



## DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816  
Hays, KS 67601

ATTN: Keith Reavis

### **Wheatland #8-3**

### **8-14S-31W Gove,KS**

Start Date: 2017.08.28 @ 12:37:00

End Date: 2017.08.28 @ 20:33:20

Job Ticket #: 63593                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.09.05 @ 08:32:18

Bickle Energies  
8-14S-31W Gove,KS  
Wheatland #8-3  
DST # 1  
LKC A-F  
2017.08.28



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63593

**DST#: 1**

ATTN: Keith Reavis

Test Start: 2017.08.28 @ 12:37:00

## GENERAL INFORMATION:

Formation: **LKC A-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:19:30

Time Test Ended: 20:33:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 79

**Interval: 4010.00 ft (KB) To 4110.00 ft (KB) (TVD)**

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4110.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 9124**

**Inside**

Press@RunDepth: 122.48 psig @ 4011.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.28

End Date:

2017.08.28

Last Calib.:

2017.08.28

Start Time: 12:37:05

End Time:

20:33:20

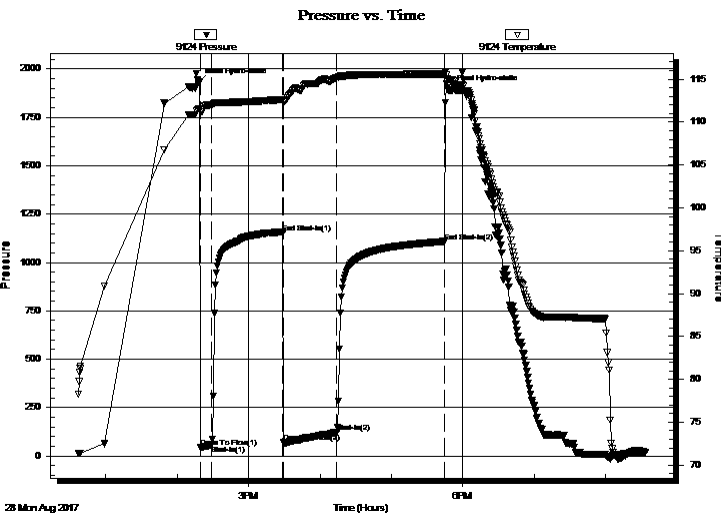
Time On Btm:

2017.08.28 @ 14:18:00

Time Off Btm:

2017.08.28 @ 17:49:30

TEST COMMENT: IF - Weak blow building to 6"  
FF - BOB in 25 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1930.67	111.53	Initial Hydro-static
2	45.29	111.17	Open To Flow (1)
11	56.78	112.02	Shut-In(1)
71	1154.13	112.62	End Shut-In(1)
72	68.41	112.44	Open To Flow (2)
117	122.48	115.19	Shut-In(2)
207	1108.45	115.57	End Shut-In(2)
212	1891.21	114.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
125.00	Oil & water cut mud 16%O 6%W & 78%M	1.75
40.00	Heavy oil cut mud 34%O & 66%M	0.56
55.00	Clean oil 100%O	0.77
0.00	95' GIP 100%G	0.00

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Bickle Energies

8-14S-31W Gove, KS

PO Box 816  
Hays, KS 67601

Wheatland #8-3

Job Ticket: 63593

DST#: 1

ATTN: Keith Reavis

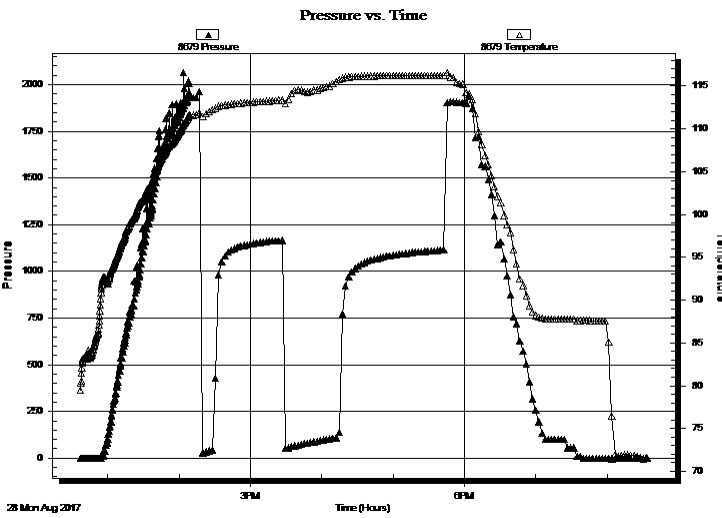
Test Start: 2017.08.28 @ 12:37:00

GENERAL INFORMATION:

Formation: **LKC A-F**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 14:19:30 Tester: Jimmy Ricketts  
 Time Test Ended: 20:33:20 Unit No: 79  
 Interval: **4010.00 ft (KB) To 4110.00 ft (KB) (TVD)** Reference Elevations: 2973.00 ft (KB)  
 Total Depth: 4110.00 ft (KB) (TVD) 2962.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 8679** Outside Capacity: 8000.00 psig  
 Press@RunDepth: psig @ 4011.00 ft (KB) Last Calib.: 1899.12.30  
 Start Date: 2017.08.28 End Date: 2017.08.28 Time On Btm:  
 Start Time: 12:37:01 End Time: 20:33:20 Time Off Btm:

TEST COMMENT: IF - Weak blow building to 6"  
 FF - BOB in 25 minutes



PRESSURE SUMMARY

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

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
125.00	Oil & water cut mud 16%O 6%W & 78%M	1.75
40.00	Heavy oil cut mud 34%O & 66%M	0.56
55.00	Clean oil 100%O	0.77
0.00	95' GIP 100%G	0.00

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63593

**DST#: 1**

ATTN: Keith Reavis

Test Start: 2017.08.28 @ 12:37:00

## Tool Information

Drill Pipe:	Length: 4006.00 ft	Diameter: 3.80 inches	Volume: 56.19 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 56.19 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	4010.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	128.00 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			3983.00	
Shut In Tool	5.00			3988.00	
Hydraulic tool	5.00			3993.00	
Jars	5.00			3998.00	
Safety Joint	3.00			4001.00	
Packer	4.00			4005.00	28.00 Bottom Of Top Packer
Packer	5.00			4010.00	
Stubb	1.00			4011.00	
Recorder	0.00	8679	Outside	4011.00	
Recorder	0.00	9124	Inside	4011.00	
Perforations	29.00			4040.00	
Change Over Sub	0.50			4040.50	
Blank Spacing	63.50			4104.00	
Change Over Sub	1.00			4105.00	
Bullnose	5.00			4110.00	100.00 Bottom Packers & Anchor

**Total Tool Length: 128.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63593

**DST#: 1**

ATTN: Keith Reavis

Test Start: 2017.08.28 @ 12:37:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34.7 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	Oil & water cut mud 16%O 6%W & 78%M	1.753
40.00	Heavy oil cut mud 34%O & 66%M	0.561
55.00	Clean oil 100%O	0.772
0.00	95' GIP 100%G	0.000

Total Length: 220.00 ft

Total Volume: 3.086 bbl

Num Fluid Samples: 0

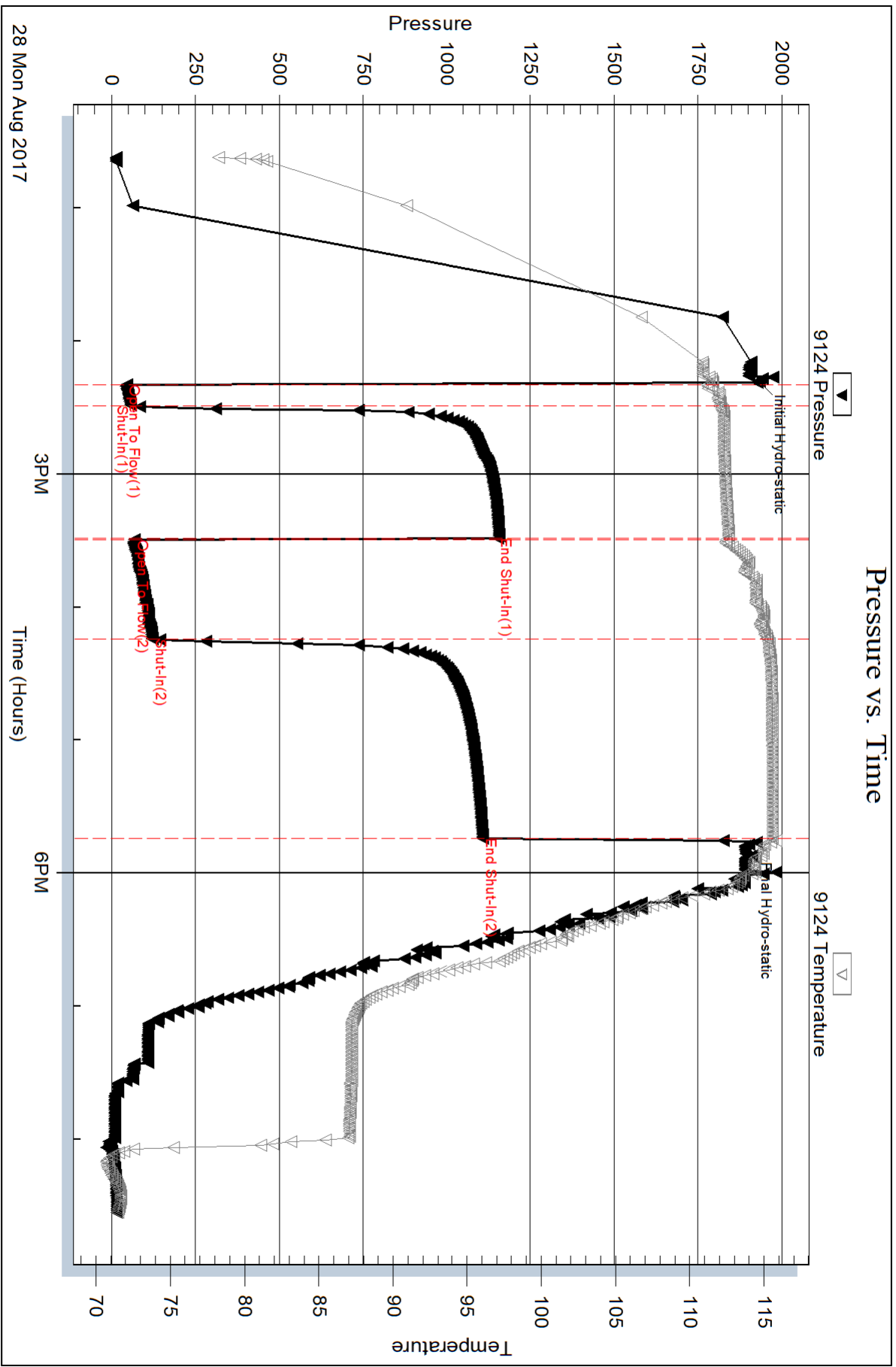
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

