

DRILL STEM TEST REPORT

Prepared For: **Knighton Oil Co Inc.**

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

ATTN: Dave Montaque

11-25s14 Stafford KS

Kachelman # 3

Start Date: 2011.02.18 @ 20:53:36

End Date: 2011.02.19 @ 04:30:21

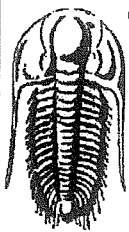
Job Ticket #: 37420

DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 37420

DST#: 1

ATTN: Dave Montague

Test Start: 2011.02.18 @ 20:53:36

GENERAL INFORMATION:

Formation: Lansing Drum

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:01:21

Time Test Ended: 04:30:21

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 34

Interval: 3795.00 ft (KB) To 3817.00 ft (KB) (TVD)

Total Depth: 3817.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1965.00 ft (KB)

1959.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 6773

Inside

Press@RunDepth: 102.34 psig @ 3796.00 ft (KB)

Start Date: 2011.02.18

End Date: 2011.02.19

Capacity: 8000.00 psig

Last Calib.: 2011.02.19

Start Time: 20:53:41

End Time: 04:30:20

Time On Btm: 2011.02.18 @ 22:58:36

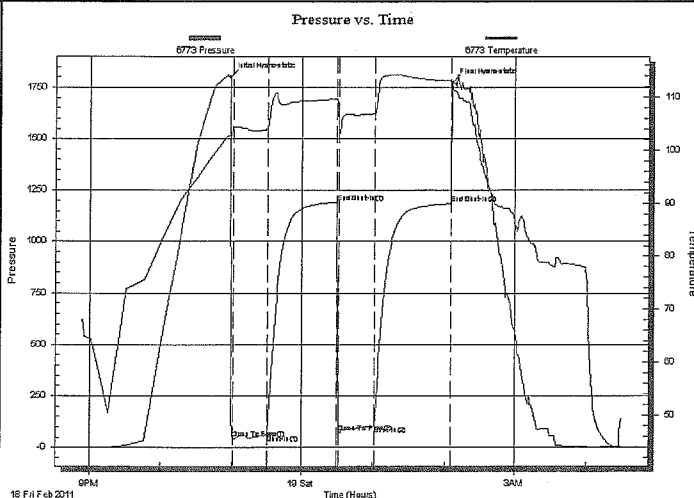
Time Off Btm: 2011.02.19 @ 02:06:51

TEST COMMENT: IF: Strong blow. B.O.B. in 30 secs. GTS in 13 mins. (see gas flow report)

ISI: No blow.

FF: Strong blow. (see gas flow report)

FSI: No blow.



PRESSURE SUMMARY

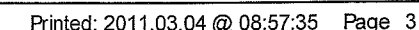
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1800.03	102.70	Initial Hydro-static
3	44.40	104.30	Open To Flow (1)
33	61.44	103.96	Shut-In(1)
92	1192.32	109.66	End Shut-In(1)
93	73.06	102.71	Open To Flow (2)
123	102.34	106.86	Shut-In(2)
187	1184.62	113.01	End Shut-In(2)
189	1775.72	111.39	Final Hydro-static

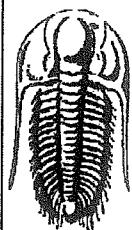
Recovery

Length (ft)	Description	Volume (bbl)
125.00	GMCO 26%g 26%m 48%o	1.21
90.00	CGO 8%g 92%o	1.26

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	5.00	30.78
Last Gas Rate	0.25	11.00	40.30
Max. Gas Rate	0.25	11.00	40.30





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky. Bldg 100 Ste A
Wichita Ks. 67206

11-25s14 Stafford KS

Job Ticket: 37420

DST#: 1

ATTN: Dave Montaque

Test Start: 2011.02.18 @ 20:53:36

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31.7 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

4800 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.36 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	GMCO 26%g 26%m 48%o	1.207
90.00	CGO 8%g 92%o	1.262

