

Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
 Elevation 1953 Derrick Floor Formation Winfield Effective Pay ----- Ft. Ticket No. 4820
 Date 5/11/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan
 Formation Test No. 1 Interval Tested from 2055 ft. to 2137 ft. Total Depth 2137 ft.
 Packer Depth 2050 ft. Size 6 3/4 in. Packer Depth 2055 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 2125 ft. Recorder Number 10266 Cap. 4650
 Bottom Recorder Depth (Outside) 2128 ft. Recorder Number 6233 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor H-30 Drlg. Rig #3 Drill Collar Length 214 I. D. 2.2 in.
 Mud Type premix-chemical Viscosity 43 Weight Pipe Length - I. D. - in.
 Weight 8.8 Water Loss 6.2 cc. Drill Pipe Length 1819 I. D. 3.8 in.
 Chlorides 19,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
 Jars: Make NO Serial Number - Anchor Length 82 ft. Size 5 1/2 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 in.

Blow: First - weak building to good blow 1/2" to 7"

Second - weak building to fair blow 1/2" to 4"

Recovered 130 ft. of mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 11:40 ~~A.M.~~ P.M. Time Started Off Bottom 2:10 ~~A.M.~~ P.M. Maximum Temperature 90°
 Initial Hydrostatic Pressure 1042 P.S.I. (A)
 Initial Flow Period 25 Minutes (B) 117 P.S.I. to (C) 134 P.S.I.
 Initial Closed In Period 39 Minutes (D) 745 P.S.I.
 Final Flow Period 30 Minutes (E) 146 P.S.I. to (F) 168 P.S.I.
 Final Closed In Period 45 Minutes (G) 715 P.S.I.
 Final Hydrostatic Pressure 995 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 5-11-80 Recorder No. 10266 Capacity 4650 Test Ticket No. 4820
 Clock No. ---- Elevation 1953 Derrick Floor Location 2125 Ft. 90 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1042	P.S.I.	11:40 P. M.	
B First Initial Flow Pressure	117	P.S.I.	30 Mins.	25 Mins.
C First Final Flow Pressure	134	P.S.I.	45 Mins.	39 Mins.
D Initial Closed-in Pressure	745	P.S.I.	30 Mins.	30 Mins.
E Second Initial Flow Pressure	146	P.S.I.	45 Mins.	45 Mins.
F Second Final Flow Pressure	168	P.S.I.		
G Final Closed-in Pressure	715	P.S.I.		
H Final Hydrostatic Mud	995	P.S.I.		

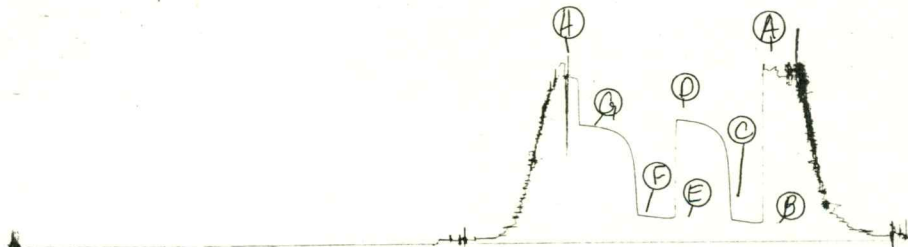
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>5</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>15</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>117</u>	<u>0</u>	<u>134</u>	<u>0</u>	<u>146</u>	<u>0</u>	<u>168</u>
P 2 <u>5</u>	<u>114</u>	<u>3</u>	<u>514</u>	<u>5</u>	<u>146</u>	<u>3</u>	<u>446</u>
P 3 <u>10</u>	<u>117</u>	<u>6</u>	<u>614</u>	<u>10</u>	<u>150</u>	<u>6</u>	<u>568</u>
P 4 <u>15</u>	<u>124</u>	<u>9</u>	<u>654</u>	<u>15</u>	<u>154</u>	<u>9</u>	<u>618</u>
P 5 <u>20</u>	<u>130</u>	<u>12</u>	<u>680</u>	<u>20</u>	<u>160</u>	<u>12</u>	<u>647</u>
P 6 <u>25</u>	<u>134</u>	<u>15</u>	<u>695</u>	<u>25</u>	<u>166</u>	<u>14</u>	<u>666</u>
P 7		<u>18</u>	<u>703</u>	<u>30</u>	<u>168</u>	<u>18</u>	<u>674</u>
P 8		<u>21</u>	<u>710</u>			<u>21</u>	<u>682</u>
P 9		<u>24</u>	<u>718</u>			<u>24</u>	<u>689</u>
P10		<u>27</u>	<u>726</u>			<u>27</u>	<u>696</u>
P11		<u>30</u>	<u>734</u>			<u>30</u>	<u>703</u>
P12		<u>33</u>	<u>738</u>			<u>33</u>	<u>706</u>
P13		<u>36</u>	<u>742</u>			<u>36</u>	<u>709</u>
P14		<u>39</u>	<u>745</u>			<u>39</u>	<u>711</u>
P15						<u>42</u>	<u>713</u>
P16						<u>45</u>	<u>715</u>
P17							
P18							
P19							
P20							

10266

TR+#4820

I.



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
 Elevation 1956 Kelly Bushing Formation Cottonwood Effective Pay --- Ft. Ticket No. 4821
 Date 5/12/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan
 Formation Test No. 2 Interval Tested from 2491 ft. to 2512 ft. Total Depth 2512 ft.
 Packer Depth 2486 ft. Size 6 3/4 in. Packer Depth 2491 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 2500 ft. Recorder Number 10266 Cap. 4650
 Bottom Recorder Depth (Outside) 2503 ft. Recorder Number 6233 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor H-30 Drlg. Rig #3 Drill Collar Length 214 I. D. 2.2 in.
 Mud Type premix-chemical Viscosity 37 Weight Pipe Length - I. D. - in.
 Weight 9.1 Water Loss 81.6 cc. Drill Pipe Length 2255 I. D. - in.
 Chlorides 45,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
 Jars: Make -- Serial Number - Anchor Length 21 ft. Size 5 1/2 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 in.

Blow: First - weak building to fair blow.

Second - weak blow throughout 1/2"

Recovered 80 ft. of salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Slid tool approximately three feet.

Time Set Packer(s) 12:00 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 2:30 ~~P.M.~~ ^{A.M.} Maximum Temperature 97°
 Initial Hydrostatic Pressure 1270 (A) P.S.I.
 Initial Flow Period 20 Minutes (B) 59 P.S.I. to (C) 63 P.S.I.
 Initial Closed In Period 42 Minutes (D) 848 P.S.I.
 Final Flow Period 40 Minutes (E) 75 P.S.I. to (F) 80 P.S.I.
 Final Closed In Period 42 Minutes (G) 829 P.S.I.
 Final Hydrostatic Pressure 1251 (H) P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5/12/80 Recorder No. 10266 Capacity 4650 Test Ticket No. 4821
 Clock No. - Elevation 1956 Kelly Bushing Location 2512 Ft. 97 °F
 Well Temperature

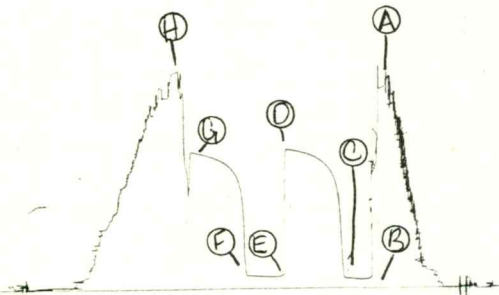
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1270	P.S.I.	12:00A	M
B First Initial Flow Pressure	59	P.S.I.	30	Mins. 2-
C First Final Flow Pressure	63	P.S.I.	45	Mins. 42
D Initial Closed-in Pressure	848	P.S.I.	30	Mins. 40
E Second Initial Flow Pressure	75	P.S.I.	45	Mins. 42
F Second Final Flow Pressure	80	P.S.I.		
G Final Closed-in Pressure	829	P.S.I.		
H Final Hydrostatic Mud	1251	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>4</u> Inc.		Breakdown: <u>14</u> Inc.		Breakdown: <u>8</u> Inc.		Breakdown: <u>14</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>59</u>	<u>0</u>	<u>63</u>	<u>0</u>	<u>75</u>	<u>0</u>	<u>80</u>
P 2 <u>5</u>	<u>54</u>	<u>3</u>	<u>472</u>	<u>5</u>	<u>73</u>	<u>3</u>	<u>430</u>
P 3 <u>10</u>	<u>56</u>	<u>6</u>	<u>640</u>	<u>10</u>	<u>75</u>	<u>6</u>	<u>619</u>
P 4 <u>15</u>	<u>60</u>	<u>9</u>	<u>708</u>	<u>15</u>	<u>75</u>	<u>9</u>	<u>687</u>
P 5 <u>20</u>	<u>63</u>	<u>12</u>	<u>741</u>	<u>20</u>	<u>76</u>	<u>12</u>	<u>724</u>
P 6		<u>15</u>	<u>769</u>	<u>25</u>	<u>77</u>	<u>15</u>	<u>750</u>
P 7		<u>18</u>	<u>787</u>	<u>30</u>	<u>78</u>	<u>18</u>	<u>767</u>
P 8		<u>21</u>	<u>802</u>	<u>35</u>	<u>80</u>	<u>21</u>	<u>783</u>
P 9		<u>24</u>	<u>814</u>	<u>40</u>	<u>80</u>	<u>24</u>	<u>792</u>
P10		<u>27</u>	<u>825</u>			<u>27</u>	<u>801</u>
P11		<u>30</u>	<u>829</u>			<u>30</u>	<u>808</u>
P12		<u>33</u>	<u>836</u>			<u>33</u>	<u>815</u>
P13		<u>36</u>	<u>841</u>			<u>36</u>	<u>821</u>
P14		<u>39</u>	<u>846</u>			<u>39</u>	<u>825</u>
P15		<u>42</u>	<u>848</u>			<u>42</u>	<u>829</u>
P16							
P17							
P18							
P19							
P20							

