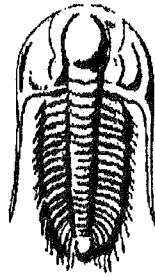


15-135-24901

7-16s-26w

IND



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Pintail Petroleum, LTD**

**CONFIDENTIAL**  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
JUL 09 2009

ATTN: **KCO** Phillips

**7-16s-26w Ness, KS**

**Armstrong #4**

Start Date: 2009.05.06 @ 16:58:00

End Date: 2009.05.07 @ 00:13:39

Job Ticket #: 34578                      DST #: 1

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Pintail Petroleum, LTD

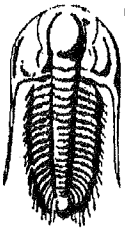
Armstrong #4

7-16s-26w Ness, KS

DST # 1

LKC Fr. 90

2009.05.06



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

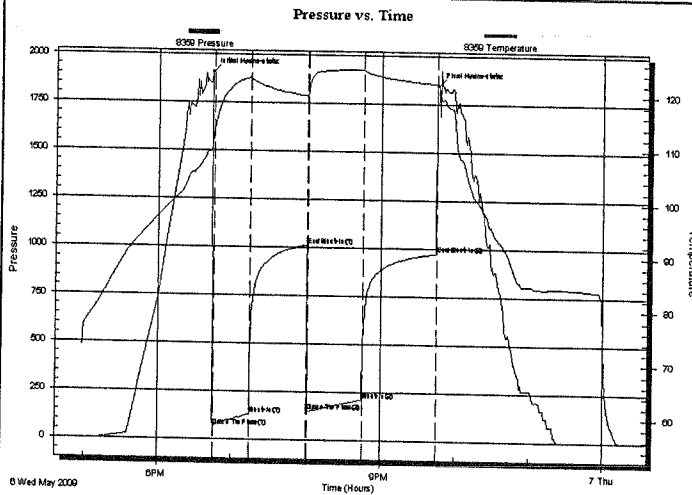
**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34578      DST#: 1  
Test Start: 2009.05.06 @ 16:58:00

## GENERAL INFORMATION:

Formation: **LKC 'F' 90**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 18:45:50  
Time Test Ended: 00:13:39  
Interval: **3996.00 ft (KB) To 4015.00 ft (KB) (TVD)**  
Total Depth: 4015.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Good  
Test Type: Conventional Bottom Hole  
Tester: Chuck Smith  
Unit No: 37  
Reference Elevations: 2659.00 ft (KB)  
2654.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8359      Inside**  
Press@RunDepth: 214.83 psig @ 4000.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2009.05.06      End Date: 2009.05.07      Last Calib.: 2009.05.07  
Start Time: 16:58:05      End Time: 00:13:40      Time On Btm: 2009.05.06 @ 18:44:20  
Time Off Btm: 2009.05.06 @ 21:46:10

**TEST COMMENT:** IF: B.O.B. @ 12 min.  
IS: 1 1/2" Return.  
FF: B.O.B. @ 18 min.  
FSI: 3" Return, died @ 45 min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1907.91	110.29	Initial Hydro-static
2	65.32	113.11	Open To Flow (1)
31	134.31	123.07	Shut-In (1)
76	1014.88	119.72	End Shut-In (1)
77	153.07	120.47	Open To Flow (2)
122	214.83	124.70	Shut-In (2)
182	975.85	122.12	End Shut-In (2)
182	1847.03	122.13	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
244.00	W 100%W	2.33
124.00	MW 10%M 90%W	1.74
62.00	GMMCO 5%G 15%M 35%W 45%O	0.87
15.00	GO 5%G 95%O	0.21
0.00	300 Feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34578      DST#: 1  
Test Start: 2009.05.06 @ 16:58:00

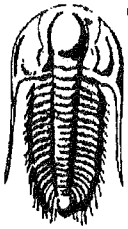
**Tool Information**

Drill Pipe:	Length: 3867.00 ft	Diameter: 3.80 inches	Volume: 54.24 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 100000.0 lb
			<b>Total Volume: 54.83 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3996.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	39.00 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			3977.00	
Shut In Tool	5.00			3982.00	
Hydraulic tool	5.00			3987.00	
Packer	5.00			3992.00	20.00      Bottom Of Top Packer
Packer	4.00			3996.00	
Stubb	1.00			3997.00	
Perforations	3.00			4000.00	
Recorder	0.00	8359	Inside	4000.00	
Recorder	0.00	8351	Inside	4000.00	
Perforations	10.00			4010.00	
Bullnose	5.00			4015.00	19.00      Bottom Packers & Anchor

**Total Tool Length: 39.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pintail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**  
Job Ticket: 34578      **DST#: 1**  
Test Start: 2009.05.06 @ 16:58:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 45000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.17 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2000.00 ppm		
Filter Cake: 2.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
244.00	W 100%W	2.330
124.00	MW 10%M 90%W	1.739
62.00	GMWCO 5%G 15%M 35%W 45%O	0.870
15.00	GO 5%G 95%O	0.210
0.00	300 Feet GIP	0.000