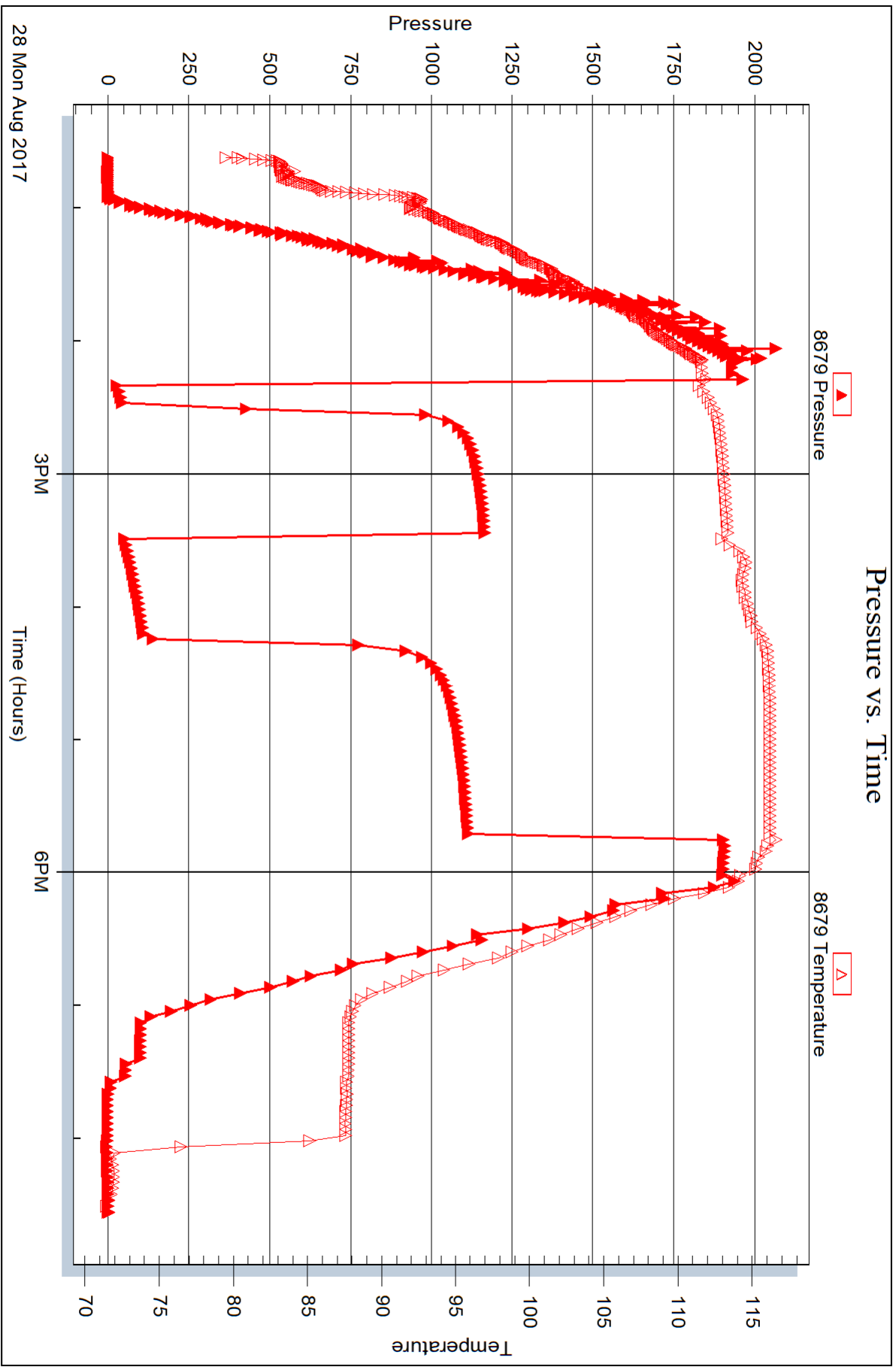


Serial #: 8679

Outside Bickle Energies

Wheatland #8-3

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63593

Printed: 2017.09.05 @ 08:32:23



## DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816  
Hays, KS 67601

ATTN: Keith Reavis

### **Wheatland #8-3**

### **8-14S-31W Gove,KS**

Start Date: 2017.08.29 @ 10:07:00

End Date: 2017.08.29 @ 18:50:30

Job Ticket #: 63594                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.09.05 @ 08:31:35

Bickle Energies

8-14S-31W Gove,KS

Wheatland #8-3

DST # 2

LKC G-H

2017.08.29





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63594

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

## GENERAL INFORMATION:

Formation: **LKC G-H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:18:20

Time Test Ended: 18:50:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 80

**Interval: 4134.00 ft (KB) To 4214.00 ft (KB) (TVD)**

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4214.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 9124**

**Inside**

Press@RunDepth: 200.63 psig @ 4135.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.29

End Date:

2017.08.29

Last Calib.:

2017.08.29

Start Time: 10:07:05

End Time:

18:50:30

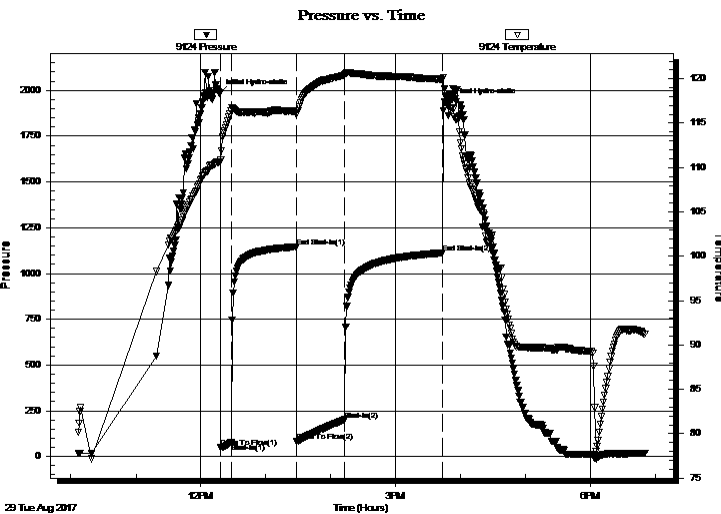
Time On Btm:

2017.08.29 @ 12:17:20

Time Off Btm:

2017.08.29 @ 15:48:09

TEST COMMENT: IF - Weak blow building to 9"  
FF - BOB in 20 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.61	110.63	Initial Hydro-static
1	50.35	110.84	Open To Flow (1)
11	74.54	116.37	Shut-In(1)
71	1144.93	116.35	End Shut-In(1)
72	83.50	116.00	Open To Flow (2)
116	200.63	120.41	Shut-In(2)
206	1112.30	119.94	End Shut-In(2)
211	1930.79	117.29	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
320.00	Tr oil & mud cut w water TrO 85%W & 15%	4.49
50.00	O & heavy W cut M 9%O 44%W & 47%	0.70
10.00	Clean oil 100%O	0.14
0.00	60' GIP 100%G	0.00

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63594

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

### GENERAL INFORMATION:

Formation: **LKC G-H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:18:20

Time Test Ended: 18:50:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 80

**Interval: 4134.00 ft (KB) To 4214.00 ft (KB) (TVD)**

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4214.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8679 Outside**

Press@RunDepth: psig @ 4135.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.29 End Date: 2017.08.29

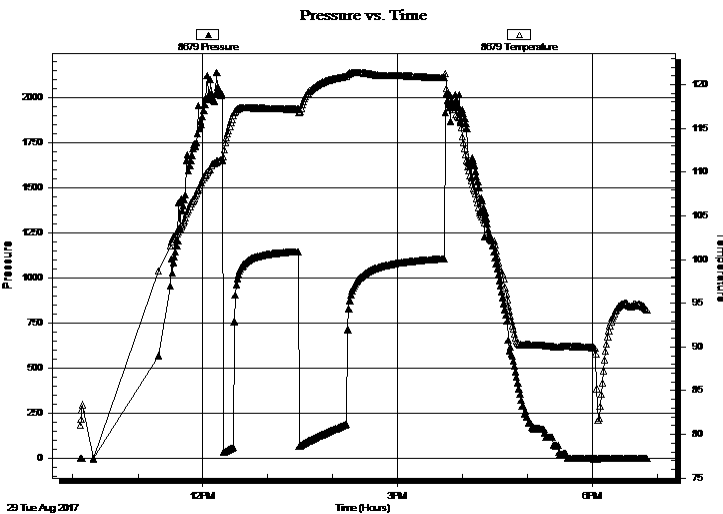
Last Calib.: 1899.12.30

Start Time: 10:07:05 End Time: 18:50:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF - Weak blow building to 9"  
FF - BOB in 20 minutes



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
320.00	Tr oil & mud cut w water TrO 85%W & 15%O	4.49
50.00	O & heavy W cut M 9%O 44%W & 47%G	0.70
10.00	Clean oil 100%O	0.14
0.00	60' GIP 100%G	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63594

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

## Tool Information

Drill Pipe:	Length: 4132.00 ft	Diameter: 3.80 inches	Volume: 57.96 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 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: 59000.00 lb
			<u>Total Volume: 57.96 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4134.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 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			4107.00	
Shut In Tool	5.00			4112.00	
Hydraulic tool	5.00			4117.00	
Jars	5.00			4122.00	
Safety Joint	3.00			4125.00	
Packer	4.00			4129.00	28.00 Bottom Of Top Packer
Packer	5.00			4134.00	
Stubb	1.00			4135.00	
Recorder	0.00	8679	Outside	4135.00	
Recorder	0.00	9124	Inside	4135.00	
Perforations	9.00			4144.00	
Change Over Sub	0.50			4144.50	
Blank Spacing	63.50			4208.00	
Change Over Sub	1.00			4209.00	
Bullnose	5.00			4214.00	80.00 Bottom Packers & Anchor

**Total Tool Length: 108.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 63594

**DST#: 2**

ATTN: Keith Reavis

Test Start: 2017.08.29 @ 10:07:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

35000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
320.00	Tr oil & mud cut w ater TrO 85%W & 15%	4.489
50.00	O & heavy W cut M 9%O 44%W & 47%M	0.701
10.00	Clean oil 100%O	0.140
0.00	60' GIP 100%G	0.000