10266

Trt #4821
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Company W.L. Kirkman, Inc. Lease & Well No. Strait #1
Elevation 1956 Kelly Bush Formation Indian Cave Effective Pay - Ft. Ticket No. 4822
Date 5-14-80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
Test Approved by Kent A. Dentact Western Representative Darrell Claphan
Formation Test No. 3 Interval Tested from 2758 ft. to 2812 ft. Total Depth 2812 ft.
Packer Depth 2753 ft. Size 6 3/4 in. Packer Depth 2758 ft. Size 6 3/4 in.
Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 2800 ft. Recorder Number 10266 Cap. 4650
Bottom Recorder Depth (Outside) 2803 ft. Recorder Number 6233 Cap. 4000
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor H-30 Drlg. (#3) Drill Collar Length 214 I. D. 2.2 in.
Mud Type Premix, Chem. Viscosity 38 Weight Pipe Length - I. D. - in.
Weight 9.3 Water Loss 71 cc. Drill Pipe Length 2522 I. D. 3.8 in.
Chlorides 47,000 P.P.M. Test Tool Length 2 ft. Tool Size 4 1/2 in.
Jars: Make - Serial Number - Anchor Length 54 ft. Size 5 1/2 in.
Did Well Flow? No Reversed Out - 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 in.

Blow: Gas to surface in 5 minutes on intial flow period. See attached sheet for gas measurements

Recovered 315 ft. of gassy mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 12:30 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 3:30 ~~P.M.~~ ^{A.M.} Maximum Temperature 102

Initial Hydrostatic Pressure (A) 1412 P.S.I.

Initial Flow Period Minutes 25 (B) 242 P.S.I. to (C) 207 P.S.I.

Initial Closed In Period Minutes 42 (D) 546 P.S.I.

Final Flow Period Minutes 40 (E) 188 P.S.I. to (F) 150 P.S.I.

Final Closed In Period Minutes 63 (G) 238 P.S.I.

Final Hydrostatic Pressure (H) 1307 P.S.I.

GAS FLOW REPORT

Date 5-14-80 Ticket 4822 Company W.L. Kirkman, Inc.
 Well Name and No. Strait #1 Dst No. 3 Interval Tested 2758' - 2812'
 County Pratt State Kansas Sec. 28 Twp. 26S Rg. 13W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
	18 min.	5 PSIG	1 1/2"	orifice		863,000 C.F.P.D.
	20 min.	5 PSIG	1 1/2"	orifice		863,000 C.F.P.D.
	30 min.	4 PSIG	1 1/2"	orifice		764,000 C.F.P.D.
	Gas to surface at 12:35 AM					

SECOND FLOW						
	10 min.	2 PSIG	1 1/2"	orifice		527,000 C.F.P.D.
	20 min.	1 1/2 PSIG	1 1/2"	orifice		456,000 C.F.P.D.
	30 min.	1 PSIG	1 1/2"	orifice		371,000 C.F.P.D.
	40 min.	1 PSIG	1 1/4"	orifice		233,000 C.F.P.D.

GAS BOTTLE

Serial No. #85 Date Bottle Filled 5-14-80 Date to be Invoiced 5-14-80

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME W.L. Kirkman, Inc.
 Authorized by Dent A. Dentact

WESTERN TESTING CO., INC.

Pressure Data

Date 5-14-80 Test Ticket No. 4822

Recorder No. 10266 Capacity 4650 Location 2800 Ft.

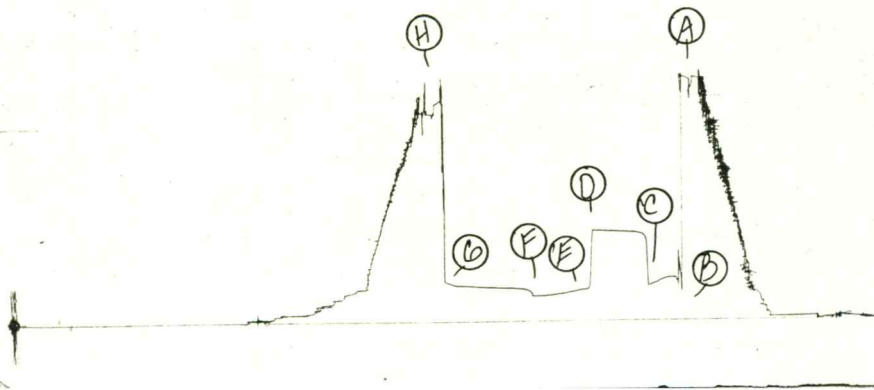
Clock No. --- Elevation 1956 Kelly Bushing Well Temperature 102 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1412</u> P.S.I.	Open Tool	<u>12:30</u> A. M.	
B First Initial Flow Pressure	<u>242</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>25</u> Mins.
C First Final Flow Pressure	<u>207</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
D Initial Closed-in Pressure	<u>546</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>40</u> Mins.
E Second Initial Flow Pressure	<u>188</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>63</u> Mins.
F Second Final Flow Pressure	<u>150</u> P.S.I.			
G Final Closed-in Pressure	<u>238</u> P.S.I.			
H Final Hydrostatic Mud	<u>1307</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>14</u> Inc.		Breakdown: <u>8</u> Inc.		Breakdown: <u>21</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>242</u>	<u>0</u>	<u>207</u>	<u>0</u>	<u>188</u>	<u>0</u>	<u>150</u>
P 2 <u>5</u>	<u>258</u>	<u>3</u>	<u>512</u>	<u>5</u>	<u>188</u>	<u>3</u>	<u>188</u>
P 3 <u>10</u>	<u>255</u>	<u>6</u>	<u>528</u>	<u>10</u>	<u>181</u>	<u>6</u>	<u>195</u>
P 4 <u>15</u>	<u>244</u>	<u>9</u>	<u>530</u>	<u>15</u>	<u>171</u>	<u>9</u>	<u>197</u>
P 5 <u>20</u>	<u>223</u>	<u>12</u>	<u>534</u>	<u>20</u>	<u>165</u>	<u>12</u>	<u>200</u>
P 6 <u>25</u>	<u>207</u>	<u>15</u>	<u>536</u>	<u>25</u>	<u>160</u>	<u>15</u>	<u>201</u>
P 7		<u>18</u>	<u>538</u>	<u>30</u>	<u>155</u>	<u>18</u>	<u>202</u>
P 8		<u>21</u>	<u>539</u>	<u>35</u>	<u>153</u>	<u>21</u>	<u>203</u>
P 9		<u>24</u>	<u>540</u>	<u>40</u>	<u>150</u>	<u>24</u>	<u>204</u>
P10		<u>27</u>	<u>541</u>			<u>27</u>	<u>204</u>
P11		<u>30</u>	<u>542</u>			<u>30</u>	<u>205</u>
P12		<u>33</u>	<u>543</u>			<u>33</u>	<u>206</u>
P13		<u>36</u>	<u>544</u>			<u>36</u>	<u>207</u>
P14		<u>39</u>	<u>545</u>			<u>39</u>	<u>208</u>
P15		<u>42</u>	<u>546</u>			<u>42</u>	<u>209</u>
P16						<u>45</u>	<u>210</u>
P17						<u>48</u>	<u>211</u>
P18						<u>51</u>	<u>212</u>
P19						<u>54</u>	<u>213</u>
P20						<u>57</u>	<u>223</u>
						<u>60</u>	<u>230</u>
						<u>63</u>	<u>238</u>

RT # 4822
I



Time Set	Packer(s)	4:25	A.M. P.M.	Time Started Off Bottom	5:15	A.M. P.M.	Maximum Temperature	100°
Initial Hydrostatic Pressure				(A)	1412	P.S.I.		
Initial Flow Period	Minutes	10		(B)	61	P.S.I. to (C)	59	P.S.I.
Initial Closed In Period	Minutes	18		(D)	77	P.S.I.		
Final Flow Period	Minutes	5		(E)	63	P.S.I. to (F)	59	P.S.I.
Final Closed In Period	Minutes	--		(G)	--	P.S.I.		
Final Hydrostatic Pressure				(H)	1393	P.S.I.		

WESTERN TESTING CO., INC.

