

31-14-12W



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell, KS 67665

ATTN: John O Farmer

ORIGINAL

31-14s-12w Russell

Smoky River Unit #21

Start Date: 2001.04.24 @ 15:30:00

End Date: 2001.04.24 @ 22:00:00

Job Ticket #: 14334 DST #: 1

15-167-23197

NW 52 SE NW

2275 FNL 2175 FWL

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

John O Farmer

Smoky River Unit #21

31-14s-12w Russell

DST #: 1

Gorham Sand

2001.04.24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer

Smoky River Unit #21

PO Box 352
Russell, KS 67665

31-14s-12w Russell

Job Ticket: 14334

DST#: 1

ATTN: John O Farmer

Test Start: 2001.04.24 @ 15:30:00

GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:10:26

Time Test Ended: 22:00:00

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: 3081.00 ft (KB) To 3106.00 ft (KB) (TVD)

Reference Elevations: 1666.00 ft (KB)

Total Depth: 3106.00 ft (KB)

1658.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 3227 Inside

Press@RunDepth: 28.18 psig @ 3083.01 ft (KB)

Capacity: 7000.00 psig

Start Date: 2001.04.24

End Date:

2001.04.24

Last Calib.: 2001.04.24

Start Time: 16:24:28

End Time:

21:37:41

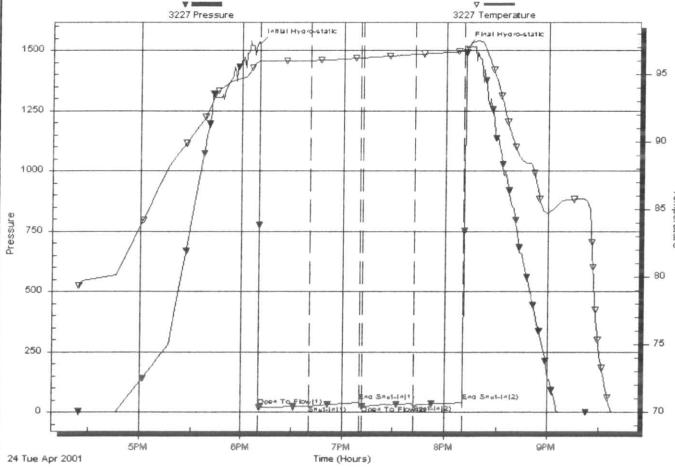
Time On Btm: 2001.04.24 @ 18:09:56

Time Off Btm: 2001.04.24 @ 20:11:56

TEST COMMENT: IF-Weak Dead in 7 min.
FF- Dead

ORIGINAL

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
106	1530.13	96.00	Initial Hydro-static
106	20.61	95.94	Open To Flow (1)
136	22.78	96.01	Shut-In(1)
166	40.28	96.21	End Shut-In(1)
167	23.16	96.22	Open To Flow (2)
198	28.18	96.47	Shut-In(2)
226	39.30	96.71	End Shut-In(2)
228	1514.93	96.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

Smoky River Unit #21

PO Box 352
Russell, KS 67665

31-14s-12w Russell

Job Ticket: 14334

DST#: 1

ATTN: John O Farmer

Test Start: 2001.04.24 @ 15:30:00

Tool Information

Drill Pipe:	Length: 3045.00 ft	Diameter: 3.80 inches	Volume: 42.71 bbl	Tool Weight: 2500.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight set on Packer: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight to Pull Loose: 35000.00 lb
Drill Pipe Above KB:	22.00 ft			Tool Chased 0.00 ft
Depth to Top Packer:	3076.00 ft			String Weight: Initial 30000.00 lb
Depth to Bottom Packer:	ft			Final 30000.00 lb
Interval between Packers:	ft			
Tool Length:	52.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3055.00	
S.I. Tool	5.00			3060.00	
HMV	5.00			3065.00	
Jars	5.00			3070.00	
Safety Joint	2.00			3072.00	
Packer	4.00			3076.00	22.00 Bottom Of Top Packer
Packer	5.00			3081.00	
Stubb	1.00			3082.00	
Perforations	1.00			3083.00	
Recorder	0.01	3227	Inside	3083.01	
Perforations	20.00			3103.01	
Recorder	0.01	13308	Outside	3103.02	
Bullnose	3.00			3106.02	30.02 Bottom Packers & Anchor

