

Company Pickrell Drilling Company Lease & Well No. #1 "A" Stearns
Elevation 2237 Kelly Bushing Fort Scott & Cherokee Effective Pay - Ft. Ticket No. 16213
Date 4/6/82 Sec. 14 Twp 20S Range 21W County Ness State Kansas
Test Approved by Thomas Funk Western Representative Ray Schwager

Formation Test No. 1 Interval Tested from 4299 ft. to 4355 ft. Total Depth 4355 ft.

Packer Depth 4294 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4299 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4310 ft. Recorder Number 13269 Cap 4375

Bottom Recorder Depth (Outside) 4313 ft. Recorder Number 13270 Cap 4375

Below Straddle Recorder Depth - ft. Recorder Number - Cap -

Drilling Contractor Pickrell Drilling Rig #10 Drill Collar Length 90 I. D. 2.2 in.

Mud Type Chemical Viscosity 40 Weight Pipe Length - I. D. - in.

Weight 9.4 Water Loss 21.6 cc. Drill Pipe Length 4189 I. D. 3.8 in.

Chlorides 22,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make - Serial Number - Anchor Length 56 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Weak blow throughout initial flow period. Very weak blow died in 10 minutes on final flow period.

Recovered 130 ft. of mud - slight show of oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 9:00 ~~A.M.~~ P.M. Time Started Off Bottom 11:30 ~~A.M.~~ P.M. Maximum Temperature 114

Initial Hydrostatic Pressure 2242 P.S.I. (A)

Initial Flow Period 30 Minutes (B) 68 P.S.I. to (C) 69 P.S.I.

Initial Closed In Period 60 Minutes (D) 1289 P.S.I.

Final Flow Period 30 Minutes (E) 88 P.S.I. to (F) 97 P.S.I.

Final Closed In Period 30 Minutes (G) 1118 P.S.I.

Final Hydrostatic Pressure 2172 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 4/6/82 Recorder No. 13269 Capacity 4375 Test Ticket No. 16213
 Location 4310 Ft. Clock No. - Elevation 2237 Kelly Bushing Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2242	P.S.I.	9:00P	M
B First Initial Flow Pressure	68	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	69	P.S.I.	60	Mins. 60 Mins.
D Initial Closed-in Pressure	1289	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	88	P.S.I.	30	Mins. 30 Mins.
F Second Final Flow Pressure	97	P.S.I.		
G Final Closed-in Pressure	1118	P.S.I.		
H Final Hydrostatic Mud	2172	P.S.I.		

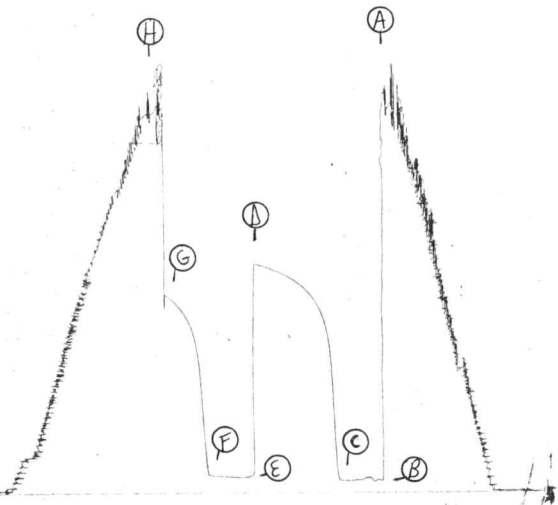
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</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>68</u>	<u>0</u>	<u>69</u>	<u>0</u>	<u>88</u>	<u>0</u>	<u>97</u>
P 2 <u>5</u>	<u>68</u>	<u>3</u>	<u>256</u>	<u>5</u>	<u>88</u>	<u>3</u>	<u>273</u>
P 3 <u>10</u>	<u>68</u>	<u>6</u>	<u>667</u>	<u>10</u>	<u>88</u>	<u>6</u>	<u>626</u>
P 4 <u>15</u>	<u>68</u>	<u>9</u>	<u>896</u>	<u>15</u>	<u>90</u>	<u>9</u>	<u>821</u>
P 5 <u>20</u>	<u>68</u>	<u>12</u>	<u>985</u>	<u>20</u>	<u>93</u>	<u>12</u>	<u>920</u>
P 6 <u>25</u>	<u>68</u>	<u>15</u>	<u>1044</u>	<u>25</u>	<u>95</u>	<u>15</u>	<u>974</u>
P 7 <u>30</u>	<u>69</u>	<u>18</u>	<u>1088</u>	<u>30</u>	<u>97</u>	<u>18</u>	<u>1015</u>
P 8 _____		<u>21</u>	<u>1118</u>			<u>21</u>	<u>1046</u>
P 9 _____		<u>24</u>	<u>1143</u>			<u>24</u>	<u>1072</u>
P10 _____		<u>27</u>	<u>1164</u>			<u>27</u>	<u>1094</u>
P11 _____		<u>30</u>	<u>1184</u>			<u>30</u>	<u>1118</u>
P12 _____		<u>33</u>	<u>1202</u>				
P13 _____		<u>36</u>	<u>1215</u>				
P14 _____		<u>39</u>	<u>1228</u>				
P15 _____		<u>42</u>	<u>1239</u>				
P16 _____		<u>45</u>	<u>1250</u>				
P17 _____		<u>48</u>	<u>1258</u>				
P18 _____		<u>51</u>	<u>1268</u>				
P19 _____		<u>54</u>	<u>1277</u>				
P20 _____		<u>57</u>	<u>1283</u>				
		<u>60</u>	<u>1289</u>				