Total Length: 215.00 ft

Total Volume: 2.469 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 37420

DST#: 1

ATTN: Dave Montaque

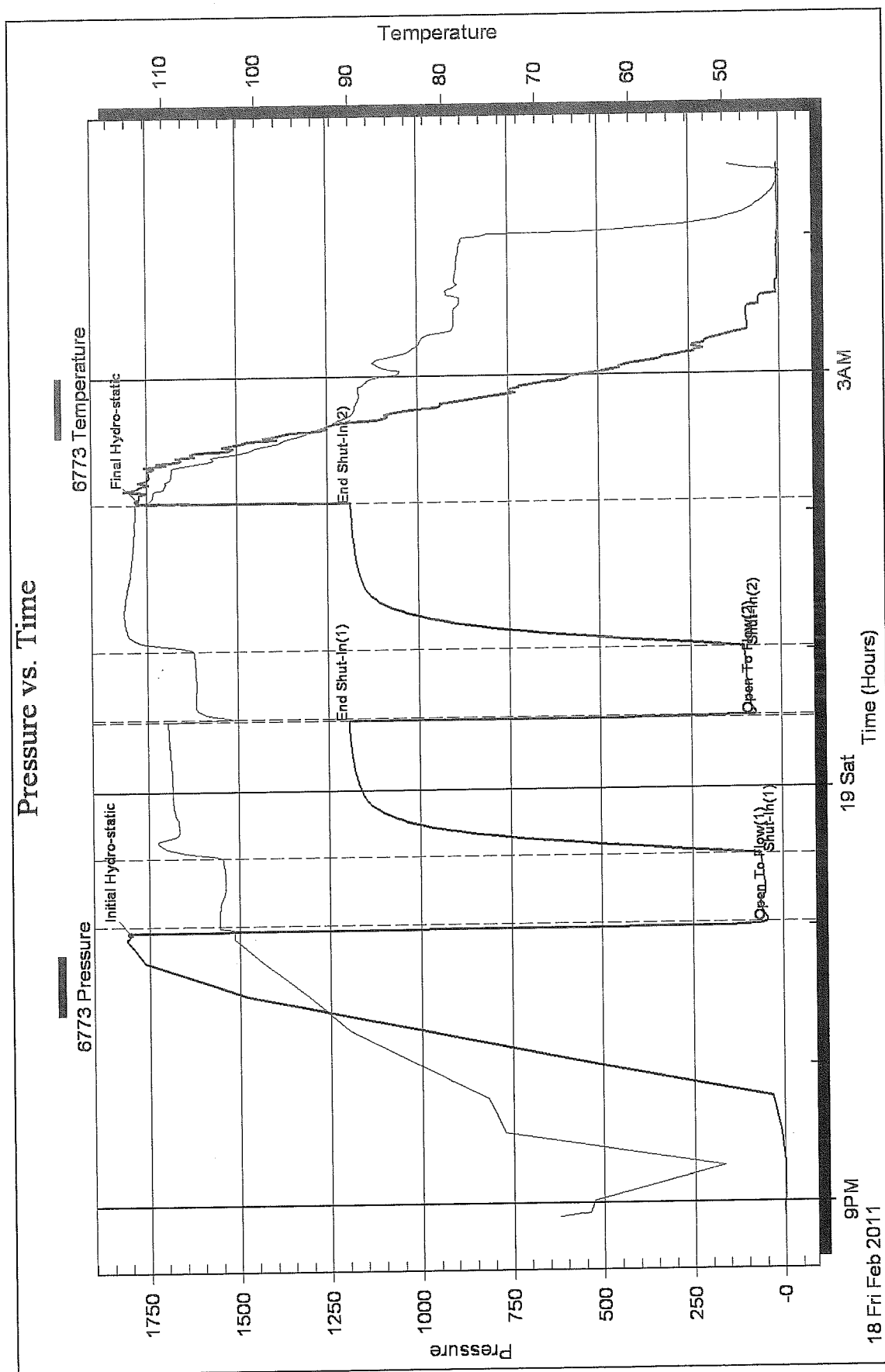
Test Start: 2011.02.18 @ 20:53:36

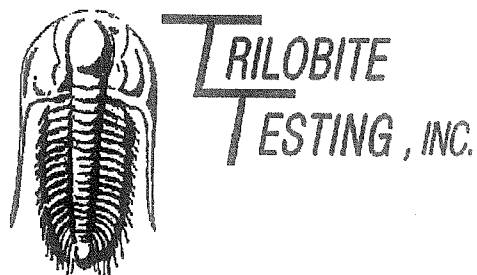
Gas Rates Information

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	5.00	30.78
1	25	0.25	6.00	32.36
1	30	0.25	7.00	33.95
2	10	0.25	10.00	38.71
2	20	0.25	11.00	40.30
2	30	0.25	11.00	40.30





DRILL STEM TEST REPORT

Prepared For: **Knighton Oil Co Inc.**

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

ATTN: Dave Montaque

11-25s14 Stafford KS

Kachelman # 3

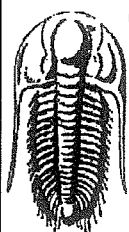
Start Date: 2011.02.19 @ 14:54:45

End Date: 2011.02.19 @ 21:48:30

Job Ticket #: 37421

DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



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DRILL STEM TEST REPORT

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 37421

DST#: 2

ATTN: Dave Montaque

Test Start: 2011.02.19 @ 14:54:45

GENERAL INFORMATION:

Formation: Lansing Hertha

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:38:45

Time Test Ended: 21:48:30

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 34

Interval: 3912.00 ft (KB) To 3924.00 ft (KB) (TVD)

Total Depth: 3924.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1965.00 ft (KB)

1959.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8166

Outside

Press@RunDepth: 74.71 psig @ 3913.00 ft (KB)

Start Date: 2011.02.19

End Date: 2011.02.19

Start Time: 14:54:50

End Time: 21:48:29

Capacity: 8000.00 psig

Last Calib.: 2011.02.19

Time On Btm: 2011.02.19 @ 16:35:30

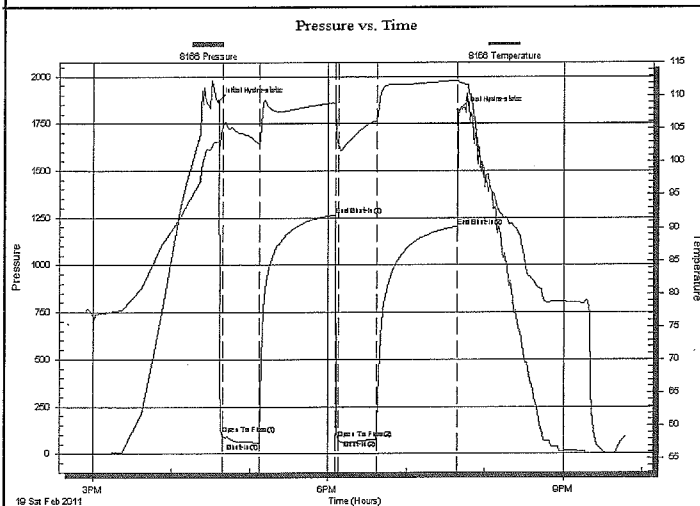
Time Off Btm: 2011.02.19 @ 19:39:15

TEST COMMENT: IF: Strong blow . BOB 10 sec GTS 3 Min {see gas flow report}

IS: No blow

FF: Strong blow {see gas flow report}

FS: Weak blow back 3/4"



PRESSURE SUMMARY

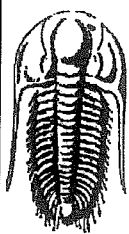
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1869.82	103.00	Initial Hydro-static
4	102.77	105.02	Open To Flow (1)
32	59.07	102.65	Shut-In(1)
91	1266.36	108.93	End Shut-In(1)
93	76.62	102.77	Open To Flow (2)
122	74.71	106.11	Shut-In(2)
183	1204.28	112.25	End Shut-In(2)
184	1820.76	112.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
122.00	GMCO 29%g 20%o 51%o	1.16
60.00	CGO 10%g 90%o	0.84