Total Tool Length: 52.02

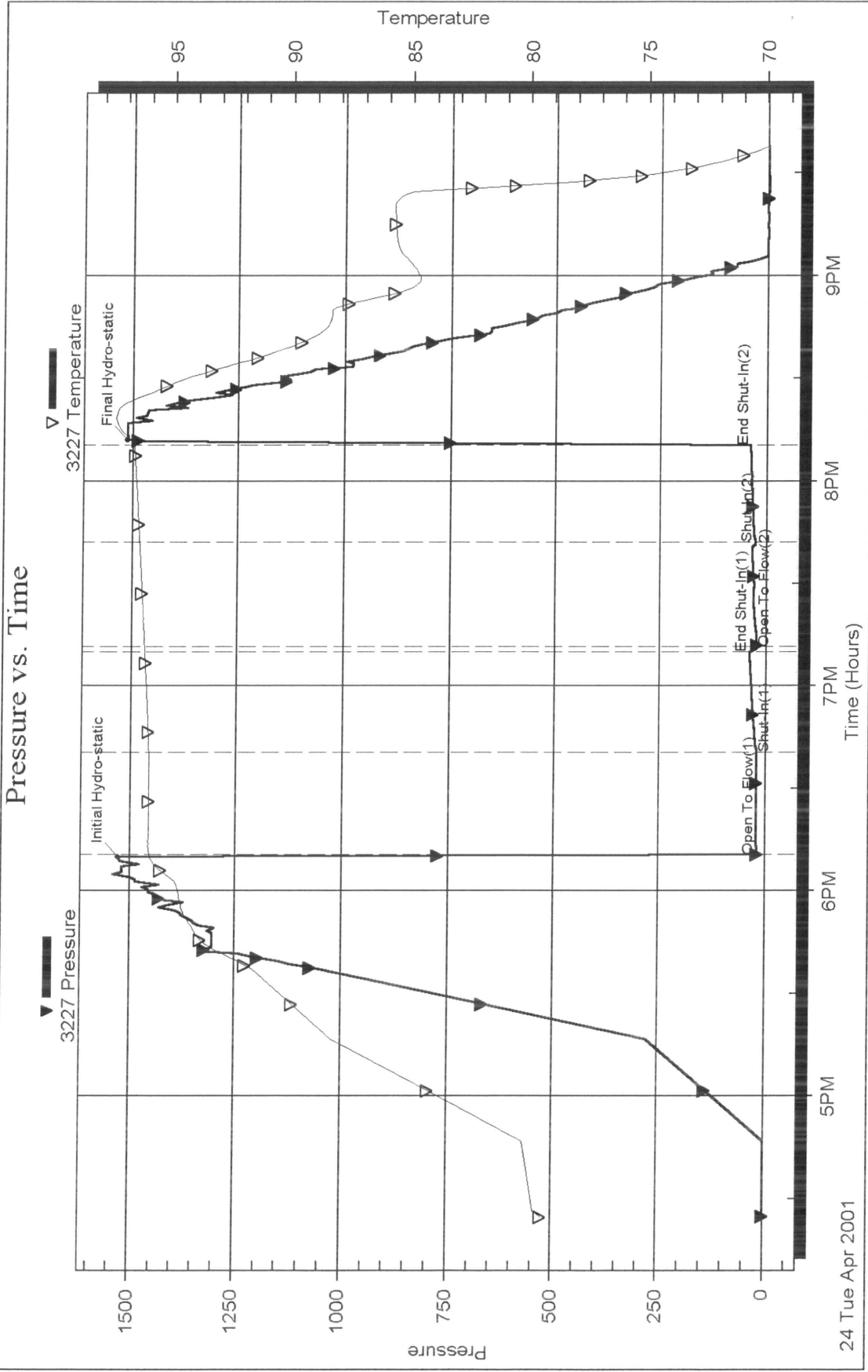
Serial #: 3227

Inside

John O Farmer

31-14s-12w Russell

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell, KS 67665

ATTN: John O Farmer

31-14s-12w Russell

Smoky River Unit #21

Start Date: 2001.04.25 @ 02:00:00

End Date: 2001.04.25 @ 08:00:00

Job Ticket #: 14335 DST #: 2

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer

Smoky River Unit #21

PO Box 352
Russell, KS 67665

31-14s-12w Russell

Job Ticket: 14335

DST#: 2

ATTN: John O Farmer

Test Start: 2001.04.25 @ 02:00:00

GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:06:15

Time Test Ended: 08:00:00

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: 3081.00 ft (KB) To 3111.00 ft (KB) (TVD)

