

PHONE  
318 / 824-7340

DEAN'S TESTERS INC.

P. O. BOX 1182  
LIBERAL, Ks. 67901

Formation Lansing Type Test Bottom Hole W/Sampler Date October 25, 1985  
Anchor Length and Size 18' X 4 1/2" Total Depth 3525'  
Packer Depths 3502' & 3507' Below Straddle \_\_\_\_\_  
Equipment Run Two Packers, Jars, Safety Joint, Circulating Sub, Sample Chamber

Lengths: Tool 50' D. P. 2964' ID 3.8" Wt. P. \_\_\_\_\_ ID \_\_\_\_\_ D. C. 511' ID 2.25"  
Mud Type Chemical Vls. 43 Wt. 9.0 Wtr. Loss 14.2 Cl. 900 ppm

Recorders: Depth 3513' Make Kuster Cap. 6525 Ser. No. 13644 Inside  
Depth 3523' Make Kuster Cap. 6450 Ser. No. 6064 Outside  
Depth \_\_\_\_\_ Make \_\_\_\_\_ Cap. \_\_\_\_\_ Ser. No. \_\_\_\_\_ Below Straddle

### Pressures:

|                                     |                                                    |
|-------------------------------------|----------------------------------------------------|
| Tool on Bottom @ <u>8:00</u> A.M.   | Initial Hydrostatic <u>1764</u> psi                |
| Initial Flow <u>30</u> Min.         | IFP <u>140</u> psi to <u>283</u> psi               |
| Initial Shut-In <u>64</u> Min.      | ISIP <u>674</u> psi                                |
| Final Flow <u>57</u> Min.           | FFP <u>332</u> psi to <u>403</u> psi               |
| Final Shut-In <u>120</u> Min.       | FSIP <u>680</u> psi                                |
| Tool off Bottom @ <u>12:30</u> P.M. | Final Hydrostatic <u>1751</u> psi Temp. <u>102</u> |

Blow: Initial Flow: Weak Increasing to Strong- Off Bottom of Bucket in 5 Minutes  
Final Flow: Weak Increasing to Strong- Off Bottom of Bucket in 30 Minutes

Recovery: 120' Slightly Gas Cut Muddy Water  
570' Slightly Gas Cut Salt Water  
60' Gas Cut Thick Mud

### Gas Flow:

#### Sampler Data:

Pressure 375 PSI  
Gas --- cu. ft.  
Total Fluid 2000 cc  
Oil ---- cc  
Water 2000 cc  
Mud ---- cc  
Oil Gravity --- @ --- °F.  
Gas/Oil Ratio ---

#### Remarks:

Water Chlorider: 55,000 PPM  
Water Rw: .06 @ 102 Degrees F.

Tester Roy Cooper Witnessed by: Stan Brady

SEC.

33

TWP.

33S

RGE.

42W

COUNTY

Morton

STATE

Kansas

TICKET NO. 2770

OPERATOR

WELL NAME & NO.

TEST #

TEST INTERVAL

### Pressure Break Down

Test ticket no. 2770 Recorder no. 13644 Capacity 6525 Rec. Depth. 3513'

|                       |     |    |     |      |             |                |
|-----------------------|-----|----|-----|------|-------------|----------------|
| Initial Flow pressure | 140 | to | 283 | Time | Given<br>30 | Computed<br>30 |
|-----------------------|-----|----|-----|------|-------------|----------------|

Initial Closed in pressure 674 60 64

Final Flow pressure 332 to 403 60 57

Final Closed-in pressure 680 120 120

Initial Hydrostatic pressure 1764 Final Hydrostatic press. 1751 Temp 102

Initial Flow Press.

| Minutes | Press |
|---------|-------|
| 0       | 140   |
| 5       | 146   |
| 10      | 169   |
| 15      | 201   |
| 20      | 231   |
| 25      | 260   |
| 30      | 283   |
| 35      |       |
| 40      |       |
| 45      |       |
| 50      |       |
| 55      |       |
| 60      |       |
| 65      |       |
| 70      |       |
| 75      |       |
| 80      |       |
| 85      |       |
| 90      |       |
| 95      |       |
| 100     |       |
| 105     |       |
| 110     |       |
| 115     |       |
| 120     |       |

Initial Closed in Press.

