



Home Office: Wichita, Kansas 67201  
 P. O. Box 1599 (316) 838-0601

Company Abercrombie & Moble C. Hoover Lease & Well No. Veil #1

Elevation -- Formation Lansing Effective Pay -- Ft. Ticket No. 418

Date 12/1/78 Sec. 9 Twp 13S Range 35W County Logan State Kansas

Test Approved by Western Representative Don Leiker

Formation Test No. 1 Interval Tested from 4078' ft. to 4113' ft. Total Depth 4113' ft.

Packer Depth 4073 ft. Size 6 3/4 in. Packer Depth 4078 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) 4104 ft. Recorder Number 2608 Cap. 4150 PSI

Bottom Recorder Depth (Outside) 4107 ft. Recorder Number 3473 Cap. 4000 PSI

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

Drilling Contractor Abercrombie #9 Drill Collar Length - I. D. - in.

Mud Type drispac Viscosity 42 Weight Pipe Length 471' I. D. 2.76 in.

Weight 9.2 Water Loss 25.6 cc. Drill Pipe Length 3382' I. D. 3.8 in.

Chlorides 12,000 P.P.M. Test Tool Length - in. Tool Size 5 1/2 in.

Jars: Make None Serial Number -- Anchor Length 35 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 FH in.

Blow: Weak blow. Dead in 30 minutes. Flushed tool in eight minutes of second opening. No blow.

Recovered 15 ft. of drilling mud

Recovered     ft. of    

Recovered     ft. of    

Recovered     ft. of    

Recovered     ft. of    

Recovered     ft. of    

Remarks: TIGHT HOLE

Time Set Packer(s) 5:12 AM P.M. Time Started Off Bottom 7:45 AM P.M. Maximum Temperature 117

Initial Hydrostatic Pressure 2110 P.S.I. (A)

Initial Flow Period 30 Minutes (B) 73 P.S.I. to (C) 58 P.S.I.

Initial Closed In Period 45 Minutes (D) 1199 P.S.I.

Final Flow Period 30 Minutes (E) 89 P.S.I. to (F) 62 P.S.I.

Final Closed In Period 45 Minutes (G) 1120 P.S.I.

Final Hydrostatic Pressure 2042 P.S.I. (H)

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

Date 12/1/78 Test Ticket No. 418  
 Recorder No. 2608 Capacity 4150 Location 4104 Ft.  
 Clock No. -- Elevation -- Well Temperature 117 °F

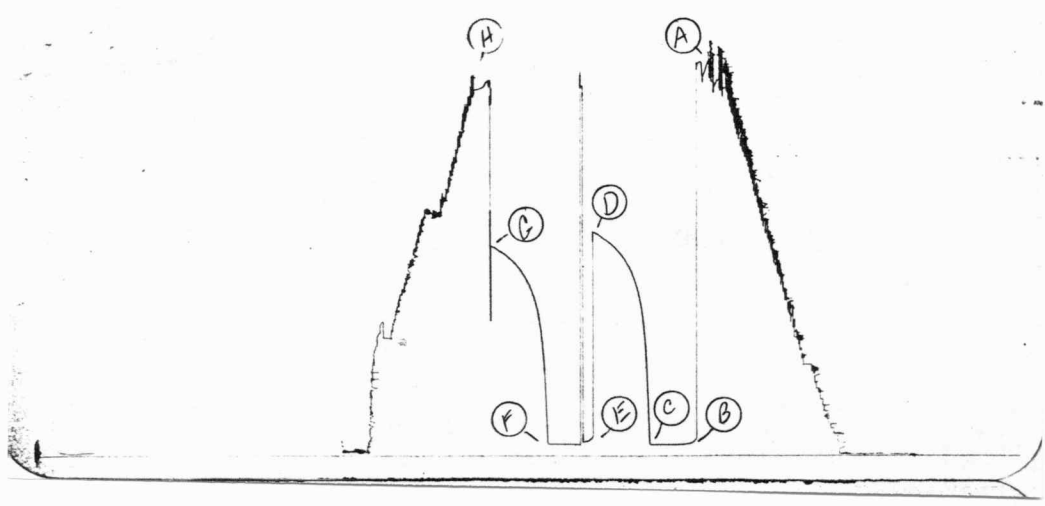
| Point                          | Pressure           |                            | Time Given      | Time Computed   |
|--------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2110</u> P.S.I. | Open Tool                  | <u>5:12P</u> M  |                 |
| B First Initial Flow Pressure  | <u>73</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>58</u> P.S.I.   | Initial Closed-in Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| D Initial Closed-in Pressure   | <u>1199</u> P.S.I. | Second Flow Pressure       | <u>30</u> Mins. | <u>30</u> Mins. |
| E Second Initial Flow Pressure | <u>89</u> P.S.I.   | Final Closed-in Pressure   | <u>45</u> Mins. | <u>45</u> Mins. |
| F Second Final Flow Pressure   | <u>62</u> P.S.I.   |                            |                 |                 |
| G Final Closed-in Pressure     | <u>1120</u> P.S.I. |                            |                 |                 |
| H Final Hydrostatic Mud        | <u>2042</u> P.S.I. |                            |                 |                 |

