

**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ross Hoener**

70424 NE 10th  
Iuka Ks 67066

ATTN: Ross Hoener

**34 26s 13w Pratt KS**

**Briggeman #3A**

Start Date: 2001.04.29 @ 22:30:01

End Date: 2001.04.30 @ 03:30:45

Job Ticket #: 14656      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



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**TESTING, INC**

## DRILL STEM TEST REPORT

Ross Hoener

70424 NE 10th  
Iuka Ks 67066

ATTN: Ross Hoener

Briggeman #3A

34 26s 13w Pratt KS

Job Ticket: 14656

DST#: 1

Test Start: 2001.04.29 @ 22:30:01

### GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:40:45

Time Test Ended: 03:30:45

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 16

Interval: **4140.00 ft (KB) To 4230.00 ft (KB) (TVD)**

Total Depth: 4230.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1947.00 ft (KB)

1939.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 3024 Inside

Press@RunDepth: 117.00 psig @ 4143.00 ft (KB)

Start Date: 2001.04.29

End Date:

2001.04.30

Start Time: 22:20:01

End Time:

06:51:45

Capacity: 7000.00 psig

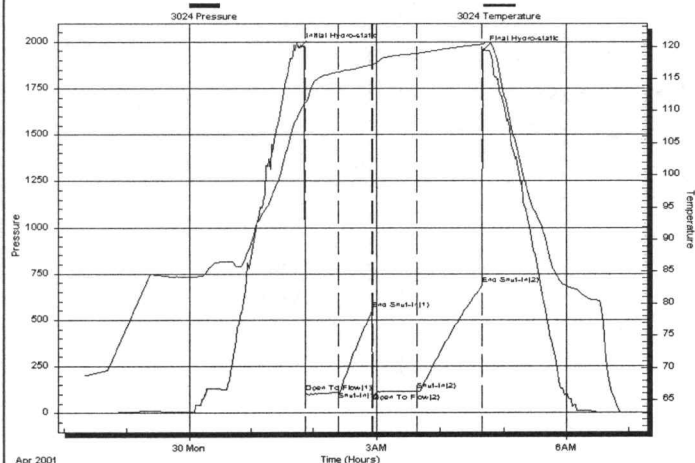
Last Calib.: 2001.04.30

Time On Btm: 2001.04.30 @ 01:46:45

Time Off Btm: 2001.04.30 @ 04:40:45

### TEST COMMENT:

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1969.02         | 109.97       | Initial Hydro-static |
| 6           | 106.01          | 111.24       | Open To Flow (1)     |
| 38          | 109.49          | 116.05       | Shut-In(1)           |
| 69          | 549.09          | 117.19       | End Shut-In(1)       |
| 70          | 97.32           | 117.20       | Open To Flow (2)     |
| 111         | 117.00          | 118.93       | Shut-In(2)           |
| 173         | 686.90          | 120.35       | End Shut-In(2)       |
| 174         | 1950.32         | 120.36       | Final Hydro-static   |

### Recovery

| Length (ft) | Description                | Volume (bbl) |
|-------------|----------------------------|--------------|
| 340.00      | GIP                        | 2.61         |
| 200.00      | O&GCM 5%oil 20%gas 75% mud | 2.81         |
|             |                            |              |
|             |                            |              |
|             |                            |              |
|             |                            |              |

### Gas Rates

|  | Choke(inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|---------------|-----------------|------------------|
|--|---------------|-----------------|------------------|



