



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Herman L. Loeb, LLC  
 P.O. Box 838  
 Lawrenceville, IL. 62439  
 ATTN: Jon Christensen

**28-27s-18w Kiowa Co.**  
**Yost # 4-28**  
 Job Ticket: 64719 **DST#: 2**  
 Test Start: 2018.10.10 @ 12:38:45

## GENERAL INFORMATION:

Formation: **KC." J" zone**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 14:43:45 Tester: Matt Smith  
 Time Test Ended: 19:45:15 Unit No: 68  
 Interval: **4442.00 ft (KB) To 4460.00 ft (KB) (TVD)** Reference Elevations: 2210.00 ft (KB)  
 Total Depth: 4460.00 ft (KB) (TVD) 2199.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

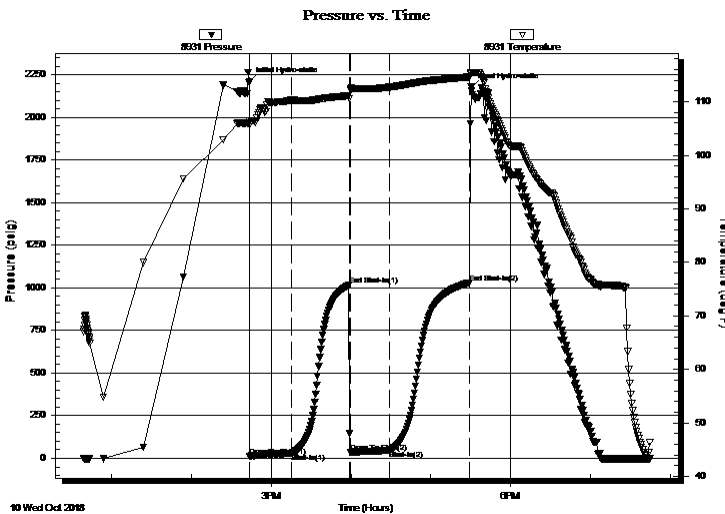
## Serial #: 8931

Inside

Press@RunDepth: 46.82 psig @ 4443.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.10.10 End Date: 2018.10.10 Last Calib.: 2018.10.10  
 Start Time: 12:38:50 End Time: 19:45:14 Time On Btm: 2018.10.10 @ 14:43:30  
 Time Off Btm: 2018.10.10 @ 17:30:15

TEST COMMENT: IF: Weak blow . Built to 1.96".  
 IS: No blow .  
 FF: Weak blow . Built to 2.01".  
 FS: No blow .

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2207.19         | 106.35       | Initial Hydro-static |
| 1           | 12.28           | 105.58       | Open To Flow (1)     |
| 32          | 30.09           | 110.30       | Shut-In(1)           |
| 75          | 1015.57         | 111.12       | End Shut-In(1)       |
| 76          | 34.10           | 112.21       | Open To Flow (2)     |
| 106         | 46.82           | 112.74       | Shut-In(2)           |
| 166         | 1030.30         | 114.63       | End Shut-In(2)       |
| 167         | 2177.67         | 115.47       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                 | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 61.00       | Oil scum GWCM 3%g 35%w 62%m | 0.30         |
| 0.00        | 30' G.I.P.                  | 0.00         |
|             |                             |              |
|             |                             |              |
|             |                             |              |

\* Recovery from multiple tests

## Gas Rates

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



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 Job Ticket: 64719      **DST#: 2**  
 Test Start: 2018.10.10 @ 12:38:45

## GENERAL INFORMATION:

Formation: **KC." J" zone**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 14:43:45  
 Time Test Ended: 19:45:15  
**Interval: 4442.00 ft (KB) To 4460.00 ft (KB) (TVD)**  
 Total Depth: 4460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

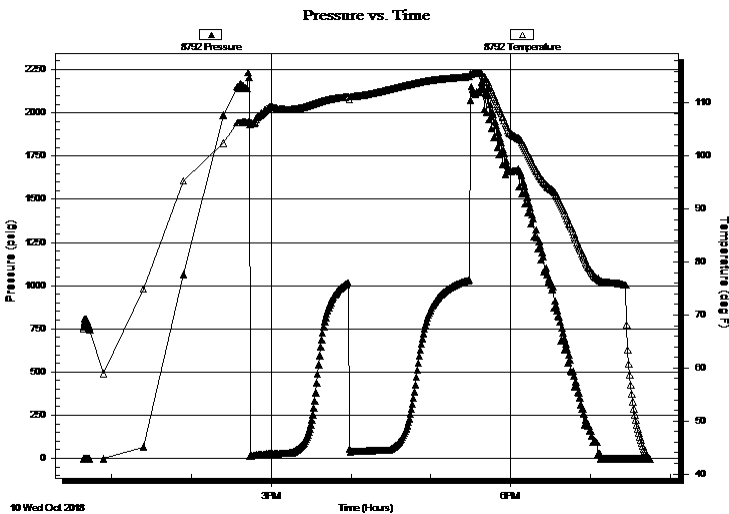
Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 68  
 Reference Elevations: 2210.00 ft (KB)  
 2199.00 ft (CF)  
 KB to GR/CF: 11.00 ft

## Serial #: 8792      Outside

Press@RunDepth:      psig @ 4443.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.10.10      End Date: 2018.10.10      Last Calib.: 2018.10.10  
 Start Time: 12:38:45      End Time: 19:45:09      Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: Weak blow . Built to 1.96".  
 IS: No blow .  
 FF: Weak blow . Built to 2.01".  
 FS: No blow .

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

## Recovery

| Length (ft) | Description                 | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 61.00       | Oil scum GWCM 3%g 35%w 62%m | 0.30         |
| 0.00        | 30' G.I.P.                  | 0.00         |
|             |                             |              |
|             |                             |              |
|             |                             |              |
|             |                             |              |

## Gas Rates

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

\* Recovery from multiple tests



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Herman L. Loeb, LLC  
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ATTN: Jon Christensen

**28-27s-18w Kiowa Co.**  
**Yost # 4-28**  
Job Ticket: 64719      **DST#: 2**  
Test Start: 2018.10.10 @ 12:38:45

## Mud and Cushion Information

|                                  |                            |                 |           |
|----------------------------------|----------------------------|-----------------|-----------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API:        | deg API   |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: | 44000 ppm |
| Viscosity: 65.00 sec/qt          | Cushion Volume: bbl        |                 |           |
| Water Loss: 8.79 in <sup>3</sup> | Gas Cushion Type:          |                 |           |
| Resistivity: 7000.00 ohm.m       | Gas Cushion Pressure: psig |                 |           |
| Salinity: ppm                    |                            |                 |           |
| Filter Cake: 0.20 inches         |                            |                 |           |

## Recovery Information

Recovery Table

| Length<br>ft | Description                 | Volume<br>bbl |
|--------------|-----------------------------|---------------|
| 61.00        | Oil scum GWCM 3%g 35%w 62%m | 0.300         |
| 0.00         | 30' G.I.P.                  | 0.000         |

Total Length: 61.00 ft      Total Volume: 0.300 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #: none  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: RW is .25 @ 47 degrees = 44,000 Chlorides.  
 30 Ft Gas In Pipe.