Total Depth: 3106.00 ft (KB)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1666.00 ft (KB)

1658.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 3227 Inside

Press@RunDepth: 24.80 psig @ 3083.01 ft (KB)

Start Date: 2001.04.25

End Date: 2001.04.25

Capacity: 7000.00 psig

Last Calib.: 2001.04.25

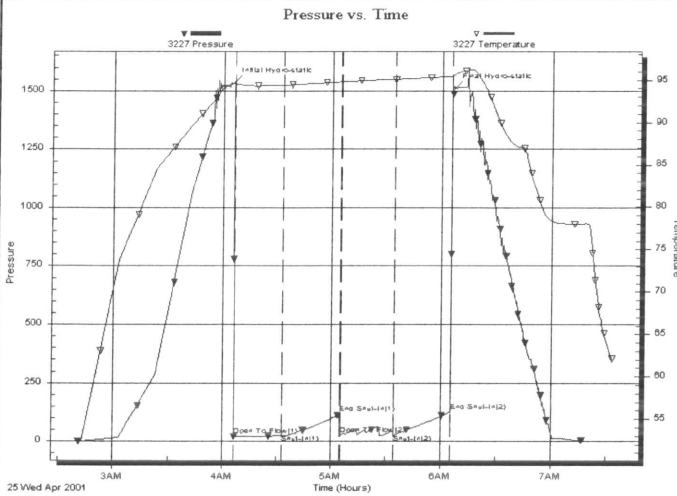
Start Time: 02:41:02

End Time: 07:33:45

Time On Btm: 2001.04.25 @ 04:06:00

Time Off Btm: 2001.04.25 @ 06:06:45

TEST COMMENT: IF-Weak Dead in 20 min.
FF-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
85	1535.23	94.64	Initial Hydro-static
86	21.23	94.54	Open To Flow (1)
113	23.78	94.41	Shut-In(1)
144	114.44	94.81	End Shut-In(1)
145	24.08	94.81	Open To Flow (2)
174	24.80	95.11	Shut-In(2)
205	125.64	95.43	End Shut-In(2)
206	1512.94	95.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud with Oil Stain	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

Smoky River Unit #21

PO Box 352
Russell, KS 67665

31-14s-12w Russell

Job Ticket: 14335

DST#: 2

ATTN: John O Farmer

Test Start: 2001.04.25 @ 02:00:00

Tool Information

Drill Pipe:	Length: 3045.00 ft	Diameter: 3.80 inches	Volume: 42.71 bbl	Tool Weight: 2500.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight set on Packer: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight to Pull Loose: 35000.00 lb
Drill Pipe Above KB:	15.00 ft			Tool Chased 0.00 ft
Depth to Top Packer:	3076.00 ft			String Weight: Initial 30000.00 lb
Depth to Bottom Packer:	ft			Final 30000.00 lb
Interval between Packers:	ft			
Tool Length:	51.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3062.00	
S.I. Tool	5.00			3067.00	
HMV	5.00			3072.00	
Packer	4.00			3076.00	15.00 Bottom Of Top Packer
Packer	5.00			3081.00	
Stubb	1.00			3082.00	
Perforations	1.00			3083.00	
Recorder	0.01	3227	Inside	3083.01	
Perforations	26.00			3109.01	
Recorder	0.01	13308	Outside	3109.02	
Bullnose	3.00			3112.02	36.02 Bottom Packers & Anchor