| Minutes | Press |
|---------|-------|
| 0       | 283   |
| 3       | 508   |
| 6       | 583   |
| 9       | 609   |
| 12      | 625   |
| 15      | 635   |
| 18      | 641   |
| 21      | 648   |
| 24      | 651   |
| 27      | 654   |
| 30      | 657   |
| 33      | 661   |
| 36      | 661   |
| 39      | 664   |
| 42      | 667   |
| 45      | 667   |
| 48      | 671   |
| 51      | 671   |
| 54      | 671   |
| 57      | 674   |
| 60      | 674   |
| 64      | 674   |
| 66      |       |
| 69      |       |
| 72      |       |
| 75      |       |
| 78      |       |
| 81      |       |
| 84      |       |
| 87      |       |
| 90      |       |
| 93      |       |
| 96      |       |
| 99      |       |
| 102     |       |
| 105     |       |
| 108     |       |
| 111     |       |
| 114     |       |
| 117     |       |
| 120     |       |

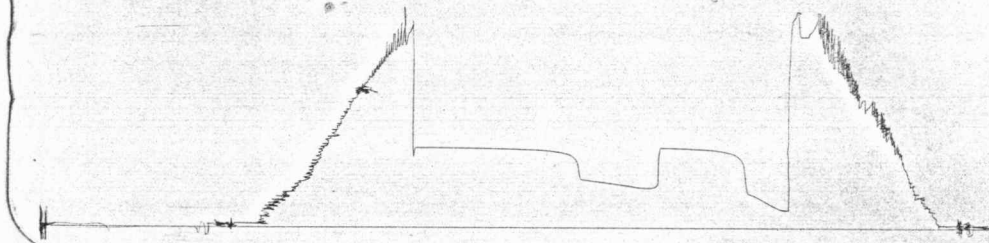
Final Flow Press

| Minutes          | Press |
|------------------|-------|
| 0                | ---   |
| 5                | 332   |
| 10               | 332   |
| 15               | 335   |
| 20               | 345   |
| 25               | 355   |
| 30               | 361   |
| 35               | 371   |
| 40               | 377   |
| 45               | 387   |
| 50               | 394   |
| 55               | 400   |
| 57 <del>58</del> | 403   |
| 65               |       |
| 70               |       |
| 75               |       |
| 80               |       |
| 85               |       |
| 90               |       |
| 95               |       |
| 100              |       |
| 105              |       |
| 110              |       |
| 115              |       |
| 120              |       |
| 125              |       |
| 130              |       |
| 135              |       |
| 140              |       |
| 145              |       |
| 150              |       |
| 155              |       |
| 160              |       |
| 165              |       |
| 170              |       |
| 175              |       |
| 180              |       |
|                  |       |
|                  |       |
|                  |       |

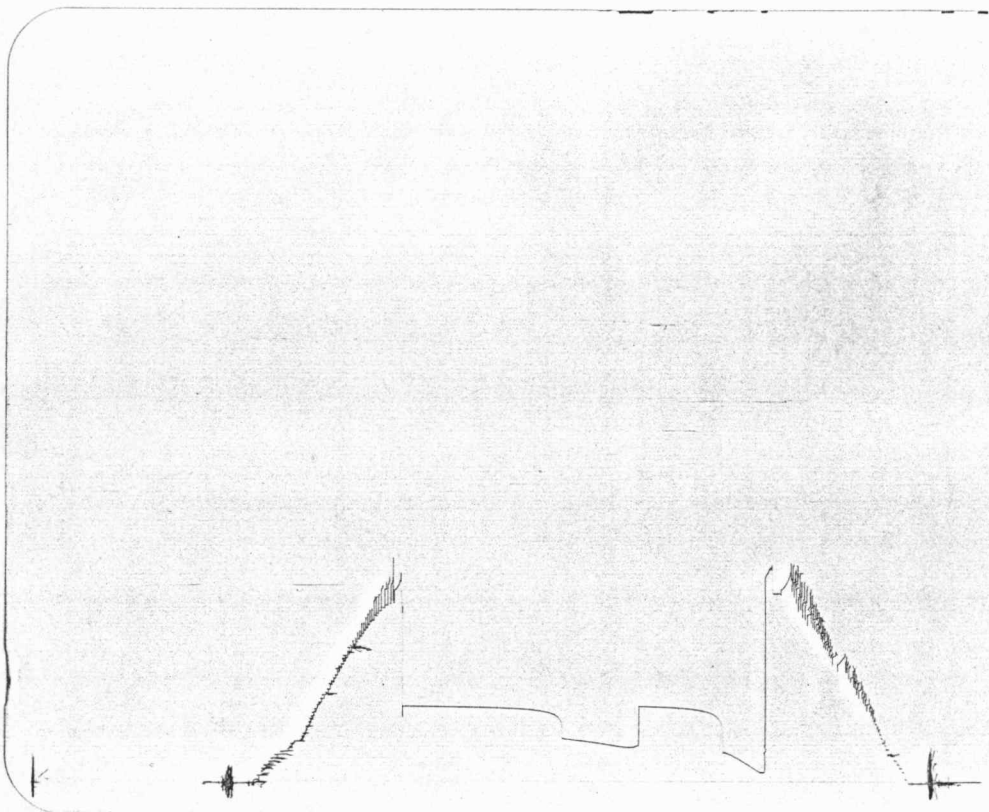
Final Closed in Press.

