

Company Graves Drilling Co., Inc. Lease & Well No. Newell-Staples #1  
 Elevation 1470 Kelly Bushing Formation Kansas City Effective Pay ---- Ft. Ticket No. 6592  
 Date 8-23-80 Sec. 16 Twp. 31 S Range 6 W County Harper State KS  
 Test Approved by Harold Steincamp Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 3691 ft. to 3709 ft. Total Depth 3709 ft.  
 Packer Depth 3686 ft. Size 6 3/4 in. Packer Depth ---- ft. Size ---- in.  
 Packer Depth 3691 ft. Size 6 3/4 in. Packer Depth ---- ft. Size ----- in.

Depth of Selective Zone Set -----  
 Top Recorder Depth (Inside) 3695 ft. Recorder Number 2606 Cap. 4150  
 Bottom Recorder Depth (Outside) 3698 ft. Recorder Number 4332 Cap. 4200  
 Below Straddle Recorder Depth ---- ft. Recorder Number ----- Cap. -----

Drilling Contractor Graves Drilling Co. Drill Collar Length 88 I. D. 2 1/4 in.  
 Mud Type Chemical Viscosity 48 Weight Pipe Length ----- I. D. ---- in.  
 Weight 9.3 Water Loss 44.8 cc. Drill Pipe Length 3583 I. D. 3.8 in.  
 Chlorides 14,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.  
 Jars: Make NO Serial Number ----- Anchor Length 18 ft. Size 5 1/2 OD in.  
 Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Very weak blow on initial flow period. Died in 20 minutes.  
No blow on final flow period.

Recovered 75 ft. of Drilling mud.  
 Recovered      ft. of       
 Recovered      ft. of       
 Recovered      ft. of       
 Recovered      ft. of     

Remarks:     

Time Set Packer(s) 4:35 ~~A.M.~~ P.M. Time Started Off Bottom 6:35 ~~A.M.~~ P.M. Maximum Temperature 124° F.  
 Initial Hydrostatic Pressure ..... (A) 1928 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 54 P.S.I. to (C) 54 P.S.I.  
 Initial Closed In Period ..... Minutes 30 (D) 965 P.S.I.  
 Final Flow Period ..... Minutes 30 (E) 114 P.S.I. to (F) 92 P.S.I.  
 Final Closed In Period ..... Minutes 30 (G) 910 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 1857 P.S.I.

# WESTERN TESTING CO., INC.

## Pressure Data

Date 8-23-80 Test Ticket No. 6592  
 Recorder No. 2606 Capacity 4150 Location 3695 Ft.  
 Clock No. ----- Elevation 1470 Kelly Bushing Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1928 P.S.I.	Open Tool	4:35 P M	
B First Initial Flow Pressure	54 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	54 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	965 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	114 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	92 P.S.I.			
G Final Closed-in Pressure	910 P.S.I.			
H Final Hydrostatic Mud	1857 P.S.I.			

### PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</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>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>54</u>	<u>0</u>	<u>54</u>	<u>0</u>	<u>114</u>	<u>0</u>	<u>92</u>
P 2 <u>5</u>	<u>54</u>	<u>3</u>	<u>423</u>	<u>5</u>	<u>102</u>	<u>3</u>	<u>391</u>
P 3 <u>10</u>	<u>54</u>	<u>6</u>	<u>597</u>	<u>10</u>	<u>96</u>	<u>6</u>	<u>566</u>
P 4 <u>15</u>	<u>54</u>	<u>9</u>	<u>707</u>	<u>15</u>	<u>94</u>	<u>9</u>	<u>672</u>
P 5 <u>20</u>	<u>54</u>	<u>12</u>	<u>786</u>	<u>20</u>	<u>92</u>	<u>12</u>	<u>734</u>
P 6 <u>25</u>	<u>54</u>	<u>15</u>	<u>838</u>	<u>25</u>	<u>92</u>	<u>15</u>	<u>794</u>
P 7 <u>30</u>	<u>54</u>	<u>18</u>	<u>875</u>	<u>30</u>	<u>92</u>	<u>18</u>	<u>826</u>
P 8 _____	_____	<u>21</u>	<u>904</u>	_____	_____	<u>21</u>	<u>852</u>
P 9 _____	_____	<u>24</u>	<u>923</u>	_____	_____	<u>24</u>	<u>875</u>
P10 _____	_____	<u>27</u>	<u>942</u>	_____	_____	<u>27</u>	<u>891</u>
P11 _____	_____	<u>30</u>	<u>965</u>	_____	_____	<u>30</u>	<u>910</u>
P12 _____	_____	_____	_____	_____	_____	_____	_____
P13 _____	_____	_____	_____	_____	_____	_____	_____
P14 _____	_____	_____	_____	_____	_____	_____	_____
P15 _____	_____	_____	_____	_____	_____	_____	_____
P16 _____	_____	_____	_____	_____	_____	_____	_____
P17 _____	_____	_____	_____	_____	_____	_____	_____
P18 _____	_____	_____	_____	_____	_____	_____	_____
P19 _____	_____	_____	_____	_____	_____	_____	_____
P20 _____	_____	_____	_____	_____	_____	_____	_____

Company Graves Drilling Co., Inc. Lease & Well No. Newell Staples #1  
 Elevation 1470 Kelly Bushing Formation Mississippi Effective Pay ----- Ft. Ticket No. 6838  
 Date 8-25-80 Sec. 16 Twp. 31 S Range 6 W County Harper State KS  
 Test Approved by Harold Steincamp Western Representative Jeff Piotrowski

Formation Test No. 2 Interval Tested from 4298 ft. to 4318 ft. Total Depth 4318 ft.  
 Packer Depth 4293 ft. Size 6 3/4 in. Packer Depth ----- ft. Size ----- in.  
 Packer Depth 4298 ft. Size 6 3/4 in. Packer Depth ----- ft. Size ----- in.

Depth of Selective Zone Set -----  
 Top Recorder Depth (Inside) 4301 ft. Recorder Number 5673 Cap. 5400  
 Bottom Recorder Depth (Outside) 4304 ft. Recorder Number 1565 Cap. 4900  
 Below Straddle Recorder Depth ----- ft. Recorder Number ----- Cap. -----

Drilling Contractor Graves Drilling Rig #1 Drill Collar Length 90 I. D. 2.2 in.  
 Mud Type Chemical Viscosity 48 Weight Pipe Length ----- I. D. ----- in.  
 Weight 9.5 Water Loss 20.8 cc. Drill Pipe Length 4188 I. D. 3.8 in.  
 Chlorides 10,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.  
 Jars: Make ----- Serial Number ----- Anchor Length 20 ft. Size 5 1/2 OD in.  
 Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong blow throughout both flow periods.

Recovered 75 ft. of Gassy oil cut mud.  
 Recovered 120 ft. of Gas cut water.  
 Recovered        ft. of         
 Recovered        ft. of         
 Recovered        ft. of       

Remarks:       

Time Set Packer(s) 8:43 <sup>-A.M.</sup> P.M. Time Started Off Bottom 11:28 <sup>-A.M.</sup> P.M. Maximum Temperature 108 <sup>0</sup> F.  
 Initial Hydrostatic Pressure 2248 P.S.I. (A)  
 Initial Flow Period 15 Minutes (B) 51 P.S.I. to (C) 65 P.S.I.  
 Initial Closed In Period 45 Minutes (D) 1505 P.S.I.  
 Final Flow Period 60 Minutes (E) 79 P.S.I. to (F) 111 P.S.I.  
 Final Closed In Period 45 Minutes (G) 1381 P.S.I.  
 Final Hydrostatic Pressure 2113 P.S.I. (H)