Total Length: 380.00 ft

Total Volume: 5.330 bbl

Num Fluid Samples: 0

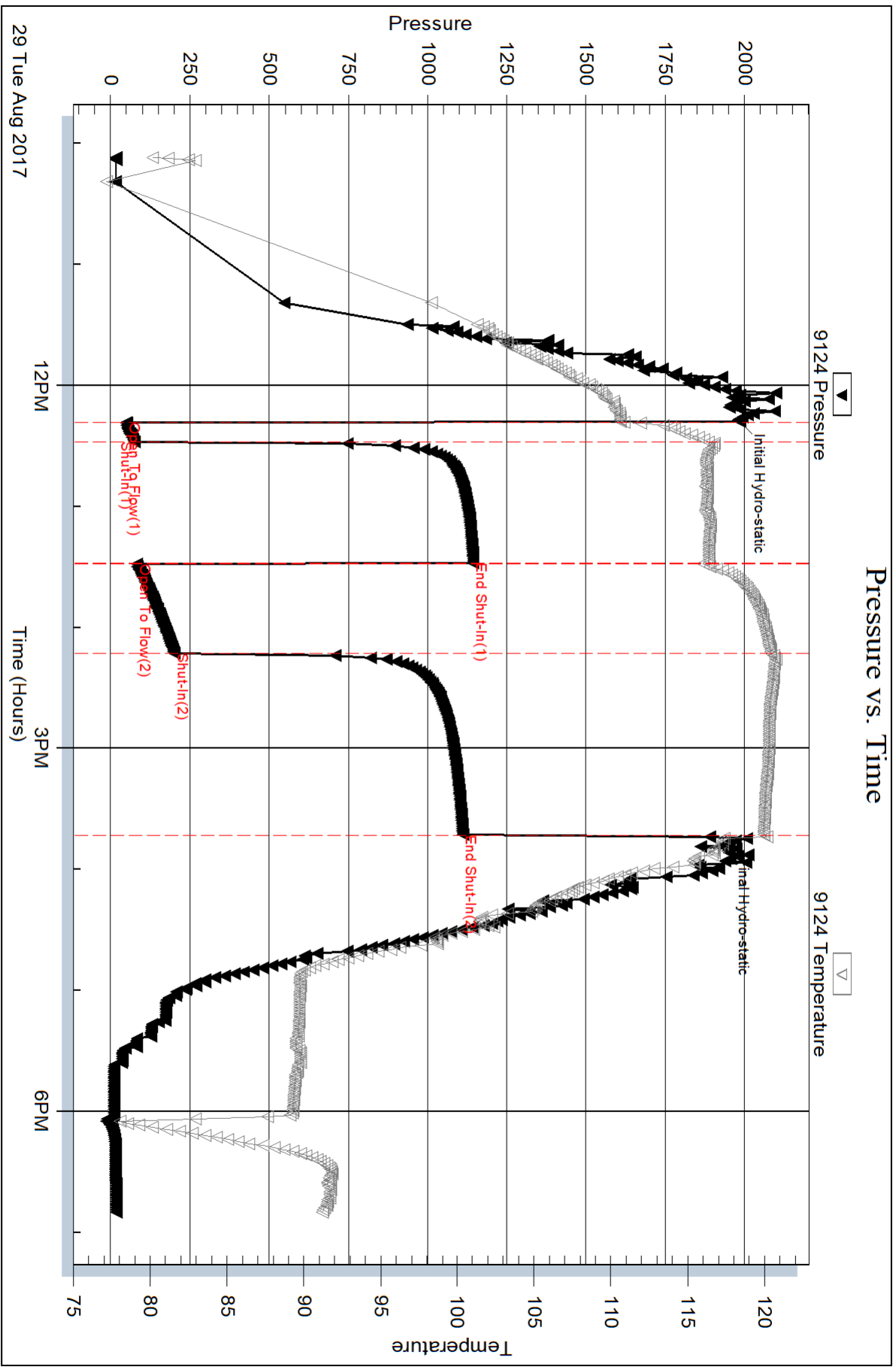
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

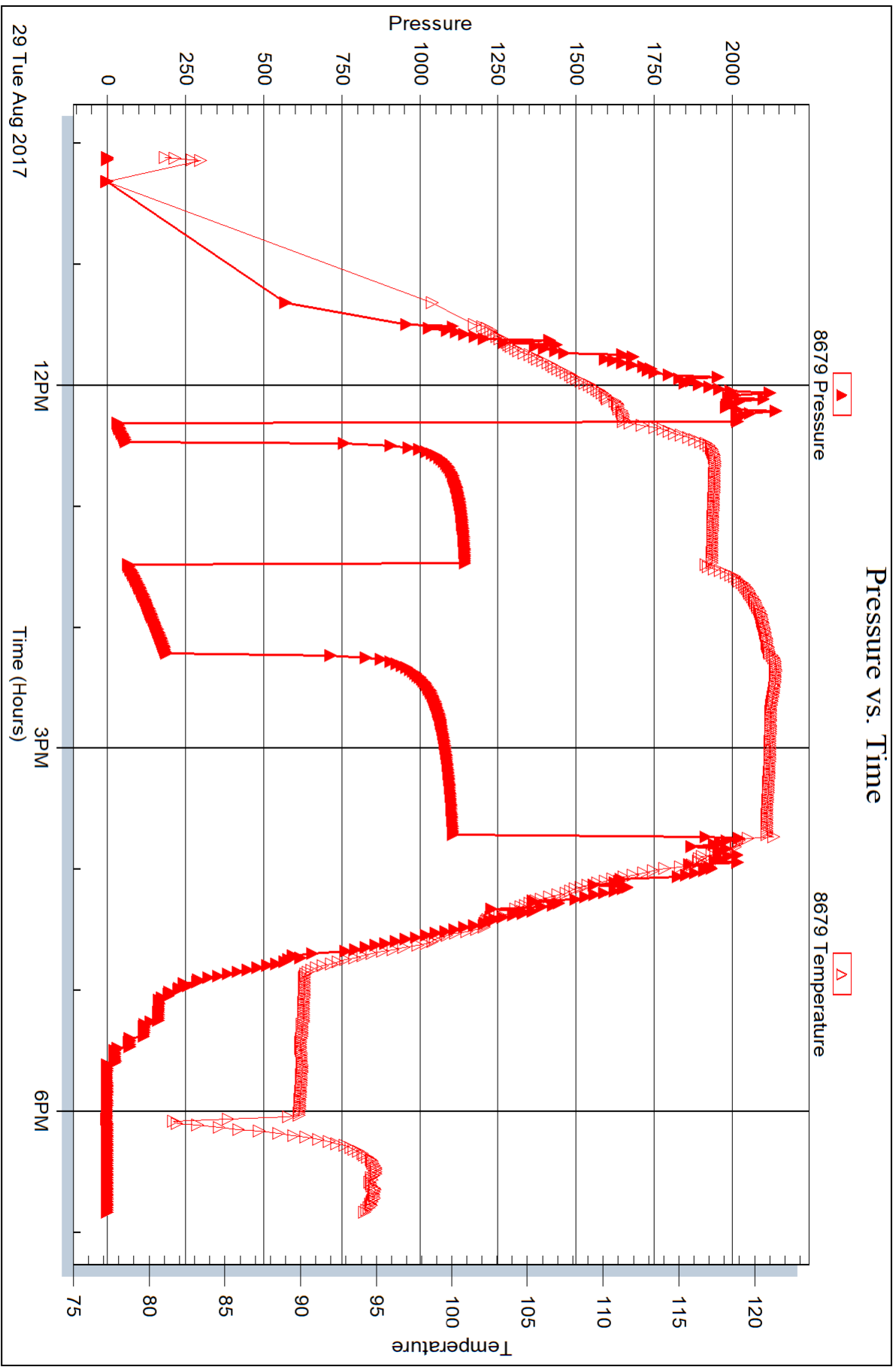


Serial #: 8679

Outside Bickle Energies

Wheatland #8-3

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63594

Printed: 2017.09.05 @ 08:31:36



## DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816  
Hays, KS 67601

ATTN: Keith Reavis

### **Wheatland #8-3**

### **8-14S-31W Gove,KS**

Start Date: 2017.08.30 @ 14:28:24

End Date: 2017.08.30 @ 22:30:54

Job Ticket #: 64251                      DST #: 3

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

Printed: 2017.09.05 @ 08:31:02

Bickle Energies  
8-14S-31W Gove,KS  
Wheatland #8-3  
DST # 3  
LKC K-L  
2017.08.30



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64251

**DST#: 3**

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

## GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:54

Time Test Ended: 22:30:54

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

**Interval: 4272.00 ft (KB) To 4356.00 ft (KB) (TVD)**

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4356.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 76.37 psig @ 4273.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.30 End Date: 2017.08.30

Last Calib.: 2017.08.30

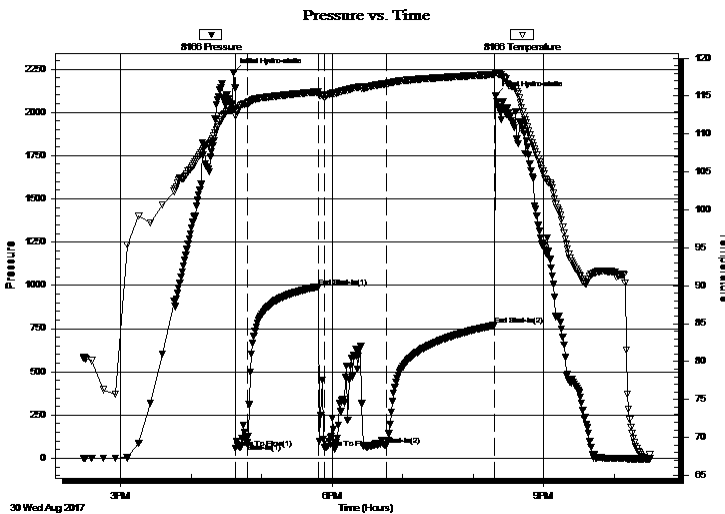
Start Time: 14:28:29 End Time: 22:30:53

Time On Btm: 2017.08.30 @ 16:36:24

Time Off Btm: 2017.08.30 @ 20:19:24

**TEST COMMENT:** IF: 1/4" blow built to 3"  
IS: No return.  
FF: Surface blow built to 5"  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2230.61	113.30	Initial Hydro-static
2	58.33	112.34	Open To Flow (1)
12	88.08	114.03	Shut-In(1)
72	991.97	115.56	End Shut-In(1)
77	59.85	114.88	Open To Flow (2)
130	76.37	116.63	Shut-In(2)
222	769.28	117.84	End Shut-In(2)
223	2095.64	118.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 5%g 10%o 85%m	0.87
67.00	ocm 30%o 70%m	0.94

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64251

**DST#: 3**

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

## GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:54

Time Test Ended: 22:30:54

**Interval: 4272.00 ft (KB) To 4356.00 ft (KB) (TVD)**

Total Depth: 4356.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Reference Elevations: 2973.00 ft (KB)

2962.00 ft (CF)

KB to GR/CF: 11.00 ft

**Serial #: 8875**

**Inside**

Press@RunDepth: psig @ 4273.00 ft (KB)

Start Date: 2017.08.30

End Date:

2017.08.30

Start Time: 14:28:51

End Time:

22:31:20

Capacity: 8000.00 psig

Last Calib.:

2017.08.30

Time On Btm:

Time Off Btm:

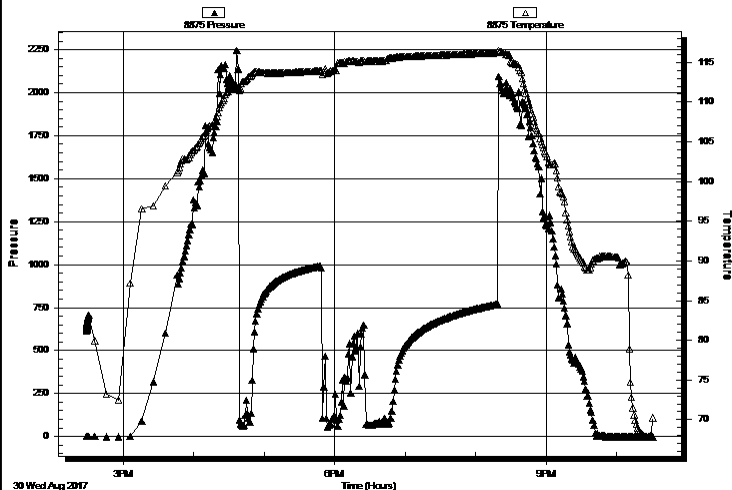
TEST COMMENT: IF: 1/4" blow built to 3"

IS: No return.