TKT # 16213

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19269



Company Pickrell Drilling Company Lease & Well No. #1 "A" Stearns
Elevation 2237 Kelly Bushing Mississippi Effective Pay - Ft. Ticket No. 16214
Date 4/7/82 Sec. 14 Twp 20S Range 21W County Ness State Kansas
Test Approved by Thomas Funk Western Representative Ray Schwager

Formation Test No. 2 Interval Tested from 4357 ft. to 4410 ft. Total Depth 4410 ft.

Packer Depth 4352 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4357 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4359 ft. Recorder Number 13269 Cap. 4375

Bottom Recorder Depth (Outside) 4362 ft. Recorder Number 13270 Cap. 4375

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Pickrell Drilling Rig #10 Drill Collar Length 120 I. D. 2.2 in.

Mud Type Chemical Viscosity 45 Weight Pipe Length 480 I. D. 2.7 in.

Weight 9.3 Water Loss 17.6 cc. Drill Pipe Length 3737 I. D. 3.8 in.

Chlorides 18,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make - Serial Number - Anchor Length 53 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Very weak blow died in 20 minutes on initial flow period. Final flow period no blow, flushed tool.

Recovered 5 ft. of mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 4:55 A.M. Time Started Off Bottom 6:55 A.M. Maximum Temperature 114

Initial Hydrostatic Pressure (A) 2205 P.S.I.

Initial Flow Period Minutes 30 (B) 44 P.S.I. to (C) 44 P.S.I.

Initial Closed In Period Minutes 30 (D) 229 P.S.I.

Final Flow Period Minutes 30 (E) 55 P.S.I. to (F) 50 P.S.I.

Final Closed In Period Minutes 33 (G) 84 P.S.I.

Final Hydrostatic Pressure (H) 2205 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/7/82 Test Ticket No. 16214
 Recorder No. 13269 Capacity 4375 Location 4359 Ft.
 Clock No. - Elevation 2237 Kelly Bushing Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2205</u> P.S.I.	Open Tool	<u>4:55P</u> M	
B First Initial Flow Pressure	<u>44</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>44</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>229</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>55</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
F Second Final Flow Pressure	<u>50</u> P.S.I.			
G Final Closed-in Pressure	<u>84</u> P.S.I.			
H Final Hydrostatic Mud	<u>2205</u> P.S.I.			