| Minutes | Press |
|---------|-------|
| 0       | 403   |
| 3       | 563   |
| 6       | 602   |
| 9       | 618   |
| 12      | 628   |
| 15      | 635   |
| 18      | 641   |
| 21      | 648   |
| 24      | 651   |
| 27      | 654   |
| 30      | 654   |
| 33      | 657   |
| 36      | 661   |
| 39      | 661   |
| 42      | 664   |
| 45      | 664   |
| 48      | 664   |
| 51      | 664   |
| 54      | 667   |
| 57      | 667   |
| 60      | 667   |
| 63      | 667   |
| 66      | 671   |
| 69      | 671   |
| 72      | 671   |
| 75      | 674   |
| 78      | 674   |
| 81      | 674   |
| 84      | 674   |
| 87      | 674   |
| 90      | 674   |
| 93      | 674   |
| 96      | 677   |
| 99      | 677   |
| 102     | 677   |
| 105     | 677   |
| 108     | 677   |
| 111     | 680   |
| 114     | 680   |
| 117     | 680   |
| 120     | 680   |

649



Initial Hydrostatic \_\_\_\_\_ 1764 \_\_\_\_\_ psi  
 IFP 140 \_\_\_\_\_ psi to 283 \_\_\_\_\_ psi  
 ISIP \_\_\_\_\_ 674 \_\_\_\_\_ psi  
 FFP 332 \_\_\_\_\_ psi to 403 \_\_\_\_\_ psi  
 FSIP \_\_\_\_\_ 680 \_\_\_\_\_ psi  
 Final Hydrostatic \_\_\_\_\_ 1751 \_\_\_\_\_ psi



PHONE  
316 / 624-7340

DEAN'S TESTERS INC.

P. O. BOX 1182  
LIBERAL, Ks. 67901

Formation Upper Morrow Type Test Bottom Hole W/Sampler Date October 28, 1985  
Anchor Length and Size 34' X 4 1/2" Total Depth 4362'  
Packer Depths 4323' & 4328' Below Straddle \_\_\_\_\_  
Equipment Run Two Packers, Jars, Safety Joint, Circulating Sub, Sample Chamber

Lengths: Tool 66' D. P. 3785' ID 3.8" Wt. P. \_\_\_\_\_ ID \_\_\_\_\_ D. C. 511' ID 2.25"  
Mud Type Chemical Vis. 49 Wt. 9.0 Wtr. Loss 8.2 Cl. 800 ppm  
**Recorders:** Depth 4334' Make Kuster Cap. 6525 Ser. No. 13644 Inside  
Depth 4360' Make Kuster Cap. 6450 Ser. No. 6064 Outside  
Depth \_\_\_\_\_ Make \_\_\_\_\_ Cap. \_\_\_\_\_ Ser. No. \_\_\_\_\_ Below Straddle

**Pressures:**

|                                           |                                                    |
|-------------------------------------------|----------------------------------------------------|
| Tool on Bottom @ <u>2:45</u> <u>A</u> M.  | Initial Hydrostatic <u>2087</u> psi                |
| Initial Flow <u>30</u> Min.               | IFP <u>280</u> psi to <u>289</u> psi               |
| Initial Shut-in <u>61</u> Min.            | ISIP <u>498</u> psi                                |
| Final Flow <u>60</u> Min.                 | FFP <u>299</u> psi to <u>345</u> psi               |
| Final Shut-in <u>122</u> Min.             | FSIP <u>498</u> psi                                |
| Tool off Bottom @ <u>7:15</u> <u>A</u> M. | Final Hydrostatic <u>2061</u> psi Temp. <u>114</u> |

