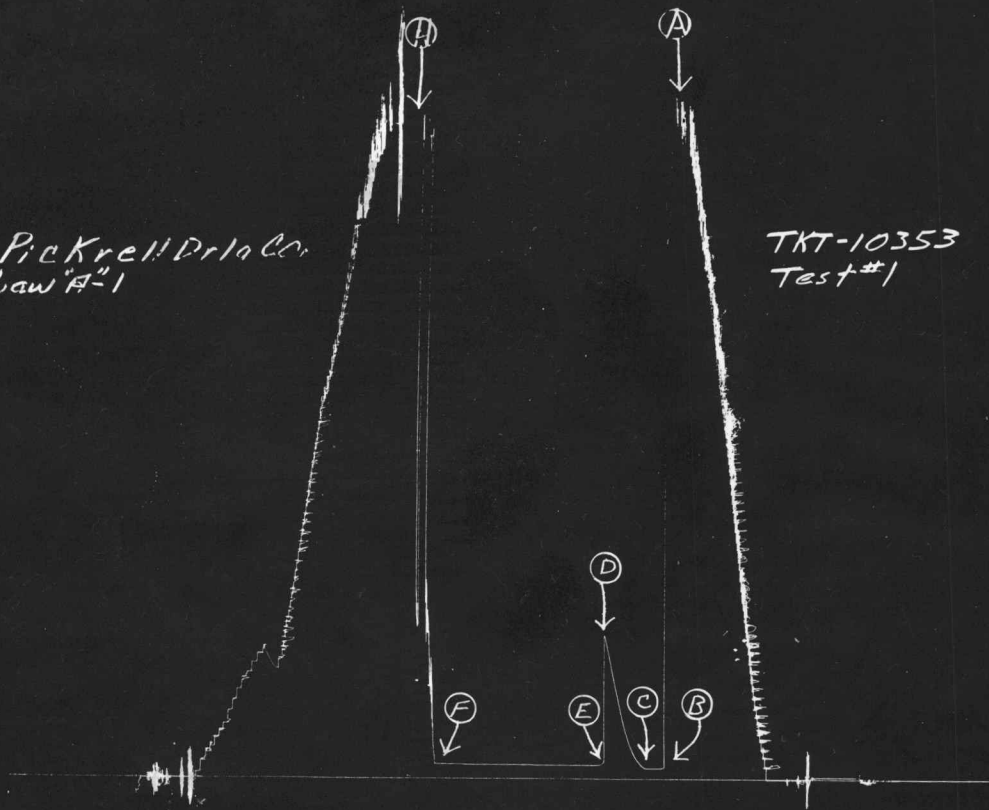


Pickrell Drilling Co.  
LAW "A"-1

TKT-10353  
Test #1





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

Company Pickrell Drlg. Co. Lease & Well No. Law A#1  
Elevation 2367 Derrick Floor Formation Mississippi Effective Pay 18 Ft. Ticket No. 10353  
Date 11-15-67 Sec. 24 Twp. 23 Range 23 County Hodgeman State Kansas  
Test Approved by Ralph W. Ruwe Western Representative Guy M. Knipe  
Formation Test No. 1 O.K.  Misrun Interval Tested From 4564' to 4620' Total Depth 4620'  
Size Main Hole 7 7/8 Rat Hole Conv.  B.T.  Damaged Yes  No Conv.  B.T. Damaged Yes  No  
Packer Depth 4559 Ft. Size 6 3/4 Packer Depth 4564 Ft. Size 6 3/4  
Straddle Yes  No  Conv.  B.T. Damaged Yes  No

Tool Size 5 1/2" OD Tool Jt. Size 4 1/2" FH Anchor Length 56 Ft. Size 30' 26'-5 1/2" Perf.  
RECORDERS Depth 4576 Ft. Clock No. 6806 Depth 4579 Ft. Clock No. 8476  
Top Make Kuster Cap. 3150 No. 1562 Inside Outside Bottom Make Kuster Cap. 3150 No. 1563 Inside Outside  
Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside  
Top Make Cap. No. Inside Outside Bottom Make Cap. No. Inside Outside

