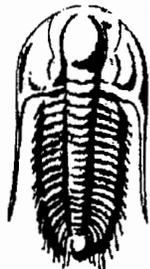


15-065-23114-00-00

ORIGINAL



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg.Co.,Inc.**

250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33-10s-21w

Wapa Unit # 1-33

Start Date: 2005.11.25 @ 17:16:46

End Date: 2005.11.26 @ 01:27:16

Job Ticket #: 23490 DST #: 1

CONFIDENTIAL

15-065-23114 RECEIVED
N2 N2 N2 FEB 02 2006
1785 FSL 2600 ~~AL~~ KCC WICHITA

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drlg.Co.,Inc.

Wapa Unit # 1-33

33-10s-21w

DST # 1

Oread-Tor-L-Kc-A

2005.11.25



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig.Co., Inc.

Wapa Unit # 1-33

250 N.Water Ste.# 300
Wchita,Ks.67202

33-10s-21w

Job Ticket: 23490

DST#: 1

ATTN: David Doyel

Test Start: 2005.11.25 @ 17:16:46

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3259.00 ft | Diameter: 3.80 inches | Volume: 45.72 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 42000.00 lb |
| | | | <u>Total Volume: 46.48 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 28.00 ft | | | String Weight: Initial 30000.00 lb |
| Depth to Top Packer: | 3408.00 ft | | | Final 30000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 87.00 ft | | | |
| Tool Length: | 110.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

| | | | | | |
|-----------------|-------|-------|---------|---------|-------------------------------|
| Change Over Sub | 1.00 | | | 3386.00 | |
| Shut In Tool | 5.00 | | | 3391.00 | |
| Hydraulic tool | 5.00 | | | 3396.00 | |
| Safety Joint | 3.00 | | | 3399.00 | |
| Packer | 4.00 | | | 3403.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3408.00 | |
| Stubb | 1.00 | | | 3409.00 | |
| Perforations | 3.00 | | | 3412.00 | |
| Change Over Sub | 1.00 | | | 3413.00 | |
| Recorder | 0.00 | 8018 | Inside | 3413.00 | |
| Blank Spacing | 63.00 | | | 3476.00 | |
| Change Over Sub | 1.00 | | | 3477.00 | |
| Recorder | 0.00 | 11084 | Outside | 3477.00 | |
| Perforations | 15.00 | | | 3492.00 | |
| Bullnose | 3.00 | | | 3495.00 | 87.00 Bottom Packers & Anchor |

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23490 **DST#: 1**
Test Start: 2005.11.25 @ 17:16:46

Mud and Cushion Information

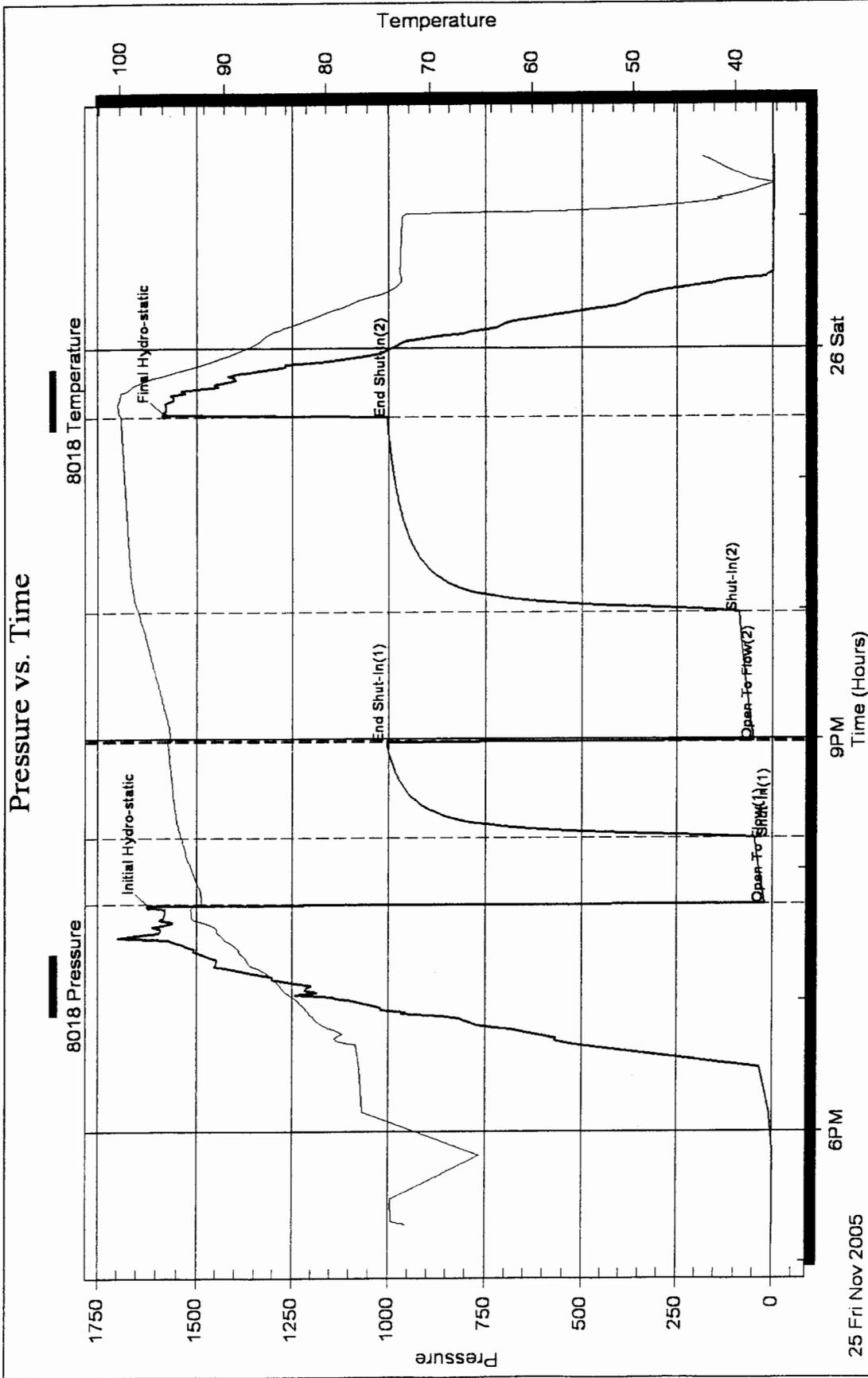
| | | | |
|----------------------------------|----------------------------|-----------------|-----------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | 70000 ppm |
| Viscosity: 52.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 6.36 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 2600.00 ppm | | | |
| Filter Cake: inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------|---------------|
| 150.00 | Muddy S. Water | 0.738 |

Total Length: 150.00 ft Total Volume: 0.738 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg.Co.,Inc.**
250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33--10s--21w

Wapa Unit # 1-33

Start Date: 2005.11.26 @ 09:52:40
End Date: 2005.11.26 @ 18:00:10
Job Ticket #: 23491 DST #: 2

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

Murfin Drlg.Co.,Inc.

Wapa Unit # 1-33

33--10s--21w

DST # 2

L.Kc.-C&D

2005.11.26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drig.Co., Inc.
 250 N.Water Ste.# 300
 Wichita,Ks.67202
 ATTN: David Doyel

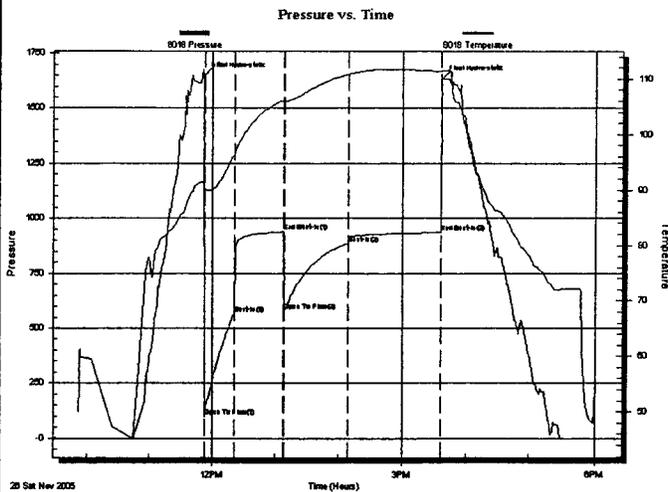
Wapa Unit # 1-33
33-10s-21w
 Job Ticket: 23491 **DST#: 2**
 Test Start: 2005.11.26 @ 09:52:40

GENERAL INFORMATION:

