

TIGHT HOLE

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Graves Drilling Co. Inc. Lease & Well No. Carr# 1
Elevation 1974 Kelly Bushing Formation Neva Effective Pay _____ Ft. Ticket No. 21045
Date 11-13-68 Sec. 36 Twp. 32s Range 15w County Barber State Kansas
Test Approved by Raymond R. Dombaugh Western Representative Norman Allen

Formation Test No. 1 O.K. ☒ Misrun _____ Interval Tested From 2976' to 3034' Total Depth 3034'
Size Main Hole 7 7/8 Rat Hole _____ Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No Conv. ☒ B.T. _____ Damaged _____ Yes ☒ No
Packer Depth 2971 Ft. Size 6 3/4 Packer Depth 2976 Ft. Size 6 3/4
Straddle _____ Yes _____ No ☒ Conv. _____ B.T. _____ Damaged _____ Yes _____ No

Packer Depth _____ Ft. Size _____
Tool Size 5 1/2" OD Tool Jt. Size 4 1/2" FH Anchor Length 58 Ft. Size 5 1/2" OD & DP
RECORDERS Depth 3000 Ft. Clock No. 6861 Depth 3003 Ft. Clock No. 6899
Top Make Kuster Cap. 3150 No. 1560 Inside _____ Outside _____ Bottom Make Kuster Cap. 3200 No. 1561 Inside _____ Outside _____
Below Straddle: Depth _____ Clock No. _____ Inside _____ Outside _____ Depth _____ Ft. Clock No. _____ Inside _____ Outside _____
Top Make _____ Cap. _____ No. _____ Outside _____ Bottom Make _____ Cap. _____ No. _____ Outside _____

Time Set Packer 12:18 P M
Tool Open I.F.P. From 12:20 M. to 12:30 A M. Hr. 10 Min. From (B) 386 P.S.I. To (C) 613 P.S.I.
Tool Closed I.C.I.P. From 12:30 M. to 1:00 A M. Hr. 30 Min. (D) 1182 1142 P.S.I.
Tool Open F.F.P. From 1:00 M. to 3:15 A M. 2 Hr. 15 Min. From (E) 940 P.S.I. To (F) 758 P.S.I.
Tool Closed F.C.I.P. From 3:15 M. to see remarks Hr. - Min. (G) 1139 P.S.I.
Initial Hydrostatic Pressure (A) 1594 P.S.I. Final Hydrostatic Pressure (H) 1546 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. _____ Time _____ Description of Flow _____
INFORMATION Spring gauge 2" line 25 lbs 1:05 A M. 3,780,000 CFPD gas
Spring gauge 2" line 40 lbs 1:20 A M. 5,210,000 CFPD gas
Spring gauge 2" line 40 lbs 3:15 A M. 5,210,000 CFPD gas stablized

BLOW Very strong thru out test--gasto surface 2 minutes Bottom Choke Size 3/4 In.
Did Well Flow gas Yes _____ No _____ Recovery Total Ft. Fluid recovery 25 feet--Gas sample taken and left with opera
operator-- See attached sheet fro complete gas measurements

Reversed Out _____ Yes ☒ No _____ Mud Type gel Viscosity 42 Weight 97 Water Loss no check available cc. Maximum Temp. _____ °F
Type Circ. Sub. pin Did Tool Plug? no Jars: Size 3 1/2" IF Make WTC Ser. No. #402
EXTRA EQUIPMENT: Dual Packers 2411 yes Safety Joint no Did Packer Hold? yes Where? _____
Length Drill Pipe 2411 ft. I.D. Drill Pipe _____ in. Length Weight Pipe _____ ft. I.D. Weight Pipe _____ in. Length Drill Collars _____ ft.
I. D. Drill Collars _____ in. Length D.S.T. Tool 83 ft.

