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15-057-20562



TRILOBITE
TESTING, INC.

Release
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Confidential

DRILL STEM TEST REPORT

Prepared For **Roberts Resources**
ORIGINAL
520 S. Holland Ste.207
Wichita KS 67208

CONFIDENTIAL **KCC**
SEP 05 2002

ATTN: Kent Roberts

CONFIDENTIAL
11 28s 21w Ford, KS

Kirkpatrick 1-11

Start Date: 2002.05.15 @ 17:29:27

End Date: 2002.05.16 @ 01:52:12

Job Ticket #: 15385 DST #: 1

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SEP 09 2002
KCC WICHITA

Roberts Resources

Kirkpatrick 1-11

11 28s 21w Ford, KS

DST # 1

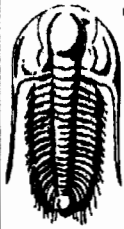
KC

2002.05.15

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

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ORIGINAL


**TRILOBITE
TESTING, INC.**
DRILL STEM TEST REPORT

 Roberts Resources
 520 S. Holland Ste.207
 Wichita KS 67208
 ATTN: Kent Roberts

 Kirkpatrick 1-11
 11 28s 21w Ford, KS
 Job Ticket: 15385 DST#: 1
 Test Start: 2002.05.15 @ 17:29:27

GENERAL INFORMATION:

 Formation: KC
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:28:12
 Time Test Ended: 01:52:12

KCC
SEP 05 2002

 Test Type: Conventional Bottom Hole
 Tester: Wenrich
 Unit No: 14

 Interval: 4295.00 ft (KB) To 4310.00 ft (KB) (TVD)
 Total Depth: 4310.00 ft (KB) (TVD)
 Hole Diameter: 7.79 inches Hole Condition: Poor

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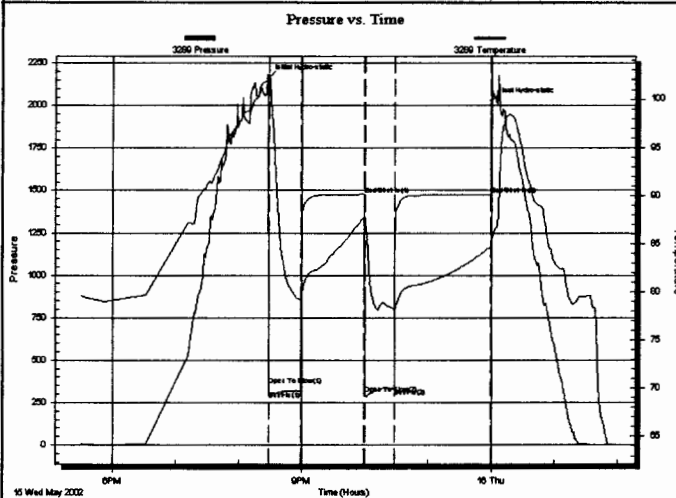
 Reference Elevations: 2356.00 ft (KB)
 2347.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 3289
Inside

 Press@RunDepth: 332.36 psig @ 4296.00 ft (KB)
 Start Date: 2002.05.15 End Date: 2002.05.16
 Start Time: 17:29:32 End Time: 01:52:11

 Capacity: 7000.00 psig
 Last Calib.: 1899.12.30
 Time On Btm: 2002.05.15 @ 20:27:27
 Time Off Btm: 2002.05.15 @ 23:59:41

 TEST COMMENT: FF:Strong blow .B.O.B. immediately.GTS in 1 min. (see gas report)
 IS:1/2" blow.
 FF:Strong blow .B.O.B. immediately.(see gas report)
 FS:No blow.

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PRESSURE SUMMARY

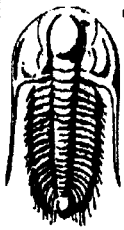
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2157.92	102.11	Initial Hydro-static
1	354.17	102.39	Open To Flow (1)
31	315.57	79.09	Shut-In(1)
92	1477.01	87.76	End Shut-In(1)
93	303.06	86.97	Open To Flow (2)
121	332.36	78.07	Shut-In(2)
212	1475.99	84.69	End Shut-In(2)
213	2026.94	84.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	100% Mud	1.26

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	70.00	1318.32
Last Gas Rate	0.75	80.00	1474.51
Max. Gas Rate	0.75	80.00	1474.51



TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15385

DST#: 1

ATTN: Kent Roberts

Test Start: 2002.05.15 @ 17:29:27

Tool Information

Drill Pipe:	Length: 4290.00 ft	Diameter: 3.80 inches	Volume: 60.18 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	58000.00 lb
		Total Volume:	60.18 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	4295.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	42.00 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	0.00			4268.00	
S.I. Tool	5.00			4273.00	
HMV	5.00			4278.00	
Jars	5.00			4283.00	
Safety Joint	3.00			4286.00	
Packer	4.00			4290.00	27.00 Bottom Of Top Packer
Packer	5.00			4295.00	
Stubb	1.00			4296.00	
Recorder	0.00	3289	Inside	4296.00	
Perforations	12.00			4308.00	
Recorder	0.00	10242	Outside	4308.00	
Bullnose	2.00			4310.00	15.00 Bottom Packers & Anchor

Total Tool Length: 42.00

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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15385

DST#: 1

ATTN: Kent Roberts

Test Start: 2002.05.15 @ 17:29:27

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: 62.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.95 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7200.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	100%Mud	1.262

Total Length: 90.00 ft Total Volume: 1.262 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



TRILOBITE
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DRILL STEM TEST REPORT

