

CONFIDENTIAL

ORIGINAL



**TRILOBITE
TESTING, INC.**

**KCC
AUG 27 2002
CONFIDENTIAL**

DRILL STEM TEST REPORT

Prepared For: **J.O. Farmer Inc.**

CONFIDENTIAL
P.O. Box 352
Russell KS, 67665

RECEIVED
AUG 28 2002
KCC WICHITA

ORIGINAL
ATTN: J O Farmer IV

4-10S-21W Graham KS KCC

Mentgen #1 AUG 27 2002

Start Date: 2002.06.03 @ 17:03:31
End Date: 2002.06.03 @ 22:31:46
Job Ticket #: 15069 DST #: 1

**RELEASED
FROM
CONFIDENTIAL**

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

J.O. Farmer Inc.

Mentgen #1

4-10S-21W Graham KS

DST # 1

Lans/KC

2002.06.03



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

J.O. Farmer Inc.

Wentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15069

DST#: 1

ATTN: J O Famer IV

Test Start: 2002.06.03 @ 17:03:31

GENERAL INFORMATION:

Formation: **Lans/KC**

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

Time Tool Opened: 18:52:31

Time Test Ended: 22:31:46

Test Type: **Conventional Bottom Hole**

Tester: **Rod Steinbrink**

Unit No: **22**

Interval: **3483.00 ft (KB) To 3620.00 ft (KB) (TVD)**

Total Depth: **3620.00 ft (KB) (TVD)**

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

Reference Elevations: **2285.00 ft (KB)**

2277.00 ft (CF)

KB to GR/CF: **8.00 ft**

Serial #: 3030 **Inside**

Press@RunDepth: **46.06 psig @ 3484.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2002.06.03**

End Date:

2002.06.03

Last Calib.:

1899.12.30

Start Time: **17:03:33**

End Time:

22:31:46

Time On Btm:

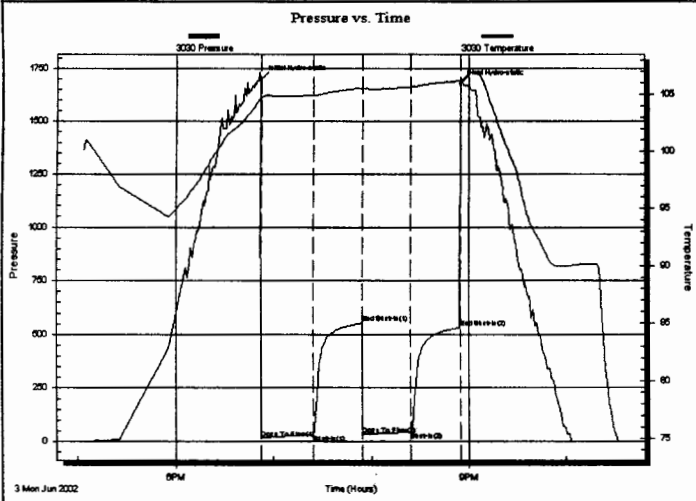
2002.06.03 @ 18:52:16

Time Off Btm:

2002.06.03 @ 20:54:46

JAITIVE 100

TEST COMMENT: **IF; Surface blow built to 1"**
FF; Weak blow built to 1/2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.53	104.71	Initial Hydro-static
1	15.20	104.75	Open To Flow (1)
32	33.01	104.93	Shut-In(1)
62	552.09	105.54	End Shut-In(1)
63	33.89	105.55	Open To Flow (2)
92	46.06	105.65	Shut-In(2)
123	531.70	106.18	End Shut-In(2)
123	1675.26	106.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Drig Mud w / Oil @ Top	0.84

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15069

DST#: 1

ATTN: J O Farmer IV

Test Start: 2002.06.03 @ 17:03:31

Tool Information

Drill Pipe:	Length: 3483.00 ft	Diameter: 3.80 inches	Volume: 48.86 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.86 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3483.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	137.00 ft			
Tool Length:	157.00 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

S.I. Tool	5.00			3468.00	
HMV	5.00			3473.00	
Packer	5.00			3478.00	20.00 Bottom Of Top Packer
Packer	5.00			3483.00	
Stubb	1.00			3484.00	
Recorder	0.00	3030	Inside	3484.00	
Perforations	5.00			3489.00	
C.O. Sub	1.00			3490.00	
Anchor	124.00			3614.00	
C.O. Sub	1.00			3615.00	
Recorder	0.00	13371	Outside	3615.00	
Bullnose	5.00			3620.00	137.00 Bottom Packers & Anchor

Total Tool Length: 157.00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15069

DST#: 1

ATTN: J O Farmer IV

Test Start: 2002.06.03 @ 17:03:31

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 45.00 sec/qt
Water Loss: 9.59 in³
Resistivity: ohm.m
Salinity: 4000.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Drig Mud w/ Oil @ Top	0.842

Total Length: 60.00 ft Total Volume: 0.842 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 3030

