



## DRILL STEM TEST REPORT

Prepared For: **Bear Petroleum, LLC**

PO Box 438  
Haysville, KS 67060-0438

ATTN: Dick Schremmer/Aaron

### **Higgins C #1**

#### **10-30S-08W Kingman, KS**

Start Date: 2018.03.11 @ 14:03:00

End Date: 2018.03.11 @ 21:37:00

Job Ticket #: 62024                      DST #: 1

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

Printed: 2018.03.14 @ 14:35:37



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

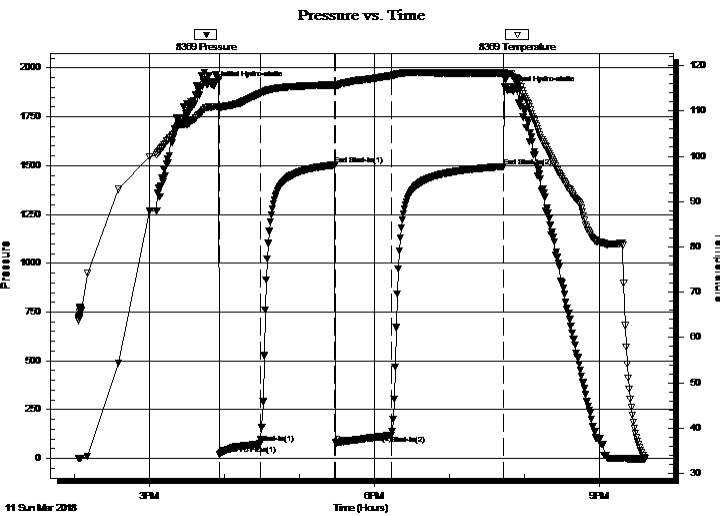
**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 62024 **DST#: 1**  
 Test Start: 2018.03.11 @ 14:03:00

## GENERAL INFORMATION:

Formation: **Hertha**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:55:40  
 Time Test Ended: 21:37:00  
 Interval: **3850.00 ft (KB) To 3874.00 ft (KB) (TVD)**  
 Total Depth: 3874.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80  
 Reference Elevations: 1536.00 ft (KB)  
 1525.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8369 Outside**  
 Press@RunDepth: 118.76 psig @ 3851.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.11 End Date: 2018.03.11 Last Calib.: 2018.03.11  
 Start Time: 14:03:01 End Time: 21:37:00 Time On Btm: 2018.03.11 @ 15:52:00  
 Time Off Btm: 2018.03.11 @ 19:46:39

TEST COMMENT: IF - Weak blow building to 2"  
 FF - Weak blow building to 2"



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1911.31	110.94	Initial Hydro-static
4	20.08	110.52	Open To Flow (1)
37	75.43	113.82	Shut-In(1)
97	1503.62	115.76	End Shut-In(1)
97	79.79	115.39	Open To Flow (2)
142	118.76	117.79	Shut-In(2)
232	1495.74	118.40	End Shut-In(2)
235	1885.16	118.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
220.00	HMCW with trace O TR O 26% M 74%	W 2.25

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 62024 **DST#: 1**  
 Test Start: 2018.03.11 @ 14:03:00

**Tool Information**

Drill Pipe:	Length: 3761.00 ft	Diameter: 3.80 inches	Volume: 52.76 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 92.00 ft	Diameter: 2.25 inches	Volume: 0.45 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 53.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3850.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	52.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3823.00	
Shut In Tool	5.00			3828.00	
Hydraulic tool	5.00			3833.00	
Jars	5.00			3838.00	
Safety Joint	3.00			3841.00	
Packer	4.00			3845.00	28.00 Bottom Of Top Packer
Packer	5.00			3850.00	
Stubb	1.00			3851.00	
Recorder	0.00	8369	Outside	3851.00	
Recorder	0.00	8846	Inside	3851.00	
Perforations	18.00			3869.00	
Bullnose	5.00			3874.00	24.00 Bottom Packers & Anchor

**Total Tool Length: 52.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bear Petroleum, LLC

**10-30S-08W Kingman, KS**

PO Box 438  
Haysville, KS 67060-0438

**Higgins C #1**

Job Ticket: 62024

**DST#: 1**

ATTN: Dick Schremmer/Aaron

Test Start: 2018.03.11 @ 14:03:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