GAS RATES

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15385

DST#: 1

ATTN: Kent Roberts

Test Start: 2002.05.15 @ 17:29:27

Gas Rates Information

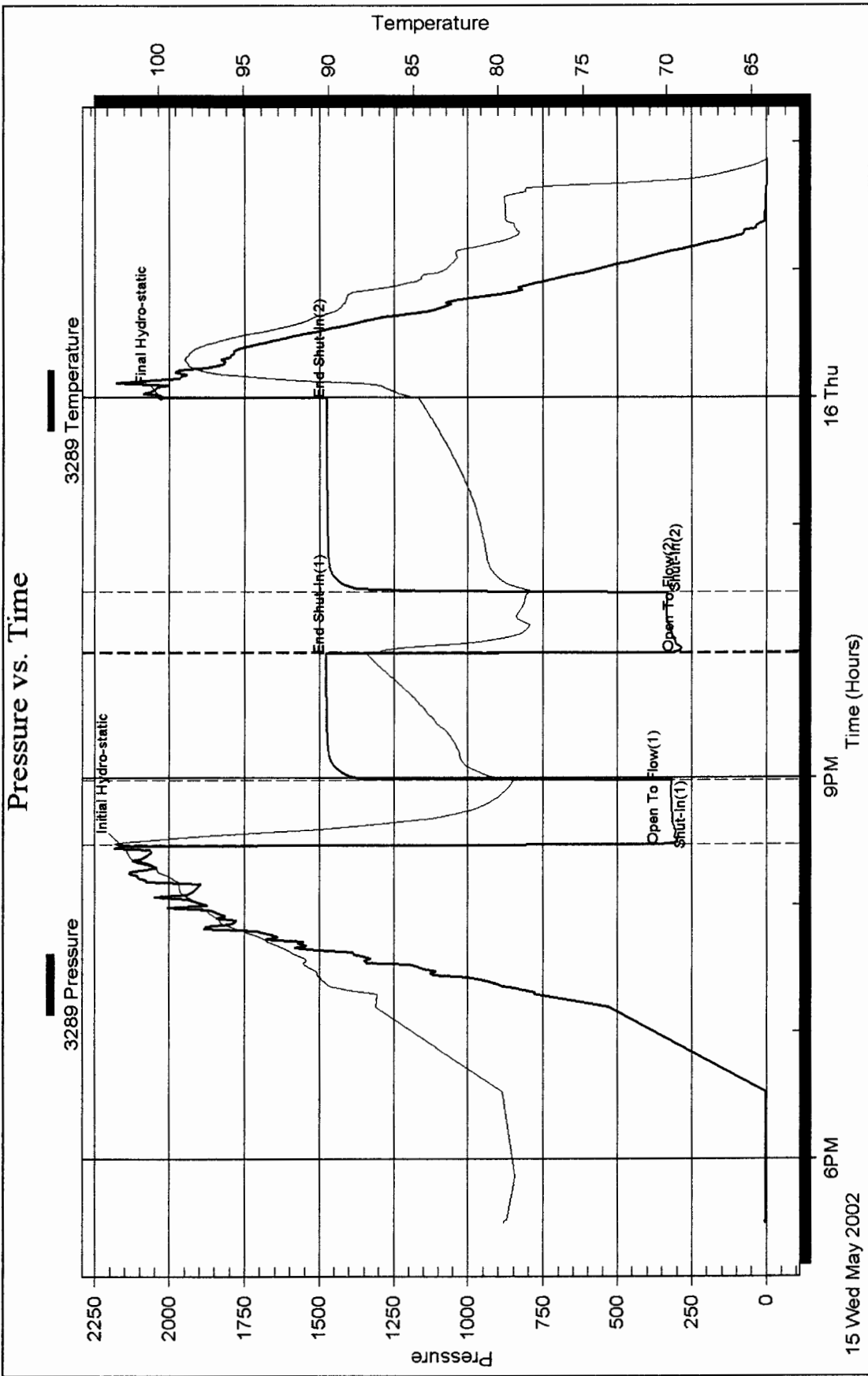
Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

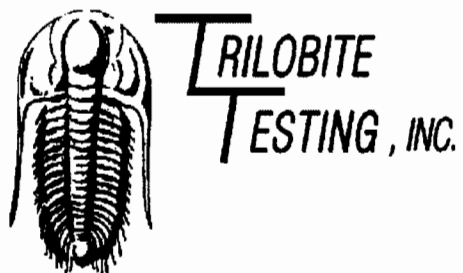
Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	10	0.75	70.00	1318.32
1	10	0.75	70.00	1318.32
1	20	0.75	75.00	1396.41
1	30	0.75	75.00	1396.41
2	10	0.75	70.00	1318.32
2	20	0.75	80.00	1474.51

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Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

11 28s 21w Ford, KS

Kirkpatrick 1-11

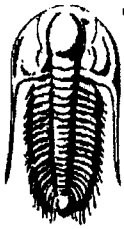
Start Date: 2002.05.16 @ 13:44:25

End Date: 2002.05.16 @ 21:39:25

Job Ticket #: 15386 DST #: 2

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Roberts Resources

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

Kirkpatrick 1-11

11 28s 21w Ford, KS

Job Ticket: 15386

DST#: 2

Test Start: 2002.05.16 @ 13:44:25

GENERAL INFORMATION:

Formation: **KC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:32:40

Time Test Ended: 21:39:25

Test Type: Conventional Bottom Hole

Tester: Wenrich

Unit No: 14

Interval: **4342.00 ft (KB) To 4360.00 ft (KB) (TVD)**

Total Depth: 4360.00 ft (KB) (TVD)

Hole Diameter: 7.79 inches Hole Condition: Poor

Reference Elevations: 2356.00 ft (KB)

2347.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 3289

Inside

Press@RunDepth: 220.42 psig @ 4343.00 ft (KB)

Start Date: 2002.05.16

End Date:

2002.05.16

Start Time: 13:44:30

End Time:

21:39:24

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.05.16 @ 15:32:10

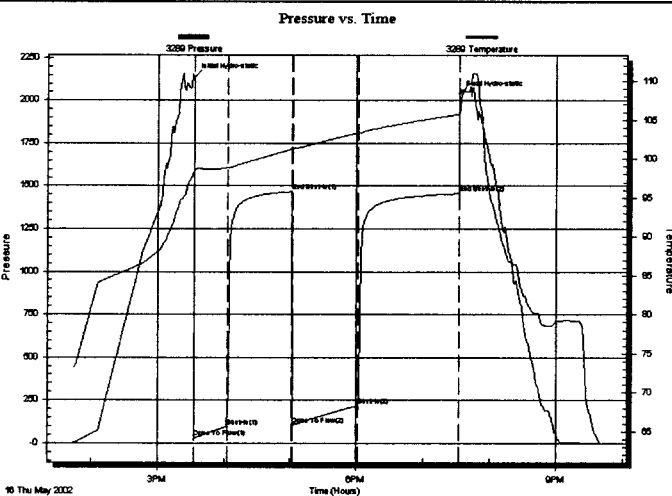
Time Off Btm: 2002.05.16 @ 19:32:25

TEST COMMENT: IF: Strong blow B.O.B. 20min.

IS: No blow

FF: Strong blow B.O.B. 29min.

FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2138.47	98.46	Initial Hydro-static
1	30.35	98.68	Open To Flow (1)
31	96.98	98.87	Shut-In (1)
90	1467.04	101.26	End Shut-In (1)
91	105.19	101.45	Open To Flow (2)
150	220.42	103.34	Shut-In (2)
240	1455.80	105.75	End Shut-In (2)
241	2036.95	105.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
480.00	wwos	6.73

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15386

DST#: 2

ATTN: Kent Roberts

Test Start: 2002.05.16 @ 13:44:25

Tool Information

Drill Pipe:	Length: 4347.00 ft	Diameter: 3.80 inches	Volume: 60.98 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	58000.00 lb
		Total Volume:	60.98 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	4342.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	40.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			4321.00	
S.I. Tool	5.00			4326.00	
HMV	5.00			4331.00	
Safety Joint	2.00			4333.00	
Packer	4.00			4337.00	22.00
Packer	5.00			4342.00	
Stubb	1.00			4343.00	
Recorder	0.00	3289	Inside	4343.00	
Perforations	15.00			4358.00	
Recorder	0.00	10242	Outside	4358.00	
Bullnose	2.00			4360.00	18.00

Bottom Packers & Anchor

Total Tool Length: 40.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15386

DST#: 2

ATTN: Kent Roberts

Test Start: 2002.05.16 @ 13:44:25

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:

7000 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.95 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
480.00	wwos	6.733

