Home Office: Wichita, Kansas 67201
P. O. Box 1599 (316) 838-0601

Company Graves Drilling Co., Inc. Lease & Well No. Swingle #1-14

Elevation 1642 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 22921

Date 1-9-78 Sec. 14 Twp. 30S Range 9W County Kingman State Kansas

Test Approved by Robert E. McCann Western Representative Denis Wondra

Formation Test No. 1 O.K. X Misrun - Interval Tested From 4274' to 4287' Total Depth 4287'

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

Top Packer Depth 4269 Ft. Size 6 3/4 Bottom Packer Depth 4274 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 13 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4278 Ft. Clock No. 8476 Depth 4281 Ft. Clock No. 9725

Top Make Kuster Cap. 3000 No. 3474 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3659 ~~Inside~~ Outside

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

Time Set Packer 12:58P M

Tool Open I.F.P. From 1:00 M. to 1:15 M. - Hr. 15 Min. From (B) 14 P.S.I. To (C) 18 P.S.I.

Tool Closed I.C.I.P. From 1:15 M. to 2:00 M. - Hr. 45 Min (D) 1514 P.S.I.

Tool Open F.F.P. From 2:00 M. to 3:00 M. - Hr. 60 Min. From (E) 54 P.S.I. To (F) 43 P.S.I.

Tool Closed F.C.I.P. From 3:00 M. to 3:45 M. - Hr. 45 Min. (G) 1146 P.S.I.

Initial Hydrostatic Pressure (A) 2129 P.S.I. Final Hydrostatic Pressure (H) 2118 P.S.I. Maximum Temp. 122

INFORMATION

BLOW Very weak throughout initial flow period. Weak, bled blow line. No blow. Flushed tool, weak decreased to few bubbles by end of final flow period.

Did Well Flow - Yes X No Recovery Total Ft. 75' drilling mud with trace of oil on top of tool.

Reversed Out - Yes X No Mud Type Premix Viscosity 43 Weight 9.1 Water Loss 11.2 cc. Chlorides 8,000 ppm

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Graves Drilling Rig #1 Length Drill Pipe? 3919 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe 246 Ft. I.D. Weight Pipe 3.7 In. Tool Joint Size 4½XH In. Length Drill Collars 87 Ft. I.D. Drill Collars 3.7 In.

Tool Joint Size 4½H90 In. Length D.S.T. Tool 35 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 1-9-78 Test Ticket No. 22921

Recorder No. 3474 Capacity 3000 Location 4278 Ft.

Clock No. 8476 Elevation 1642 Kelly Bushing Well Temperature 122 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2129 P.S.I.	Open Tool	12:58 P M	
B First Initial Flow Pressure	14 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	18 P.S.I.	Initial Closed-in Pressure	45 Mins.	42 Mins.
D Initial Closed-in Pressure	1514 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	54 P.S.I.	Final Closed-in Pressure	45 Mins.	24 Mins.
F Second Final Flow Pressure	43 P.S.I.			
G Final Closed-in Pressure	1146 P.S.I.			
H Final Hydrostatic Mud	2118 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of 0 Min.

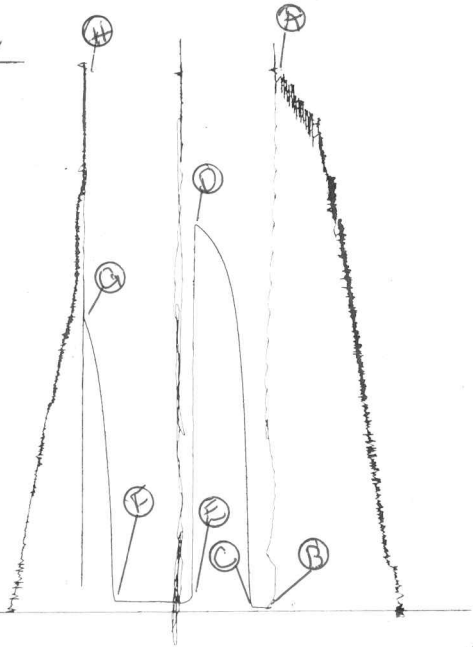
Initial Shut-In
Breakdown: 14 Inc.
of 3 mins. and a
final inc. of 0 Min.