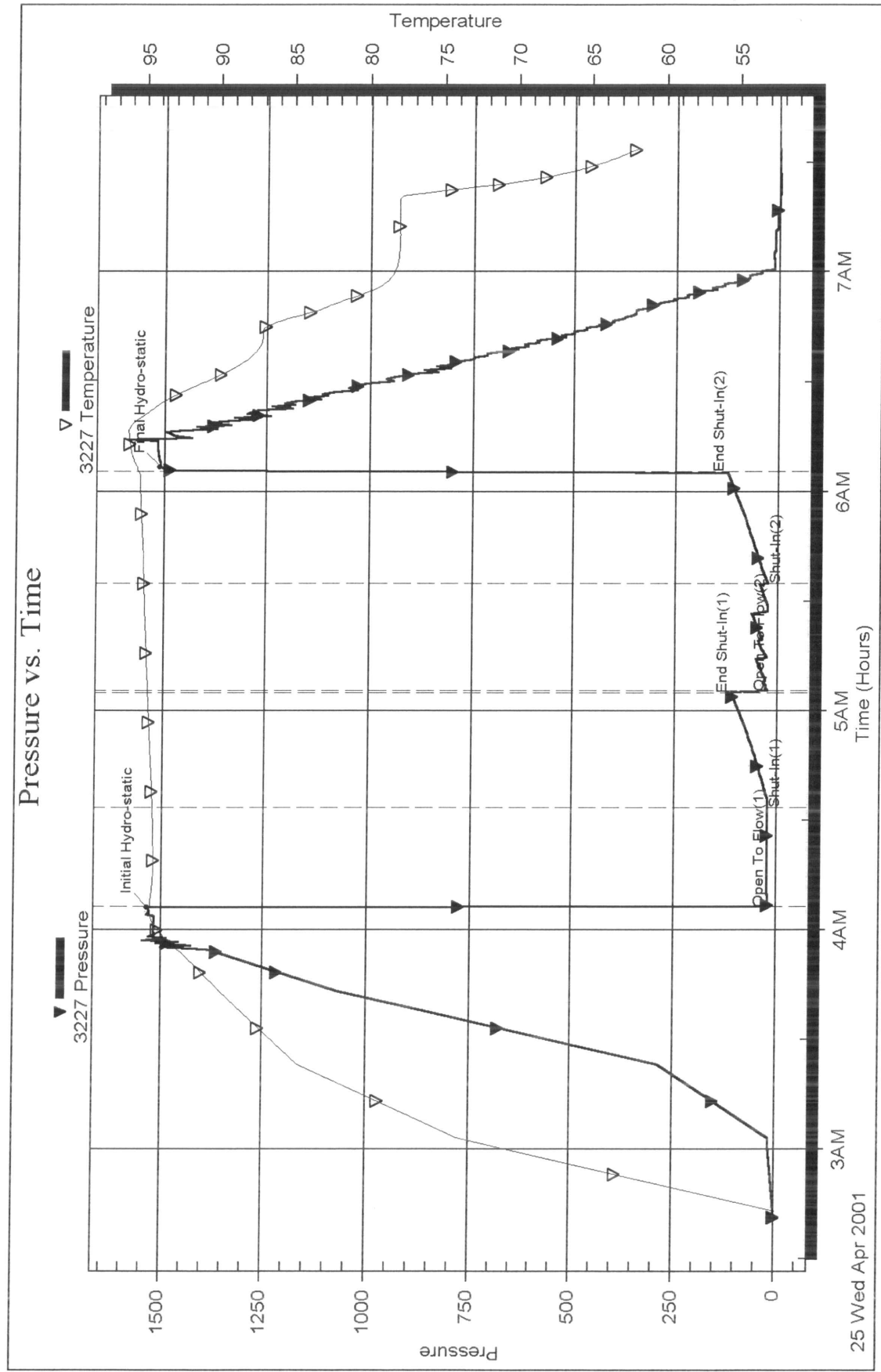
Total Tool Length: 51.02

Serial #: 3227

Inside

John O Farmer

31-14s-12w Russell



25 Wed Apr 2001

Trilobite Testing, Inc

Ref. No: 14335

Printed: 2001.04.26 @ 15:05:05 Page 4



DRILL STEM TEST REPORT

Prepared For: **John O Farmer**

PO Box 352
Russell, KS 67665

ATTN: John O Farmer

31-14s-12w Russell

Smoky River Unit #21

Start Date: 2001.04.25 @ 12:00:00

End Date: 2001.04.25 @ 00:00:00

Job Ticket #: 14336 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

John O Farmer

Smoky River Unit #21

31-14s-12w Russell

DST #: 3

Gorham Sand

2001.04.25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer

Smoky River Unit #21

PO Box 352
Russell, KS 67665

31-14s-12w Russell

Job Ticket: 14336

DST#: 3

ATTN: John O Farmer

Test Start: 2001.04.25 @ 12:00:00

GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:17:29

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: 3082.00 ft (KB) To 3116.00 ft (KB) (TVD)

Total Depth: 3106.00 ft (KB)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1666.00 ft (KB)

1658.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 3227 Inside

Press@RunDepth: 1077.97 psig @ 3084.01 ft (KB)

Start Date: 2001.04.25

End Date:

2001.04.25

Capacity: 7000.00 psig

Last Calib.: 2001.04.25

Start Time: 12:57:31

End Time:

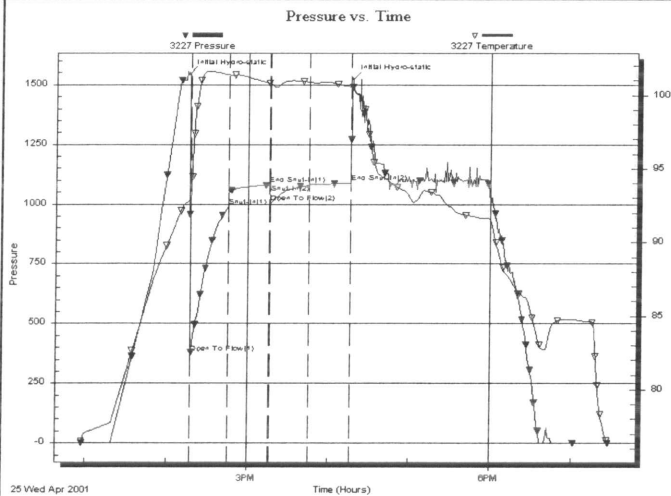
19:28:14

Time On Btm: 2001.04.25 @ 14:16:14

Time Off Btm:

TEST COMMENT: IF-Strong BOB.in 30 Sec.

