



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **MKJ Oil Co.**

705 E. 9th
Harper KS 67058

ORIGINAL

ATTN: Harold Trapp

18-30s-6w Harper KS

MKJ #6

Start Date: 2001.07.03 @ 19:27:02

End Date: 2001.07.04 @ 03:47:31

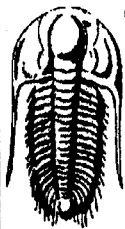
Job Ticket #: 14071

DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

MKJ Oil Co.

MKJ #6

705 E. 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14071

DST#: 1

ATTN: Harold Trapp

Test Start: 2001.07.03 @ 19:27:02

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:19:31

Time Test Ended: 03:47:31

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 13

Interval: 4068.00 ft (KB) To 4082.00 ft (KB) (TVD)

Reference Elevations: 1419.00 ft (KB)

Total Depth: 4082.00 ft (KB) (TVD)

1411.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

Serial #: 2342

Inside

Press@RunDepth: 151.73 psig @ 4069.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2001.07.03

End Date: 2001.07.04

Last Calib.: 2001.01.04

Start Time: 19:27:02

End Time: 03:47:31

Time On Btm: 2001.07.03 @ 21:09:01

Time Off Btm: 2001.07.04 @ 01:52:01

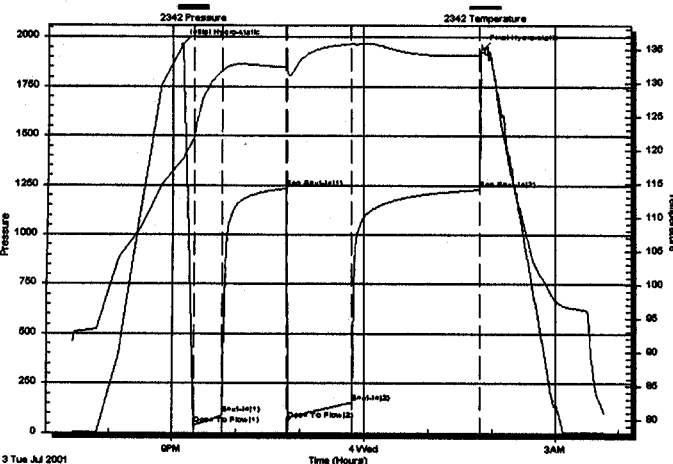
TEST COMMENT: IF: Strong blow . B.O.B. in 10 secs. GTS in 12 mins. (see gas volume report)

IS: No blow .

FF: Strong blow . (see gas volume report)

FS: No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1962.39	118.80	Initial Hydro-static
11	37.76	121.90	Open To Flow (1)
38	89.29	131.79	Shut-In(1)
98	1233.56	132.41	End Shut-In(1)
100	61.59	131.98	Open To Flow (2)
160	151.73	135.80	Shut-In(2)
279	1227.86	134.18	End Shut-In(2)
283	1940.07	134.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	Gas in all fluid free pipe.	0.00
180.00	Salt water	2.52
110.00	MW 20% m 80% w Rw .068 ohms @ 80 c1.54	

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	2.00	26.02
Last Gas Rate	0.38	2.00	60.08
Max. Gas Rate	0.25	8.00	35.54



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

MKJ Oil Co.

MKJ #6

705 E. 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14071

DST#: 1

ATTN: Harold Trapp

Test Start: 2001.07.03 @ 19:27:02

Tool Information

Drill Pipe: Length: 4045.00 ft Diameter: 3.80 inches Volume: 56.74 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: 56.74 bbl
Drill Pipe Above KB: 4.00 ft
Depth to Top Packer: 4068.00 ft
Depth to Bottom Packer: ft
Interval between Packers: 14.00 ft
Tool Length: 41.00 ft
Number of Packers: 2 Diameter: 6.75 inches

Tool Weight: 2100.00 lb
Weight set on Packer: 20000.00 lb
Weight to Pull Loose: 76000.00 lb
Tool Chased 0.00 ft
String Weight: Initial 47000.00 lb
Final 50000.00 lb

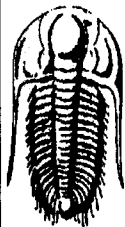
Tool Comments:

