



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61798

Well Name & No. King oil operations Test No. 1 Date 12-8-15
 Company GLASSMAN 1-25 Elevation 3001 KB 2993 GL
 Address 1746 150th Ave Ellis, KS 67637
 Co. Rep / Geo. Charlie Sturdavant Rig Diso #1
 Location: Sec. 25 Twp. 12S Rge. 32W Co. L.09N State KS

Interval Tested 4186 4283 Zone Tested Linging / KB
 Anchor Length 97 Drill Pipe Run 3854 Mud Wt. 9.5
 Top Packer Depth 4181 Drill Collars Run --- Vis 50
 Bottom Packer Depth 4186 Wt. Pipe Run 311 WL 7.2
 Total Depth 4283 Chlorides 3000 ppm System LCM 1 1/2

Blow Description FF! BoB in 2 min.
#5! BoB in 15 min.
FF BoB in 4 min.
FF 1/4 blow built to 6 in 15 min died in 25 min.

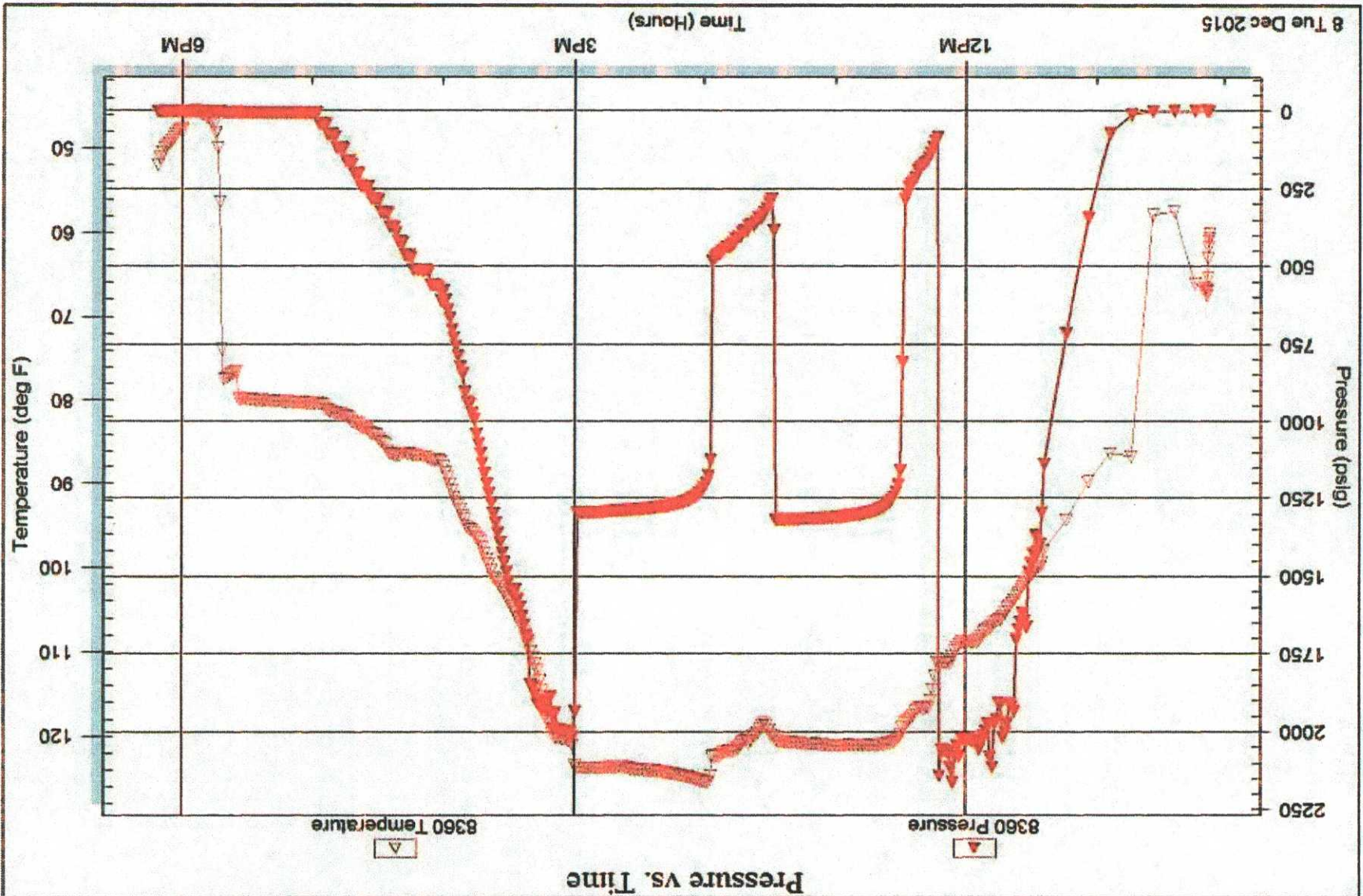
Rec	Feet of	%gas	%oil	%water	%mud
<u>194</u>	<u>90</u>	<u>30</u>	<u>70</u>		
<u>252</u>	<u>MC90</u>	<u>40</u>	<u>20</u>		<u>40</u>
<u>126</u>	<u>90CM</u>	<u>35</u>	<u>5</u>		<u>60</u>
<u>252</u>	<u>MC90</u>	<u>10</u>	<u>70</u>		<u>20</u>
<u>315</u>	<u>MWLC90</u>	<u>10</u>	<u>80</u>	<u>5</u>	<u>5</u>