Time Set Packer 8:47 P. M  
Tool Open I.F.P. From 8:50 M. to 9:00 P. M. Hr. 10 Min. From (B) 28 P.S.I. To (C) 34 P.S.I.  
Tool Closed I.C.I.P. From 9:00 M. to 9:30 P. M. Hr. 30 Min. (D) 538 P.S.I.  
Tool Open F.F.P. From 9:30 M. to 11:25P. M. Hr. 1 Hr. 55 Min. From (E) 39 P.S.I. To (F) 56 P.S.I.  
Tool Closed F.C.I.P. From See M. to Remarks M. Hr. Min. (G) --- P.S.I.  
Initial Hydrostatic Pressure (A) 2471 P.S.I. Final Hydrostatic Pressure (H) 2455 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. Time Description of Flow  
INFORMATION \_\_\_\_\_ M. \_\_\_\_\_  
\_\_\_\_\_ M. \_\_\_\_\_  
\_\_\_\_\_ M. \_\_\_\_\_

BLOW Weak 2 inch blow throughout flow period Bottom Choke Size 3/4 In.  
Did Well Flow Yes  No Recovery Total Ft. 990 feet mud with few spots oil (see remarks)

Reversed Out Yes  No Mud Type starch Viscosity 44 Weight 9.7 Water Loss 12.6 cc. Maximum Temp. 116 °F  
EXTRA EQUIPMENT: Dual Packers yes Safety Joint \_\_\_\_\_ Jars: Size \_\_\_\_\_ Make \_\_\_\_\_ Ser. No. \_\_\_\_\_  
Type Circ. Sub. plug Did Tool Plug? no Where? \_\_\_\_\_ Did Packer Hold? no  
Length Drill Pipe 3618 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 955 ft. I.D. Weight Pipe 2.8 in. Length Drill Collars \_\_\_\_\_ ft.  
I. D. Drill Collars \_\_\_\_\_ in. Length D.S.T. Tool 47 ft.

Remarks Packer failed after 1 hour and 55 minutes of second flow period. Tried to reset - failed again.

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

Date 11-15-67 Test Ticket No. 10353  
 Recorder No. 1562 Capacity 3150 Location 4576 Ft.  
 Clock No. 6806 Elevation 2367 Derrick Floor Well Temperature 116 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<b>2471</b>	P.S.I.	<b>8:47 P.</b>	M
B First Initial Flow Pressure	<b>28</b>	P.S.I.	<b>10</b> Mins.	<b>10</b> Mins.
C First Final Flow Pressure	<b>34</b>	P.S.I.	<b>30</b> Mins.	<b>30</b> Mins.
D Initial Closed-in Pressure	<b>538</b>	P.S.I.	<b>115</b> Mins.	<b>114</b> Mins.
E Second Initial Flow Pressure	<b>39</b>	P.S.I.	<b>--</b> Mins.	<b>--</b> Mins.
F Second Final Flow Pressure	<b>56</b>	P.S.I.		
G Final Closed-in Pressure	<b>----</b>	P.S.I.		
H Final Hydrostatic Mud	<b>2455</b>	P.S.I.		

