

**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO Inc**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**5 9S 18W Rooks KS**

**Gertrude # 1-5**

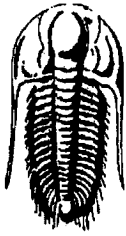
Start Date: 2007.03.19 @ 16:03:49

End Date: 2007.03.20 @ 00:21:19

Job Ticket #: 27547                      DST #: 1

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

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**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27547

DST#: 1

Test Start: 2007.03.19 @ 16:03:49

## GENERAL INFORMATION:

Formation: **Tor.-L.Kc.-A,B,C.D.**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 18:10:19

Time Test Ended: 00:21:19

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **31**

Interval: **3178.00 ft (KB) To 3285.00 ft (KB) (TVD)**

Total Depth: **3285.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2062.00 ft (KB)**

**2057.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 6669** **Inside**

Press@RunDepth: **101.15 psig @ 3181.00 ft (KB)**

Start Date: **2007.03.19**

End Date: **2007.03.20**

Capacity: **7000.00 psig**

Last Calib.: **2007.03.20**

Start Time: **16:03:54**

End Time: **00:21:18**

Time On Btm: **2007.03.19 @ 16:03:54**

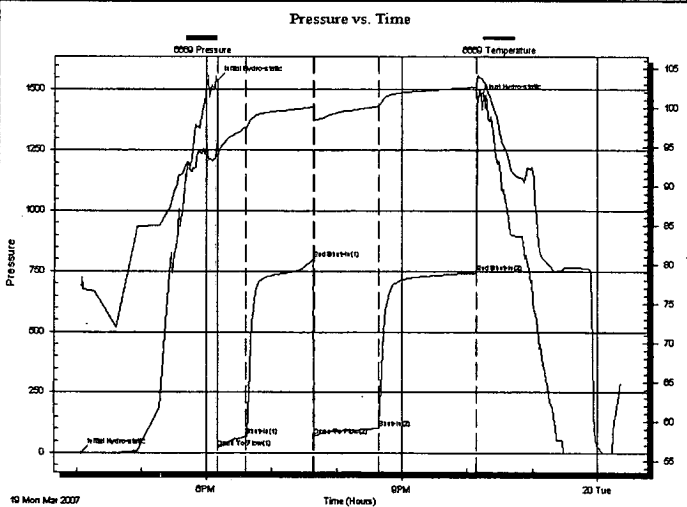
Time Off Btm: **2007.03.19 @ 22:09:19**

TEST COMMENT: **IF Weak to fair built to 6 "**

**ISI Dead**

**FF Strong BOB 23 min.**

**FSI Blow back built 2 "**



## PRESSURE SUMMARY

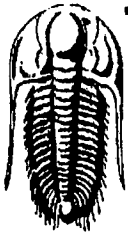
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	-1.08	77.25	Initial Hydro-static
126	1537.21	95.65	Initial Hydro-static
127	20.79	93.63	Open To Flow (1)
153	67.82	97.53	Shut-In(1)
215	802.65	100.14	End Shut-In(1)
216	70.60	98.57	Open To Flow(2)
275	101.15	100.20	Shut-In(2)
365	743.57	102.64	End Shut-In(2)
366	1463.23	103.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
165.00	OCM 25%O 75%M	0.81
55.00	Clean Oil	0.59

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Murfin Drilling CO Inc

**Gertrude # 1-5**

250 N Water Ste 300  
Wichita KS 67202

**5 9S 18W Rooks KS**

Job Ticket: 27547

**DST#: 1**

ATTN: Shauna Gunzelman

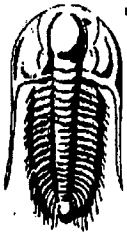
Test Start: 2007.03.19 @ 16:03:49

**Tool Information**

Drill Pipe:	Length: 2984.00 ft	Diameter: 3.80 inches	Volume: 41.86 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 50000.00 lb
		<b>Total Volume:</b>	<b>42.77 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3178.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	107.00 ft			
Tool Length:	130.00 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			3156.00	
Shut In Tool	5.00			3161.00	
Hydraulic tool	5.00			3166.00	
Safety Joint	3.00			3169.00	
Packer	4.00			3173.00	23.00 Bottom Of Top Packer
Packer	5.00			3178.00	
Stubb	1.00			3179.00	
Perforations	1.00			3180.00	
Change Over Sub	1.00			3181.00	
Recorder	0.00	6669	Inside	3181.00	
Blank Spacing	30.00			3211.00	
Recorder	0.00	11084	Outside	3211.00	
Blank Spacing	61.00			3272.00	
Change Over Sub	1.00			3273.00	
Perforations	9.00			3282.00	
Bullnose	3.00			3285.00	107.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>130.00</b>				



**TRILOBITE  
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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Murfin Drilling CO Inc

**Gertrude # 1-5**

250 N Water Ste 300  
Wichita KS 67202

**5 9S 18W Rooks KS**

Job Ticket: 27547

**DST#: 1**

ATTN: Shauna Gunzelman

Test Start: 2007.03.19 @ 16:03:49

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
165.00	OCM 25%O 75%M	0.811
55.00	Clean Oil	0.589