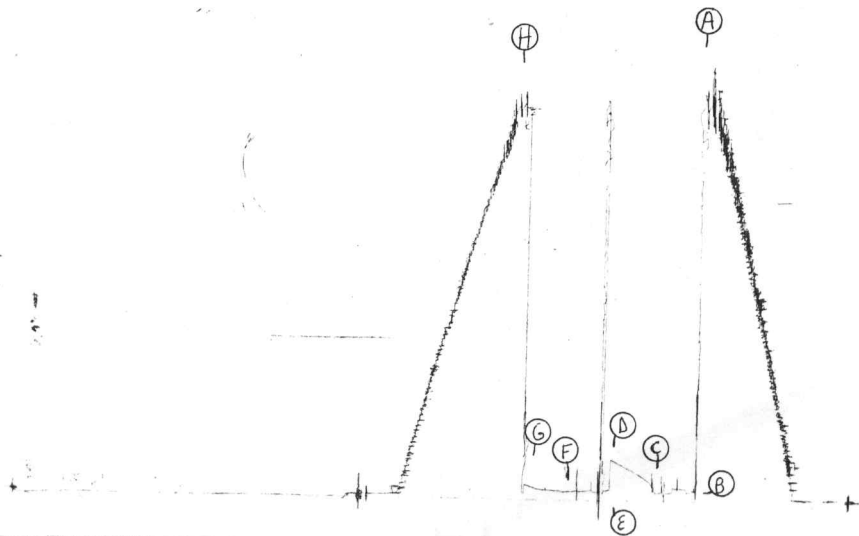
PRESSURE BREAKDOWN

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>11</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>44</u>	<u>0</u>	<u>44</u>	<u>0</u>	<u>55</u>	<u>0</u>	<u>50</u>
P 2 <u>5</u>	<u>44</u>	<u>3</u>	<u>108</u>	<u>5</u>	<u>Flushed Tool</u>	<u>3</u>	<u>47</u>
P 3 <u>10</u>	<u>44</u>	<u>6</u>	<u>123</u>	<u>10</u>	<u>50</u>	<u>6</u>	<u>50</u>
P 4 <u>15</u>	<u>44</u>	<u>9</u>	<u>139</u>	<u>15</u>	<u>50</u>	<u>9</u>	<u>53</u>
P 5 <u>20</u>	<u>44</u>	<u>12</u>	<u>152</u>	<u>20</u>	<u>50</u>	<u>12</u>	<u>54</u>
P 6 <u>25</u>	<u>44</u>	<u>15</u>	<u>166</u>	<u>25</u>	<u>50</u>	<u>15</u>	<u>55</u>
P 7 <u>30</u>	<u>44</u>	<u>18</u>	<u>177</u>	<u>30</u>	<u>50</u>	<u>18</u>	<u>56</u>
P 8		<u>21</u>	<u>188</u>			<u>21</u>	<u>58</u>
P 9		<u>24</u>	<u>202</u>			<u>24</u>	<u>63</u>
P10		<u>27</u>	<u>214</u>			<u>27</u>	<u>73</u>
P11		<u>30</u>	<u>229</u>			<u>30</u>	<u>79</u>
P12						<u>33</u>	<u>84</u>
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 16214

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13269



Company Pickrell Drilling Company Lease & Well No. #1 'A' Stearns
 Elevation 2237 Kelly Bushing Mississippi Effective Pay - Ft. Ticket No. 16215
 Date 4/8/82 Sec. 14 Twp. 20S Range 21W County Ness State Kansas
 Test Approved by Thomas Funk Western Representative Ray Schwager
 Formation Test No. 3 Interval Tested from 4360 ft. to 4417 ft. Total Depth 4417 ft.
 Packer Depth 4355 ft. Size 6 5/8in. Packer Depth - ft. Size - in.
 Packer Depth 4360 ft. Size 6 5/8in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4361 ft. Recorder Number 13269 Cap. 4375
 Bottom Recorder Depth (Outside) 4364 ft. Recorder Number 13270 Cap. 4375
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor Pickrell Drilling Rig #10 Drill Collar Length - I. D. - in.
 Mud Type Chemical Viscosity 42 Weight Pipe Length 480 I. D. 2.7 in.
 Weight 9.5 Water Loss 22.4 cc. Drill Pipe Length 3860 I. D. 3.8 in.
 Chlorides 23,000 P.P.M. Test Tool Length 20 ft. Tool Size 4 1/2 in.
 Jars: Make - Serial Number - Anchor Length 57 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Weak blow building to fair blow - 1 inch to 3 inches on initial flow period.
Fair blow throughout final flow period - 3 inches to 5 inches.

Recovered 3 ft. of clean oil
 Recovered 20 ft. of slightly oil cut mud - 1% oil; 4% water; 95% mud
 Recovered 180 ft. of slightly oil cut watery mud - 1% oil; 40% water; 59% mud
 Recovered 60 ft. of muddy water
 Recovered 120 ft. of salt water Chlorides 26,000 PPM

Remarks: _____

Time Set Packer(s) 7:25 A.M. Time Started Off Bottom 11:25 A.M. Maximum Temperature 117
 Initial Hydrostatic Pressure (A) 2253 P.S.I.
 Initial Flow Period Minutes 35 (B) 40 P.S.I. to (C) 121 P.S.I.
 Initial Closed In Period Minutes 63 (D) 1212 P.S.I.
 Final Flow Period Minutes 60 (E) 130 P.S.I. to (F) 203 P.S.I.
 Final Closed In Period Minutes 96 (G) 1191 P.S.I.
 Final Hydrostatic Pressure (H) 2198 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/8/82 Test Ticket No. 16215
 Recorder No. 13269 Capacity 4375 Location 4361 Ft.
 Clock No. - Elevation 2237 Kelly Bushing Well Temperature 117 °F
 Point Pressure Time Given Time Computed
 A Initial Hydrostatic Mud 2253 P.S.I. Open Tool 7:25A M
 B First Initial Flow Pressure 40 P.S.I. First Flow Pressure 30 Mins. 35 Mins.
 C First Final Flow Pressure 121 P.S.I. Initial Closed-in Pressure 60 Mins. 63 Mins.
 D Initial Closed-in Pressure 1212 P.S.I. Second Flow Pressure 60 Mins. 60 Mins.
 E Second Initial Flow Pressure 130 P.S.I. Final Closed-in Pressure 90 Mins. 96 Mins.
 F Second Final Flow Pressure 203 P.S.I.
 G Final Closed-in Pressure 1191 P.S.I.
 H Final Hydrostatic Mud 2198 P.S.I.