**PRESSURE BREAKDOWN**

| First Flow Pressure<br>Breakdown: <u>6</u> Inc.<br>of <u>5</u> mins. and a<br>final inc. of <u>0</u> Min. |           | Initial Shut-In<br>Breakdown: <u>15</u> Inc.<br>of <u>3</u> mins. and a<br>final inc. of <u>0</u> Min. |             | Second Flow Pressure<br>Breakdown: <u>6</u> Inc.<br>of <u>5</u> mins. and a<br>final inc. of <u>0</u> Min. |           | Final Shut-In<br>Breakdown: <u>15</u> Inc.<br>of <u>3</u> mins. and a<br>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>58</u>   | <u>0</u>   | <u>89</u> | <u>0</u>   | <u>62</u>   |
| P 2 <u>5</u>  | <u>64</u> | <u>3</u>   | <u>381</u>  | <u>5</u>   | <u>77</u> | <u>3</u>   | <u>464</u>  |
| P 3 <u>10</u>   | <u>60</u> | <u>6</u>   | <u>712</u>  | <u>10</u>  | <u>62</u> | <u>6</u>   | <u>671</u>  |
| P 4 <u>15</u>   | <u>58</u> | <u>9</u>   | <u>849</u>  | <u>15</u>  | <u>62</u> | <u>9</u>   | <u>781</u>  |
| P 5 <u>20</u>   | <u>58</u> | <u>12</u>  | <u>921</u>  | <u>20</u>  | <u>62</u> | <u>12</u>  | <u>859</u>  |
| P 6 <u>25</u>   | <u>58</u> | <u>15</u>  | <u>986</u>  | <u>25</u>  | <u>62</u> | <u>15</u>  | <u>915</u>  |
| P 7 <u>30</u>   | <u>58</u> | <u>18</u>  | <u>1023</u> | <u>30</u>  | <u>62</u> | <u>18</u>  | <u>959</u>  |
| P 8   |           | <u>21</u>  | <u>1058</u> |  |           | <u>21</u>  | <u>990</u>  |
| P 9   |           | <u>24</u>  | <u>1087</u> |  |           | <u>24</u>  | <u>1017</u> |
| P10   |           | <u>27</u>  | <u>1108</u> |  |           | <u>27</u>  | <u>1039</u> |
| P11   |           | <u>30</u>  | <u>1130</u> |  |           | <u>30</u>  | <u>1060</u> |
| P12   |           | <u>33</u>  | <u>1151</u> |  |           | <u>33</u>  | <u>1077</u> |
| P13   |           | <u>36</u>  | <u>1164</u> |  |           | <u>36</u>  | <u>1091</u> |
| P14   |           | <u>39</u>  | <u>1176</u> |  |           | <u>39</u>  | <u>1106</u> |
| P15   |           | <u>42</u>  | <u>1190</u> |  |           | <u>42</u>  | <u>1116</u> |
| P16   |           | <u>45</u>  | <u>1199</u> |  |           | <u>45</u>  | <u>1122</u> |
| P17   |           |  |             |  |           |  |             |
| P18   |           |  |             |  |           |  |             |
| P19   |           |  |             |  |           |  |             |
| P20   |           |  |             |  |           |  |             |

2608

Test # 418  
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This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |     |
|--|---------------|----------------|-----|
|  | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2098          | 2110           | PSI |
| (B) First Initial Flow Pressure .....  | 62            | 73             | PSI |
| (C) First Final Flow Pressure .....    | 62            | 58             | PSI |
| (D) Initial Closed-in Pressure .....   | 1193          | 1199           | PSI |
| (E) Second Initial Flow Pressure ..... | 73            | 89             | PSI |
| (F) Second Final Flow Pressure .....   | 73            | 62             | PSI |
| (G) Final Closed-in Pressure .....     | 1120          | 1120           | PSI |
| (H) Final Hydrostatic Mud .....        | 2077          | 2042           | PSI |



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Veil #1

Company Abercrombie & Moble C. Hoover Lease & Well No. \_\_\_\_\_

Elevation -- Formation Lansing Effective Pay -- Ft. Ticket No. 419

Date 12/2/78 Sec. 9 Twp. 13S Range 35W County Logan State Kansas

Test Approved by \_\_\_\_\_ Western Representative Don Leiker

Formation Test No. 2 Interval Tested from 4132' ft. to 4172' ft. Total Depth 4172' ft.

Packer Depth 4127 ft. Size 6 3/4 in. Packer Depth 4132 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) 4165 ft. Recorder Number 2608 Cap. 4150 PSI

Bottom Recorder Depth (Outside) 4168 ft. Recorder Number 3473 Cap. 4000 PSI

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

Drilling Contractor Abercrombie #9 Drill Collar Length -- I. D. -- in.