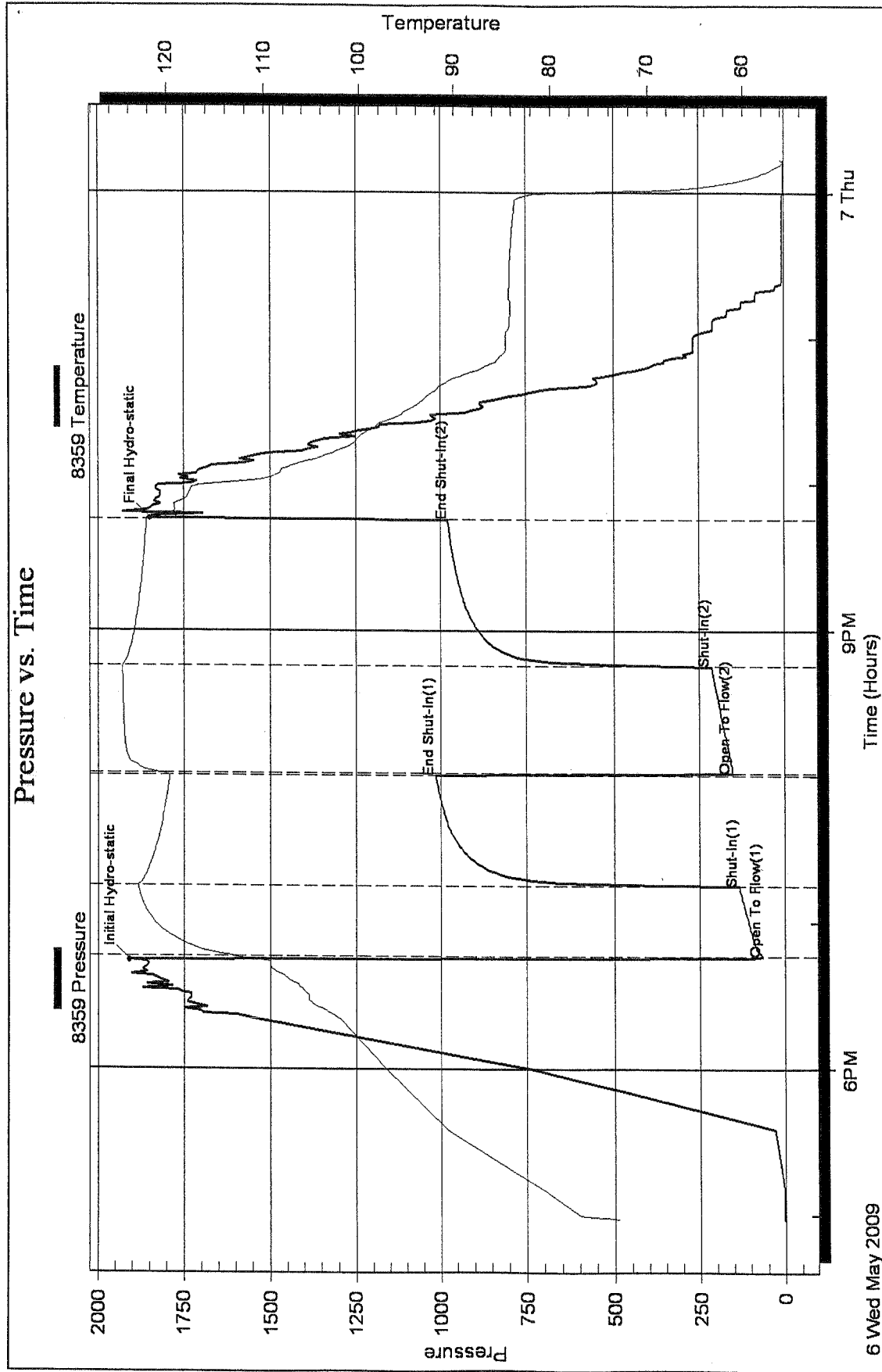
Total Length: 445.00 ft      Total Volume: 5.149 bbl

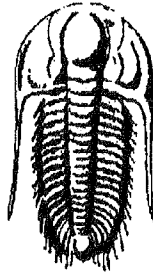
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: API: 38 @ 70 Degrees F = 37.  
RW: .150 @ 61 Degrees F = 45000 chlorides.

### Pressure vs. Time





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

## DRILL STEM TEST REPORT

Prepared For: **Pintail Petroleum, LTD**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024

ATTN: Flip Phillips

**7-16s-26w Ness, KS**

**Armstrong #4**

Start Date: 2009.05.07 @ 13:51:00

End Date: 2009.05.07 @ 19:29:39

Job Ticket #: 34579                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pintail Petroleum, LTD

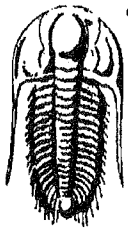
Armstrong #4

7-16s-26w Ness, KS

DST # 2

LKC 'HJ'

2009.05.07



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Pintail Petroleum, LTD  
 225 N. Market  
 Suite 300  
 Wichita, KS 67202-2024  
 ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
 Job Ticket: 34579      DST#: 2  
 Test Start: 2009.05.07 @ 13:51:00

## GENERAL INFORMATION:

Formation: **LKC 'H,I'**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 15:42:00  
 Time Test Ended: 19:29:39

Test Type: Conventional Bottom Hole  
 Tester: Chuck Smith  
 Unit No: 37

Interval: **4072.00 ft (KB) To 4140.00 ft (KB) (TVD)**  
 Total Depth: 4140.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

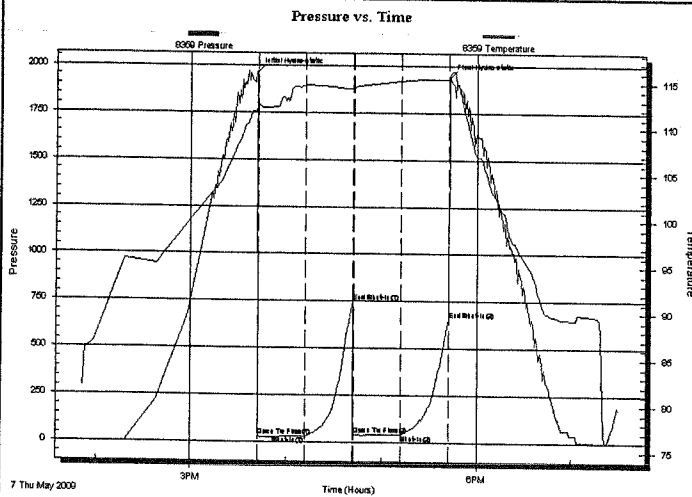
Reference Elevations: 2659.00 ft (KB)  
 2654.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8359      Inside**

Press@RunDepth: 43.49 psig @ 4075.00 ft (KB)  
 Start Date: 2009.05.07      End Date: 2009.05.07  
 Start Time: 13:51:05      End Time: 19:29:40

Capacity: 7000.00 psig  
 Last Calib.: 2009.05.07  
 Time On Btm: 2009.05.07 @ 15:41:40  
 Time Off Btm: 2009.05.07 @ 17:42:50

TEST COMMENT: IF: 1 1/2" Blow  
 IS: No return.  
 FF: 3 1/2" Blow.  
 FS: No return.