Formation: **L.Kc.-C&D**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**
 Time Tool Opened: **11:53:10** Tester: **John Schmidt**
 Time Test Ended: **18:00:10** Unit No: **31**
 Interval: **3498.00 ft (KB) To 3540.00 ft (KB) (TVD)** Reference Elevations: **2201.00 ft (KB)**
 Total Depth: **3540.00 ft (KB) (TVD)** **2196.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **5.00 ft**

Serial #: 8018 **Inside**
 Press@RunDepth: **884.76 psig @ 3501.00 ft (KB)** Capacity: **7000.00 psig**
 Start Date: **2005.11.26** End Date: **2005.11.26** Last Calib.: **2005.11.26**
 Start Time: **09:52:45** End Time: **18:00:09** Time On Btrn: **2005.11.26 @ 11:52:40**
 Time Off Btrn: **2005.11.26 @ 15:37:10**

TEST COMMENT: **IF-Strong B.O.B.in 1 min.** **IS-Good built to 1" in.**
FF-Strong B.O.B.in 3 min. **FSI-Dead**



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1647.69 | 90.76 | Initial Hydro-static |
| 1 | 97.63 | 90.00 | Open To Flow (1) |
| 29 | 566.41 | 96.36 | Shut-In(1) |
| 76 | 938.37 | 106.18 | End Shut-In(1) |
| 77 | 579.35 | 106.04 | Open To Flow (2) |
| 136 | 884.76 | 110.84 | Shut-In(2) |
| 224 | 935.40 | 111.35 | End Shut-In(2) |
| 225 | 1631.79 | 111.49 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 1795.00 | Salt Water | 23.49 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23491 **DST#: 2**
Test Start: 2005.11.26 @ 09:52:40

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3321.00 ft | Diameter: 3.80 inches | Volume: 46.58 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 185.00 ft | Diameter: 2.25 inches | Volume: 0.91 bbl | Weight to Pull Loose: 45000.00 lb |
| | | | <u>Total Volume: 47.49 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 31.00 ft | | | String Weight: Initial 32000.00 lb |
| Depth to Top Packer: | 3498.00 ft | | | Final 42000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 42.00 ft | | | |
| Tool Length: | 65.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

| | | | | | |
|-----------------|-------|-------|---------|---------|------------------------------------|
| Change Over Sub | 1.00 | | | 3476.00 | |
| Shut In Tool | 5.00 | | | 3481.00 | |
| Hydraulic tool | 5.00 | | | 3486.00 | |
| Safety Joint | 3.00 | | | 3489.00 | |
| Packer | 4.00 | | | 3493.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3498.00 | |
| Stubb | 1.00 | | | 3499.00 | |
| Perforations | 1.00 | | | 3500.00 | |
| Change Over Sub | 1.00 | | | 3501.00 | |
| Recorder | 0.00 | 8018 | Inside | 3501.00 | |
| Blank Spacing | 30.00 | | | 3531.00 | |
| Change Over Sub | 1.00 | | | 3532.00 | |
| Perforations | 5.00 | | | 3537.00 | |
| Recorder | 0.00 | 13308 | Outside | 3537.00 | |
| Bullnose | 3.00 | | | 3540.00 | 42.00 Bottom Packers & Anchor |

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig. Co., Inc.

Wapa Unit # 1-33

250 N. Water Ste. # 300
Wichita, Ks. 67202

33-10s-21w

Job Ticket: 23491

DST#: 2

ATTN: David Doyel

Test Start: 2005.11.26 @ 09:52:40

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:

95000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 1795.00 | Salt Water | 23.494 |

Total Length: 1795.00 ft

Total Volume: 23.776 bbl

Num Fluid Samples: 0

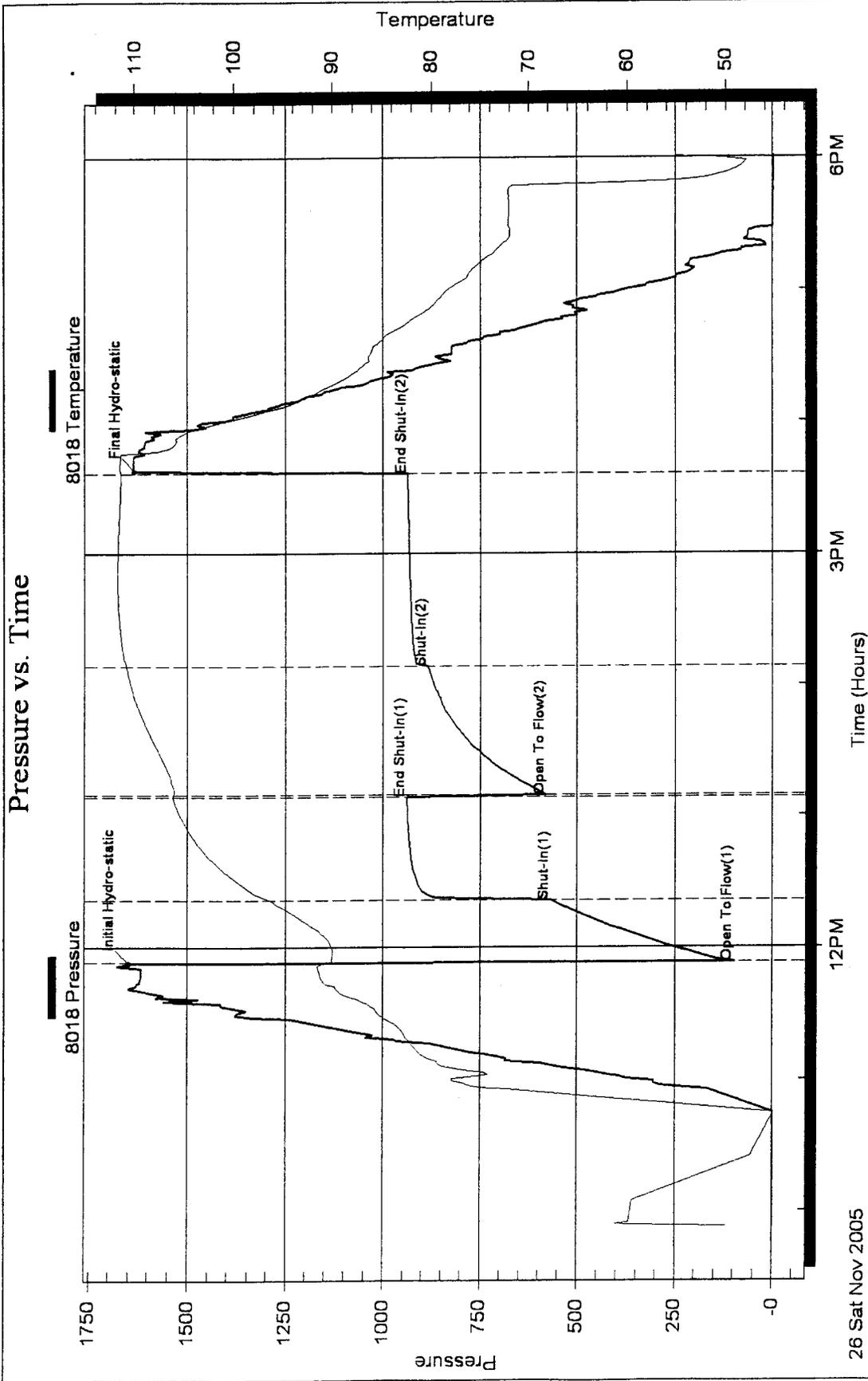
Num Gas Bombs: 0

Serial #:

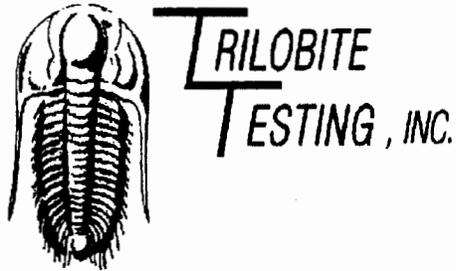
Laboratory Name:

Laboratory Location:

Recovery Comments:



26 Sat Nov 2005



DRILL STEM TEST REPORT

Prepared For: **Murfin Drig.Co.,Inc.**

250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33--10s--21w

Wapa Unit # 1-33

Start Date: 2005.11.27 @ 00:40:45

End Date: 2005.11.27 @ 07:52:45

Job Ticket #: 23492 DST #: 3

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

Murfin Drig.Co.,Inc.