Pressure Data

Date 5/14/80

Recorder No. 10266 Capacity 4650 Test Ticket No. 4828

Clock No. --- Elevation 1956 Kelly Bushing Location 2902 Ft.

Well Temperature 100 °F

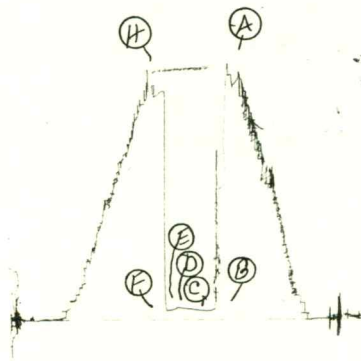
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1412</u> P.S.I.	Open Tool	<u>4:25P</u> M	
B First Initial Flow Pressure	<u>61</u> P.S.I.	First Flow Pressure	<u>10</u> Mins.	<u>10</u> Mins.
C First Final Flow Pressure	<u>59</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>18</u> Mins.
D Initial Closed-in Pressure	<u>77</u> P.S.I.	Second Flow Pressure	<u>10</u> Mins.	<u>5</u> Mins.
E Second Initial Flow Pressure	<u>63</u> P.S.I.	Final Closed-in Pressure	<u>==</u> Mins.	<u>==</u> Mins.
F Second Final Flow Pressure	<u>59</u> P.S.I.			
G Final Closed-in Pressure	<u>--</u> P.S.I.			
H Final Hydrostatic Mud	<u>1393</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>61</u>	<u>0</u>	<u>59</u>	<u>0</u>	<u>63</u>		
P 2 <u>5</u>	<u>59</u>	<u>3</u>	<u>63</u>	<u>5</u>	<u>59</u>		
P 3 <u>10</u>	<u>59</u>	<u>6</u>	<u>67</u>				
P 4		<u>9</u>	<u>70</u>				
P 5		<u>12</u>	<u>73</u>				
P 6		<u>15</u>	<u>75</u>				
P 7		<u>18</u>	<u>77</u>				
P 8							
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

10266

TR#4823
I



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
Elevation 1956 Kelly Bushing Tarkio Formation Effective Pay ----- Ft. Ticket No. 4824
Date 5/15/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan

Formation Test No. 5 Interval Tested from 2938' ft. to 2985' ft. Total Depth 2985' ft.

Packer Depth 2933 ft. Size 6 3/4 in. Packer Depth 2938' ft. Size 6 3/4 in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2974 ft. Recorder Number 10266 Cap. 4650

Bottom Recorder Depth (Outside) 2977 ft. Recorder Number 6233 Cap. 4000

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

Drilling Contractor H-30 Drlg. Rig #3

Drill Collar Length 214 I. D. 2.2 in.

Mud Type premix Viscosity 40

Weight Pipe Length - I. D. - in.

Weight 9,3 Water Loss 49.2 cc.

Drill Pipe Length 2702 I. D. 3.8 in.

Chlorides 35,000 P.P.M.

Test Tool Length 22 ft. Tool Size 4 1/2 in.

Jars: Make -- Serial Number -

Anchor Length 47 ft. Size 5 1/2 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 in.

Blow: First - weak blow building to two inches in bucket.

Second - weak blow throughout - barely blowing.

Recovered 120 ft. of gas in pipe

Recovered 70 ft. of slight oil and slight gas cut mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 4:10 A.M. P.M. Time Started Off Bottom 6:40 A.M. P.M. Maximum Temperature 104°

Initial Hydrostatic Pressure (A) 1458 P.S.I.

Initial Flow Period Minutes 30 (B) 73 P.S.I. to (C) 89 P.S.I.

Initial Closed In Period Minutes 36 (D) 900 P.S.I.

Final Flow Period Minutes 30 (E) 96 P.S.I. to (F) 92 P.S.I.

Final Closed In Period Minutes 36 (G) 853 P.S.I.

Final Hydrostatic Pressure (H) 1440 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

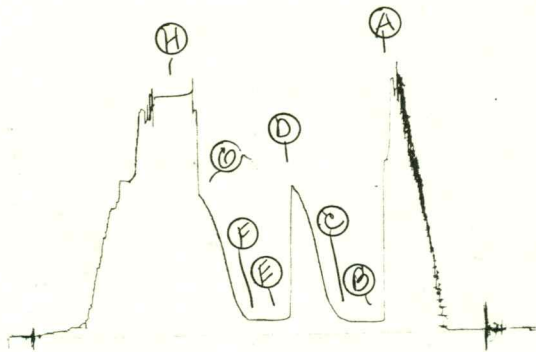
Date 5/15/80 Recorder No. 10266 Capacity 4650 Test Ticket No. 4824
 Clock No. -- Elevation 1956 Kelly Bushing Location 2974 Ft.
 Well Temperature 104 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1458	P.S.I.	4:10A	M
B First Initial Flow Pressure	73	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	89	P.S.I.	45	Mins. 36 Mins.
D Initial Closed-in Pressure	900	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	96	P.S.I.	45	Mins. 36 Mins.
F Second Final Flow Pressure	92	P.S.I.		
G Final Closed-in Pressure	853	P.S.I.		
H Final Hydrostatic Mud	1440	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>12</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>73</u>	<u>0</u>	<u>89</u>	<u>0</u>	<u>96</u>	<u>0</u>	<u>92</u>
P 2 <u>5</u>	<u>68</u>	<u>3</u>	<u>110</u>	<u>5</u>	<u>89</u>	<u>3</u>	<u>117</u>
P 3 <u>10</u>	<u>69</u>	<u>6</u>	<u>143</u>	<u>10</u>	<u>87</u>	<u>6</u>	<u>155</u>
P 4 <u>15</u>	<u>70</u>	<u>9</u>	<u>188</u>	<u>15</u>	<u>89</u>	<u>9</u>	<u>202</u>
P 5 <u>20</u>	<u>70</u>	<u>12</u>	<u>272</u>	<u>20</u>	<u>94</u>	<u>12</u>	<u>289</u>
P 6 <u>25</u>	<u>73</u>	<u>15</u>	<u>383</u>	<u>25</u>	<u>92</u>	<u>15</u>	<u>399</u>
P 7 <u>30</u>	<u>89</u>	<u>18</u>	<u>509</u>	<u>30</u>	<u>92</u>	<u>18</u>	<u>514</u>
P 8 <u></u>	<u></u>	<u>21</u>	<u>629</u>	<u></u>	<u></u>	<u>21</u>	<u>596</u>
P 9 <u></u>	<u></u>	<u>24</u>	<u>703</u>	<u></u>	<u></u>	<u>24</u>	<u>661</u>
P10 <u></u>	<u></u>	<u>27</u>	<u>764</u>	<u></u>	<u></u>	<u>27</u>	<u>729</u>
P11 <u></u>	<u></u>	<u>30</u>	<u>822</u>	<u></u>	<u></u>	<u>30</u>	<u>780</u>
P12 <u></u>	<u></u>	<u>33</u>	<u>864</u>	<u></u>	<u></u>	<u>33</u>	<u>825</u>
P13 <u></u>	<u></u>	<u>36</u>	<u>900</u>	<u></u>	<u></u>	<u>36</u>	<u>853</u>
P14 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
P15 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
P16 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
P17 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
P18 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
P19 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
P20 <u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

KK# 4824
I



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
 Elevation 1956 Kelly Bushing Bern Formation Effective Pay - Ft. Ticket No. 4825
 Date 5/15/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan
 Formation Test No. 6 Interval Tested from 3073 ft. to 3097 ft. Total Depth 3097 ft.
 Packer Depth 3068 ft. Size 6 3/4 in. Packer Depth 3073 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3085 ft. Recorder Number 10266 Cap. 4650
 Bottom Recorder Depth (Outside) 3088 ft. Recorder Number 6233 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor H-30 Drilling Rig #3 Drill Collar Length 214 I. D. 2.2 in.
 Mud Type premix Viscosity 60 Weight Pipe Length - I. D. - in.
 Weight 9.3 Water Loss 52 cc. Drill Pipe Length 2837 I. D. 3.8 in.
 Chlorides 49,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
 Jars: Make -- Serial Number - Anchor Length 24 ft. Size 5 1/2 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 in.

Blow: First - fair building to good blow Three to ten inches.
Second - weak building to fair blow one half to six inches.

Recovered 60 ft. of gas in pipe
 Recovered 270 ft. of gas cut mud - Rainbow show of oil
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: Slid tool approximately eleven feet.

Time Set Packer(s) 9:55 ~~A.M.~~ P.M. Time Started Off Bottom 12:25 ~~A.M.~~ P.M. Maximum Temperature 105°
 Initial Hydrostatic Pressure (A) 1530 P.S.I.
 Initial Flow Period Minutes 30 (B) 107 P.S.I. to (C) 145 P.S.I.
 Initial Closed In Period Minutes 45 (D) 1094 P.S.I.
 Final Flow Period Minutes 25 (E) 178 P.S.I. to (F) 178 P.S.I.
 Final Closed In Period Minutes 42 (G) 1072 P.S.I.
 Final Hydrostatic Pressure (H) 1511 P.S.I.