Remarks
Unable to take FCEP beacuse we could not rotate drill pipe to shut in tool (Obtained FCIP
final shut in by raising tool and closing hydraulic tool)



P. O. BOX 793
GREAT BEND, KANSAS

COMPANY Graves Drilling Co. Inc. 8 LEASE & WELL NO. Carr # 1

TEST NO. 1 INTERVAL TESTED FROM 2976' TO 3034'

TIME	MAX PRESS. P.S.I.	DESCRIPTION OF FLOW
PRE-FLOW		
On bottom tool open at 12:20PM- Tool closed in 12:30AM		
<u>1:05</u>	<u>25 lbs</u>	<u>3,780,000 CFPD gas</u>
<u>1:20</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>1:30</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>1:40</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>1:50</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>2:00</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>SECOND FLOW</u>		
<u>2:10</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>2:20</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>2:30</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>2:45</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>3:00</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>
<u>3:15</u>	<u>40 lbs</u>	<u>5,210,000 CFPD gas</u>

Gas to surface 2 minutes

SIZE CHOKE _____ SURFACE 3/4 IN. _____ BOTTOM 3/4 IN. _____

REMARKS Gas measurements taken with spring gauge thru 2"
line (impact pressure) Water sprayed thru out test from h
heavy to ~~very~~ very light at end of test

WESTERN TESTING CO., INC.

Pressure Data

Date 11-13-68 Test Ticket No. 11045
 Recorder No. 1560 Capacity 3150 Location 3000 Ft.
 Clock No. 6861 Elevation 1974 Kelly Bushing Well Temperature _____ °F

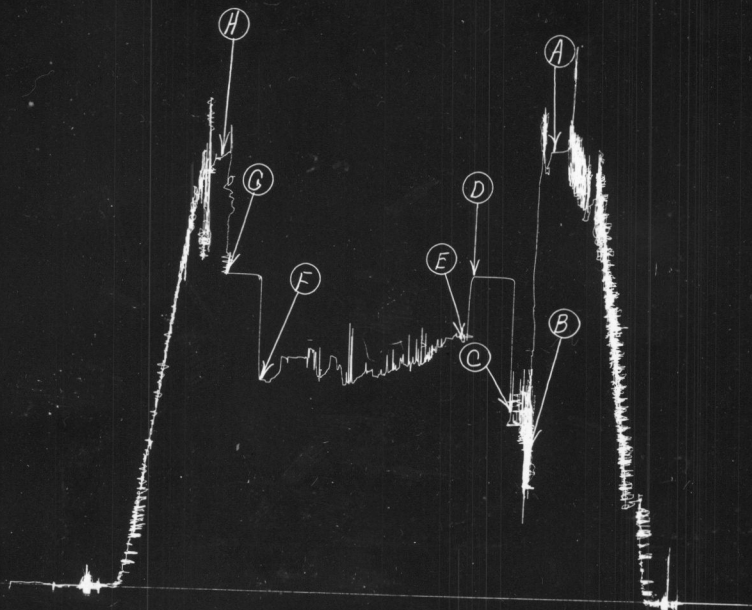
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1594</u> P.S.I.	Opened Tool	<u>12:18A</u> M	
B First Initial Flow Pressure	<u>386</u> P.S.I.	First Flow Pressure	<u>10</u> Mins.	<u>10</u> Mins.
C First Final Flow Pressure	<u>613</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1142</u> P.S.I.	Second Flow Pressure	<u>135</u> Mins.	<u>130</u> Mins.
