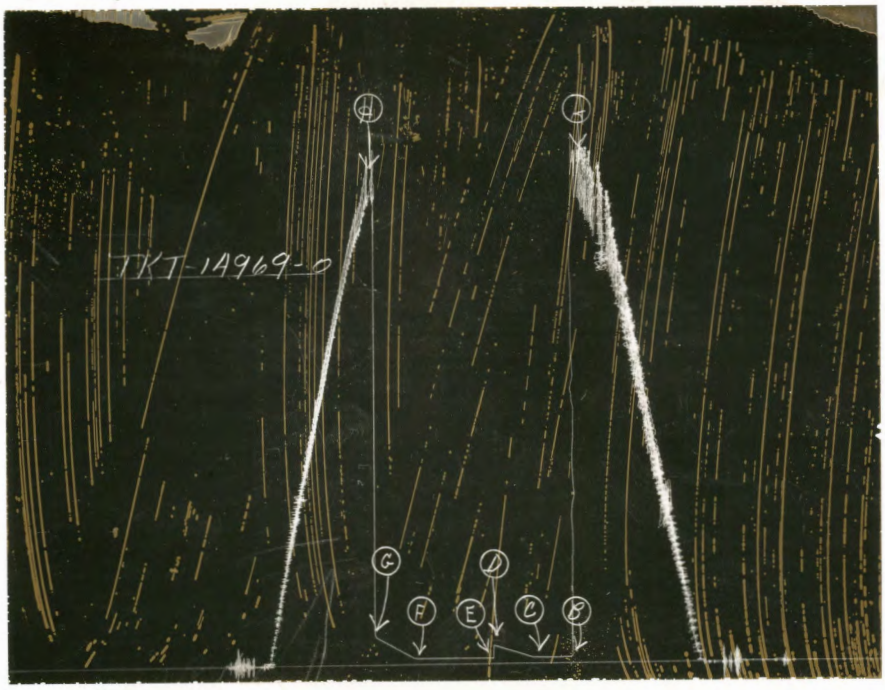
First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of ____ Min.

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

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

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

Point	Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	0	32	0	32	0	30	0	33
P 2	5	32	3	40	5	30	3	44
P 3	10	32	6	46	10	30	6	56
P 4	15	32	9	53	15	30	9	68
P 5	20	32	12	59	20	30	12	80
P 6	25	33	15	66	25	30	15	90
P 7	30	33	18	74	30	30	18	102
P 8			21	79	35	30	21	114
P 9			24	86	40	31	24	126
P10			27	92	45	31	27	138
P11			30	96	50	32	30	148
P12					55	33		
P13					60	33		
P14								
P15								
P16								
P17								
P18								
P19								
P20								



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2610	2578	PSI
(B)	First Initial Flow Pressure	30	32	PSI
(C)	First Final Flow Pressure	30	33	PSI
(D)	Initial Closed-in Pressure	90	96	PSI
(E)	Second Initial Flow Pressure	30	30	PSI
(F)	Second Final Flow Pressure	30	33	PSI
(G)	Final Closed-in Pressure	140	148	PSI
(H)	Final Hydrostatic Mud	2580	2530	PSI