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

Date 5-15-80 Recorder No. 10266 Capacity 4650 Test Ticket No. 4825
Clock No. --- Elevation 1956 Kelly Bushing Location 3085 Ft.
Well Temperature 105 °F

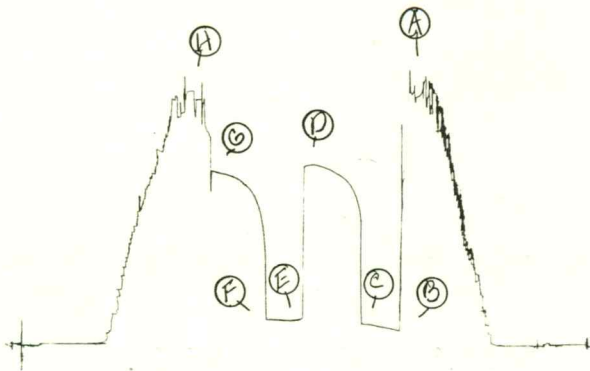
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1530</u>	P.S.I.	9:55 P. M.	
B First Initial Flow Pressure	<u>107</u>	P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	<u>145</u>	P.S.I.	45 Mins.	45 Mins.
D Initial Closed-in Pressure	<u>1094</u>	P.S.I.	30 Mins.	25 Mins.
E Second Initial Flow Pressure	<u>178</u>	P.S.I.	45 Mins.	42 Mins.
F Second Final Flow Pressure	<u>178</u>	P.S.I.		
G Final Closed-in Pressure	<u>1072</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1511</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>15</u> Inc.		Breakdown: <u>5</u> Inc.		Breakdown: <u>14</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>107</u>	<u>0</u>	<u>145</u>	<u>0</u>	<u>178</u>	<u>0</u>	<u>178</u>
P 2 <u>5</u>	<u>117</u>	<u>3</u>	<u>857</u>	<u>5</u>	<u>171</u>	<u>3</u>	<u>703</u>
P 3 <u>10</u>	<u>126</u>	<u>6</u>	<u>929</u>	<u>10</u>	<u>171</u>	<u>6</u>	<u>829</u>
P 4 <u>15</u>	<u>133</u>	<u>9</u>	<u>978</u>	<u>15</u>	<u>173</u>	<u>9</u>	<u>897</u>
P 5 <u>20</u>	<u>140</u>	<u>12</u>	<u>1009</u>	<u>20</u>	<u>175</u>	<u>12</u>	<u>941</u>
P 6 <u>25</u>	<u>145</u>	<u>15</u>	<u>1030</u>	<u>25</u>	<u>178</u>	<u>15</u>	<u>969</u>
P 7 <u>30</u>	<u>145</u>	<u>18</u>	<u>1046</u>			<u>18</u>	<u>997</u>
P 8		<u>21</u>	<u>1060</u>			<u>21</u>	<u>1018</u>
P 9		<u>24</u>	<u>1072</u>			<u>24</u>	<u>1032</u>
P10		<u>27</u>	<u>1083</u>			<u>27</u>	<u>1041</u>
P11		<u>30</u>	<u>1093</u>			<u>30</u>	<u>1046</u>
P12		<u>33</u>	<u>1100</u>			<u>33</u>	<u>1053</u>
P13		<u>36</u>	<u>1106</u>			<u>36</u>	<u>1060</u>
P14		<u>39</u>	<u>1103</u>			<u>39</u>	<u>1067</u>
P15		<u>42</u>	<u>1098</u>			<u>42</u>	<u>1072</u>
P16		<u>45</u>	<u>1094</u>				
P17							
P18							
P19							
P20							

10266

TKt # 4825
I



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
Elevation 1956 Kelly Bushing Formation Howard Effective Pay - Ft. Ticket No. 6226
Date 5/16/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan

Formation Test No. 7 Interval Tested from 3145 ft. to 3205 ft. Total Depth 3205 ft.

Packer Depth 3145 ft. Size 6 3/4 in. Packer Depth 3145 ft. Size 6 3/4 in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3178 ft. Recorder Number 10266 Cap. 4650

Bottom Recorder Depth (Outside) 3181 ft. Recorder Number 6233 Cap. 4000

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

Drilling Contractor H-30 Drlg. Rig #3

Drill Collar Length 214 I. D. 2.2 in.

Mud Type premix Viscosity 60

Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 52 cc.

Drill Pipe Length 2909 I. D. 3.8 in.

Chlorides 49,000 P.P.M.

Test Tool Length 22 ft. Tool Size 4 1/2 in.

Jars: Make -- Serial Number -

Anchor Length 60 ft. Size 5 1/2 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 in.

Blow: First - weak blow throughout 1/8 inch to 3/4 inches.

Second - no blow.

Recovered 120 ft. of gas in pipe

Recovered 50 ft. of gas cut mud rainbow show of oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Slid tool approximately three feet.

Time Set Packer(s) 5:00 ~~A.M.~~ P.M. Time Started Off Bottom 6:05 ~~A.M.~~ P.M. Maximum Temperature 106°

Initial Hydrostatic Pressure (A) 1548 P.S.I.

Initial Flow Period Minutes 15 (B) 89 P.S.I. to (C) 82 P.S.I.

Initial Closed In Period Minutes 27 (D) 971 P.S.I.

Final Flow Period Minutes 5 (E) 100 P.S.I. to (F) 91 P.S.I.

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

Final Hydrostatic Pressure (H) 1511 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-16-80 Recorder No. 10266 Capacity 4650 Test Ticket No. 6226
 Clock No. ---- Elevation 1956 Kelly Bushing Location 3178 Ft. 106 °F
 Well Temperature

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1548	P.S.I.	5:00 P. M.	
B First Initial Flow Pressure	89	P.S.I.	15 Mins.	15 Mins.
C First Final Flow Pressure	82	P.S.I.	30 Mins.	27 Mins.
D Initial Closed-in Pressure	971	P.S.I.	10 Mins.	5 Mins.
E Second Initial Flow Pressure	100	P.S.I.	-- Mins.	-- Mins.
F Second Final Flow Pressure	91	P.S.I.		
G Final Closed-in Pressure	--	P.S.I.		
H Final Hydrostatic Mud	1511	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: 9 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

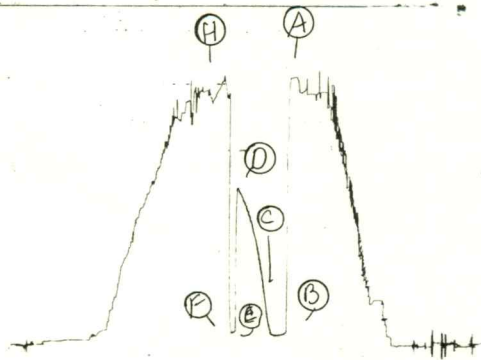
Second Flow Pressure
 Breakdown: 1 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: -- 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>	89	0	82	0	100	0	
P 2 <u>5</u>	82	3	185	5	91		
P 3 <u>10</u>	82	6	349				
P 4 <u>15</u>	82	9	525				
P 5		12	647				
P 6		15	750				
P 7		18	834				
P 8		21	899				
P 9		24	953				
P10		27	971				
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

10266

TR# 6226
I



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
Elevation 1956 Kelly Bushing Topeka Formation ----- Effective Pay ----- Ft. Ticket No. 6227
Date 5/17/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan

Formation Test No. 8 Interval Tested from 3206 ft. to 3237 ft. Total Depth 3237 ft.

Packer Depth 3201 ft. Size 6 3/4 in. Packer Depth 3206 ft. Size 6 3/4 in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3215 ft. Recorder Number 10266 Cap. 4650

Bottom Recorder Depth (Outside) 3218 ft. Recorder Number 6233 Cap. 4000

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

Drilling Contractor H-30 Drlg. Rig #3 Drill Collar Length 214 I. D. 2.2 in.

Mud Type premix Viscosity 42 Weight Pipe Length - I. D. - in.

Weight 9.0 Water Loss 42.8 cc. Drill Pipe Length 2970 I. D. 3.8 in.

Chlorides 26,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.

Jars: Make -- Serial Number - Anchor Length 31 ft. Size 5 1/2 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 in.

Blow: First - weak blow throughout 1/2 inch blow.

Second - no blow.

Recovered 30 ft. of slightly oily and slightly gas cut mud Trace of oil on

Recovered ft. of top of tool. Less than 1% oil.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Slid tool approximately four feet.

Time Set Packer(s) 5:50 ~~P.M.~~ A.M. Time Started Off Bottom 7:20 ~~P.M.~~ A.M. Maximum Temperature 106°

Initial Hydrostatic Pressure (A) 1613 P.S.I.

Initial Flow Period Minutes 10 (B) 58 P.S.I. to (C) 51 P.S.I.

Initial Closed In Period Minutes 27 (D) 1074 P.S.I.

Final Flow Period Minutes 15 (E) 65 P.S.I. to (F) 58 P.S.I.

Final Closed In Period Minutes 27 (G) 1020 P.S.I.