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	10.00	164.60
Last Gas Rate	0.38	9.00	85.72
Max. Gas Rate	0.38	12.00	96.71



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 37421

DST#: 2

ATTN: Dave Montague

Test Start: 2011.02.19 @ 14:54:45

Tool Information

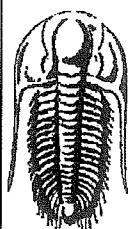
Drill Pipe:	Length: 3831.00 ft	Diameter: 3.80 inches	Volume: 53.74 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 60000.00 lb
		Total Volume:	54.04 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3912.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3885.00	
Shut In Tool	5.00			3890.00	
Hydraulic tool	5.00			3895.00	
Jars	5.00			3900.00	
Safety Joint	3.00			3903.00	
Packer	4.00			3907.00	28.00 Bottom Of Top Packer
Packer	5.00			3912.00	
Stubb	1.00			3913.00	
Recorder	0.00	8166	Outside	3913.00	
Recorder	0.00	6773	Inside	3913.00	
Perforations	8.00			3921.00	
Bullnose	3.00			3924.00	12.00 Bottom Packers & Anchor

Total Tool Length: 40.00



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FLUID SUMMARY

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky. Bldg 100 Ste A
Wichita Ks. 67206

11-25s14 Stafford KS

Job Ticket: 37421

DST#: 2

ATTN: Dave Montaque

Test Start: 2011.02.19 @ 14:54:45

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:

12000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 15.15 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
122.00	GMCO 29%g 20%m 51%o	1.165
60.00	CGO 10%g 90%o	0.842

Total Length: 182.00 ft

Total Volume: 2.007 bbl

Num Fluid Samples: 0

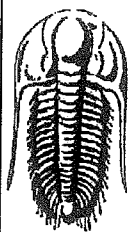
Num Gas Bombs: 1

Serial #: cs-2

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



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DRILL STEM TEST REPORT

GAS RATES

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 37421

DST#: 2

ATTN: Dave Montaque

Test Start: 2011.02.19 @ 14:54:45

Gas Rates Information

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

Gas Rates Table

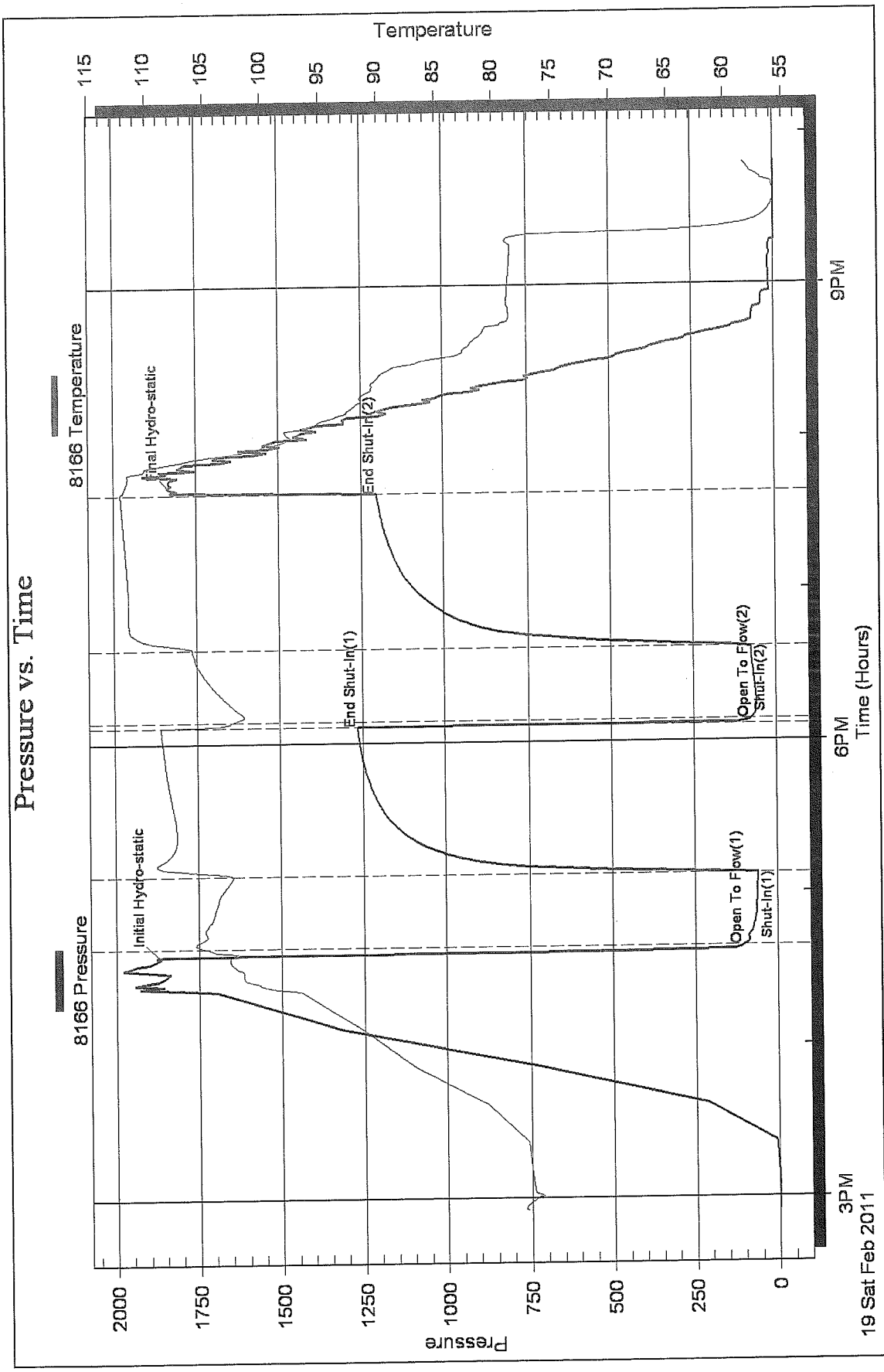
Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m³/d)
1	5	0.50	10.00	164.60
1	5	0.50	10.00	164.60
1	10	0.50	10.00	164.60
1	20	0.38	12.00	96.71
1	30	0.38	9.00	85.72
2	10	0.38	8.00	82.06
2	20	0.38	9.00	85.72

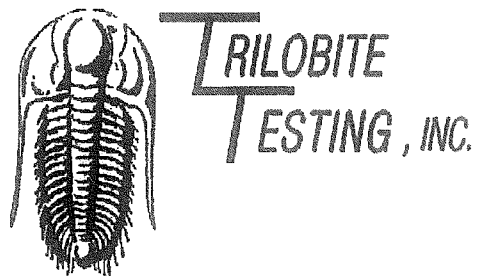
DST Test Number: 2

11-25s14 Stafford KS

Outside Knighton Oil Co Inc.