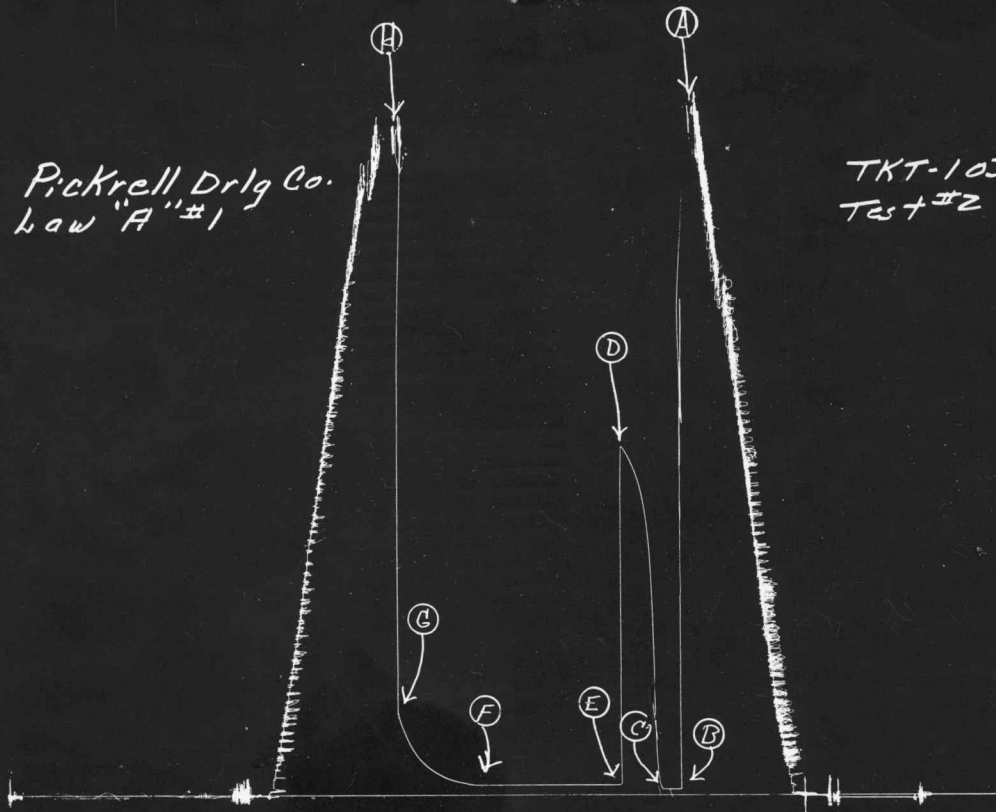
**PRESSURE BREAKDOWN**

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<b>0</b>	<b>28</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>39</b>	
P 2	<b>5</b>	<b>31</b>	<b>3</b>	<b>48</b>	<b>5</b>	<b>40</b>	
P 3	<b>10</b>	<b>34</b>	<b>6</b>	<b>67</b>	<b>10</b>	<b>42</b>	
P 4			<b>9</b>	<b>92</b>	<b>15</b>	<b>43</b>	
P 5			<b>12</b>	<b>128</b>	<b>20</b>	<b>45</b>	
P 6			<b>15</b>	<b>172</b>	<b>25</b>	<b>46</b>	
P 7			<b>18</b>	<b>237</b>	<b>30</b>	<b>48</b>	
P 8			<b>21</b>	<b>307</b>	<b>35</b>	<b>48</b>	
P 9			<b>24</b>	<b>379</b>	<b>40</b>	<b>48</b>	
P10			<b>27</b>	<b>455</b>	<b>45</b>	<b>48</b>	
P11			<b>30</b>	<b>538</b>	<b>50</b>	<b>49</b>	
P12					<b>55</b>	<b>50</b>	
P13					<b>60</b>	<b>51</b>	
P14					<b>65</b>	<b>52</b>	
P15					<b>70</b>	<b>53</b>	
P16					<b>75</b>	<b>54</b>	
P17					<b>80</b>	<b>54</b>	
P18					<b>85</b>	<b>55</b>	
P19					<b>90</b>	<b>56</b>	
P20					<b>95</b>	<b>56</b>	
					<b>100</b>	<b>56</b>	
					<b>105</b>	<b>56</b>	
					<b>110</b>	<b>56</b>	
					<b>114</b>	<b>56</b>	

*Packer gave way  
114 minutes of second  
flow period.*

Pickrell Drlg Co.  
Law "A" #1

TKT-10354  
Test #2





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

Company Pickrell Drlg. Co. Lease & Well No. Law A#1  
Elevation 2307 Derrick Floor Formation Mississippi Effective Pay 10 Ft. Ticket No. 10354  
Date 11-15-67 Sec. 24 Twp. 23 Range 23 County Hodgeman State Kansas  
Test Approved by Ralph W. Ruwe Western Representative Guy M. Knipe