**Blow:** Strong Throughout: Gas to Surface in 3 Minutes

**Recovery:** 70' Gas Cut Watery Oily Mud  
430' Gas Cut Oil Spotted Water  
240' Gas Cut Water

**Gas Flow:** Gauged at 353 MCF/D through a 1" Orifice at 60 Minutes into Final Flow Period.

**Sampler Data:**

Pressure 382 PSI  
Gas 1.67 cu. ft.  
Total Fluid 525 cc  
Oil --- cc  
Water 525 cc  
Mud --- cc  
Oil Gravity \_\_\_\_\_ @ \_\_\_\_\_ °F.  
Gas/Oil Ratio \_\_\_\_\_

**Remarks:**

Water Chlorider: 100,000 PPM  
Water Rw: .035 @ 114 Degrees F.

Tester Roy Cooper Witnessed by: Stan Brady

SEC. 33 TWP. 33S RGE. 42N COUNTY Morton STATE Kansas TICKET NO. 2771

HAWKINS Oil & Gas Inc  
OPERATOR

McClain # A-1  
WELL NAME & NO.

#2  
TEST #  
4328 - 4362  
TEST INTERVAL



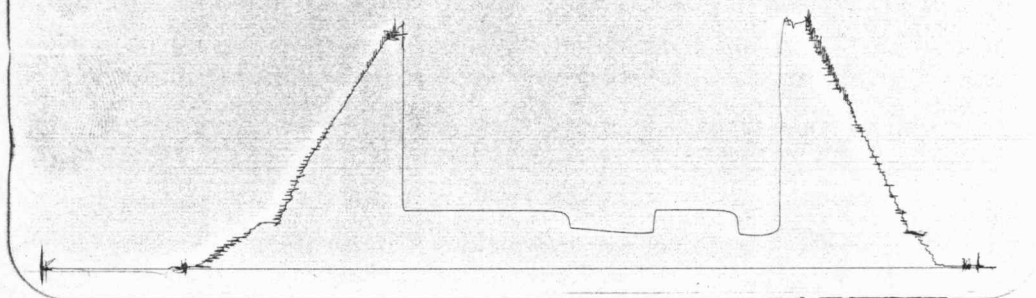
# Pressure Break Down

Test ticket no. 2771 Recorder no. 13644 Capacity 6525 Rec. Depth. 4334'

