



DRILL STEM TEST REPORT

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

1700 N. Waterfront Parkway
Bldg. 100, Ste. A
Wichita KS 67206

ATTN: David Montague

Barnett #2

2-31s-3e Cowley KS

Start Date: 2015.04.06 @ 02:07:01

End Date: 2015.04.06 @ 07:43:46

Job Ticket #: 59750 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.04.09 @ 11:22:05



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkw ay
Bldg. 100,Ste. A
Wichita KS 67206
ATTN: David Montague

Barnett #2

Job Ticket: 59750

DST#: 1

Test Start: 2015.04.06 @ 02:07:01

GENERAL INFORMATION:

Formation: **Bartlesville Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:13:01

Time Test Ended: 07:43:46

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 80

Interval: 2975.00 ft (KB) To 3020.00 ft (KB) (TVD)

Reference Elevations: 1236.00 ft (KB)

Total Depth: 3020.00 ft (KB) (TVD)

1224.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8352 Outside

Press@RunDepth: 21.47 psig @ 2976.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.04.06

End Date:

2015.04.06

Last Calib.:

2015.04.06

Start Time:

02:07:06

End Time:

07:43:45

Time On Btm:

2015.04.06 @ 04:11:16

Time Off Btm:

2015.04.06 @ 06:15:16

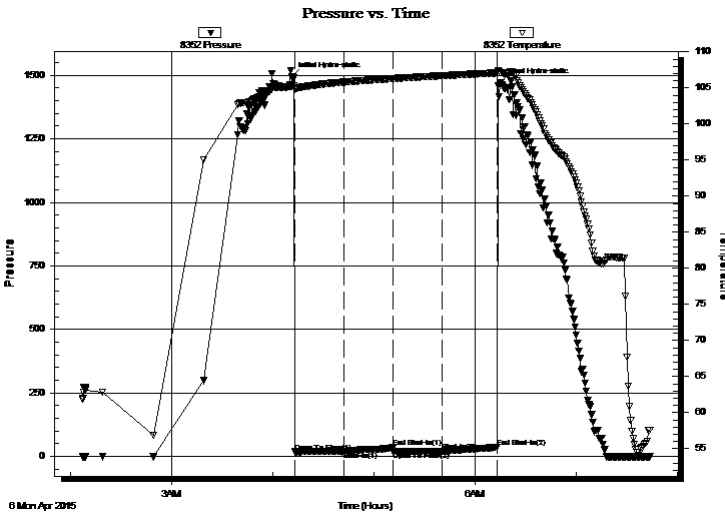
TEST COMMENT: IF:Weak blow . 1" decreasing.

IS:No blow .

FF:Weak blow . 1/2" decreasing.

FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1495.19	105.25	Initial Hydro-static
2	18.51	104.92	Open To Flow (1)
31	20.01	105.82	Shut-In(1)
60	34.80	106.32	End Shut-In(1)
61	19.59	106.31	Open To Flow (2)
90	21.47	106.70	Shut-In(2)
122	36.15	107.09	End Shut-In(2)
124	1470.15	107.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w / few o specs	0.02
0.00	55 ft. of GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkw ay
 Bldg. 100,Ste. A
 Wichita KS 67206
 ATTN: David Montague

Barnett #2

Job Ticket: 59750

DST#: 1

Test Start: 2015.04.06 @ 02:07:01

GENERAL INFORMATION:

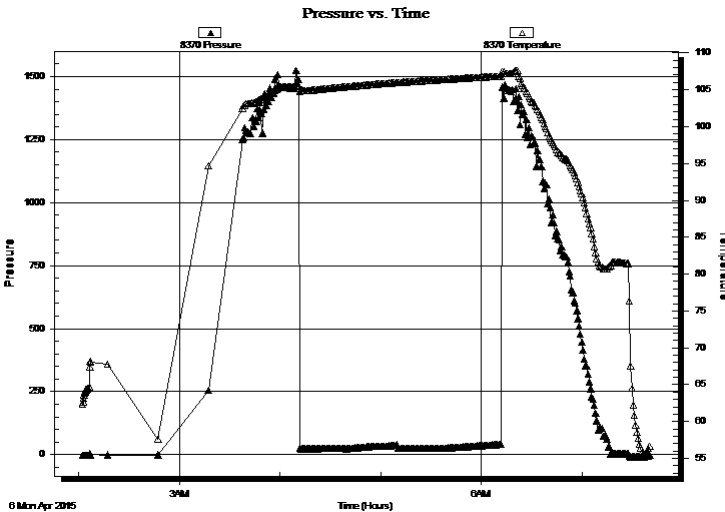
Formation: **Bartlesville Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:13:01
 Time Test Ended: 07:43:46
 Interval: **2975.00 ft (KB) To 3020.00 ft (KB) (TVD)**
 Total Depth: 3020.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gary Pevoteaux
 Unit No: 80
 Reference Elevations: 1236.00 ft (KB)
 1224.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 8370 Inside