Total Length: 480.00 ft

Total Volume: 6.733 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

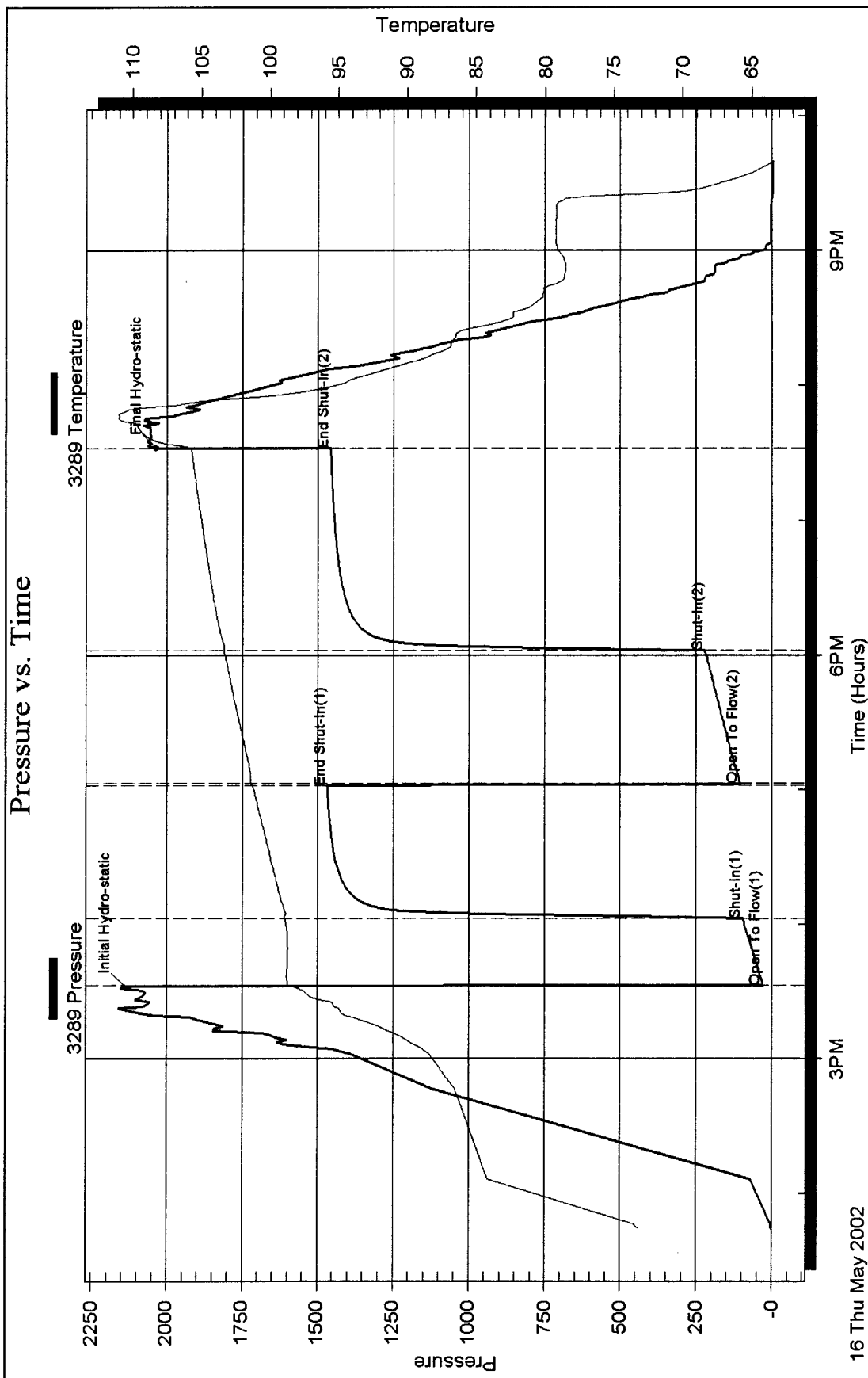
Serial #:

Laboratory Name:

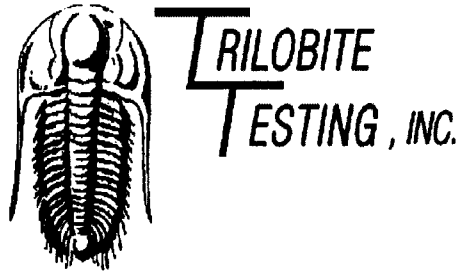
Laboratory Location:

Recovery Comments:

Pressure vs. Time



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DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

11 28s 21w Ford, KS

Kirkpatrick 1-11

Start Date: 2002.05.18 @ 18:10:05

End Date: 2002.05.19 @ 00:43:35

Job Ticket #: 15387 DST #: 3

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



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TESTING, INC.

DRILL STEM TEST REPORT

Roberts Resources
520 S. Holland Ste.207
Wichita KS 67208
ATTN: Kent Roberts

Kirkpatrick 1-11
11 28s 21w Ford, KS
Job Ticket: 15387 **DST#: 3**
Test Start: 2002.05.18 @ 18:10:05

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:18:35

Time Test Ended: 00:43:35

Test Type: Conventional Bottom Hole

Tester: Wenrich

Unit No: 14

Interval: **4803.00 ft (KB) To 4830.00 ft (KB) (TVD)**

Total Depth: 4830.00 ft (KB) (TVD)

Hole Diameter: 7.79 inches Hole Condition: Poor

Reference Elevations: 2356.00 ft (KB)

2347.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 3289

Inside

Press@RunDepth: 38.58 psig @ 4804.00 ft (KB)

Start Date: 2002.05.18

End Date:

2002.05.19

Start Time: 18:10:10

End Time:

00:43:34

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.05.18 @ 20:17:50

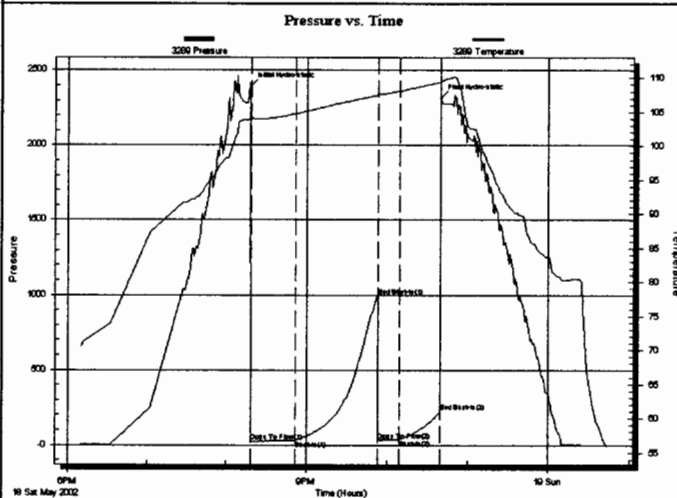
Time Off Btm: 2002.05.18 @ 22:39:35

TEST COMMENT: IF:Weak blow .1/2"-7".

IS:No blow .

FF:Weak blow .1/2"-2".

FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2393.84	104.28	Initial Hydro-static
1	26.40	104.35	Open To Flow (1)
35	32.55	104.79	Shut-In(1)
95	992.61	107.49	End Shut-In(1)
96	29.58	107.68	Open To Flow (2)
111	38.58	108.07	Shut-In(2)
142	222.73	109.40	End Shut-In(2)
142	2313.93	109.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
34.00	100%Mud	0.48

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15387

DST#: 3

ATTN: Kent Roberts

Test Start: 2002.05.18 @ 18:10:05

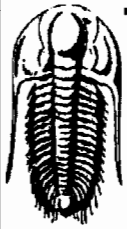
Tool Information

Drill Pipe:	Length: 4812.00 ft	Diameter: 3.80 inches	Volume: 67.50 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	57000.00 lb
		Total Volume:	67.50 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	4803.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	49.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			4782.00		
S.I. Tool	5.00			4787.00		
HMV	5.00			4792.00		
Safety Joint	2.00			4794.00		
Packer	4.00			4798.00	22.00	Bottom Of Top Packer
Packer	5.00			4803.00		
Stubb	1.00			4804.00		
Recorder	0.00	3289	Inside	4804.00		
Perforations	24.00			4828.00		
Recorder	0.00	10242	Outside	4828.00		
Bullnose	2.00			4830.00	27.00	Bottom Packers & Anchor

Total Tool Length: 49.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15387

DST#: 3

ATTN: Kent Roberts

Test Start: 2002.05.18 @ 18:10:05

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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.76 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 13000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
34.00	100%Mud	0.477

Total Length: 34.00 ft Total Volume: 0.477 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 3

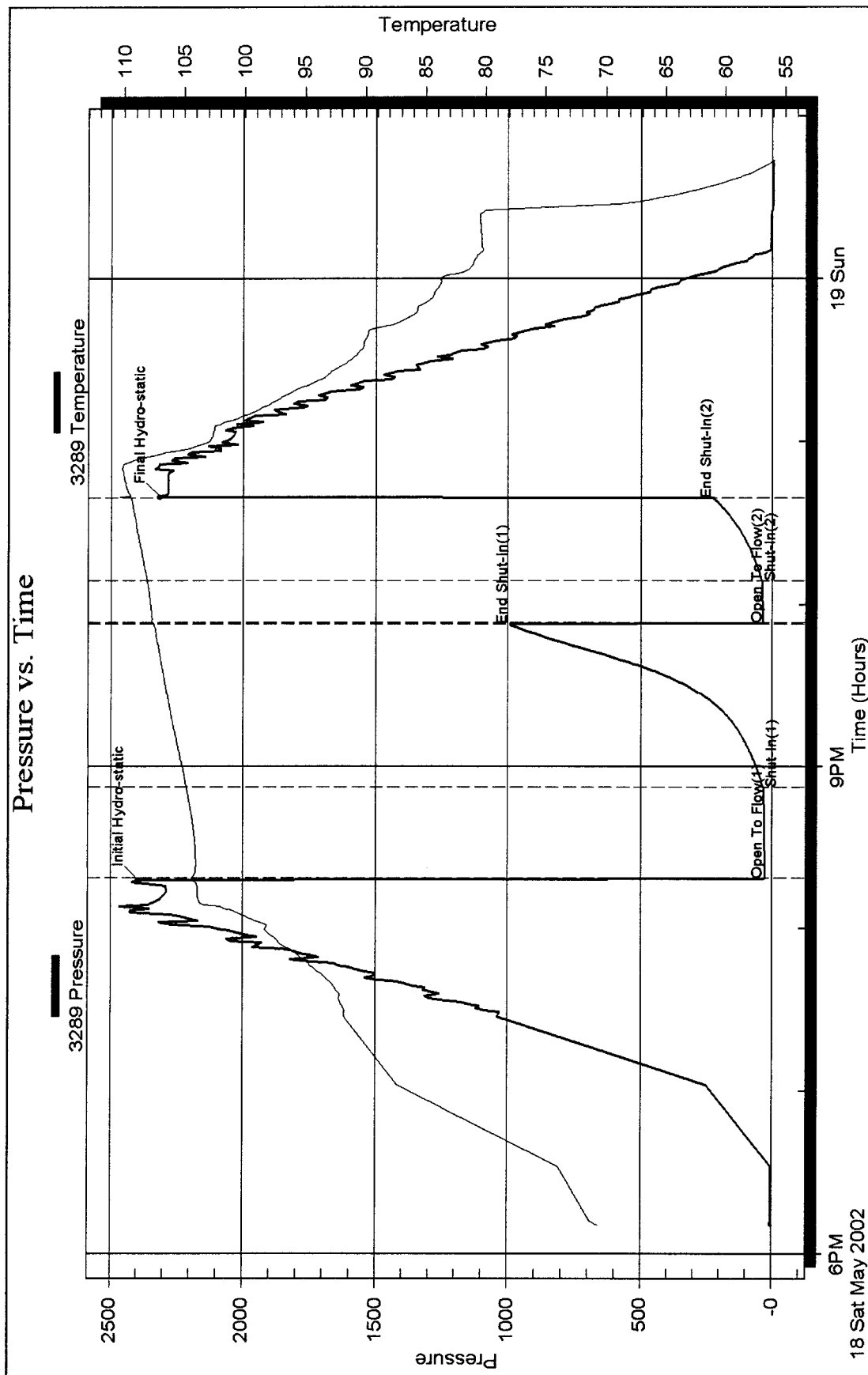
11 28s 21w Ford, KS

Roberts Resources

Inside

Serial #: 3289

Pressure vs. Time



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Ref. No: 15387

Trilobite Testing, Inc

Printed: 2002.05.29 @ 09:53:08 Page 5



DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

11 28s 21w Ford, KS

Kirkpatrick 1-11

Start Date: 2002.05.19 @ 18:03:39

End Date: 2002.05.20 @ 02:42:54

Job Ticket #: 15388 DST #: 4

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Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
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DRILL STEM TEST REPORT

Roberts Resources
520 S. Holland Ste.207
Wichita KS 67208
ATTN: Kent Roberts

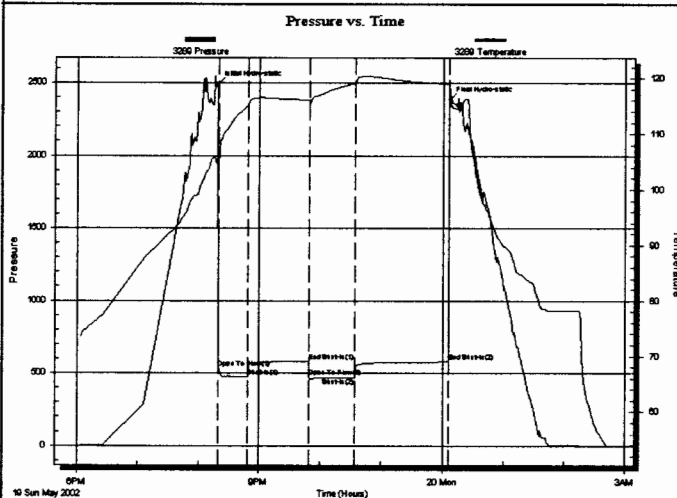
Kirkpatrick 1-11
11 28s 21w Ford, KS
Job Ticket: 15388 **DST#: 4**
Test Start: 2002.05.19 @ 18:03:39

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 20:19:09
Time Test Ended: 02:42:54
Test Type: Conventional Bottom Hole
Tester: Wenrich
Unit No: 14
Interval: **4920.00 ft (KB) To 4982.00 ft (KB) (TVD)**
Reference Elevations: 2356.00 ft (KB)
Total Depth: 4982.00 ft (KB) (TVD) 2347.00 ft (CF)
Hole Diameter: 7.79 inches Hole Condition: Poor KB to GR/CF: 9.00 ft