FF- Strong BOB.in 1 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
79	1545.65	92.86	Initial Hydro-static
80	372.19	92.84	Open To Flow (1)
108	988.19	101.39	Shut-In(1)
139	1080.29	100.81	End Shut-In(1)
140	1002.85	100.79	Open To Flow (2)
168	1077.97	100.89	Shut-In(2)
199	1086.62	100.57	End Shut-In(2)
201	1524.64	100.55	Initial Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2380.00	Sulfur Water	33.10

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer

Smoky River Unit #21

PO Box 352
Russell, KS 67665

31-14s-12w Russell

Job Ticket: 14336 DST#: 3

ATTN: John O Farmer

Test Start: 2001.04.25 @ 12:00:00

Tool Information

Drill Pipe:	Length: 3045.00 ft	Diameter: 3.80 inches	Volume: 42.71 bbl	Tool Weight: 2500.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight set on Packer: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight to Pull Loose: 43000.00 lb
Drill Pipe Above KB:	14.00 ft			Tool Chased 0.00 ft
Depth to Top Packer:	3077.00 ft			String Weight: Initial 30000.00 lb
Depth to Bottom Packer:	ft			Final 40000.00 lb
Interval between Packers:	ft			
Tool Length:	54.02 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			3063.00	
S.I. Tool	5.00			3068.00	
HMV	5.00			3073.00	
Packer	4.00			3077.00	15.00 Bottom Of Top Packer
Packer	5.00			3082.00	
Stubb	1.00			3083.00	
Perforations	1.00			3084.00	
Recorder	0.01	3227	Inside	3084.01	
Perforations	29.00			3113.01	
Recorder	0.01	13308	Outside	3113.02	
Bullnose	3.00			3116.02	39.02 Bottom Packers & Anchor