Final Hydrostatic Pressure (H) 1588 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-17-80 Recorder No. 10266 Capacity 4650 Test Ticket No. 6227
 Clock No. ---- Elevation 1956 Kelly Bushing Location 3215 Ft. Well Temperature 106 °F

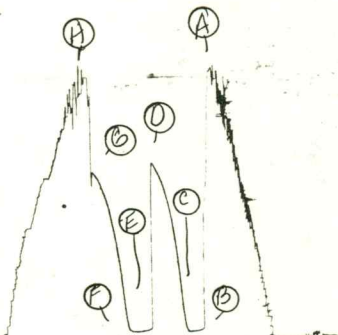
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1613</u>	P.S.I.	<u>5:50</u>	<u>M</u>
B First Initial Flow Pressure	<u>58</u>	P.S.I.	<u>15</u>	<u>Mins.</u>
C First Final Flow Pressure	<u>51</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
D Initial Closed-in Pressure	<u>1074</u>	P.S.I.	<u>15</u>	<u>Mins.</u>
E Second Initial Flow Pressure	<u>65</u>	P.S.I.	<u>30</u>	<u>Mins.</u>
F Second Final Flow Pressure	<u>58</u>	P.S.I.		
G Final Closed-in Pressure	<u>1020</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1588</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>2</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>3</u> Inc.		Breakdown: <u>9</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>50</u>	<u>0</u>	<u>51</u>	<u>0</u>	<u>65</u>	<u>0</u>	<u>58</u>
P 2 <u>5</u>	<u>54</u>	<u>3</u>	<u>183</u>	<u>5</u>	<u>58</u>	<u>3</u>	<u>223</u>
P 3 <u>10</u>	<u>51</u>	<u>6</u>	<u>424</u>	<u>10</u>	<u>53</u>	<u>6</u>	<u>453</u>
P 4		<u>9</u>	<u>630</u>	<u>15</u>	<u>58</u>	<u>9</u>	<u>609</u>
P 5		<u>12</u>	<u>768</u>			<u>12</u>	<u>731</u>
P 6		<u>15</u>	<u>878</u>			<u>15</u>	<u>841</u>
P 7		<u>18</u>	<u>960</u>			<u>18</u>	<u>911</u>
P 8		<u>21</u>	<u>1013</u>			<u>21</u>	<u>971</u>
P 9		<u>24</u>	<u>1060</u>			<u>24</u>	<u>1013</u>
P10		<u>27</u>	<u>1074</u>			<u>27</u>	<u>1020</u>
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

6266

TK # 6227
I



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
Elevation 1956 Kelly Bushing Topeka Formation 28 Effective Pay - - Ft. Ticket No. 6228
Date 5/17/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
Test Approved by Kurt A. Deutsch Western Representative Darrell Claphan

Formation Test No. 9 Interval Tested from 3237 ft. to 3251 ft. Total Depth 3251 ft.
Packer Depth 3232 ft. Size 6 3/4 in. Packer Depth 3237 ft. Size 6 3/4 in.
Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3242 ft. Recorder Number 10266 Cap. 4650
Bottom Recorder Depth (Outside) 3245 ft. Recorder Number 6233 Cap. 4000
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor H-30 Drilling Rig #3 Drill Collar Length 214 I. D. 2.2 in.
Mud Type premix Viscosity 45 Weight Pipe Length - I. D. - in.
Weight 8.9 Water Loss 38 cc. Drill Pipe Length 3001 I. D. 3.8 in.
Chlorides 22,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
Jars: Make - Serial Number - Anchor Length 14 ft. Size 5 1/2 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 in.

Blow: First - weak building to good blow one inch to seven inches.
Second - weak building to fair blow one inch to five inches.
Recovered 180 ft. of gas cut watery mud
Recovered 15 ft. of heavy mud on bottom
Recovered ft. of
Recovered ft. of
Recovered ft. of
Remarks:

Time Set Packer(s) 5:25 ~~A.M.~~ P.M. Time Started Off Bottom 7:55 ~~A.M.~~ P.M. Maximum Temperature 107°
Initial Hydrostatic Pressure (A) 1616 P.S.I.
Initial Flow Period Minutes 20 (B) 56 P.S.I. to (C) 85 P.S.I.
Initial Closed In Period Minutes 42 (D) 1158 P.S.I.
Final Flow Period Minutes 30 (E) 120 P.S.I. to (F) 134 P.S.I.
Final Closed In Period Minutes 42 (G) 1141 P.S.I.
Final Hydrostatic Pressure (H) 1530 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

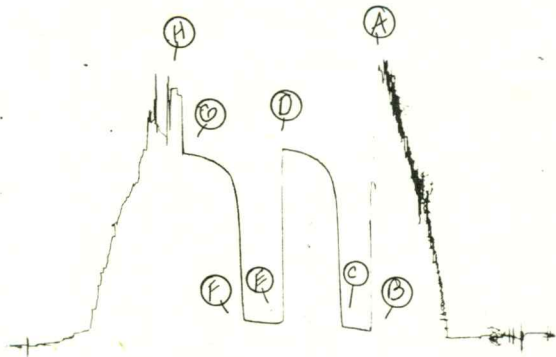
Date 5-17-80 Recorder No. 10266 Capacity 4650 Test Ticket No. 6228
 Clock No. ----- Elevation 1956 Kelly Bushing Location 3242 Ft. -----
 Well Temperature 107 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1616</u> P.S.I.	Open Tool	<u>5:25</u> A. M.	
B First Initial Flow Pressure	<u>56</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>20</u> Mins.
C First Final Flow Pressure	<u>85</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
D Initial Closed-in Pressure	<u>1158</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>120</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
F Second Final Flow Pressure	<u>134</u> P.S.I.			
G Final Closed-in Pressure	<u>1141</u> P.S.I.			
H Final Hydrostatic Mud	<u>1530</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>4</u> Inc.		Breakdown: <u>14</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>14</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>56</u>	<u>0</u>	<u>85</u>	<u>0</u>	<u>120</u>	<u>0</u>	<u>134</u>
P 2 <u>5</u>	<u>63</u>	<u>3</u>	<u>710</u>	<u>5</u>	<u>113</u>	<u>3</u>	<u>724</u>
P 3 <u>10</u>	<u>73</u>	<u>6</u>	<u>956</u>	<u>10</u>	<u>113</u>	<u>6</u>	<u>950</u>
P 4 <u>15</u>	<u>77</u>	<u>9</u>	<u>1023</u>	<u>15</u>	<u>120</u>	<u>9</u>	<u>1013</u>
P 5 <u>20</u>	<u>85</u>	<u>12</u>	<u>1053</u>	<u>20</u>	<u>124</u>	<u>12</u>	<u>1044</u>
P 6		<u>15</u>	<u>1081</u>	<u>25</u>	<u>131</u>	<u>15</u>	<u>1062</u>
P 7		<u>18</u>	<u>1094</u>	<u>30</u>	<u>134</u>	<u>18</u>	<u>1079</u>
P 8		<u>21</u>	<u>1106</u>			<u>21</u>	<u>1095</u>
P 9		<u>24</u>	<u>1118</u>			<u>24</u>	<u>1106</u>
P10		<u>27</u>	<u>1130</u>			<u>27</u>	<u>1116</u>
P11		<u>30</u>	<u>1142</u>			<u>30</u>	<u>1123</u>
P12		<u>33</u>	<u>1146</u>			<u>33</u>	<u>1127</u>
P13		<u>36</u>	<u>1150</u>			<u>36</u>	<u>1132</u>
P14		<u>39</u>	<u>1154</u>			<u>39</u>	<u>1137</u>
P15		<u>42</u>	<u>1158</u>			<u>42</u>	<u>1141</u>
P16							
P17							
P18							
P19							
P20							

10266
TRK # 6228
I



Company W.L. Kirkman, Inc. Lease & Well No. Strait #1
 Elevation 1956 Kelly Bush Formation Topeka Effective Pay - Ft. Ticket No. 6229
 Date 5-18-80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by Kent A. Deutsch Western Representative Darrell Claphan
 Formation Test No. 10 Interval Tested from 3431 ft. to 3452 ft. Total Depth 3452 ft.
 Packer Depth 3426 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3431 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3438 ft. Recorder Number 10266 Cap. 4650
 Bottom Recorder Depth (Outside) 3441 ft. Recorder Number 6233 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor H-30 Drlg. (#3) Drill Collar Length 214 I. D. 2.2 in.
 Mud Type Premix Viscosity 40 Weight Pipe Length - I. D. - in.
 Weight 9.1 Water Loss 46.8 cc. Drill Pipe Length 3195 I. D. 3.8 in.
 Chlorides 32,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
 Jars: Make - Serial Number - Anchor Length 21 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out - 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 in.