## PRESSURE SUMMARY

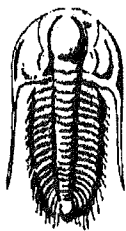
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1961.75	112.13	Initial Hydro-static
1	33.27	112.53	Open To Flow (1)
31	32.74	114.72	Shut-In(1)
60	747.19	114.29	End Shut-In(1)
61	41.59	114.40	Open To Flow(2)
90	43.49	115.18	Shut-In(2)
121	653.82	115.34	End Shut-In(2)
122	1939.31	115.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 7%G 3%O 90%M	0.30
0.00	60 Feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pintail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**

Job Ticket: 34579      DST#: 2  
Test Start: 2009.05.07 @ 13:51:00

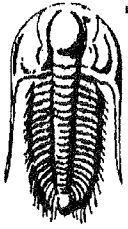
**Tool Information**

Drill Pipe:	Length: 3962.00 ft	Diameter: 3.80 inches	Volume: 55.58 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 100000.0 lb
			<b>Total Volume: 56.17 bbl</b>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4072.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	88.00 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			4053.00	
Shut In Tool	5.00			4058.00	
Hydraulic tool	5.00			4063.00	
Packer	5.00			4068.00	20.00      Bottom Of Top Packer
Packer	4.00			4072.00	
Stubb	1.00			4073.00	
Perforations	2.00			4075.00	
Recorder	0.00	8359	Inside	4075.00	
Recorder	0.00	8351	Inside	4075.00	
Perforations	27.00			4102.00	
Change Over Sub	1.00			4103.00	
Drill Pipe	31.00			4134.00	
Change Over Sub	1.00			4135.00	
Bullnose	5.00			4140.00	68.00      Bottom Packers & Anchor

**Total Tool Length: 88.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Pntail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**  
Job Ticket: 34579      **DST#: 2**  
Test Start: 2009.05.07 @ 13:51:00

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: 2.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 7%G 3%O 90%M	0.295
0.00	60 Feet GIP	0.000

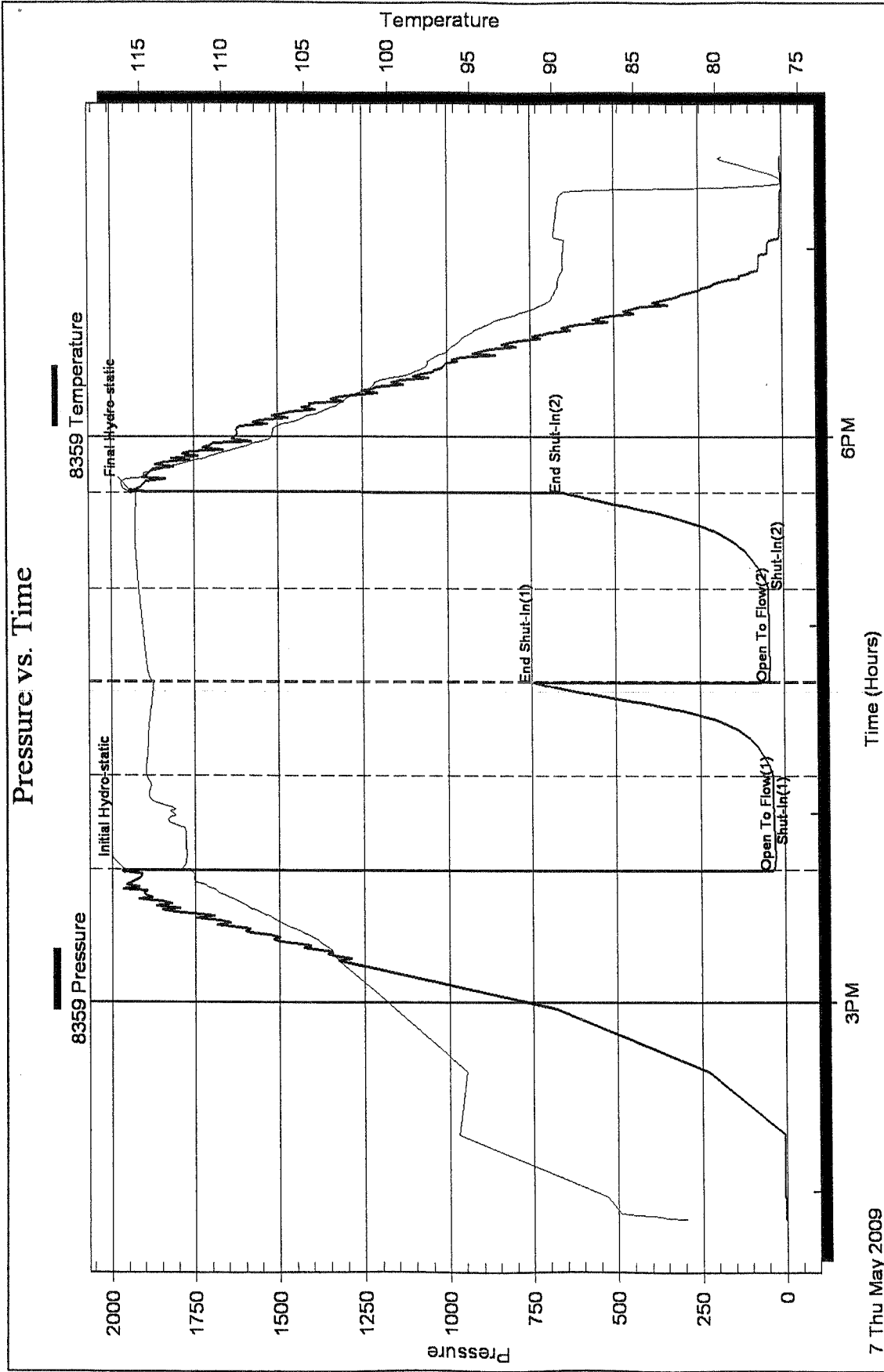
Total Length: 60.00 ft      Total Volume: 0.295 bbl

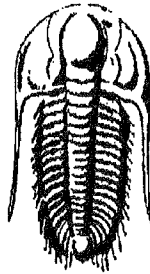
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time





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

## DRILL STEM TEST REPORT

Prepared For: **Pintail Petroleum, LTD**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024

ATTN: Flip Phillips

**7-16s-26w Ness, KS**

**Armstrong #4**

Start Date: 2009.05.08 @ 03:04:00

End Date: 2009.05.08 @ 09:55:30

Job Ticket #: 34580                      DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pintail Petroleum, LTD

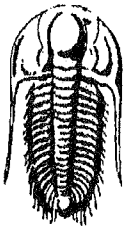
Armstrong #4

7-16s-26w Ness, KS

DST # 3

LKC JV

2009.05.08



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34580 **DST#: 3**  
Test Start: 2009.05.08 @ 03:04:00