Press@RunDepth: psig @ 2976.00 ft (KB)
 Start Date: 2015.04.06 End Date: 2015.04.06
 Start Time: 02:02:15 End Time: 07:40:24
 Capacity: 8000.00 psig
 Last Calib.: 2015.04.06
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:Weak blow . 1" decreasing.
 IS:No blow .
 FF:Weak blow . 1/2" decreasing.
 FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w / few o specs	0.02
0.00	55 ft. of GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkw ay
Bldg. 100,Ste. A
Wichita KS 67206
ATTN: David Montague

Barnett #2

Job Ticket: 59750

DST#: 1

Test Start: 2015.04.06 @ 02:07:01

Tool Information

Drill Pipe:	Length: 2783.00 ft	Diameter: 3.80 inches	Volume: 39.04 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: 183.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 39.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	2975.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	73.00 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			2948.00	
Shut In Tool	5.00			2953.00	
Hydraulic tool	5.00			2958.00	
Jars	5.00			2963.00	
Safety Joint	3.00			2966.00	
Packer	4.00			2970.00	28.00 Bottom Of Top Packer
Packer	5.00			2975.00	
Stubb	1.00			2976.00	
Recorder	0.00	8352	Outside	2976.00	
Recorder	0.00	8370	Inside	2976.00	
Perforations	39.00			3015.00	
Bullnose	5.00			3020.00	45.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkway
Bldg. 100, Ste. A
Wichita KS 67206
ATTN: David Montague

Barnett #2

Job Ticket: 59750

DST#: 1

Test Start: 2015.04.06 @ 02:07:01

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 6.79 in³

Resistivity: 0.00 ohm.m

Salinity: 1000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: 1000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w / few o specs	0.025
0.00	55 ft. of GIP	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