Mud Type drispac Viscosity 90 Weight Pipe Length 471 I. D. 2.76 in.

Weight 9.2 Water Loss 10.4 cc. Drill Pipe Length 3413 I. D. 3.8 in.

Chlorides 10,000 P.P.M. Test Tool Length \_\_\_\_\_ in. Tool Size 5 1/2 in.

Jars: Make None 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 FH in.

Blow: Weak steady blow throughout test. (1" under surface)

Recovered 210 ft. of muddy water with a few spots of heavy oil in top of tool.

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: \_\_\_\_\_

Time Set Packer(s) 3:27 ~~AM~~ P.M. Time Started Off Bottom 7:15 ~~AM~~ P.M. Maximum Temperature 119

Initial Hydrostatic Pressure ..... (A) 2083 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 69 P.S.I. to (C) 60 P.S.I.

Initial Closed In Period ..... Minutes 45 (D) 1327 P.S.I.

Final Flow Period ..... Minutes 90 (E) 106 P.S.I. to (F) 135 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 1298 P.S.I.

Final Hydrostatic Pressure ..... (H) 2052 P.S.I.

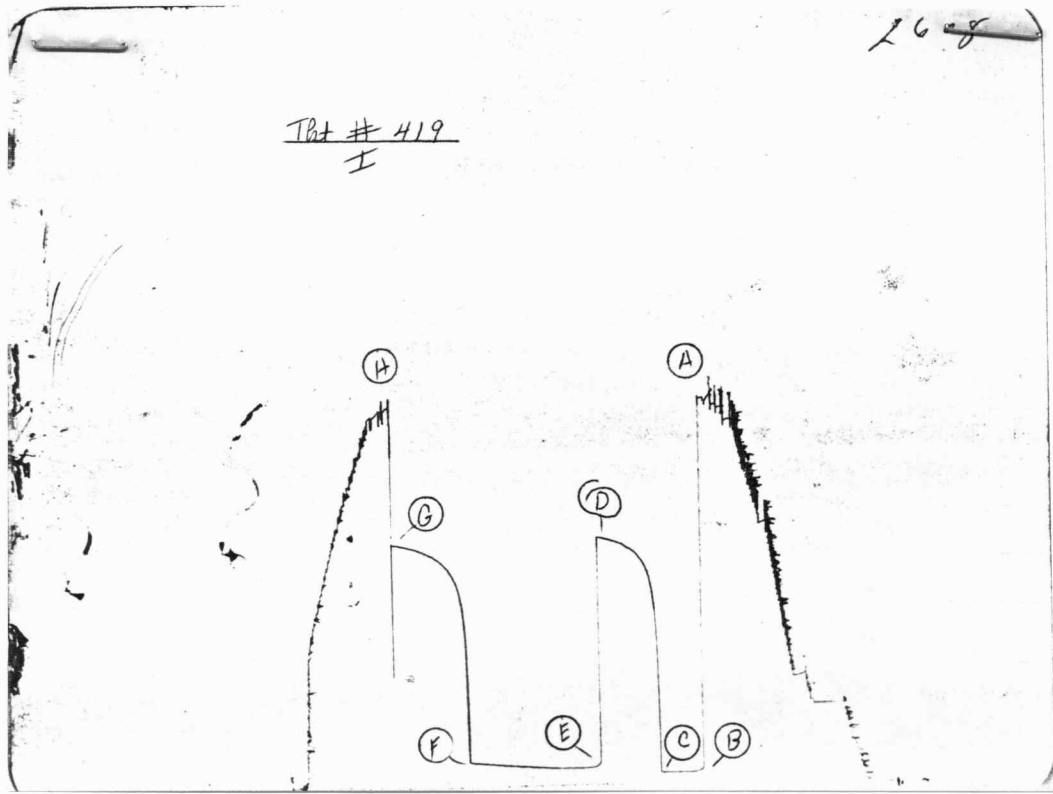
**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 12/2/78 Test Ticket No. 419  
 Recorder No. 2608 Capacity 4150 Location 4165 Ft.  
 Clock No. -- Elevation -- Well Temperature 119 °F