E Second Initial Flow Pressure	<u>940</u> P.S.I.	Final Closed-in Pressure	<u>-</u> Mins.	<u>24</u> Mins.
F Second Final Flow Pressure	<u>758</u> P.S.I.			
G Final Closed-in Pressure	<u>1139</u> P.S.I.			
H Final Hydrostatic Mud	<u>1546</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.			Initial Shut-In			Second Flow Pressure			Final Shut-In		
Breakdown: <u>2</u> Inc.			Breakdown: <u>10</u> Inc.			Breakdown: <u>26</u> Inc.			Breakdown: <u>8</u> 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 _____ 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 <u>0</u>	<u>0</u>	<u>386</u>	<u>0</u>	<u>613</u>		<u>0</u>	<u>940</u>		<u>0</u>	<u>758</u>	
P 2 <u>5</u>	<u>520</u>		<u>3</u>	<u>1131</u>		<u>5</u>	<u>940</u>		<u>3</u>	<u>1132</u>	
P 3 <u>10</u>	<u>613</u>		<u>6</u>	<u>1140</u>		<u>10</u>	<u>918</u>		<u>6</u>	<u>1135</u>	
P 4 <u>15</u>			<u>9</u>	<u>1142</u>		<u>15</u>	<u>888</u>		<u>9</u>	<u>1137</u>	
P 5 <u>20</u>			<u>12</u>	<u>1142</u>		<u>20</u>	<u>861</u>		<u>12</u>	<u>1139</u>	
P 6 <u>25</u>			<u>15</u>	<u>1142</u>		<u>25</u>	<u>833</u>		<u>15</u>	<u>1139</u>	
P 7 _____			<u>18</u>	<u>1142</u>		<u>30</u>	<u>825</u>		<u>18</u>	<u>1139</u>	
P 8 _____			<u>21</u>	<u>1142</u>		<u>35</u>	<u>825</u>		<u>21</u>	<u>1139</u>	
P 9 _____			<u>24</u>	<u>1142</u>		<u>40</u>	<u>822</u>		<u>24</u>	<u>1139</u>	
P 10 _____			<u>27</u>	<u>1142</u>		<u>45</u>	<u>803</u>				
P 11 _____			<u>30</u>	<u>1142</u>		<u>50</u>	<u>794</u>				
P 12 _____						<u>55</u>	<u>784</u>				
P 13 _____						<u>60</u>	<u>778</u>				
P 14 _____						<u>65</u>	<u>784</u>				
P 15 _____						<u>70</u>	<u>759</u>				
P 16 _____						<u>75</u>	<u>755</u>				
P 17 _____						<u>80</u>	<u>794</u>				
P 18 _____						<u>85</u>	<u>817</u>				
P 19 _____						<u>90</u>	<u>794</u>				
P 20 _____						<u>95</u>	<u>788</u>				
						<u>100</u>	<u>833</u>				
						<u>105</u>	<u>833</u>				
						<u>110</u>	<u>836</u>				
						<u>115</u>	<u>836</u>				
						<u>120</u>	<u>758</u>				
WTC - 4			<u>125</u>	<u>758</u>							
			<u>130</u>	<u>758</u>							