Tool Description

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

C.O. Sub	1.00			4042.00	
S.I. Tool	5.00			4047.00	
HMV	5.00			4052.00	
Jars	5.00			4057.00	
Safety Joint	2.00			4059.00	
Packer	4.00			4063.00	27.00 Bottom Of Top Packer
Packer	5.00			4068.00	
Stubb	1.00			4069.00	
Recorder	0.00	2342	Inside	4069.00	
Perforations	8.00			4077.00	
Recorder	0.00	10248	Outside	4077.00	
Bullnose	5.00			4082.00	14.00 Bottom Packers & Anchor

Total Tool Length: 41.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

MKJ Oil Co.

MKJ #6

705 E 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14071

DST#: 1

ATTN: Harold Trapp

Test Start: 2001.07.03 @ 19:27:02

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:

104000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	Gas in all fluid free pipe.	0.000
180.00	Salt water	2.525
110.00	MW 20% m 80% w Rw .068 ohms @ 80 deg. f	1.543

Total Length: 290.00 ft

Total Volume: 4.068 bbl

Num Fluid Samples: 0

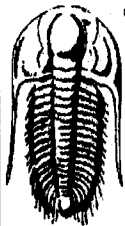
Num Gas Bombs: 1

Serial #: gp

Laboratory Name: Caraway

Laboratory Location: Liberal KS

Recovery Comments:



TRILOBITE
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DRILL STEM TEST REPORT

GAS RATES

MKJ Oil Co.

MKJ #6

705 E 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14071

DST#: 1

ATTN: Harold Trapp

Test Start: 2001.07.03 @ 19:27:02

Gas Rates Information

Temperature: 59 deg C

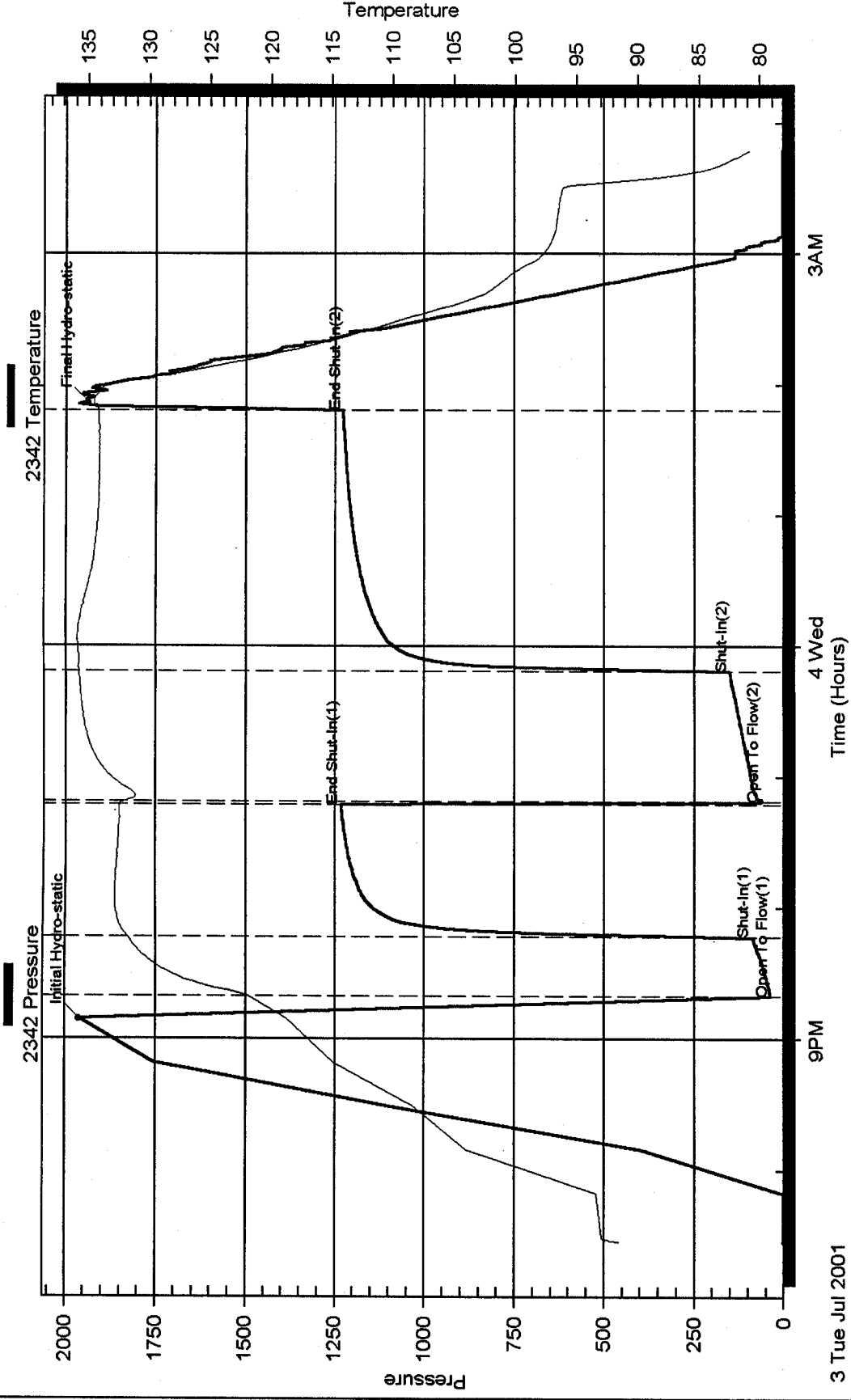
Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	20	0.25	2.00	26.02
1	20	0.25	2.00	26.02
1	30	0.25	8.00	35.54
2	10	0.38	6.00	74.73
2	20	0.38	3.00	63.74
2	30	0.38	2.00	60.08
2	40	0.38	2.00	60.08