| Point                          | Pressure           |                            | Time Given      | Time Computed   |
|--------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2083</u> P.S.I. | Open Tool                  | <u>3:27P</u>    | <u>M</u>        |
| B First Initial Flow Pressure  | <u>69</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>60</u> P.S.I.   | Initial Closed-in Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| D Initial Closed-in Pressure   | <u>1327</u> P.S.I. | Second Flow Pressure       | <u>90</u> Mins. | <u>90</u> Mins. |
| E Second Initial Flow Pressure | <u>106</u> P.S.I.  | Final Closed-in Pressure   | <u>60</u> Mins. | <u>60</u> Mins. |
| F Second Final Flow Pressure   | <u>135</u> P.S.I.  |                            |                 |                 |
| G Final Closed-in Pressure     | <u>1298</u> P.S.I. |                            |                 |                 |
| H Final Hydrostatic Mud        | <u>2052</u> 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. |
|               | 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>69</u>                   | <u>0</u>      | <u>60</u>                   | <u>0</u>      | <u>106</u>                  | <u>0</u>      | <u>135</u>                  |      |
| P 2 <u>5</u>  | <u>64</u>                   | <u>3</u>      | <u>702</u>                  | <u>5</u>      | <u>96</u>                   | <u>3</u>      | <u>830</u>                  |      |
| P 3 <u>10</u> | <u>60</u>                   | <u>6</u>      | <u>1004</u>                 | <u>10</u>     | <u>92</u>                   | <u>6</u>      | <u>1035</u>                 |      |
| P 4 <u>15</u> | <u>60</u>                   | <u>9</u>      | <u>1122</u>                 | <u>15</u>     | <u>92</u>                   | <u>9</u>      | <u>1101</u>                 |      |
| P 5 <u>20</u> | <u>60</u>                   | <u>12</u>     | <u>1176</u>                 | <u>20</u>     | <u>92</u>                   | <u>12</u>     | <u>1139</u>                 |      |
| P 6 <u>25</u> | <u>60</u>                   | <u>15</u>     | <u>1211</u>                 | <u>25</u>     | <u>92</u>                   | <u>15</u>     | <u>1172</u>                 |      |
| P 7 <u>30</u> | <u>60</u>                   | <u>18</u>     | <u>1238</u>                 | <u>30</u>     | <u>92</u>                   | <u>18</u>     | <u>1195</u>                 |      |
| P 8           |                             | <u>21</u>     | <u>1259</u>                 | <u>35</u>     | <u>96</u>                   | <u>21</u>     | <u>1213</u>                 |      |
| P 9           |                             | <u>24</u>     | <u>1273</u>                 | <u>40</u>     | <u>96</u>                   | <u>24</u>     | <u>1228</u>                 |      |
| P10           |                             | <u>27</u>     | <u>1286</u>                 | <u>45</u>     | <u>100</u>                  | <u>27</u>     | <u>1240</u>                 |      |
| P11           |                             | <u>30</u>     | <u>1296</u>                 | <u>50</u>     | <u>103</u>                  | <u>30</u>     | <u>1250</u>                 |      |
| P12           |                             | <u>33</u>     | <u>1304</u>                 | <u>55</u>     | <u>106</u>                  | <u>33</u>     | <u>1259</u>                 |      |
| P13           |                             | <u>36</u>     | <u>1309</u>                 | <u>60</u>     | <u>108</u>                  | <u>36</u>     | <u>1267</u>                 |      |
| P14           |                             | <u>39</u>     | <u>1315</u>                 | <u>65</u>     | <u>112</u>                  | <u>39</u>     | <u>1271</u>                 |      |
| P15           |                             | <u>42</u>     | <u>1321</u>                 | <u>70</u>     | <u>114</u>                  | <u>42</u>     | <u>1275</u>                 |      |
| P16           |                             | <u>45</u>     | <u>1327</u>                 | <u>75</u>     | <u>119</u>                  | <u>45</u>     | <u>1278</u>                 |      |
| P17           |                             |               |                             | <u>80</u>     | <u>125</u>                  | <u>48</u>     | <u>1282</u>                 |      |
| P18           |                             |               |                             | <u>85</u>     | <u>130</u>                  | <u>51</u>     | <u>1286</u>                 |      |
| P19           |                             |               |                             | <u>90</u>     | <u>135</u>                  | <u>54</u>     | <u>1290</u>                 |      |
| P20           |                             |               |                             |               |                             | <u>57</u>     | <u>1294</u>                 |      |



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |     |
|--|---------------|----------------|-----|
|  | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2077          | 2083           | PSI |
| (B) First Initial Flow Pressure .....  | 62            | 69             | PSI |
| (C) First Final Flow Pressure .....    | 62            | 60             | PSI |
| (D) Initial Closed-in Pressure .....   | 1327          | 1327           | PSI |
| (E) Second Initial Flow Pressure ..... | 94            | 106            | PSI |
| (F) Second Final Flow Pressure .....   | 125           | 135            | PSI |
| (G) Final Closed-in Pressure .....     | 1286          | 298            | PSI |
| (H) Final Hydrostatic Mud .....        | 2056          | 2052           | PSI |



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 P. O. Box 1599 (316) 838-0601

Company Abercrombie & Moble C. Hoover Lease & Well No. Veil #1  
 Elevation -- Formation Marmaton Effective Pay -- Ft. Ticket No. 420  
 Date 12/3/78 Sec. 9 Twp. 13S Range 35W County Logan State Kansas  
 Test Approved by -- Western Representative Don Leiker