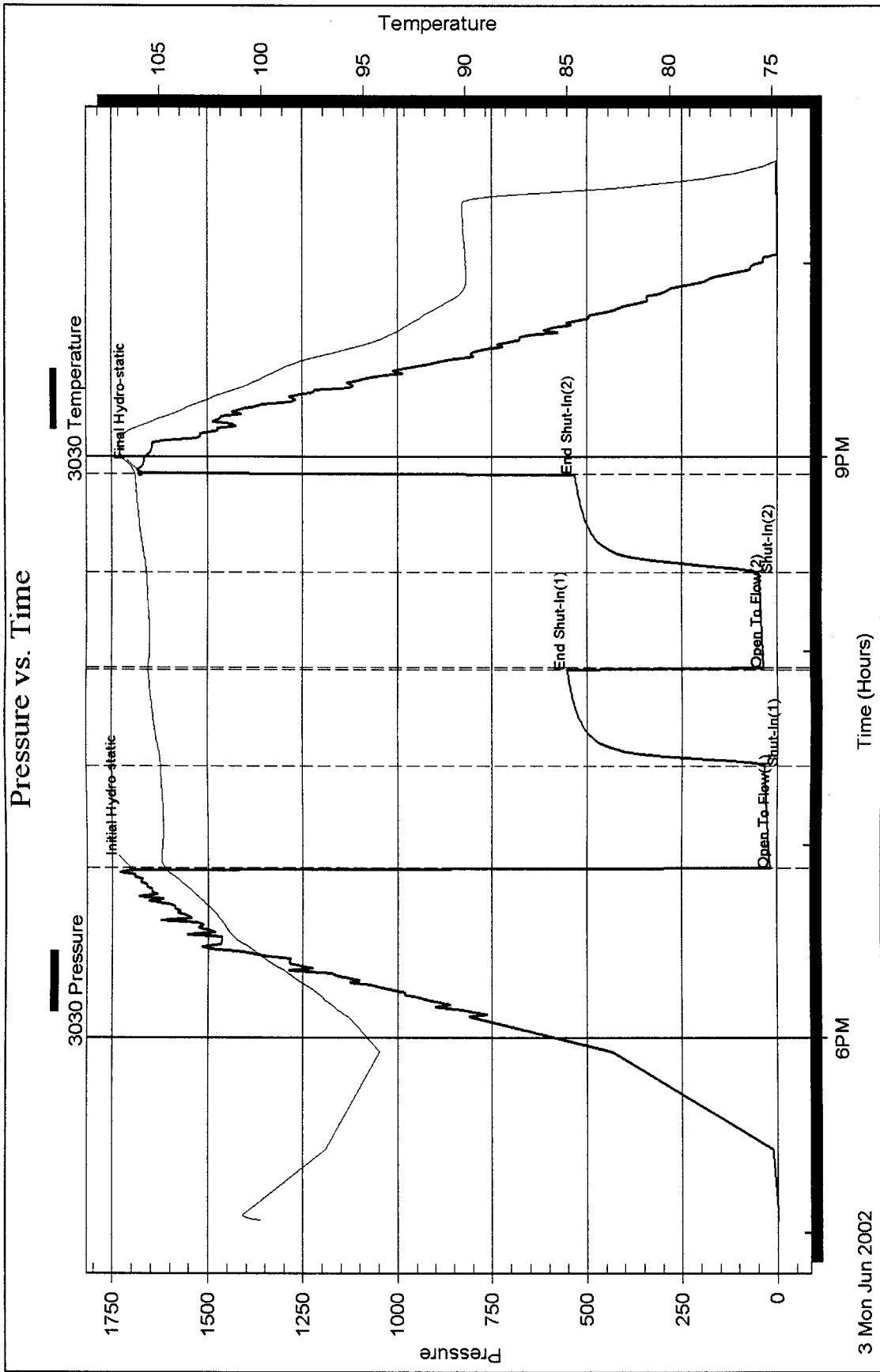
Inside

J.O. Farmer Inc.

4-10S-21W Graham KS

DST Test Number: 1

Pressure vs. Time



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Trilobite Testing, Inc

Ref. No: 15069

Printed: 2002.06.07 @ 10:31:07 Page 5



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **J.O. Farmer Inc.**

P.O. Box 352
Russell KS, 67665

ATTN: J O Famer IV

4-10S-21W Graham KS

Mentgen #1


Start Date: 2002.06.04 @ 11:08:53

End Date: 2002.06.04 @ 15:37:38

Job Ticket #: 15070 DST #: 2

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KCC WICHITA

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

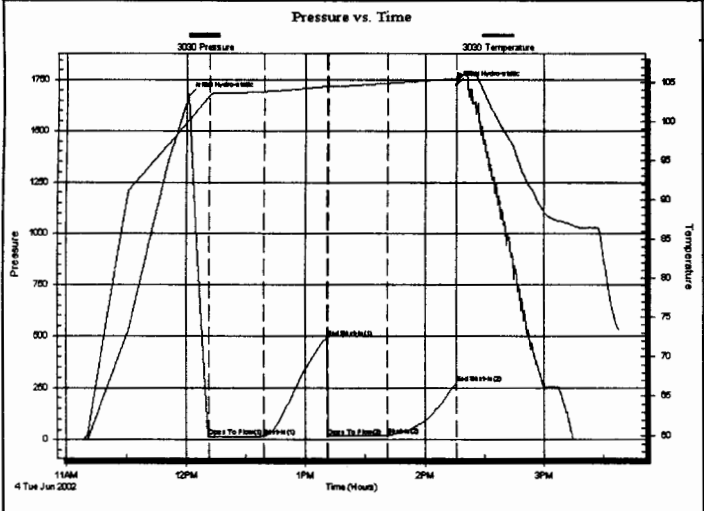
	DRILL STEM TEST REPORT	
	J.O. Farmer Inc. P.O. Box 352 Russell KS, 67665 ATTN: J O Famer IV	Mentgen #1 4-10S-21W Graham KS Job Ticket: 15070 DST#: 2 Test Start: 2002.06.04 @ 11:08:53

GENERAL INFORMATION:

Formation: Lans/KC 'H- L' Deviated: No Whipstock: ft (KB) Time Tool Opened: 12:11:38 Time Test Ended: 15:37:38	Test Type: Conventional Bottom Hole Tester: Rod Steinbrink Unit No: 22
Interval: 3643.00 ft (KB) To 3750.00 ft (KB) (TVD) Total Depth: 3750.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair	Reference Elevations: 2285.00 ft (KB) 2277.00 ft (CF) KB to GR/CF: 8.00 ft

Serial #: 3030 Inside Press@RunDepth: 22.01 psig @ 3644.00 ft (KB) Start Date: 2002.06.04 End Date: 2002.06.04 Start Time: 11:08:55 End Time: 15:37:38	Capacity: 7000.00 psig Last Calib.: 1899.12.30 Time On Btm: 2002.06.04 @ 12:00:53 Time Off Btm: 2002.06.04 @ 14:15:53
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TEST COMMENT: IF; Weak 1/2" blow died in 20 min
 FF; No return blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1671.37	100.07	Initial Hydro-static
11	16.46	103.31	Open To Flow (1)
38	17.79	103.81	Shut-In(1)
70	492.35	104.50	End Shut-In(1)
71	18.09	104.51	Open To Flow (2)
101	22.01	104.91	Shut-In(2)
135	270.95	105.53	End Shut-In(2)
135	1725.83	105.54	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	Drig. Mud	0.14

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15070

DST#:2

ATTN: J O Famer IV

Test Start: 2002.06.04 @ 11:08:53

Tool Information

Drill Pipe: Length: 3638.00 ft Diameter: 3.80 inches Volume: 51.03 bbl
 Heavy Wt. Pipe: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
 Drill Collar: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
 Total Volume: 51.03 bbl
 Drill Pipe Above KB: 15.00 ft
 Depth to Top Packer: 3643.00 ft
 Depth to Bottom Packer: ft
 Interval between Packers: 107.00 ft
 Tool Length: 127.00 ft
 Number of Packers: 2 Diameter: 6.75 inches

Tool Weight: 2500.00 lb
 Weight set on Packer: 25000.00 lb
 Weight to Pull Loose: 60000.00 lb
 Tool Chased 0.00 ft
 String Weight: Initial 45000.00 lb
 Final 45000.00 lb

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Tool Comments:

Tool Description Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
S.I. Tool	5.00			3628.00	
HMV	5.00			3633.00	
Packer	5.00			3638.00	20.00 Bottom Of Top Packer
Packer	5.00			3643.00	
Stubb	1.00			3644.00	
Recorder	0.00	3030	Inside	3644.00	
Perforations	6.00			3650.00	
C.O. Sub	1.00			3651.00	
Anchor	93.00			3744.00	
C.O. Sub	1.00			3745.00	
Recorder	0.00	13371	Outside	3745.00	
Bullnose	5.00			3750.00	107.00 Bottom Packers & Anchor

Total Tool Length: 127.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15070

DST#: 2

ATTN: J O Farmer IV

Test Start: 2002.06.04 @ 11:08:53

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: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4200.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Drig. Mud	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