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>7</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>21</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>32</u> Inc. of <u>3</u> mins. and a 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>40</u>	<u>0</u>	<u>121</u>	<u>0</u>	<u>130</u>	<u>0</u>	<u>203</u>
P 2 <u>5</u>	<u>51</u>	<u>3</u>	<u>700</u>	<u>5</u>	<u>130</u>	<u>3</u>	<u>689</u>
P 3 <u>10</u>	<u>77</u>	<u>6</u>	<u>852</u>	<u>10</u>	<u>133</u>	<u>6</u>	<u>789</u>
P 4 <u>15</u>	<u>79</u>	<u>9</u>	<u>922</u>	<u>15</u>	<u>139</u>	<u>9</u>	<u>843</u>
P 5 <u>20</u>	<u>84</u>	<u>12</u>	<u>972</u>	<u>20</u>	<u>147</u>	<u>12</u>	<u>883</u>
P 6 <u>25</u>	<u>108</u>	<u>15</u>	<u>1009</u>	<u>25</u>	<u>155</u>	<u>15</u>	<u>920</u>
P 7 <u>30</u>	<u>128</u>	<u>18</u>	<u>1039</u>	<u>30</u>	<u>163</u>	<u>18</u>	<u>965</u>
P 8 <u>35</u>	<u>121</u>	<u>21</u>	<u>1064</u>	<u>35</u>	<u>170</u>	<u>21</u>	<u>983</u>
P 9		<u>24</u>	<u>1086</u>	<u>40</u>	<u>176</u>	<u>24</u>	<u>1000</u>
P10		<u>27</u>	<u>1101</u>	<u>45</u>	<u>183</u>	<u>27</u>	<u>1018</u>
P11		<u>30</u>	<u>1116</u>	<u>50</u>	<u>189</u>	<u>30</u>	<u>1031</u>
P12		<u>33</u>	<u>1131</u>	<u>55</u>	<u>196</u>	<u>33</u>	<u>1046</u>
P13		<u>36</u>	<u>1145</u>	<u>60</u>	<u>203</u>	<u>36</u>	<u>1059</u>
P14		<u>39</u>	<u>1156</u>			<u>39</u>	<u>1072</u>
P15		<u>42</u>	<u>1164</u>			<u>42</u>	<u>1081</u>
P16		<u>45</u>	<u>1173</u>			<u>45</u>	<u>1092</u>
P17		<u>48</u>	<u>1180</u>			<u>48</u>	<u>1100</u>
P18		<u>51</u>	<u>1189</u>			<u>51</u>	<u>1109</u>
P19		<u>54</u>	<u>1195</u>			<u>54</u>	<u>1115</u>
P20		<u>57</u>	<u>1202</u>			<u>57</u>	<u>1121</u>
WTC - 4		<u>60</u>	<u>1207</u>			<u>60</u>	<u>1131</u>
		<u>63</u>	<u>1212</u>				

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WESTERN TESTING CO., INC.

Pressure Data

Date 4/8/82 Test Ticket No. 16215
 Recorder No. 13269 Capacity 4375 Location 4361 Ft.
 Clock No. - Elevation 2237 Kelly Bushing Well Temperature 117 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2253</u> P.S.I.	<u>7:25A</u>	<u>M</u>
B First Initial Flow Pressure	<u>40</u> P.S.I.	<u>30</u> Mins.	<u>35</u> Mins.
C First Final Flow Pressure	<u>121</u> P.S.I.	<u>60</u> Mins.	<u>63</u> Mins.
D Initial Closed-in Pressure	<u>1212</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>130</u> P.S.I.	<u>90</u> Mins.	<u>96</u> Mins.
F Second Final Flow Pressure	<u>203</u> P.S.I.		
G Final Closed-in Pressure	<u>1191</u> P.S.I.		
H Final Hydrostatic Mud	<u>2198</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>21</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>32</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						63	1136
P 2						66	1142
P 3						69	1149
P 4						72	1155
P 5						75	1160
P 6						78	1163
P 7						81	1169
P 8						84	1174
P 9						87	1178
P10						90	1182
P11						93	1188
P12						96	1191
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 16215

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13.69