Formation Test No. 3 Interval Tested from 4230' ft. to 4305' ft. Total Depth 4305' ft.  
 Packer Depth 4225 ft. Size 6 3/4 in. Packer Depth 4230 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) 4298 ft. Recorder Number 2608 Cap. 4150 PSI  
 Bottom Recorder Depth (Outside) 4301 ft. Recorder Number 3473 Cap. 4000 PSI  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Abercrombie #9 Drill Collar Length - I. D. - in.  
 Mud Type drispac Viscosity 47 Weight Pipe Length 471 I. D. 2.76 in.  
 Weight 9.1 Water Loss 13.6 cc. Drill Pipe Length 3568 I. D. 3.8 in.  
 Chlorides 14,000 P.P.M. Test Tool Length - in. Tool Size 5 1/2 in.  
 Jars: Make None Serial Number - Anchor Length 75 ft. Size 5 1/2 in.  
 Did Well Flow? No Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size - in.

Blow: Strong blow throughout flow periods.

Recovered 1970 ft. of salt water (24,000 PPM chlorides)  
 Recovered - ft. of -  
 Recovered - ft. of -  
 Recovered - ft. of (TIGHT HOLE)  
 Recovered - ft. of (REVERSE CIRC. FLUID)

Remarks: -

Time Set Packer(s) 9:27 ~~A.M.~~ P.M. Time Started Off Bottom 12:00 ~~A.M.~~ P.M. Maximum Temperature 122  
 Initial Hydrostatic Pressure ..... (A) 2151 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 160 P.S.I. to (C) 617 P.S.I.  
 Initial Closed In Period ..... Minutes 45 (D) 1311 P.S.I.  
 Final Flow Period ..... Minutes 30 (E) 698 P.S.I. to (F) 899 P.S.I.  
 Final Closed In Period ..... Minutes 45 (G) 1282 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 2114 P.S.I.

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

Date 12/3/78 Recorder No. 2608 Capacity 4150 Test Ticket No. 420  
 Location 4298 Ft.       
 Clock No. -- Elevation -- Well Temperature 122 °F

| Point                          | Pressure           |                            | Time Given      | Time Computed   |
|--------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2151</u> P.S.I. | Open Tool                  | <u>9:27P</u> M  |                 |
| B First Initial Flow Pressure  | <u>160</u> P.S.I.  | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>617</u> P.S.I.  | Initial Closed-in Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| D Initial Closed-in Pressure   | <u>1311</u> P.S.I. | Second Flow Pressure       | <u>30</u> Mins. | <u>30</u> Mins. |
| E Second Initial Flow Pressure | <u>698</u> P.S.I.  | Final Closed-in Pressure   | <u>45</u> Mins. | <u>45</u> Mins. |
| F Second Final Flow Pressure   | <u>899</u> P.S.I.  |                            |                 |                 |
| G Final Closed-in Pressure     | <u>1282</u> P.S.I. |                            |                 |                 |
| H Final Hydrostatic Mud        | <u>2114</u> P.S.I. |                            |                 |                 |

**PRESSURE BREAKDOWN**

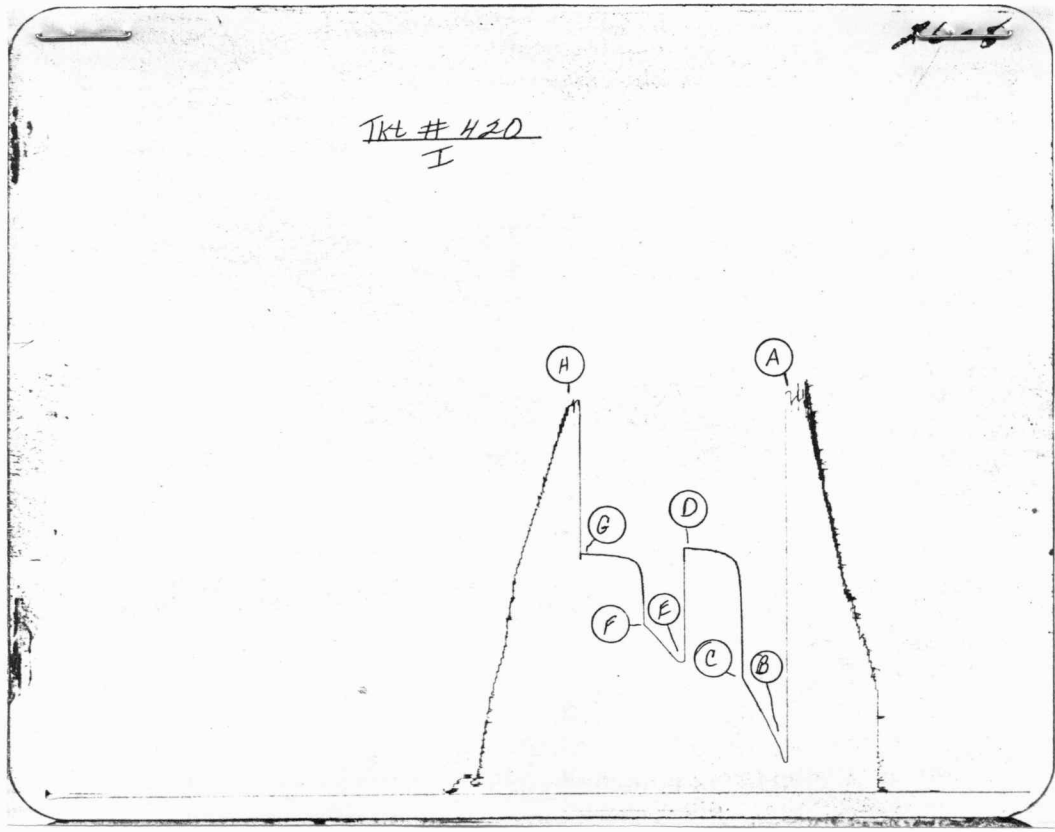
**First Flow Pressure**  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Initial Shut-In**  
 Breakdown: 15 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