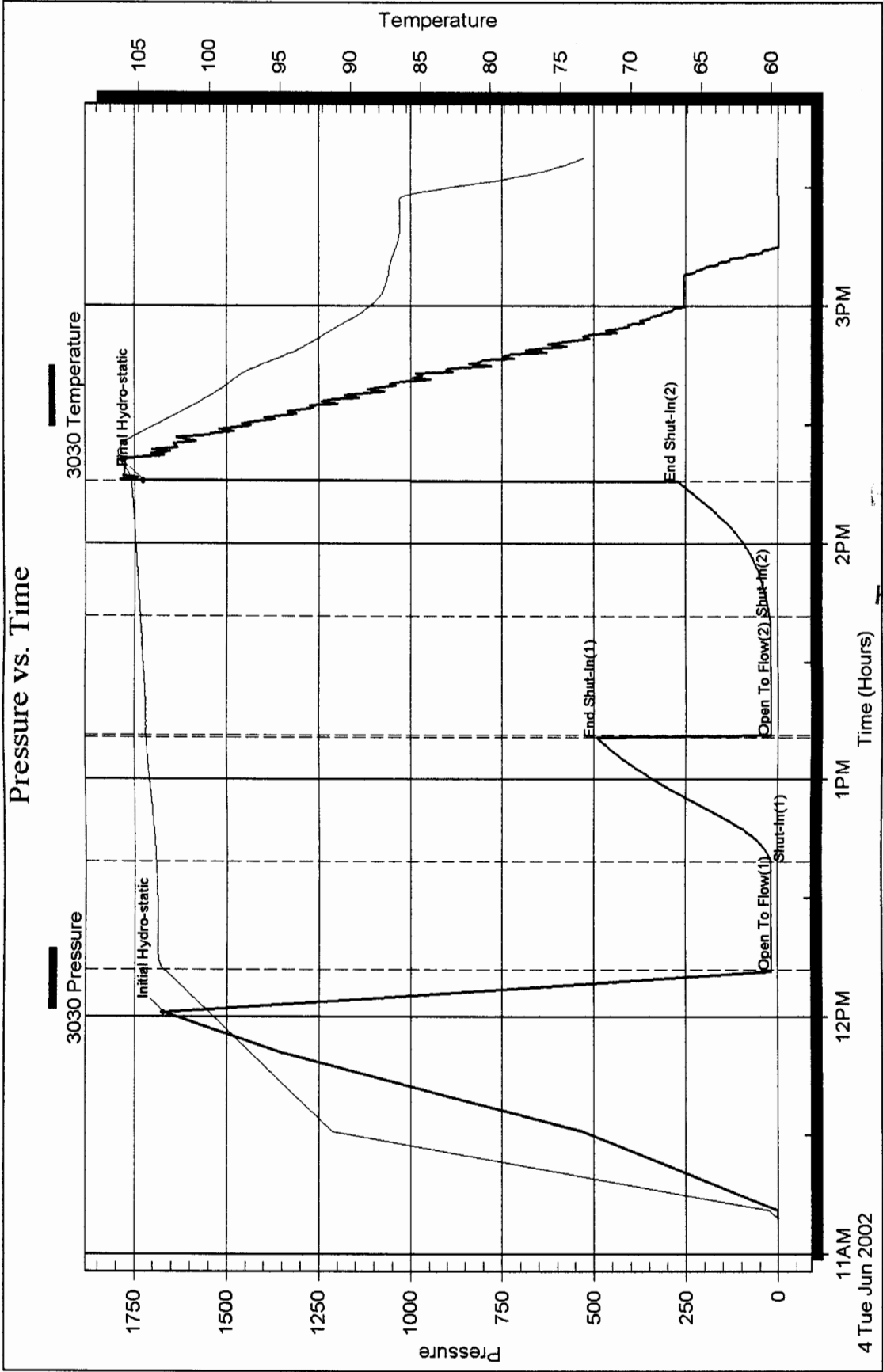
Serial #: 3030

Inside

J.O. Farmer Inc.

4-10S-21W Graham KS

DST Test Number: 2

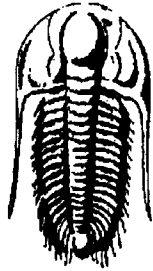


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Trilobite Testing, Inc

Ref. No: 15070

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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **J.O. Farmer Inc.**

P.O. Box 352
Russell KS, 67665

ATTN: J O Famer IV

4-10S-21W Graham KS

Mentgen #1

Start Date: 2002.06.05 @ 01:59:11

End Date: 2002.06.05 @ 09:37:41

Job Ticket #: 15823 DST #: 3

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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

J.O. Farmer Inc.
P.O. Box 352
Russell KS, 67665
ATTN: J O Famer IV

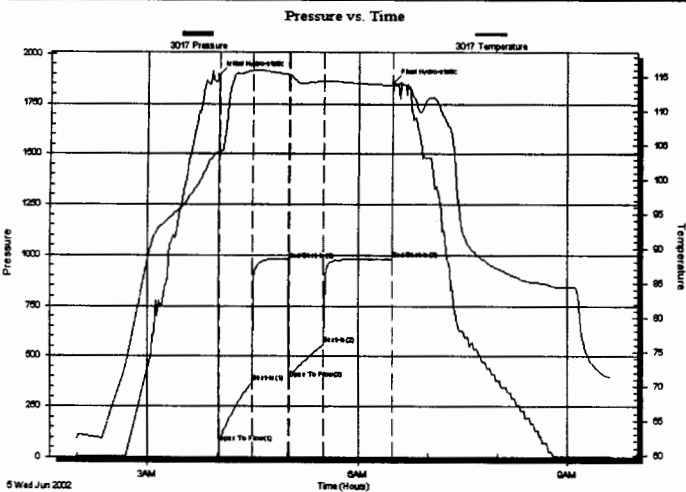
Mentgen #1
4-10S-21W Graham KS
Job Ticket: 15823 **DST#: 3**
Test Start: 2002.06.05 @ 01:59:11

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 04:01:11
Time Test Ended: 09:37:41
Interval: **3782.00 ft (KB) To 3855.00 ft (KB) (TVD)**
Total Depth: **3855.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **John Schridt**
Unit No: **18**
Reference Elevations: **2285.00 ft (KB)**
2277.00 ft (CF)
KB to GR/CF: **8.00 ft**

Serial #: 3017 **Inside**
Press@RunDepth: **558.03 psig @ 3785.01 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2002.06.05** End Date: **2002.06.05** Last Calib.: **2002.06.05**
Start Time: **01:59:12** End Time: **09:37:41** Time On Btm: **2002.06.05 @ 04:00:11**
Time Off Btm: **2002.06.05 @ 06:30:11**

TEST COMMENT: IF-Strong B.O.B. in 2 min. IS-no blow
FF-Strong B.O.B. in 6 min. FS-weak blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.53	104.04	Initial Hydro-static
1	69.41	104.16	Open To Flow (1)
30	370.26	115.97	Shut-in(1)
60	977.14	115.38	End Shut-in(1)
61	386.40	115.36	Open To Flow (2)
91	558.03	114.36	Shut-in(2)
149	981.29	113.77	End Shut-in(2)
150	1855.64	113.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
600.00	G-W-C-oil 35% G-25% W-40% O	8.42
200.00	G-W-M-C-O-25%G-25%W-15%M-35%O	2.81
300.00	H-M-C-G-W-10%G-10%W-15%M-65%O	4.21
145.00	H-M-C-G-O 10%G-35%M-55%O	2.03
60.00	Gas in Pipe	0.84