Wapa Unit # 1-33

33--10s--21w

DST # 3

L.Kc.-E&F

2005.11.27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

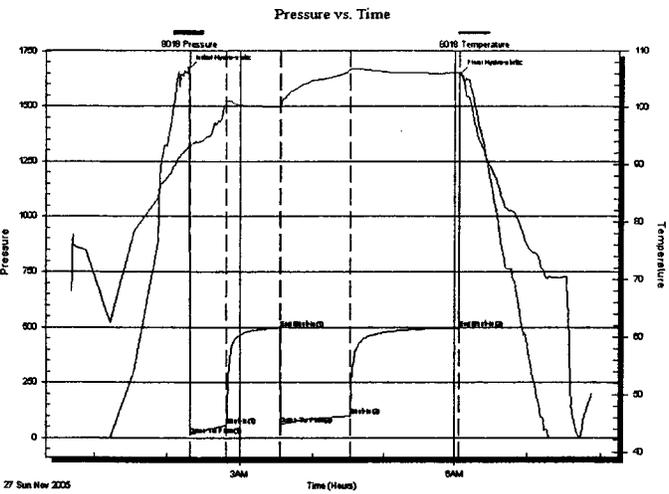
Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23492 DST#: 3
Test Start: 2005.11.27 @ 00:40:45

GENERAL INFORMATION:

Formation: **L.Kc.-E&F**
Deviated: **No Whipstock:** ft (KB)
Time Tool Opened: 02:18:45
Time Test Ended: 07:52:45
Interval: **3542.00 ft (KB) To 3570.00 ft (KB) (TVD)**
Total Depth: **3570.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **John Schmidt**
Unit No: **31**
Reference Elevations: **2201.00 ft (KB)**
2196.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 8018 **Inside**
Press@RunDepth: **98.65 psig @ 3544.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.11.27** End Date: **2005.11.27** Last Calib.: **2005.11.27**
Start Time: **00:40:50** End Time: **07:52:44** Time On Btm: **2005.11.27 @ 02:18:15**
Time Off Btm: **2005.11.27 @ 06:04:15**

TEST COMMENT: IF-Weak built to 3" in. ISI-Dead
FF-Weak built to 2" in. FSI-Dead



PRESSURE SUMMARY

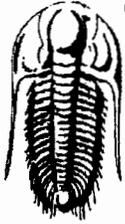
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1671.13 | 93.35 | Initial Hydro-static |
| 1 | 13.74 | 93.04 | Open To Flow (1) |
| 31 | 56.91 | 100.87 | Shut-In(1) |
| 75 | 496.36 | 100.13 | End Shut-In(1) |
| 76 | 59.11 | 99.93 | Open To Flow (2) |
| 134 | 98.65 | 106.53 | Shut-In(2) |
| 225 | 496.15 | 106.05 | End Shut-In(2) |
| 226 | 1649.70 | 105.84 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 180.00 | Muddy S. Water | 1.12 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig. Co., Inc.

Wapa Unit # 1-33

250 N.Water Ste.# 300
Wichita, Ks. 67202

33-10s-21w

Job Ticket: 23492

DST#: 3

ATTN: David Doyel

Test Start: 2005.11.27 @ 00:40:45

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3385.00 ft | Diameter: 3.80 inches | Volume: 47.48 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 35000.00 lb |
| | | | <u>Total Volume: 48.24 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 20.00 ft | | | String Weight: Initial 32000.00 lb |
| Depth to Top Packer: | 3542.00 ft | | | Final 32000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 28.00 ft | | | |
| Tool Length: | 51.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|-------------------------|--------------------|-------------------|-----------------|-------------------|-----------------------|
|-------------------------|--------------------|-------------------|-----------------|-------------------|-----------------------|

| | | | | | |
|-----------------|-------|-------|---------|---------|-------------------------------|
| Change Over Sub | 1.00 | | | 3520.00 | |
| Shut In Tool | 5.00 | | | 3525.00 | |
| Hydraulic tool | 5.00 | | | 3530.00 | |
| Safety Joint | 3.00 | | | 3533.00 | |
| Packer | 4.00 | | | 3537.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3542.00 | |
| Stubb | 1.00 | | | 3543.00 | |
| Perforations | 1.00 | | | 3544.00 | |
| Recorder | 0.00 | 8018 | Inside | 3544.00 | |
| Perforations | 23.00 | | | 3567.00 | |
| Recorder | 0.00 | 13308 | Outside | 3567.00 | |
| Bullnose | 3.00 | | | 3570.00 | 28.00 Bottom Packers & Anchor |

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig.Co., Inc.
250 N.Water Ste.# 300
Wchita, Ks. 67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23492 **DST#: 3**
Test Start: 2005.11.27 @ 00:40:45

Mud and Cushion Information

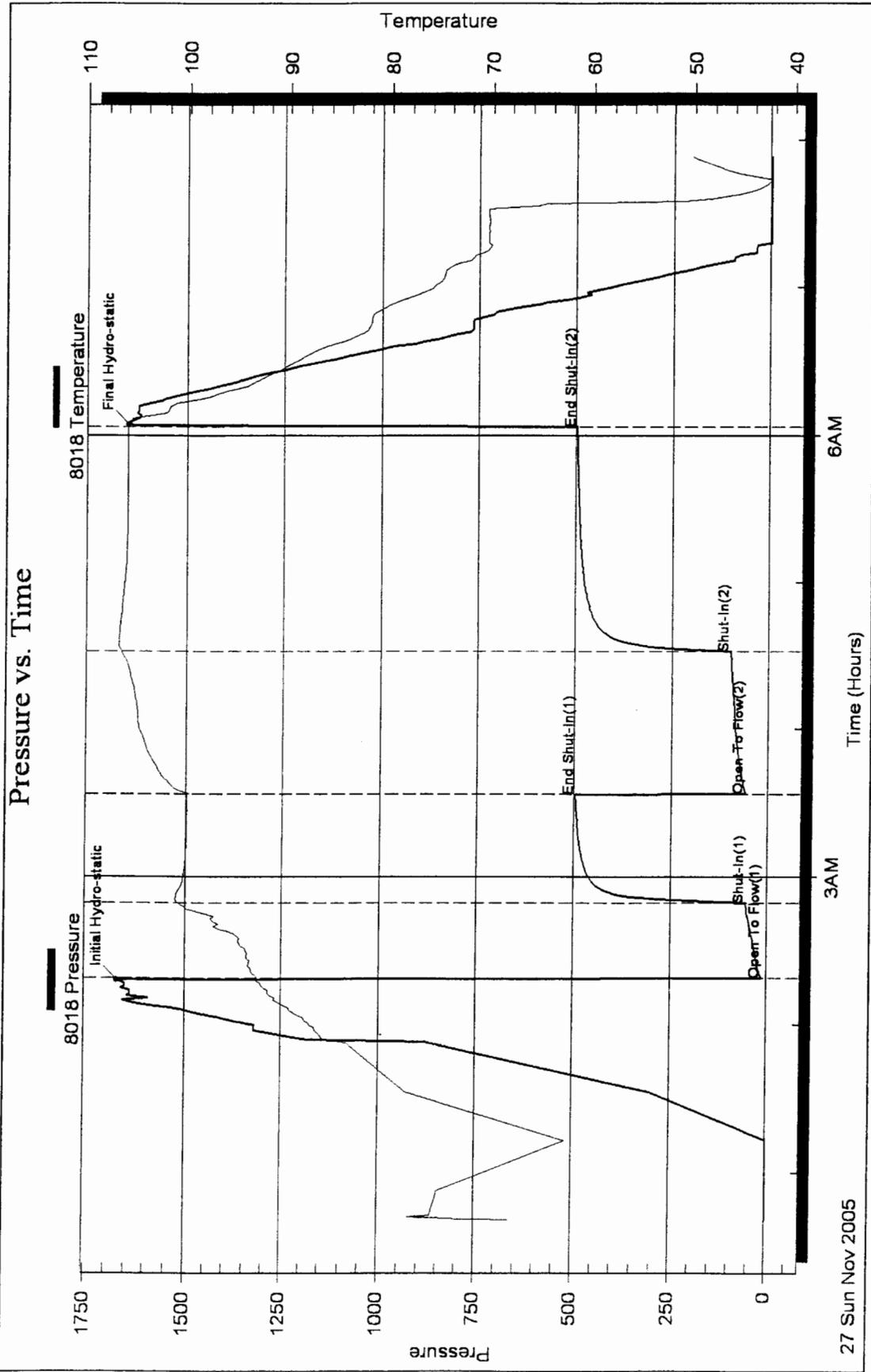
| | | | |
|----------------------------------|----------------------------|---------------------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: 71000 ppm | |
| Viscosity: 45.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.16 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 3900.00 ppm | | | |
| Filter Cake: inches | | | |

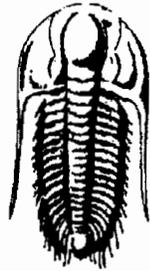
Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------|---------------|
| 180.00 | Muddy S.Water | 1.122 |

Total Length: 180.00 ft Total Volume: 1.122 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg.Co.,Inc.**

250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33--10s--21w

Wapa Unit # 1-33

Start Date: 2005.11.29 @ 17:58:57

End Date: 2005.11.30 @ 02:24:57

Job Ticket #: 23493 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drlg.Co.,Inc.