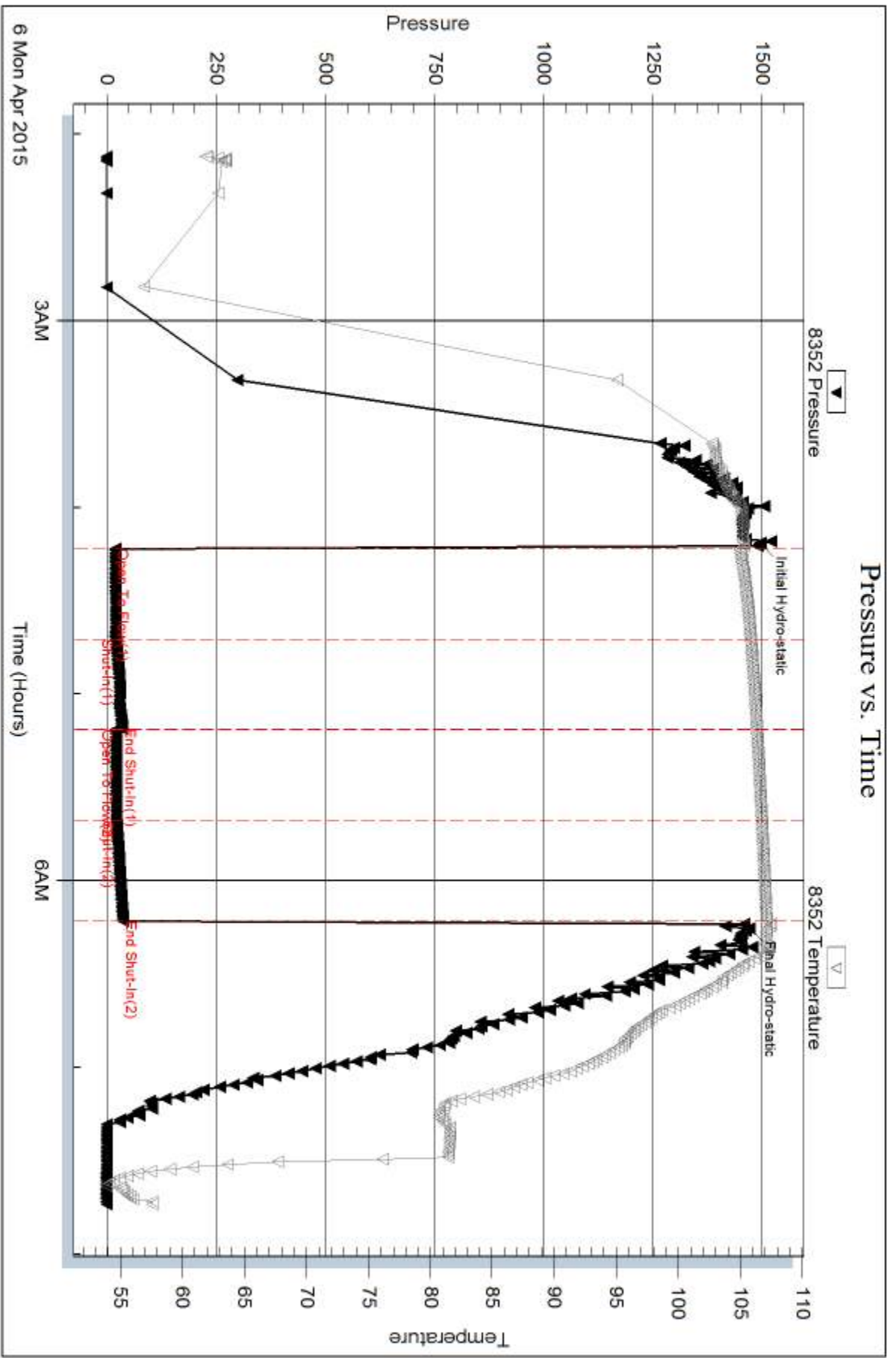
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