## GENERAL INFORMATION:

Formation: **LKC 'J'**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 05:00:30  
Time Test Ended: 09:55:30

Test Type: Conventional Bottom Hole  
Tester: Chuck Smith  
Unit No: 37

Interval: **4140.00 ft (KB) To 4165.00 ft (KB) (TVD)**  
Total Depth: 4165.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

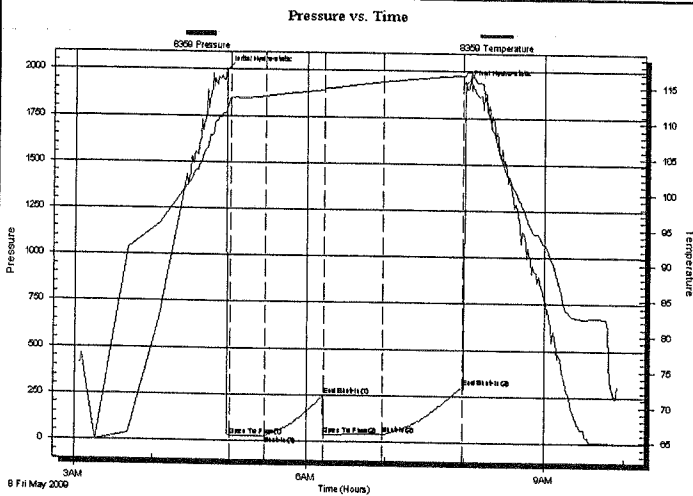
Reference Elevations: 2659.00 ft (KB)  
2654.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8359** Inside

Press@RunDepth: 40.80 psig @ 4145.00 ft (KB)  
Start Date: 2009.05.08 End Date: 2009.05.08  
Start Time: 03:04:05 End Time: 09:55:29

Capacity: 7000.00 psig  
Last Calib.: 2009.05.08  
Time On Btm: 2009.05.08 @ 04:57:20  
Time Off Btm: 2009.05.08 @ 08:00:20

**TEST COMMENT:** IF: 8 1/2" Blow.  
ISI: No return.  
FF: 6" Blow.  
FSI: No return.



## PRESSURE SUMMARY

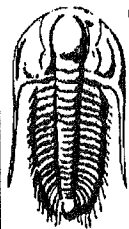
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1998.31	111.60	Initial Hydro-static
4	23.58	113.27	Open To Flow (1)
30	27.70	113.55	Shut-In(1)
76	249.03	114.47	End Shut-In(1)
76	35.65	114.67	Open To Flow (2)
121	40.80	115.72	Shut-In(2)
181	298.36	116.74	End Shut-In(2)
183	1937.15	117.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	GOCM	0.22
0.00	195 Feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34580      DST#: 3  
Test Start: 2009.05.08 @ 03:04:00

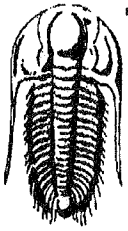
**Tool Information**

Drill Pipe:	Length: 4023.00 ft	Diameter: 3.80 inches	Volume: 56.43 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4140.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	45.00 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			4121.00	
Shut In Tool	5.00			4126.00	
Hydraulic tool	5.00			4131.00	
Packer	5.00			4136.00	20.00      Bottom Of Top Packer
Packer	4.00			4140.00	
Stubb	1.00			4141.00	
Perforations	4.00			4145.00	
Recorder	0.00	8359	Inside	4145.00	
Recorder	0.00	8351	Inside	4145.00	
Perforations	15.00			4160.00	
Bullnose	5.00			4165.00	25.00      Bottom Packers & Anchor

**Total Tool Length: 45.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pintail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**  
Job Ticket: 34580      **DST#: 3**  
Test Start: 2009.05.08 @ 03:04:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	GOCM	0.221
0.00	195 Feet GIP	0.000

Total Length: 45.00 ft      Total Volume: 0.221 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