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15823

DST#: 3

ATTN: J O Famer IV

Test Start: 2002.06.05 @ 01:59:11

Tool Information

Drill Pipe:	Length: 3793.00 ft	Diameter: 3.80 inches	Volume: 53.21 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 53.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3782.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.02 ft			
Tool Length:	93.02 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			3763.00	
S.I. Tool	5.00			3768.00	
HMV	5.00			3773.00	
Packer	4.00			3777.00	20.00 Bottom Of Top Packer
Packer	5.00			3782.00	
Stubb	1.00			3783.00	
Perforations	1.00			3784.00	
C.O. Sub	1.00			3785.00	
Recorder	0.01	3017	Inside	3785.01	
Blank Spacing	61.00			3846.01	
C.O. Sub	1.00			3847.01	
Perforations	5.00			3852.01	
Recorder	0.01	13308	Outside	3852.02	
Bullnose	3.00			3855.02	73.02 Bottom Packers & Anchor

Total Tool Length: 93.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15823

DST#: 3

ATTN: J O Farmer IV

Test Start: 2002.06.05 @ 01:59:11

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 55.00 sec/qt
Water Loss: 9.59 in³
Resistivity: ohm.m
Salinity: 4200.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 25 deg API
Water Salinity: 34000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
600.00	G-W-C-oil 35% G-25% W-40% O	8.416
200.00	G-W-M-C-O-25%G-25%W-15%M-35%O	2.805
300.00	H-M-C-G-W-10%G-10%W-15%M-65%O	4.208
145.00	H-M-C-G-O 10%G-35%M-55%O	2.034
60.00	Gas in Pipe	0.842

Total Length: 1305.00 ft Total Volume: 18.305 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .21@72 F

Serial #: 3017

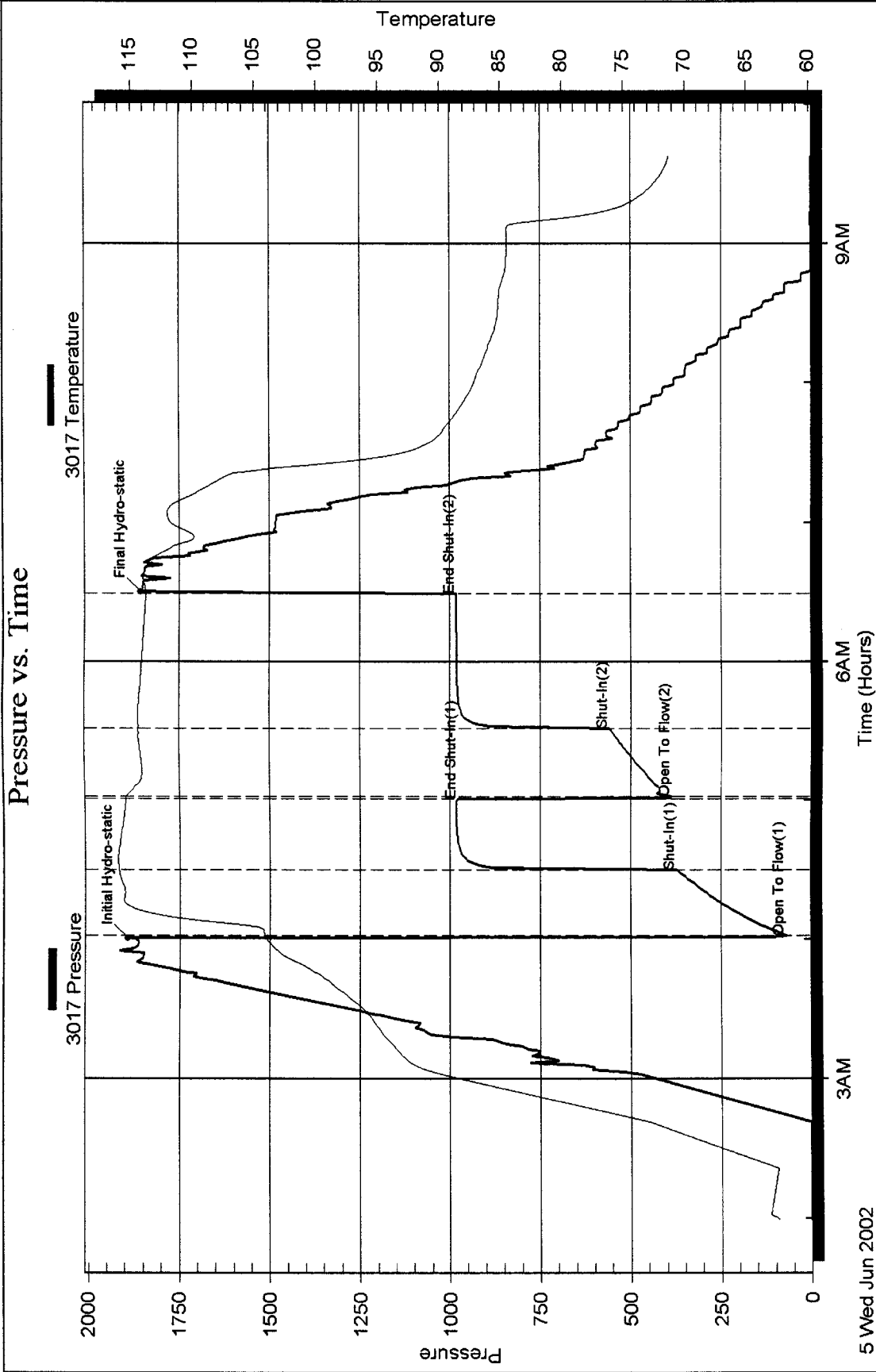
Inside

J.O. Farmer Inc.

4-10S-21W Graham KS

DST Test Number: 3

Pressure vs. Time



5 Wed Jun 2002

3AM

6AM

9AM

Time (Hours)

3017 Pressure

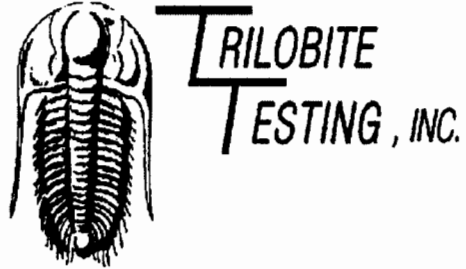
3017 Temperature

AUG 28 2002
KCC WICHITA

Trilobite Testing, Inc

Ref. No: 15823

Printed: 2002.06.07 @ 10:36:44 Page 5



DRILL STEM TEST REPORT

Prepared For: **J.O. Farmer Inc.**

P.O. Box 352
Russell KS, 67665

RECEIVED
AUG 28 2002
KCC WICHITA

ATTN: J O Famer IV

4-10S-21W Graham KS

Mentgen #1

Start Date: 2002.06.05 @ 15:21:32

End Date: 2002.06.05 @ 21:03:02

Job Ticket #: 15824 DST #: 4

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15824

DST#: 4

ATTN: J O Farmer IV

Test Start: 2002.06.05 @ 15:21:32

GENERAL INFORMATION:

Formation: **Arbuckle**

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

Time Tool Opened: 16:53:32

Time Test Ended: 21:03:02

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: **3861.00 ft (KB) To 3870.00 ft (KB) (TVD)**

Reference Elevations: **2285.00 ft (KB)**

Total Depth: **3870.00 ft (KB) (TVD)**

2277.00 ft (CF)

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

KB to GR/CF: **8.00 ft**

Serial #: 3017

Inside

Press@RunDepth: **1125.36 psig @ 3862.01 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2002.06.05** End Date: **2002.06.05**

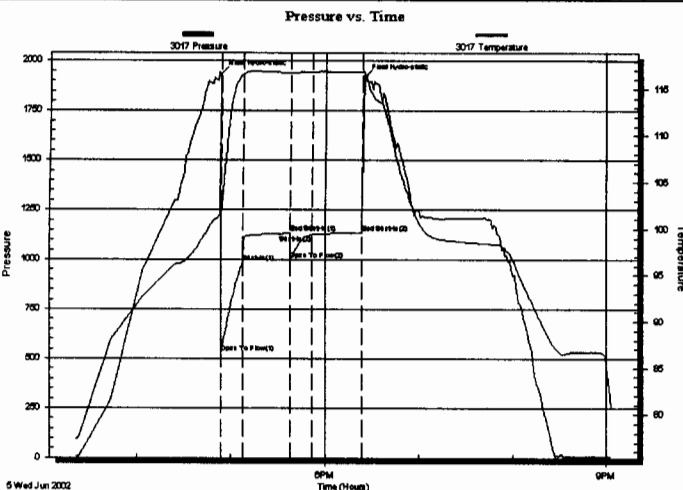
Last Calib.: **2002.06.05**

Start Time: **15:21:33** End Time: **21:03:02**

Time On Btm: **2002.06.05 @ 16:53:02**

Time Off Btm: **2002.06.05 @ 18:24:32**

TEST COMMENT: IF-Strong B.O.B. in 1 min. IS-no blow
FF-Strong B.O.B. in 1 min. FS-no blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1932.86	101.42	Initial Hydro-static
1	527.09	101.65	Open To Flow (1)
15	985.99	116.60	Shut-In(1)
45	1133.75	116.75	End Shut-In(1)
45	999.71	116.75	Open To Flow (2)
59	1125.36	116.85	Shut-In(2)
91	1136.23	116.81	End Shut-In(2)
92	1917.28	116.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2490.00	S-G-O-C-W--1%G--1%O--98%W	34.93

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

J.O. Farmer Inc.

Mentgen #1

P.O. Box 352
Russell KS, 67665

4-10S-21W Graham KS

Job Ticket: 15824

DST#: 4

ATTN: J O Farmer IV

Test Start: 2002.06.05 @ 15:21:32


Tool Information

Drill Pipe:	Length: 3856.00 ft	Diameter: 3.80 inches	Volume: 54.09 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 54.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3861.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.01 ft			
Tool Length:	29.01 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

RECORDED
AUG 28 2002
KCC WICHITA

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3842.00	
S.I. Tool	5.00			3847.00	
HMV	5.00			3852.00	
Packer	4.00			3856.00	20.00 Bottom Of Top Packer
Packer	5.00			3861.00	
Stubb	1.00			3862.00	
Recorder	0.01	3017	Inside	3862.01	
Perforations	5.00			3867.01	
Bullnose	3.00			3870.01	9.01 Bottom Packers & Anchor
Total Tool Length:	29.01				

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		FLUID SUMMARY
	J.O. Farmer Inc. P.O. Box 352 Russell KS, 67665 ATTN: J O Famer IV	Mentgen #1 4-10S-21W Graham KS Job Ticket: 15824 DST#: 4 Test Start: 2002.06.05 @ 15:21:32	

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	36000 ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2490.00	S-G-O-C-W--1%G--1%O--98%W	34.928

Total Length: 2490.00 ft Total Volume: 34.928 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .17@84F

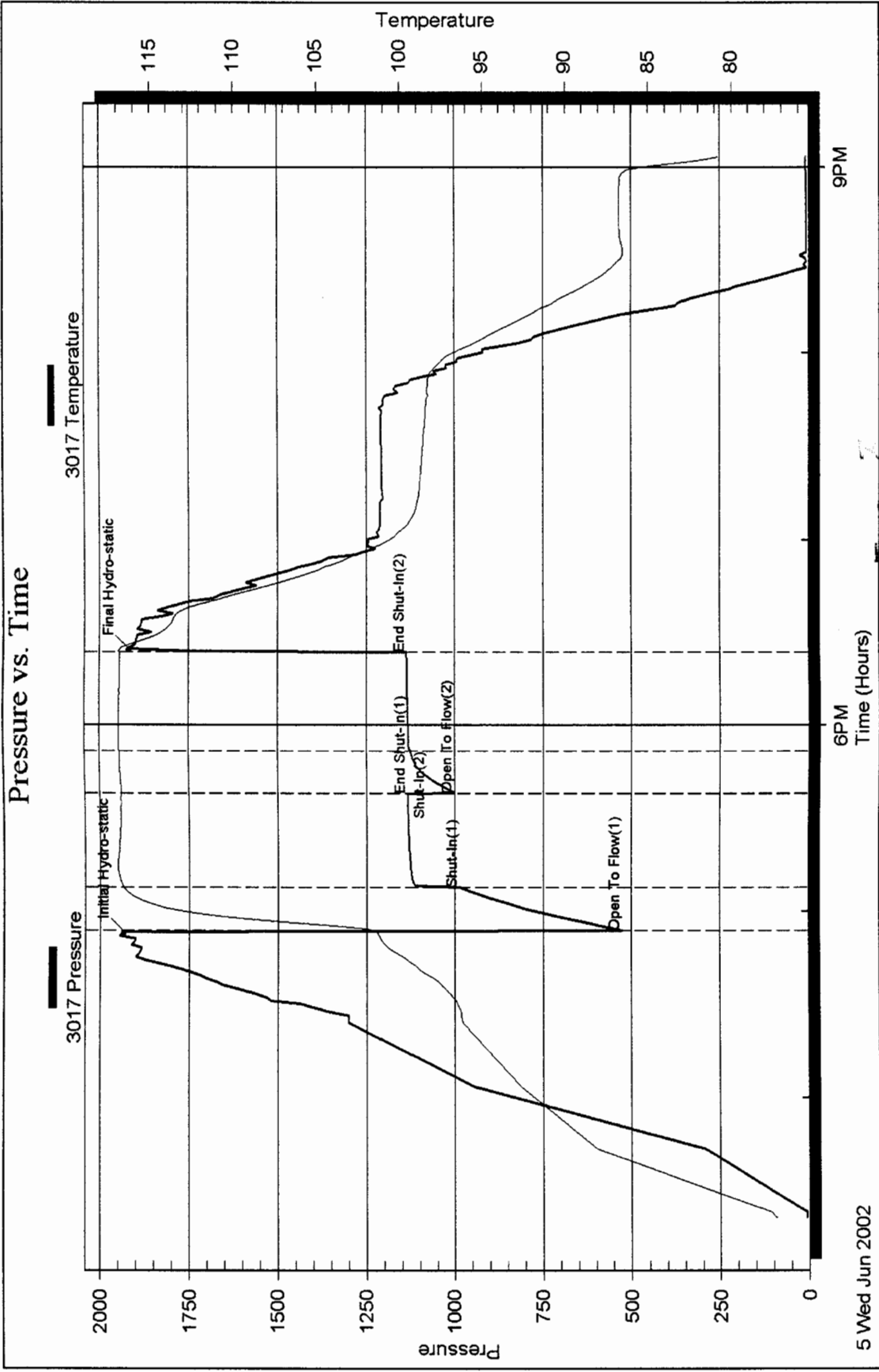
Serial #: 3017

Inside J.O. Farmer Inc.