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Ross Hoener

Briggeman #3A

70424 NE 10th  
luka Ks 67066

34 26s 13w Pratt KS

Job Ticket: 14656

DST#: 1

ATTN: Ross Hoener

Test Start: 2001.04.29 @ 22:30:01

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3871.00 ft | Diameter: 3.80 inches   | Volume: 54.30 bbl | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches   | Volume: 0.00 bbl  | Weight set on Packer: 25000.00 lb  |
| Drill Collar:             | Length: 249.00 ft  | Diameter: 2.35 inches   | Volume: 1.34 bbl  | Weight to Pull Loose: 95000.00 lb  |
|                           |                    | Total Volume: 55.64 bbl |                   | Tool Chased 15.00 ft               |
| Drill Pipe Above KB:      | 7.00 ft            |                         |                   | String Weight: Initial 59000.00 lb |
| Depth to Top Packer:      | 4140.00 ft         |                         |                   | Final 61000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 90.00 ft           |                         |                   |                                    |
| Tool Length:              | 117.00 ft          |                         |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches   |                   |                                    |
| Tool Comments:            |                    |                         |                   |                                    |

### Tool Description

| Tool Description          | Length (ft)   | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|---------------------------|---------------|------------|----------|------------|-------------------------------|
| C.O. Sub                  | 1.00          |            |          | 4114.00    |                               |
| S.I. Tool                 | 5.00          |            |          | 4119.00    |                               |
| HMV                       | 5.00          |            |          | 4124.00    |                               |
| Jars                      | 5.00          |            |          | 4129.00    |                               |
| Safety Joint              | 2.00          |            |          | 4131.00    |                               |
| Packer                    | 4.00          |            |          | 4135.00    | 27.00 Bottom Of Top Packer    |
| Packer                    | 5.00          |            |          | 4140.00    |                               |
| Stubb                     | 1.00          |            |          | 4141.00    |                               |
| Perforations              | 2.00          |            |          | 4143.00    |                               |
| Recorder                  | 0.00          | 3024       | Inside   | 4143.00    |                               |
| C.O. Sub                  | 1.00          |            |          | 4144.00    |                               |
| Blank Spacing             | 62.00         |            |          | 4206.00    |                               |
| C.O. Sub                  | 1.00          |            |          | 4207.00    |                               |
| Perforations              | 20.00         |            |          | 4227.00    |                               |
| Recorder                  | 0.00          | 11085      | Outside  | 4227.00    |                               |
| Bullnose                  | 3.00          |            |          | 4230.00    | 90.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>117.00</b> |            |          |            |                               |



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Ross Hoener

Briggeman #3A

70424 NE 10th  
Iuka Ks 67066

34 26s 13w Pratt KS

Job Ticket: 14656

DST#: 1

ATTN: Ross Hoener

Test Start: 2001.04.29 @ 22:30:01

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 9.94 in<sup>3</sup>

Resistivity: ohm.m

Salinity: ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

deg API

Water Salinity: ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description               | Volume<br>bbl |
|--------------|---------------------------|---------------|
| 340.00       | GIP                       | 2.612         |
| 200.00       | O&GCM 5%oil 20%gas 75%mud | 2.805         |

Total Length: 540.00 ft Total Volume: 5.417 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: IFP-str bl in 3min FFP-str bl throughout times 30-30-45-60