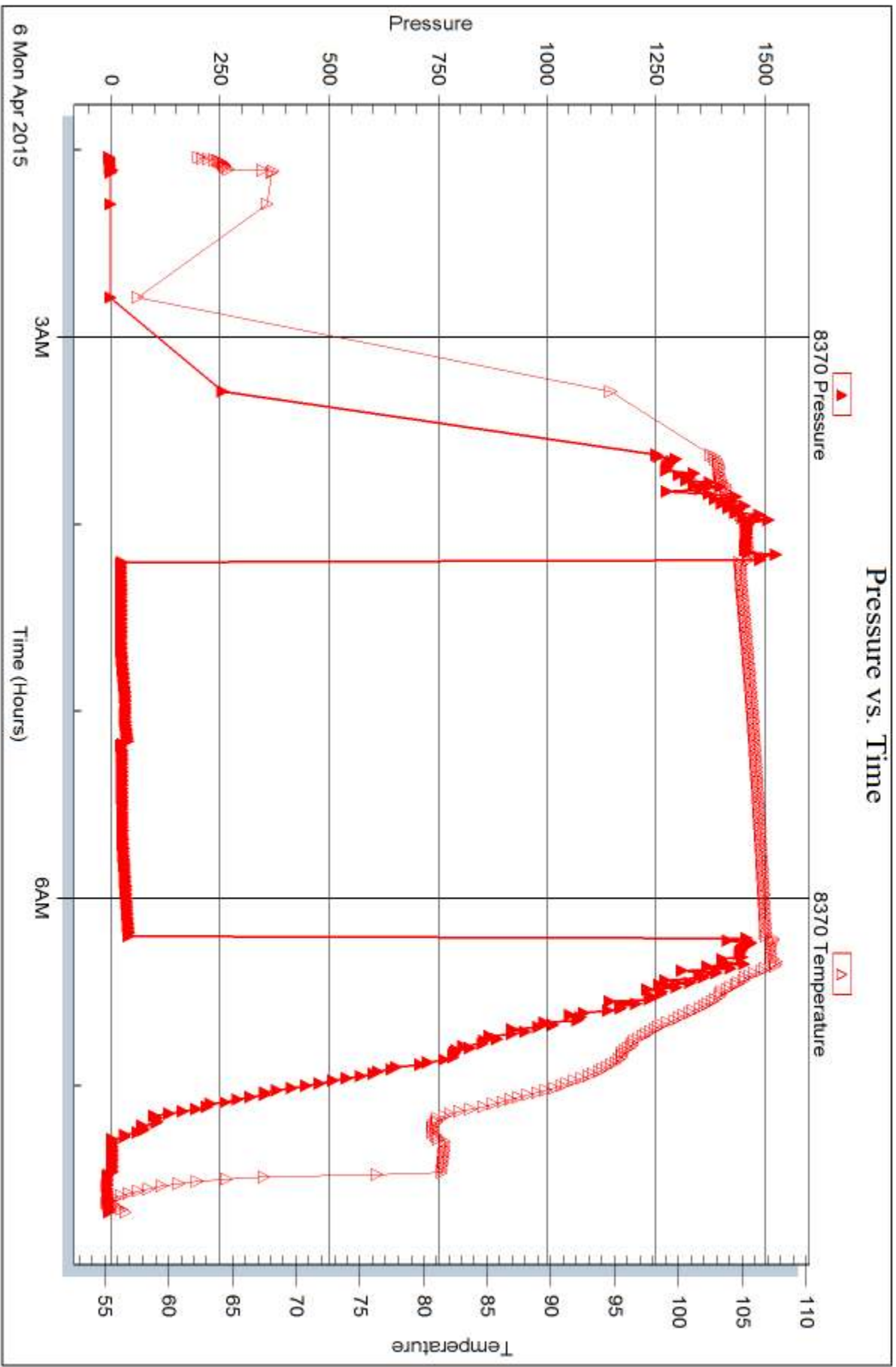
Serial #: 8370

Inside

Knighton Oil Co. Inc.

Barnett #2

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 59750

Printed: 2015.04.09 @ 11:22:07



DRILL STEM TEST REPORT

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

1700 N. Waterfront Parkway
Bldg. 100, Ste. A
Wichita KS 67206

ATTN: David Montague

Barnett #2

2-31s-3e Cowley KS

Start Date: 2015.04.07 @ 18:53:48

End Date: 2015.04.08 @ 02:41:48

Job Ticket #: 59776 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.04.09 @ 11:17:12



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Knighton Oil Co. Inc.
 1700 N. Waterfront Parkw ay
 Bldg. 100,Ste. A
 Wichita KS 67206
 ATTN: David Montague

2-31s-3e Cowley KS

Barnett #2

Job Ticket: 59776

DST#: 2

Test Start: 2015.04.07 @ 18:53:48

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:19:18
 Time Test Ended: 02:41:48
 Interval: **3268.00 ft (KB) To 3353.00 ft (KB) (TVD)**
 Total Depth: 3353.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Gary Pevoteaux
 Unit No: 80
 Reference Elevations: 1236.00 ft (KB)
 1224.00 ft (CF)
 KB to GR/CF: 12.00 ft

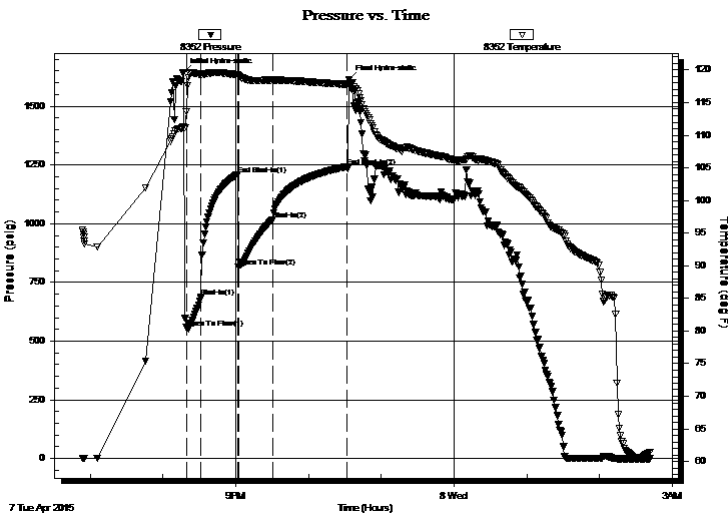
Serial #: 8352

Outside

Press@RunDepth: 1018.09 psig @ 3269.00 ft (KB)
 Start Date: 2015.04.07 End Date: 2015.04.08
 Start Time: 18:53:53 End Time: 02:41:47
 Capacity: 8000.00 psig
 Last Calib.: 2015.04.08
 Time On Btm: 2015.04.07 @ 20:17:03
 Time Off Btm: 2015.04.07 @ 22:33:18

TEST COMMENT: IF:Strong blow . B.O.B. in 20 secs.
 IS:No blow .
 FF:Strong blow . B.O.B. in 1 1/2 mins.
 FS:Weak blow . 1 - 3".