FF: Surface blow built to 5"

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 5%g 10%o 85%m	0.87
67.00	ocm 30%o 70%m	0.94

Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64251

**DST#: 3**

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

## Tool Information

Drill Pipe:	Length: 4261.00 ft	Diameter: 3.80 inches	Volume: 59.77 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 59.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4272.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	111.00 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			4246.00	
Shut In Tool	5.00			4251.00	
Hydraulic tool	5.00			4256.00	
Jars	5.00			4261.00	
Safety Joint	2.00			4263.00	
Packer	5.00			4268.00	27.00 Bottom Of Top Packer
Packer	4.00			4272.00	
Stubb	1.00			4273.00	
Recorder	0.00	8875	Inside	4273.00	
Recorder	0.00	8166	Outside	4273.00	
Perforations	12.00			4285.00	
Change Over Sub	1.00			4286.00	
Drill Pipe	64.00			4350.00	
Change Over Sub	1.00			4351.00	
Bullnose	5.00			4356.00	84.00 Bottom Packers & Anchor

**Total Tool Length: 111.00**



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64251

**DST#: 3**

ATTN: Keith Reavis

Test Start: 2017.08.30 @ 14:28:24

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4700.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gocm 5%g 10%o 85%m	0.870
67.00	ocm 30%o 70%m	0.940

Total Length: 129.00 ft

Total Volume: 1.810 bbl

Num Fluid Samples: 0

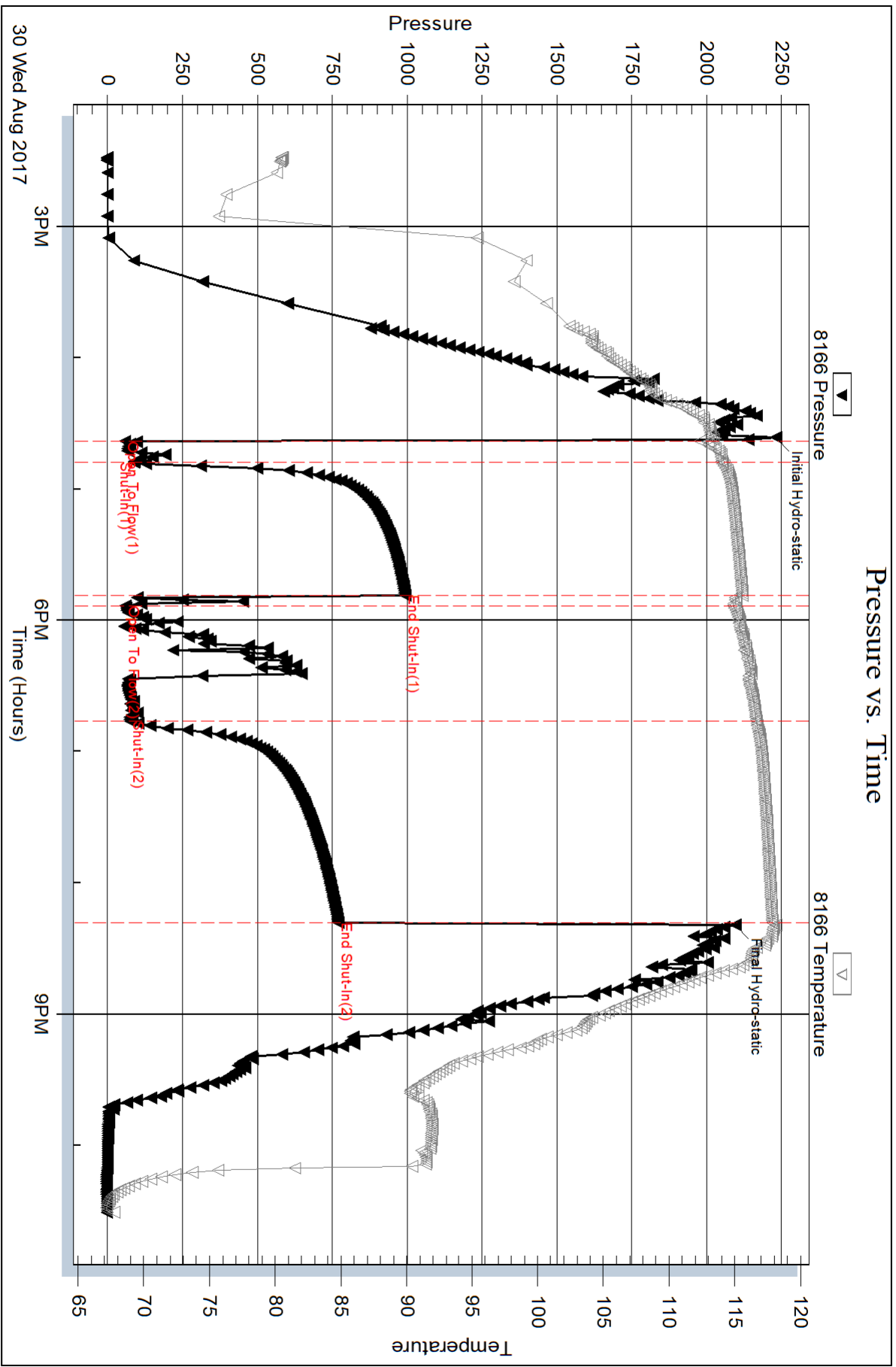
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



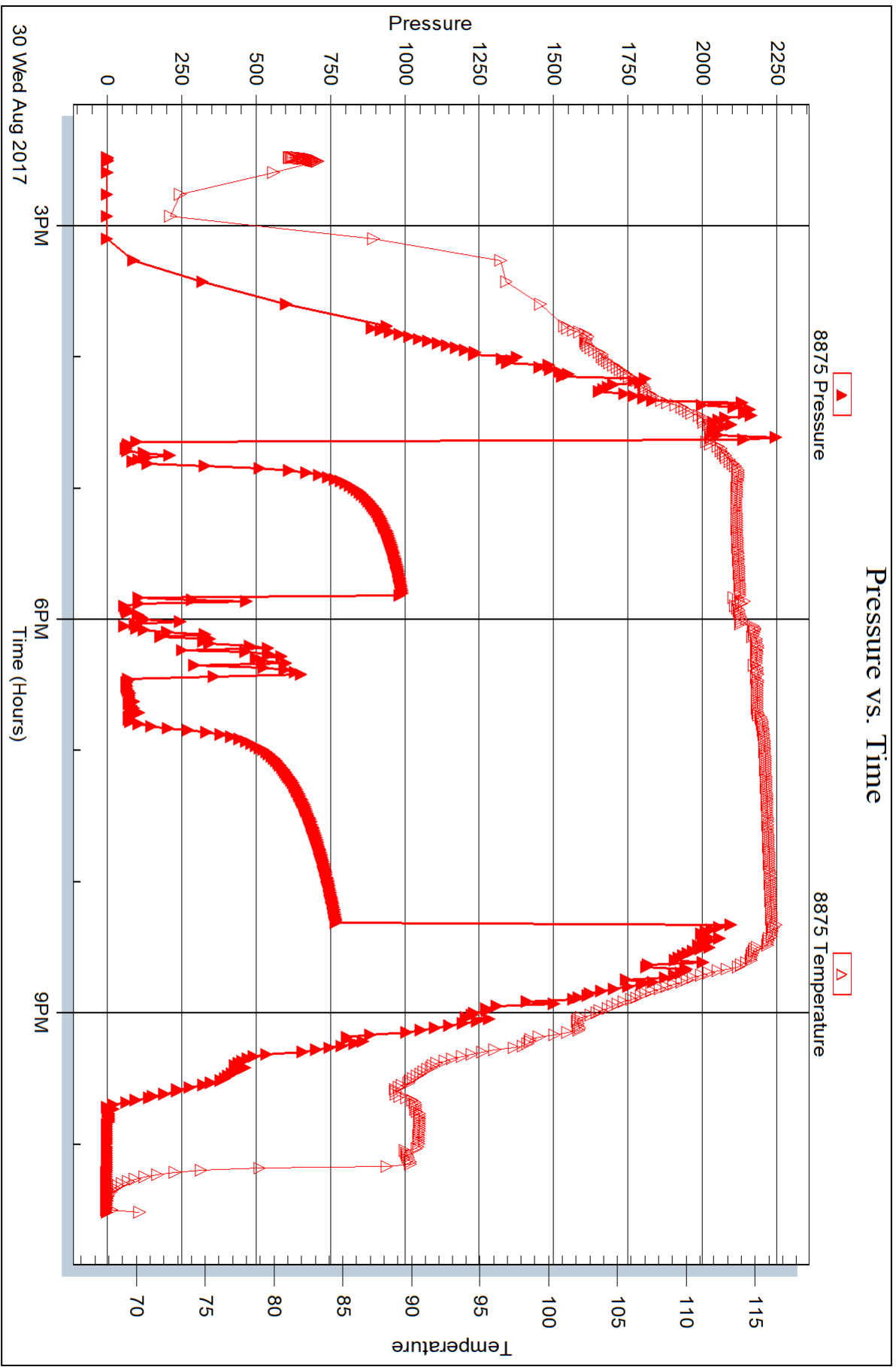
Serial #: 8875

Inside

Bicycle Energies

Wheatland #8-3

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816  
Hays, KS 67601

ATTN: Keith Reavis

### **Wheatland #8-3**

### **8-14S-31W Gove,KS**

Start Date: 2017.09.01 @ 07:14:29

End Date: 2017.09.01 @ 14:48:29

Job Ticket #: 64252                      DST #: 4

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

Printed: 2017.09.05 @ 08:29:41

Bickle Energies  
8-14S-31W Gove,KS  
Wheatland #8-3  
DST # 4  
Johnson  
2017.09.01



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64252

**DST#: 4**

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 07:14:29

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:01:59

Time Test Ended: 14:48:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

**Interval: 4573.00 ft (KB) To 4621.00 ft (KB) (TVD)**

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4621.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 162.69 psig @ 4574.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.09.01