Total Length: 220.00 ft      Total Volume: 1.400 bbl

Num Fluid Samples: 0

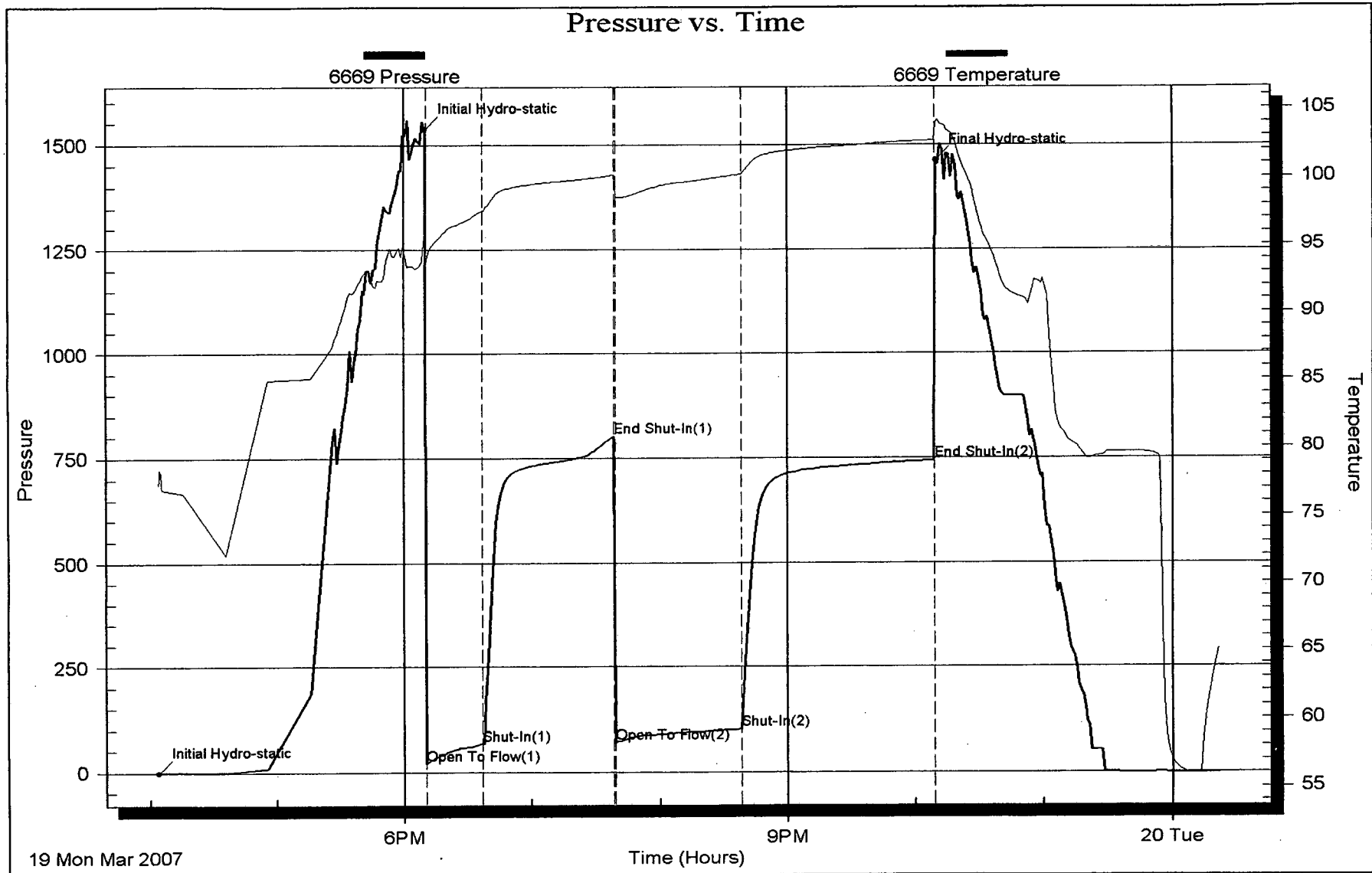
Num Gas Bombs: 0

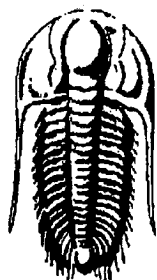
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





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## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO Inc**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**5 9S 18W Rooks KS**

**Gertrude # 1-5**

Start Date: 2007.03.20 @ 11:04:55

End Date: 2007.03.20 @ 18:52:55

Job Ticket #: 27548                      DST #: 2

Trilobite Testing, Inc

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



**TRILOBITE  
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## DRILL STEM TEST REPORT

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27548

**DST#: 2**

Test Start: 2007.03.20 @ 11:04:55

### GENERAL INFORMATION:

Formation: **L.Kc.-E,F,G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:39:25

Time Test Ended: 18:52:55

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 31

Interval: **3288.00 ft (KB) To 3328.00 ft (KB) (TVD)**

Reference Elevations: 2062.00 ft (KB)

Total Depth: 3328.00 ft (KB) (TVD)

2057.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6669** Inside

Press@RunDepth: 555.85 psig @ 3295.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2007.03.20