Graves Dr Lg. Co. Inc.
Carr #1

T.K.T. # 11045
Test # 1



MILLER TESTING COMPANY

Box 547

GREAT BEND, KANSAS

Company GRAVES DRILLING CO.

Lease and Well No. CARR #1

County BARBER State KANSAS Date NOV 16, 1968

Formation Test No. 2 Total Depth 4340 Elev. _____
 Interval Tested 4309 To 4340 Anchor Length 31'
 Size Hole 7 7/8 Size Drill Pipe 4 1/2 FH & XH Size Packer 6 3/4
 Mud Weight 10 Viscosity 38 Water Loss 17 c.c. Bottom Hole Temp. 120 ° F
 Chokes: Top 1/2 Bottom 1/2 Ticket No. 9284

RECOVERY

GAS SURFACED IN 1 MINUTE. GAUGED 3,210,000 CFPD IN 10 MINUTES THROUGH 2" ORFICE. SPRAYED WATER IN 15 MINUTES.

500 FEET OF WATER.

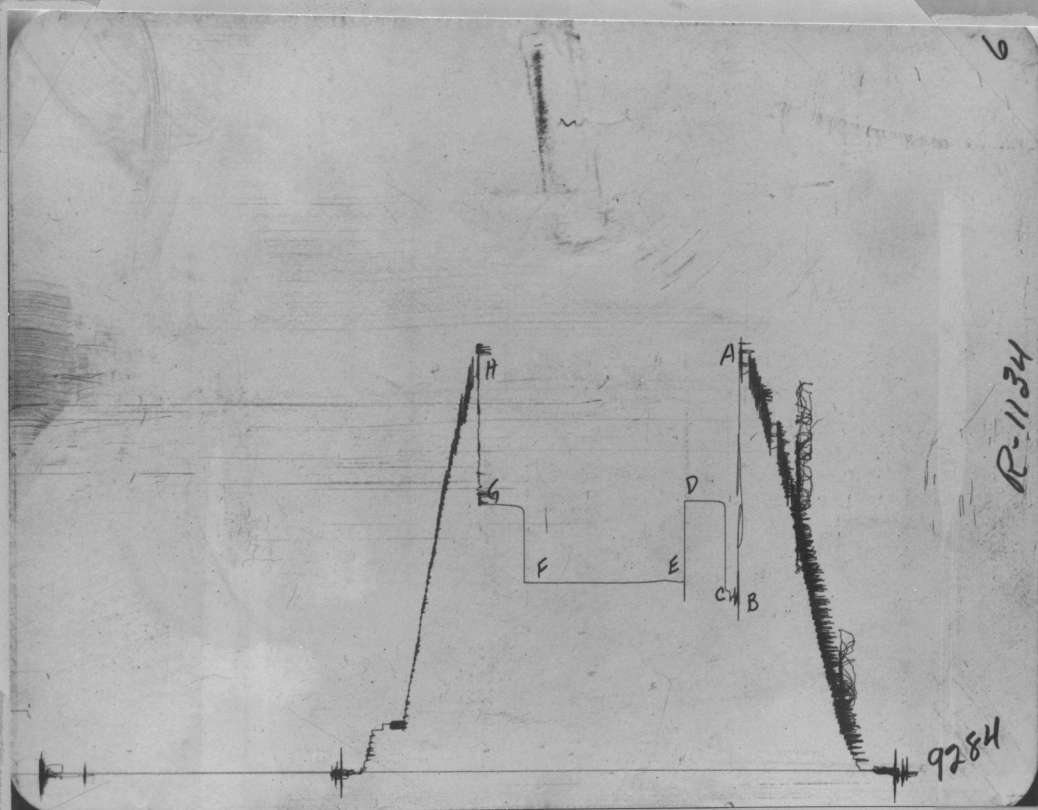
Lease and Well No. CARR #1 36 32S 15W NE NE SW

Formation Test No. 2

	TIME	PSI
INITIAL HYDRO MUD PRESSURE		2359
INITIAL CLOSED IN PRESSURE	30 mins.	1564
INITIAL FLOW	10 mins.	946 to 1046
FINAL FLOW	120 mins.	1091 to 1091
FINAL CLOSED IN PRESSURE	30 mins.	1548
FINAL HYDRO MUD PRESSURE		2336

1ST FLOW PRESSURE		INITIAL CIP		2ND FLOW PRESSURE		FINAL CIP	
	946		1046		1091		1091
	1046		1559		1102		1537
			1562		1091		1541
			1564		1091		1546
			1564		1091		1548
			1564		1091		1548
			1564		1091		1548
					1091		
					1091		
10 MINUTE INTERVAL		5 MINUTE INTERVAL		15 MINUTE INTERVAL		5 MINUTE INTERVAL	

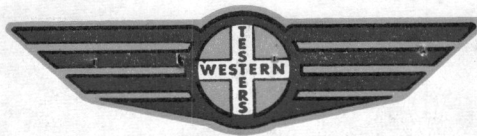
SPECIAL PRESSURE DATA



Tool Open: 1st Flow hr. 10 mins: Shut-in Initial hr. 30 min: 2nd Flow 2 hr. min: Shut-in Final hr. 30 min.

	Field Reading	Corrected Reading
(A) Initial Hydrostatic Pressure	2291	2359
(B) Initial 1st Flow Pressure	1001	946
(C) Final 1st Flow Pressure	1046	1046
(D) Initial Shut-in Pressure	1559	1564
(E) Initial 2nd Flow Pressure	1102	1091
(F) Final 2nd Flow Pressure	1091	1091
(G) Final Shut-in Pressure	1548	1548
(H) Final Hydrostatic Pressure	2291	2336