Formation Test No. 2 O.K.  Misrun Interval Tested From 4620' to 4630' Total Depth 4630'  
Size Main Hole 7 7/8 Rat Hole Conv. B.T.  Damaged Yes  No Conv.  B.T. Damaged Yes  No  
Packer Depth 4615 Ft. Size 6 3/4 Packer Depth 4620 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 10 Ft. Size 5 1/2" OD  
RECORDERS Depth 4623 Ft. Clock No. 6806 Depth 4626 Ft. Clock No. 8476  
Top Make Kuster Cap. 3150 No. 1562 Inside Bottom Make Kuster Cap. 3150 No. 1563 Outside  
Below Straddle: Depth Clock No. Inside Depth Ft. Clock No. Outside  
Top Make Cap. No. Inside Bottom Make Cap. No. Outside

Time Set Packer 11:57 A. M  
Tool Open I.F.P. From 12:00 M. to 12:10 P.M. Hr. 10 Min. From (B) 9 P.S.I. To (C) 10 P.S.I.  
Tool Closed I.C.I.P. From 12:10 M. to 12:40 P.M. Hr. 30 Min. (D) 1286 P.S.I.  
Tool Open F.F.P. From 12:40 M. to 2:10 P. M. 1 Hr. 30 Min. From (E) 16 P.S.I. To (F) 29 P.S.I.  
Tool Closed F.C.I.P. From 2:10 M. to 3:10 P. M. 1 Hr. -- Min. (G) 305 P.S.I.  
Initial Hydrostatic Pressure (A) 2451 P.S.I. Final Hydrostatic Pressure (H) 2436 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. Time Description of Flow  
INFORMATION \_\_\_\_\_ M. \_\_\_\_\_  
\_\_\_\_\_ M. \_\_\_\_\_  
\_\_\_\_\_ M. \_\_\_\_\_

BLOW Weak 1/2 inch blow for 58 minutes and didd. Bottom Choke Size 3/4 In.  
Did Well Flow Yes  No Recovery Total Ft. 90 feet gas in pipe; 2 feet free oil; 10 feet light oil  
cut mud; 20 feet mud.

Reversed Out Yes  No Mud Type starch Viscosity 47 Weight 9.9 Water Loss 9 cc. Maximum Temp. 119 °F  
EXTRA EQUIPMENT: Dual Packers yes Safety Joint \_\_\_\_\_ Jars: Size \_\_\_\_\_ Make \_\_\_\_\_ Ser. No. \_\_\_\_\_  
Type Circ. Sub. plug Did Tool Plug? no Where? \_\_\_\_\_ Did Packer Hold? yes  
Length Drill Pipe 3603 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 995 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars \_\_\_\_\_ ft.  
I. D. Drill Collars \_\_\_\_\_ in. Length D.S.T. Tool 32 ft.

Remarks

# WESTERN TESTING CO., INC.

## Pressure Data

Date 11-15-67 Test Ticket No. 10354  
 Recorder No. 1562 Capacity 3150 Location 4623 Ft.  
 Block No. 6806 Elevation 2307 Derrick Floor Well Temperature 119 °F