Wapa Unit # 1-33

33--10s--21w

DST # 4

L.Kc.-H&I

2005.11.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drig.Co., Inc.
250 N.Water Ste.# 300
Wichita, Ks. 67202
ATTN: David Doyel

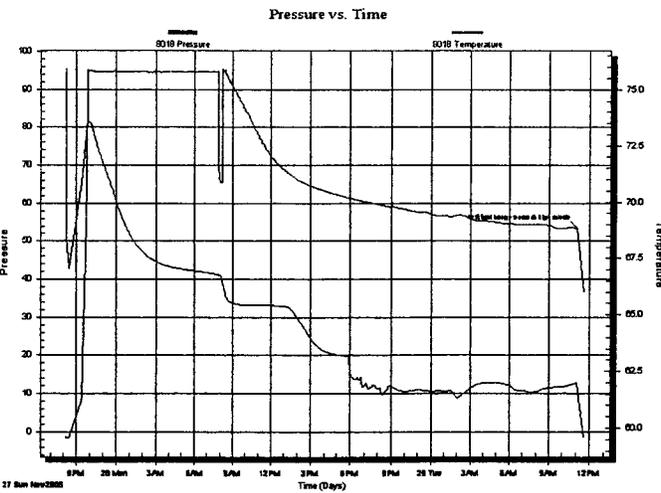
Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23493 **DST#: 4**
Test Start: 2005.11.29 @ 17:58:57

GENERAL INFORMATION:

Formation: **L.Kc.-H&I**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 20:24:27
Time Test Ended: 02:24:57
Test Type: **Conventional Bottom Hole**
Tester: **John Schmidt**
Unit No: **31**
Interval: **3593.00 ft (KB) To 3645.00 ft (KB) (TVD)**
Reference Elevations: **2201.00 ft (KB)**
Total Depth: **3645.00 ft (KB) (TVD)**
2196.00 ft (CF)
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
KB to GR/CF: **5.00 ft**

Serial #: 8018 **Inside**
Press@RunDepth: psig @ **3596.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.11.27** End Date: **2005.11.29** Last Calib.: **2005.11.30**
Start Time: **20:12:40** End Time: **11:54:35** Time On Btrm
Time Off Btrm

TEST COMMENT: Run 3 stands in shut down, High winds & snow
No Test Run



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------------------------|
| 0 | 53.43 | 62.00 | Left tool hang - snow & high |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 60.00 | D.Mud | 0.30 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig. Co., Inc.

Wapa Unit # 1-33

250 N. Water Ste. # 300
Wichita, Ks. 67202

33-10s-21w

Job Ticket: 23493

DST#: 4

ATTN: David Doyel

Test Start: 2005.11.29 @ 17:58:57

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3446.00 ft | Diameter: 3.80 inches | Volume: 48.34 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 44000.00 lb |
| | | | <u>Total Volume: 49.10 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 30.00 ft | | | String Weight: Initial 32000.00 lb |
| Depth to Top Packer: | 3593.00 ft | | | Final 32000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 52.00 ft | | | |
| Tool Length: | 75.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3571.00 | |
| Shut In Tool | 5.00 | | | 3576.00 | |
| Hydraulic tool | 5.00 | | | 3581.00 | |
| Safety Joint | 3.00 | | | 3584.00 | |
| Packer | 4.00 | | | 3588.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3593.00 | |
| Stubb | 1.00 | | | 3594.00 | |
| Perforations | 1.00 | | | 3595.00 | |
| Change Over Sub | 1.00 | | | 3596.00 | |
| Recorder | 0.00 | 8018 | Inside | 3596.00 | |
| Blank Spacing | 30.00 | | | 3626.00 | |
| Change Over Sub | 1.00 | | | 3627.00 | |
| Recorder | 0.00 | 11084 | Outside | 3627.00 | |
| Perforations | 15.00 | | | 3642.00 | |
| Bullnose | 3.00 | | | 3645.00 | 52.00 Bottom Packers & Anchor |

Total Tool Length: 75.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig.Co., Inc.
250 N.Water Ste.# 300
Wichita, Ks. 67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23493 **DST#: 4**
Test Start: 2005.11.29 @ 17:58:57

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: | ppm |
| Viscosity: 53.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.57 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 5100.00 ppm | | | |
| Filter Cake: inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 60.00 | D.Mud | 0.295 |

Total Length: 60.00 ft Total Volume: 0.295 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8018

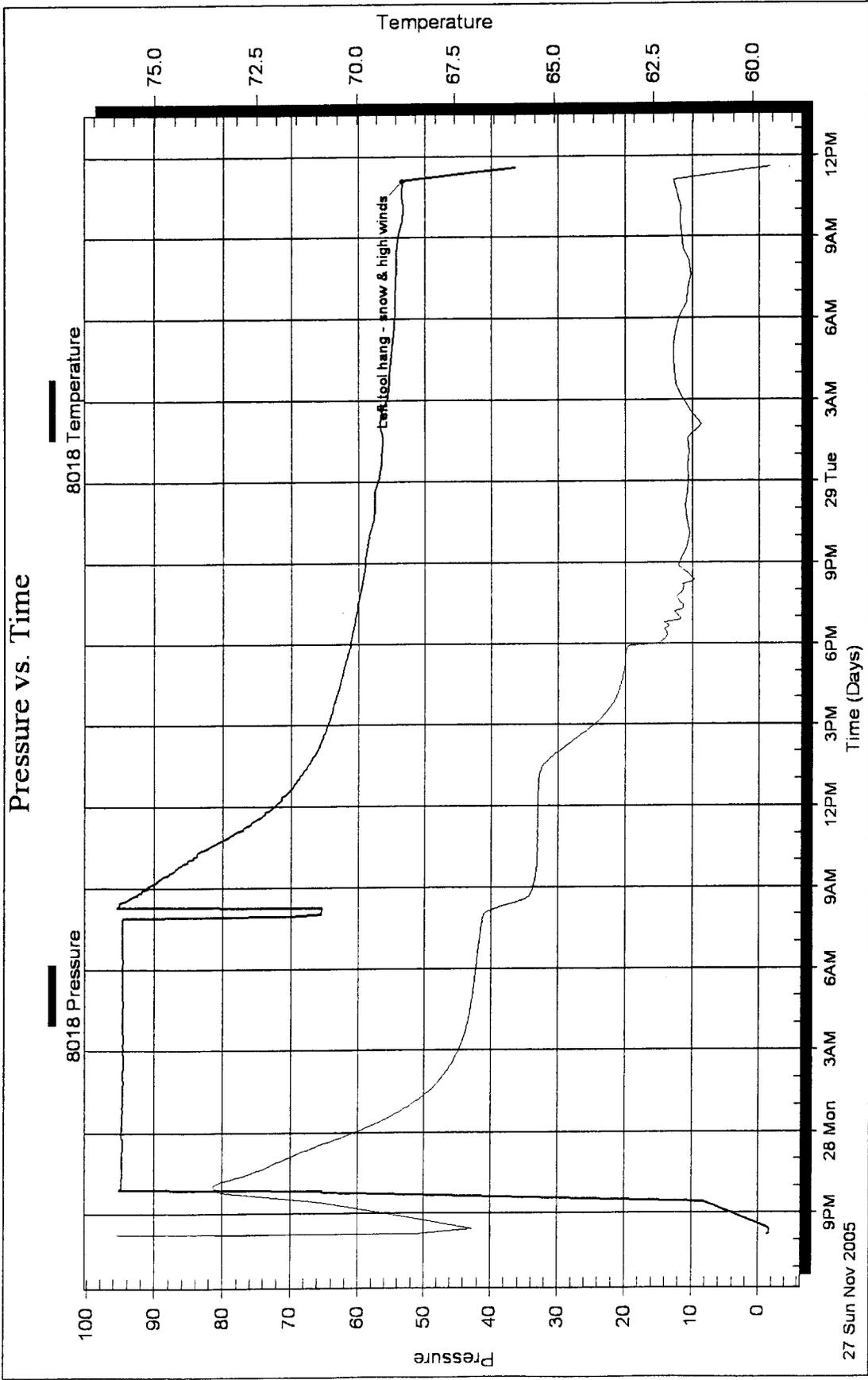
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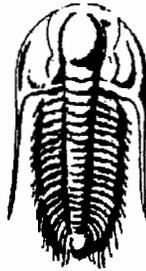
Murfin Dtg. Co., Inc.