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

Final Shut-In
Breakdown: 8 Inc.
of 3 mins. and a
final inc. of 0 Min.

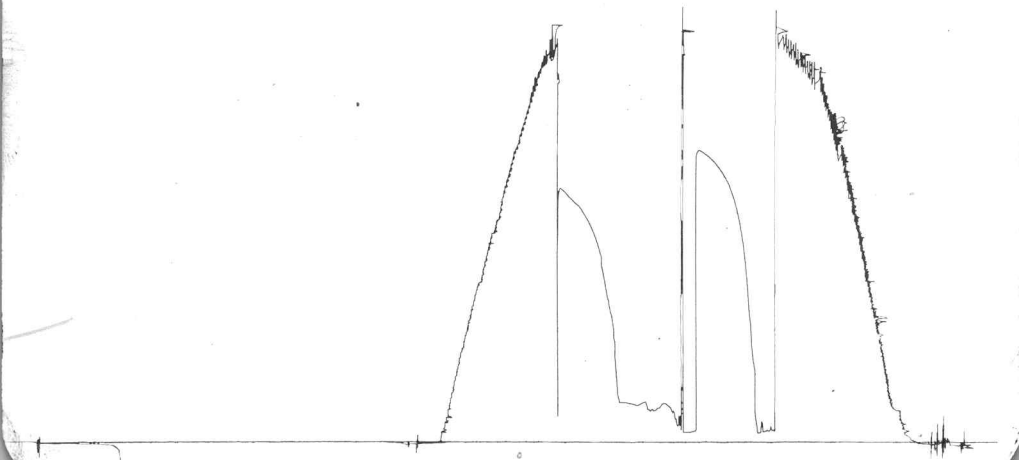
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	14	0	18	0	54	0	43
P 2 5	14	3	199	5	36	3	222
P 3 10	16	6	678	10	flushed tool	6	512
P 4 15	18	9	977	15	39	9	696
P 5		12	1143	20	40	12	851
P 6		15	1234	25	41	15	969
P 7		18	1303	30	40	18	1048
P 8		21	1351	35	40	21	1106
P 9		24	1389	40	40	24	1146
P10		27	1421	45	42		
P11		30	1446	50	43		
P12		33	1467	55	43		
P13		36	1484	60	43		
P14		39	1501				
P15		42	1514				
P16							
P17							
P18							
P19							
P20							

TK# 22921
I,



TK# 22921

O.



WESTERN TESTERS

Home Office: Wichita, Kansas 67201

P. O. Box 1599 (316) 838-0601

Company Graves Drilling Co., Inc. Lease & Well No. Swingle #1-14

Elevation 1642 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 22922

Date 1-10-78 Sec. 14 Twp. 30S Range 9W County Kingman State Kansas

Test Approved by Robert E. McCann Western Representative Denis Wondra

Formation Test No. 2 O.K. X Misrun - Interval Tested From 4287' to 4325' Total Depth 4325'

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

Top Packer Depth 4282 Ft. Size 6 3/4 Bottom Packer Depth 4287 Ft. Size 6 3/4

Straddle - Conv. - B.T. - Damaged - Yes - No Packer Depth - Ft. Size -

Tool Size 5½OD Tool Joint Size 4½FH Anchor Length 38 Ft. Size 5½OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4298 Ft. Clock No. 8476 Depth 4301 Ft. Clock No. 9725

Top Make Kuster Cap. 3000 No. 3474 Inside ~~Outside~~ Bottom Make Kuster Cap. 4000 No. 3659 ~~Inside~~ Outside

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

Time Set Packer 6:03A M

Tool Open I.F.P. From 6:05 M. to 6:20 M. - Hr. 15 Min. From (B) 57 P.S.I. To (C) 43 P.S.I.

Tool Closed I.C.I.P. From 6:20 M. to 7:05 M. - Hr. 45 Min (D) 1499 P.S.I.

Tool Open F.F.P. From 7:05 M. to 8:05 M. - Hr. 60 Min. From (E) 69 P.S.I. To (F) 48 P.S.I.

Tool Closed F.C.I.P. From 8:05 M. to 8:50 M. - Hr. 45 Min. (G) 1306 P.S.I.