4-10S-21W Graham KS

DST Test Number: 4

Pressure vs. Time

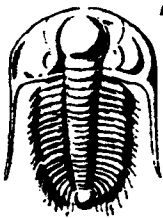


RECEIVED
 AUG 28 2002
 KCC WICHITA

Trilobite Testing, Inc

Ref. No: 15824

Printed: 2002.06.07 @ 10:39:08 Page 5



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15069

Test Ticket

Well Name & No. Mentgen #1 Test No. 1 Date 6-3-02
 Company J.O. Farmer Inc. Zone Tested Lans/KC
 Address P.O. Box 352 Russell, KS. 67665 Elevation 2285 KB 2277 GL
 Co. Rep / Geo. Randy Killian Cont. Discovery #1 Est. Ft. of Pay Por. %
 Location: Sec. 4 Twp. 10^s Rge. 21^w Co. Graham State KS.
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3483 - 3620' Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000
 Anchor Length 137' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 3478 Tool Weight 2,500
 Bottom Packer Depth 3483 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3620 Wt. Pipe Run Drill Collar Run
 Mud Wt. 9.2 LCM Vis. 45 WL 9.6 Drill Pipe Size 4 1/2" XH Ft. Run 3483'
 Blow Description IF: Surface blow built to 1"

FF: Weak blow built to 1/2"

Recovery — Total Feet 60' GIP Ft. in DC Ft. in DP 60'

Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec. <u>60'</u>	Feet Of <u>Orlg Mud</u>	%gas	%oil	%water	%mud
Rec.	Feet Of <u>w oil @ Top</u>	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud

 BHT 106° °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 4,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1699</u>		<u>3030</u>	<u>1600</u>
(B) First Initial Flow Pressure		<u>15</u>	PSI (depth)	<u>3484</u>	T-Started <u>1703</u>
(C) First Final Flow Pressure		<u>32</u>	PSI	Recorder No. <u>13371</u>	T-Open <u>1852</u>
(D) Initial Shut-In Pressure		<u>552</u>	PSI (depth)	<u>3615</u>	T-Pulled <u>2054</u>
(E) Second Initial Flow Pressure		<u>33</u>	PSI	Recorder No. <u> </u>	T-Out <u>2231</u>
(F) Second Final Flow Pressure		<u>45</u>	PSI (depth)	<u> </u>	T-Off Location <u>2300</u>
(G) Final Shut-in Pressure		<u>531</u>	PSI	Initial Opening <u>30</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud		<u>1658</u>	PSI	Initial Shut-in <u>30</u>	Jars <u> </u>
				Final Flow <u>30</u>	Safety Joint <u> </u>
				Final Shut-in <u>30</u>	Straddle <u> </u>

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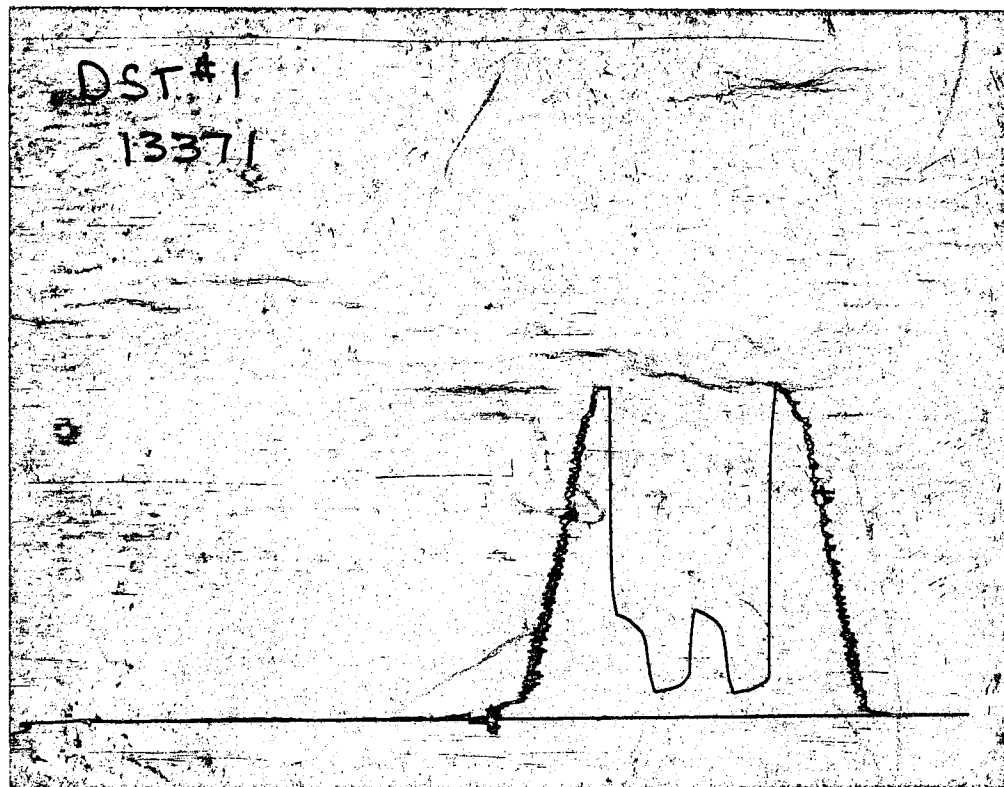
Approved By

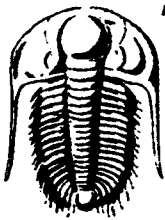
Our Representative Rod Steinbrink

Circ. Sub X N/C
 Sampler
 Extra Packer
 Elec. Rec. X 150
 Mileage 45
 Other
 TOTAL PRICE \$ 895

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15070

Test Ticket

Well Name & No. Mentgen #1 Test No. 2 Date 6-4-02
 Company J.O. Farmer Inc. Zone Tested Lans/KC H-L
 Address P.O. Box 352 Russell KS. 67665 Elevation 2285 KB 2277 GL
 Co. Rep / Geo. Randy Killian Cont. Discovery #1 Est. Ft. of Pay Por. %
 Location: Sec. 4 Twp. 10^s Rge. 21^w Co. Graham State KS.
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3643 - 3750 Initial Str Wt./Lbs. 45,000 Unseated Str Wt./Lbs. 45,000
 Anchor Length 107' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 3638 Tool Weight 2,500
 Bottom Packer Depth 3643 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3750 Wt. Pipe Run Drill Collar Run
 Mud Wt. 9.2 LCM Vis. 45 WL 9.6 Drill Pipe Size 4 1/2" XH Ft. Run 3638'
 Blow Description IF: Weak 1/2" blow died in 20 mins.