End Date: 2007.03.20

Last Calib.: 2007.03.20

Start Time: 11:05:00

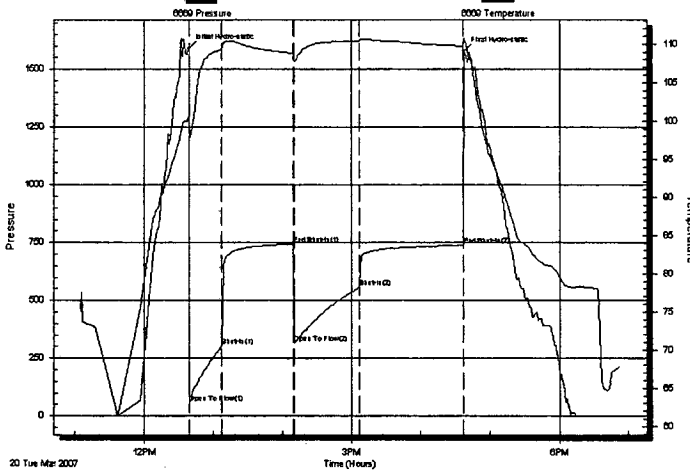
End Time: 18:52:54

Time On Btm: 2007.03.20 @ 12:38:55

Time Off Btm: 2007.03.20 @ 16:37:25

**TEST COMMENT:** IF Strong BOB 2 min.  
ISI Strong BOB 13 min.  
FF Strong BOB 3 min.  
FSI Strong BOB 12 min.

Pressure vs. Time



### PRESSURE SUMMARY

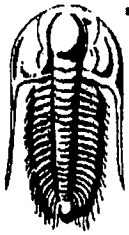
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1588.69	100.52	Initial Hydro-static
1	56.07	97.70	Open To Flow (1)
29	303.05	109.35	Shut-In (1)
90	743.45	108.81	End Shut-In (1)
91	312.27	107.85	Open To Flow (2)
148	555.85	110.41	Shut-In (2)
238	739.26	109.73	End Shut-In (2)
239	1577.23	110.76	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
735.00	Salt water	8.62
60.00	SOCW-2%O-98%w	0.84
60.00	GOCW 5%G 10%O 85%W	0.84
60.00	GOCW 10%G 30%O 60%W	0.84
280.00	Gassy Oil 10%G 90%O	3.93
0.00	870 GIP	0.00

### Gas Rates

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



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**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Murfin Drilling CO Inc  
250 N Water Ste 300  
Wichita KS 67202

**Gertrude # 1-5**  
**5 9S 18W Rooks KS**  
Job Ticket: 27548      **DST#: 2**  
Test Start: 2007.03.20 @ 11:04:55

ATTN: Shauna Gunzelman

**Tool Information**

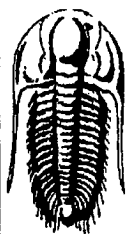
Drill Pipe:	Length: 3105.00 ft	Diameter: 3.80 inches	Volume: 43.55 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 44.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3288.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	63.00 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			3266.00	
Shut In Tool	5.00			3271.00	
Hydraulic tool	5.00			3276.00	
Safety Joint	3.00			3279.00	
Packer	4.00			3283.00	23.00      Bottom Of Top Packer
Packer	5.00			3288.00	
Stubb	1.00			3289.00	
Perforations	6.00			3295.00	
Recorder	0.00	6669	Inside	3295.00	
Perforations	30.00			3325.00	
Recorder	0.00	11084	Outside	3325.00	
Bullnose	3.00			3328.00	40.00      Bottom Packers & Anchor

**Total Tool Length: 63.00**



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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling CO Inc

**Gertrude # 1-5**

250 N Water Ste 300  
Wichita KS 67202

**5 9S 18W Rooks KS**

Job Ticket: 27548

**DST#: 2**

ATTN: Shauna Gunzelman

Test Start: 2007.03.20 @ 11:04:55

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

46000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
735.00	Salt water	8.625
60.00	SOCW-2%O-98%w	0.842
60.00	GOCW 5%G 10%O 85%W	0.842
60.00	GOCW 10%G 30%O 60%W	0.842
280.00	Gassy Oil 10%G 90%O	3.928
0.00	870 GIP	0.000