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1644.04	111.28	Initial Hydro-static
3	557.30	113.58	Open To Flow (1)
15	687.56	119.26	Shut-In(1)
45	1209.52	119.28	End Shut-In(1)
46	814.72	119.12	Open To Flow (2)
74	1018.09	118.42	Shut-In(2)
135	1243.10	117.80	End Shut-In(2)
137	1611.90	117.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GMCO 30%g 22%m 48%o	0.59
120.00	GMCO 22%g 10%m 68%o	1.67
2430.00	CGO 8%g 92%o	34.09

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkw ay
 Bldg. 100,Ste. A
 Wichita KS 67206
 ATTN: David Montague

Barnett #2

Job Ticket: 59776

DST#: 2

Test Start: 2015.04.07 @ 18:53:48

GENERAL INFORMATION:

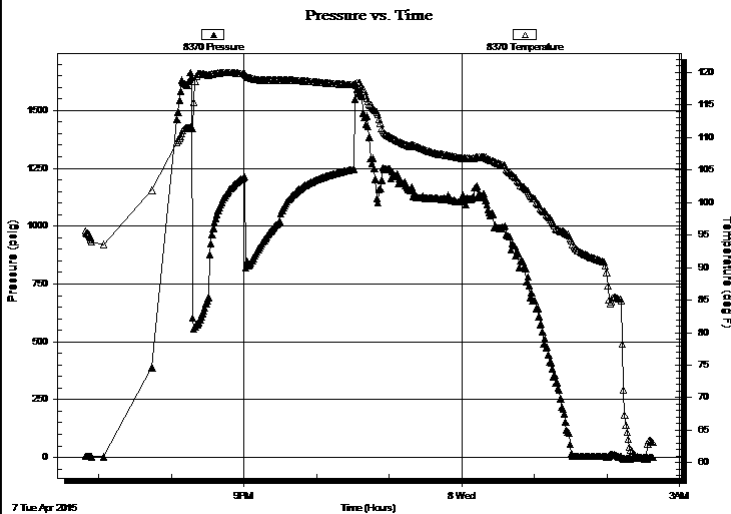
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:19:18
 Time Test Ended: 02:41:48
Interval: 3268.00 ft (KB) To 3353.00 ft (KB) (TVD)
 Total Depth: 3353.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Gary Pevoteaux
 Unit No: 80
 Reference Elevations: 1236.00 ft (KB)
 1224.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 8370

Inside

Press@RunDepth: psig @ 3269.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.04.07 End Date: 2015.04.08 Last Calib.: 2015.04.08
 Start Time: 18:49:08 End Time: 02:38:17 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:Strong blow . B.O.B. in 20 secs.
 IS:No blow .
 FF:Strong blow . B.O.B. in 1 1/2 mins.
 FS:Weak blow . 1 - 3".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GMCO 30%g 22%m 48%o	0.59
120.00	GMCO 22%g 10%m 68%o	1.67
2430.00	CGO 8%g 92%o	34.09

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkway
Bldg. 100, Ste. A
Wichita KS 67206
ATTN: David Montague

Barnett #2

Job Ticket: 59776

DST#: 2

Test Start: 2015.04.07 @ 18:53:48

Tool Information

Drill Pipe:	Length: 3129.00 ft	Diameter: 3.80 inches	Volume: 43.89 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: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 71000.00 lb
			<u>Total Volume: 44.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3268.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3241.00	
Shut In Tool	5.00			3246.00	
Hydraulic tool	5.00			3251.00	
Jars	5.00			3256.00	
Safety Joint	3.00			3259.00	
Packer	4.00			3263.00	28.00 Bottom Of Top Packer
Packer	5.00			3268.00	
Stubb	1.00			3269.00	
Recorder	0.00	8352	Outside	3269.00	
Recorder	0.00	8370	Inside	3269.00	
Perforations	6.00			3275.00	
Blank Spacing	64.00			3339.00	
Perforations	9.00			3348.00	
Bullnose	5.00			3353.00	85.00 Bottom Packers & Anchor

Total Tool Length: 113.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Knighton Oil Co. Inc.