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 8-25-80 Test Ticket No. 6838  
 Recorder No. 5673 Capacity 5400 Location 4301 Ft.  
 Clock No. ----- Elevation 1470 Kelly Bushing Well Temperature 108 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2248</u>	P.S.I.	<u>8:43 P.</u>	<u>M</u>
B First Initial Flow Pressure	<u>51</u>	P.S.I.	<u>15</u>	Mins. <u>15</u> Mins.
C First Final Flow Pressure	<u>65</u>	P.S.I.	<u>45</u>	Mins. <u>45</u> Mins.
D Initial Closed-in Pressure	<u>1505</u>	P.S.I.	<u>60</u>	Mins. <u>60</u> Mins.
E Second Initial Flow Pressure	<u>79</u>	P.S.I.	<u>45</u>	Mins. <u>45</u> Mins.
F Second Final Flow Pressure	<u>111</u>	P.S.I.		
G Final Closed-in Pressure	<u>1381</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2113</u>	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: 15 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

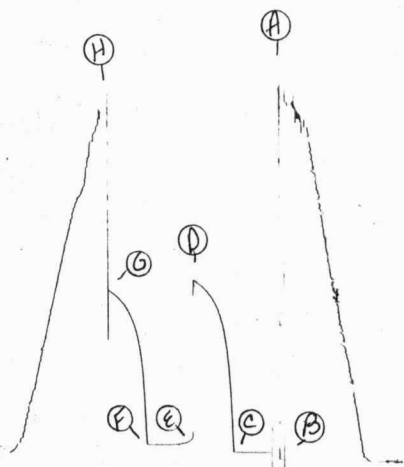
**Second Flow Pressure**  
 Breakdown: 12 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: 15 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 <u>0</u>	<u>51</u>	<u>0</u>	<u>65</u>	<u>0</u>	<u>79</u>	<u>0</u>	<u>111</u>
P 2 <u>5</u>	<u>55</u>	<u>3</u>	<u>350</u>	<u>5</u>	<u>79</u>	<u>3</u>	<u>350</u>
P 3 <u>10</u>	<u>60</u>	<u>6</u>	<u>773</u>	<u>10</u>	<u>80</u>	<u>6</u>	<u>609</u>
P 4 <u>15</u>	<u>65</u>	<u>9</u>	<u>1046</u>	<u>15</u>	<u>85</u>	<u>9</u>	<u>828</u>
P 5 _____		<u>12</u>	<u>1184</u>	<u>20</u>	<u>87</u>	<u>12</u>	<u>974</u>
P 6 _____		<u>15</u>	<u>1265</u>	<u>25</u>	<u>89</u>	<u>15</u>	<u>1085</u>
P 7 _____		<u>18</u>	<u>1327</u>	<u>30</u>	<u>93</u>	<u>18</u>	<u>1150</u>
P 8 _____		<u>21</u>	<u>1368</u>	<u>35</u>	<u>96</u>	<u>21</u>	<u>1203</u>
P 9 _____		<u>24</u>	<u>1400</u>	<u>40</u>	<u>100</u>	<u>24</u>	<u>1246</u>
P10 _____		<u>27</u>	<u>1424</u>	<u>45</u>	<u>104</u>	<u>27</u>	<u>1278</u>
P11 _____		<u>30</u>	<u>1446</u>	<u>50</u>	<u>106</u>	<u>30</u>	<u>1303</u>
P12 _____		<u>33</u>	<u>1467</u>	<u>55</u>	<u>109</u>	<u>33</u>	<u>1324</u>
P13 _____		<u>36</u>	<u>1478</u>	<u>60</u>	<u>111</u>	<u>36</u>	<u>1345</u>
P14 _____		<u>39</u>	<u>1488</u>			<u>39</u>	<u>1362</u>
P15 _____		<u>42</u>	<u>1497</u>			<u>42</u>	<u>1376</u>
P16 _____		<u>45</u>	<u>1505</u>			<u>45</u>	<u>1381</u>
P17 _____							
P18 _____							
P19 _____							
P20 _____							

JK #6592

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5673  
DST#2

JK #6838  
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