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

MKJ Oil Co.

MKJ #6

705 E 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14072

DST#: 2

ATTN: Harold Trapp

Test Start: 2001.07.04 @ 10:47:03

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:31:02

Time Test Ended: 19:06:32

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 13

Interval: **4084.00 ft (KB) To 4100.00 ft (KB) (TVD)**

Total Depth: 4100.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1419.00 ft (KB)

1411.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 2342 Inside

Press@RunDepth: 177.00 psig @ 4085.00 ft (KB)

Start Date: 2001.07.04

End Date: 2001.07.04

Capacity: 7000.00 psig

Last Calib.: 2001.01.04

Start Time: 10:47:03

End Time: 19:06:32

Time On Btm: 2001.07.04 @ 12:28:02

Time Off Btm: 2001.07.04 @ 16:33:32

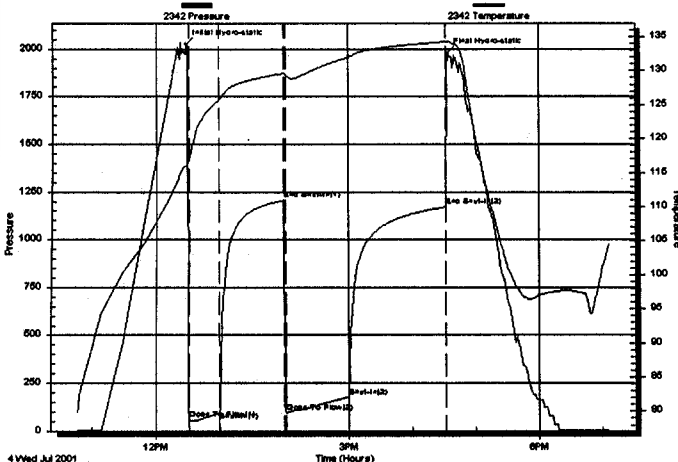
TEST COMMENT: IF: Strong blow . GTS in 6.5 mins. (see gas volume report)

IS: No blow .

FF: Strong blow . (see gas volume report)

FS: Weak to fair blow . 2 - 7".