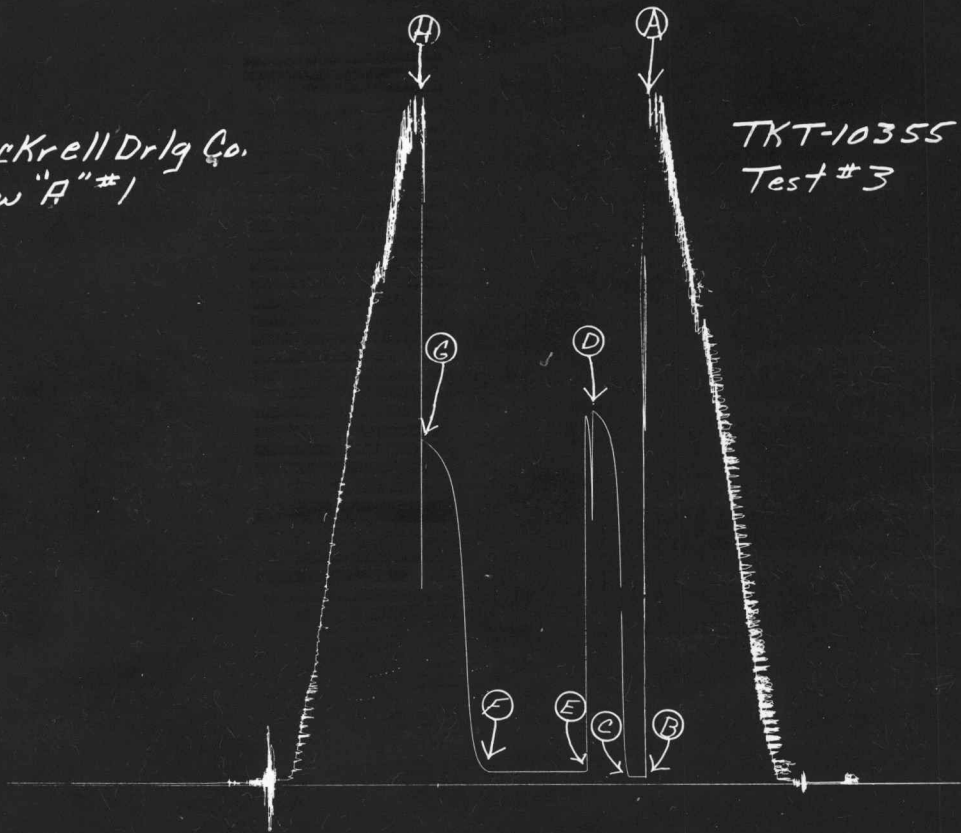
Point	Pressure		Opened Tool	Time Given	Time Computed
Initial Hydrostatic Mud	<u>2451</u>	P.S.I.		<u>11:57 A.</u>	
First Initial Flow Pressure	<u>9</u>	P.S.I.	First Flow Pressure	<u>10</u> Mins.	<u>10</u> Mins.
First Final Flow Pressure	<u>10</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>29</u> Mins.
Initial Closed-in Pressure	<u>1286</u>	P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>90</u> Mins.
Second Initial Flow Pressure	<u>16</u>	P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
Second Final Flow Pressure	<u>29</u>	P.S.I.			
Final Closed-in Pressure	<u>305</u>	P.S.I.			
Final Hydrostatic Mud	<u>2436</u>	P.S.I.			

### PRESSURE BREAKDOWN

Point Mins.	First Flow Press.		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	<u>2</u>		<u>9</u>		<u>18</u>		<u>20</u>	
	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>2</u> Min.		final inc. of <u>--</u> Min.		final inc. of <u>--</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	<u>9</u>	<u>0</u>	<u>10</u>	<u>0</u>	<u>16</u>	<u>0</u>	<u>29</u>	
P 2	<u>9</u>	<u>3</u>	<u>36</u>	<u>3</u>	<u>16</u>	<u>3</u>	<u>31</u>	
P 3	<u>10</u>	<u>6</u>	<u>188</u>	<u>6</u>	<u>17</u>	<u>6</u>	<u>34</u>	
P 4		<u>9</u>	<u>769</u>	<u>9</u>	<u>18</u>	<u>9</u>	<u>37</u>	
P 5		<u>12</u>	<u>1044</u>	<u>12</u>	<u>18</u>	<u>12</u>	<u>42</u>	
P 6		<u>15</u>	<u>1131</u>	<u>15</u>	<u>19</u>	<u>15</u>	<u>47</u>	
P 7		<u>18</u>	<u>1191</u>	<u>18</u>	<u>20</u>	<u>18</u>	<u>51</u>	
P 8		<u>21</u>	<u>1225</u>	<u>21</u>	<u>21</u>	<u>21</u>	<u>57</u>	
P 9		<u>24</u>	<u>1256</u>	<u>24</u>	<u>22</u>	<u>24</u>	<u>64</u>	
P10		<u>27</u>	<u>1272</u>	<u>27</u>	<u>23</u>	<u>27</u>	<u>70</u>	
P11		<u>29</u>	<u>1286</u>	<u>29</u>	<u>23</u>	<u>30</u>	<u>78</u>	
P12					<u>25</u>	<u>33</u>	<u>86</u>	
P13					<u>26</u>	<u>36</u>	<u>97</u>	
P14					<u>26</u>	<u>39</u>	<u>109</u>	
P15					<u>27</u>	<u>42</u>	<u>125</u>	
P16					<u>27</u>	<u>45</u>	<u>141</u>	
P17					<u>27</u>	<u>48</u>	<u>163</u>	
P18					<u>28</u>	<u>51</u>	<u>187</u>	
P19					<u>29</u>	<u>54</u>	<u>220</u>	
P20						<u>57</u>	<u>264</u>	
						<u>60</u>	<u>305</u>	