End Date: 2017.09.01

Last Calib.: 2017.09.01

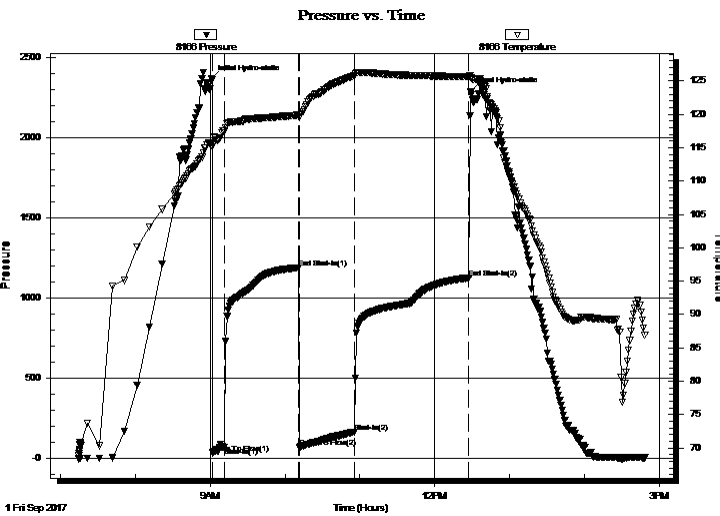
Start Time: 07:14:34

End Time: 14:48:28

Time On Btm: 2017.09.01 @ 09:00:59

Time Off Btm: 2017.09.01 @ 12:28:59

**TEST COMMENT:** IF: 1/4" blow built to 7"  
IS: No return.  
FF: BOB in 19 min.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2363.97	115.76	Initial Hydro-static
1	32.47	115.18	Open To Flow (1)
11	66.65	117.46	Shut-In(1)
70	1187.92	119.88	End Shut-In(1)
71	66.34	119.53	Open To Flow (2)
115	162.69	125.73	Shut-In(2)
207	1123.94	125.66	End Shut-In(2)
208	2285.59	125.54	Final Hydro-static

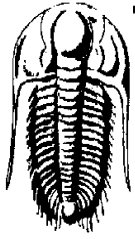
## Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 70%w 30%m	1.77
204.00	gocw m 10%g 30%o 30%w 30%m	2.86

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Bickle Energies

PO Box 816  
Hays, KS 67601

ATTN: Keith Reavis

8-14S-31W Gove,KS

Wheatland #8-3

Job Ticket: 64252

**DST#: 4**

Test Start: 2017.09.01 @ 07:14:29

### GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:01:59

Time Test Ended: 14:48:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

**Interval: 4573.00 ft (KB) To 4621.00 ft (KB) (TVD)**

Total Depth: 4621.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2973.00 ft (KB)

2962.00 ft (CF)

KB to GR/CF: 11.00 ft

**Serial #: 8875** Inside

Press@RunDepth: psig @ 4574.00 ft (KB)

Start Date: 2017.09.01

End Date:

2017.09.01

Start Time: 07:14:43

End Time:

14:48:42

Capacity: 8000.00 psig

Last Calib.:

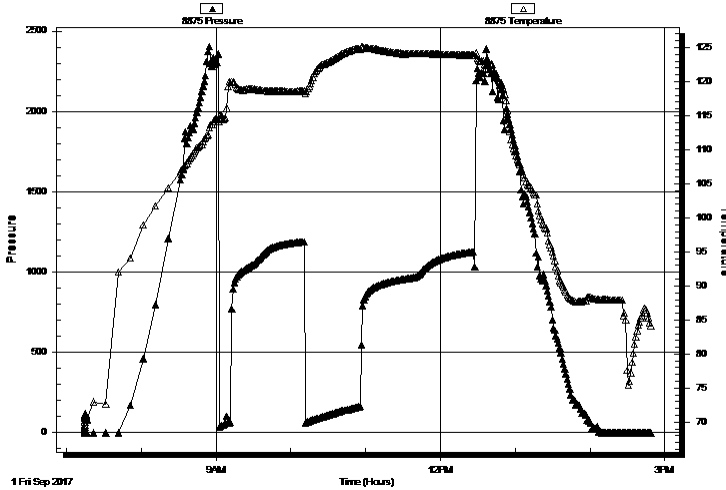
2017.09.01

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 7"  
IS: No return.  
FF: BOB in 19 min.  
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
126.00	mcw 70%w 30%m	1.77
204.00	gocw m 10%g 30%o 30%w 30%m	2.86

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64252

**DST#: 4**

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 07:14:29

## Tool Information

Drill Pipe:	Length: 4576.00 ft	Diameter: 3.80 inches	Volume: 64.19 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 64.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4573.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4547.00	
Shut In Tool	5.00			4552.00	
Hydraulic tool	5.00			4557.00	
Jars	5.00			4562.00	
Safety Joint	2.00			4564.00	
Packer	5.00			4569.00	27.00 Bottom Of Top Packer
Packer	4.00			4573.00	
Stubb	1.00			4574.00	
Recorder	0.00	8875	Inside	4574.00	
Recorder	0.00	8166	Outside	4574.00	
Perforations	8.00			4582.00	
Change Over Sub	1.00			4583.00	
Drill Pipe	32.00			4615.00	
Change Over Sub	1.00			4616.00	
Bullnose	5.00			4621.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 75.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64252

**DST#: 4**

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 07:14:29

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

59000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	mcw 70%w 30%m	1.767
204.00	gocw m 10%g 30%o 30%w 30%m	2.862

Total Length: 330.00 ft

Total Volume: 4.629 bbl

Num Fluid Samples: 0

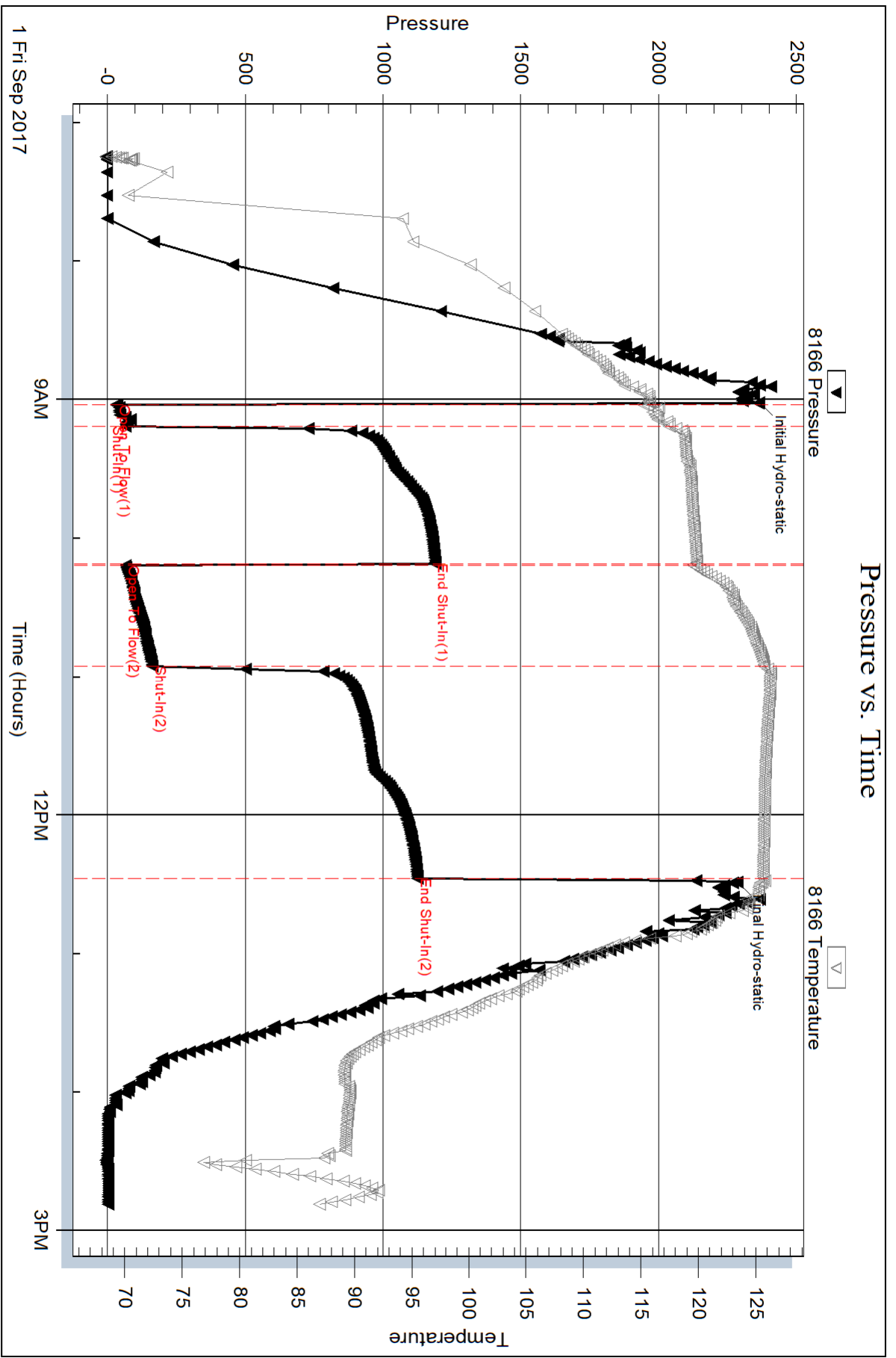
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .11@87=59000