Serial #: 8166





DRILL STEM TEST REPORT

Prepared For: **Knighton Oil Co Inc.**

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

ATTN: Dave Montaque

11-25s14 Stafford KS

Kachelman # 3

Start Date: 2011.02.20 @ 18:42:50

End Date: 2011.02.21 @ 02:34:50

Job Ticket #: 37422

DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Knighton Oil Co Inc.

1700 Waterfront Pky.
Wichita Ks. 67206

ATTN: Dave Montaque

Bldg 100 Ste A

Kachelman # 3

11-25s14 Stafford KS

Job Ticket: 37422

DST#: 3

Test Start: 2011.02.20 @ 18:42:50

GENERAL INFORMATION:

Formation: Viola

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:36:20

Time Test Ended: 02:34:50

Interval: 4106.00 ft (KB) To 4127.00 ft (KB) (TVD)

Total Depth: 4127.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 34

Reference Elevations: 1965.00 ft (KB)

1959.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8166

Outside

Press@RunDepth: 76.28 psig @ 4107.00 ft (KB)

Start Date: 2011.02.20

End Date: 2011.02.21

Start Time: 18:42:55

End Time: 02:34:49

Capacity: 8000.00 psig

Last Calib.: 2011.02.21

Time On Btm: 2011.02.20 @ 20:31:50

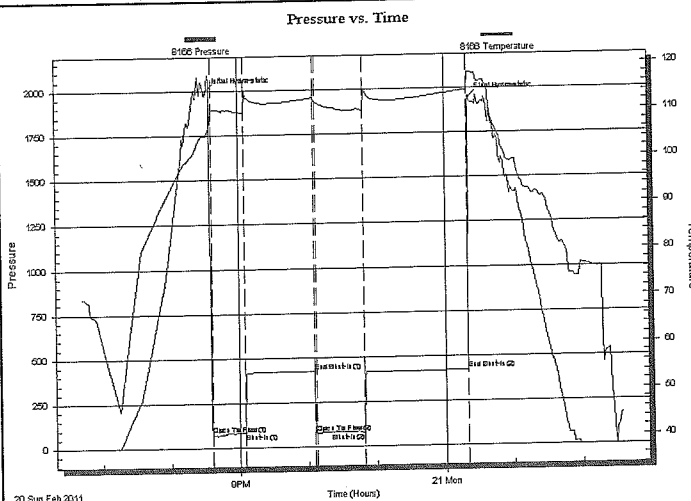
Time Off Btm: 2011.02.21 @ 00:21:35

TEST COMMENT: IF: Strong blow BOB 10 sec GTS 3 min { See gas flow report}

IS: Strong blow back

FF: Strong Blow { See gas flow report}

FS: No blow



PRESSURE SUMMARY

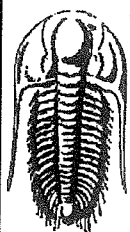
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1996.32	104.88	Initial Hydro-static
5	75.35	110.22	Open To Flow (1)
34	82.64	109.80	Shut-In(1)
94	421.64	112.88	End Shut-In(1)
96	75.96	112.16	Open To Flow (2)
138	76.28	109.81	Shut-In(2)
229	421.14	114.27	End Shut-In(2)
230	1945.25	117.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 10%g 24%o 66%m	0.30
65.00	GOCVM 10%g 18%o 22%w 50%m	0.91

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	22.00	245.54
Last Gas Rate	0.50	24.00	259.04
Max. Gas Rate	0.50	24.00	259.04



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky. Bldg 100 Ste A
Wichita Ks. 67206

11-25s14 Stafford KS

Job Ticket: 37422

DST#: 3

ATTN: Dave Montague

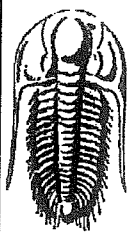
Test Start: 2011.02.20 @ 18:42:50

Tool Information

Drill Pipe:	Length: 4050.00 ft	Diameter: 3.80 inches	Volume: 56.81 bbl	Tool Weight: 2400.00 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: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 65000.00 lb
			Total Volume: 57.11 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4106.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4079.00	
Shut In Tool	5.00			4084.00	
Hydraulic tool	5.00			4089.00	
Jars	5.00			4094.00	
Safety Joint	3.00			4097.00	
Packer	4.00			4101.00	28.00 Bottom Of Top Packer
Packer	5.00			4106.00	
Stubb	1.00			4107.00	
Recorder	0.00	8166	Outside	4107.00	
Recorder	0.00	6773	Inside	4107.00	
Perforations	17.00			4124.00	
Bullnose	3.00			4127.00	21.00 Bottom Packers & Anchor

Total Tool Length: 49.00



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FLUID SUMMARY

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky. Bldg 100 Ste A
Wichita Ks. 67206

11-25s14 Stafford KS

Job Ticket: 37422

DST#: 3

ATTN: Dave Montaque

Test Start: 2011.02.20 @ 18:42:50

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:

13000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 16.75 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
60.00	GOCM 10%g 24%o 66%m	0.295
65.00	GOCWM 10%g 18%o 22%w 50%m	0.912