33--10s--21w

DST Test Number: 4

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg.Co.,Inc.**

250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33-10s-21w

Wapa Unit # 1-33

Start Date: 2005.11.29 @ 17:58:57

End Date: 2005.11.30 @ 02:24:57

Job Ticket #: 23494 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drlg.Co.,Inc.

Wapa Unit # 1-33

33-10s-21w

DST # 5

L.Kc.-H&I

2005.11.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drig. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

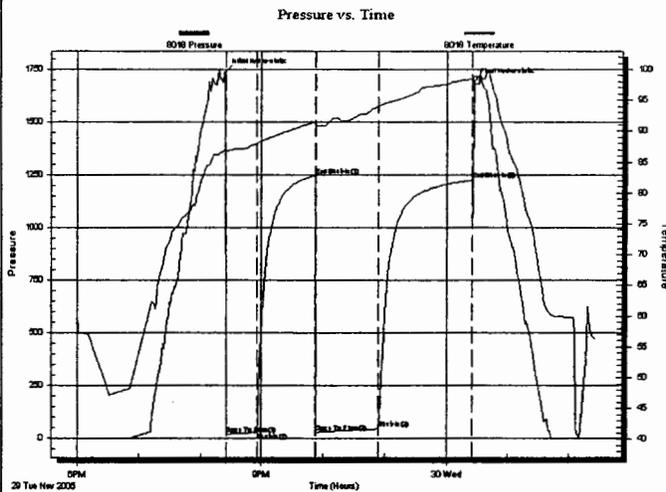
Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23494 **DST#: 5**
Test Start: 2005.11.29 @ 17:58:57

GENERAL INFORMATION:

Formation: **L.Kc.-H&I**
Deviated: **No** Whipstock: ft (KB) Test Type: **Conventional Bottom Hole**
Time Tool Opened: 20:24:27 Tester: **John Schmidt**
Time Test Ended: 02:24:57 Unit No: **31**
Interval: **3593.00 ft (KB) To 3645.00 ft (KB) (TVD)** Reference Elevations: **2201.00 ft (KB)**
Total Depth: **3645.00 ft (KB) (TVD)** **2196.00 ft (CF)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair** **KB to GR/CF: 5.00 ft**

Serial #: 8018 **Inside**
Press@RunDepth: **43.54 psig @ 3596.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.11.29** End Date: **2005.11.30** Last Calib.: **2005.11.30**
Start Time: **17:59:02** End Time: **02:24:56** Time On Btrm: **2005.11.29 @ 20:23:57**
Time Off Btrm: **2005.11.30 @ 00:25:57**

TEST COMMENT: IF-Weak built to 1&1/2" in. ISI-Dead
FF-Weak built to 1/2" in. FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1732.48 | 86.90 | Initial Hydro-static |
| 1 | 17.38 | 86.52 | Open To Flow (1) |
| 32 | 26.54 | 87.97 | Shut-In(1) |
| 88 | 1244.34 | 91.48 | End Shut-In(1) |
| 89 | 28.19 | 91.05 | Open To Flow (2) |
| 150 | 43.54 | 93.95 | Shut-In(2) |
| 241 | 1223.62 | 98.51 | End Shut-In(2) |
| 242 | 1691.24 | 98.85 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 60.00 | D.Mud | 0.30 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23494 **DST#: 5**
Test Start: 2005.11.29 @ 17:58:57

Tool Information

| | | | | |
|----------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe: | Length: 3447.00 ft | Diameter: 3.80 inches | Volume: 48.35 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 44000.00 lb |
| | | Total Volume: 49.11 bbl | | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 31.00 ft | | | String Weight: Initial 32000.00 lb |
| Depth to Top Packer: | 3593.00 ft | | | Final 32000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval betw een Packers: | 52.00 ft | | | |
| Tool Length: | 75.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|-------------------------|--------------------|-------------------|-----------------|-------------------|-----------------------|
|-------------------------|--------------------|-------------------|-----------------|-------------------|-----------------------|

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|-------------------------|--------------------|-------------------|-----------------|-------------------|------------------------------------|
| Change Over Sub | 1.00 | | | 3571.00 | |
| Shut In Tool | 5.00 | | | 3576.00 | |
| Hydraulic tool | 5.00 | | | 3581.00 | |
| Safety Joint | 3.00 | | | 3584.00 | |
| Packer | 4.00 | | | 3588.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3593.00 | |
| Stubb | 1.00 | | | 3594.00 | |
| Perforations | 1.00 | | | 3595.00 | |
| Change Over Sub | 1.00 | | | 3596.00 | |
| Recorder | 0.00 | 8018 | Inside | 3596.00 | |
| Blank Spacing | 30.00 | | | 3626.00 | |
| Change Over Sub | 1.00 | | | 3627.00 | |
| Recorder | 0.00 | 11084 | Outside | 3627.00 | |
| Perforations | 15.00 | | | 3642.00 | |
| Bullnose | 3.00 | | | 3645.00 | 52.00 Bottom Packers & Anchor |

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig.Co., Inc.

Wapa Unit # 1-33

250 N.Water Ste.# 300
Wichita,Ks.67202

33-10s-21w

Job Ticket: 23494

DST#: 5

ATTN: David Doyel

Test Start: 2005.11.29 @ 17:58:57

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:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 51000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 60.00 | D.Mud | 0.295 |

Total Length: 60.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

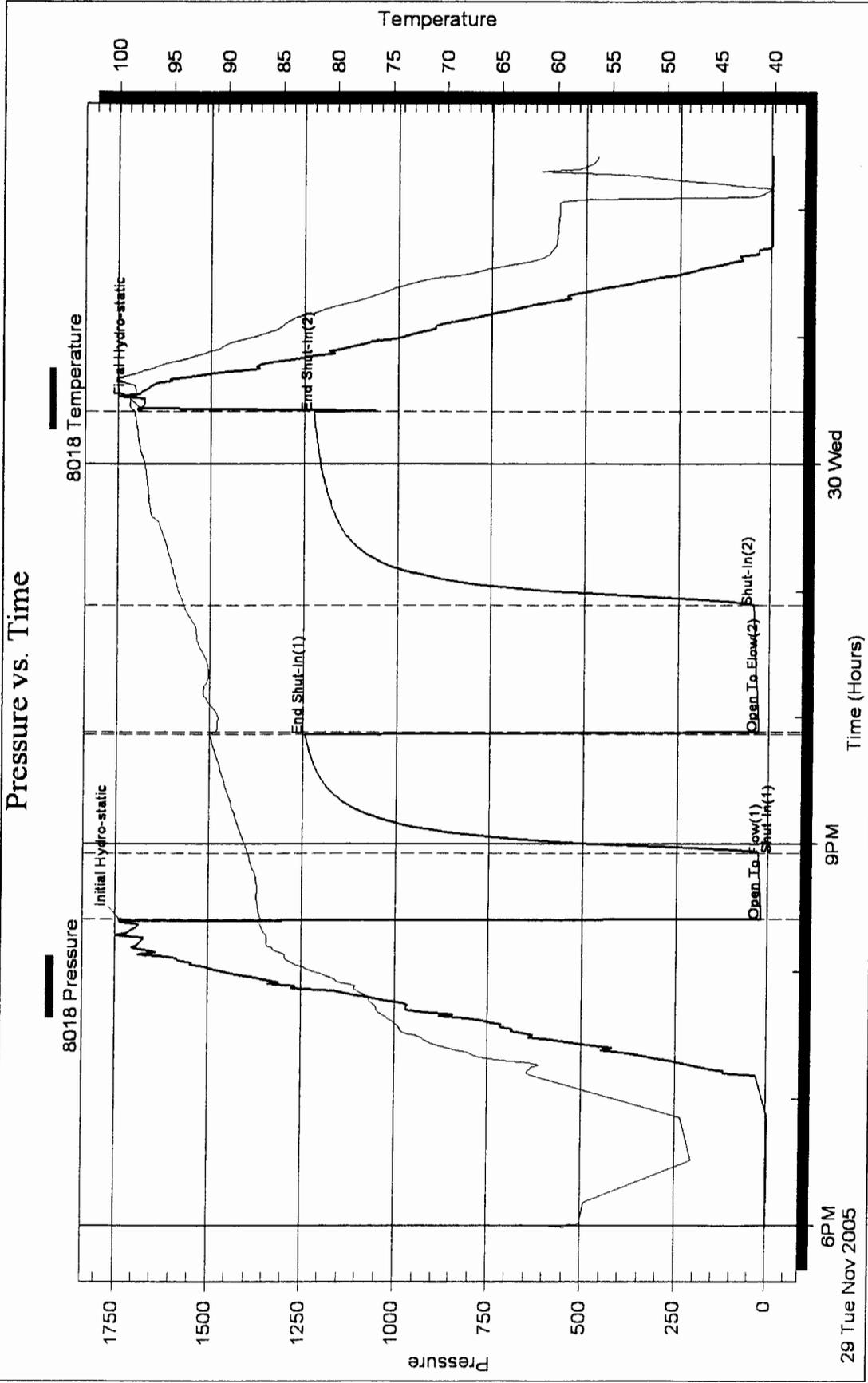
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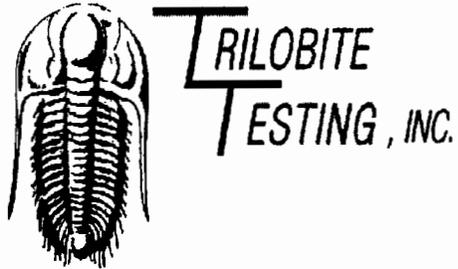
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drig.Co.,Inc.**