Serial #: 3289 **Inside**
Press@RunDepth: 464.70 psig @ 4921.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2002.05.19 End Date: 2002.05.20 Last Calib.: 1899.12.30
Start Time: 18:03:44 End Time: 02:42:54 Time On Btm: 2002.05.19 @ 20:18:39
Time Off Btm: 2002.05.20 @ 00:06:09

TEST COMMENT: IF: Strong blow .B.O.B. in 15 sec. GTS in 4 min. (see gas report)
IS: No blow .
FF: Strong blow . B.O.B. immediately. (see gas report)
FS: No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2489.25	104.50	Initial Hydro-static
1	532.81	104.30	Open To Flow (1)
31	473.41	115.24	Shut-In(1)
91	580.17	116.12	End Shut-In(1)
91	473.55	115.38	Open To Flow (2)
136	464.70	119.07	Shut-In(2)
227	577.64	119.03	End Shut-In(2)
228	2381.58	119.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
165.00	gcm 3%g 97%lm	2.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	100.00	1786.91
Last Gas Rate	0.75	125.00	2177.41
Max. Gas Rate	0.75	130.00	2255.51



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources
520 S. Holland Ste.207
Wichita KS 67208

Kirkpatrick 1-11

11 28s 21w Ford, KS

Job Ticket: 15388

DST#: 4

ATTN: Kent Roberts

Test Start: 2002.05.19 @ 18:03:39

Tool Information

Drill Pipe:	Length: 4904.00 ft	Diameter: 3.80 inches	Volume: 68.79 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 62000.00 lb
		Total Volume: 68.79 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4920.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	84.00 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			4899.00	
S.I. Tool	5.00			4904.00	
HMV	5.00			4909.00	
Safety Joint	2.00			4911.00	
Packer	4.00			4915.00	22.00 Bottom Of Top Packer
Packer	5.00			4920.00	
Stubb	1.00			4921.00	
Recorder	0.00	3289	Inside	4921.00	
Perforations	5.00			4926.00	
C.O. Sub	1.00			4927.00	
Blank Spacing	31.00			4958.00	
C.O. Sub	0.00			4958.00	
Perforations	22.00			4980.00	
Recorder	0.00	10242	Outside	4980.00	
Bullnose	2.00			4982.00	62.00 Bottom Packers & Anchor

Total Tool Length: 84.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15388

DST#: 4

ATTN: Kent Roberts

Test Start: 2002.05.19 @ 18:03:39

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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
165.00	gcm 3%g 97%m	2.315

Total Length: 165.00 ft

Total Volume: 2.315 bbl

Num Fluid Samples: 1

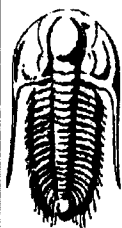
Num Gas Bombs: 1

Serial #: Wenrich

Laboratory Name:

Laboratory Location: Liberal KS

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15388

DST#:4

ATTN: Kent Roberts

Test Start: 2002.05.19 @ 18:03:39

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

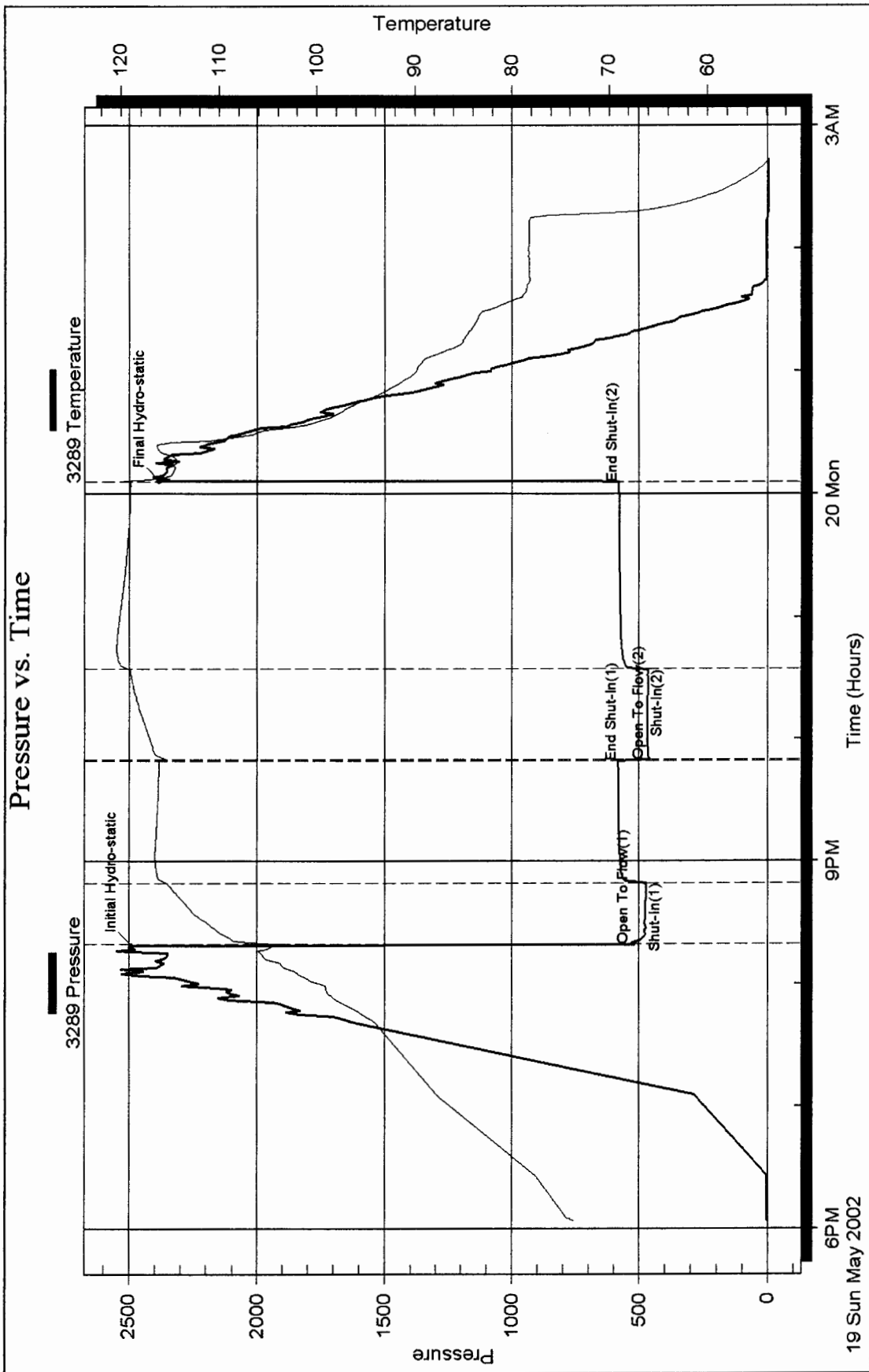
Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	10	0.75	100.00	1786.91
1	10	0.75	100.00	1786.91
1	20	0.75	120.00	2099.31
1	30	0.75	120.00	2099.31
2	10	0.75	125.00	2177.41
2	20	0.75	130.00	2255.51
2	30	0.75	130.00	2255.51
2	40	0.75	125.00	2177.41