95000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 13500.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
220.00	HMCW with trace O TR O 26% M 74% W	2.248

Total Length: 220.00 ft      Total Volume: 2.248 bbl

Num Fluid Samples: 0

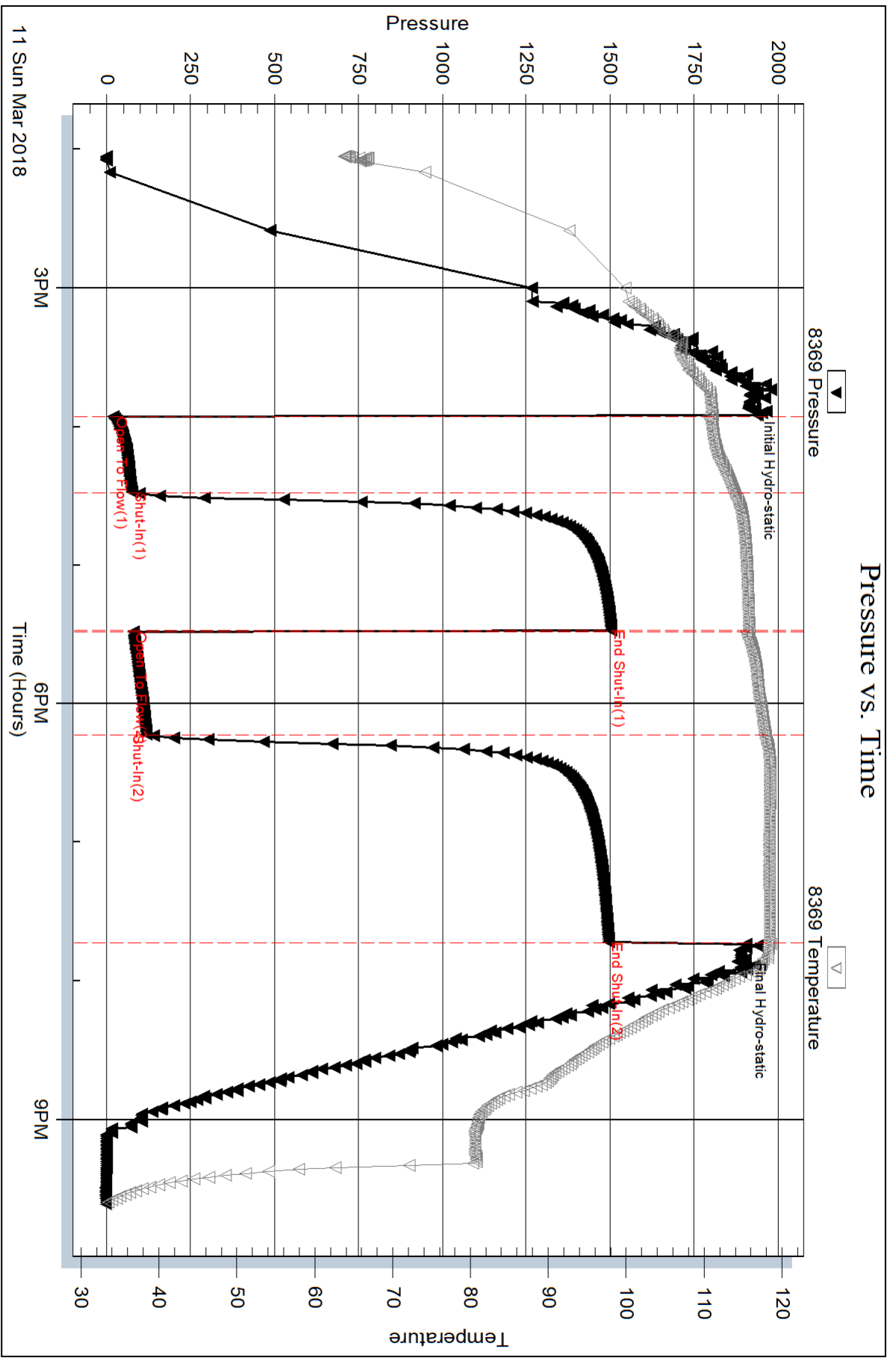
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