9284



Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Graves Drilling Co. Lease & Well No. Carr # 1
Elevation 1974 Kelly Pushing Formation Kansas City Effective Pay Ft. Ticket No. 10911
Date 11-18-68 Sec. 36 Twp. 32 Range 15 County Barber State Kansas
Test Approved by Raymond R. Dombaugh Western Representative Leon Elmore
Formation Test No. 3 O.K. ☒ Misrun Interval Tested From 4720' to 4780' Total Depth 4780'
Size Main Hole 7 7/8 Rat Hole Conv. B.T. ☒ Damaged Yes ☒ No Conv. ☒ B.T. Damaged Yes ☒ No
Packer Depth 4715 Ft. Size 6 3/4 Packer Depth 4720 Ft. Size 6 3/4
Straddle Yes No ☒ Conv. B.T. Damaged Yes No
Packer Depth Ft. Size
Tool Size 5 1/2" OD Tool Jt. Size 4 1/2" FH Anchor Length 60 Ft. Size 31" DP 29" 5 1/2" OD
RECORDERS Depth 4735 Ft. Clock No. 6897 Depth 4738 Ft. Clock No. 8377
Top Make Kuster Cap. 450 No. 3085 Inside Bottom Make Kuster Cap. 4400 No. 2603 Inside
Below Straddle: Depth Clock No. Inside Depth Ft. Clock No. Inside
Top Make Cap. No. Inside Bottom Make Cap. No. Inside
Time Set Packer 4:11P M
Tool Open I.F.P. From 4:15 M. to 4:25P M. Hr. 10 Min. From (B) 23 P.S.I. To (C) 23 P.S.I.
Tool Closed I.C.I.P. From 4:25 M. to 4:55P M. Hr. 30 Min. (D) 1736 P.S.I.
Tool Open F.F.P. From 4:55 M. to 5:55P M. 1 Hr. - Min. From (E) 9 P.S.I. To (F) 12 P.S.I.
Tool Closed F.C.I.P. From 5:55 M. to 6:26P M. Hr. 30 Min. (G) 1649 P.S.I.
Initial Hydrostatic Pressure (A) 2620 P.S.I. Final Hydrostatic Pressure (H) 2611 P.S.I.
SURFACE Size Choke 3/4 In. Max. Press. P.S.I. Time Description of Flow
INFORMATION 10 minutes 3.5 M. 65,000
60 minutes 3.5 M. 65,000
 M.
BLOW Strong Bottom Choke Size 3/4 In.
Did Well Flow Yes ☒ No Recovery Total Ft. 30 feet mud
Reversed Out Yes ☒ No Mud Type starch Viscosity 42 Weight 10.1 Water Loss 10 cc. Maximum Temp. 122 °F
Type Circ. Sub. plug Did Tool Plug? no Jars: Size 4 1/2 OD Make WTC Ser. No. 408
EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where?
Length Drill Pipe 4210 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 525 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.
I. D. Drill Collars in. Length D.S.T. Tool 55 ft.
Remarks Gas to surface in 19 minutes -- Gaged 65,000

WESTERN TESTING CO., INC.

Pressure Data

Date 11-18-68

Test Ticket No. 10911

Recorder N3085 Capacity 4500 Location 4735 Ft.