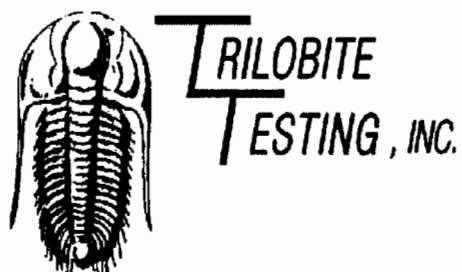
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Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

11 28s 21w Ford, KS

Kirkpatrick 1-11

Start Date: 2002.05.20 @ 10:42:07

End Date: 2002.05.20 @ 19:14:37

Job Ticket #: 15389 DST #: 5

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

Roberts Resources
520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

Kirkpatrick 1-11
11 28s 21w Ford, KS
Job Ticket: 15389 **DST#: 5**
Test Start: 2002.05.20 @ 10:42:07

GENERAL INFORMATION:

Formation: **Miss Warsaw**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:00:52

Time Test Ended: 19:14:37

Test Type: Conventional Bottom Hole

Tester: Wenrich

Unit No: 14

Interval: **4991.00 ft (KB) To 5015.00 ft (KB) (TVD)**

Total Depth: 5015.00 ft (KB) (TVD)

Hole Diameter: 7.79 inches Hole Condition: Fair

Reference Elevations: 2356.00 ft (KB)

2347.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 3289

Inside

Press@RunDepth: 292.38 psig @ 4992.00 ft (KB)

Start Date: 2002.05.20

End Date: 2002.05.20

Start Time: 10:42:12

End Time: 19:14:37

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.05.20 @ 12:58:37

Time Off Btm: 2002.05.20 @ 16:47:52

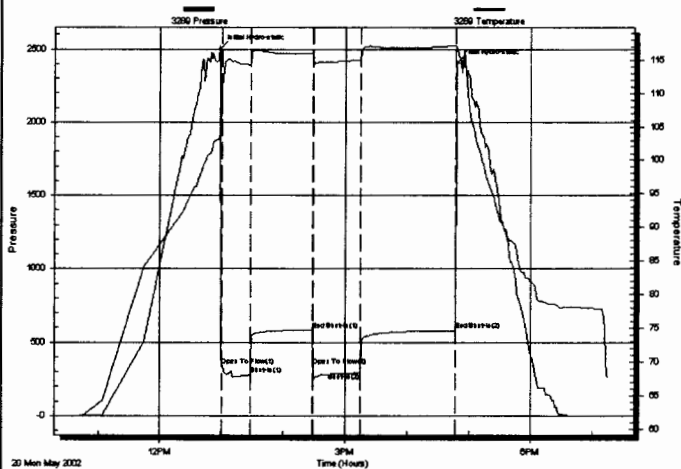
TEST COMMENT: IF: Strong blow .B.O.B. in 30 sec. GTS in 10 min. (see gas report)

IS: Strong blow .Blew down n for 20 min. B.O.B. in 20 min.

FF: Strong blow .B.O.B. immediately. (see gas report)

FS: Strong blow .Blew down

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2502.19	103.92	Initial Hydro-static
3	343.53	111.02	Open To Flow (1)
30	281.61	114.20	Shut-In (1)
90	584.24	115.92	End Shut-In (1)
91	341.19	115.74	Open To Flow (2)
136	292.38	115.00	Shut-In (2)
228	580.35	117.11	End Shut-In (2)
230	2409.72	116.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	gassy mud	2.52
180.00	muddy gassy water 90% water 10% mud	2.52

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	20.00	537.32
Last Gas Rate	0.75	36.00	787.24
Max. Gas Rate	0.75	36.00	787.24



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15389

DST#: 5

ATTN: Kent Roberts

Test Start: 2002.05.20 @ 10:42:07

Tool Information

Drill Pipe:	Length: 4996.00 ft	Diameter: 3.80 inches	Volume: 70.08 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	78000.00 lb
			Total Volume: 70.08 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	4991.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	47.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			4970.00	
S.I. Tool	5.00			4975.00	
HMV	5.00			4980.00	
Safety Joint	2.00			4982.00	
Packer	4.00			4986.00	22.00 Bottom Of Top Packer
Packer	5.00			4991.00	
Stubb	1.00			4992.00	
Recorder	0.00	3289	Inside	4992.00	
Perforations	22.00			5014.00	
Recorder	0.00	10242	Outside	5014.00	
Bullnose	2.00			5016.00	25.00 Bottom Packers & Anchor

Total Tool Length: 47.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

Kirkpatrick 1-11

11 28s 21w Ford, KS

Job Ticket: 15389

DST#: 5

Test Start: 2002.05.20 @ 10:42:07

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 85.00 sec/qt

Water Loss: 12.77 in³

Resistivity: ohm.m

Salinity: 14000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

47000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	gassy mud	2.525
180.00	muddy gassy water 90% water 10% mud	2.525

Total Length: 360.00 ft

Total Volume: 5.050 bbl

Num Fluid Samples: 1

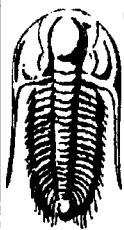
Num Gas Bombs: 1

Serial #: Wenrich

Laboratory Name: Caraway

Laboratory Location: Liberal KS

Recovery Comments: Rw .16 @ 71



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15389

DST#: 5

ATTN: Kent Roberts

Test Start: 2002.05.20 @ 10:42:07

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m³/d)
1	10	0.75	20.00	537.32
1	10	0.75	20.00	537.32
1	20	0.75	25.00	615.42
1	30	0.75	30.00	693.52
2	10	0.75	32.00	724.76
2	20	0.75	36.00	787.24
2	30	0.75	36.00	787.24
2	40	0.75	36.00	787.24

