

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

|                 |                                    |             |                    |                 |              |
|-----------------|------------------------------------|-------------|--------------------|-----------------|--------------|
| Well Name & No. | #1 FOUNTAIN                        | Test No.    | 1                  | Date            | 10/17/90     |
| Company         | GRIGGS OIL INC                     | Zone Tested | LANSING-KS CITY    |                 |              |
| Address         | 107 N MARKET #800 WICHITA KS 67202 |             | Elevation          | 2346 GL         |              |
| Co. Rep./Geo.   | MR CRAIG CAULK                     | Cont.       | ABERCROMBIE RIG #4 | Est. Ft. of Pay | 0            |
| Location: Sec.  | 3                                  | Twp.        | 7S                 | Rge.            | 23W          |
|                 |                                    |             | Co.                | GRAHAM          | State KANSAS |

|                     |           |                             |                                   |
|---------------------|-----------|-----------------------------|-----------------------------------|
| Interval Tested     | 3675-3695 | Drill Pipe Size             | 4.5" XH                           |
| Anchor Length       | 20        | Top Choke — 1"              | Bottom Choke — 1/4"               |
| Top Packer Depth    | 3670      | Hole Size — 77/8"           | Rubber Size — 63/4"               |
| Bottom Packer Depth | 3675      | Wt. Pipe I.D. — 2.7 Ft. Run | 520                               |
| Total Depth         | 3695      | Drill Collar — 2.25 Ft. Run | 0                                 |
| Mud Wt.             | 9.2       | lb/gal.                     | Viscosity 36 Filtrate 10.8        |
| Tool Open @         | 5:05 AM   | Initial Blow                | WEAK THROUGHOUT FLOW PERIOD -1.5" |

Final Blow SAME AS INITIAL

|                                  |        |                   |                                              |
|----------------------------------|--------|-------------------|----------------------------------------------|
| Recovery — Total Feet            | 150    | Flush Tool?       | NO                                           |
| Rec.                             | 150    | Feet of           | MUDDY WATER                                  |
| Rec.                             | 0      | Feet of           |                                              |
| Rec.                             | 0      | Feet of           |                                              |
| Rec.                             | 0      | Feet of           |                                              |
| Rec.                             | 0      | Feet of           |                                              |
| BHT                              | 110    | °F Gravity        | °API @ 0 °F Corrected Gravity 0 °API         |
| RW                               | 0.3    | @ 55 °F Chlorides | 36000 ppm Recovery Chlorides 1000 ppm System |
| (A) Initial Hydrostatic Mud      | 1860.3 | PSI               | AK1 Recorder No. 13851 Range 4325            |
| (B) First Initial Flow Pressure  | 26.4   | PSI               | @ (depth) 3680 w/Clock No. 25813             |
| (C) First Final Flow Pressure    | 48.7   | PSI               | AK1 Recorder No. 13850 Range 4425            |
| (D) Initial Shut-In Pressure     | 1226.3 | PSI               | @ (depth) 3695 w/Clock No. 31154             |
| (E) Second Initial Flow Pressure | 61.2   | PSI               | AK1 Recorder No. 0 Range 0                   |
| (F) Second Final Flow Pressure   | 83.2   | PSI               | @ (depth) 0 w/Clock No. 0                    |
| (G) Final Shut-In Pressure       | 1240.5 | PSI               | Initial Opening 30                           |
| (H) Final Hydrostatic Mud        | 1850.3 | PSI               | Initial Shut-In 30                           |
|                                  |        |                   | Final Flow 45                                |
|                                  |        |                   | Final Shut-In 60                             |