FF: No return blow

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>10'</u>	<u> </u>	<u> </u>	<u>10'</u>
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud
Rec. <u>10'</u> Feet Of <u>Drlg Mud</u>	%gas	%oil	%water %mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud

BHT 105° °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 4,200 ppm System

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1671</u>	<u> </u>	<u>3030</u>	<u>0930</u>
(B) First Initial Flow Pressure	<u>16</u>	<u> </u>	(depth) <u>3644</u>	T-Started <u>1108</u>
(C) First Final Flow Pressure	<u>17</u>	<u> </u>	PSI Recorder No. <u>13371</u>	T-Open <u>1211</u>
(D) Initial Shut-In Pressure	<u>492</u>	<u> </u>	(depth) <u>3745</u>	T-Pulled <u>1415</u>
(E) Second Initial Flow Pressure	<u>18</u>	<u> </u>	PSI Recorder No. <u> </u>	T-Out <u>1537</u>
(F) Second Final Flow Pressure	<u>22</u>	<u> </u>	(depth) <u> </u>	T-Off Location <u>1615</u>
(G) Final Shut-in Pressure	<u>264</u>	<u> </u>	PSI Initial Opening <u>30</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud	<u>1725</u>	<u> </u>	PSI Initial Shut-in <u>30</u>	Jars <u> </u>
			Final Flow <u>30</u>	Safety Joint <u> </u>
			Final Shut-in <u>30</u>	Straddle <u> </u>

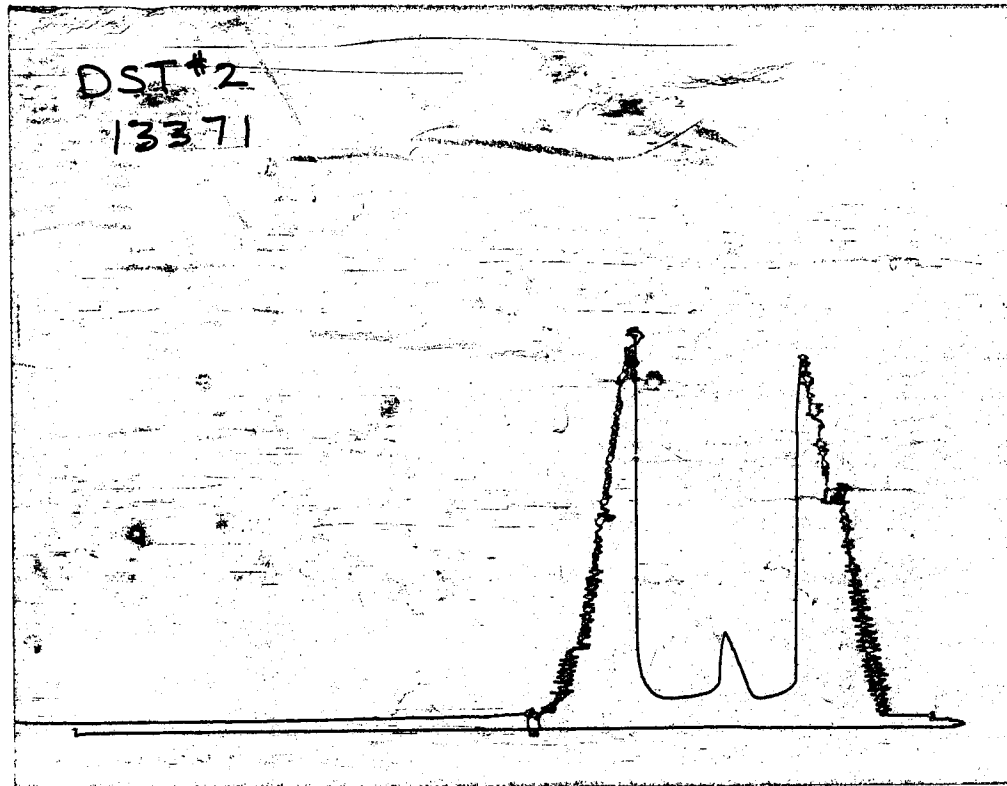
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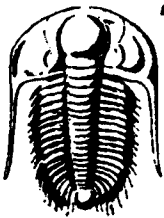
Approved By
 Our Representative Rod Steinbrink

Circ. Sub X N/C
 Sampler
 Extra Packer
 Elec. Rec. X 150
 Mileage 45
 Other
 TOTAL PRICE \$ 895

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15823

Test Ticket

Well Name & No. MENTGEN #1 Test No. #3 Date 6-5-02
 Company JOHN O. FARMER INC. Zone Tested ARBUCKLE
 Address P.O. BOX 352 RUSSELL, KS 67665 Elevation 2286 KB 2278 GL
 Co. Rep / Geo. JOHN O. FARMER Cont. DISCOVERY #1 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 4 Twp. 10s Rge. 21W Co. GRAHAM State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3782 To 3855 Initial Str Wt./Lbs. 46,000 Unseated Str Wt./Lbs. 52,000
 Anchor Length 73 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 55,000
 Top Packer Depth 3777 Tool Weight 3,000
 Bottom Packer Depth 3782 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3855 Wt. Pipe Run _____ Drill Collar Run _____
 Mud Wt. 9.4 LCM 1* Vis. 55 WL 9.6 Drill Pipe Size 4 1/2 XH Ft. Run 3793
 Blow Description FF - STRONG B.O.B. IN 2 MIN. IST - NO BLOW
FF - STRONG B.O.B. IN 6 MIN. FSI - WEAK BLOW BACK

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>1245</u>	<u>60'</u>	<u>—</u>	<u>1245'</u>
Rec. <u>145'</u>	Feet Of <u>HMC G-OIL</u>	<u>10</u> %gas <u>55</u> %oil	<u>35</u> %water <u>—</u> %mud
Rec. <u>300'</u>	Feet Of <u>HMC GW-OIL</u>	<u>10</u> %gas <u>65</u> %oil	<u>10</u> %water <u>15</u> %mud
Rec. <u>200</u>	Feet Of <u>GW C-OIL</u>	<u>25</u> %gas <u>35</u> %oil	<u>25</u> %water <u>15</u> %mud
Rec. <u>600</u>	Feet Of <u>GW C-OIL</u>	<u>35</u> %gas <u>40</u> %oil	<u>25</u> %water <u>—</u> %mud
Rec. _____	Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
BHT <u>113</u>	°F Gravity <u>26</u>	°API D@ <u>70</u>	°F Corrected Gravity <u>25</u> °API _____
RW <u>.21</u>	@ <u>72</u> °F Chlorides <u>34,000</u>	ppm Recovery Chlorides <u>4,200</u>	ppm System _____