**Second Flow Pressure**  
 Breakdown: 6 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>0</u>      | <u>617</u>  | <u>0</u>      | <u>698</u> | <u>0</u>      | <u>899</u>  |
| P 2         | <u>5</u>  | <u>3</u>      | <u>1182</u> | <u>5</u>      | <u>703</u> | <u>3</u>      | <u>1197</u> |
| P 3         | <u>10</u> | <u>6</u>      | <u>1238</u> | <u>10</u>     | <u>745</u> | <u>6</u>      | <u>1238</u> |
| P 4         | <u>15</u> | <u>9</u>      | <u>1261</u> | <u>15</u>     | <u>785</u> | <u>9</u>      | <u>1248</u> |
| P 5         | <u>20</u> | <u>12</u>     | <u>1275</u> | <u>20</u>     | <u>824</u> | <u>12</u>     | <u>1257</u> |
| P 6         | <u>25</u> | <u>15</u>     | <u>1282</u> | <u>25</u>     | <u>863</u> | <u>15</u>     | <u>1263</u> |
| P 7         | <u>30</u> | <u>18</u>     | <u>1288</u> | <u>30</u>     | <u>899</u> | <u>18</u>     | <u>1267</u> |
| P 8         |           | <u>21</u>     | <u>1294</u> |               |            | <u>21</u>     | <u>1271</u> |
| P 9         |           | <u>24</u>     | <u>1298</u> |               |            | <u>24</u>     | <u>1273</u> |
| P10         |           | <u>27</u>     | <u>1302</u> |               |            | <u>27</u>     | <u>1274</u> |
| P11         |           | <u>30</u>     | <u>1304</u> |               |            | <u>30</u>     | <u>1275</u> |
| P12         |           | <u>33</u>     | <u>1305</u> |               |            | <u>33</u>     | <u>1276</u> |
| P13         |           | <u>36</u>     | <u>1307</u> |               |            | <u>36</u>     | <u>1278</u> |
| P14         |           | <u>39</u>     | <u>1308</u> |               |            | <u>39</u>     | <u>1279</u> |
| P15         |           | <u>42</u>     | <u>1310</u> |               |            | <u>42</u>     | <u>1281</u> |
| P16         |           | <u>45</u>     | <u>1311</u> |               |            | <u>45</u>     | <u>1282</u> |
| P17         |           |               |             |               |            |               |             |
| P18         |           |               |             |               |            |               |             |
| P19         |           |               |             |               |            |               |             |
| P20         |           |               |             |               |            |               |             |



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                | PSI |
|--|---------------|----------------|-----|
|  | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2139          | 2151           | PSI |
| (B) First Initial Flow Pressure .....  | 156           | 160            | PSI |
| (C) First Final Flow Pressure .....    | 624           | 617            | PSI |
| (D) Initial Closed-in Pressure .....   | 1307          | 1311           | PSI |
| (E) Second Initial Flow Pressure ..... | 696           | 698            | PSI |
| (F) Second Final Flow Pressure .....   | 892           | 899            | PSI |
| (G) Final Closed-in Pressure .....     | 1286          | 1282           | PSI |
| (H) Final Hydrostatic Mud .....        | 2119          | 2114           | PSI |



Home Office: Wichita, Kansas 67201  
P. O. Box 1599 (316) 838-0601

Company Abercrombie & Moble C. Hoover Lease & Well No. Veil #1

Elevation -- Formation Pawnee - Cherokee Effective Pay -- Ft. Ticket No. 421

Date 12/5/78 Sec. 9 Twp. 13S Range 35W County Logan State Kansas

Test Approved by -- Western Representative Don Leiker

Formation Test No. 4 Interval Tested from 4368' ft. to 4447' ft. Total Depth 4447' ft.

Packer Depth 4363 ft. Size 6 3/4 in. Packer Depth 4368 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) 4440 ft. Recorder Number 2608 Cap. 4150 PSI

Bottom Recorder Depth (Outside) 4443 ft. Recorder Number 3473 Cap. 4000 PSI

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

Drilling Contractor Abercrombie #9 Drill Collar Length - I. D. - in.