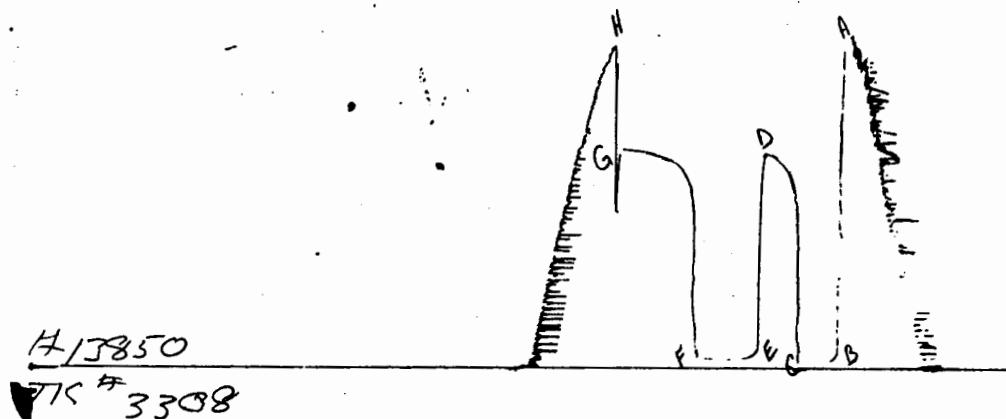
MR HARRY SCHMIDT

550

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_

DST# 1 RECORDER# 13850



This is an actual photograph of recorder chart.

| POINT                            | PRESSURE      |                |
|----------------------------------|---------------|----------------|
|                                  | Field Reading | Office Reading |
| (A) Initial Hydrostatic Mud      | 1851          | 1860.3         |
| (B) First Initial Flow Pressure  | 22            | 26.4           |
| (C) First Final Flow Pressure    | 44            | 48.7           |
| (D) Initial Closed-In Pressure   | 1222          | 1226.3         |
| (E) Second Initial Flow Pressure | 55            | 61.2           |
| (F) Second Final Flow Pressure   | 77            | 83.2           |
| (G) Final Closed-In Pressure     | 1233          | 1240.5         |
| (H) Final Hydrostatic Mud        | 1851          | 1850.3         |

# TRILOBITE TESTING COMPANY

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## TEST TICKET

No 3308

|                                                          |                                    |                                   |
|----------------------------------------------------------|------------------------------------|-----------------------------------|
| Well Name & No. <u>#1 FOUNTAIN</u>                       | Test No. <u>ONE</u>                | Date <u>10-17-90</u>              |
| Company <u>GRIGGS OIL INC.</u>                           | Zone Tested <u>AKS. 90'</u>        |                                   |
| Address <u>107 N. MARKET SUITE 800 WICHITA 67202</u>     |                                    | Elevation <u>2346 GL</u>          |
| Co. Rep. / Geo. <u>CRAIG CAULIS</u>                      | Cont. <u>ASBECROMBIE #4</u>        | Est. Ft. of Pay _____             |
| Location: Sec. <u>3</u> Twp. <u>7 S</u> Rge. <u>23 W</u> | Co. <u>GRAHAM</u>                  | State <u>KS</u>                   |
| No. of Copies <u>NONE</u>                                | Distribution Sheet _____ Yes _____ | Turnkey _____ Yes _____ <u>NO</u> |

|                                     |                                                     |
|-------------------------------------|-----------------------------------------------------|
| Interval Tested <u>3695 TO 3695</u> | Drill Pipe Size <u>4 1/2" X 1 1/2"</u>              |
| Anchor Length <u>20'</u>            | Top Choke — 1" _____ Bottom Choke — 3/4" _____      |
| Top Packer Depth <u>3670</u>        | Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____ |
| Bottom Packer Depth <u>3675</u>     | Wt. Pipe I.D. — 2.7 Ft. Run <u>520</u>              |
| Total Depth <u>3695</u>             | Drill Collar — 2.25 Ft. Run _____                   |
| Mud Wt. <u>9.2</u> lb/gal.          | Viscosity <u>36</u> Filtrate <u>10.8</u>            |
| Tool Open @ <u>5:05 A</u>           | Initial Blow <u>WEAK THROUGHOUT P.P. 1.5"</u>       |