Serial #: 3024

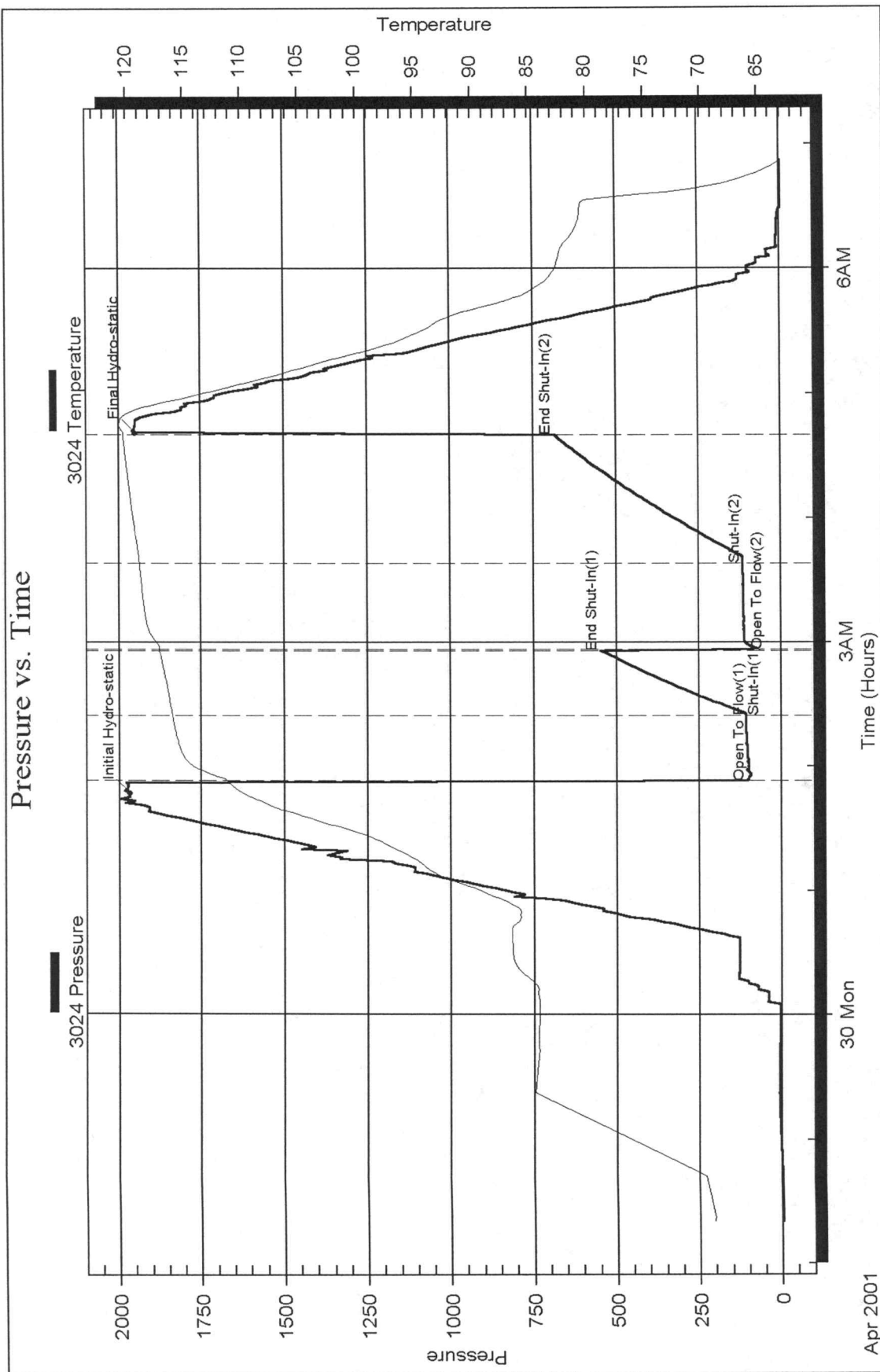
Inside

Ross Hoener

34 26s 13w Pratt KS

DST Test Number: 1

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Ross Hoener**

70424 NE 10th  
luka Ks 67066

ATTN: Ross Hoener

**34 26s 13w Pratt KS**

**Briggeman #3A**

Start Date: 2001.04.30 @ 16:17:01

End Date: 2001.05.01 @ 01:13:30

Job Ticket #: 14657                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Ross Hoener

70424 NE 10th  
Luka Ks 67066

ATTN: Ross Hoener

**Briggeman #3A**

**34 26s 13w Pratt KS**

Job Ticket: 14657

**DST#: 2**

Test Start: 2001.04.30 @ 16:17:01

### GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:16:30

Time Test Ended: 01:13:30

Interval: **4232.00 ft (KB) To 4290.00 ft (KB) (TVD)**

Total Depth: 4230.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 16

Reference Elevations: 1947.00 ft (KB)

1939.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 3024**

**Inside**

Press@RunDepth: 246.68 psig @ 4236.00 ft (KB)

Start Date: 2001.04.30

End Date:

2001.05.01

Start Time: 16:17:01

End Time:

01:13:30

Capacity: 7000.00 psig

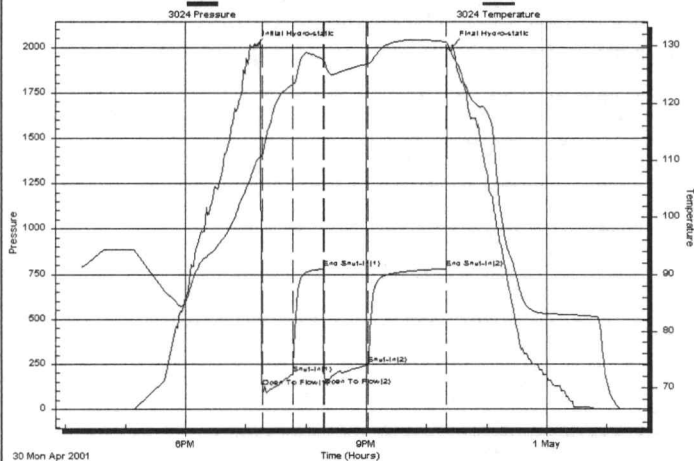
Last Calib.: 2001.05.01

Time On Btm: 2001.04.30 @ 19:10:00

Time Off Btm: 2001.04.30 @ 22:26:30

### TEST COMMENT:

Pressure vs. Time



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2009.14         | 109.50       | Initial Hydro-static |
| 7           | 119.91          | 111.02       | Open To Flow (1)     |
| 37          | 194.63          | 123.17       | Shut-In(1)           |
| 67          | 780.81          | 127.65       | End Shut-In(1)       |
| 69          | 172.58          | 127.43       | Open To Flow (2)     |
| 112         | 246.68          | 126.90       | Shut-In(2)           |
| 189         | 780.71          | 130.70       | End Shut-In(2)       |
| 197         | 2005.37         | 128.16       | Final Hydro-static   |

### Recovery

| Length (ft) | Description                          | Volume (bbl) |
|-------------|--------------------------------------|--------------|
| 70.00       | O&GCM 6%oil 10%gas 84% mud           | 0.38         |
| 120.00      | HO&GCM 20%gas 20%oil 5%water 55% mud | 0.64         |
| 180.00      | GMO 40%gas 30%oil 20% mud 10% water  | 2.01         |
| 120.00      | MGWCO 35%gas 35%oil 5% mud 25% water | 1.68         |
| 120.00      | O&GCW 10%gas 10%oil 80% water RV     | 1.68 64F     |

### Gas Rates

|                | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.13           | 5.00            | 7.26             |
| Last Gas Rate  | 0.25           | 19.00           | 52.99            |
| Max. Gas Rate  | 0.13           | 49.00           | 23.73            |



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## DRILL STEM TEST REPORT

TOOL DIAGRAM

Ross Hoener

70424 NE 10th  
Iuka Ks 67066

ATTN: Ross Hoener

Briggeman #3A

34 26s 13w Pratt KS

Job Ticket: 14657

DST#: 2

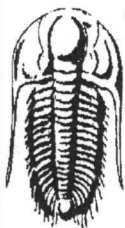
Test Start: 2001.04.30 @ 16:17:01

### Tool Information

|                           |                    |                       |                   |                        |             |
|---------------------------|--------------------|-----------------------|-------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3970.00 ft | Diameter: 3.80 inches | Volume: 55.69 bbl | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl  | Weight set on Packer:  | 25000.00 lb |
| Drill Collar:             | Length: 249.00 ft  | Diameter: 2.35 inches | Volume: 1.34 bbl  | Weight to Pull Loose:  | 85000.00 lb |
|                           |                    | Total Volume:         | 57.03 bbl         | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 15.00 ft           |                       |                   | String Weight: Initial | 59000.00 lb |
| Depth to Top Packer:      | 4232.00 ft         |                       |                   | Final                  | 61000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                   |                        |             |
| Interval between Packers: | 59.00 ft           |                       |                   |                        |             |
| Tool Length:              | 87.00 ft           |                       |                   |                        |             |
| Number of Packers:        | 2                  | Diameter:             | 6.75 inches       |                        |             |
| Tool Comments:            |                    |                       |                   |                        |             |