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1873</u>	<u>1873</u>	<u>3017</u>	<u>12:45</u>
(B) First Initial Flow Pressure	<u>69</u>	<u>69</u>	(depth) <u>3785</u>	T-Started <u>02:00</u>
(C) First Final Flow Pressure	<u>370</u>	<u>370</u>	PSI Recorder No. <u>13308</u>	T-Open <u>04:00</u> 10:00
(D) Initial Shut-In Pressure	<u>977</u>	<u>977</u>	(depth) <u>3852</u>	T-Pulled <u>06:30</u>
(E) Second Initial Flow Pressure	<u>386</u>	<u>386</u>	PSI Recorder No. _____	T-Out <u>09:37</u>
(F) Second Final Flow Pressure	<u>558</u>	<u>558</u>	(depth) _____	T-Off Location <u>10:45</u>
(G) Final Shut-in Pressure	<u>981</u>	<u>981</u>	PSI Initial Opening <u>30</u>	Test <u>BOTTOM HOLE 700</u>
(Q) Final Hydrostatic Mud	<u>1855</u>	<u>1855</u>	PSI Initial Shut-in <u>30</u>	Jars _____
			Final Flow <u>30</u>	Safety Joint _____
			Final Shut-in <u>60</u>	Straddle _____

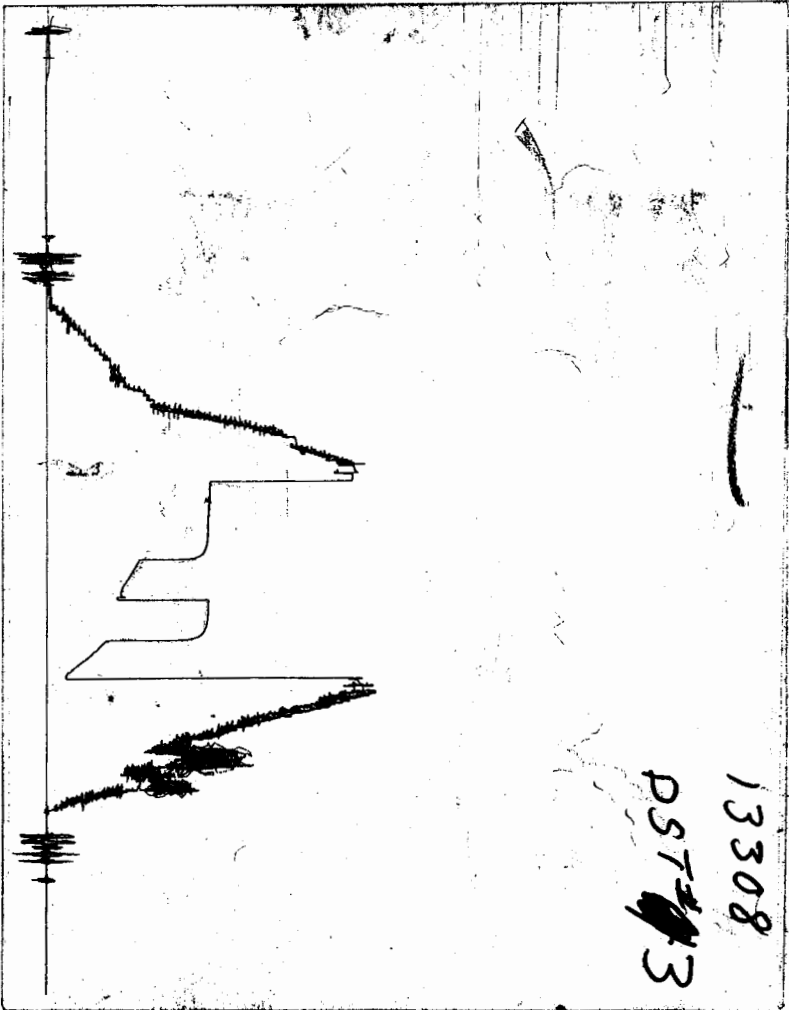
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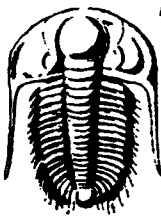
Approved By Katell K Keli
 Our Representative John A. Schmidt

Extra Packer _____
 Elec. Rec. 150
 Mileage 45
 Other 2 hrs 100
 TOTAL PRICE \$ 955

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15824

Test Ticket

Well Name & No. MENTGEN #1 Test No. #4 Date 6-5-02
 Company JOHN O FARMER INC. Zone Tested ARBUCKLE
 Address P.O. BOX 352 RUSSELL, KS 67665 Elevation 2286 KB 2278 GL
 Co. Rep / Geo. RANDY KILIAN Cont. DISCOVERY #1 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 4 Twp. 10S Rge. 21W Co. GRAHAM State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3861 To 3870 Initial Str Wt./Lbs. 46,000 Unseated Str Wt./Lbs. 56,000
 Anchor Length 9' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 3856 Tool Weight 2,000
 Bottom Packer Depth 3861 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3870 Wt. Pipe Run _____ Drill Collar Run _____
 Mud Wt. 9.5 LCM 1# Vis. 62 WL 8.8 Drill Pipe Size 4 1/2 XH Ft. Run 3856
 Blow Description FF - STRONG B.O.B. 1-MIN. FSI NO BLOW
FF - STRONG B.O.B. 1-MIN FSI NO BLOW

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>2490'</u>	<u>—</u>	<u>—</u>	<u>2490</u>
Rec. <u>2490'</u>	Feet Of <u>SGOCW</u>	<u>1'</u> %gas <u>1</u> %oil <u>98</u>	%water _____ %mud _____
Rec. _____	Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____	Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____	Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____	Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____

BHT 116 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW .17 @ 84 °F Chlorides 36,000 ppm Recovery Chlorides 2,400 ppm System

	AK-1	Alpine	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1932</u> PSI	<u>3017</u>	<u>3017</u>	<u>14:45</u>
(B) First Initial Flow Pressure	<u>527</u> PSI	(depth) <u>3862</u>		<u>15:21</u> 1:00
(C) First Final Flow Pressure	<u>985</u> PSI	Recorder No. _____		<u>16:53</u>
(D) Initial Shut-In Pressure	<u>1133</u> PSI	(depth) _____		<u>18:24</u>
(E) Second Initial Flow Pressure	<u>999</u> PSI	Recorder No. _____		<u>21:03</u>
(F) Second Final Flow Pressure	<u>1125</u> PSI	(depth) _____		<u>21:45</u>
(G) Final Shut-in Pressure	<u>1136</u> PSI	Initial Opening <u>15</u>		Test <u>BOTTOM HOLE</u> 7:00
(Q) Final Hydrostatic Mud	<u>1917</u> PSI	Initial Shut-in <u>30</u>	Jars _____	
		Final Flow <u>15</u>	Safety Joint _____	
		Final Shut-in <u>30</u>	Straddle _____	

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Approved By Randy Kilian
 Our Representative John A. Schmidt

Circ. Sub 35
 Sampler _____
 Extra Packer _____
 Elec. Rec. 150
 Mileage 45
 Other _____
 TOTAL PRICE \$ 930