250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33-10s-21w

Wapa Unit # 1-33

Start Date: 2005.11.30 @ 13:50:42

End Date: 2005.11.30 @ 20:28:42

Job Ticket #: 23495 DST #: 6

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

Murfin Drig.Co.,Inc.

Wapa Unit # 1-33

33-10s-21w

DST # 6

L.Kc.-J,K,L

2005.11.30



**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drig.Co.,Inc.
250 N.Water Ste.# 300
Wichita,Ks.67202
ATTN: David Doyel

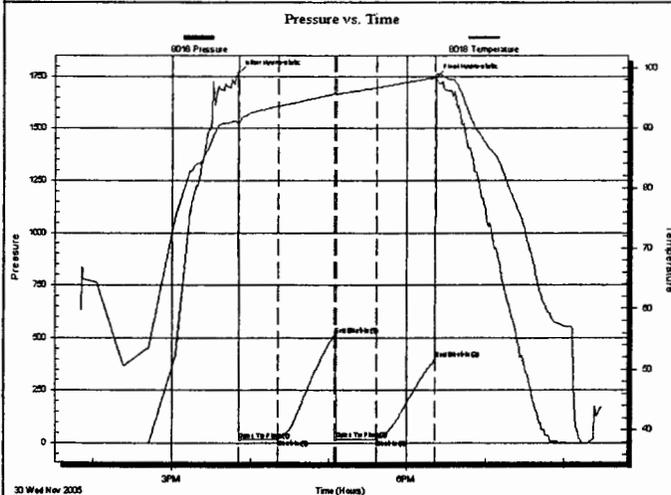
Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23495 DST#: 6
Test Start: 2005.11.30 @ 13:50:42

GENERAL INFORMATION:

Formation: **L.Kc.-J,K,L**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 15:50:42
Time Test Ended: 20:28:42
Interval: **3646.00 ft (KB) To 3720.00 ft (KB) (TVD)**
Total Depth: **3720.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: Fair
Test Type: **Conventional Bottom Hole**
Tester: **John Schmidt**
Unit No: **31**
Reference Elevations: **2201.00 ft (KB)**
2196.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 8018 **Inside**
Press@RunDepth: **18.81 psig @ 3649.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.11.30** End Date: **2005.11.30** Last Calib.: **2005.11.30**
Start Time: **13:50:47** End Time: **20:28:41** Time On Btm: **2005.11.30 @ 15:50:12**
Time Off Btm: **2005.11.30 @ 18:22:12**

TEST COMMENT: IF-Weak Dead in 12 min. ISI-Dead
FF-Dead FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1763.55 | 90.87 | Initial Hydro-static |
| 1 | 15.16 | 90.76 | Open To Flow (1) |
| 31 | 17.80 | 93.55 | Shut-In(1) |
| 75 | 514.88 | 95.63 | End Shut-In(1) |
| 76 | 18.41 | 95.53 | Open To Flow (2) |
| 107 | 18.81 | 96.68 | Shut-In(2) |
| 152 | 397.96 | 98.34 | End Shut-In(2) |
| 152 | 1745.89 | 99.01 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00 | D.Mud | 0.02 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig. Co., Inc.

Wapa Unit # 1-33

250 N. Water Ste. # 300
Wichita, Ks. 67202

33-10s-21w

Job Ticket: 23495

DST#: 6

ATTN: David Doyel

Test Start: 2005.11.30 @ 13:50:42

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3479.00 ft | Diameter: 3.80 inches | Volume: 48.80 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 40000.00 lb |
| | | | Total Volume: 49.56 bbl | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 32000.00 lb |
| Depth to Top Packer: | 3646.00 ft | | | Final 32000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 74.00 ft | | | |
| Tool Length: | 97.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3624.00 | |
| Shut In Tool | 5.00 | | | 3629.00 | |
| Hydraulic tool | 5.00 | | | 3634.00 | |
| Safety Joint | 3.00 | | | 3637.00 | |
| Packer | 4.00 | | | 3641.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3646.00 | |
| Stubb | 1.00 | | | 3647.00 | |
| Perforations | 1.00 | | | 3648.00 | |
| Change Over Sub | 1.00 | | | 3649.00 | |
| Recorder | 0.00 | 8018 | Inside | 3649.00 | |
| Blank Spacing | 62.00 | | | 3711.00 | |
| Change Over Sub | 1.00 | | | 3712.00 | |
| Perforations | 5.00 | | | 3717.00 | |
| Recorder | 0.00 | 13308 | Outside | 3717.00 | |
| Bullnose | 3.00 | | | 3720.00 | 74.00 Bottom Packers & Anchor |

Total Tool Length: 97.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.,Inc.
250 N.Water Ste.# 300
Wichita,Ks.67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23495 **DST#: 6**
Test Start: 2005.11.30 @ 13:50:42

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: | ppm |
| Viscosity: 52.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 6.36 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 2600.00 ppm | | | |
| Filter Cake: inches | | | |

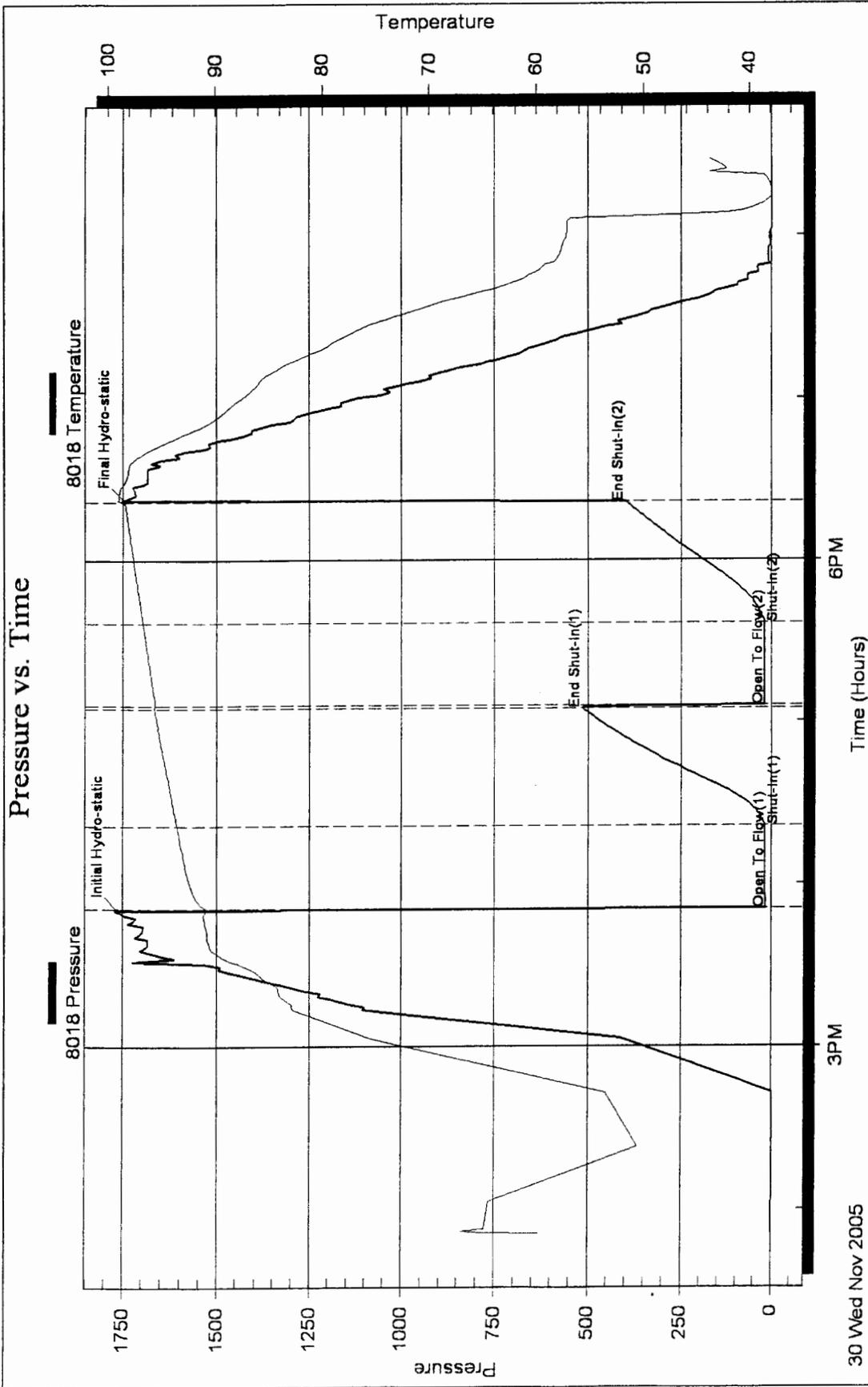
Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | D.Mud | 0.025 |