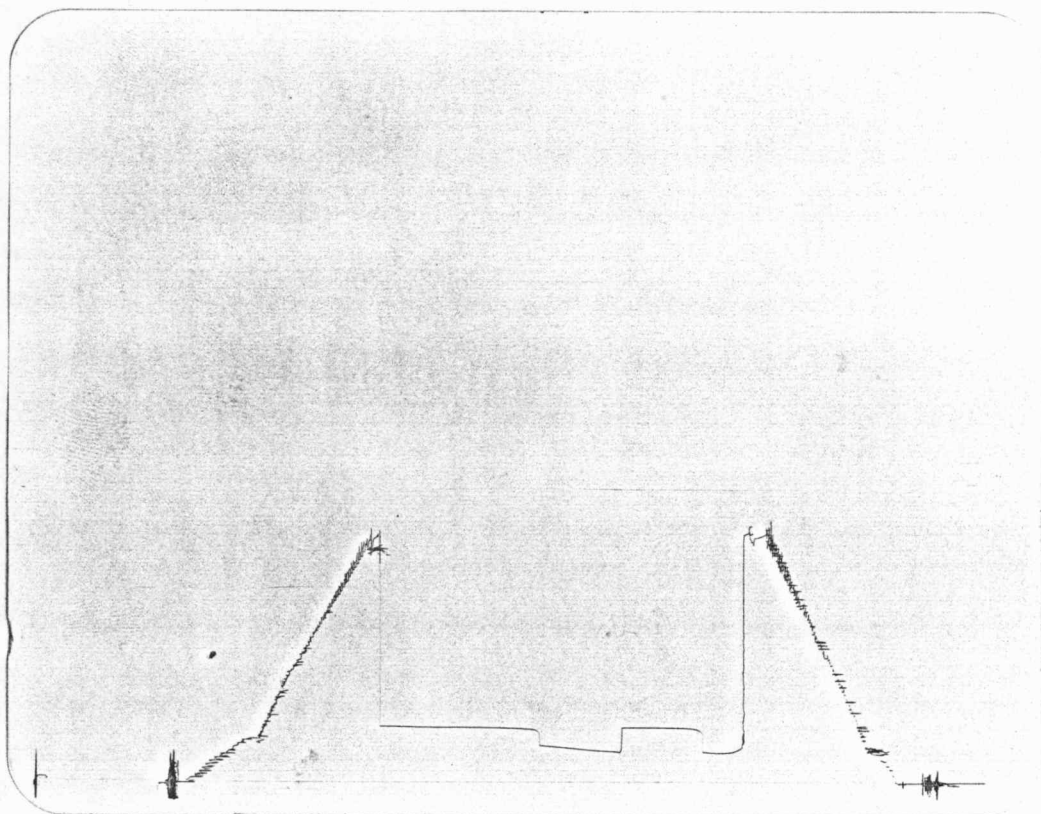
|                                                |                                      |                    |                       |
|------------------------------------------------|--------------------------------------|--------------------|-----------------------|
| Initial Flow pressure <u>280</u> to <u>289</u> | Time                                 | Given<br><u>30</u> | Computed<br><u>30</u> |
| Initial Closed in pressure <u>498</u>          |                                      | <u>60</u>          | <u>61</u>             |
| Final Flow pressure <u>299</u> to <u>345</u>   |                                      | <u>60</u>          | <u>60</u>             |
| Final Closed-in pressure <u>498</u>            |                                      | <u>120</u>         | <u>122</u>            |
| Initial Hydrostatic pressure <u>2087</u>       | Final Hydrostatic press. <u>2061</u> | Temp <u>114</u>    |                       |

| Initial Flow Press. |       | Initial Closed in Press. |       | Final Flow Press |       | Final Closed in Press. |       |
|---------------------|-------|--------------------------|-------|------------------|-------|------------------------|-------|
| Minutes             | Press | Minutes                  | Press | Minutes          | Press | Minutes                | Press |
| 0                   | ---   | 0                        | 289   | 0                | ---   | 0                      | 345   |
| 5                   | ---   | 3                        | 446   | 5                | 299   | 3                      | 456   |
| 10                  | ---   | 6                        | 472   | 10               | 299   | 6                      | 475   |
| 15                  | 280   | 9                        | 482   | 15               | 302   | 9                      | 485   |
| 20                  | 280   | 12                       | 491   | 20               | 306   | 12                     | 488   |
| 25                  | 283   | 15                       | 495   | 25               | 309   | 15                     | 491   |
| 30                  | 289   | 18                       | 495   | 30               | 315   | 18                     | 491   |
| 35                  |       | 21                       | 495   | 35               | 322   | 21                     | 491   |
| 40                  |       | 24                       | 495   | 40               | 325   | 24                     | 495   |
| 45                  |       | 27                       | 495   | 45               | 332   | 27                     | 495   |
| 50                  |       | 30                       | 495   | 50               | 335   | 30                     | 495   |
| 55                  |       | 33                       | 498   | 55               | 342   | 33                     | 495   |
| 60                  |       | 36                       | 498   | 60               | 345   | 36                     | 495   |
| 65                  |       | 39                       | 498   | 65               |       | 39                     | 495   |
| 70                  |       | 42                       | 498   | 70               |       | 42                     | 495   |
| 75                  |       | 45                       | 498   | 75               |       | 45                     | 495   |
| 80                  |       | 48                       | 498   | 80               |       | 48                     | 495   |
| 85                  |       | 51                       | 498   | 85               |       | 51                     | 495   |
| 90                  |       | 54                       | 498   | 90               |       | 54                     | 495   |
| 95                  |       | 57                       | 498   | 95               |       | 57                     | 495   |
| 100                 |       | 61 <del>60x</del>        | 498   | 100              |       | 60                     | 495   |
| 105                 |       | 63                       |       | 105              |       | 63                     | 495   |
| 110                 |       | 66                       |       | 110              |       | 66                     | 495   |
| 115                 |       | 69                       |       | 115              |       | 69                     | 495   |
| 120                 |       | 72                       |       | 120              |       | 72                     | 495   |
|                     |       | 75                       |       | 125              |       | 75                     | 495   |
|                     |       | 78                       |       | 130              |       | 78                     | 495   |
|                     |       | 81                       |       | 135              |       | 81                     | 495   |
|                     |       | 84                       |       | 140              |       | 84                     | 495   |
|                     |       | 87                       |       | 145              |       | 87                     | 495   |
|                     |       | 90                       |       | 150              |       | 90                     | 498   |
|                     |       | 93                       |       | 155              |       | 93                     | 498   |
|                     |       | 96                       |       | 160              |       | 96                     | 498   |
|                     |       | 99                       |       | 165              |       | 99                     | 498   |
|                     |       | 102                      |       | 170              |       | 102                    | 498   |
|                     |       | 105                      |       | 175              |       | 105                    | 498   |
|                     |       | 108                      |       | 180              |       | 108                    | 498   |
|                     |       | 111                      |       |                  |       | 111                    | 498   |
|                     |       | 114                      |       |                  |       | 114                    | 498   |
|                     |       | 117                      |       |                  |       | 117                    | 498   |
|                     |       | 120                      |       |                  |       | 122 <del>x120</del>    | 498   |