DST Test Number: 3

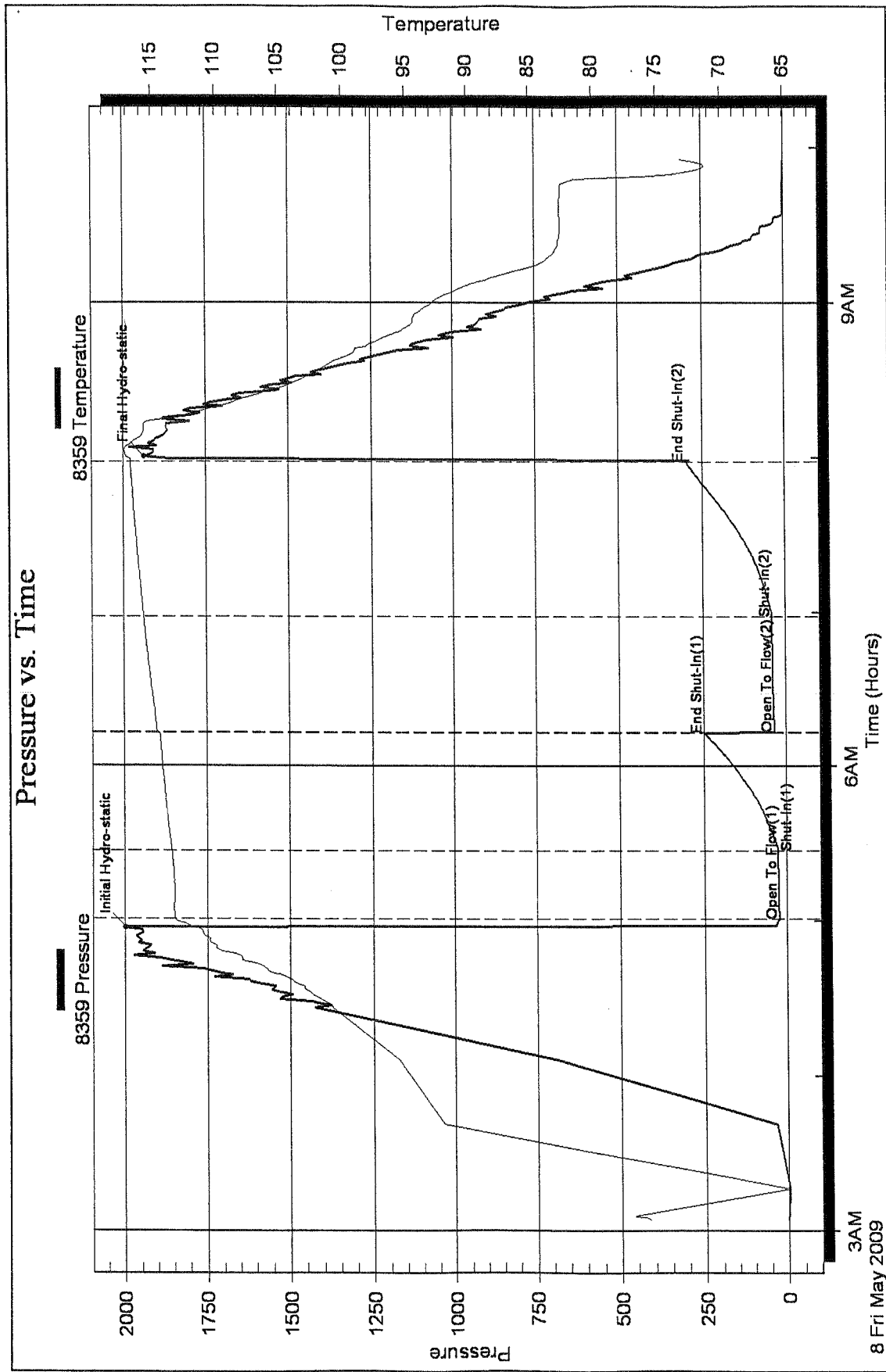
7-16s-26w Ness, KS

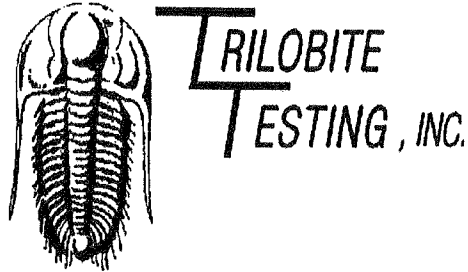
Final Petroleum, LTD

Inside

Serial #: 8359

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Pintail Petroleum, LTD**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024

ATTN: Flip Phillips

**7-16s-26w Ness, KS**

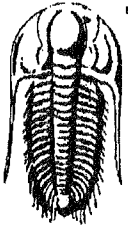
**Armstrong #4**

Start Date: 2009.05.08 @ 17:01:00

End Date: 2009.05.08 @ 21:17:09

Job Ticket #: 34581                      DST #: 4

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34581      **DST#: 4**  
Test Start: 2009.05.08 @ 17:01:00

## GENERAL INFORMATION:

Formation: **LKC 'K' 200**  
Deviated: **No Whipstock:**      ft (KB)  
Time Tool Opened: 18:36:00  
Time Test Ended: 21:17:09

Test Type: **Conventional Bottom Hole**  
Tester: **Chuck Smith**  
Unit No: **37**

Interval: **4165.00 ft (KB) To 4190.00 ft (KB) (TVD)**  
Total Depth: **4190.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2659.00 ft (KB)**  
**2654.00 ft (CF)**  
KB to GR/CF: **5.00 ft**

## Serial #: 8359

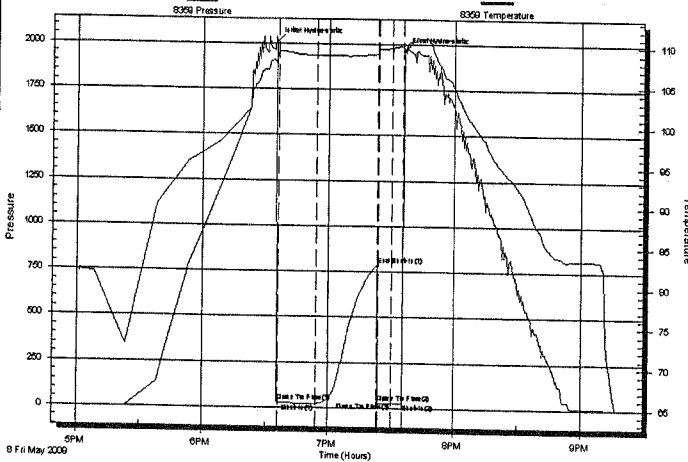
**Inside**

Press@RunDepth: **22.49 psig @ 4170.00 ft (KB)**  
Start Date: **2009.05.08**      End Date: **2009.05.08**  
Start Time: **17:01:05**      End Time: **21:17:10**

Capacity: **7000.00 psig**  
Last Calib.: **2009.05.08**  
Time On Btm: **2009.05.08 @ 18:35:10**  
Time Off Btm: **2009.05.08 @ 19:36:00**

TEST COMMENT: IF: Surface blow died @ 12 min.  
IS: No return.  
FF: No blow, flushed tool @ 6 min., weak surface blow died @ 10 min.  
FSI: N/A

Pressure vs. Time



## PRESSURE SUMMARY

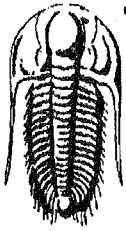
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.48	108.47	Initial Hydro-static
1	29.42	109.36	Open To Flow (1)
19	22.49	108.85	Shut-In(1)
49	786.54	109.07	End Shut-In(1)
49	33.74	109.54	Open To Flow (2)
56	29.15	109.12	Open To Flow (3)
61	28.68	110.07	Shut-In(2)
61	1960.23	109.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oil spotted Mud 100%M	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pintail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**  
Job Ticket: 34581      DST#: 4  
Test Start: 2009.05.08 @ 17:01:00

### Tool Information

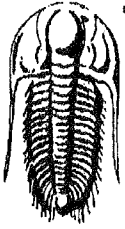
Drill Pipe:	Length: 4055.00 ft	Diameter: 3.80 inches	Volume: 56.88 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
		<b>Total Volume:</b>	<b>57.47 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4165.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	45.00 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			4146.00	
Shut In Tool	5.00			4151.00	
Hydraulic tool	5.00			4156.00	
Packer	5.00			4161.00	20.00      Bottom Of Top Packer
Packer	4.00			4165.00	
Stubb	1.00			4166.00	
Perforations	4.00			4170.00	
Recorder	0.00	8359	Inside	4170.00	
Recorder	0.00	8351	Inside	4170.00	
Perforations	15.00			4185.00	
Bullnose	5.00			4190.00	25.00      Bottom Packers & Anchor