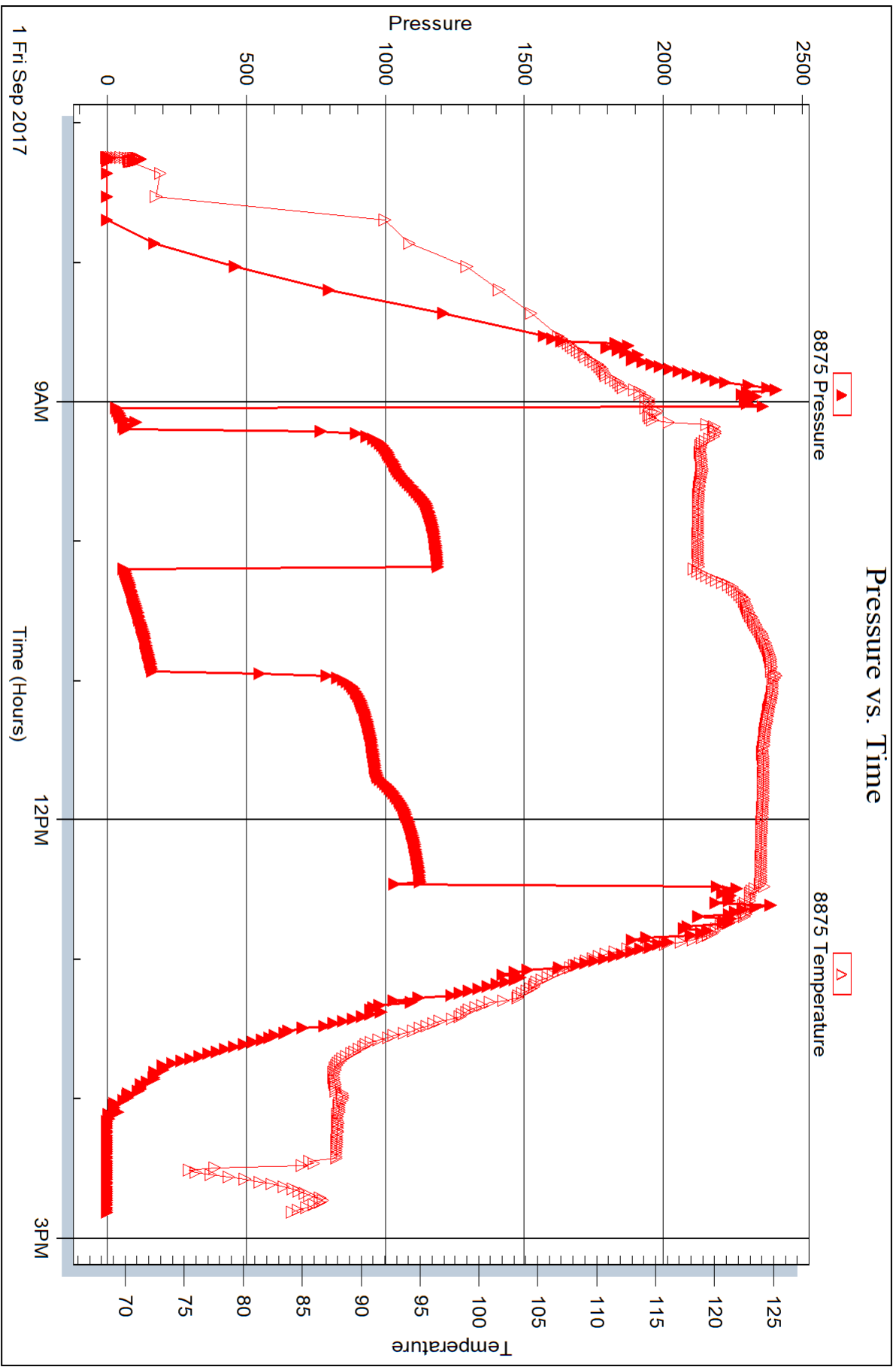
Serial #: 8875

Inside

Bickle Energies

Wheatland #8-3

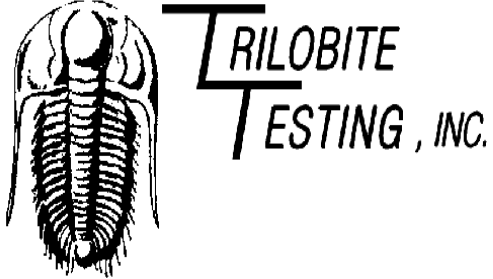
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 64252

Printed: 2017.09.05 @ 08:29:42



## DRILL STEM TEST REPORT

Prepared For: **Bickle Energies**

PO Box 816  
Hays, KS 67601

ATTN: Keith Reavis

### **Wheatland #8-3**

### **8-14S-31W Gove,KS**

Start Date: 2017.09.01 @ 15:45:36

End Date: 2017.09.01 @ 23:37:06

Job Ticket #: 64253                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.09.05 @ 08:29:05



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64253

**DST#: 5**

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 15:45:36

## GENERAL INFORMATION:

Formation: **Upper Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:41:06

Time Test Ended: 23:37:06

Test Type: Conventional Straddle (Reset)

Tester: Brandon Turley

Unit No: 79

**Interval: 4572.00 ft (KB) To 4605.00 ft (KB) (TVD)**

Reference Elevations: 2973.00 ft (KB)

Total Depth: 4621.00 ft (KB) (TVD)

2962.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 39.78 psig @ 4573.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.09.01

End Date:

2017.09.01

Last Calib.:

2017.09.01

Start Time: 15:45:41

End Time:

23:37:05

Time On Btm:

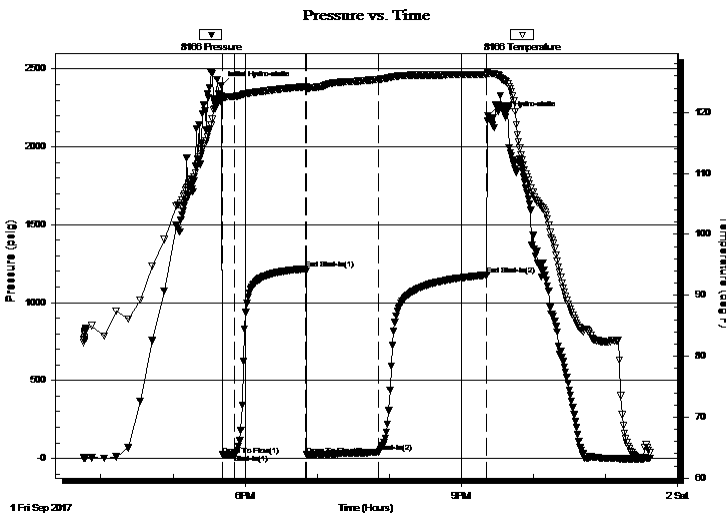
2017.09.01 @ 17:40:36

Time Off Btm:

2017.09.01 @ 21:22:06

**TEST COMMENT:** IF: 1/4" blow built to 2"  
IS: No return.  
FF: Surface blow built to 7"  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2394.86	122.78	Initial Hydro-static
1	22.92	122.11	Open To Flow (1)
11	25.83	122.66	Shut-In(1)
70	1217.38	124.24	End Shut-In(1)
71	23.36	123.93	Open To Flow (2)
130	39.78	125.44	Shut-In(2)
221	1177.44	126.26	End Shut-In(2)
222	2200.23	126.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	ocm 10%o 90%m	0.28
53.00	oil 100%o	0.74

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE**  
TESTING, INC.

**DRILL STEM TEST REPORT**

Bickle Energies  
PO Box 816  
Hays, KS 67601  
ATTN: Keith Reavis

**8-14S-31W Gove, KS**  
**Wheatland #8-3**  
Job Ticket: 64253 **DST#: 5**  
Test Start: 2017.09.01 @ 15:45:36

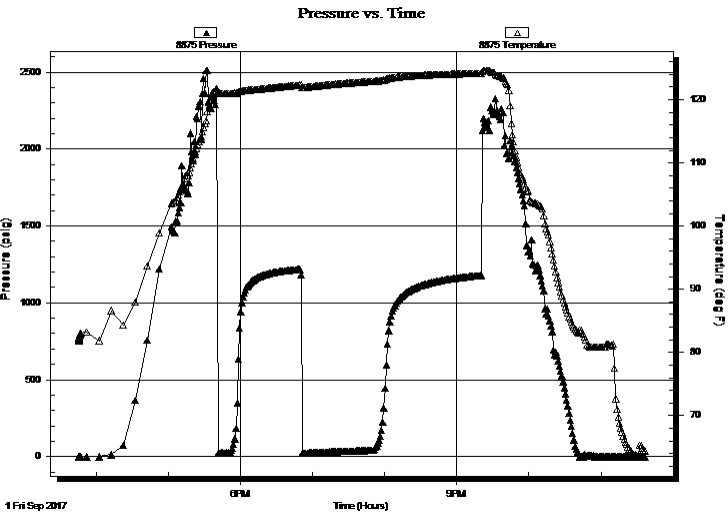
**GENERAL INFORMATION:**

Formation: **Upper Johnson**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 17:41:06  
Time Test Ended: 23:37:06  
Test Type: Conventional Straddle (Reset)  
Tester: Brandon Turley  
Unit No: 79  
**Interval: 4572.00 ft (KB) To 4605.00 ft (KB) (TVD)**  
Reference Elevations: 2973.00 ft (KB)  
Total Depth: 4621.00 ft (KB) (TVD)  
2962.00 ft (CF)  
Hole Diameter: 7.88 inches  
Hole Condition: Fair  
KB to GR/CF: 11.00 ft

**Serial #: 8875** Inside

Press@RunDepth: psig @ 4573.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2017.09.01 End Date: 2017.09.01 Last Calib.: 2017.09.01  
Start Time: 15:45:26 End Time: 23:36:55 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: 1/4" blow built to 2"  
IS: No return.  
FF: Surface blow built to 7"  
FS: No return.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
20.00	ocm 10%o 90% m	0.28
53.00	oil 100%o	0.74

**Gas Rates**

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Bickie Energies  
PO Box 816  
Hays, KS 67601  
ATTN: Keith Reavis

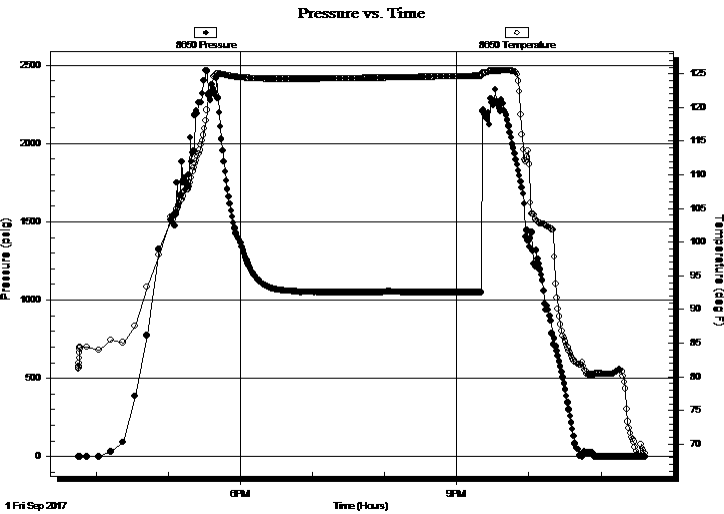
**8-14S-31W Gove, KS**  
**Wheatland #8-3**  
Job Ticket: 64253      **DST#: 5**  
Test Start: 2017.09.01 @ 15:45:36

## GENERAL INFORMATION:

Formation: **Upper Johnson**  
Deviated: No    Whipstock:                          ft (KB)                          Test Type: Conventional Straddle (Reset)  
Time Tool Opened: 17:41:06                          Tester: Brandon Turley  
Time Test Ended: 23:37:06                          Unit No: 79  
**Interval: 4572.00 ft (KB) To 4605.00 ft (KB) (TVD)**                          Reference Elevations: 2973.00 ft (KB)  
Total Depth: 4621.00 ft (KB) (TVD)                          2962.00 ft (CF)  
Hole Diameter: 7.88 inches    Hole Condition: Fair                          KB to GR/CF: 11.00 ft

**Serial #: 8650**      **Below (Straddle)**  
Press@RunDepth:                          psig @ 4616.00 ft (KB)                          Capacity: 8000.00 psig  
Start Date: 2017.09.01                          End Date: 2017.09.01                          Last Calib.: 2017.09.01  
Start Time: 15:45:28                          End Time: 23:36:22                          Time On Btm:  
Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 2"  
IS: No return.  
FF: Surface blow built to 7"  
FS: No return.