2-31s-3e Cowley KS

1700 N. Waterfront Parkw ay
Bldg. 100, Ste. A
Wichita KS 67206
ATTN: David Montague

Barnett #2

Job Ticket: 59776

DST#: 2

Test Start: 2015.04.07 @ 18:53:48

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 6.39 in³

Resistivity: 0.00 ohm.m

Salinity: 1000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

32.5 deg API

Water Salinity: 1000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	GMCO 30%g 22%m 48%o	0.590
120.00	GMCO 22%g 10%m 68%o	1.665
2430.00	CGO 8%g 92%o	34.087

Total Length: 2670.00 ft Total Volume: 36.342 bbl

Num Fluid Samples: 0

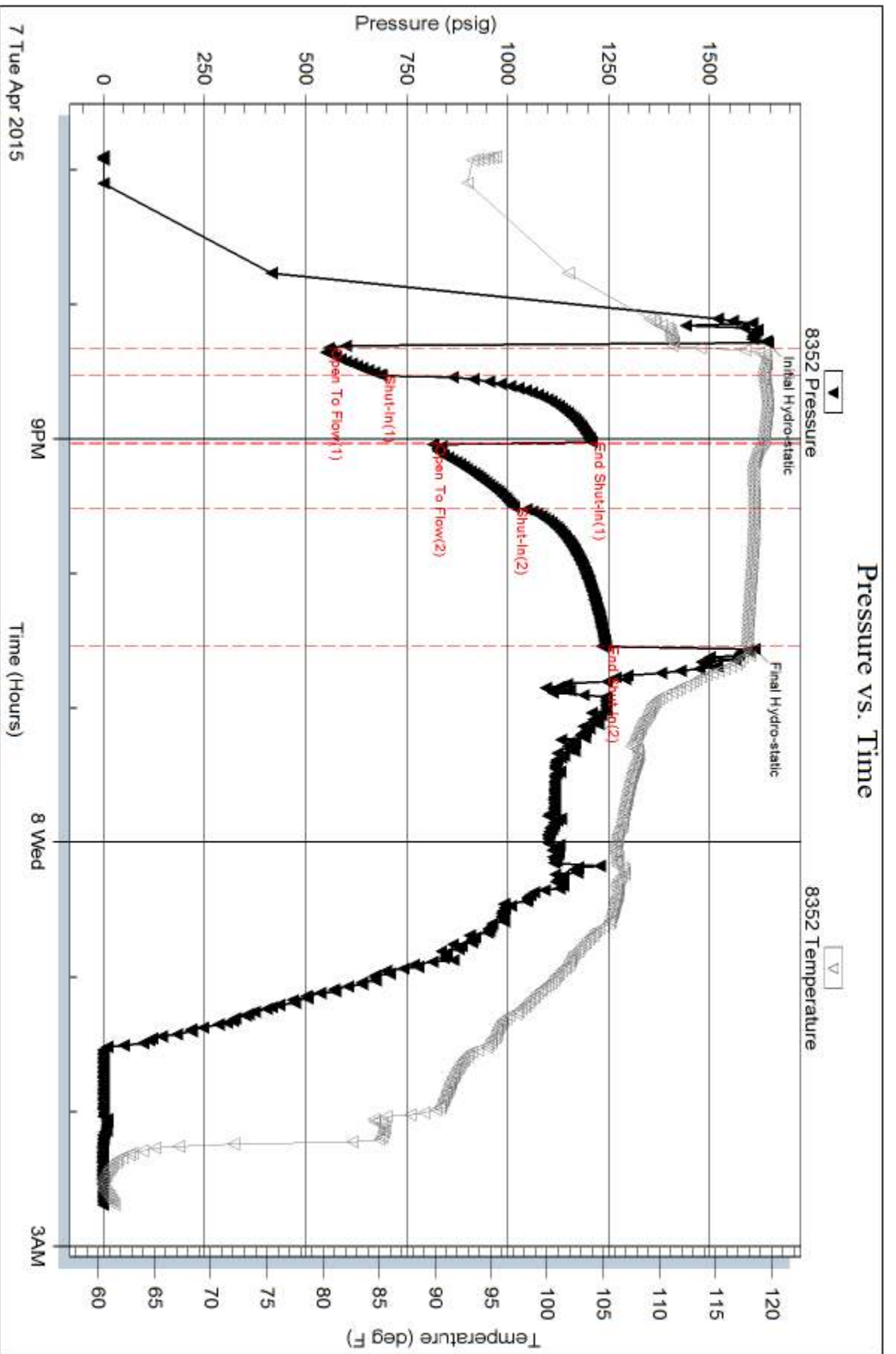
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