Initial Hydrostatic Pressure (A) 2126 P.S.I. Final Hydrostatic Pressure (H) 2093 P.S.I. Maximum Temp. 122

INFORMATION

BLOW Fair throughout initial flow period. Steady 1" blow throughout final flow period.

Did Well Flow - Yes X No Recovery Total Ft. 75' slightly gas cut mud.

Reversed Out - Yes X No Mud Type Premix Viscosity 43 Weight 9.1 Water Loss 11.2 cc. Chlorides 8,000 ppm

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Graves Drilling Rig #1 Length Drill Pipe? 3932 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4½FH In.

Length Weight Pipe 246 Ft. I.D. Weight Pipe 3.7 In. Tool Joint Size 4½XH In. Length Drill Collars 87 Ft. I.D. Drill Collars 3.7 In.

Tool Joint Size 4½H90 In. Length D.S.T. Tool 60 Ft.

Remarks: Read recorder #3659

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 1-10-78 Test Ticket No. 22922

Recorder No. 3659 Capacity 4000 Location 4301 Ft.

Clock No. 9725 Elevation 1642 Kelly Bushing Well Temperature 122 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2126	P.S.I.
B	First Initial Flow Pressure	57	P.S.I.
C	First Final Flow Pressure	43	P.S.I.
D	Initial Closed-in Pressure	1499	P.S.I.
E	Second Initial Flow Pressure	69	P.S.I.
F	Second Final Flow Pressure	48	P.S.I.
G	Final Closed-in Pressure	1306	P.S.I.
H	Final Hydrostatic Mud	2093	P.S.I.

	Time Given	Time Computed
Open Tool	6:03A M	
First Flow Pressure	15 Mins.	15 Mins.
Initial Closed-in Pressure	45 Mins.	48 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	45 Mins.	48 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 3 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	57
P 2 5	46
P 3 10	43
P 4 15	43
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: 16 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	43
3	192
6	449
9	653
12	843
15	994
18	1115
21	1242
24	1298
27	1336
30	1375
33	1409
36	1432
39	1457
42	1475
45	1492
48	1499

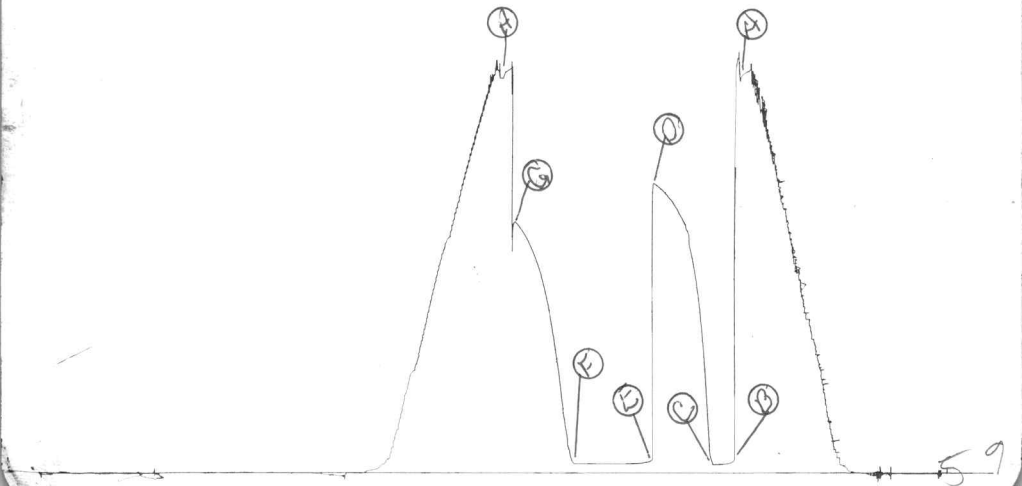
Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	69
5	54
10	51
15	49
20	48
25	48
30	48
35	48
40	48
45	48
50	48
55	48
60	48

Final Shut-In
Breakdown: 16 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	48
3	97
6	218
9	347
12	504
15	626
18	733
21	828
24	914
27	996
30	1067
33	1126
36	1173
39	1219
42	1254
45	1284
48	1306

TKT # 32922.



TK# 22922

I