Rec Total 1139 BHT 122 Gravity 30 API RW --- @ --- °F Chlorides --- ppm

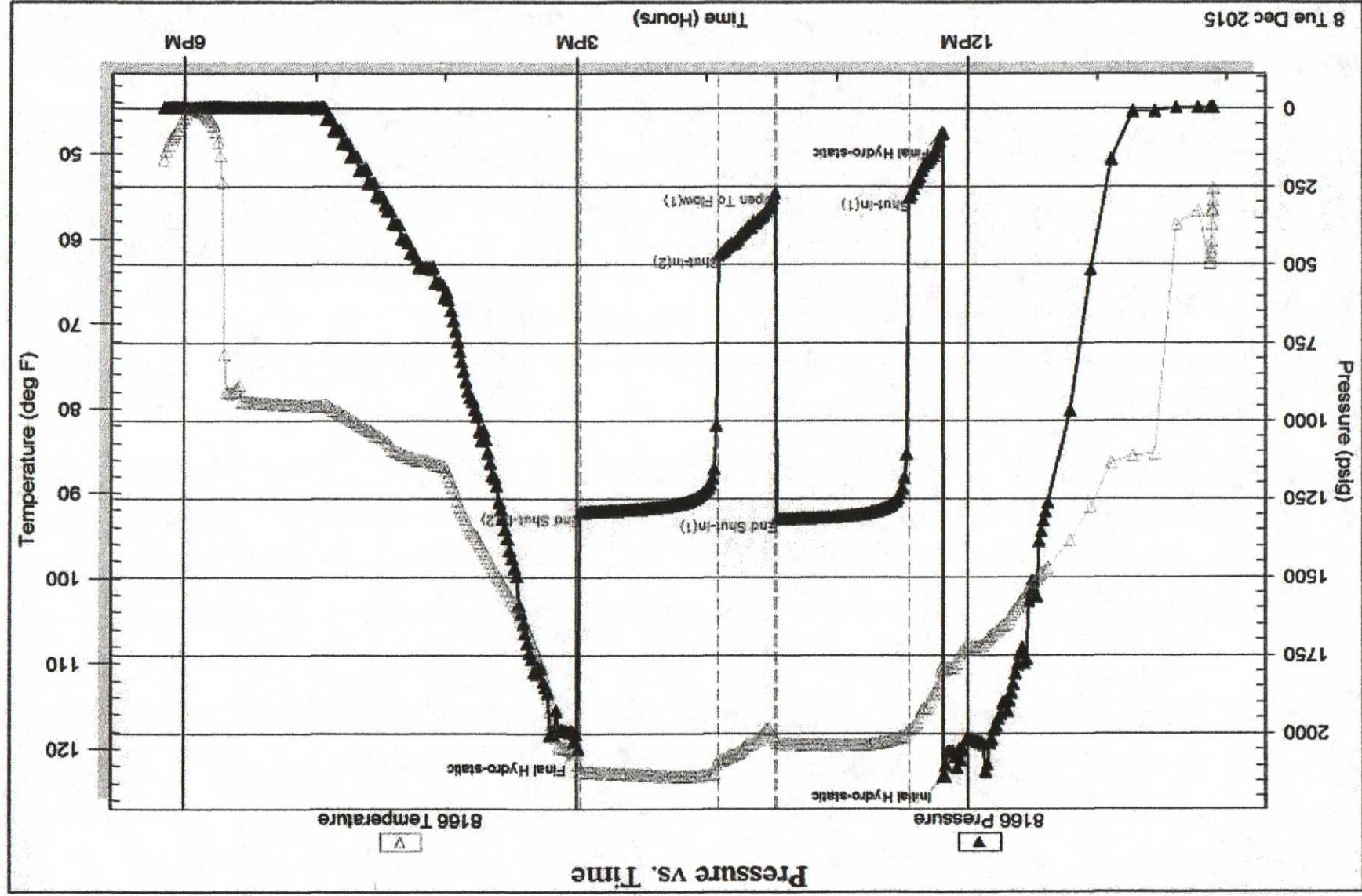
(A) Initial Hydrostatic 2136 Test 1150 T-On Location 8:45
 (B) First Initial Flow 78 Jars 250 T-Started 10:06
 (C) First Final Flow 285 Safety Joint 75 T-Open 12:10
 (D) Initial Shut-In 1316 Circ Sub NIL T-Pulled 14:55
 (E) Second Initial Flow 271 Hourly Standby _____ T-Out 18:09
 (F) Second Final Flow 470 Mileage 82+142= Comments 688 GIP
 (G) Final Shut-In 1293 Sampler 76 + 76 + 57 = 209 Drove 3/4 way to
 (H) Final Hydrostatic 2048 Straddle _____ the rig to turn around
 Shale Packer _____ then go 100d.
 Extra Packer _____ Ruined Shale Packer _____
 Extra Recorder _____ Ruined Packer 320
 Initial Open 15 Day Standby _____ Sub Total 320
 Initial Shut-In 60 Accessibility _____ Total 2004
 Final Flow 30 Sub Total 1684 MP/DST Disc't _____
 Final Shut-In 60