Total Length: 125.00 ft

Total Volume: 1.207 bbl

Num Fluid Samples: 0

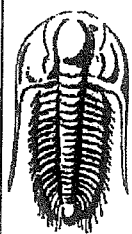
Num Gas Bombs: 1

Serial #: cs-3

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 37422

DST#: 3

ATTN: Dave Montaque

Test Start: 2011.02.20 @ 18:42:50

Gas Rates Information

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

Gas Rates Table

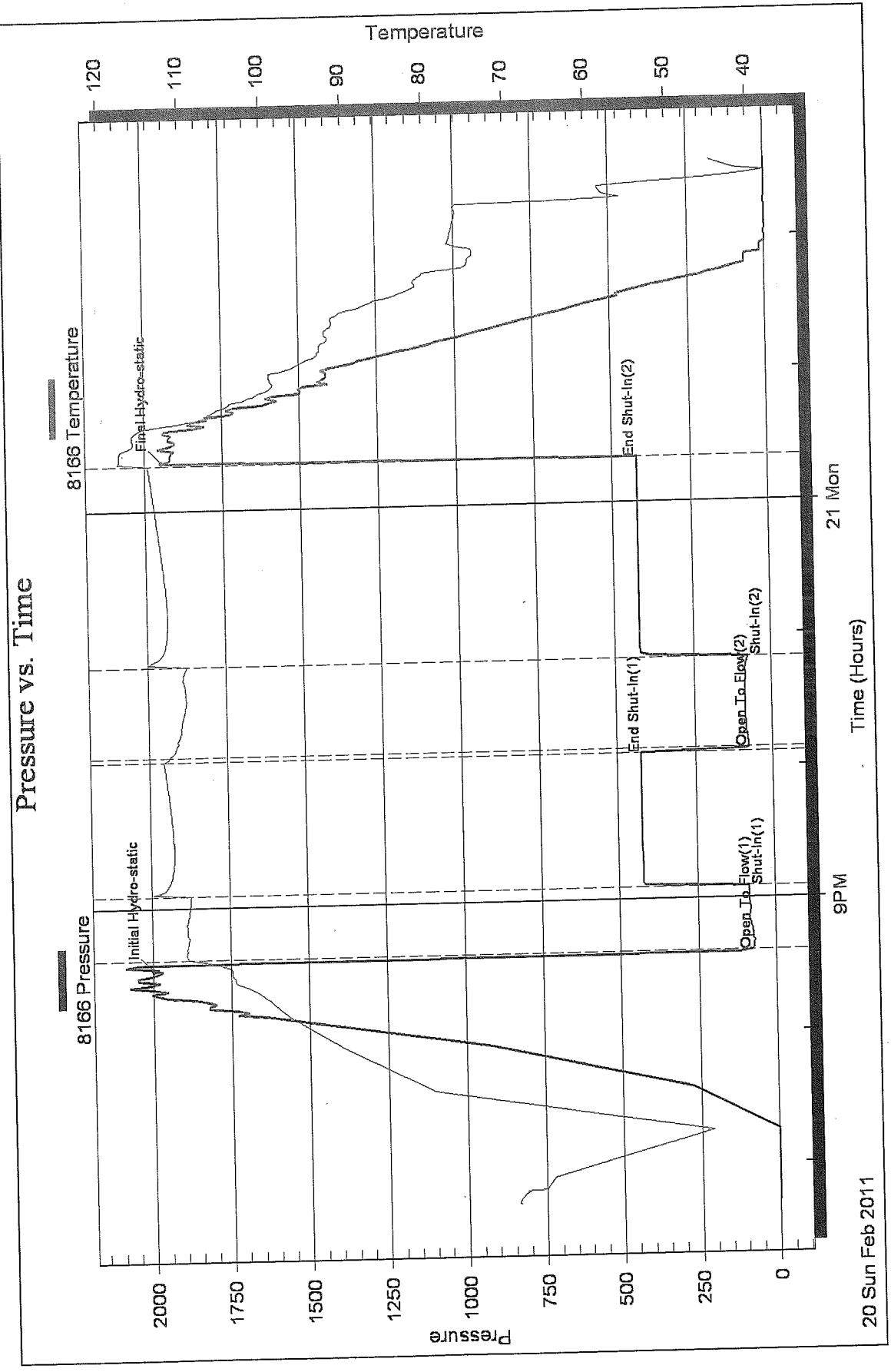
Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	10	0.50	22.00	245.54
1	10	0.50	22.00	245.54
1	20	0.75	10.00	381.12
1	30	0.50	22.00	245.54
2	10	0.50	21.00	238.80
2	20	0.50	23.00	252.29
2	40	0.50	24.00	259.04

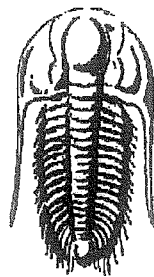
DST Test Number: 3

11-25s14 Stafford KS

Outside Knighton Oil Co Inc.

Serial #: 8166





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Knighon Oil Co Inc.**

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

ATTN: Dave Montaque

11-25s14 Stafford KS

Kachelman # 3

Start Date: 2011.02.21 @ 22:15:06

End Date: 2011.02.22 @ 06:30:36

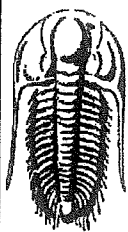
Job Ticket #: 41924

DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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**TRILOBITE
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DRILL STEM TEST REPORT

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 41924

DST#: 4

ATTN: Dave Montaque

Test Start: 2011.02.21 @ 22:15:06

GENERAL INFORMATION:

Formation: Arbuckle

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:10:06

Time Test Ended: 06:30:36

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

Interval: 4304.00 ft (KB) To 4325.00 ft (KB) (TVD)

Total Depth: 4325.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1965.00 ft (KB)

1959.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8369

Outside

Press@RunDepth: 264.80 psig @ 4305.00 ft (KB)

Start Date: 2011.02.21

End Date:

2011.02.22

Capacity: 8000.00 psig

Last Calib.: 2011.02.22

Start Time: 22:15:11

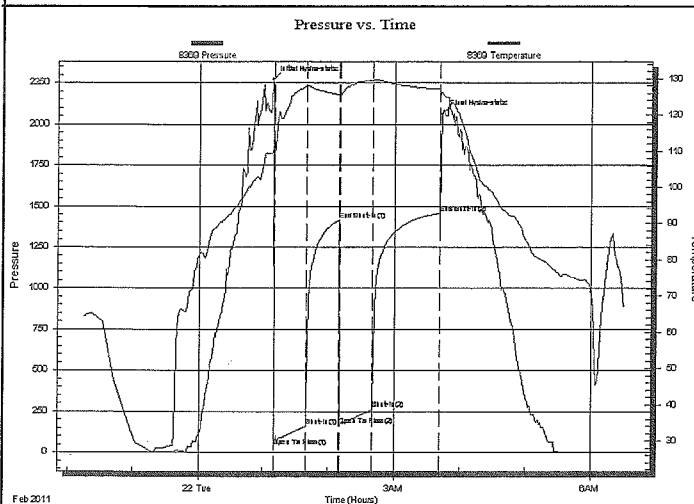
End Time:

06:30:35

Time On Btm: 2011.02.22 @ 01:08:36

Time Off Btm: 2011.02.22 @ 03:43:36

TEST COMMENT: IF-BOB in 20min
ISI-Very weak surface blow died in 16min
FF-BOB in 13min
FSI-No blow



PRESSURE SUMMARY

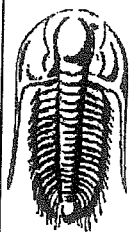
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2269.34	109.67	Initial Hydro-static
2	38.99	109.59	Open To Flow (1)
32	161.60	127.74	Shut-In(1)
61	1414.60	125.49	End Shut-In(1)
62	169.52	125.11	Open To Flow (2)
92	264.80	129.45	Shut-In(2)
153	1456.15	127.11	End Shut-In(2)
155	2060.07	126.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
365.00	SMCW 10%M 90%W	4.03
180.00	MCW 60%W 40%M	2.52

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 41924

DST#: 4

ATTN: Dave Montaque

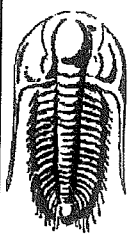
Test Start: 2011.02.21 @ 22:15:06

Tool Information

Drill Pipe:	Length: 4176.00 ft	Diameter: 3.80 inches	Volume: 58.58 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume:	- bbl	Tool Chased 3.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4304.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4277.00	
Shut In Tool	5.00			4282.00	
Hydraulic tool	5.00			4287.00	
Jars	5.00			4292.00	
Safety Joint	2.00			4294.00	
Packer	5.00			4299.00	28.00 Bottom Of Top Packer
Packer	5.00			4304.00	
Stubb	1.00			4305.00	
Recorder	0.00	6719	Inside	4305.00	
Recorder	0.00	8369	Outside	4305.00	
Perforations	17.00			4322.00	
Bullnose	3.00			4325.00	21.00 Bottom Packers & Anchor
Total Tool Length:	49.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Knighton Oil Co Inc.

Kachelman # 3

1700 Waterfront Pky.
Wichita Ks. 67206

Bldg 100 Ste A

11-25s14 Stafford KS

Job Ticket: 41924

DST#: 4

ATTN: Dave Montaque

Test Start: 2011.02.21 @ 22:15:06

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:

72000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
365.00	SMCW 10%M 90%W	4.027
180.00	MCW 60%W 40%M	2.525

Total Length: 545.00 ft

Total Volume: 6.552 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

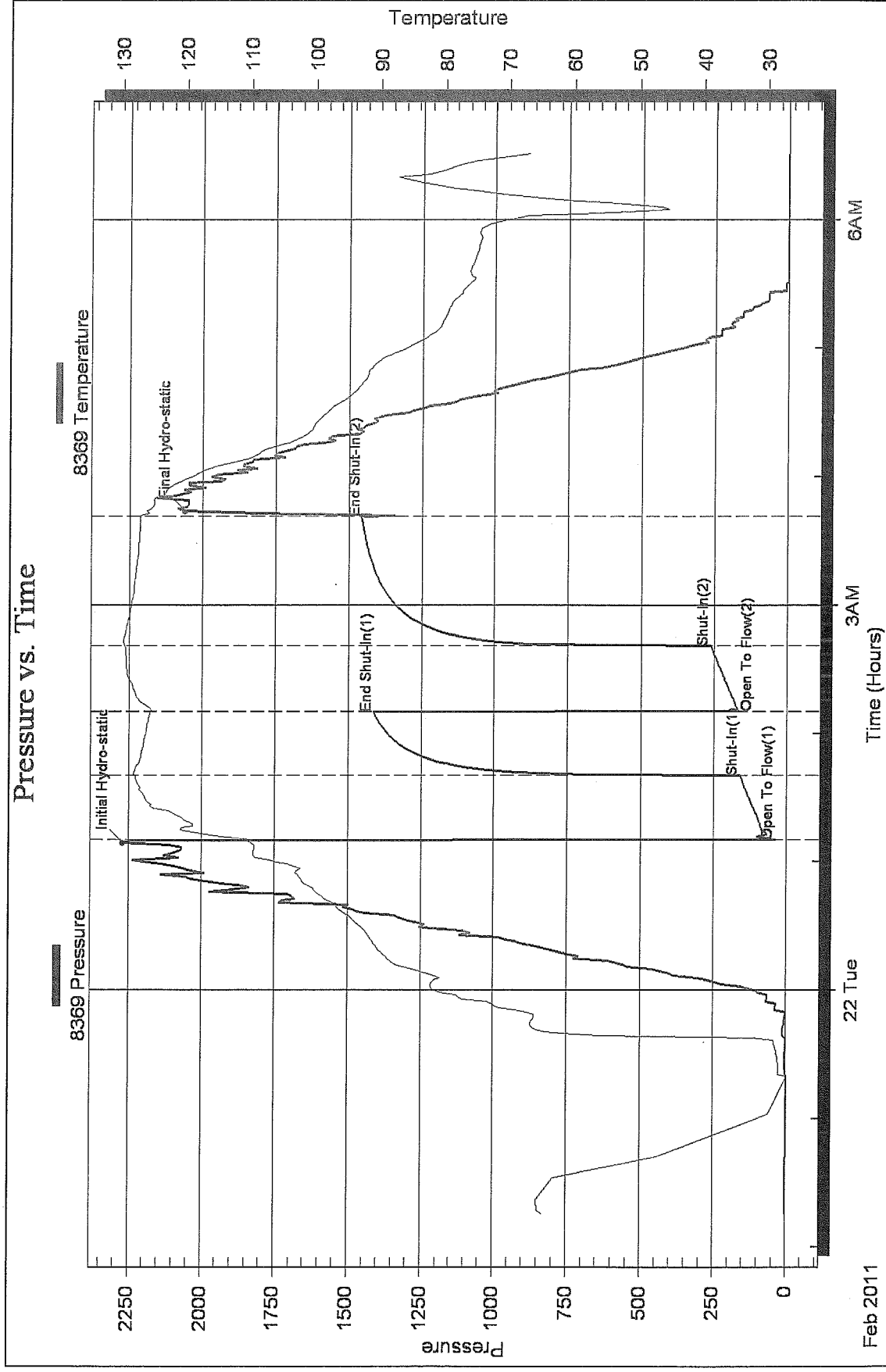
Recovery Comments:

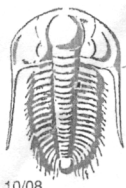
Serial #: 8369

Outside Knighton Oil Co Inc.

11-25s14 Stafford KS

DST Test Number: 4





**TRILOBITE
TESTING INC.**

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 37420 15398

BY: _____

Well Name & No. Kachelman #3 Test No. 1 Date 2-18-11
 Company Knighton oil company INC Elevation 195465 KB 196859 GL
 Address 1700 Water Front PKy BLDG 100 STEA Wichita KS 67206
 Co. Rep / Geo. Dave Montague Rig _____
 Location: Sec. 11 Twp. 25 S Rge. 14 W Co. STAFFORD State KS

Interval Tested 3795 - 3817 Zone Tested Lansing Drum
 Anchor Length 22 FT Drill Pipe Run 3735 ~~3705~~ 3846 Mud Wt. 9.2
 Top Packer Depth 3790 Drill Collars Run 59.64 Vis 47
 Bottom Packer Depth 3795 Wt. Pipe Run 0 WL 10.4
 Total Depth 3817 Chlorides 4800 ppm System LCM 3#
 Blow Description IF: STRONG Blow. BOB 30 sec GTS 13min (see Gas Flow Report)
IST: NO BLOW
FF: STRONG Blow BOB (see gas Flow Report)
FST: NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>CGO</u>	<u>8</u>	<u>92</u>		
<u>125</u>	<u>GMCO</u>	<u>26</u>	<u>48</u>		<u>26</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 215 BHT 113 Gravity 36.7 API RW N.C. @ — °F Chlorides 4800 ppm

(A) Initial Hydrostatic <u>1800</u>	☒ Test <u>1125</u>	T-On Location <u>18:45</u>
(B) First Initial Flow <u>44</u>	☒ Jars <u>250</u>	T-Started <u>20:53</u>
(C) First Final Flow <u>61</u>	☒ Safety Joint <u>75</u>	T-Open <u>23:01</u>
(D) Initial Shut-In <u>1192</u>	☐ Circ Sub	T-Pulled <u>02:05</u>
(E) Second Initial Flow <u>73</u>	☐ Hourly Standby	T-Out <u>04:30</u>
(F) Second Final Flow <u>102</u>	☒ Mileage <u>(44)</u> <u>55</u>	Comments _____
(G) Final Shut-In <u>1185</u>	☐ Sampler	_____
(H) Final Hydrostatic <u>1776</u>	☐ Straddle	_____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 1505

☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 1505.00

Approved By _____

Our Representative Dave Montague

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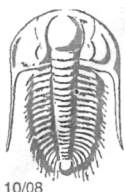
GAS VOLUME REPORT

WELL NAME AND NO.

DST NO.

FINN OPEN

Remarks:



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 37421

RECEIVED
FEB 24 2011

Well Name & No. Kachelman #3 Test No. 2 Date 2-19-11
Company Knighon oil company INC Elevation 1965 KB 1959 GL
Address 1700 Waterfront PKy Bldg 100 STEA Wichita KS 67206
Co. Rep / Geo. Dave Montague Rig Southwind Drlg #4
Location: Sec. 11 Twp. 25 S Rge. 14 W Co. STAFFORD State KS

Interval Tested 3912 - 3924 Zone Tested Lansing Hertha
Anchor Length 12 ft Drill Pipe Run 3831 Mud Wt. 8.9
Top Packer Depth 3907 Drill Collars Run 60 Vis 52
Bottom Packer Depth 3912 Wt. Pipe Run 0 WL 15.2
Total Depth 3817 Chlorides 12000 ppm System LCM 2#
Blow Description IF: STRONG Blow BOB 10 SEC Gas TO SURFACE 3min *see gas fl Report*
ISI: NO BLOW
FF: STRONG Blow (see gas Flow Report)
FSI: Weak Blow Back 3/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>CGO</u>	<u>10</u>	<u>90</u>		
<u>122</u>	<u>CMCO</u>	<u>29</u>	<u>51</u>		<u>20</u>
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
Rec Total <u>182</u>	BHT <u>112</u>	Gravity <u>N.C.</u>	API RW <u>N.C.</u>	@ <u>°F</u>	Chlorides <u>12000</u> ppm