Mud Type drispac Viscosity 47 Weight Pipe Length 471 I. D. 2.76 in.

Weight 9.2 Water Loss 15.2 cc. Drill Pipe Length 3692' I. D. 3.8 in.

Chlorides 16,000 P.P.M. Test Tool Length - in. Tool Size 5 1/2 in.

Jars: Make None Serial Number - Anchor Length 79 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 - in.

Blow: Very weak blow. Dead in 28 minutes. Flushed tool in eight minutes of second opening.  
No blow.

Recovered 5 ft. of mud (no show)

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of (TIGHT HOLE)

Recovered - ft. of -

Remarks: -

Time Set Packer(s) 1:12 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 3:15 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 122

Initial Hydrostatic Pressure ..... (A) 2181 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 83 P.S.I. to (C) 68 P.S.I.

Initial Closed In Period ..... Minutes 30 (D) 385 P.S.I.

Final Flow Period ..... Minutes 30 (E) 87 P.S.I. to (F) 77 P.S.I.

Final Closed In Period ..... Minutes 30 (G) 485 P.S.I.

Final Hydrostatic Pressure ..... (H) 2160 P.S.I.

7-155-020

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

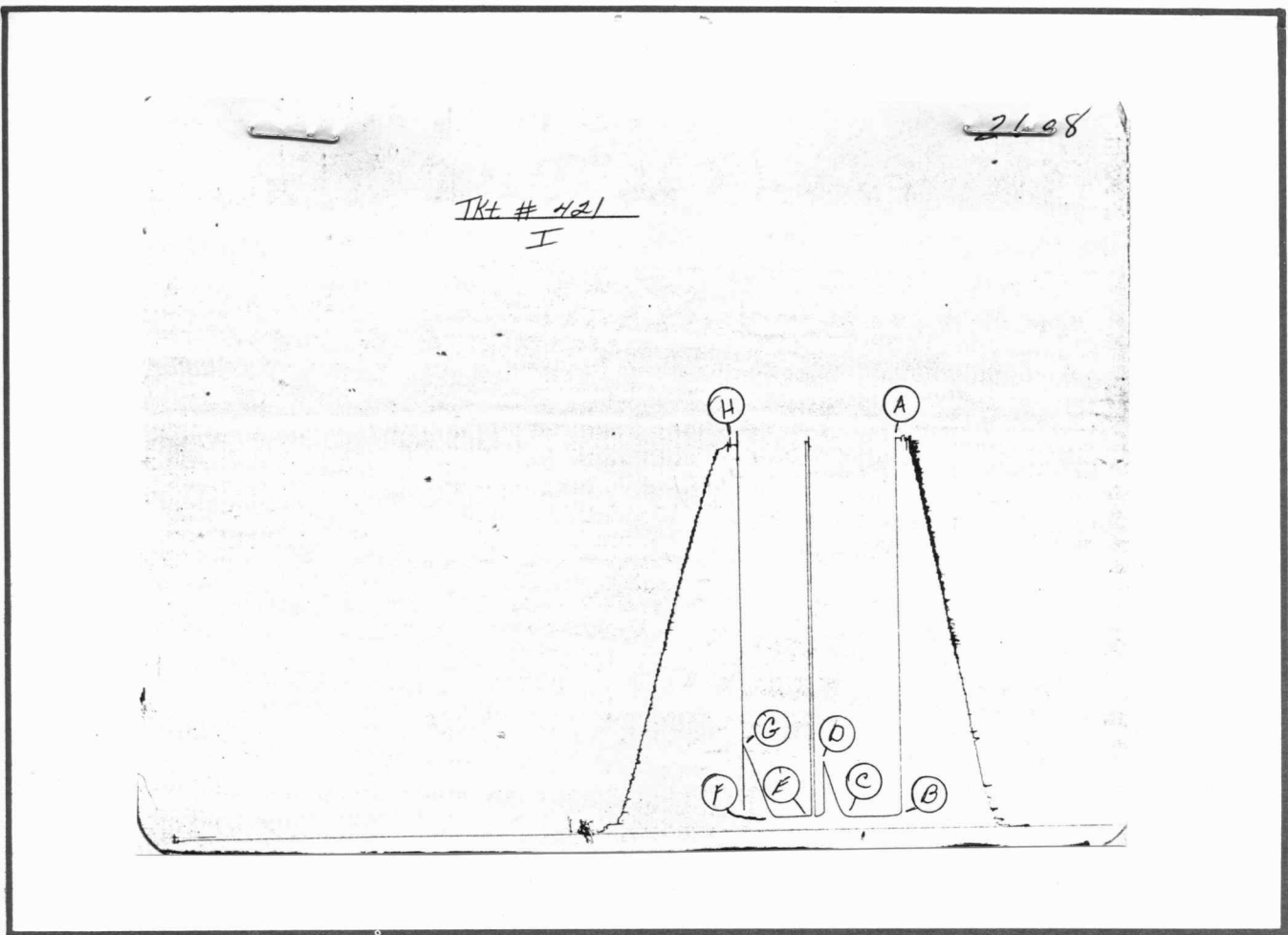
Date 12/5/78 Test Ticket No. 421  
 Recorder No. 2608 Capacity 4150 Location 4440 Ft.  
 Clock No. -- Elevation -- Well Temperature 122°F