Total Length: 1195.00 ft

Total Volume: 15.079 bbl

Num Fluid Samples: 0

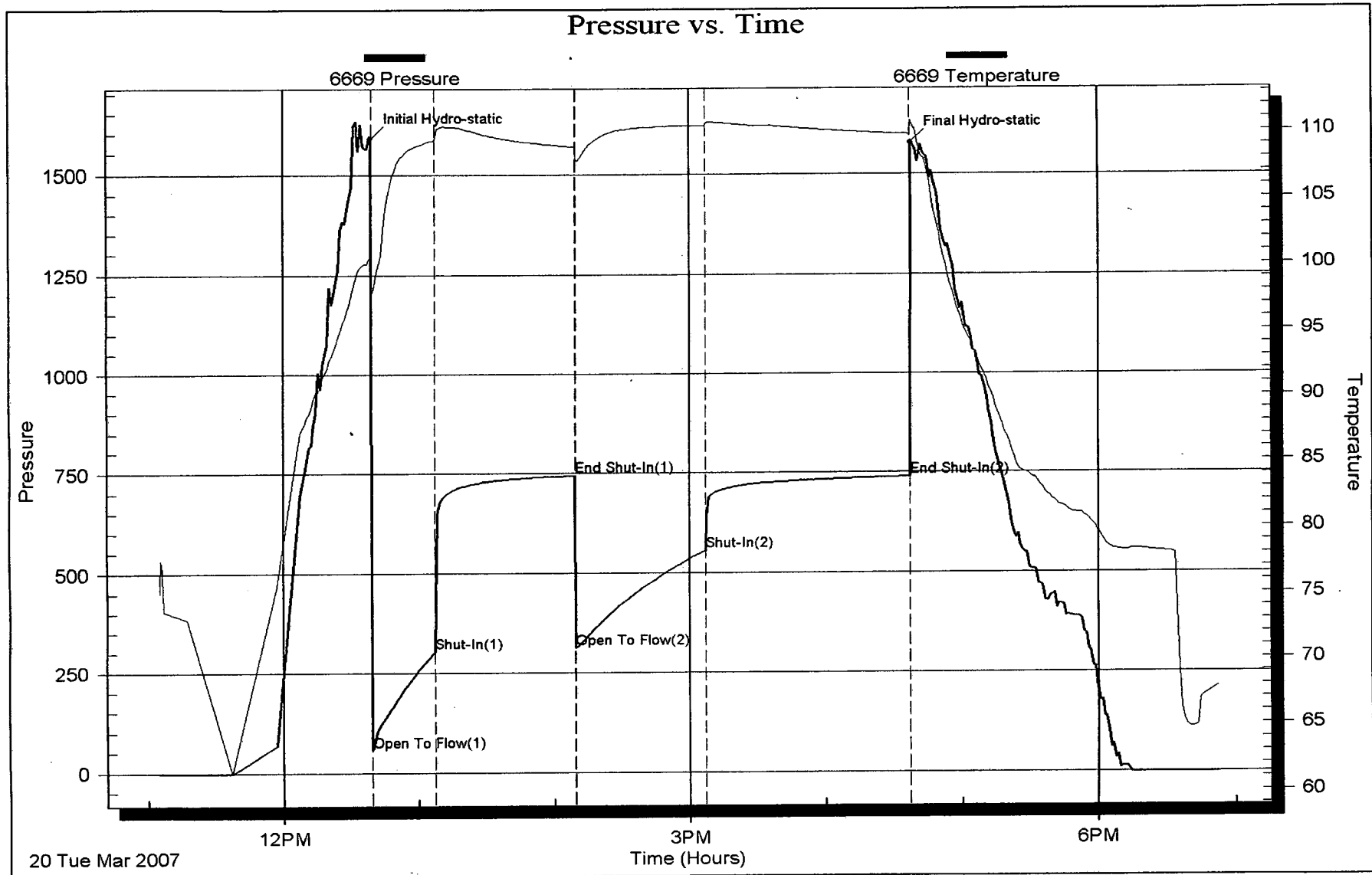
Num Gas Bombs: 0

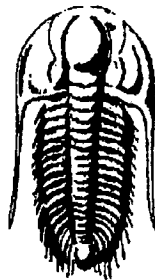
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





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TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO Inc**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**5 9S 18W Rooks KS**

**Gertrude # 1-5**

Start Date: 2007.03.21 @ 08:00:56

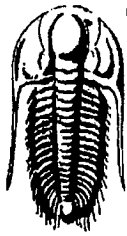
End Date: 2007.03.21 @ 15:56:26

Job Ticket #: 27550                      DST #: 3

Trilobite Testing, Inc

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



**TRILOBITE  
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## DRILL STEM TEST REPORT

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27550

**DST#: 3**

Test Start: 2007.03.21 @ 08:00:56

### GENERAL INFORMATION:

Formation: **L.Kc.-H,I,J,K,L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:58:26

Time Test Ended: 15:56:26

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 31

Interval: **3333.00 ft (KB) To 3442.00 ft (KB) (TVD)**

Total Depth: 3442.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2062.00 ft (KB)

2057.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6669** Inside

Press@RunDepth: 105.21 psig @ 3336.00 ft (KB)

Start Date: 2007.03.21

End Date:

2007.03.21

Start Time: 08:01:01

End Time:

15:56:25

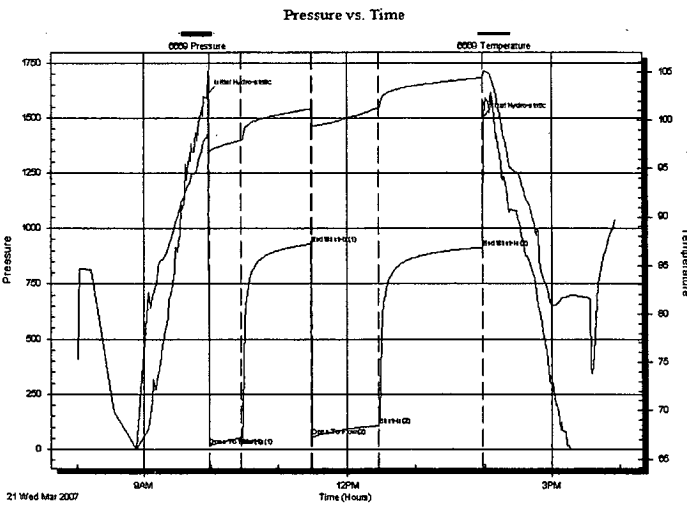
Capacity: 7000.00 psig

Last Calib.: 2007.03.21

Time On Btm: 2007.03.21 @ 09:57:56

Time Off Btm: 2007.03.21 @ 13:59:25

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



### PRESSURE SUMMARY

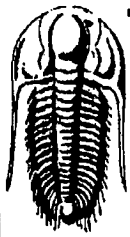
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1611.73	99.22	Initial Hydro-static
1	15.18	96.60	Open To Flow (1)
29	51.68	97.92	Shut-In (1)
91	929.67	101.19	End Shut-In (1)
91	56.18	99.37	Open To Flow (2)
150	105.21	101.26	Shut-In (2)
241	914.17	104.40	End Shut-In (2)
242	1506.18	105.10	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
195.00	DM few Oil spots	1.05

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling CO Inc  
250 N Water Ste 300  
Wichita KS 67202

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27550

**DST#: 3**

ATTN: Shauna Gunzelman

Test Start: 2007.03.21 @ 08:00:56

### Tool Information

Drill Pipe:	Length: 3137.00 ft	Diameter: 3.80 inches	Volume: 44.00 bbl	Tool Weight:	2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 44.91 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3333.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	109.00 ft				
Tool Length:	132.00 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			3311.00	
Shut In Tool	5.00			3316.00	
Hydraulic tool	5.00			3321.00	
Safety Joint	3.00			3324.00	
Packer	4.00			3328.00	23.00 Bottom Of Top Packer
Packer	5.00			3333.00	
Stubb	1.00			3334.00	
Perforations	1.00			3335.00	
Change Over Sub	1.00			3336.00	
Recorder	0.00	6669	Inside	3336.00	
Blank Spacing	30.00			3366.00	
Recorder	0.00	11084	Outside	3366.00	
Blank Spacing	62.00			3428.00	
Change Over Sub	1.00			3429.00	
Perforations	10.00			3439.00	
Bullnose	3.00			3442.00	109.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>132.00</b>				



**TRILOBITE  
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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27550

**DST#: 3**

Test Start: 2007.03.21 @ 08:00:56

**Mud and Cushion Information**

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 7.59 in<sup>3</sup>

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
195.00	DM few Oil spots	1.050

Total Length: 195.00 ft      Total Volume: 1.050 bbl

Num Fluid Samples: 0

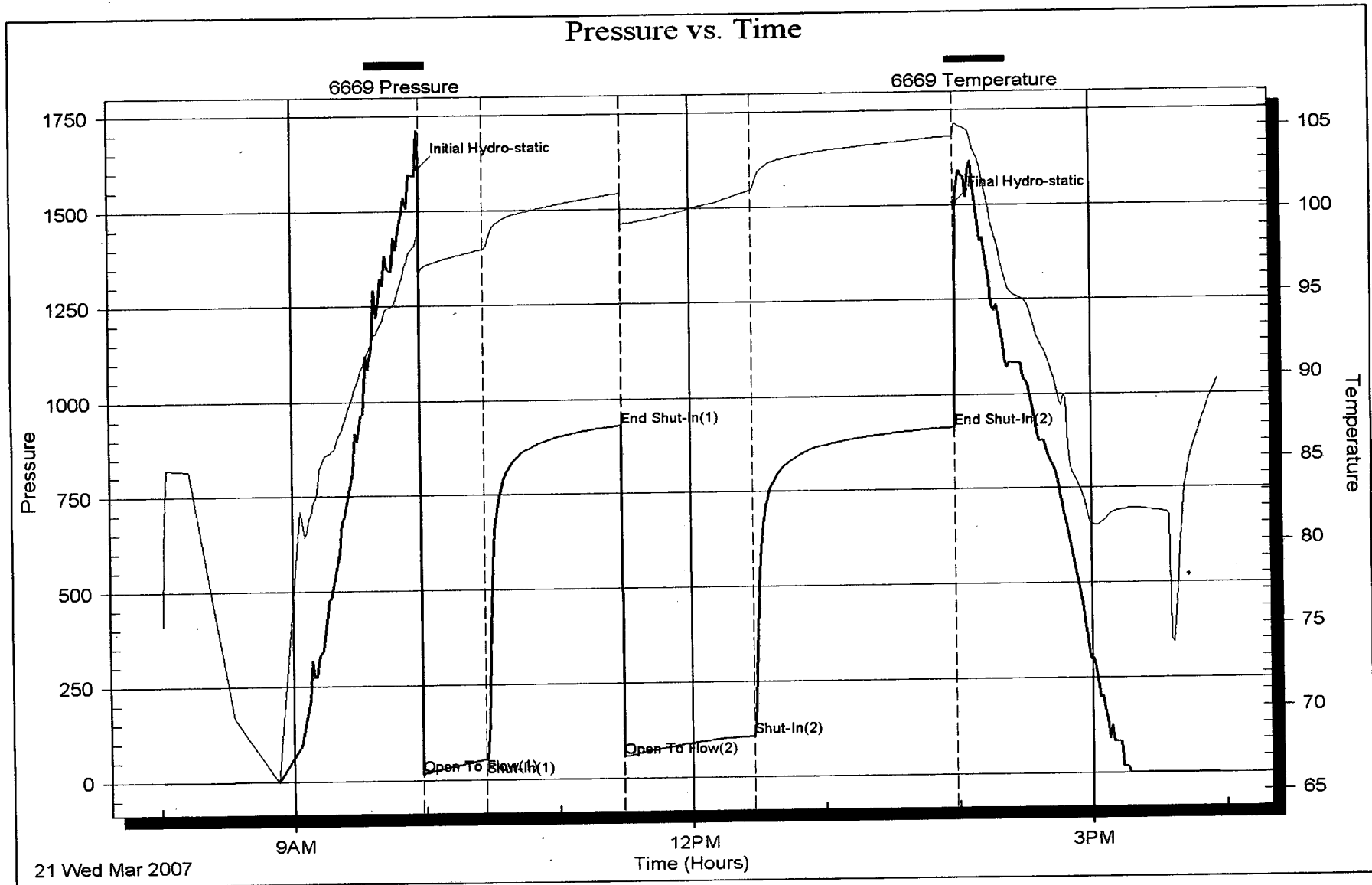
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