(A) Initial Hydrostatic	<u>1870</u>	☒ Test	<u>1125</u>	T-On Location	<u>14:15</u>
(B) First Initial Flow	<u>1038</u>	☒ Jars	<u>250</u>	T-Started	<u>14:54</u>
(C) First Final Flow	<u>59</u>	☒ Safety Joint	<u>75</u>	T-Open	<u>16:38</u>
(D) Initial Shut-In	<u>1266</u>	☐ Circ Sub		T-Pulled	<u>19:40</u>
(E) Second Initial Flow	<u>77</u>	☐ Hourly Standby		T-Out	<u>21:48</u>
(F) Second Final Flow	<u>75</u>	☒ Mileage	<u>(44) 55</u>	Comments	
(G) Final Shut-In	<u>1204</u>	☐ Sampler			
(H) Final Hydrostatic	<u>1821</u>	☐ Straddle			

Initial Open	<u>30</u>	☐ Shale Packer	☐ Ruined Shale Packer
Initial Shut-In	<u>60</u>	☐ Extra Packer	☐ Ruined Packer
Final Flow	<u>30</u>	☐ Extra Recorder	☐ Extra Copies
Final Shut-In	<u>60</u>	☐ Day Standby	Sub Total
		☐ Accessibility	Total
		Sub Total	<u>1505.00</u>

Approved By [Signature] Our Representative Chris Staats
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Gas Sample

GAS VOLUME REPORT

KNIGHTON OIL CO INC

OPERATOR

Kachelman #3

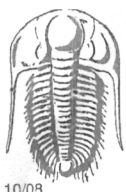
WELL NAME AND NO.

2

DST NO.

[illegible]

Remarks:



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 37422

Well Name & No. Kachelman #3 Test No. 3 Date 2-20-11
Company Knighon oil company INC Elevation 1965 KB 1959 GL
Address 1700 Water Front PKy Bldg 100 STEA Wichita KS 67206
Co. Rep / Geo. Dave Montague Rig Southwind DRG #4
Location: Sec. 11 Twp. 25 S Rge. 14 W Co. STAFFORD State KS

Interval Tested 4106 - 4127 Zone Tested Viola
Anchor Length 21' Drill Pipe Run 4050 Mud Wt. 9.0
Top Packer Depth 4101 Drill Collars Run 60 Vis 52
Bottom Packer Depth 4106 Wt. Pipe Run 0 WL 16.8
Total Depth 4127 Chlorides 13000 ppm System LCM 2 #
Blow Description IF: STRONG Blow ~~60~~ 10 sec (see gas flow report) GTS 3 MIN
ISI: STRONG blow back
FF: STRONG Blow (see gas flow report)
FSI: NO blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>606 W M</u>	<u>10</u>	<u>18</u>	<u>22</u>	<u>50</u>
<u>60</u>	<u>606 M</u>	<u>10</u>	<u>24</u>		<u>67</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 125 BHT 114 Gravity N/A API RW NC @ ° F Chlorides 13000 ppm
(A) Initial Hydrostatic 1996 ☒ Test 1225 T-On Location 18:30
(B) First Initial Flow 75 ☒ Jars 250 T-Started 18:40
(C) First Final Flow 83 ☒ Safety Joint 75 T-Open 20:35 36
(D) Initial Shut-In 422 ☐ Circ Sub T-Pulled 00:20
(E) Second Initial Flow 76 ☐ Hourly Standby T-Out 02:34
(F) Second Final Flow 76 ☒ Mileage 44 55 Comments
(G) Final Shut-In 421 ☐ Sampler
(H) Final Hydrostatic 1945 ☐ Straddle

Initial Open 30
Initial Shut-In 60
Final Flow 45
Final Shut-In 90

☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
Sub Total 1605

☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
Sub Total

Approved By [Signature]

Our Representative [Signature]

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Total 1605.00
SPLIT W
CHRIS S.



GAS VOLUME REPORT

Kachei man #3

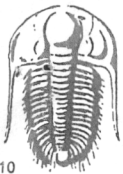
3

WELL NAME AND NO.

DST NO.

FO

Remarks:



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 041924

FEB 22 2011

Well Name & No. Kachelman #3 Test No. 4 Date 2/21/11
 Company Knighon Oil Company, Inc. Elevation 1968 KB 1961 GL
 Address 1700 N Waterfront PKY Wichita KS 67206
 Co. Rep / Geo. _____ Rig Southwind #4
 Location: Sec. 11 Twp. 25 Rge. 14 Co. Stafford State KS

Interval Tested 4304 - 4325 Zone Tested Arbuckle
 Anchor Length 21 Drill Pipe Run _____ Mud Wt. 9.0
 Top Packer Depth 4299 Drill Collars Run 120 Vis 50
 Bottom Packer Depth 4304 Wt. Pipe Run _____ WL 12.8
 Total Depth 4325 Chlorides 8,000 ppm System LCM 3

Blow Description IF - BOB in 20 min
ISF - Weak surface blow died in 16 min
FF - BOB in 13 min
FSI -

Rec <u>180</u>	Feet of <u>MCW</u>	%gas	%oil	%water	%mud
Rec <u>365</u>	Feet of <u>SMCW</u>	%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

Rec Total 545 BHT 127 Gravity _____ API RW _____ @ _____ °F Chlorides 72000 ppm

(A) Initial Hydrostatic 2269 ☒ Test 1225 T-On Location 21:50
 (B) First Initial Flow 38 ☒ Jars 250 T-Started 22:15
 (C) First Final Flow 161 ☒ Safety Joint 75 T-Open 1:10
 (D) Initial Shut-In 1414 ☐ Circ Sub _____ T-Pulled 3:40
 (E) Second Initial Flow 169 ☐ Hourly Standby _____ T-Out 6:30
 (F) Second Final Flow 264 ☒ Mileage 480 RT 55 Comments _____
 (G) Final Shut-In 1456 ☐ Sampler _____
 (H) Final Hydrostatic 2,060 ☐ Straddle _____ ☐ Ruined Shale Packer _____
☐ Shale Packer _____ ☐ Ruined Packer _____
☐ Extra Packer _____ ☐ Extra Copies _____
☐ Extra Recorder _____ Sub Total 8
☐ Day Standby _____ Total 1605
☐ Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 60

Sub Total 1605

Approved By _____

Our Representative Brett Duckman

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