Clock No. 6897 Elevation 1974 Kelly Bushing Well Temperature 122 °F

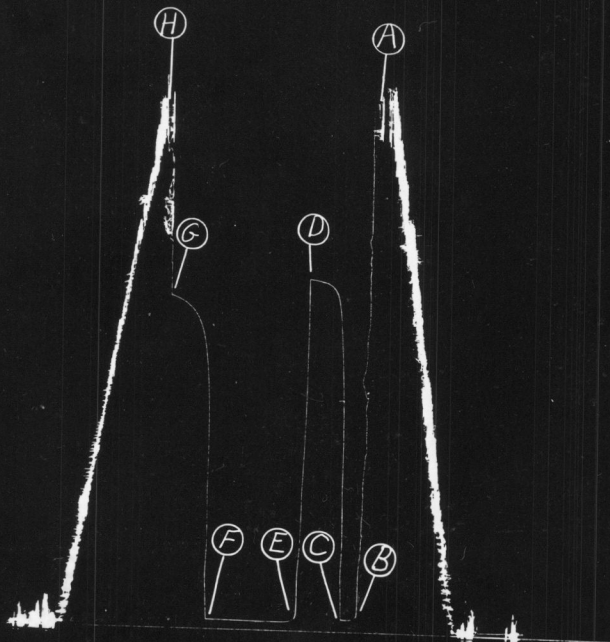
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2620</u> P.S.I.	Opened Tool	<u>4:11P</u> M	
B First Initial Flow Pressure	<u>23</u> P.S.I.	First Flow Pressure	<u>10</u> Mins.	<u>10</u> Mins.
C First Final Flow Pressure	<u>23</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1736</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>9</u> P.S.I.	Final Closed-in Pressure	<u>31</u> Mins.	<u>32</u> Mins.
F Second Final Flow Pressure	<u>12</u> P.S.I.			
G Final Closed-in Pressure	<u>1649</u> P.S.I.			
H Final Hydrostatic Mud	<u>2611</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>2</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>10</u> 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> </u> Min.		final inc. of <u> </u> Min.		final inc. of <u> </u> Min.		final inc. of <u>2</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>23</u>	<u>0</u>	<u>23</u>	<u>0</u>	<u>9</u>	<u>0</u>	<u>12</u>
P 2 <u>5</u>	<u>23</u>	<u>3</u>	<u>413</u>	<u>5</u>	<u>9</u>	<u>3</u>	<u>490</u>
P 3 <u>10</u>	<u>23</u>	<u>6</u>	<u>785</u>	<u>10</u>	<u>9</u>	<u>6</u>	<u>1016</u>
P 4 <u> </u>	<u> </u>	<u>9</u>	<u>1214</u>	<u>15</u>	<u>9</u>	<u>9</u>	<u>1363</u>
P 5 <u> </u>	<u> </u>	<u>12</u>	<u>1552</u>	<u>20</u>	<u>9</u>	<u>12</u>	<u>1488</u>
P 6 <u> </u>	<u> </u>	<u>15</u>	<u>1672</u>	<u>25</u>	<u>9</u>	<u>15</u>	<u>1546</u>
P 7 <u> </u>	<u> </u>	<u>18</u>	<u>1704</u>	<u>30</u>	<u>9</u>	<u>18</u>	<u>1580</u>
P 8 <u> </u>	<u> </u>	<u>21</u>	<u>1718</u>	<u>35</u>	<u>10</u>	<u>21</u>	<u>1601</u>
P 9 <u> </u>	<u> </u>	<u>24</u>	<u>1724</u>	<u>40</u>	<u>11</u>	<u>24</u>	<u>1618</u>
P 10 <u> </u>	<u> </u>	<u>27</u>	<u>1731</u>	<u>45</u>	<u>12</u>	<u>27</u>	<u>1632</u>
P 11 <u> </u>	<u> </u>	<u>30</u>	<u>1736</u>	<u>50</u>	<u>12</u>	<u>30</u>	<u>1642</u>
P 12 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>55</u>	<u>12</u>	<u>32</u>	<u>1649</u>
P 13 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>60</u>	<u>12</u>	<u> </u>	<u> </u>
P 14 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
P 15 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
P 16 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
P 17 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
P 18 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
P 19 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
P 20 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

GRAVES DRILLING CO.
CARR #1

T.K.T 10911
TEST #3





Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company Graves Drilling Co. Lease & Well No. Carr # 1
Elevation 1974 Kelly Bushing Formation Mississippian Effective Pay 22 Ft. Ticket No. 10912
Date 11/19/68 Sec. 36 Twp. 32 Range 15 County Barber State Kansas
Test Approved by Raymond R. Dombaugh Western Representative Leon Elmore

Formation Test No. 4 O.K.X Misrun Interval Tested From 4823' to 4867' Total Depth 4867'
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 4818 Ft. Size 6 3/4 Packer Depth 4823 Ft. Size 6 3/4
Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size
Tool Size 5 1/2" OD Tool Jt. Size 4 1/2" FH Anchor Length 44 Ft. Size 5 1/2" OD

RECORDERS Depth 4860 Ft. Clock No. 6897 Depth 4863 Ft. Clock No. 8377
Top Make Kuster Cap. 4500 No. 3085 Inside Outside Bottom Make Kuster Cap. 4400 No. 2603 Inside Outside
Below Straddle: Depth Clock No. Inside Outside Depth Clock No. Inside Outside
Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 2:32 P M
Tool Open I.F.P. From 2:36 M. to 2:47P M. Hr. 11 Min. From (B) 83 P.S.I. To (C) 126 P.S.I.
Tool Closed I.C.I.P. From 2:47 M. to 3:17P M. Hr. 30 Min. (D) 1782 P.S.I.
Tool Open F.F.P. From 3:17 M. to 4:17P M. 1 Hr. Min. From (E) 162 P.S.I. To (F) 404 P.S.I.
Tool Closed F.C.I.P. From 4:17 M. to 4:47P M. Hr. 30 Min. (G) 1755 P.S.I.
Initial Hydrostatic Pressure (A) 2729 P.S.I. Final Hydrostatic Pressure (H) 2725 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. Time Description of Flow
INFORMATION 10 minutes M. 49,000
20 minutes M. To small to measure
M.