| Point                          | Pressure           |                            | Time Given      | Time Computed   |
|--------------------------------|--------------------|----------------------------|-----------------|-----------------|
| A Initial Hydrostatic Mud      | <u>2181</u> P.S.I. | Open Tool                  | <u>1:12A</u> M  |                 |
| B First Initial Flow Pressure  | <u>83</u> P.S.I.   | First Flow Pressure        | <u>30</u> Mins. | <u>30</u> Mins. |
| C First Final Flow Pressure    | <u>68</u> P.S.I.   | Initial Closed-in Pressure | <u>30</u> Mins. | <u>30</u> Mins. |
| D Initial Closed-in Pressure   | <u>385</u> P.S.I.  | Second Flow Pressure       | <u>30</u> Mins. | <u>30</u> Mins. |
| E Second Initial Flow Pressure | <u>87</u> P.S.I.   | Final Closed-in Pressure   | <u>30</u> Mins. | <u>30</u> Mins. |
| F Second Final Flow Pressure   | <u>77</u> P.S.I.   |                            |                 |                 |
| G Final Closed-in Pressure     | <u>485</u> P.S.I.  |                            |                 |                 |
| H Final Hydrostatic Mud        | <u>2160</u> 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.                              |
|               | of <u>5</u> mins.   | and a final inc. of <u>0</u> Min. | of <u>3</u> mins. | and a final inc. of <u>0</u> Min. | of <u>5</u> mins.    | and a final inc. of <u>0</u> Min. | 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>83</u>           | <u>0</u>                          | <u>68</u>         | <u>0</u>                          | <u>87</u>            | <u>0</u>                          | <u>77</u>         |                                   |
| P 2 <u>5</u>  | <u>71</u>           | <u>3</u>                          | <u>68</u>         | <u>5</u>                          | <u>79</u>            | <u>3</u>                          | <u>77</u>         |                                   |
| P 3 <u>10</u> | <u>68</u>           | <u>6</u>                          | <u>68</u>         | <u>10</u>                         | <u>77</u>            | <u>6</u>                          | <u>79</u>         |                                   |
| P 4 <u>15</u> | <u>68</u>           | <u>9</u>                          | <u>68</u>         | <u>15</u>                         | <u>77</u>            | <u>9</u>                          | <u>100</u>        |                                   |
| P 5 <u>20</u> | <u>68</u>           | <u>12</u>                         | <u>71</u>         | <u>20</u>                         | <u>77</u>            | <u>12</u>                         | <u>146</u>        |                                   |
| P 6 <u>25</u> | <u>68</u>           | <u>15</u>                         | <u>92</u>         | <u>25</u>                         | <u>77</u>            | <u>15</u>                         | <u>208</u>        |                                   |
| P 7 <u>30</u> | <u>68</u>           | <u>18</u>                         | <u>133</u>        | <u>30</u>                         | <u>77</u>            | <u>18</u>                         | <u>272</u>        |                                   |
| P 8           |                     | <u>21</u>                         | <u>202</u>        |                                   |                      | <u>21</u>                         | <u>327</u>        |                                   |
| P 9           |                     | <u>24</u>                         | <u>264</u>        |                                   |                      | <u>24</u>                         | <u>375</u>        |                                   |
| P10           |                     | <u>27</u>                         | <u>327</u>        |                                   |                      | <u>27</u>                         | <u>429</u>        |                                   |
| P11           |                     | <u>30</u>                         | <u>385</u>        |                                   |                      | <u>30</u>                         | <u>485</u>        |                                   |
| P12           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P13           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P14           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P15           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P16           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P17           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P18           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P19           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |
| P20           |                     |                                   |                   |                                   |                      |                                   |                   |                                   |

Flushed tool



This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE      |                |     |
|--|---------------|----------------|-----|
|  | Field Reading | Office Reading |     |
| (A) Initial Hydrostatic Mud .....      | 2181          | 2181           | PSI |
| (B) First Initial Flow Pressure .....  | 73            | 83             | PSI |
| (C) First Final Flow Pressure .....    | 73            | 68             | PSI |
| (D) Initial Closed-in Pressure .....   | 375           | 385            | PSI |
| (E) Second Initial Flow Pressure ..... | 73            | 87             | PSI |
| (F) Second Final Flow Pressure .....   | 83            | 77             | PSI |
| (G) Final Closed-in Pressure .....     | 469           | 485            | PSI |
| (H) Final Hydrostatic Mud .....        | 2160          | 2160           | PSI |