669



|                     |      |                |
|---------------------|------|----------------|
| Initial Hydrostatic | 2087 | psi            |
| IFP                 | 280  | psi to 289 psi |
| ISIP                | 498  | psi            |
| FFP                 | 299  | psi to 345 psi |
| FSIP                | 498  | psi            |
| Final Hydrostatic   | 2061 | psi            |



PHONE  
316 / 624-7340

DEAN'S TESTERS INC.

P. O. BOX 1182  
LIBERAL, Ks. 67901

Formation Morrow Type Test Bottom Hole W/ Sampler Date October 29, 1985  
Anchor Length and Size 35' X 4 1/2" Total Depth 4676'  
Packer Depths 4636' & 4641' Below Straddle \_\_\_\_\_  
Equipment Run Two Packers, Jars, Safety Joint, Circulating Sub, Sample Chamber

Lengths: Tool 66' D. P. 4099' ID 3.8" Wt. P. \_\_\_\_\_ ID \_\_\_\_\_ D. C. 511' ID 2.25"  
Mud Type Chemical Vis. 48 Wt. 9.0 Wtr. Loss 8.4 Cl. 900 ppm  
**Recorders:**  
Depth 4647' Make Kuster Cap. 6525 Ser. No. 13644 Inside  
Depth 4674' Make Kuster Cap. 6450 Ser. No. 6064 Outside  
Depth \_\_\_\_\_ Make \_\_\_\_\_ Cap. \_\_\_\_\_ Ser. No. \_\_\_\_\_ Below Straddle

**Pressures:**

Tool on Bottom @ 9:15 P.M. Initial Hydrostatic 2309 psi  
Initial Flow 29 Min. IFP 127 psi to 91 psi Plugging Action  
Initial Shut-in 58 Min. ISIP 980 psi  
Final Flow 63 Min. FFP 91 psi to 114 psi  
Final Shut-in 120 Min. FSIP 990 psi  
Tool off Bottom @ 1:45 A.M. Final Hydrostatic 2228 psi Temp. 116

**Blow:** Initial Flow Period: Weak Increasing to Strong  
Final Flow Period: Strong Throughout, Gas to Surface in 11 Minutes

**Recovery:** 150' Gas Cut Mud

**Gas Flow:** Gauged at 30.8 MCF/D Through 1/4" Orifice at 60 Minutes into Final Flow Period.

**Sampler Data:**

Pressure 85.0 PSI  
Gas 0.31 cu. ft.  
Total Fluid 1800.0 cc  
Oil ----- cc  
Water ----- cc  
Mud 1800.0 cc  
Oil Gravity @ °F.  
Gas/Oil Ratio \_\_\_\_\_

**Remarks:**

Water Chlorider: 1000 PPM

Tester Roy Cooper

Witnessed by: Stan Brady

SEC. 33 TWP. 33S RGE. 42N

COUNTY Morton

STATE Kansas

TICKET NO. 2772

HAWKINS OIL & GAS INC  
OPERATOR

McClain #A-1  
WELL NAME & NO.