Total Length: 5.00 ft Total Volume: 0.025 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

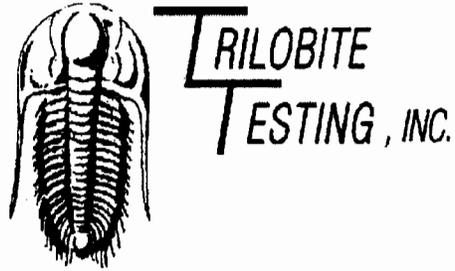
Pressure vs. Time



30 Wed Nov 2005

3PM

6PM



DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg.Co.,Inc.**
250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33-10s-21w

Wapa Unit # 1-33

Start Date: 2005.12.01 @ 10:33:43
End Date: 2005.12.01 @ 18:43:43
Job Ticket #: 23496 DST #: 7

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

Murfin Drlg.Co.,Inc.

Wapa Unit # 1-33

33--10s--21w

DST # 7

Arbuckle

2005.12.01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drig. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

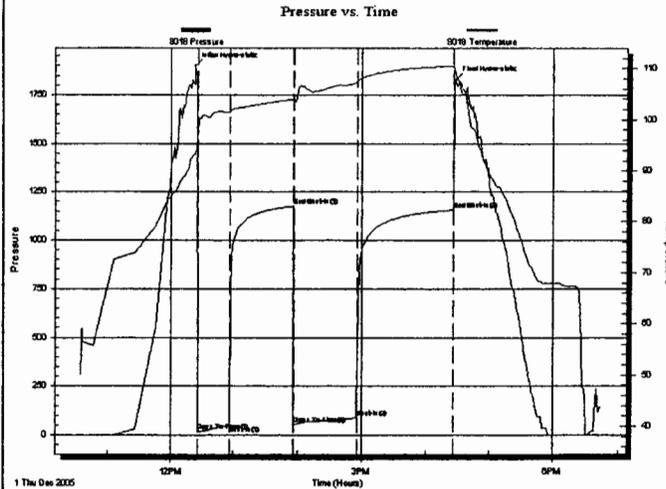
Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23496 **DST#: 7**
Test Start: 2005.12.01 @ 10:33:43

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 12:26:13
Time Test Ended: 18:43:43
Interval: **3798.00 ft (KB) To 3810.00 ft (KB) (TVD)**
Total Depth: **3810.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **John Schmidt**
Unit No: **31**
Reference Elevations: **2201.00 ft (KB)**
2196.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 8018 **Inside**
Press@RunDepth: **87.64 psig @ 3799.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2005.12.01** End Date: **2005.12.01** Last Calib.: **2005.12.01**
Start Time: **10:33:48** End Time: **18:43:42** Time On Btrr: **2005.12.01 @ 12:23:43**
Time Off Btrr: **2005.12.01 @ 16:28:13**

TEST COMMENT: **IF-Weak to good built to 7" in.** **ISI-Weak surf. blow back.**
FF-Weak tp strong B.O.B. 48 min. **FSI-Weak surf. blow back.**



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1898.00 | 93.33 | Initial Hydro-static |
| 3 | 18.35 | 97.31 | Open To Flow (1) |
| 33 | 49.11 | 101.51 | Shut-In (1) |
| 92 | 1175.74 | 103.97 | End Shut-In (1) |
| 93 | 52.39 | 103.57 | Open To Flow (2) |
| 152 | 87.64 | 107.25 | Shut-In (2) |
| 243 | 1157.09 | 110.49 | End Shut-In (2) |
| 245 | 1825.89 | 109.02 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 194.00 | Clean oil | 1.32 |
| 0.00 | 50 gas in pipe | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig.Co., Inc.
250 N.Water Ste.# 300
Wchita,Ks.67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23496 **DST#: 7**
Test Start: 2005.12.01 @ 10:33:43

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3631.00 ft | Diameter: 3.80 inches | Volume: 50.93 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 40000.00 lb |
| | | | <u>Total Volume: 51.69 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 34000.00 lb |
| Depth to Top Packer: | 3798.00 ft | | | Final 35000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 12.00 ft | | | |
| Tool Length: | 35.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|------------------------------------|
| Change Over Sub | 1.00 | | | 3776.00 | |
| Shut In Tool | 5.00 | | | 3781.00 | |
| Hydraulic tool | 5.00 | | | 3786.00 | |
| Safety Joint | 3.00 | | | 3789.00 | |
| Packer | 4.00 | | | 3793.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3798.00 | |
| Stubb | 1.00 | | | 3799.00 | |
| Recorder | 0.00 | 8018 | inside | 3799.00 | |
| Perforations | 8.00 | | | 3807.00 | |
| Recorder | 0.00 | 13308 | Outside | 3807.00 | |
| Bullnose | 3.00 | | | 3810.00 | 12.00 Bottom Packers & Anchor |

Total Tool Length: 35.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig.Co.,Inc.
250 N.Water Ste.# 300
Wichita,Ks.67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23496 **DST#: 7**
Test Start: 2005.12.01 @ 10:33:43

Mud and Cushion Information

| | | | |
|----------------------------------|----------------------------|-----------------|------------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | 32 deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 57.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.59 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 5000.00 ppm | | | |
| Filter Cake: inches | | | |

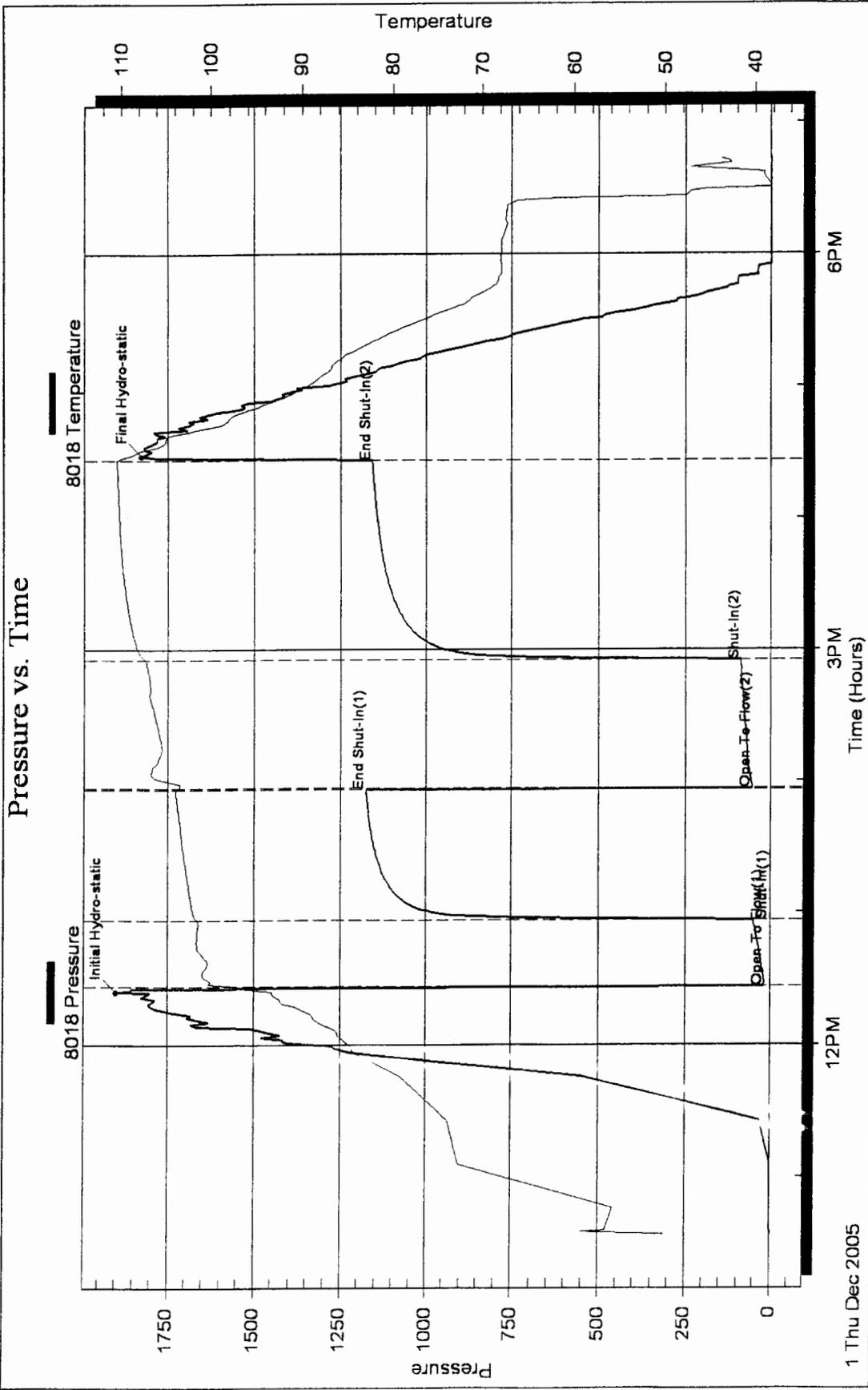
Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------|---------------|
| 194.00 | Clean oil | 1.318 |
| 0.00 | 50 gas in pipe | 0.000 |