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

## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO Inc**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**5 9S 18W Rooks KS**

**Gertrude # 1-5**

Start Date: 2007.03.21 @ 23:53:42

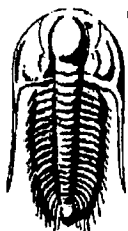
End Date: 2007.03.22 @ 08:23:12

Job Ticket #: 27426      DST #: 4

Trilobite Testing, Inc

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# DRILL STEM TEST REPORT

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27426

DST#: 4

Test Start: 2007.03.21 @ 23:53:42

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:59:42

Time Test Ended: 08:23:12

Interval: **3440.00 ft (KB) To 3485.00 ft (KB) (TVD)**

Total Depth: 3485.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 31

Reference Elevations: 2062.00 ft (KB)

2057.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6669** Inside

Press@RunDepth: 105.94 psig @ 3443.00 ft (KB)

Start Date: 2007.03.21

End Date: 2007.03.22

Start Time: 23:53:47

End Time: 08:23:11

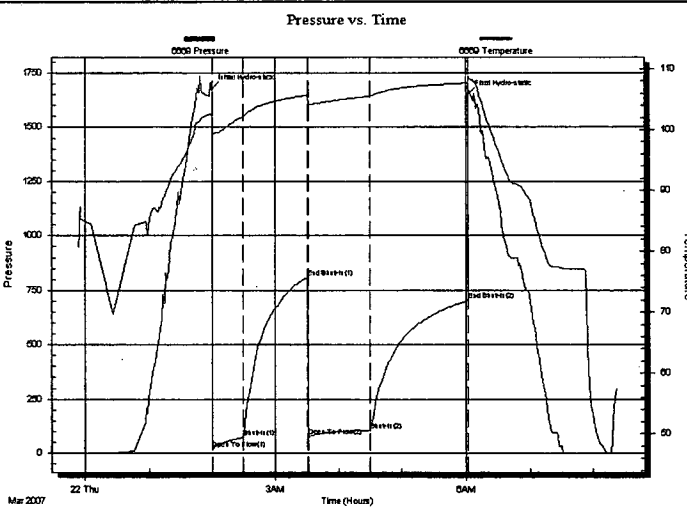
Capacity: 7000.00 psig

Last Calib.: 2007.03.22

Time On Btm: 2007.03.22 @ 01:59:12

Time Off Btm: 2007.03.22 @ 06:01:42

TEST COMMENT: IF Weak to fair built to 5 "  
ISI Dead  
FF Weak to fair built to 4 "  
FSI Dead



## PRESSURE SUMMARY

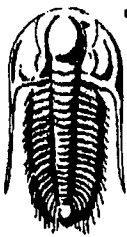
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.41	102.29	Initial Hydro-static
1	18.14	99.57	Open To Flow (1)
31	72.72	102.23	Shut-In(1)
92	808.54	105.68	End Shut-In(1)
92	78.21	104.15	Open To Flow (2)
151	105.94	105.51	Shut-In(2)
242	701.84	107.71	End Shut-In(2)
243	1652.61	108.88	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	OMCW 10%O 30%M 60%W	0.32
60.00	OMCW 10%O 45%M 45%W	0.30
60.00	OCM 15%O 85%M	0.30
10.00	Clean Oil	0.14