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

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	ocm 10%o 90%m	0.28
53.00	oil 100%o	0.74

\* Recovery from multiple tests

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64253

**DST#: 5**

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 15:45:36

## Tool Information

Drill Pipe:	Length: 4580.00 ft	Diameter: 3.80 inches	Volume: 64.25 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 64.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4572.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	4621.00 ft			
Interval between Packers:	49.00 ft			
Tool Length:	71.00 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			4551.00	
Shut In Tool	5.00			4556.00	
Hydraulic tool	5.00			4561.00	
Safety Joint	2.00			4563.00	
Packer	5.00			4568.00	22.00 Bottom Of Top Packer
Packer	4.00			4572.00	
Stubb	1.00			4573.00	
Recorder	0.00	8875	Inside	4573.00	
Recorder	0.00	8166	Outside	4573.00	
Perforations	27.00			4600.00	
Blank Off Sub	1.00			4601.00	
Packer - Shale	4.00			4605.00	
Stubb	1.00			4606.00	
Perforations	10.00			4616.00	
Recorder	0.00	8650	Below	4616.00	
Bullnose	5.00			4621.00	49.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>71.00</b>				



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bickle Energies

**8-14S-31W Gove, KS**

PO Box 816  
Hays, KS 67601

**Wheatland #8-3**

Job Ticket: 64253

**DST#: 5**

ATTN: Keith Reavis

Test Start: 2017.09.01 @ 15:45:36

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	ocm 10%o 90%m	0.281
53.00	oil 100%o	0.743

Total Length: 73.00 ft      Total Volume: 1.024 bbl

Num Fluid Samples: 0

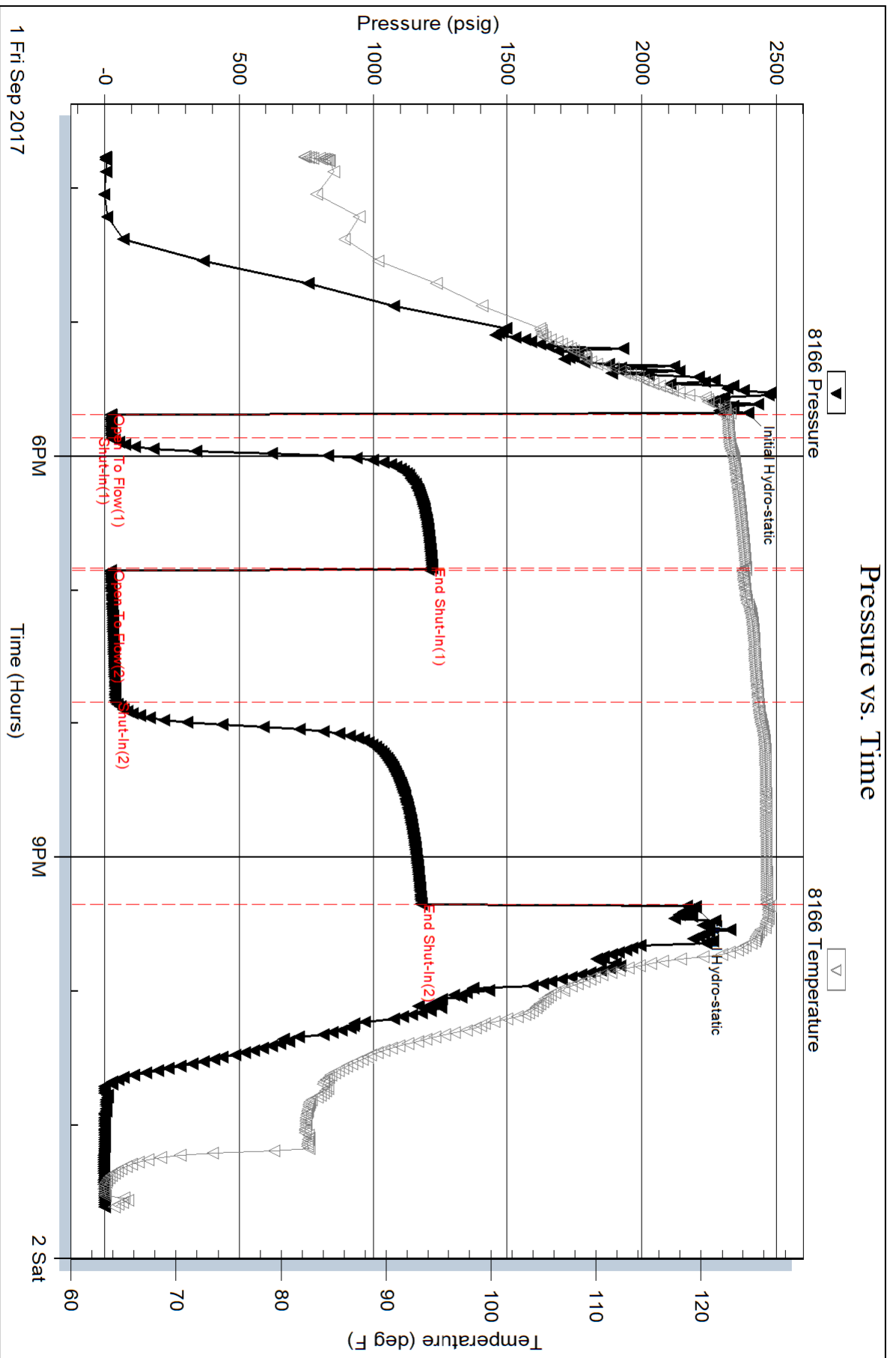
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 29@70=28