Total Length: 194.00 ft Total Volume: 1.318 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg.Co.,Inc.**

250 N.Water Ste.# 300
Wichita,Ks.67202

ATTN: David Doyel

33-10s-21w

Wapa Unit # 1-33

Start Date: 2005.12.02 @ 03:24:22

End Date: 2005.12.02 @ 12:39:22

Job Ticket #: 23497 DST #: 8

ORIGINAL

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drlg.Co.,Inc.

Wapa Unit # 1-33

33-10s-21w

DST # 8

Arbuckle

2005.12.02

15-065-23114-00-00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drig. Co., Inc.
250 N. Water Ste. # 300
Wichita, Ks. 67202
ATTN: David Doyel

Wapa Unit # 1-33
33-10s-21w
Job Ticket: 23497 **DST#: 8**
Test Start: 2005.12.02 @ 03:24:22

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3663.00 ft | Diameter: 3.80 inches | Volume: 51.38 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.70 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 154.00 ft | Diameter: 2.25 inches | Volume: 0.76 bbl | Weight to Pull Loose: 44000.00 lb |
| | | | <u>Total Volume: 52.14 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 30.00 ft | | | String Weight: Initial 34000.00 lb |
| Depth to Top Packer: | 3810.00 ft | | | Final 38000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 15.00 ft | | | |
| Tool Length: | 38.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|------------------------------------|
| Change Over Sub | 1.00 | | | 3788.00 | |
| Shut In Tool | 5.00 | | | 3793.00 | |
| Hydraulic tool | 5.00 | | | 3798.00 | |
| Safety Joint | 3.00 | | | 3801.00 | |
| Packer | 4.00 | | | 3805.00 | 23.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3810.00 | |
| Stubb | 1.00 | | | 3811.00 | |
| Recorder | 0.00 | 8018 | Inside | 3811.00 | |
| Perforations | 11.00 | | | 3822.00 | |
| Recorder | 0.00 | 13308 | Outside | 3822.00 | |
| Bullnose | 3.00 | | | 3825.00 | 15.00 Bottom Packers & Anchor |

Total Tool Length: 38.00

ORIGINAL

15-065-23114-00-00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drig.Co., Inc.

Wapa Unit # 1-33

250 N.Water Ste.# 300
Wichita, Ks. 67202

33-10s-21w

Job Ticket: 23497

DST#: 8

ATTN: David Doyel

Test Start: 2005.12.02 @ 03:24:22

ORIGINAL

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

39000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------|---------------|
| 650.00 | S.Water | 7.715 |
| 860.00 | C.G.O-5%G-95%oil | 12.064 |
| 0.00 | 120 gas in pipe | 0.000 |

Total Length: 1510.00 ft

Total Volume: 19.779 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

15-065-23114-00-00

DST Test Number: 8

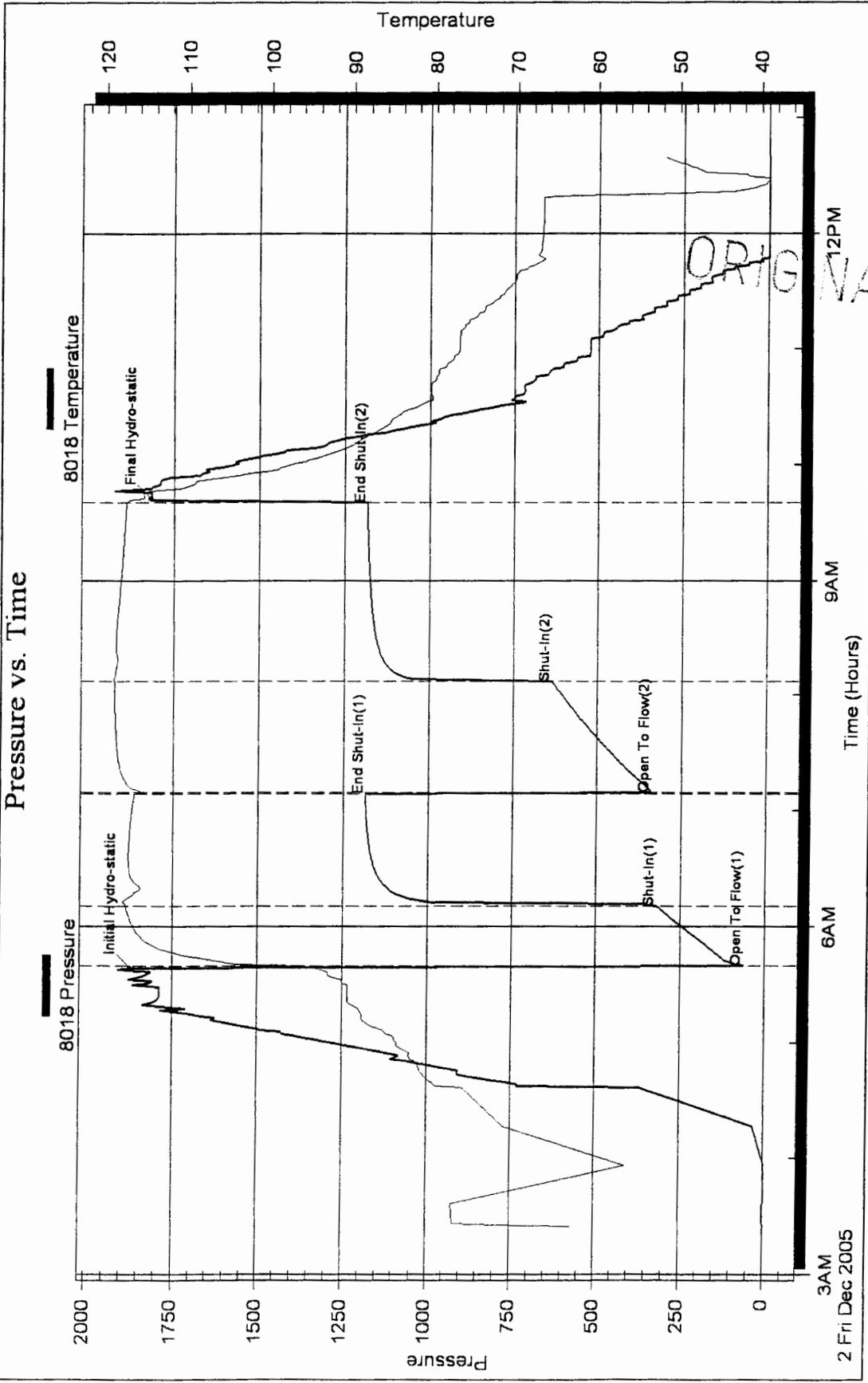
33-10s-21w

Murfin Drig Co., Inc.

Inside

Serial #: 8018

Pressure vs. Time



ORIGINAL