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27426

**DST#: 4**

Test Start: 2007.03.21 @ 23:53:42

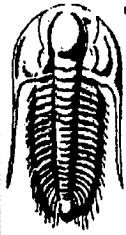
**Tool Information**

Drill Pipe:	Length: 3258.00 ft	Diameter: 3.80 inches	Volume: 45.70 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 46.61 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3440.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	68.00 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			3418.00	
Shut In Tool	5.00			3423.00	
Hydraulic tool	5.00			3428.00	
Safety Joint	3.00			3431.00	
Packer	4.00			3435.00	23.00 Bottom Of Top Packer
Packer	5.00			3440.00	
Stubb	1.00			3441.00	
Perforations	1.00			3442.00	
Change Over Sub	1.00			3443.00	
Recorder	0.00	6669	Inside	3443.00	
Blank Spacing	31.00			3474.00	
Recorder	0.00	11084	Outside	3474.00	
Change Over Sub	1.00			3475.00	
Perforations	7.00			3482.00	
Bullnose	3.00			3485.00	45.00 Bottom Packers & Anchor

**Total Tool Length: 68.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling CO Inc

**Gertrude # 1-5**

250 N Water Ste 300  
Wichita KS 67202

**5 9S 18W Rooks KS**

Job Ticket: 27426

**DST#: 4**

ATTN: Shauna Gunzelman

Test Start: 2007.03.21 @ 23:53:42

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 29 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 18000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.79 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: ppm		
Filter Cake: inches		

## Recovery Information

Recovery Table

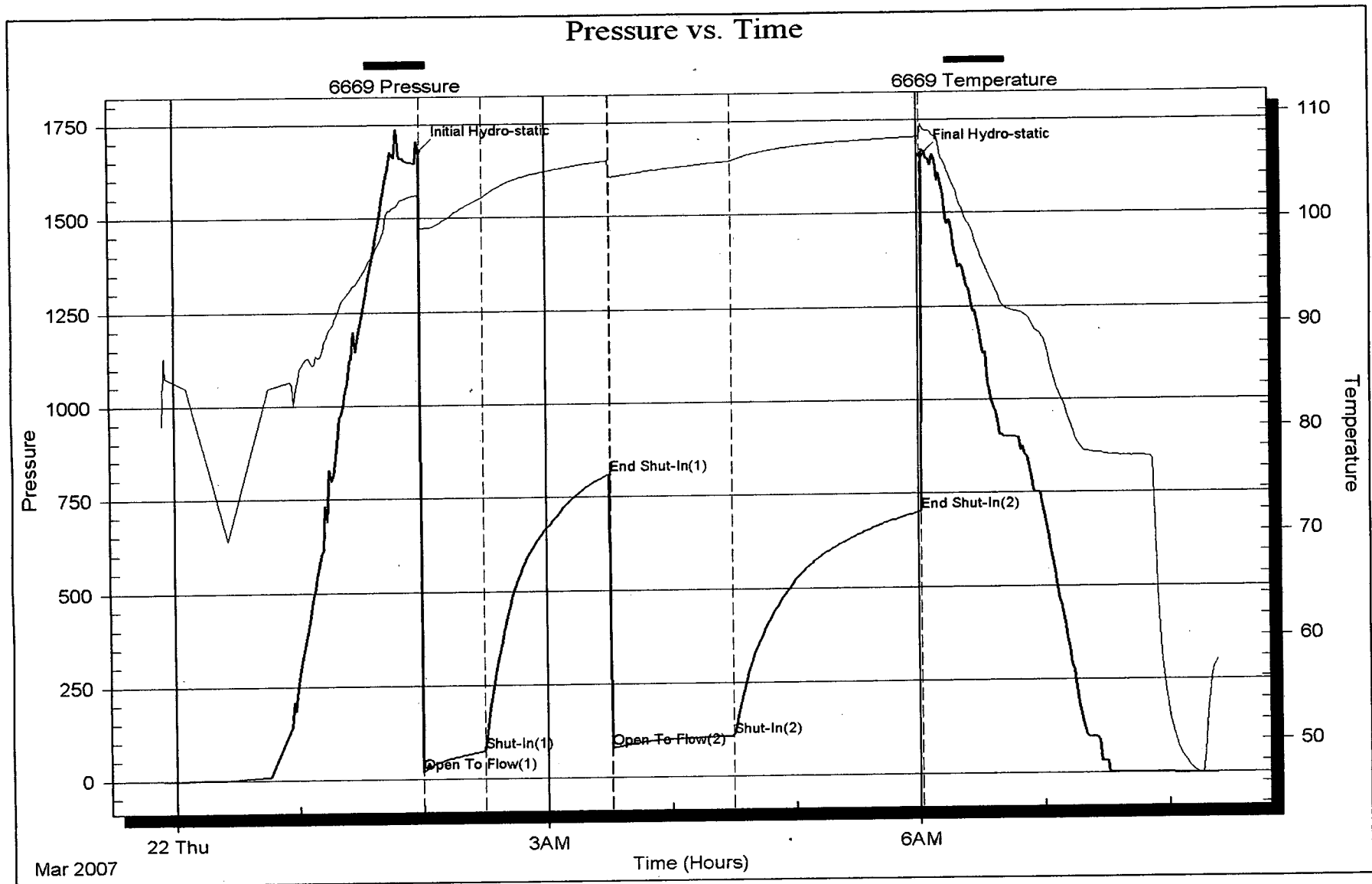
Length ft	Description	Volume bbl
65.00	OMCW 10%O 30%M 60%W	0.320
60.00	OMCW 10%O 45%M 45%W	0.295
60.00	OCM 15%O 85%M	0.295
10.00	Clean Oil	0.140