Blow: Strong blow throughout out test. (15" - 17")

Recovered 870 ft. of gas in pipe
 Recovered 600 ft. of oil and gas cut water (30% oil, 1% gas, 9% mud, 60% water)
 Recovered 120 ft. of slightly oil and gas cut mud (10% oil, 2% gas, 47% mud, 15% water)
 Recovered 180 ft. of oil and gas cut water (7% oil, Less than 1% gas, 1% mud, 92% water)
 Recovered 780 ft. of salt water (41,000 PPM Chlorides top, 26,000 PPM Chlorides bottom)

Remarks:

Time Set Packer(s) 1:35 A.M. P.M. Time Started Off Bottom 4:05 A.M. P.M. Maximum Temperature 112
 Initial Hydrostatic Pressure (A) 1728 P.S.I.
 Initial Flow Period Minutes 25 (B) 209 P.S.I. to (C) 498 P.S.I.
 Initial Closed In Period Minutes 42 (D) 423 P.S.I.
 Final Flow Period Minutes 25 (E) 568 P.S.I. to (F) 722 P.S.I.
 Final Closed In Period Minutes 45 (G) 1102 P.S.I.
 Final Hydrostatic Pressure (H) 1700 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-18-80 Recorder No. 10266 Capacity 4650 Test Ticket No. 6229
 Clock No. - Elevation 1956 Kelly Bushing Location 3438 Ft. 112 °F
 Well Temperature 112 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1728	P.S.I.	1:35	M
B First Initial Flow Pressure	209	P.S.I.	30	Mins. 25 Mins.
C First Final Flow Pressure	498	P.S.I.	45	Mins. 42 Mins.
D Initial Closed-in Pressure	423	P.S.I.	30	Mins. 25 Mins.
E Second Initial Flow Pressure	568	P.S.I.	45	Mins. 45 Mins.
F Second Final Flow Pressure	722	P.S.I.		
G Final Closed-in Pressure	1102	P.S.I.		
H Final Hydrostatic Mud	1700	P.S.I.		

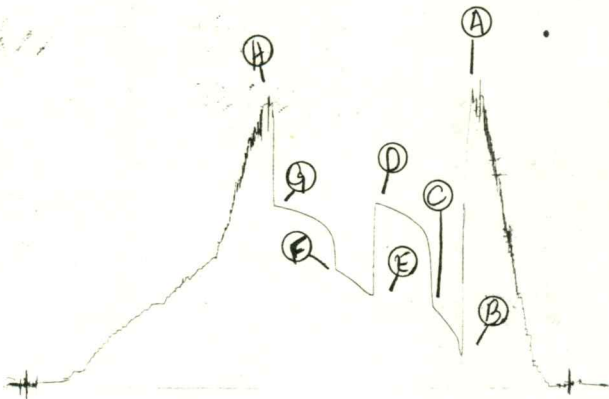
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	5		14		5		15	
	of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
	final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	209	0	498	0	568	0	722	
P 2 5	329	3	867	5	586	3	911	
P 3 10	387	6	942	10	624	6	958	
P 4 15	439	9	977	15	654	9	986	
P 5 20	481	12	1000	20	688	12	1009	
P 6 25	498	15	1019	25	722	15	1026	
P 7		18	1035			18	1036	
P 8		21	1049			21	1047	
P 9		24	1064			24	1057	
P10		27	1080			27	1067	
P11		30	1091			30	1077	
P12		33	1099			33	1082	
P13		36	1107			36	1087	
P14		39	1115			39	1093	
P15		42	1123			42	1098	
P16						45	1102	
P17								
P18								
P19								
P20								

10266

TK1# 6229

I.



Company W.L. Kirkman, Inc. Lease & Well No. Strait #1
 Elevation 1956 Kelly Bush. Formation Kansas City Effective Pay - Ft. Ticket No. 6230
 Date 5-20-80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by Kent A. Deutsch Western Representative Darrell Claphan
 Formation Test No. 11 Interval Tested from 3958 ft. to 3976 ft. Total Depth 3976 ft.
 Packer Depth 3953 ft. Size 6 3/4 in. Packer Depth 3958 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3965 ft. Recorder Number 10266 Cap. 4650
 Bottom Recorder Depth (Outside) 3968 ft. Recorder Number 6233 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor H-30 Drlg. (#3) Drill Collar Length 214 I. D. 2.2 in.
 Mud Type Premix Viscosity 46 Weight Pipe Length - I. D. - in.
 Weight 9.2 Water Loss 32 cc. Drill Pipe Length 3722 I. D. 3.8 in.
 Chlorides 23,000 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
 Jars: Make - Serial Number - Anchor Length 18 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out - 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 in.

Blow: Weak blow building to strong blow (1" to 15", 15" in 6 minutes) Strong blow throughout
final flow period.

Recovered 780 ft. of gas in pipe
 Recovered 20 ft. of gas cut mud
 Recovered 50 ft. of oil and gas cut mud (67% mud, 5% oil, 28% gas)
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 8:50 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 11:20 ~~P.M.~~ ^{A.M.} Maximum Temperature 121
 Initial Hydrostatic Pressure 1944 P.S.I. (A)
 Initial Flow Period 30 Minutes (B) 52 P.S.I. to (C) 45 P.S.I.
 Initial Closed In Period 39 Minutes (D) 329 P.S.I.
 Final Flow Period 25 Minutes (E) 59 P.S.I. to (F) 55 P.S.I.
 Final Closed In Period 42 Minutes (G) 401 P.S.I.
 Final Hydrostatic Pressure 1879 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 5-20-80 Recorder No. 10266 Capacity 4650, Test Ticket No. 6230
 Clock No. --- Elevation 1956 Kelly Bushing Location 3965 Ft.
 Well Temperature 121 °F

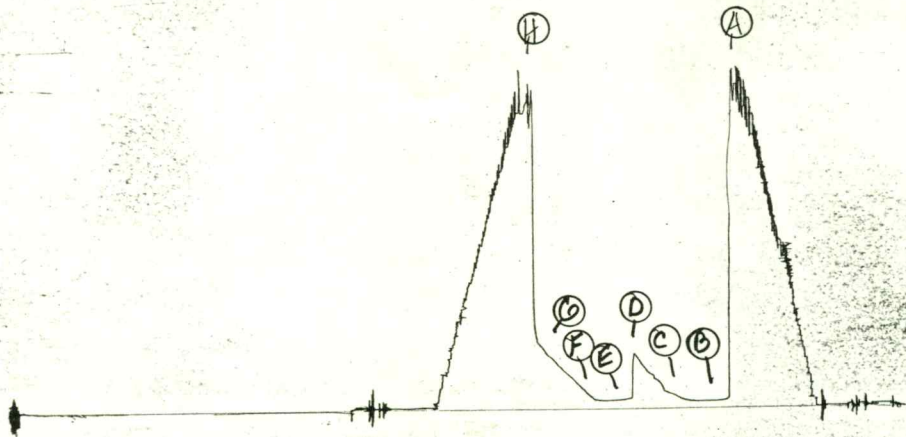
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1944</u> P.S.I.	Open Tool	<u>8:50</u> M	
B First Initial Flow Pressure	<u>52</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>45</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>39</u> Mins.
D Initial Closed-in Pressure	<u>329</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>25</u> Mins.
E Second Initial Flow Pressure	<u>59</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
F Second Final Flow Pressure	<u>55</u> P.S.I.			
G Final Closed-in Pressure	<u>401</u> P.S.I.			
H Final Hydrostatic Mud	<u>1879</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>13</u> Inc.		Breakdown: <u>5</u> Inc.		Breakdown: <u>14</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>52</u>	<u>0</u>	<u>45</u>	<u>0</u>	<u>59</u>	<u>0</u>	<u>55</u>
P 2 <u>5</u>	<u>45</u>	<u>3</u>	<u>53</u>	<u>5</u>	<u>56</u>	<u>3</u>	<u>85</u>
P 3 <u>10</u>	<u>42</u>	<u>6</u>	<u>63</u>	<u>10</u>	<u>52</u>	<u>6</u>	<u>108</u>
P 4 <u>15</u>	<u>42</u>	<u>9</u>	<u>77</u>	<u>15</u>	<u>48</u>	<u>9</u>	<u>129</u>
P 5 <u>20</u>	<u>42</u>	<u>12</u>	<u>91</u>	<u>20</u>	<u>48</u>	<u>12</u>	<u>153</u>
P 6 <u>25</u>	<u>42</u>	<u>15</u>	<u>99</u>	<u>25</u>	<u>55</u>	<u>15</u>	<u>181</u>
P 7 <u>30</u>	<u>45</u>	<u>18</u>	<u>106</u>			<u>18</u>	<u>206</u>
P 8		<u>21</u>	<u>155</u>			<u>21</u>	<u>231</u>
P 9		<u>24</u>	<u>173</u>			<u>24</u>	<u>249</u>
P10		<u>27</u>	<u>200</u>			<u>27</u>	<u>275</u>
P11		<u>30</u>	<u>225</u>			<u>30</u>	<u>303</u>
P12		<u>33</u>	<u>256</u>			<u>33</u>	<u>321</u>
P13		<u>36</u>	<u>291</u>			<u>36</u>	<u>354</u>
P14		<u>39</u>	<u>329</u>			<u>39</u>	<u>385</u>
P15						<u>42</u>	<u>401</u>
P16							
P17							
P18							
P19							
P20							

10266

JK# 6230
I



Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
 Elevation 1956 Kelly Bushing Kansas City Effective Pay ----- Ft. Ticket No. 6231
 Date 5/20/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by Kurt A. Duetsch Western Representative Darrell Claphan
 Formation Test No. 12 Interval Tested from 3979 ft. to 4019 ft. Total Depth 4019 ft.
 Packer Depth 3974 ft. Size 6 3/4 in. Packer Depth 3979 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3981 ft. Recorder Number 10266 Cap. 4650
 Bottom Recorder Depth (Outside) 3984 ft. Recorder Number 6233 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor H-30, Inc. Drilling Rig #3 Drill Collar Length 214' I. D. 2.2 in.
 Mud Type premix-chemical Viscosity 46 Weight Pipe Length - I. D. - in.
 Weight 9.2 Water Loss 22.8 cc. Drill Pipe Length 3743 I. D. 3.8 in.
 Chlorides 13,500 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.
 Jars: Make --- Serial Number - Anchor Length 40 ft. Size 5 1/2 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 in.