Approved By Charlie Sturdavant 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.

785-650-8399



Serial #: 8360 Inside King Oil Operations Classman #1-25 DST Test Number: 1





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

King Oil Operations

25-12s-32w Logan,KS

1746 150th Ave.
Ellis, KS 67637

Glassman #1-25

Job Ticket: 61798

DST#: 1

ATTN: Charlie Sturdavant

Test Start: 2015.12.08 @ 10:06:06

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	37 deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
315.00	mw cgo 10%g 80%o 5%w 5%m	2.341
252.00	mcgo 10%g 70%o 20%m	3.535
126.00	gocm 35%g 5%o 60%m	1.767
252.00	mcgo 40%g 20%o 40%m	3.535
194.00	go 30%g 70%o	2.721
0.00	688 GIP	0.000

Total Length: 1139.00 ft Total Volume: 13.899 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 37@60=37



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DRILL STEM TEST REPORT

TOOL DIAGRAM

King Oil Operations

25-12s-32w Logan,KS

1746 150th Ave.
Ellis, KS 67637

Glassman #1-25

Job Ticket: 61798

DST#: 1

ATTN: Charlie Sturdavant

Test Start: 2015.12.08 @ 10:06:06

Tool Information

Drill Pipe:	Length: 3854.00 ft	Diameter: 3.80 inches	Volume: 54.06 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 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: 65000.00 lb
			<u>Total Volume: 56.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4186.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	124.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4160.00	
Shut In Tool	5.00			4165.00	
Hydraulic tool	5.00			4170.00	
Jars	5.00			4175.00	
Safety Joint	2.00			4177.00	
Packer	5.00			4182.00	27.00 Bottom Of Top Packer
Packer	4.00			4186.00	
Stubb	1.00			4187.00	
Recorder	0.00	8360	Inside	4187.00	
Recorder	0.00	8166	Outside	4187.00	
Perforations	25.00			4212.00	
Change Over Sub	1.00			4213.00	
Drill Pipe	64.00			4277.00	
Change Over Sub	1.00			4278.00	
Bullnose	5.00			4283.00	97.00 Bottom Packers & Anchor

Total Tool Length: 124.00



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King Oil Operations

25-12s-32w Logan, KS

1746 150th Ave.
Ellis, KS 67637

Glassman #1-25

Job Ticket: 61798

DST#: 1

ATTN: Charlie Sturdavant

Test Start: 2015.12.08 @ 10:06:06

GENERAL INFORMATION:

Formation: **LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:28:06
 Time Test Ended: 18:09:36

Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Turley
 Unit No: 79

Interval: **4186.00 ft (KB) To 4283.00 ft (KB) (TVD)**
 Total Depth: 4283.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3001.00 ft (KB)
 2993.00 ft (CF)
 KB to GR/CF: 8.00 ft