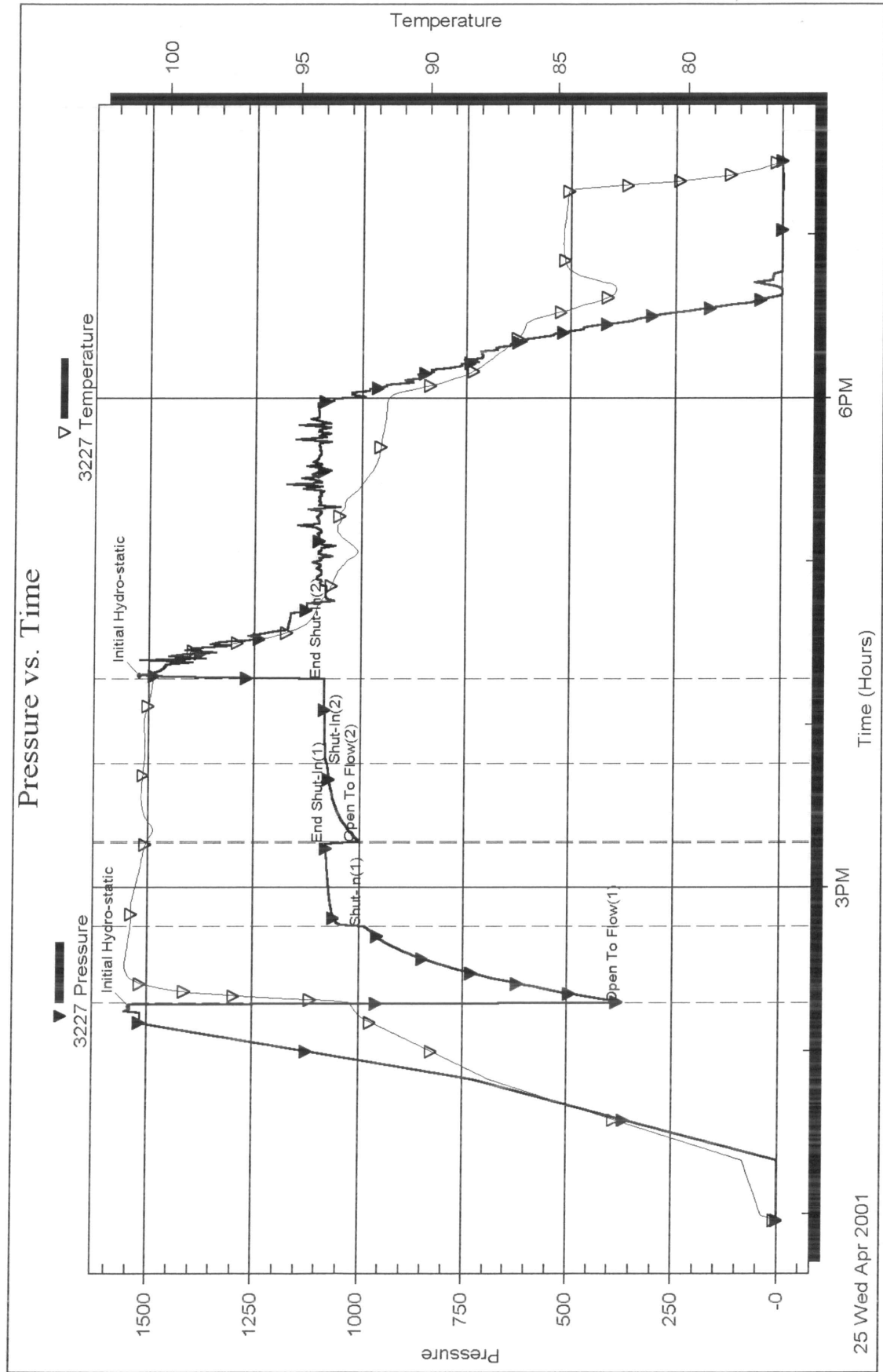
Total Tool Length: 54.02

Serial #: 3227

Inside

John O Farmer

31-14s-12w Russell



Trilobite Testing, Inc

Ref. No: 14336

Printed: 2001.04.26 @ 15:04:44 Page 4