#3  
TEST #

4641' - 4676'  
TEST INTERVAL

Mobile — 316/624-6247

Unit #935



P.O. Box 1182

Liberal, Kansas 67901

**Company** Hawkins Oil & Gas Inc **Well** McClain #A-1

Test # 3 Interval 4641' - 4676'

**Method of Guage** Merla 2" Quick-Change Orifice Well Tester

[illegible]

Surface Choke 1" Bottom Choke 5/8"

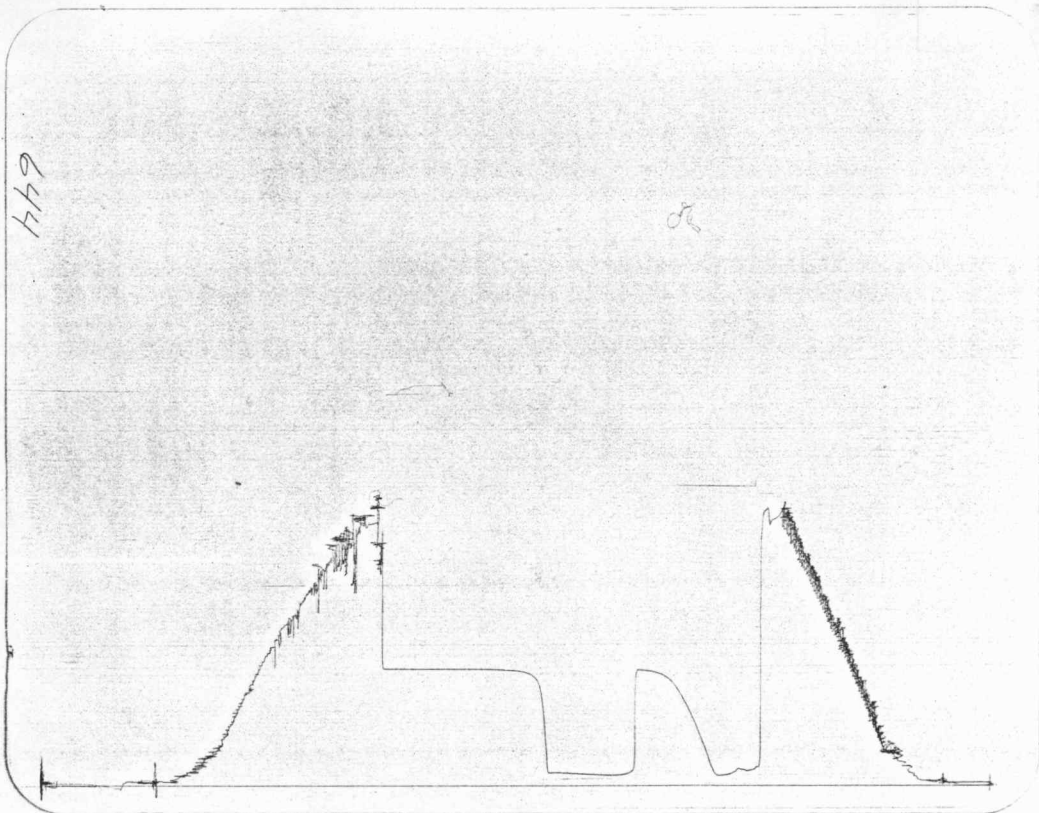
Remarks: Gas to Surface in 11 Minutes of Final Flow Period

# Pressure Break Down

Test ticket no. 2772 Recorder no. 13644 Capacity 6525 Rec. Depth. 4647'

|                                               |                                      |                    |                       |
|-----------------------------------------------|--------------------------------------|--------------------|-----------------------|
| Initial Flow pressure <u>127</u> to <u>91</u> | Time                                 | Given<br><u>30</u> | Computed<br><u>29</u> |
| Initial Closed in pressure <u>980</u>         |                                      | <u>60</u>          | <u>58</u>             |
| Final Flow pressure <u>91</u> to <u>114</u>   |                                      | <u>60</u>          | <u>63</u>             |
| Final Closed-in pressure <u>990</u>           |                                      | <u>120</u>         | <u>120</u>            |
| Initial Hydrostatic pressure <u>2309</u>      | Final Hydrostatic press. <u>2228</u> | Temp <u>116</u>    |                       |