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DST Test Number: 5

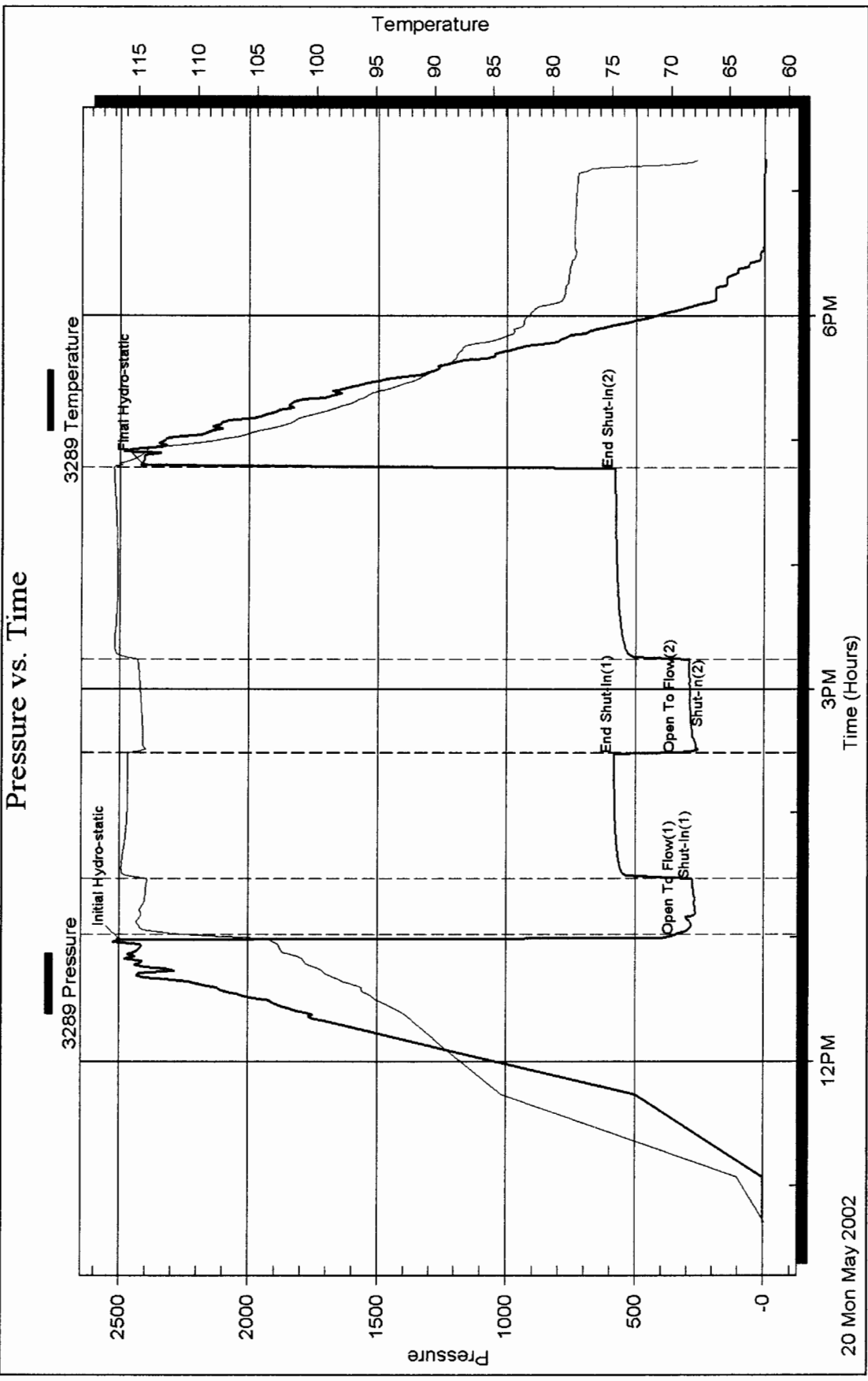
11 28s 21w Ford, KS

Roberts Resources

Inside

Serial #: 3289

Pressure vs. Time



Ref. No: 15389

Trilobite Testing, Inc



DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

11 28s 21w Ford, KS

Kirkpatrick 1-11

Start Date: 2002.05.21 @ 03:09:24

End Date: 2002.05.21 @ 10:56:24

Job Ticket #: 15390 DST #: 6

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KCC WICHITA

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Roberts Resources
520 S. Holland Ste.207
Wichita KS 67208

ATTN: Kent Roberts

Kirkpatrick 1-11
11 28s 21w Ford, KS
Job Ticket: 15390 **DST#: 6**
Test Start: 2002.05.21 @ 03:09:24

GENERAL INFORMATION:

Formation: **Miss Warsaw**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:26:39

Time Test Ended: 10:56:24

Test Type: Conventional Bottom Hole

Tester: Wenrich

Unit No: 14

Interval: **5019.00 ft (KB) To 5043.00 ft (KB) (TVD)**

Total Depth: 5043.00 ft (KB) (TVD)

Hole Diameter: 7.79 inches Hole Condition: Fair

Reference Elevations: 2356.00 ft (KB)

2347.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 3289

Inside

Press@RunDepth: 39.32 psig @ 5020.00 ft (KB)

Start Date: 2002.05.21

End Date:

2002.05.21

Start Time: 03:09:29

End Time:

10:56:23

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.05.21 @ 05:25:54

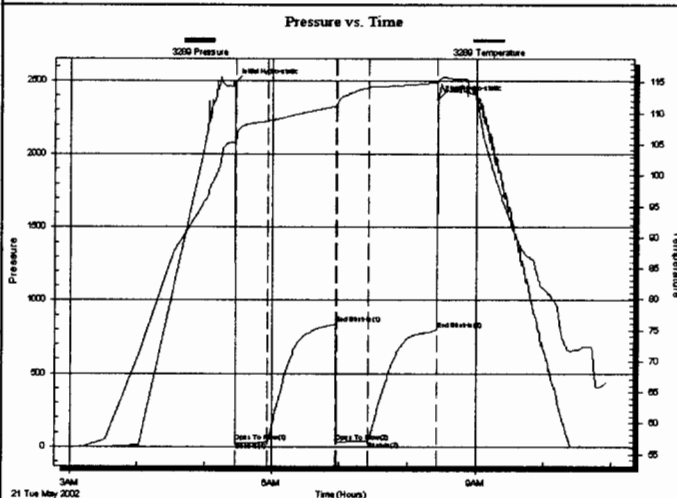
Time Off Btm: 2002.05.21 @ 08:26:24

TEST COMMENT: IF: Strong blow .B.O.B. in 1 1/2 min.

IS: No blow.

FF: Strong blow .B.O.B. in 10 sec.

FS: No blow.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2487.83	105.33	Initial Hydro-static
1	33.57	105.47	Open To Flow (1)
31	30.31	108.75	Shut-In(1)
91	838.80	111.10	End Shut-In(1)
92	34.61	111.32	Open To Flow (2)
120	39.32	114.15	Shut-In(2)
180	797.79	114.99	End Shut-In(2)
181	2373.89	115.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	GCM 2%gas 98%mud	0.70

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15390

DST#: 6

ATTN: Kent Roberts

Test Start: 2002.05.21 @ 03:09:24

Tool Information

Drill Pipe:	Length: 5028.00 ft	Diameter: 3.80 inches	Volume: 70.53 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 130000.0 lb
			Total Volume: 70.53 bbl	Tool Chased 3.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	5019.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4998.00	
S.I. Tool	5.00			5003.00	
HMV	5.00			5008.00	
Safety Joint	2.00			5010.00	
Packer	4.00			5014.00	22.00 Bottom Of Top Packer
Packer	5.00			5019.00	
Stubb	1.00			5020.00	
Recorder	0.00	3289	Inside	5020.00	
Perforations	21.00			5041.00	
Recorder	0.00	10242	Outside	5041.00	
Bullnose	2.00			5043.00	24.00 Bottom Packers & Anchor

Total Tool Length: 46.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

Kirkpatrick 1-11

520 S. Holland Ste.207
Wichita KS 67208

11 28s 21w Ford, KS

Job Ticket: 15390

DST#: 6

ATTN: Kent Roberts

Test Start: 2002.05.21 @ 03:09:24

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:

14000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	GCM 2%gas 98%mud	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