Final Blow SAME AS INITIAL

Recovery — Total Feet 150 Flush Tool? NO

Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. 150 Feet of MUDY WATER  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 110 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 0.3 @ 55 °F Chlorides 36,000 ppm Recovery Chlorides 1000 ppm System  
 (A) Initial Hydrostatic Mud 1851 PSI AK1 Recorder No. 13851 Range 4325  
 (B) First Initial Flow Pressure 22 PSI @ (depth) 368 w/Clock No. 25813  
 (C) First Final Flow Pressure 44 PSI AK1 Recorder No. 13850 Range 4425  
 (D) Initial Shut-In Pressure 1222 PSI @ (depth) 3695 w/Clock No. 31154  
 (E) Second Initial Flow Pressure 55 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 27 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 1233 PSI Initial Opening 30 Test 550 psi  
 (H) Final Hydrostatic Mud 1851 PSI Initial Shut-In 30 Jars \_\_\_\_\_

Final Flow 45 Safety Joint \_\_\_\_\_  
 Final Shut-In 60 Straddle \_\_\_\_\_

Approved By Craig Caulis

Our Representative [Signature]

Sampler \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_  
 TOTAL PRICE \$ 5500

# TRILOBITE TESTING COMPANY

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## Drill-Stem Test Data

|                 |                                    |             |                    |                 |                             |
|-----------------|------------------------------------|-------------|--------------------|-----------------|-----------------------------|
| Well Name & No. | #1 FOUNTAIN                        | Test No.    | 2                  | Date            | 10/17/90                    |
| Company         | GRIGGS OIL INC                     | Zone Tested | LANSING-KS CITY    |                 |                             |
| Address         | 107 N MARKET #800 WICHITA KS 67202 | Elevation   | 2346 GL            |                 |                             |
| Co. Rep./Geo.   | MR CRAIG CAULK                     | Cont.       | ABERCROMBIE RIG #4 | Est. Ft. of Pay | 6                           |
| Location: Sec.  | 3                                  | Twp.        | 7S                 | Rge.            | 23W Co. GRAHAM State KANSAS |

|                     |                 |                             |                                           |
|---------------------|-----------------|-----------------------------|-------------------------------------------|
| Interval Tested     | 3748-3782       | Drill Pipe Size             | 4.5" XH                                   |
| Anchor Length       | 34              | Top Choke — 1"              | Bottom Choke — 1/4"                       |
| Top Packer Depth    | 3743            | Hole Size — 7 7/8"          | Rubber Size — 6 3/4"                      |
| Bottom Packer Depth | 3748            | Wt. Pipe I.D. — 2.7 Ft. Run | 520                                       |
| Total Depth         | 3782            | Drill Collar — 2.25 Ft. Run | 0                                         |
| Mud Wt.             | 9.5             | lb/gal.                     | Viscosity 42 Filtrate 10.0                |
| Tool Open @         | 8:05            | Initial Blow                | VERY GOOD -BOTTOM OF BUCKET IN 5 MINUTES- |
| Final Blow          | SAME AS INITIAL |                             |                                           |

|                                  |               |                            |                                        |
|----------------------------------|---------------|----------------------------|----------------------------------------|
| Recovery — Total Feet            | 880           | Flush Tool?                | NO                                     |
| Rec. 700                         | Feet of       | GAS IN PIPE                |                                        |
| Rec. 800                         | Feet of       | CLEAN GASSY OIL            |                                        |
| Rec. 80                          | Feet of       | MUD CUT OIL -40%MUD/60%OIL |                                        |
| Rec. 0                           | Feet of       |                            |                                        |
| Rec. 0                           | Feet of       |                            |                                        |
| BHT 119                          | °F Gravity 34 | °API @ 70                  | °F Corrected Gravity 33 °API           |
| RW                               | @             | °F Chlorides               | ppm Recovery Chlorides 1000 ppm System |
| (A) Initial Hydrostatic Mud      | 1986.2        | PSI                        | AK1 Recorder No. 13851 Range 4325      |
| (B) First Initial Flow Pressure  | 57.7          | PSI @ (depth)              | 3752 w/Clock No. 25813                 |
| (C) First Final Flow Pressure    | 195.5         | PSI                        | AK1 Recorder No. 13850 Range 4425      |
| (D) Initial Shut-In Pressure     | 1352.4        | PSI @ (depth)              | 3782 w/Clock No. 31154                 |
| (E) Second Initial Flow Pressure | 237.7         | PSI                        | AK1 Recorder No. 0 Range 0             |
| (F) Second Final Flow Pressure   | 304.4         | PSI @ (depth)              | 0 w/Clock No. 0                        |
| (G) Final Shut-In Pressure       | 1343.6        | PSI                        | Initial Opening 30                     |
| (H) Final Hydrostatic Mud        | 1958.2        | PSI                        | Initial Shut-In 30                     |
|                                  |               |                            | Final Flow 30                          |
|                                  |               |                            | Final Shut-In 30                       |