**Total Tool Length: 45.00**



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pntail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**  
Job Ticket: 34581      **DST#: 4**  
Test Start: 2009.05.08 @ 17:01:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Oil spotted Mud 100%M	0.025

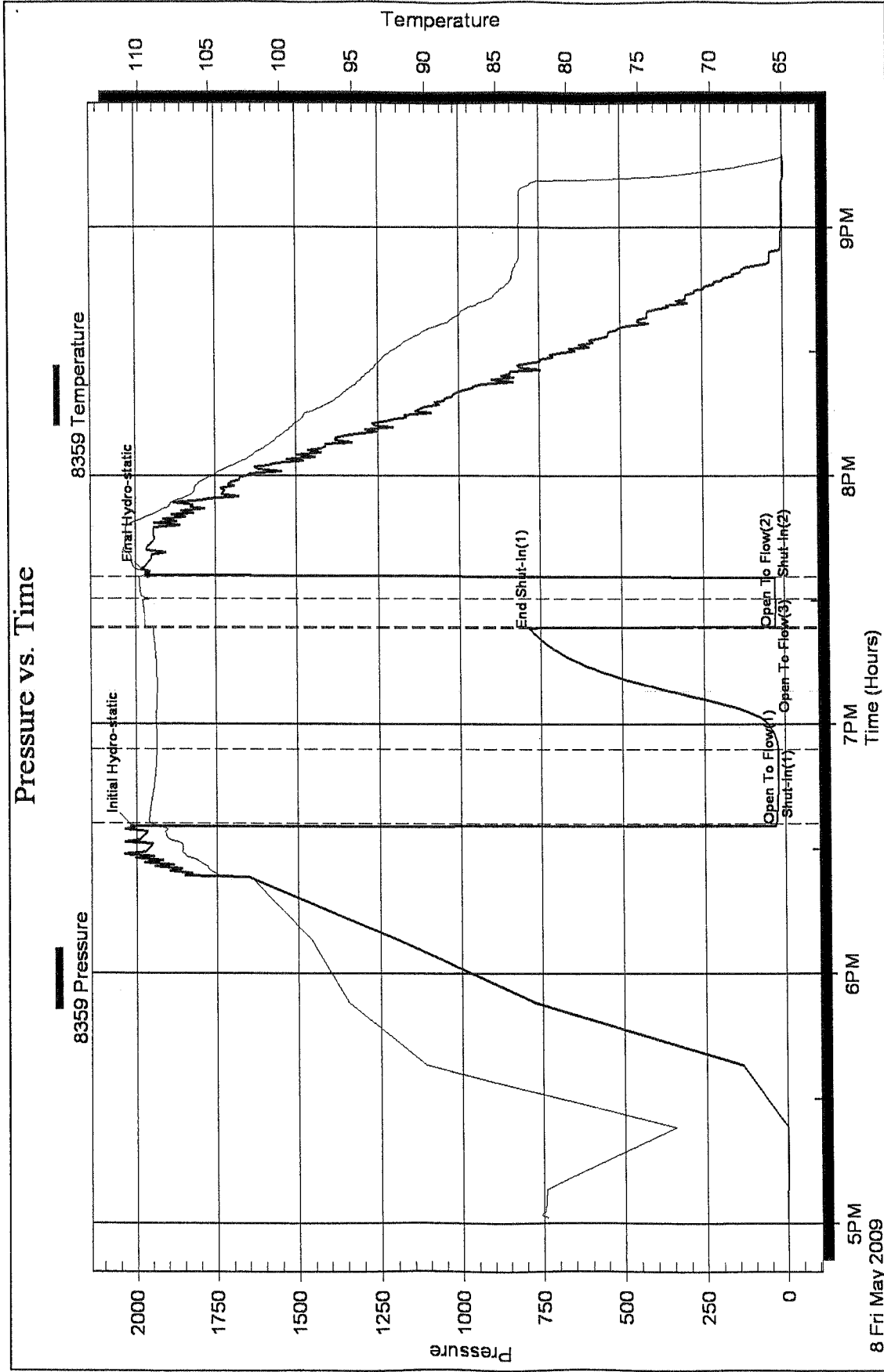
Total Length: 5.00 ft      Total Volume: 0.025 bbl

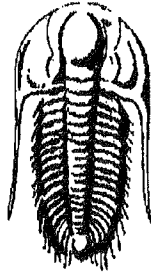
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time





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

## DRILL STEM TEST REPORT

Prepared For: **Pintail Petroleum, LTD**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024

ATTN: Flip Phillips

**7-16s-26w Ness, KS**

**Armstrong #4**

Start Date: 2009.05.09 @ 22:55:00

End Date: 2009.05.10 @ 03:43:30

Job Ticket #: 34582                      DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pintail Petroleum, LTD

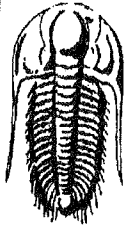
Armstrong #4

7-16s-26w Ness, KS

DST # 5

Ft. Scott

2009.05.09



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34582      **DST#: 5**  
Test Start: 2009.05.09 @ 22:55:00

## GENERAL INFORMATION:

Formation: **Ft. Scott**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 00:39:06  
Time Test Ended: 03:43:30

Test Type: Conventional Bottom Hole  
Tester: Chuck Smith  
Unit No: 37

Interval: **4400.00 ft (KB) To 4451.00 ft (KB) (TVD)**  
Total Depth: 4451.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

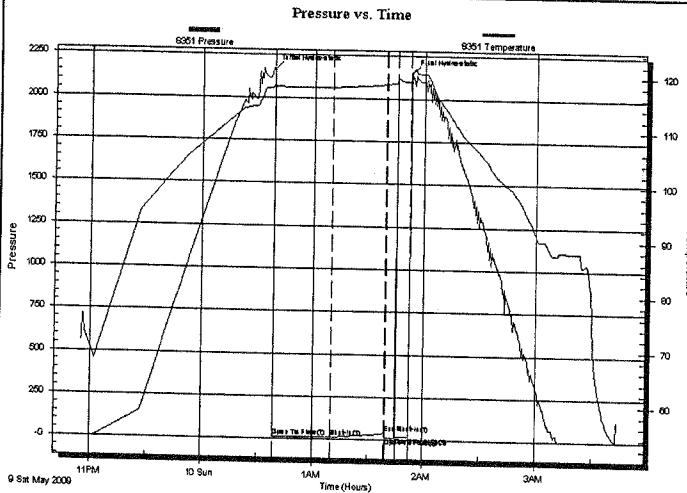
Reference Elevations: 2659.00 ft (KB)  
2654.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8351      Inside**