Pickrell Drilg Co.  
Law "A" #1

TKT-10355  
Test #3





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

Company Pickrell Drlg. Co. Lease & Well No. Law A#1  
 Elevation 2307 Derrick Floor Formation Mississippi Effective Pay 8 Ft. Ticket No. 10355  
 Date 11-16-67 Sec. 24 Twp. 23 Range 23 County Hodgeman State Kansas  
 Test Approved by Ralph W. Ruwwe Western Representative Guy M. Knipe

Formation Test No. 3 O.K.  Misrun \_\_\_\_\_ Interval Tested From 4630' to 4638' Total Depth 4638'  
 Size Main Hole 7 7/8 Rat Hole \_\_\_\_\_ Conv. \_\_\_\_\_ B.T.  Damaged \_\_\_\_\_ Yes  No Conv.  B.T. \_\_\_\_\_ Damaged \_\_\_\_\_ Yes  No  
 Packer Depth 4625 Ft. Size 6 3/4 Packer Depth 4630 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 8 Ft. Size 5 1/2" OD

RECORDERS Depth 4622 Ft. Clock No. 6806 Depth 4634 Ft. Clock No. 8476  
 Top Make Kuster Cap. 3150 No. 1562 Inside Bottom Make Kuster Cap. 3150 No. 1563 Inside  
 Below Straddle: Depth \_\_\_\_\_ Clock No. \_\_\_\_\_ Inside Depth \_\_\_\_\_ Ft. Clock No. \_\_\_\_\_ Inside  
 Top Make \_\_\_\_\_ Cap. \_\_\_\_\_ No. \_\_\_\_\_ Outside Bottom Make \_\_\_\_\_ Cap. \_\_\_\_\_ No. \_\_\_\_\_ Outside

Time Set Packer 4:22 A. M  
 Tool Open I.F.P. From 4:25 M. to 4:35 A.M. Hr. 10 Min. From (B) 0 P.S.I. To (C) 3 P.S.I.  
 Tool Closed I.C.I.P. From 4:35 M. to 5:05 A.M. Hr. 30 Min. (D) 1356 P.S.I.  
 Tool Open F.F.P. From 5:05 M. to 6:05 A.M. 1 Hr. -- Min. From (E) 9 P.S.I. To (F) 15 P.S.I.  
 Tool Closed F.C.I.P. From 6:05 M. to 6:55 A.M. Hr. 50 Min. (G) 1253 P.S.I.  
 Initial Hydrostatic Pressure (A) 2520 P.S.I. Final Hydrostatic Pressure (H) 2502 P.S.I.

SURFACE Size Choke 3/4 In. Max. Press. P.S.I. \_\_\_\_\_ Time \_\_\_\_\_ Description of Flow \_\_\_\_\_  
 INFORMATION \_\_\_\_\_ M. \_\_\_\_\_  
 \_\_\_\_\_ M. \_\_\_\_\_  
 \_\_\_\_\_ M. \_\_\_\_\_

BLOW Very weak blow for 40 minutes - died. Bottom Choke Size 3/4 In.  
 Did Well Flow \_\_\_\_\_ Yes  No \_\_\_\_\_ Recovery Total Ft. 10 feet very slightly oil cut mud.