| Tool Description   | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|--------------------|-------------|------------|----------|------------|-------------------------------|
| C.O. Sub           | 1.00        |            |          | 4205.00    |                               |
| S.I. Tool          | 5.00        |            |          | 4210.00    |                               |
| HYD S.I. Tool      | 5.00        |            |          | 4215.00    |                               |
| Jars               | 5.00        |            |          | 4220.00    |                               |
| Safety Joint       | 2.00        |            |          | 4222.00    |                               |
| Packer             | 5.00        |            |          | 4227.00    | 28.00 Bottom Of Top Packer    |
| Packer             | 5.00        |            |          | 4232.00    |                               |
| Stubb              | 1.00        |            |          | 4233.00    |                               |
| Perforations       | 2.00        |            |          | 4235.00    |                               |
| C.O. Sub           | 1.00        |            |          | 4236.00    |                               |
| Recorder           | 0.00        | 3024       | Inside   | 4236.00    |                               |
| Blank Spacing      | 31.00       |            |          | 4267.00    |                               |
| C.O. Sub           | 1.00        |            |          | 4268.00    |                               |
| Perforations       | 20.00       |            |          | 4288.00    |                               |
| Recorder           | 0.00        | 11085      | Outside  | 4288.00    |                               |
| Bullnose           | 3.00        |            |          | 4291.00    | 59.00 Bottom Packers & Anchor |
| Total Tool Length: | 87.00       |            |          |            |                               |





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**TESTING, INC.**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Ross Hoener

Briggeman #3A

70424 NE 10th  
luka Ks 67066

34 26s 13w Pratt KS

Job Ticket: 14657

DST#: 2

ATTN: Ross Hoener

Test Start: 2001.04.30 @ 16:17:01

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 1.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 10.56 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: 72000 ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description                           | Volume<br>bbl |
|--------------|---------------------------------------|---------------|
| 70.00        | O&GCM 6%oil 10%gas 84% mud            | 0.376         |
| 120.00       | HO&GCM 20%gas 20%oil 5%w ater 55%mud  | 0.644         |
| 180.00       | GMO 40%gas 30%oil 20%mud 10%w ater    | 2.014         |
| 120.00       | MGWCO 35%gas 35%oil 5%mud 25%w ater   | 1.683         |
| 120.00       | O&GCW 10%gas 10%oil 80%w ater RW .12@ | 1.683         |

Total Length: 610.00 ft      Total Volume: 6.400 bbl

Num Fluid Samples: 0

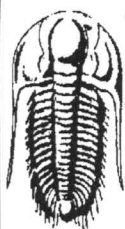
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: IFP-str bl gas in 7min FFP-gas to surface times 30-30-45-75  
had blow back on shut-in



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Ross Hoener

**Briggeman #3A**

70424 NE 10th

**34 26s 13w Pratt KS**

luka Ks 67066

Job Ticket: 14657

**DST#: 2**

ATTN: Ross Hoener

Test Start: 2001.04.30 @ 16:17:01

### Gas Rates Information

Temperature: 59 deg C

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

| Flow Period | Elapsed Time | Choke<br>(mm) | Pressure<br>(kPaa) | Gas Rate<br>(m <sup>3</sup> /d) |
|-------------|--------------|---------------|--------------------|---------------------------------|
| 1           | 10           | 0.13          | 5.00               | 7.26                            |
| 1           | 10           | 0.13          | 5.00               | 7.26                            |
| 1           | 10           | 0.13          | 5.00               | 7.26                            |
| 1           | 20           | 0.13          | 30.00              | 16.62                           |
| 1           | 30           | 0.13          | 49.00              | 23.73                           |
| 2           | 10           | 0.13          | 24.00              | 14.37                           |
| 2           | 20           | 0.25          | 19.00              | 52.99                           |

# Pressure vs. Time