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2023.83	116.11	Initial Hydro-static
3	60.34	116.85	Open To Flow (1)
32	94.75	125.80	Shut-In(1)
92	1205.45	129.62	End Shut-In(1)
94	96.34	129.54	Open To Flow (2)
152	177.00	131.96	Shut-In(2)
244	1171.04	134.27	End Shut-In(2)
246	1977.00	134.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	Gas in all fluid free pipe.	0.00
210.00	Salt Water Rw .057 ohms @ 96 deg F	2.95
60.00	OCMW 8%o 32% m 60%w	0.84
100.00	GOCM 25%g 15%o 60% m	1.40

Gas Rates

	Choke(Inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	2.00	26.02
Last Gas Rate	0.25	4.00	28.72
Max. Gas Rate	0.38	7.00	77.14



DRILL STEM TEST REPORT

TOOL DIAGRAM

MKJ Oil Co.

MKJ #6

705 E. 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14072

DST#: 2

ATTN: Harold Trapp

Test Start: 2001.07.04 @ 10:47:03

Tool Information

Drill Pipe: Length: 4071.00 ft Diameter: 3.80 inches Volume: 57.11 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: 57.11 bbl

Tool Weight: 2100.00 lb

Weight set on Packer: 20000.00 lb

Weight to Pull Loose: 68000.00 lb

Tool Chased 0.00 ft

String Weight: Initial 48000.00 lb

Final 50000.00 lb

Drill Pipe Above KB: 14.00 ft

Depth to Top Packer: 4084.00 ft

Depth to Bottom Packer: ft

Interval between Packers: 16.00 ft

Tool Length: 43.00 ft

Number of Packers: 2 Diameter: 6.75 inches

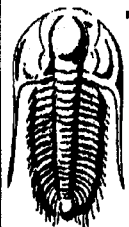
Tool Comments:

Tool Description

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

C.O. Sub	1.00			4058.00	
S.I. Tool	5.00			4063.00	
HMV	5.00			4068.00	
Jars	5.00			4073.00	
Safety Joint	2.00			4075.00	
Packer	4.00			4079.00	27.00 Bottom Of Top Packer
Packer	5.00			4084.00	
Stubb	1.00			4085.00	
Recorder	0.00	2342	Inside	4085.00	
Perforations	10.00			4095.00	
Recorder	0.00	10248	Outside	4095.00	
Bullnose	5.00			4100.00	16.00 Bottom Packers & Anchor

Total Tool Length: 43.00



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FLUID SUMMARY

MKJ Oil Co.

MKJ #6

705 E 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14072

DST#: 2

ATTN: Harold Trapp

Test Start: 2001.07.04 @ 10:47:03

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:

108000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.35 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	Gas in all fluid free pipe.	0.000
210.00	Salt Water Rw .057 ohms @ 96 deg F	2.946
60.00	OCMW 8%o 32%m 60%w	0.842
100.00	GOCM 25%g 15%o 60%m	1.403

Total Length: 370.00 ft

Total Volume: 5.191 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



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DRILL STEM TEST REPORT

GAS RATES

MKJ Oil Co.