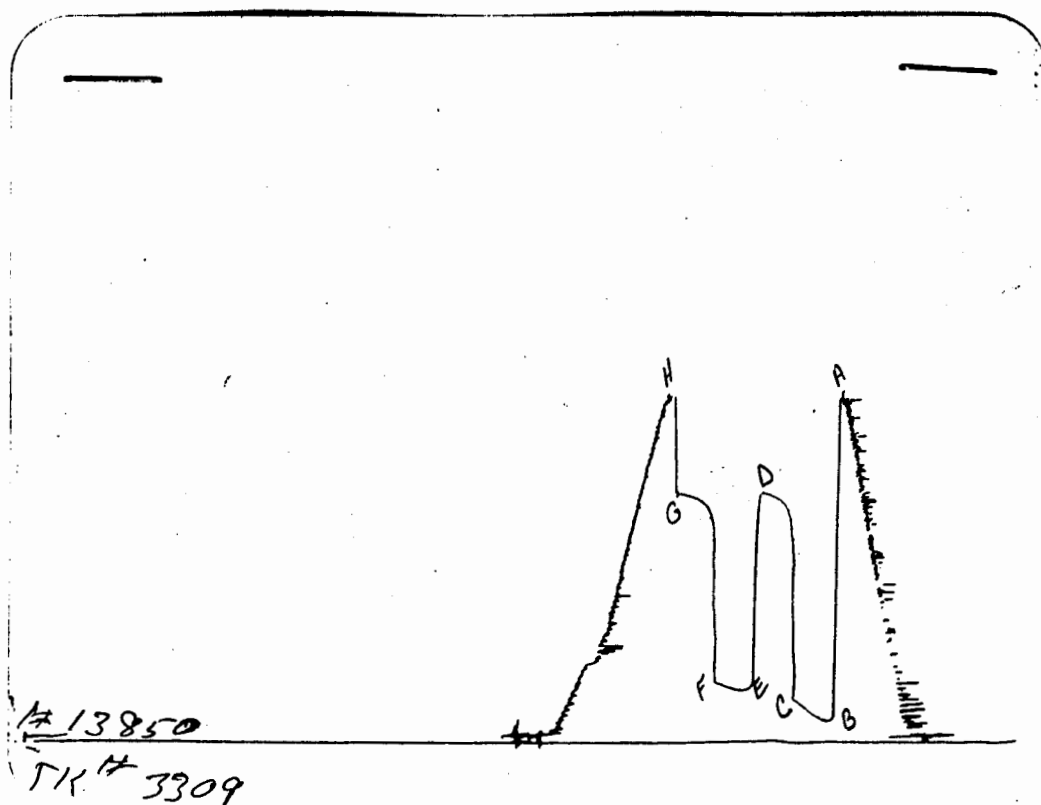
MR HARRY SCHMIDT

550

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_

DST# 2 RECORDER# 13850



This is an actual photograph of recorder chart.

| POINT                                 | PRESSURE      |                |
|---------------------------------------|---------------|----------------|
|                                       | Field Reading | Office Reading |
| (A) Initial Hydrostatic Mud.....      | 1962          | 1986.2 PSI     |
| (B) First Initial Flow Pressure.....  | 66            | 57.7 PSI       |
| (C) First Final Flow Pressure.....    | 211           | 195.5 PSI      |
| (D) Initial Closed-in Pressure.....   | 1354          | 1352.4 PSI     |
| (E) Second Initial Flow Pressure..... | 244           | 237.7 PSI      |
| (F) Second Final Flow Pressure.....   | 311           | 304.4 PSI      |
| (G) Final Closed-In Pressure.....     | 1354          | 1343.6 PSI     |
| (H) Final Hydrostatic Mud.....        | 1960          | 1958.2 PSI     |