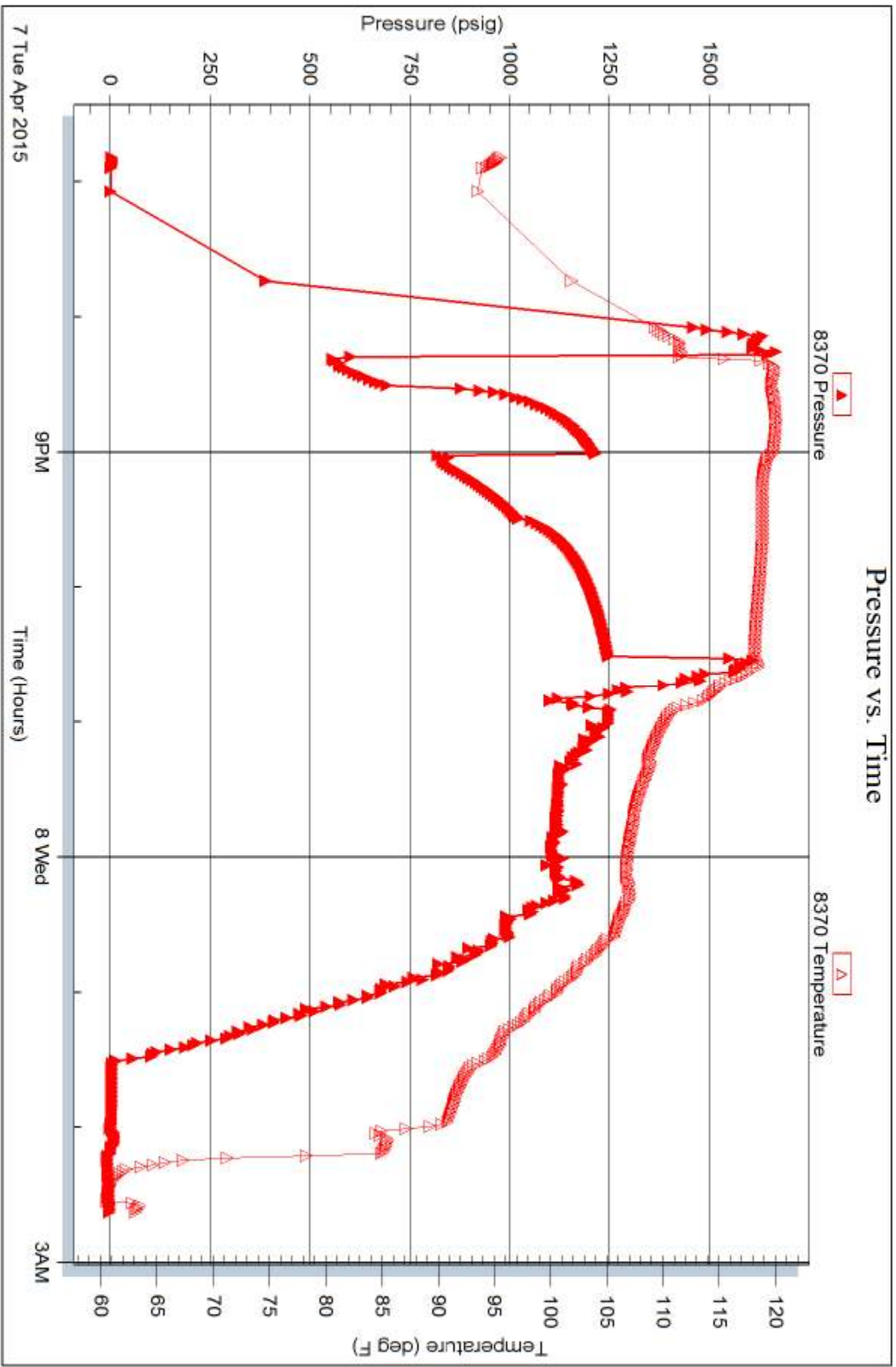
Serial #: 8370

Inside

Knighton Oil Co. Inc.

