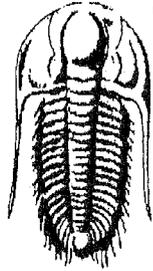


22-18s-9w



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Don Fox**

2700 Westminister  
Hutchinson, KS 67502

ATTN: Don Fox **ORIGINAL**

**22-18s-9w Rice co KS**

**Friedley #1**

Start Date: 2001.07.20 @ 12:45:02

End Date: 2001.07.20 @ 17:30:15

Job Ticket #: 15445 DST #: 1

API# 15-159-22390-00-00

SE SE NW

3070 FSL 2310 FWL

Don Fox

Friedley #1

22-18s-9w Rice co KS

DST # 1

Simp Sand

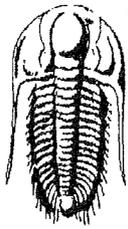
2001.07.20

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Don Fox  
2700 Westminister  
Hutchinson, KS 67502

**Friedley #1**  
**22-18s-9w Rice co KS**  
Job Ticket: 15445      DST#: 1  
Test Start: 2001.07.20 @ 12:45:02

ATTN: Don Fox

### Tool Information

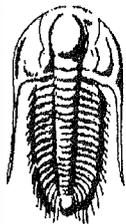
Drill Pipe:	Length: 2758.00 ft	Diameter: 3.80 inches	Volume: 38.69 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	lb
Drill Collar:	Length: 448.00 ft	Diameter: 2.25 inches	Volume: 2.20 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: 40.89 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial	lb
Depth to Top Packer:	3230.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.02 ft				
Tool Length:	67.02 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3204.00	
S.I. Tool	5.00			3209.00	
HMV	5.00			3214.00	
Jars	5.00			3219.00	
Safety Joint	2.00			3221.00	
Packer	4.00			3225.00	27.00      Bottom Of Top Packer
Packer	5.00			3230.00	
Stubb	1.00			3231.00	
Perforations	3.00			3234.00	
Recorder	0.01	3227	Inside	3234.01	
Perforations	33.00			3267.01	
Recorder	0.01	13308	Outside	3267.02	
Bullnose	3.00			3270.02	40.02      Bottom Packers & Anchor

**Total Tool Length: 67.02**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Don Fox  
2700 Westminister  
Hutchinson, KS 67502  
ATTN: Don Fox

Friedley #1  
22-18s-9w Rice co KS  
Job Ticket: 15445      DST#: 1  
Test Start: 2001.07.20 @ 12:45:02