BLOW Strong Bottom Choke Size 3/4 In.
Did Well Flow Yes X No Recovery Total Ft. 960 feet muddy water—120 feet mud

Reversed Out Yes X No Mud Type starch Viscosity 47 Weight 9.9 Water Loss 10 cc. Maximum Temp 116 °F
Type Circ. Sub. plug Did Tool Plug? no Jars: Size 4 1/2" OD Make WTC Ser. No. 408
EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Did Packer Hold? yes Where?
Length Drill Pipe 4271 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 525 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars ft.
I. D. Drill Collars in. Length D.S.T. Tool 71 ft.

Remarks Gas to surface in 11 minutes

WESTERN TESTING CO., INC.
Pressure Data

Date 11-19-68

Test Ticket No 10912

Recorder No. 3085 Capacity 4500 Location 4860 Ft.

Clock No. 6897 Elevation 1974 Kelly Bushing Well Temperature 116 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2729</u> P.S.I.	Opened Tool	<u>2:36P</u> M	
B First Initial Flow Pressure	<u>83</u> P.S.I.	First Flow Pressure	<u>11</u> Mins.	<u>9</u> Mins.
C First Final Flow Pressure	<u>126</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>32</u> Mins.
D Initial Closed-in Pressure	<u>1782</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>58</u> Mins.
E Second Initial Flow Pressure	<u>162</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>32</u> Mins.
F Second Final Flow Pressure	<u>404</u> P.S.I.			
G Final Closed-in Pressure	<u>1755</u> P.S.I.			
H Final Hydrostatic Mud	<u>2725</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>1</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>10</u> 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>4</u> Min.		final inc. of <u>2</u> Min.		final inc. of <u>3</u> Min.		final inc. of <u>2</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>83</u>	<u>0</u>	<u>126</u>	<u>0</u>	<u>162</u>	<u>0</u>	<u>404</u>
P 2 <u>5</u>	<u>109</u>	<u>3</u>	<u>634</u>	<u>5</u>	<u>179</u>	<u>3</u>	<u>839</u>
P 3 <u>9</u>	<u>126</u>	<u>6</u>	<u>1198</u>	<u>10</u>	<u>201</u>	<u>6</u>	<u>1268</u>
P 4		<u>9</u>	<u>1539</u>	<u>15</u>	<u>222</u>	<u>9</u>	<u>1638</u>
P 5		<u>12</u>	<u>1741</u>	<u>20</u>	<u>236</u>	<u>12</u>	<u>1721</u>
P 6		<u>15</u>	<u>1766</u>	<u>25</u>	<u>255</u>	<u>15</u>	<u>1737</u>
P 7		<u>18</u>	<u>1773</u>	<u>30</u>	<u>279</u>	<u>18</u>	<u>1744</u>
P 8		<u>21</u>	<u>1778</u>	<u>35</u>	<u>301</u>	<u>21</u>	<u>1748</u>
P 9		<u>24</u>	<u>1780</u>	<u>40</u>	<u>327</u>	<u>24</u>	<u>1750</u>
P 10		<u>27</u>	<u>1782</u>	<u>45</u>	<u>356</u>	<u>27</u>	<u>1752</u>
P 11		<u>30</u>	<u>1782</u>	<u>50</u>	<u>375</u>	<u>30</u>	<u>1754</u>
P 12		<u>32</u>	<u>1782</u>	<u>55</u>	<u>392</u>	<u>32</u>	<u>1755</u>
P 13				<u>58</u>	<u>404</u>		
P 14							
P 15							
P 16							
P 17							
P 18							
P 19							
P 20							

GRAVES DRILLING CO.
CARR #1

T.K.T 10612
TEST #4