Press@RunDepth: 13.15 psig @ 4404.00 ft (KB)  
Start Date: 2009.05.09      End Date: 2009.05.10  
Start Time: 22:55:01      End Time: 03:43:30

Capacity: 7000.00 psig  
Last Calib.: 2009.05.10  
Time On Btm: 2009.05.10 @ 00:38:54  
Time Off Btm: 2009.05.10 @ 01:53:00

**TEST COMMENT:** IF: 1/2" Blow died @ 25 min.  
ISI: No return.  
FF: No blow, flushed tool @ 6 min., no blow.  
FSI: N/A



## PRESSURE SUMMARY

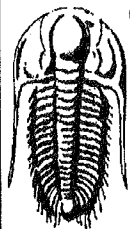
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2165.54	118.24	Initial Hydro-static
1	12.53	117.32	Open To Flow (1)
31	13.15	117.76	Shut-In(1)
61	38.76	118.39	End Shut-In(1)
61	15.01	118.39	Open To Flow (2)
67	17.07	119.09	Open To Flow (3)
74	17.28	119.03	Shut-In(2)
75	2147.81	120.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	DM 100%M	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34582      **DST#: 5**  
Test Start: 2009.05.09 @ 22:55:00

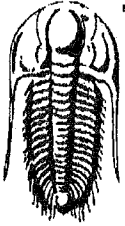
### Tool Information

Drill Pipe:	Length: 4275.00 ft	Diameter: 3.80 inches	Volume: 59.97 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 60.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	4400.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	71.00 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			4381.00	
Shut In Tool	5.00			4386.00	
Hydraulic tool	5.00			4391.00	
Packer	5.00			4396.00	20.00      Bottom Of Top Packer
Packer	4.00			4400.00	
Stubb	1.00			4401.00	
Perforations	3.00			4404.00	
Recorder	0.00	8359	Inside	4404.00	
Recorder	0.00	8351	Inside	4404.00	
Perforations	10.00			4414.00	
Change Over Sub	1.00			4415.00	
Drill Pipe	30.00			4445.00	
Change Over Sub	1.00			4446.00	
Bullnose	5.00			4451.00	51.00      Bottom Packers & Anchor

**Total Tool Length: 71.00**



**TRILOBITE**  
TESTING, INC

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Pintail Petroleum, LTD

**Armstrong #4**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**7-16s-26w Ness, KS**  
Job Ticket: 34582      **DST#: 5**  
Test Start: 2009.05.09 @ 22:55:00

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	0 ppm
Viscosity: 46.00 sec/qt			
Water Loss: 8.78 in <sup>3</sup>	Cushion Volume:		
Resistivity: 0.00 ohm.m			
Salinity: 4000.00 ppm	Gas Cushion Type:		
Filter Cake: 2.00 inches	Gas Cushion Pressure:		