Blow: First - weak building to fair blow one to six inches.

Second - same as the first flow period.

Recovered 110 ft. of gas in pipe
 Recovered 70 ft. of oil streaked gas cut mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Remarks:

Time Set Packer(s) 11:30 ~~A.M.~~ P.M. Time Started Off Bottom 2:00 ~~A.M.~~ P.M. Maximum Temperature 121°
 Initial Hydrostatic Pressure 1923 P.S.I.
 Initial Flow Period 25 Minutes (B) 92 P.S.I. to (C) 73 P.S.I.
 Initial Closed In Period 42 Minutes (D) 777 P.S.I.
 Final Flow Period 30 Minutes (E) 107 P.S.I. to (F) 92 P.S.I.
 Final Closed In Period 42 Minutes (G) 606 P.S.I.
 Final Hydrostatic Pressure 1914 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

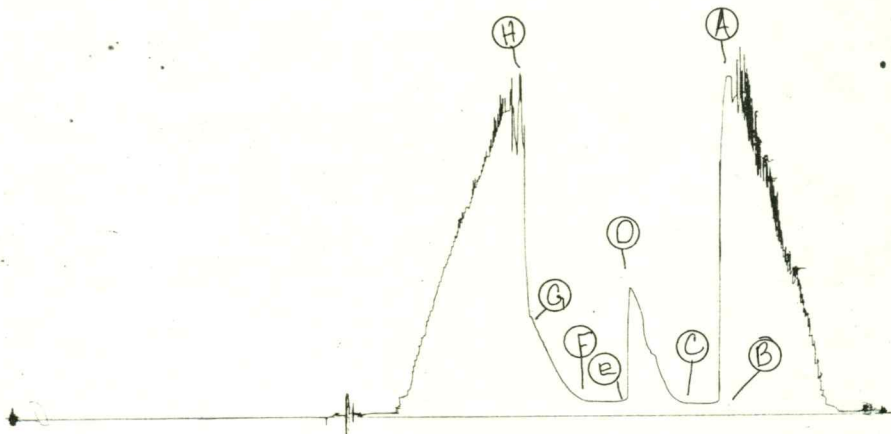
Date 5/20/80 Recorder No. 10266 Capacity 4650 Test Ticket No. 6231
 Clock No. - Elevation 1956 Kelly Bushing Location 3981 Ft.
 Well Temperature 121 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1923	P.S.I.	11:30P	M
B First Initial Flow Pressure	92	P.S.I.	30	Mins. 25 Mins.
C First Final Flow Pressure	73	P.S.I.	45	Mins. 42 Mins.
D Initial Closed-in Pressure	777	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	107	P.S.I.	45	Mins. 42 Mins.
F Second Final Flow Pressure	92	P.S.I.		
G Final Closed-in Pressure	606	P.S.I.		
H Final Hydrostatic Mud	1914	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>5</u> Inc.		Breakdown: <u>14</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>14</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>92</u>	<u>0</u>	<u>73</u>	<u>0</u>	<u>107</u>	<u>0</u>	<u>92</u>
P 2 <u>5</u>	<u>70</u>	<u>3</u>	<u>80</u>	<u>5</u>	<u>88</u>	<u>3</u>	<u>99</u>
P 3 <u>10</u>	<u>69</u>	<u>6</u>	<u>93</u>	<u>10</u>	<u>84</u>	<u>6</u>	<u>110</u>
P 4 <u>15</u>	<u>70</u>	<u>9</u>	<u>110</u>	<u>15</u>	<u>85</u>	<u>9</u>	<u>131</u>
P 5 <u>20</u>	<u>71</u>	<u>12</u>	<u>141</u>	<u>20</u>	<u>86</u>	<u>12</u>	<u>155</u>
P 6 <u>25</u>	<u>73</u>	<u>15</u>	<u>197</u>	<u>25</u>	<u>88</u>	<u>15</u>	<u>185</u>
P 7 <u>30</u>		<u>18</u>	<u>250</u>	<u>30</u>	<u>92</u>	<u>18</u>	<u>216</u>
P 8		<u>21</u>	<u>331</u>			<u>21</u>	<u>261</u>
P 9		<u>24</u>	<u>373</u>			<u>24</u>	<u>309</u>
P10		<u>27</u>	<u>411</u>			<u>27</u>	<u>360</u>
P11		<u>30</u>	<u>493</u>			<u>30</u>	<u>415</u>
P12		<u>33</u>	<u>641</u>			<u>33</u>	<u>465</u>
P13		<u>36</u>	<u>708</u>			<u>36</u>	<u>521</u>
P14		<u>39</u>	<u>758</u>			<u>39</u>	<u>582</u>
P15		<u>42</u>	<u>777</u>			<u>42</u>	<u>606</u>
P16						<u>45</u>	
P17							
P18							
P19							
P20							

TK#6231
I



W. L. Kirkman, Inc.

Strait #1

Company ----- Lease & Well No. -----
 Elevation ----- Formation Viola Effective Pay ----- Ft. Ticket No. 6099
 Date 5.24.89 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
 Test Approved by K. A. Deutsch Western Representative Stuart Stover

Formation Test No. 13 Interval Tested from 4272 ft. to 4319 ft. Total Depth 4319 ft.
 Packer Depth 4268 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4272 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4282 ft. Recorder Number 11018 Cap. 4425
 Bottom Recorder Depth (Outside) 4285 ft. Recorder Number 11019 Cap. 4500
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor H-30 Drilling Rig #3 Drill Collar Length 210 I. D. 2 1/4 in.
 Mud Type premix-chemical Viscosity 49 Weight Pipe Length - I. D. - in.
 Weight 9.0 Water Loss 19.6 cc. Drill Pipe Length 4021 I. D. 4.0 in.
 Chlorides 18,000 P.P.M. Test Tool Length 21 ft. Tool Size 3 1/2 in.
 Jars: Make - Serial Number - Anchor Length 47 ft. Size 4 1/2 in.
 Did Well Flow? - Reversed Out - Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Good throughout test.

Recovered 1600 ft. of salt water - gas cut

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Chlorides 78,000 ppm

Time Set Packer(s) 12:00 ~~P.M.~~ A.M. Time Started Off Bottom 3:00 ~~P.M.~~ A.M. Maximum Temperature 113°
 Initial Hydrostatic Pressure (A) 2133 P.S.I.
 Initial Flow Period Minutes 30 (B) 171 P.S.I. to (C) 562 P.S.I.
 Initial Closed In Period Minutes 57 (D) 946 P.S.I.
 Final Flow Period Minutes 30 (E) 617 P.S.I. to (F) 810 P.S.I.
 Final Closed In Period Minutes 60 (G) 946 P.S.I.
 Final Hydrostatic Pressure (H) 2042 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-24-80 Recorder No. 11018 Capacity 4425 Test Ticket No. 6099
 Location 4282 Ft. Clock No. ---- Elevation ----- Well Temperature 113 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2133	P.S.I.	12:00 A. M.	
B First Initial Flow Pressure	171	P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	562	P.S.I.	60 Mins.	57 Mins.
D Initial Closed-in Pressure	946	P.S.I.	30 Mins.	30 Mins.
E Second Initial Flow Pressure	617	P.S.I.	60 Mins.	60 Mins.
F Second Final Flow Pressure	810	P.S.I.		
G Final Closed-in Pressure	946	P.S.I.		
H Final Hydrostatic Mud	2042	P.S.I.		