# CALCULATED RECOVERY ANALYSIS

DST # 2 TICKET # 3309

| SAMPLE # | TOTAL FEET | GAS Z | FEET | OIL Z | FEET | WATER Z | FEET | MUD Z | FEET |
|----------|------------|-------|------|-------|------|---------|------|-------|------|
| DRILL 1  | 360        | 0     | 0    | 100   | 360  | 0       | 0    | 0     | 0    |
| PIPE 2   |            |       | 0    |       | 0    |         | 0    |       | 0    |
| 3        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| 4        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| 5        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| WEIGHT 1 | 440        | 0     | 0    | 100   | 440  | 0       | 0    | 0     | 0    |
| PIPE 2   | 80         | 0     | 0    | 60    | 48   | 0       | 0    | 40    | 32   |
| 3        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| 4        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| DRILL 1  |            |       | 0    |       | 0    |         | 0    |       | 0    |
| COLLAR 2 |            |       | 0    |       | 0    |         | 0    |       | 0    |
| 3        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| 4        |            |       | 0    |       | 0    |         | 0    |       | 0    |
| TOTAL    |            |       | 0    |       | 848  |         | 0    |       | 32   |

HRS OPEN 88L/DAY

BBL OIL= 12.68192 \* 1 304.366

BBL WATER 0 \*

BBL MUD= 0.38048

# INITIAL FLOW

RECORDER # 13851  
DST #2

| DT (MIN) | PRESSURE | <> PRESSURE |
|----------|----------|-------------|
| 0        | 57.7     | 57.7        |
| 3        | 60       | 2.299999    |
| 6        | 73.3     | 13.3        |
| 9        | 88.8     | 15.5        |
| 12       | 106.6    | 17.8        |
| 15       | 124.4    | 17.8        |
| 18       | 140      | 15.6        |
| 21       | 155.5    | 15.5        |
| 24       | 173.3    | 17.8        |
| 27       | 186.6    | 13.3        |
| 30       | 195.5    | 8.899994    |

# FINAL FLOW

RECORDER # 13851  
DST #2

| DT (MIN) | PRESSURE | <> PRESSURE |
|----------|----------|-------------|
| 0        | 237.7    | 237.7       |
| 3        | 240      | 2.300003    |
| 6        | 244.4    | 4.399994    |
| 9        | 248.8    | 4.400009    |
| 12       | 255.5    | 6.699997    |
| 15       | 264.4    | 8.899994    |
| 18       | 275.5    | 11.10001    |
| 21       | 284.4    | 8.899994    |
| 24       | 291.1    | 6.700012    |
| 27       | 297.7    | 6.600006    |
| 30       | 304.4    | 6.699982    |

INITIAL SHUT-IN BUILDUP  
DST #2

-----  
RECORDER # 13851  
INITIAL FLOW TIME (MIN.): 30

| MIN | LOG(T+MIN/MIN) | PRESSURE | <> PRESSURE |
|-----|----------------|----------|-------------|
| 0   | 0              | 195.5    | 195.5       |
| 3   | 1.041205       | 322.2    | 126.7       |
| 6   | .778011        | 1253.3   | 931.1001    |
| 9   | .6367073       | 1288.5   | 35.19995    |
| 12  | .5439701       | 1308.3   | 19.80005    |
| 15  | .4770353       | 1321.5   | 13.19995    |
| 18  | .425892        | 1332.6   | 11.09998    |
| 21  | .3852815       | 1339.2   | 6.599976    |
| 24  | .352119        | 1343.6   | 4.400025    |
| 27  | .3244526       | 1348     | 4.400025    |
| 30  | .3009757       | 1352.4   | 4.400025    |