MKJ #6

705 E. 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14072

DST#: 2

ATTN: Harold Trapp

Test Start: 2001.07.04 @ 10:47:03

Gas Rates Information

Temperature: 76 deg C

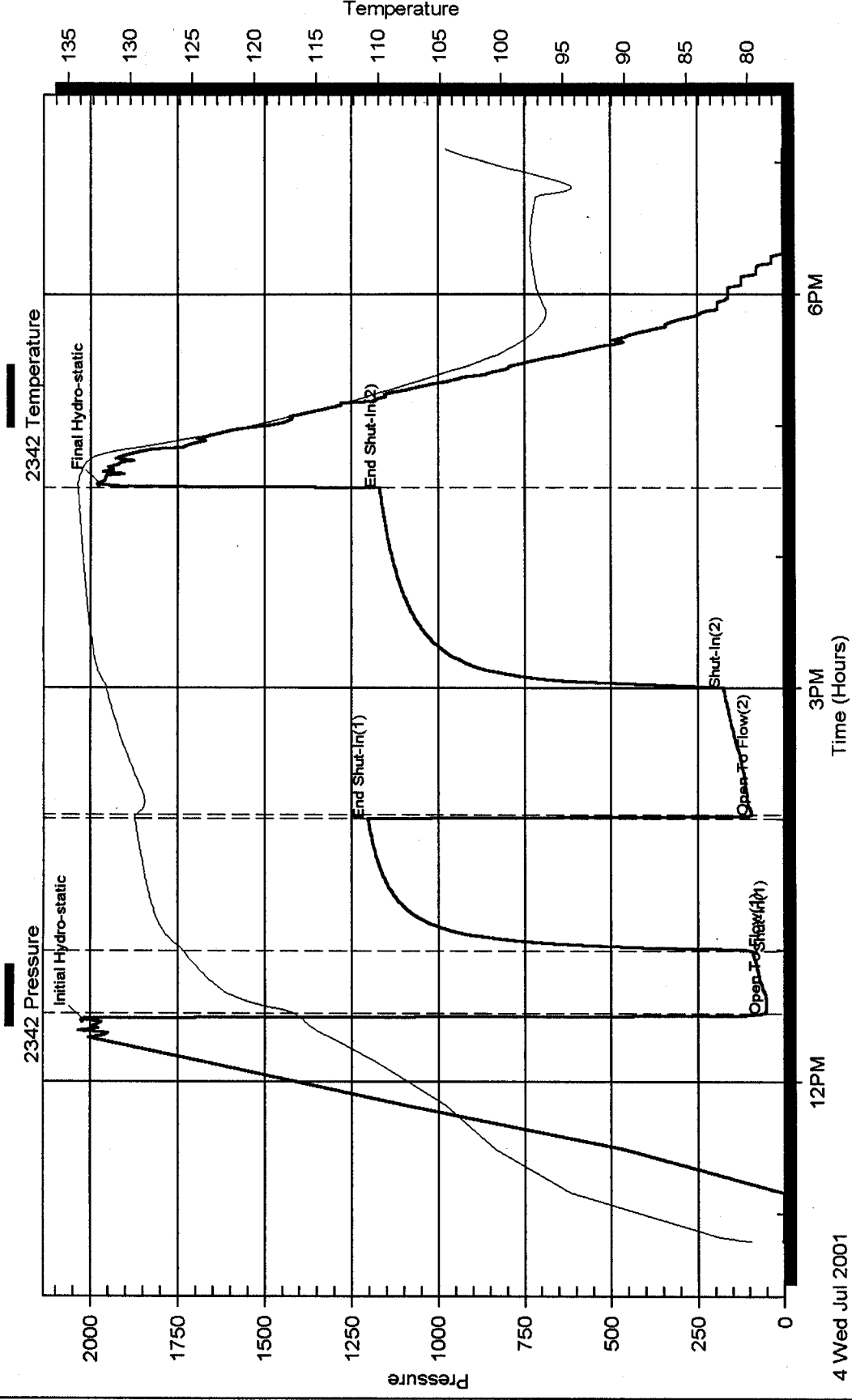
Relative Density: 0.65

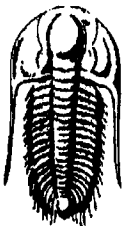
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m³/d)
1	20	0.25	2.00	26.02
1	20	0.25	2.00	25.60
1	20	0.25	2.00	25.60
1	30	0.25	5.00	30.28
2	10	0.38	7.00	77.14
2	20	0.38	2.00	59.12
2	40	0.25	4.00	28.72

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

MKJ Oil Co.

705 E. 9th
Harper KS 67058

ATTN: Harold Trapp

MKJ #6

18-30s-6w Harper KS

Job Ticket: 14073

DST#: 3

Test Start: 2001.07.05 @ 22:02:31

GENERAL INFORMATION:

Formation: **Simpson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:53:00

Time Test Ended: 06:57:30

Interval: **4464.00 ft (KB) To 4484.00 ft (KB) (TVD)**

Total Depth: **4484.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **13**

Reference Elevations: **1419.00 ft (KB)**

1411.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 2342

Inside

Press@RunDepth: **995.71 psig @ 4465.00 ft (KB)**

Start Date: **2001.07.05**

End Date: **2001.07.06**

Start Time: **22:02:31**

End Time: **06:57:30**

Capacity: **7000.00 psig**

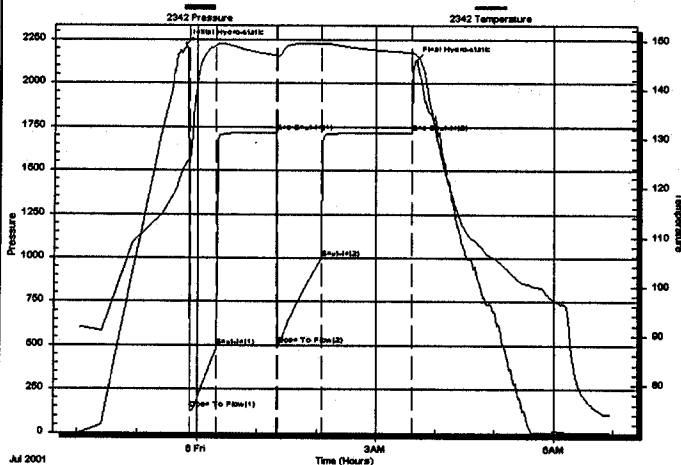
Last Calib.: **2001.01.04**

Time On Btm: **2001.07.05 @ 23:49:30**

Time Off Btm: **2001.07.06 @ 03:40:30**

TEST COMMENT: IF: Strong blow . B.O.B. in 10 secs.
IS: Strong blow . B.O.B. GTS 2 mins. in to ISP.
FF: Strong blow . B.O.B. in 2 mins. TSTM.
FS: Fair blow . 3 - 8".

Pressure vs. Time



PRESSURE SUMMARY

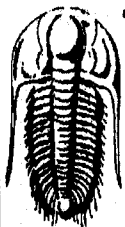
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2222.40	125.14	Initial Hydro-static
4	128.74	125.97	Open To Flow (1)
30	488.28	148.91	Shut-In(1)
91	1714.58	146.92	End Shut-In(1)
92	498.94	146.88	Open To Flow (2)
136	995.71	149.27	Shut-In(2)
228	1713.99	147.56	End Shut-In(2)
231	2126.55	147.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	Gas in all fluid free pipe.	0.00
1950.00	Salt water Rw .083 ohms @ 75 deg.F	27.35
185.00	MW 18%w 82%w	2.60

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

MKJ Oil Co.

MKJ #6

705 E. 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14073

DST#: 3

ATTN: Harold Trapp

Test Start: 2001.07.05 @ 22:02:31

Tool Information

Drill Pipe: Length: 4440.00 ft Diameter: 3.80 inches Volume: 62.28 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: 62.28 bbl
Drill Pipe Above KB: 3.00 ft
Depth to Top Packer: 4464.00 ft
Depth to Bottom Packer: ft
Interval between Packers: 20.00 ft
Tool Length: 47.00 ft
Number of Packers: 2 Diameter: 6.75 inches

Tool Weight: 2100.00 lb
Weight set on Packer: 20000.00 lb
Weight to Pull Loose: 68000.00 lb
Tool Chased 0.00 ft
String Weight: Initial 53000.00 lb
Final 63000.00 lb

Tool Comments:

Tool Description

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

C.O. Sub	1.00			4438.00	
S.I. Tool	5.00			4443.00	
HMV	5.00			4448.00	
Jars	5.00			4453.00	
Safety Joint	2.00			4455.00	
Packer	4.00			4459.00	27.00 Bottom Of Top Packer
Packer	5.00			4464.00	
Stubb	1.00			4465.00	
Recorder	0.00	2342	inside	4465.00	
Perforations	14.00			4479.00	
Recorder	0.00	10248	Outside	4479.00	
Bullnose	5.00			4484.00	20.00 Bottom Packers & Anchor

Total Tool Length: 47.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

MKJ Oil Co.

MKJ #6

705 E 9th
Harper KS 67058

18-30s-6w Harper KS

Job Ticket: 14073

DST#: 3

ATTN: Harold Trapp

Test Start: 2001.07.05 @ 22:02:31

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:

89000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	Gas in all fluid free pipe.	0.000
1950.00	Salt water Rw .083 ohms @ 75 deg.F	27.353
185.00	MW 18% m 82% w	2.595

Total Length: 2135.00 ft

Total Volume: 29.948 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