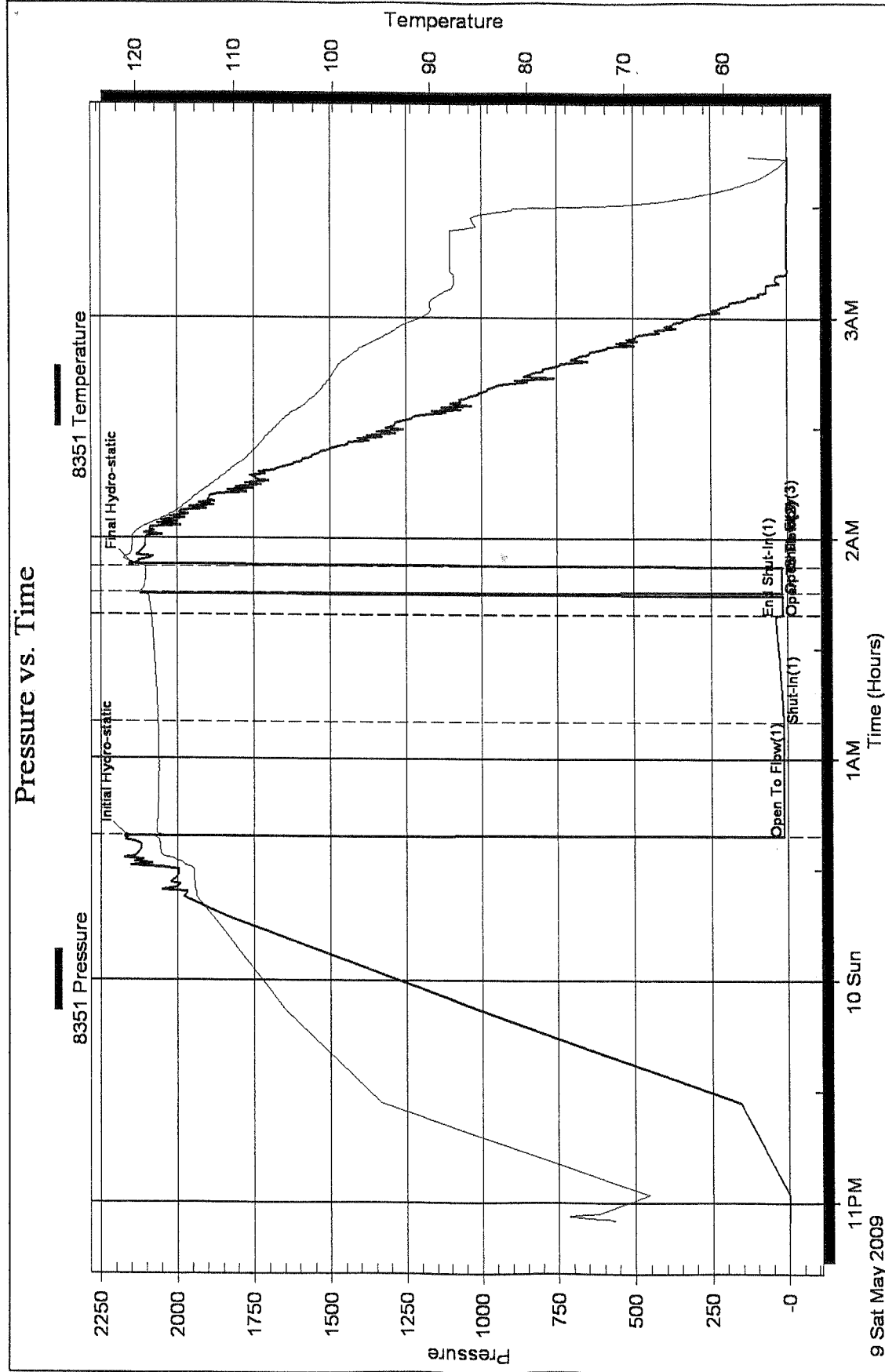
**Recovery Information**

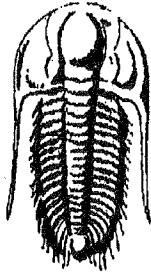
Recovery Table

Length ft	Description	Volume bbl
5.00	DM 100%M	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





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

## DRILL STEM TEST REPORT

Prepared For: **Pintail Petroleum, LTD**

225 N. Market  
Suite 300  
Wichita, KS 67202-2024

ATTN: Flip Phillips

**7-16s-26w Ness, KS**

**Armstrong #4**

Start Date: 2009.05.10 @ 16:26:00

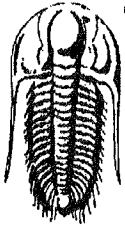
End Date: 2009.05.10 @ 23:57:06

Job Ticket #: 34583                      DST #: 6

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

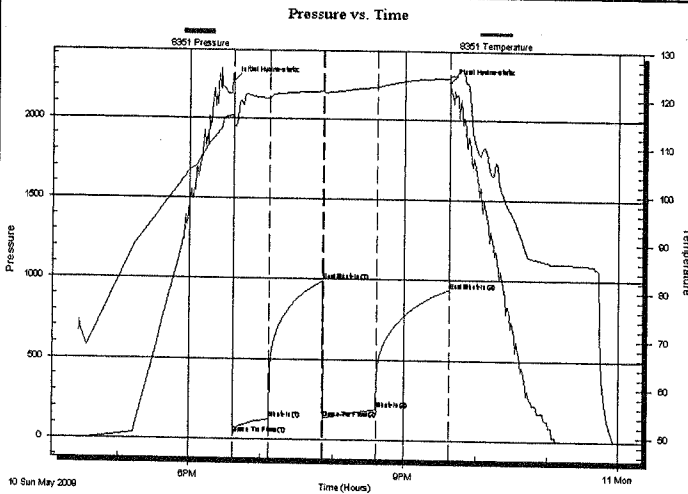
**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34583      **DST#: 6**  
Test Start: 2009.05.10 @ 16:26:00

## GENERAL INFORMATION:

Formation: **Mississippian**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 18:36:48  
Time Test Ended: 23:57:06  
Interval: **4470.00 ft (KB) To 4540.00 ft (KB) (TVD)**  
Total Depth: 4540.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole  
Tester: Chuck Smith  
Unit No: 37  
Reference Elevations: 2659.00 ft (KB)  
2654.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8351 Inside**  
Press@RunDepth: 191.51 psig @ 4472.00 ft (KB)  
Start Date: 2009.05.10 End Date: 2009.05.10  
Start Time: 16:26:01 End Time: 23:57:06  
Capacity: 7000.00 psig  
Last Calib.: 2009.05.11  
Time On Btm: 2009.05.10 @ 18:36:30  
Time Off Btm: 2009.05.10 @ 21:37:48

TEST COMMENT: IF: B.O.B. @ 14 min.  
IS: Surface return died @ 13 min.  
FF: B.O.B. @ 17 min.  
FS: Surface return died @ 10 min.



## PRESSURE SUMMARY

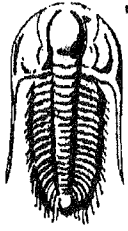
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2233.66	114.95	Initial Hydro-static
1	31.21	114.14	Open To Flow (1)
31	125.83	120.01	Shut-In(1)
75	988.58	121.48	End Shut-In(1)
76	135.34	121.23	Open To Flow (2)
120	191.51	122.40	Shut-In(2)
181	939.15	124.37	End Shut-In(2)
182	2232.03	124.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 15%G 10%O 75%M	0.30
60.00	GMCO 20%G 20%M 60%O	0.30
185.00	GOCM 10%G 5%O 85%M	2.60
153.00	GO 20%G 80%O	2.15
0.00	250 Feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

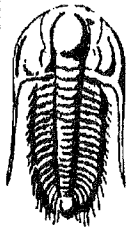
**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34583      **DST#: 6**  
Test Start: 2009.05.10 @ 16:26:00

**Tool Information**

Drill Pipe:	Length: 4345.00 ft	Diameter: 3.80 inches	Volume: 60.95 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.54 bbl</u>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4470.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	90.00 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			4451.00	
Shut In Tool	5.00			4456.00	
Hydraulic tool	5.00			4461.00	
Packer	5.00			4466.00	20.00      Bottom Of Top Packer
Packer	4.00			4470.00	
Stubb	1.00			4471.00	
Perforations	1.00			4472.00	
Recorder	0.00	8359	Inside	4472.00	
Recorder	0.00	8351	Inside	4472.00	
Change Over Sub	1.00			4473.00	
Drill Pipe	61.00			4534.00	
Change Over Sub	1.00			4535.00	
Bullnose	5.00			4540.00	70.00      Bottom Packers & Anchor

**Total Tool Length: 90.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pintail Petroleum, LTD  
225 N. Market  
Suite 300  
Wichita, KS 67202-2024  
ATTN: Flip Phillips

**Armstrong #4**  
**7-16s-26w Ness, KS**  
Job Ticket: 34583      **DST#: 6**  
Test Start: 2009.05.10 @ 16:26:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 36 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 3000.00 ppm		
Filter Cake: 2.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 15%G 10%O 75%M	0.295
60.00	GMCO 20%G 20%M 60%O	0.295
185.00	GOCM 10%G 5%O 85%M	2.595
153.00	GO 20%G 80%O	2.146
0.00	250 Feet GIP	0.000

Total Length: 458.00 ft      Total Volume: 5.331 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: API: 35 @ 50 Degrees F = 36