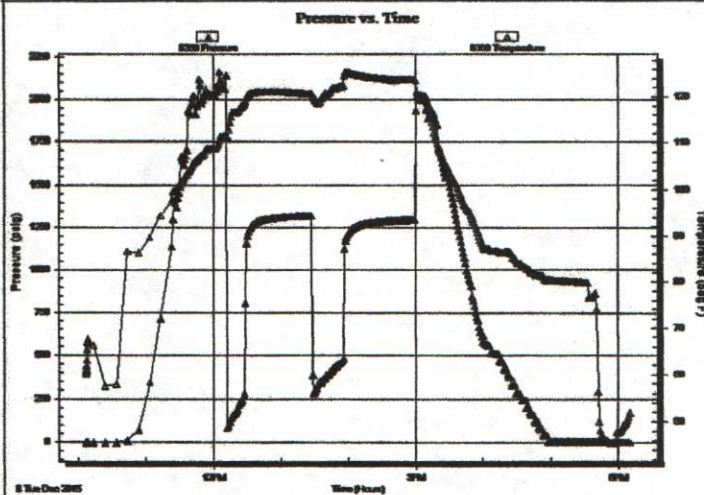
Serial #: 8360

Inside

Press@RunDepth: psig @ 4187.00 ft (KB)
 Start Date: 2015.12.08 End Date: 2015.12.08
 Start Time: 10:06:50 End Time: 18:10:44

Capacity: 8000.00 psig
 Last Calib.: 1899.12.30
 Time On Btmr:
 Time Off Btmr:

TEST COMMENT: IF: BOB in 2 min.
 IS: BOB in 15 min.
 FF: BOB in 4 min.
 FS: 1/4" blow built to 6" in 15 min. Died in 25 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
315.00	mw cgo 10%g 80%o 5%w 5%m	2.34
252.00	mcgo 10%g 70%o 20%m	3.53
126.00	gocm 35%g 5%o 60%m	1.77
252.00	mcgo 40%g 20%o 40%m	3.53
194.00	go 30%g 70%o	2.72
0.00	688 GIP	0.00

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 61798

Printed: 2015.12.10 @ 10:58:08



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DRILL STEM TEST REPORT

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1746 150th Ave.
Ellis, KS 67637

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Glassman #1-25

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Tester: Brandon Turley

Unit No: 79

Interval: **4186.00 ft (KB) To 4283.00 ft (KB) (TVD)**

Total Depth: 4283.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3001.00 ft (KB)

2993.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8166

Outside

Press@RunDepth: 470.02 psig @ 4187.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.08

End Date:

2015.12.08

Last Calib.:

2015.12.08

Start Time: 10:06:11

End Time:

18:09:35

Time On Btm:

2015.12.08 @ 12:10:36

Time Off Btm:

2015.12.08 @ 12:11:36

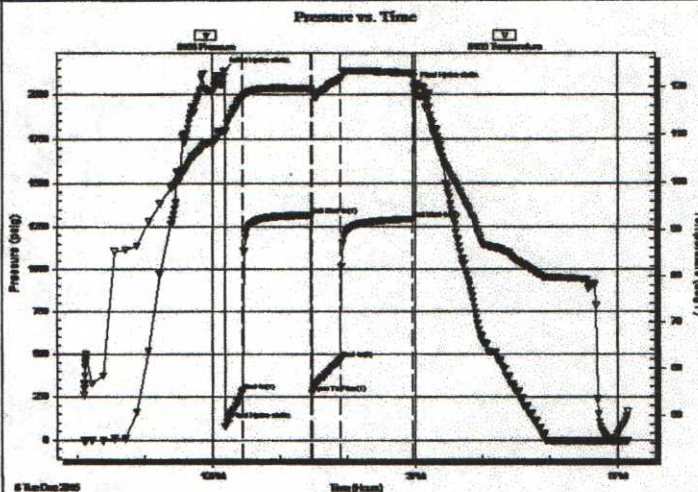
TEST COMMENT:

IF: BOB in 2 min.

IS: BOB in 15 min.

FF: BOB in 4 min.

FS: 1/4" blow built to 6" in 15 min. Died in 25 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2136.45	110.69	Initial Hydro-static
1	78.60	110.26	Final Hydro-static
17	285.57	117.79	Shut-in(1)
77	1316.07	119.41	End Shut-in(1)
78	271.14	118.95	Open To Flow (1)
104	470.02	121.39	Shut-in(2)
168	1293.82	122.65	End Shut-in(2)
169	2048.54	121.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
315.00	mw cgo 10%g 80%o 5%w 5%m	2.34
252.00	mcgo 10%g 70%o 20%m	3.53
126.00	gocm 35%g 5%o 60%m	1.77
252.00	mcgo 40%g 20%o 40%m	3.53
194.00	go 30%g 70%o	2.72
0.00	688 GIP	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Prepared For: **King Oil Operations**

1746 150th Ave.
Ellis, KS 67637

ATTN: Charlie Sturdavant

Glassman #1-25

25-12s-32w Logan,KS

Start Date: 2015.12.08 @ 10:06:06

End Date: 2015.12.08 @ 18:09:36

Job Ticket #: 61798 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2015.12.10 @ 10:58:08

King Oil Operations
25-12s-32w Logan,KS
Glassman #1-25
DST # 1
LKC
2015.12.08