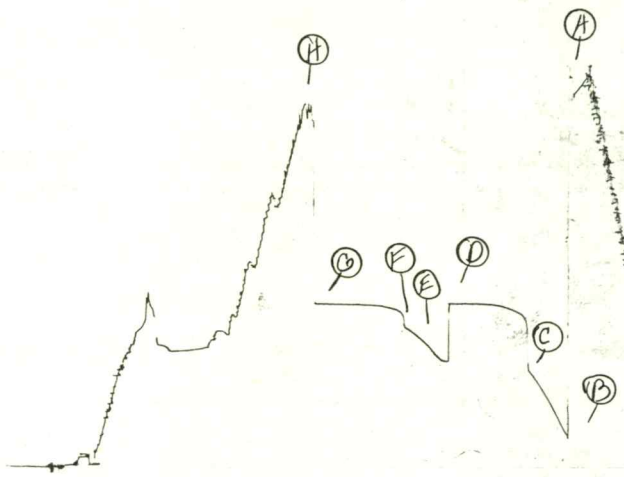
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>19</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>20</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>171</u>	<u>0</u>	<u>562</u>	<u>0</u>	<u>617</u>	<u>0</u>	<u>810</u>
P 2 <u>5</u>	<u>247</u>	<u>3</u>	<u>876</u>	<u>5</u>	<u>628</u>	<u>3</u>	<u>903</u>
P 3 <u>10</u>	<u>327</u>	<u>6</u>	<u>892</u>	<u>10</u>	<u>662</u>	<u>6</u>	<u>911</u>
P 4 <u>15</u>	<u>404</u>	<u>9</u>	<u>905</u>	<u>15</u>	<u>710</u>	<u>9</u>	<u>918</u>
P 5 <u>20</u>	<u>467</u>	<u>12</u>	<u>916</u>	<u>20</u>	<u>744</u>	<u>12</u>	<u>925</u>
P 6 <u>25</u>	<u>527</u>	<u>15</u>	<u>925</u>	<u>25</u>	<u>778</u>	<u>15</u>	<u>931</u>
P 7 <u>30</u>	<u>562</u>	<u>18</u>	<u>929</u>	<u>30</u>	<u>810</u>	<u>18</u>	<u>936</u>
P 8 _____		<u>21</u>	<u>933</u>			<u>21</u>	<u>937</u>
P 9 _____		<u>24</u>	<u>936</u>			<u>24</u>	<u>938</u>
P10 _____		<u>27</u>	<u>939</u>			<u>27</u>	<u>938</u>
P11 _____		<u>30</u>	<u>942</u>			<u>30</u>	<u>939</u>
P12 _____		<u>33</u>	<u>943</u>			<u>33</u>	<u>939</u>
P13 _____		<u>36</u>	<u>944</u>			<u>36</u>	<u>940</u>
P14 _____		<u>39</u>	<u>945</u>			<u>39</u>	<u>940</u>
P15 _____		<u>42</u>	<u>945</u>			<u>42</u>	<u>941</u>
P16 _____		<u>45</u>	<u>946</u>			<u>45</u>	<u>942</u>
P17 _____		<u>48</u>	<u>946</u>			<u>48</u>	<u>942</u>
P18 _____		<u>51</u>	<u>946</u>			<u>51</u>	<u>943</u>
P19 _____		<u>54</u>	<u>946</u>			<u>54</u>	<u>944</u>
P20 _____		<u>57</u>	<u>946</u>			<u>57</u>	<u>945</u>
						<u>60</u>	<u>946</u>

010 - 6099

D57-13

TKT #6099
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Company W. L. Kirkman, Inc. Lease & Well No. Strait #1
Elevation ---- Formation Simpson Effective Pay ---- Ft. Ticket No. 6100
Date 5/24/80 Sec. 28 Twp. 26S Range 13W County Pratt State Kansas
Test Approved by Kurt A. Suetsch Western Representative Stuart Stover
Formation Test No. 14 Interval Tested from 4327 ft. to 4358 ft. Total Depth 4358 ft.
Packer Depth 4322 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 4327 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4332 ft. Recorder Number 11018 Cap. 4425
Bottom Recorder Depth (Outside) 4335 ft. Recorder Number 11019 Cap. 4500
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor H-30 Drilling Rig #3 Drill Collar Length 210 I. D. 2 1/4 in.
Mud Type premix-chemical Viscosity 46 Weight Pipe Length - I. D. - in.
Weight 8.7 Water Loss 24.0 cc. Drill Pipe Length 4096 I. D. 4.0 in.
Chlorides 16,000 P.P.M. Test Tool Length 21 ft. Tool Size 3 1/2 in.
Jars: Make - Serial Number - Anchor Length 31 ft. Size 4 1/2 in.
Did Well Flow? - Reversed Out - Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Weak increasing to fair.

Recovered 240 ft. of slightly oil specked muddy water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Chlorides 47,000 ppm

Time Set Packer(s) 6:45 ~~A.M.~~ P.M. Time Started Off Bottom 10:45 ~~A.M.~~ P.M. Maximum Temperature 112°
Initial Hydrostatic Pressure 2233 P.S.I.
Initial Flow Period 80 Minutes (B) 84 P.S.I. to (C) 84 P.S.I.
Initial Closed In Period 987 Minutes (D) 987 P.S.I.
Final Flow Period 127 Minutes (E) 138 P.S.I. to (F) 138 P.S.I.
Final Closed In Period 980 Minutes (G) 980 P.S.I.
Final Hydrostatic Pressure 2022 (H) 2022 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5-24-80 Test Ticket No. 6100

Recorder No. 11018 Capacity 4425 Location 4332 Ft.

Clock No. --- Elevation ----- Well Temperature 112 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud <u>2233</u> P.S.I.	Open Tool	6:45 P M	
B First Initial Flow Pressure <u>80</u> P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure <u>84</u> P.S.I.	Initial Closed-in Pressure	60 Mins.	57 Mins.
D Initial Closed-in Pressure <u>987</u> P.S.I.	Second Flow Pressure	60 Mins.	55 Mins.
E Second Initial Flow Pressure <u>127</u> P.S.I.	Final Closed-in Pressure	90 Mins.	90 Mins.
F Second Final Flow Pressure <u>138</u> P.S.I.			
G Final Closed-in Pressure <u>980</u> P.S.I.			
H Final Hydrostatic Mud <u>2022</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>19</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>30</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>80</u>	<u>0</u>	<u>84</u>	<u>0</u>	<u>127</u>	<u>0</u>	<u>138</u>
P 2 <u>5</u>	<u>83</u>	<u>3</u>	<u>162</u>	<u>5</u>	<u>120</u>	<u>3</u>	<u>147</u>
P 3 <u>10</u>	<u>71</u>	<u>6</u>	<u>520</u>	<u>10</u>	<u>111</u>	<u>6</u>	<u>160</u>
P 4 <u>15</u>	<u>71</u>	<u>9</u>	<u>721</u>	<u>15</u>	<u>111</u>	<u>9</u>	<u>169</u>
P 5 <u>20</u>	<u>75</u>	<u>12</u>	<u>790</u>	<u>20</u>	<u>118</u>	<u>12</u>	<u>176</u>
P 6 <u>25</u>	<u>80</u>	<u>15</u>	<u>832</u>	<u>25</u>	<u>120</u>	<u>15</u>	<u>180</u>
P 7 <u>30</u>	<u>84</u>	<u>18</u>	<u>867</u>	<u>30</u>	<u>124</u>	<u>18</u>	<u>182</u>
P 8		<u>21</u>	<u>889</u>	<u>35</u>	<u>127</u>	<u>21</u>	<u>186</u>
P 9		<u>24</u>	<u>907</u>	<u>40</u>	<u>130</u>	<u>24</u>	<u>189</u>
P10		<u>27</u>	<u>923</u>	<u>45</u>	<u>133</u>	<u>27</u>	<u>191</u>
P11		<u>30</u>	<u>936</u>	<u>50</u>	<u>135</u>	<u>30</u>	<u>444</u>
P12		<u>33</u>	<u>944</u>	<u>55</u>	<u>138</u>	<u>33</u>	<u>679</u>
P13		<u>36</u>	<u>952</u>			<u>36</u>	<u>768</u>
P14		<u>39</u>	<u>960</u>			<u>39</u>	<u>810</u>
P15		<u>42</u>	<u>968</u>			<u>42</u>	<u>845</u>
P16		<u>45</u>	<u>976</u>			<u>45</u>	<u>867</u>
P17		<u>48</u>	<u>979</u>			<u>48</u>	<u>879</u>
P18		<u>51</u>	<u>982</u>			<u>51</u>	<u>891</u>
P19		<u>54</u>	<u>985</u>			<u>54</u>	<u>903</u>
P20		<u>57</u>	<u>987</u>			<u>57</u>	<u>915</u>
						<u>60</u>	<u>927</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 5-24-80 Test Ticket No. 6100
 Recorder No. 11018 Capacity 4425 Location 4332 Ft.
 Clock No. --- Elevation ----- Well Temperature 112 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud <u>2233</u> P.S.I.	Open Tool	6:45 P M	
B First Initial Flow Pressure <u>80</u> P.S.I.	First Flow Pressure	30 Mins	30 Mins
C First Final Flow Pressure <u>84</u> P.S.I.	Initial Closed-in Pressure	60 Mins	57 Mins
D Initial Closed-in Pressure <u>987</u> P.S.I.	Second Flow Pressure	60 Mins	55 Mins
E Second Initial Flow Pressure <u>127</u> P.S.I.	Final Closed-in Pressure	90 Mins	90 Mins
F Second Final Flow Pressure <u>138</u> P.S.I.			
G Final Closed-in Pressure <u>980</u> P.S.I.			
H Final Hydrostatic Mud <u>2022</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>19</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>30</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	934
P 2						66	941
P 3						69	948
P 4						72	955
P 5						75	962
P 6						78	966
P 7						81	970
P 8						84	974
P 9						87	977
P10						90	980
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

11018-6100

DST #14

TR4# 6100
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