Barnett #2

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59750

Well Name & No. BARNETT #2 Test No. 1 Date 4-6-15
 Company KNIGHTON OIL CO INC Elevation 1236 KB 1224 GL
 Address 1700 WATERFRONT PKWY. BLDG. 100, STE. A, WICHITA KS. 67206
 Co. Rep / Geo. DAVID MONTAGUE Rig FOSSIL DRILG. #3
 Location: Sec. 2 Twp. 31S Rge. 3E Co. COWLEY State KS

Interval Tested 2975 - 3020' Zone Tested BARTLESVILLE SD.
 Anchor Length 45' Drill Pipe Run 2783 Mud Wt. 9.3
 Top Packer Depth 2970' Drill Collars Run 183 Vis 5.3
 Bottom Packer Depth 2975' Wt. Pipe Run 0 WL 6.8 cc
 Total Depth 3020' Chlorides 1,000 ppm System LCM 3^{FF}
 Blow Description IF: Weak blow. 1" decreasing. ISI: No blow.
FF: Weak blow. 1/2" decreasing. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud w/ few specs.</u>				
<u>55</u>	<u>Gas in pipe</u>				

Rec Total 5 Fluid BHT 1070 Gravity N/A API RW NC. @ ~ ° F Chlorides 1,000 ppm

(A) Initial Hydrostatic <u>1495</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0105</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0207</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0413</u>
(D) Initial Shut-In <u>35</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0613</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0743</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>218</u> <u>218</u>	Comments _____
(G) Final Shut-In <u>36</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1470</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1593</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1593</u>	

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

dave@knightonoil.com

Test Ticket

NO. 59776

Well Name & No. BARNETT #2 Test No. 2 Date 4-7-15
 Company KNEIGHTON OIL CO. INC. Elevation 1236 KB 1234 GL
 Address 1700 N. WATERFRONT PKWY. BLDG. 100, STE. A, WICHITA KS. 67206
 Co. Rep / Geo. DAVID MONTAGUE Rig FOSSIL DRILG. #3
 Location: Sec. 2 Twp. 31S Rge. 3E Co. COWLEY State KS

Interval Tested 3268 - 3353' Zone Tested ARBUCKLE
 Anchor Length 85' Drill Pipe Run 3129 Mud Wt. 9.3
 Top Packer Depth 3263' Drill Collars Run 122 Vis 53
 Bottom Packer Depth 3268' Wt. Pipe Run 0 WL 6.4cc
 Total Depth 3353' Chlorides 1,000 ppm System LCM 3#

Blow Description IF: Strong blow. B.O.B. in 20 secs.
ISI: No blow
FF: Strong blow. B.O.B. in 1 1/2 mins. FSI: Weak blow.
1-3"

Rec	Feet of	%gas	%oil	%water	%mud
2430	CGO	8	92		
120	GMCO	22	68		10
120	GMCO	30	48		22

Rec Total 2670 FLOW BHT 118° Gravity 32.5 API RW N.C.@ 2 ° F Chlorides 1,000 ppm

(A) Initial Hydrostatic 1644 Test 1050 T-On Location 1828
 (B) First Initial Flow 557 Jars 250 T-Started 1853
 (C) First Final Flow 688 Safety Joint 75 T-Open 2019
 (D) Initial Shut-In 1210 Circ Sub 50 T-Pulled 2232
 (E) Second Initial Flow 815 Hourly Standby _____ T-Out 0241
 (F) Second Final Flow 1018 Mileage 218 218 Comments * 2 DAYS IN
 (G) Final Shut-In 1243 Sampler _____ MOUL
 (H) Final Hydrostatic 1612 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 15 Extra Packer _____ Extra Copies _____
 Initial Shut-In 30 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1643
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1643

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.