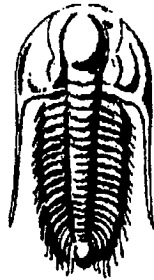
Total Length: 195.00 ft      Total Volume: 1.050 bbl

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 Drilling CO Inc**

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**5 9S 18W Rooks KS**

**Gertrude # 1-5**

Start Date: 2007.03.22 @ 14:08:33

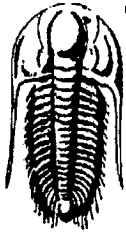
End Date: 2007.03.22 @ 20:24:03

Job Ticket #: 27427                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27427

**DST#: 5**

Test Start: 2007.03.22 @ 14:08:33

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 16:12:33

Time Test Ended: 20:24:03

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **31**

Interval: **3485.00 ft (KB) To 3495.00 ft (KB) (TVD)**

Reference Elevations: **2062.00 ft (KB)**

Total Depth: **3495.00 ft (KB) (TVD)**

**2057.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

**KB to GR/CF: 5.00 ft**

**Serial #: 6669**

**Inside**

Press@RunDepth: **78.20 psig @ 3487.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2007.03.22**

End Date:

**2007.03.22**

Last Calib.: **2007.03.22**

Start Time: **14:08:38**

End Time:

**20:24:02**

Time On Btm: **2007.03.22 @ 16:10:33**

Time Off Btm: **2007.03.22 @ 18:40:03**

TEST COMMENT: **IF Weak surface dead in 25 min.**

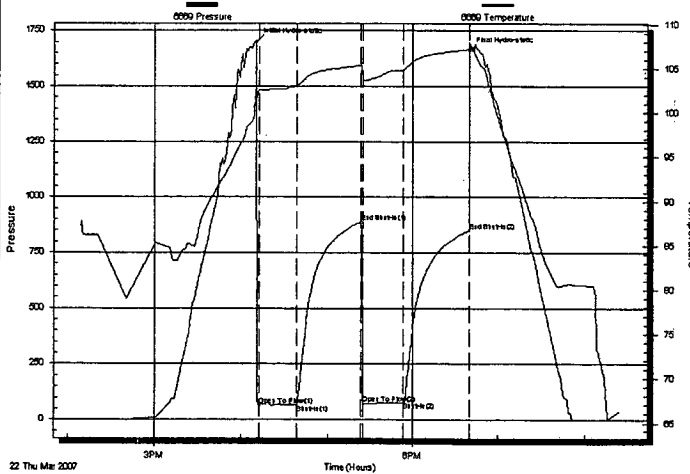
**ISI Dead**

**FF Dead**

**FSI Dead**

**Tool slid 8' to bottom lo**

Pressure vs. Time



### PRESSURE SUMMARY

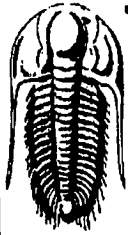
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.12	103.01	Initial Hydro-static
2	63.99	102.52	Open To Flow (1)
28	67.36	103.06	Shut-In(1)
73	888.91	105.35	End Shut-In(1)
74	70.59	103.60	Open To Flow (2)
103	78.20	104.84	Shut-In(2)
149	847.23	107.17	End Shut-In(2)
150	1657.44	108.01	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
70.00	Oil spotted DM	0.34

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Murfin Drilling CO Inc

**Gertrude # 1-5**

250 N Water Ste 300  
Wichita KS 67202

**5 9S 18W Rooks KS**

Job Ticket: 27427

**DST#: 5**

ATTN: Shauna Gunzelman

Test Start: 2007.03.22 @ 14:08:33

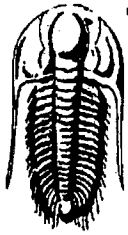
**Tool Information**

Drill Pipe:	Length: 3291.00 ft	Diameter: 3.80 inches	Volume: 46.16 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 50000.00 lb
		<b>Total Volume:</b>	<b>47.07 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3485.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	33.00 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			3463.00	
Shut In Tool	5.00			3468.00	
Hydraulic tool	5.00			3473.00	
Safety Joint	3.00			3476.00	
Packer	4.00			3480.00	23.00 Bottom Of Top Packer
Packer	5.00			3485.00	
Stubb	1.00			3486.00	
Perforations	1.00			3487.00	
Recorder	0.00	6669	Inside	3487.00	
Perforations	5.00			3492.00	
Recorder	0.00	13308	Outside	3492.00	
Bullnose	3.00			3495.00	10.00 Bottom Packers & Anchor

**Total Tool Length: 33.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling CO Inc

250 N Water Ste 300  
Wichita KS 67202

ATTN: Shauna Gunzelman

**Gertrude # 1-5**

**5 9S 18W Rooks KS**

Job Ticket: 27427

**DST#: 5**

Test Start: 2007.03.22 @ 14:08:33

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 6.80 in<sup>3</sup>

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	Oil spotted DM	0.344

Total Length: 70.00 ft      Total Volume: 0.344 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