### Mud and Cushion Information

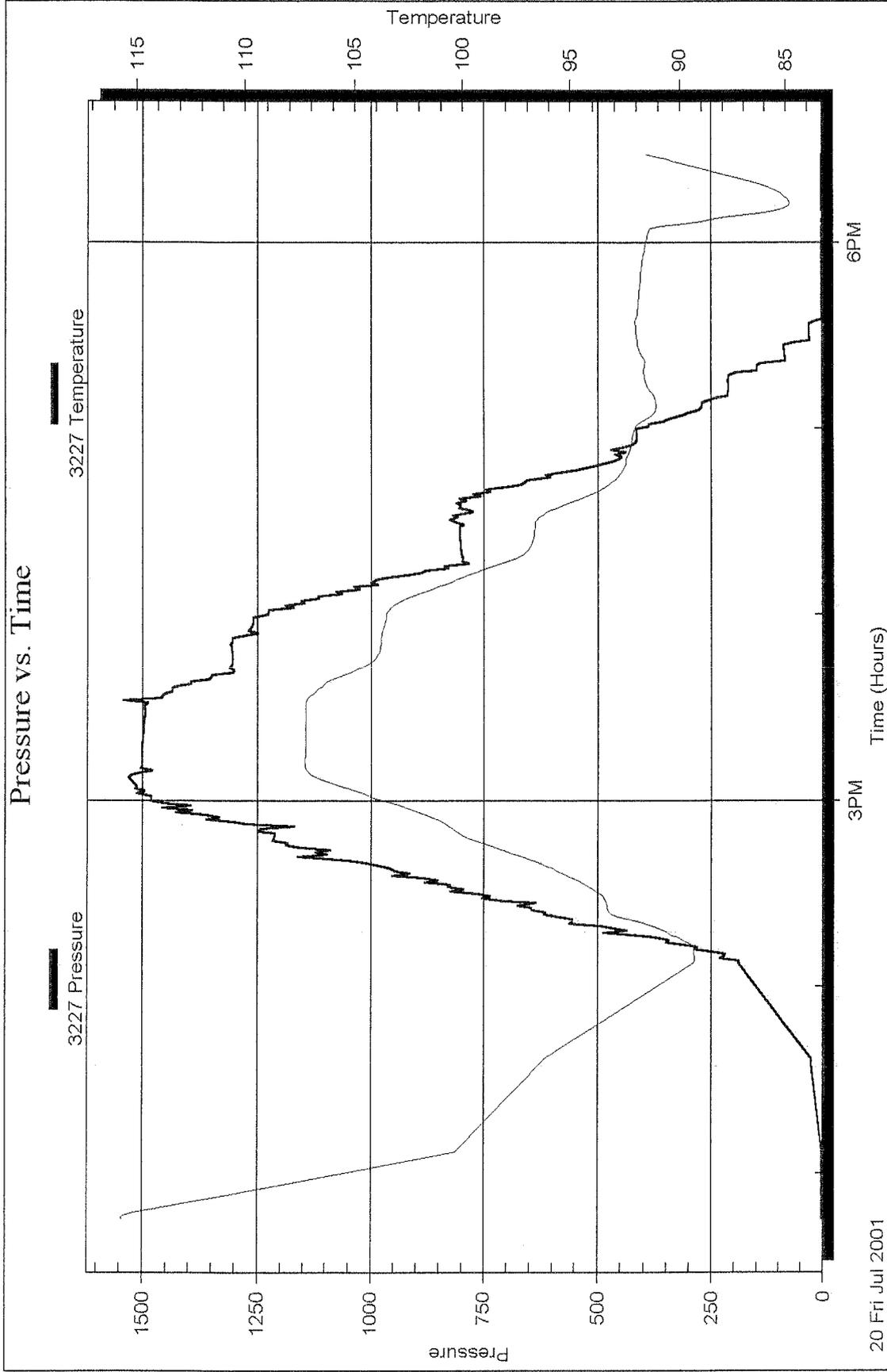
Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	44.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	11.16 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

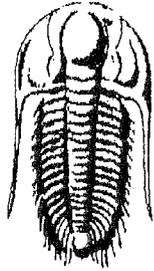
### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      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: **Don Fox**

2700 Westminister  
Hutchinson, KS 67502

ATTN: Don Fox

**22-18s-9w Rice co KS**

**Friedley #1**

Start Date: 2001.07.21 @ 11:00:00

End Date: 2001.07.21 @ 18:30:30

Job Ticket #: 15446                      DST #: 2

Don Fox

Friedley #1

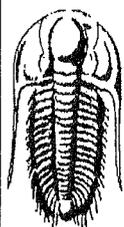
22-18s-9w Rice co KS

DST # 2

Simp Sand

2001.07.21

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Don Fox  
2700 Westminister  
Hutchinson, KS 67502  
ATTN: Don Fox

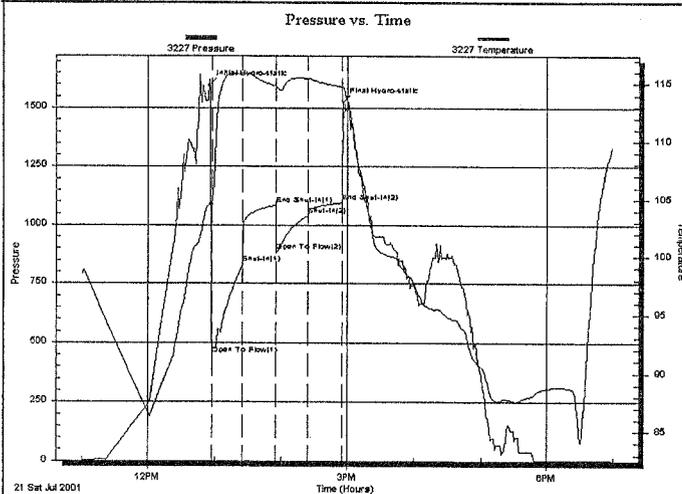
**Friedley #1**  
**22-18s-9w Rice co KS**  
Job Ticket: 15446      DST#: 2  
Test Start: 2001.07.21 @ 11:00:00