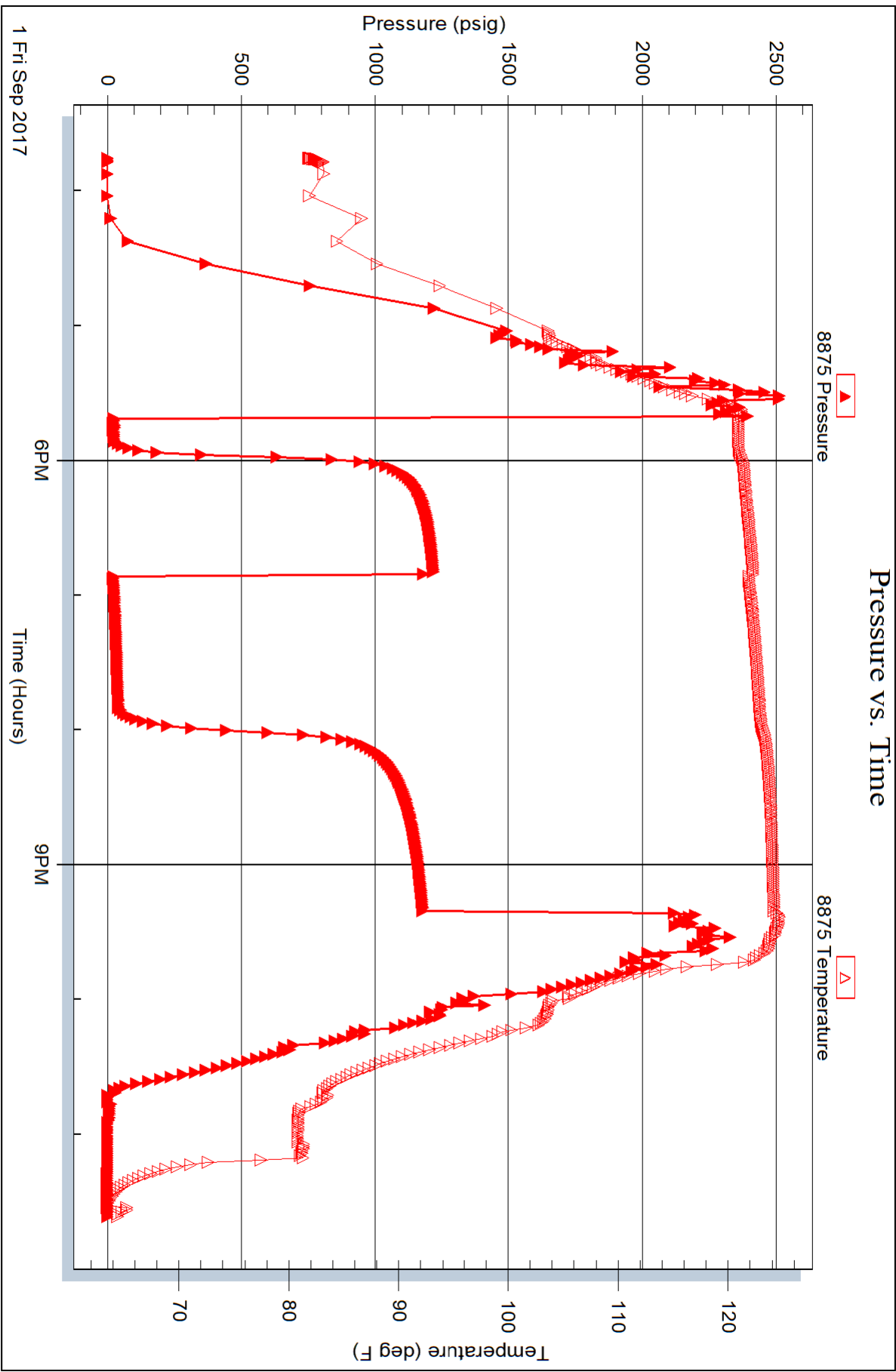
Serial #: 8875

Inside

Bickle Energies

Wheatland #8-3

DST Test Number: 5

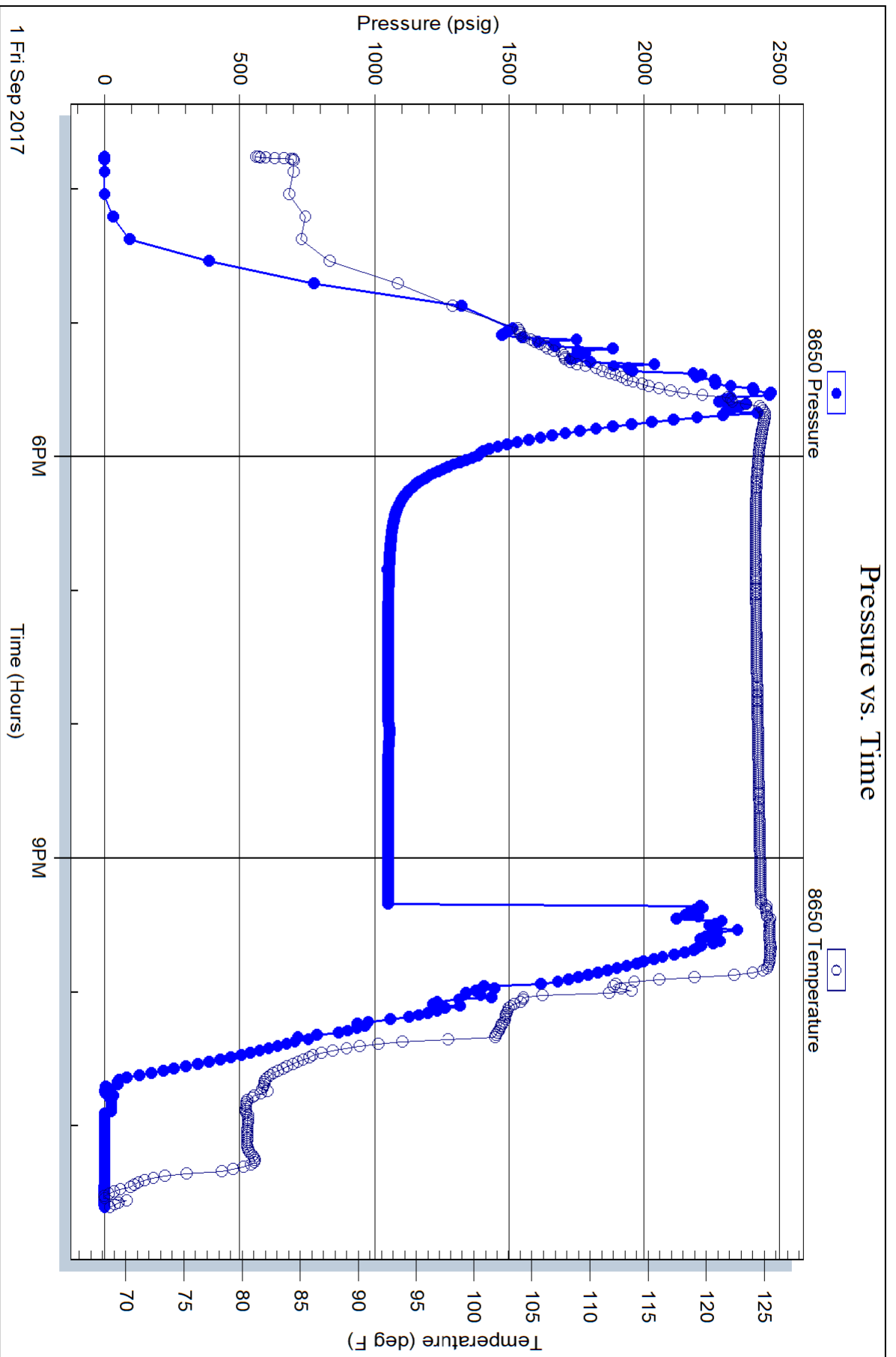


Serial #: 8650

Below (Stratfield)Energies

Wheatland #8-3

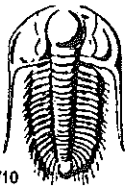
DST Test Number: 5



Triobite Testing, Inc

Ref. No: 64253

Printed: 2017.09.05 @ 08:29:07



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63593

Well Name & No. Wheatland ~~Energy~~ #8-3 Test No. 1 Date 8-28-17  
 Company Bickle Energies, LLC Elevation 2973 KB 2962 GL  
 Address P.O. Box 816 Hays, KS 67601  
 Co. Rep / Geo. Matt Bickle / Keith Reavis Rig Southwind Drilling #8  
 Location: Sec. 8 Twp. 14 S Rge. 31 W Co. Cove State KS

Interval Tested 4010 - 4110 Zone Tested Lansing A-F  
 Anchor Length 100' Drill Pipe Run 4006 Mud Wt. 9.1  
 Top Packer Depth 4005 Drill Collars Run 0 Vis SI  
 Bottom Packer Depth 4010 Wt. Pipe Run 0 WL 7.2  
 Total Depth 4110 Chlorides 3200 ppm System LCM  
 Blow Description IF-Weak blow building to 6 inch FFP  
FF-Weak blow building to strong blow 25 mins into FFP

Rec	Feet of	%gas	%oil	%water	%mud
125	Oil + water cut mud	16	6	78	
40	Heavy Oil cut mud	34		66	
55	Clean Oil	100			
95	GFP	100			

Rec Total 220 BHT 116 Gravity 34.7 API RW @ °F Chlorides ppm

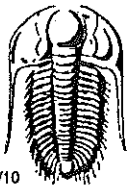
(A) Initial Hydrostatic <u>1931</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1150</u>
(B) First Initial Flow <u>45</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1237</u>
(C) First Final Flow <u>57</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1419</u>
(D) Initial Shut-In <u>1154</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1744</u>
(E) Second Initial Flow <u>68</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2030</u>
(F) Second Final Flow <u>122</u>	<input checked="" type="checkbox"/> Mileage <u>64rt 48 RT 572</u>	Comments
(G) Final Shut-In <u>1108</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1891</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1523</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1523</u>	

Initial Open 10  
 Initial Shut-In 60  
 Final Flow 45  
 Final Shut-In 90

Approved By \_\_\_\_\_ Our Representative Jimmy Bickle

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5369



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63594

Well Name & No. Wheatland #8-3 Test No. 2 Date 8-29-17  
 Company Bickle Energies, LLC. Elevation 2973 KB 2962 GL  
 Address P.O. Box 816 Hays, KS. 67601  
 Co. Rep / Geo. Matt Bickle / Keith Reavis Rig Southwind Drilling #8  
 Location: Sec. 8 Twp. 14S Rge. 31 W Co. Gove State KS

Interval Tested 4134-4214 Zone Tested Lansing G-H  
 Anchor Length 80' Drill Pipe Run 4132 Mud Wt. 9.2  
 Top Packer Depth 4129 Drill Collars Run 0 Vis 56  
 Bottom Packer Depth 4134 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4214 Chlorides 4000 ppm System LCM  
 Blow Description IF-weak blow building to 9 inches IFP  
FF-weak blow building to Strong blow 20 mins. into FFP

Rec	Feet of	%gas	TR	%oil	%water	%mud
320	Trace oil + mud cutwater			85	15	
50	Oil + heavy water cut mud	9		44	47	
10	Clean oil	100				
60	Gas in pipe	100				

Rec Total 380 BHT 120 Gravity 38.2 API RW .164 @ 84 °F Chlorides 35,000 ppm

(A) Initial Hydrostatic <u>1981</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0940</u>
(B) First Initial Flow <u>50</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1007</u>
(C) First Final Flow <u>75</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1218</u>
(D) Initial Shut-In <u>1145</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1343</u>
(E) Second Initial Flow <u>84</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1800</u>
(F) Second Final Flow <u>201</u>	<input checked="" type="checkbox"/> Mileage <u>48 RT 64</u>	Comments _____
(G) Final Shut-In <u>1112</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1931</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>10</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1523</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1523</u>	

Approved By \_\_\_\_\_ Our Representative Jimmy Roberts

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64251**

Well Name & No. Wheatland 8-3 Test No. 3 Date 8-30-17  
 Company Bickte Energies Elevation 2973 KB 2962 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Matt Bickte - Keith Reguis Rig Southwind #8  
 Location: Sec. 3 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4272 4356 Zone Tested K-L  
 Anchor Length 84 Drill Pipe Run 4261 Mud Wt. 9.3  
 Top Packer Depth 4267 Drill Collars Run — Vis 59  
 Bottom Packer Depth 4272 Wt. Pipe Run — WL 7.2  
 Total Depth 4356 Chlorides 4700 ppm System LCM 2  
 Blow Description IF: 1/4 blow built to 3.  
IS: No return.  
FF: Surface blow built to 5.  
FS: No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>67</u>	<u>ocm</u>	<u>30</u>		<u>70</u>	
<u>62</u>	<u>9ocm</u>	<u>5</u>	<u>10</u>	<u>85</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 129 BHT 117 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2230  Test 1150 T-On Location 12:30  
 (B) First Initial Flow 58  Jars 250 T-Started 14:28  
 (C) First Final Flow 88  Safety Joint 75 T-Open 16:38  
 (D) Initial Shut-In 991  Circ Sub N/C T-Pulled 20:08  
 (E) Second Initial Flow 59  Hourly Standby \_\_\_\_\_ T-Out 22:32  
 (F) Second Final Flow 76  Mileage 70-64rt 48  
 (G) Final Shut-In 769  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2095  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1523

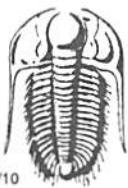
Initial Open 10  
 Initial Shut-In 60  
 Final Flow ~~45~~ 60  
 Final Shut-In 90

Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1523  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative 

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64252**

Well Name & No. Wheatland 8-3 Test No. 4 Date 9-1-17  
 Company Bickle Energics Elevation 2973 KB 2962 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Matt Bickle - Keith Reavis Rig Southwind #8  
 Location: Sec. 3 Twp. 14S Rge. 31W Co. Gove State KS

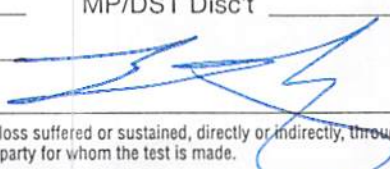
Interval Tested 4573 4621 Zone Tested Johnson  
 Anchor Length 48 Drill Pipe Run 4576 Mud Wt. 9.3  
 Top Packer Depth 4568 Drill Collars Run — Vis 56  
 Bottom Packer Depth 4573 Wt. Pipe Run — WL 8.0  
 Total Depth 4621 Chlorides 4400 ppm System LCM 2  
 Blow Description IF: 1/4 blow built to 7.  
IS: NO return.  
FF: BOB in 19 min.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>204</u>	<u>gobwm</u>	<u>10</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>126</u>	<u>mcw</u>		<u>70</u>	<u>30</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 330 BHT 125 Gravity — API RW .4 @ 87° F Chlorides 59,000 ppm  
 (A) Initial Hydrostatic 2363  Test 1150 T-On Location 6:15  
 (B) First Initial Flow 32  Jars 250 T-Started 7:14  
 (C) First Final Flow 66  Safety Joint 75 T-Open 9:02  
 (D) Initial Shut-In 1187  Circ Sub NIL T-Pulled 12:27  
 (E) Second Initial Flow 66  Hourly Standby \_\_\_\_\_ T-Out 14:50  
 (F) Second Final Flow 162  Mileage 70 - 48 Comments \_\_\_\_\_  
 (G) Final Shut-In 1123  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2285  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1523

Initial Open 10  
 Initial Shut-In 40  
 Final Flow 45  
 Final Shut-In 90

MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative 

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64253**

Well Name & No. Wbestland 8-3 Test No. 5 Date 9-1-17  
 Company Bickle Energies Elevation 2973 KB 2962 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Matt Bickle-Keith Reavis Rig Southwind #8  
 Location: Sec. 3 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4572 4605 Zone Tested upper Johnson  
 Anchor Length 33 Drill Pipe Run 4580 Mud Wt. 9.3  
 Top Packer Depth 4572 Drill Collars Run — Vis 56  
 Bottom Packer Depth 4605 Wt. Pipe Run — WL 8.0  
 Total Depth 4621 Chlorides 4400 ppm System LCM 2  
 Blow Description IF: 1/4 blow built to 2,  
IS: No return.  
FF: surface blow built to 7,  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>53</u>	<u>oil</u>		<u>100</u>		
<u>20</u>	<u>ocm</u>		<u>10</u>		<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 73 BHT 126 Gravity 28 API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2394  Test 1150 T-On Location 6:15  
 (B) First Initial Flow 22  Jars 250 T-Started 15:45  
 (C) First Final Flow 25  Safety Joint 75 T-Open 17:40  
 (D) Initial Shut-In 1217  Circ Sub N/C T-Pulled 21:20  
 (E) Second Initial Flow 23  Hourly Standby \_\_\_\_\_ T-Out 23:38  
 (F) Second Final Flow 39  Mileage \_\_\_\_\_  
 (G) Final Shut-In 1177  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2200  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 2325

Initial Open 10  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

Sub Total 2325.00  
 Total 2325.00  
 MP/DST Disc't \_\_\_\_\_

Approved By [Signature] Our Representative [Signature]

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