FINAL SHUT-IN BUILDUP  
DST #2

-----  
RECORDER # 13851  
TOTAL FLOW TIME (MIN.): 60

| MIN | LOG(T+MIN/MIN) | PRESSURE | <> PRESSURE |
|-----|----------------|----------|-------------|
| 0   | 0              | 304.4    | 304.4       |
| 3   | 1.321981       | 1242.2   | 937.7999    |
| 6   | 1.041205       | 1279.7   | 37.5        |
| 9   | .8844472       | 1299.5   | 19.80005    |
| 12  | .778011        | 1308.3   | 8.800049    |
| 15  | .6988441       | 1319.3   | 11          |
| 18  | .6367073       | 1323.7   | 4.399903    |
| 21  | .5861601       | 1332.6   | 8.900024    |
| 24  | .5439701       | 1339.2   | 6.599976    |
| 27  | .5080639       | 1341.4   | 2.200073    |
| 30  | .4770353       | 1343.6   | 2.199951    |

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

## TEST TICKET

No 3309

|                                                     |                               |                                                     |
|-----------------------------------------------------|-------------------------------|-----------------------------------------------------|
| Well Name & No. <u>#1 FOUNTAIN</u>                  | Test No. <u>TWO</u>           | Date <u>10-17-90</u>                                |
| Company <u>GRIFFS OIL INC.</u>                      | Zone Tested <u>LISC. 180</u>  |                                                     |
| Address <u>107 N. MARSH SUITE 800 WICHITA 67202</u> | Elevation <u>2546 GL</u>      |                                                     |
| Co. Rep. / Geo. <u>CRAIG CAULK</u>                  | Cont. <u>ABERCROMBIE #4</u>   | Est. Ft. of Pay <u>6</u>                            |
| Location: Sec. <u>3</u>                             | Twp. <u>7 S</u>               | Rge. <u>23 W</u> Co. <u>BARBARA</u> State <u>KS</u> |
| No. of Copies <u>1</u>                              | Distribution Sheet <u>Yes</u> | Turnkey <u>Yes</u>                                  |

Interval Tested 3748 TO 3782 Drill Pipe Size 4 1/2" x 11  
 Anchor Length 34' Top Choke — 1" Bottom Choke — 3/4"  
 Top Packer Depth 3743 Hole Size — 7 7/8" Rubber Size — 6 3/4"  
 Bottom Packer Depth 3748 Wt. Pipe I.D. — 2.7 Ft. Run 520  
 Total Depth 3782 Drill Collar — 2.25 Ft. Run  
 Mud Wt. 9.5 lb / gal. Viscosity 42 Filtrate 10.0  
 Tool Open @ 8:05 Initial Blow VERY GOOD BOT. OF BUCKET IN 5 MIN.

Final Blow SAME AS INITIAL

Recovery — Total Feet 880 Flush Tool? NO  
 Rec. 700 Feet of G.L.P.  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. 800 Feet of CLEAN GAS'Y OIL  
 Rec. 80 Feet of MUD CUT OIL 40% MUD 60% OIL  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 119 °F Gravity 34 °API @ 70 °F Corrected Gravity 33 °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 1000 ppm System

(A) Initial Hydrostatic Mud 1962 PSI AK1 Recorder No. 18851 Range 4325  
 (B) First Initial Flow Pressure 66 PSI @ (depth) 3752 W/Clock No. 25813  
 (C) First Final Flow Pressure 211 PSI AK1 Recorder No. 13850 Range 4425  
 (D) Initial Shut-In Pressure 1354 PSI @ (depth) 3782 W/Clock No. 31154  
 (E) Second Initial Flow Pressure 244 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 311 PSI @ (depth) \_\_\_\_\_ W/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 1354 PSI Initial Opening 30 Test 550  
 (H) Final Hydrostatic Mud 1960 PSI Initial Shut-In 30 Jars \_\_\_\_\_

Final Flow 30 Safety Joint \_\_\_\_\_  
 Final Shut-In 30 Straddle \_\_\_\_\_

Approved By Craig Caulk

Our Representative [Signature]

Printcraft Printers - Hays, KS

Circ. Sub \_\_\_\_\_  
 Sampler \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_  
 TOTAL PRICE \$ 550