### GENERAL INFORMATION:

Formation: **Simp.Sand**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 12:25:00  
Time Test Ended: 18:30:30  
Test Type: Conventional Straddle  
Tester: John Schmidt  
Unit No: 18  
Interval: **3225.00 ft (KB) To 3282.00 ft (KB) (TVD)**  
Reference Elevations: 1729.00 ft (KB)  
Total Depth: 3320.00 ft (KB) (TVD)      1720.00 ft (CF)  
Hole Diameter: 7.88 inches      Hole Condition: Fair      KB to GR/CF: 9.00 ft

**Serial #: 3227      Inside**  
Press@RunDepth: 1040.58 psig @ 3230.01 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2001.07.21      End Date: 2001.07.21      Last Calib.: 2001.01.21  
Start Time: 11:00:00      End Time: 18:30:30      Time On Btm: 2001.07.21 @ 12:54:58  
Time Off Btm: 2001.07.21 @ 14:55:28

TEST COMMENT: IF- Strong B.O.B.in 1 min.      ISI-no blow  
FF-Strong B.O.B.in 1 min.      FSI-n blow



### PRESSURE SUMMARY

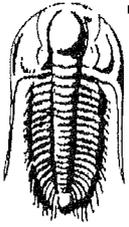
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1597.28	104.61	Initial Hydro-static
2	447.73	104.67	Open To Flow (1)
30	833.80	115.80	Shut-In(1)
60	1085.90	114.80	End Shut-In(1)
61	885.77	114.76	Open To Flow (2)
89	1040.58	115.43	Shut-In(2)
120	1096.04	114.70	End Shut-In(2)
121	1525.54	114.72	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
2295.00	Muddy Water	28.11

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Don Fox  
2700 Westminister  
Hutchinson,KS 67502  
ATTN: Don Fox

Friedley #1  
22-18s-9w Rice co KS  
Job Ticket: 15446      DST#:2  
Test Start: 2001.07.21 @ 11:00:00

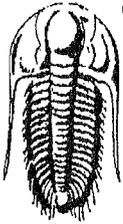
**Tool Information**

Drill Pipe:	Length: 2760.00 ft	Diameter: 3.80 inches	Volume: 38.72 bbl	Tool Weight: 3500.00 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: 448.00 ft	Diameter: 2.25 inches	Volume: 2.20 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 40.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3225.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	3282.02 ft			
Interval betw een Packers:	57.02 ft			
Tool Length:	126.03 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3199.00	
S.I. Tool	5.00			3204.00	
HMV	5.00			3209.00	
Jars	5.00			3214.00	
Safety Joint	2.00			3216.00	
Packer	4.00			3220.00	27.00 Bottom Of Top Packer
Packer	5.00			3225.00	
Stubb	1.00			3226.00	
Perforations	4.00			3230.00	
Recorder	0.01	3227	Inside	3230.01	
Perforations	18.00			3248.01	
C.O. Sub	1.00			3249.01	
Blank Spacing	30.00			3279.01	
C.O. Sub	1.00			3280.01	
Perforations	1.00			3281.01	
Recorder	0.01	13308	Outside	3281.02	
Blank Off Sub	1.00			3282.02	57.02 Tool Interval
Packer	4.00			3286.02	
Stubb	1.00			3287.02	
C.O. Sub	1.00			3288.02	
Blank Spacing	30.00			3318.02	
C.O. Sub	1.00			3319.02	
Perforations	2.00			3321.02	
Recorder	0.01	24174	Below	3321.03	
Bullnose	3.00			3324.03	42.01 Bottom Packers & Anchor

**Total Tool Length: 126.03**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Don Fox

Friedley #1

2700 Westminister  
Hutchinson, KS 67502

22-18s-9w Rice co KS

Job Ticket: 15446

DST#: 2

ATTN: Don Fox

Test Start: 2001.07.21 @ 11:00:00

### 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: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.78 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 bbf
2295.00	Muddy Water	28.112

Total Length: 2295.00 ft

Total Volume: 28.112 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