Reversed Out \_\_\_\_\_ Yes  No \_\_\_\_\_ Mud Type starch Viscosity 47 Weight 9.9 Water Loss 9 cc. Maximum Temp. 119 °F  
 EXTRA EQUIPMENT: Dual Packers yes Safety Joint no Jars: Size \_\_\_\_\_ Make \_\_\_\_\_ Ser. No. \_\_\_\_\_  
 Type Circ. Sub. plug Did Tool Plug? no Where? \_\_\_\_\_ Did Packer Hold? yes  
 Length Drill Pipe 3608 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 995 ft. I.D. Weight Pipe 2.7 Length Drill Collars \_\_\_\_\_ ft.  
 I. D. Drill Collars \_\_\_\_\_ in. Length D.S.T. Tool 35 ft.

Remarks \_\_\_\_\_

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

**11-16-67**

Test Ticket No. **10355**

Date **11-16-67**

Recorder No. **1562** Capacity **3150**

Location **4622** Ft.

Clock No. **6866** Elevation **2307 Derrick Floor**

Well Temperature **119** °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<b>2520</b> P.S.I.	Opened Tool	<b>4:22 A.</b> M	
B First Initial Flow Pressure	<b>0</b> P.S.I.	First Flow Pressure	<b>10</b> Mins.	<b>10</b> Mins.
C First Final Flow Pressure	<b>3</b> P.S.I.	Initial Closed-in Pressure	<b>30</b> Mins.	<b>26</b> Mins.
D Initial Closed-in Pressure	<b>1356</b> P.S.I.	Second Flow Pressure	<b>60</b> Mins.	<b>60</b> Mins.
E Second Initial Flow Pressure	<b>9</b> P.S.I.	Final Closed-in Pressure	<b>50</b> Mins.	<b>49</b> Mins.
F Second Final Flow Pressure	<b>15</b> P.S.I.			
G Final Closed-in Pressure	<b>1253</b> P.S.I.			
H Final Hydrostatic Mud	<b>2502</b> P.S.I.			

**PRESSURE BREAKDOWN**

**First Flow Press.**  
Breakdown: **2** Inc.  
of **5** mins. and a  
final inc. of **--** Min.

**Initial Shut-In**  
Breakdown: **8** Inc.  
of **3** mins. and a  
final inc. of **2** Min.

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

**Final Shut-In**  
Breakdown: **16** Inc.  
of **3** mins. and a  
final inc. of **1** Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>15</b>
P 2	<b>5</b>	<b>3</b>	<b>25</b>	<b>5</b>	<b>9</b>	<b>3</b>	<b>20</b>
P 3	<b>10</b>	<b>6</b>	<b>291</b>	<b>10</b>	<b>10</b>	<b>6</b>	<b>28</b>
P 4		<b>9</b>	<b>1119</b>	<b>15</b>	<b>10</b>	<b>9</b>	<b>40</b>
P 5		<b>12</b>	<b>1250</b>	<b>20</b>	<b>10</b>	<b>12</b>	<b>59</b>
P 6		<b>15</b>	<b>1302</b>	<b>25</b>	<b>11</b>	<b>15</b>	<b>97</b>
P 7		<b>18</b>	<b>1326</b>	<b>30</b>	<b>12</b>	<b>18</b>	<b>193</b>
P 8		<b>21</b>	<b>1345</b>	<b>35</b>	<b>13</b>	<b>21</b>	<b>479</b>
P 9		<b>24</b>	<b>1350</b>	<b>40</b>	<b>13</b>	<b>24</b>	<b>918</b>
P10		<b>26</b>	<b>1356</b>	<b>45</b>	<b>14</b>	<b>27</b>	<b>1047</b>
P11				<b>50</b>	<b>14</b>	<b>30</b>	<b>1122</b>
P12				<b>55</b>	<b>15</b>	<b>33</b>	<b>1161</b>
P13				<b>60</b>	<b>15</b>	<b>36</b>	<b>1190</b>
P14						<b>39</b>	<b>1210</b>
P15						<b>42</b>	<b>1229</b>
P16						<b>45</b>	<b>1242</b>
P17						<b>48</b>	<b>1248</b>
P18						<b>49</b>	<b>1253</b>
P19							
P20							