| Initial Flow Press. |       | Initial Closed in Press. |       | Final Flow Press |       | Final Closed in Press. |       |
|---------------------|-------|--------------------------|-------|------------------|-------|------------------------|-------|
| Minutes             | Press | Minutes                  | Press | Minutes          | Press | Minutes                | Press |
| 0                   | 127   | 0                        | 91    | 0                | --    | 0                      | 114   |
| 5                   | ---   | 3                        | 127   | 5                | --    | 3                      | 511   |
| 10                  | ---   | 6                        | 208   | 10               | 91    | 6                      | 820   |
| 15                  | ---   | 9                        | 309   | 15               | 91    | 9                      | 905   |
| 20                  | ---   | 12                       | 390   | 20               | 91    | 12                     | 938   |
| 25                  | ---   | 15                       | 478   | 25               | 94    | 15                     | 954   |
| 29 30               | 91    | 18                       | 563   | 30               | 97    | 18                     | 964   |
| 35                  |       | 21                       | 631   | 35               | 100   | 21                     | 970   |
| 40                  |       | 24                       | 700   | 40               | 104   | 24                     | 977   |
| 45                  |       | 27                       | 765   | 45               | 107   | 27                     | 977   |
| 50                  |       | 30                       | 827   | 50               | 110   | 30                     | 980   |
| 55                  |       | 33                       | 872   | 55               | 114   | 33                     | 980   |
| 60                  |       | 36                       | 908   | 60               | 114   | 36                     | 983   |
| 65                  |       | 39                       | 931   | 63 38            | 114   | 39                     | 986   |
| 70                  |       | 42                       | 951   | 70               |       | 42                     | 986   |
| 75                  |       | 45                       | 960   | 75               |       | 45                     | 986   |
| 80                  |       | 48                       | 967   | 80               |       | 48                     | 986   |
| 85                  |       | 51                       | 973   | 85               |       | 51                     | 986   |
| 90                  |       | 54                       | 977   | 90               |       | 54                     | 986   |
| 95                  |       | 57                       | 980   | 95               |       | 57                     | 986   |
| 100                 |       | 58 60                    | 980   | 100              |       | 60                     | 986   |
| 105                 |       | 63                       |       | 105              |       | 63                     | 986   |
| 110                 |       | 66                       |       | 110              |       | 66                     | 986   |
| 115                 |       | 69                       |       | 115              |       | 69                     | 990   |
| 120                 |       | 72                       |       | 120              |       | 72                     | 990   |
|                     |       | 75                       |       | 125              |       | 75                     | 990   |
|                     |       | 78                       |       | 130              |       | 78                     | 990   |
|                     |       | 81                       |       | 135              |       | 81                     | 990   |
|                     |       | 84                       |       | 140              |       | 84                     | 990   |
|                     |       | 87                       |       | 145              |       | 87                     | 990   |
|                     |       | 90                       |       | 150              |       | 90                     | 990   |
|                     |       | 93                       |       | 155              |       | 93                     | 990   |
|                     |       | 96                       |       | 160              |       | 96                     | 990   |
|                     |       | 99                       |       | 165              |       | 99                     | 990   |
|                     |       | 102                      |       | 170              |       | 102                    | 990   |
|                     |       | 105                      |       | 175              |       | 105                    | 990   |
|                     |       | 108                      |       | 180              |       | 108                    | 990   |
|                     |       | 111                      |       |                  |       | 111                    | 990   |
|                     |       | 114                      |       |                  |       | 114                    | 990   |
|                     |       | 117                      |       |                  |       | 117                    | 990   |
|                     |       | 120                      |       |                  |       | 120                    | 990   |



Initial Hydrostatic \_\_\_\_\_ 2309 \_\_\_\_\_ psi  
 IFP \_\_\_\_\_ 127 \_\_\_\_\_ psi to \_\_\_\_\_ 91 \_\_\_\_\_ psi Plugging Action  
 ISIP \_\_\_\_\_ 980 \_\_\_\_\_ psi  
 FFP \_\_\_\_\_ 91 \_\_\_\_\_ psi to \_\_\_\_\_ 114 \_\_\_\_\_ psi  
 FSIP \_\_\_\_\_ 990 \_\_\_\_\_ psi  
 Final Hydrostatic \_\_\_\_\_ 2228 \_\_\_\_\_ psi