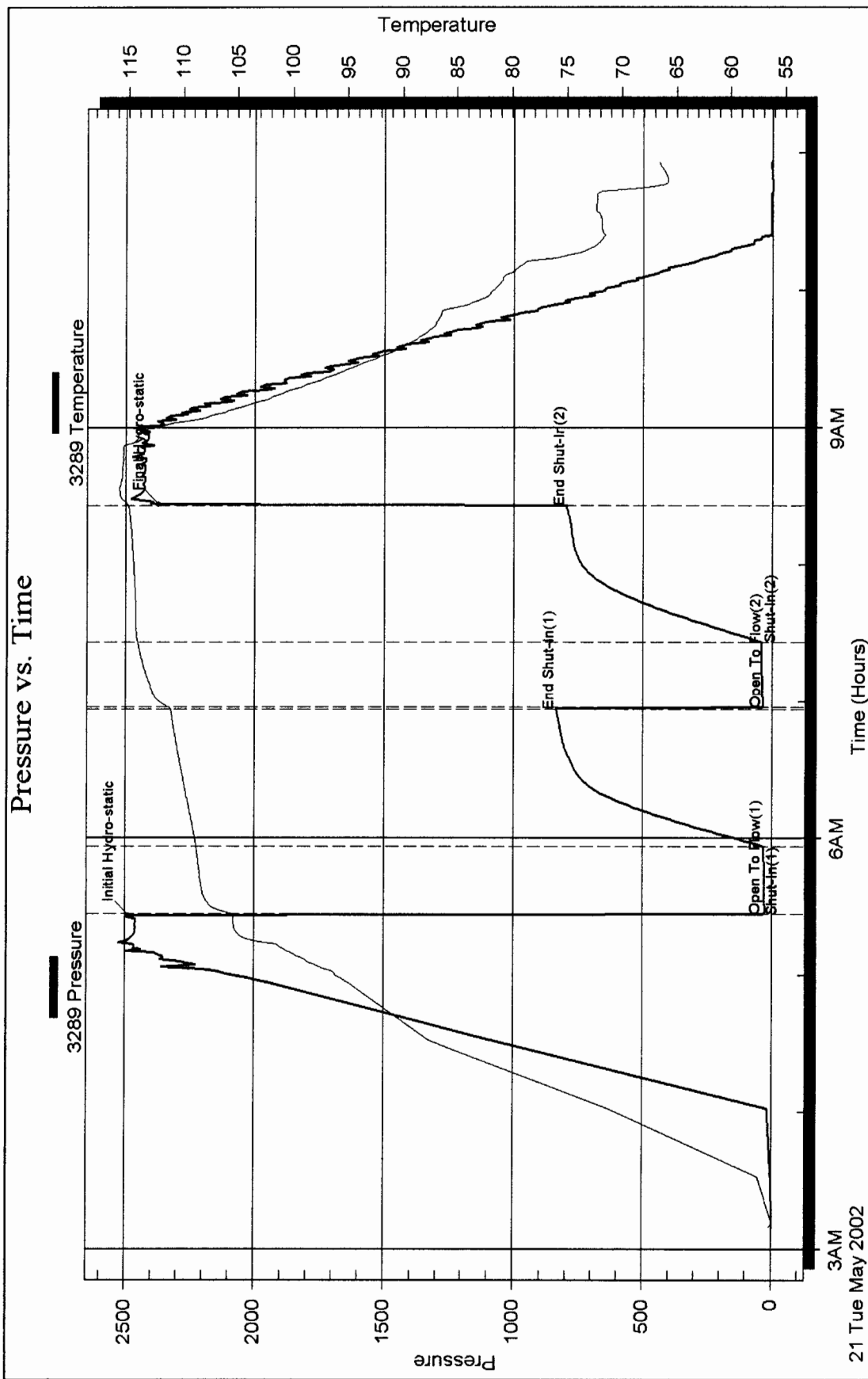
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



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KCC WICHITA

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ROBERTS RESOURCES, INC.

ORIGINAL

Well: Kirkpatrick #1
Spot: 165' East of SW SW SE
County: Ford

API # 15-057-20562
Section: 11-T28S-R21W
State: Kansas

Elevation: G.L.= 2343
K.B.= 2351

KCC
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<i>Tops</i>	<i>Sample</i>		<i>E-Log</i>	
<i>Herington</i>	2569	-218	2570	-219
<i>Wreford</i>	2902	-551	2902	-551
<i>Stotler</i>	3488	-1137	3488	-1137
<i>Heebner Shale</i>	4141	-1790	4143	-1792
<i>Lansing</i>	4292	-1941	4294	-1943
<i>Stark Shale</i>	4600	-2249	4600	-2249
<i>Pawnee</i>	4808	-2457	4810	-2459
<i>Miss. Spergen</i>	4959	-2608	4961	-2610
<i>Miss. Warsaw</i>	5005	-2654	5007	-2656
<i>Miss Osage</i>	5213	-2862	5213	-2862
<i>Viola Porosity</i>	5504	-3153	5506	-3155
<i>Arbuckle</i>	NR			

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DST #1 LKC "A" 4295' to 4310' (30-60-30-90) Strong blow had GTS in 3 minutes. 10 min. gauge 1,226 MCF, 20 min. / gauge 1,318 MCF, 30 min. / gauge 1,318 MCF. 2nd open 10 min. / gauge 1,226 MCF, 20 min. / gauge 1,475 MCF, 30 min. / gauge 1,475 MCF., and stabilized. Recovered 90' gas cut mud. SIP 1477 - 1476#. FP 354-316 / 303-332. BHT 85.

DST #2 LKC "B" 4342' to 4360' (30-60-60-90) 1st Open had blow off btm of bucket in 20 minutes, 2nd Open had blow off btm of bucket in 29 minutes. Recovered 480' water w/ show of oil. SIP 1513 - 1491#. FP 105-117 / 175-245. Recovery chlorides 7,000 ppm.

DST #3 "Pawnee" 4803' to 4830'. (30-60-15-30) 1st open, weak blow built to 7 inches. 2nd open, weak blow built to 2 inches. Recovered 34' Mud. SIP 993 - 223#. FP 26-33 / 32-39.

DST #4 "Spergen" 4920' to 4982'. (30-60-45-90) GTS in 4 minutes. 10 min. gauge 1,661 MCF 20 min. gauge 1,951 MCF, 30 min. gauge 1,951 MCF. 2nd open: 10 min. gauge 2,023 MCF, 20 min. gauge 2,255 MCF, 30 min. gauge 2,255. Recovered 165' gas cut mud. SIP 580 - 578#, FP 533-473/ 474-465. (H2S tested 100+ ppm).

DST #5 "Warsaw" 4991' to 5015'. (30-60-45-90) GTS in 10 minutes. 10 min. gauge 537 MCF. 20 min. gauge 615 MCF, 30 min. gauge 694 MCF. 2nd open: 10 min. gauge 725 MCF, 20 min. gauge 787 MCF and stabilized. Recovered 180 gassy mud & 180 muddy gassy water (90% water, 10% mud) SIP: 584 - 580#, FP: 343-281 / 341-292#. Chlorides: 47,000 ppm. (H2S tested 3 ppm)

DST #6 "Warsaw" 5019' to 5043'. (30-60-30-60) Strong blow off bottom of bucket in 1 1/2 minutes. 2nd open: Strong blow off bottom of bucket in 15 seconds. Recovered 800' Gas in pipe, 50' gassy mud with oil spots. SIP 839-798#, FP 34-30 / 35-39. (Did not have gas to surface)

Release
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