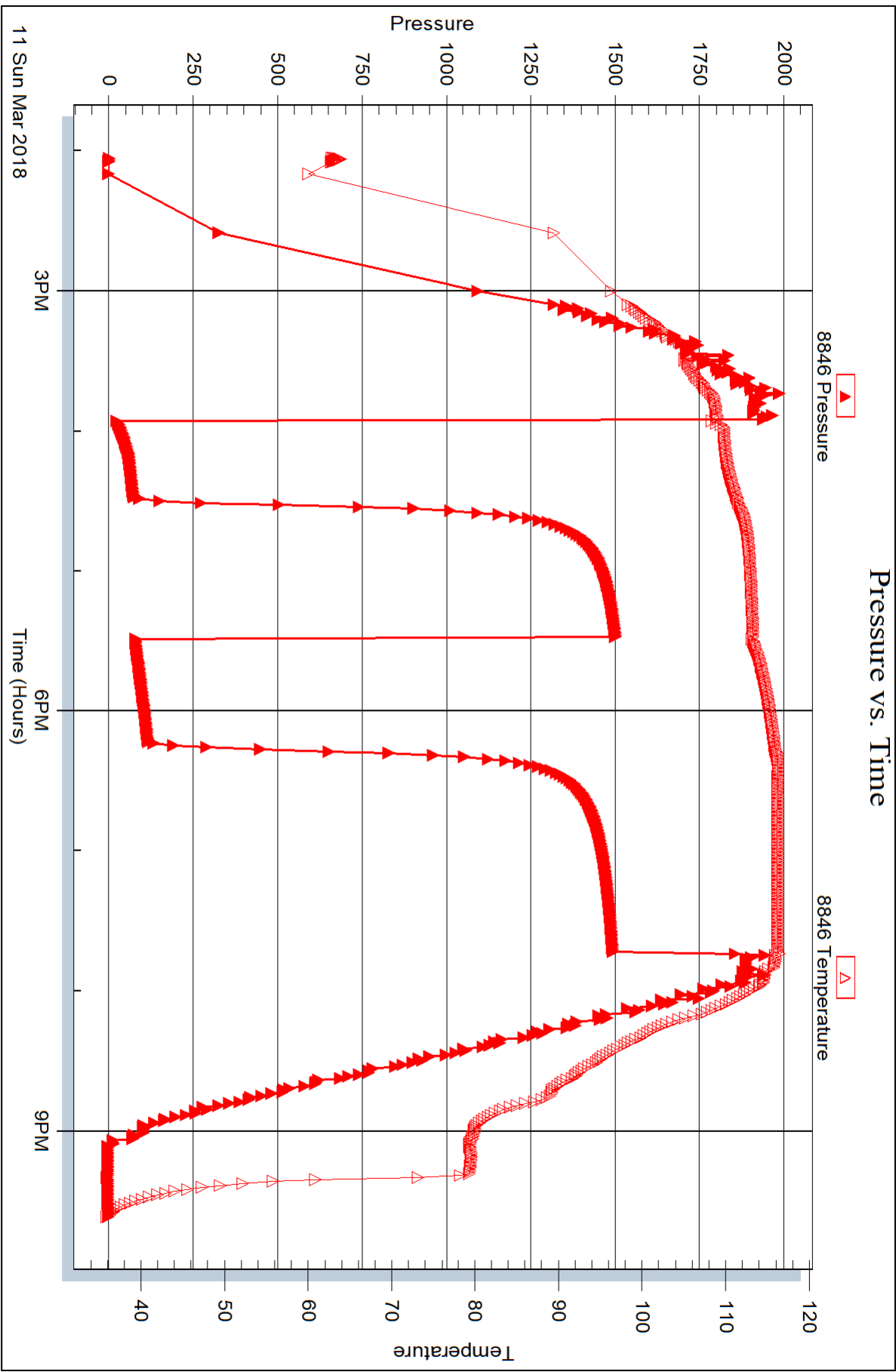
Serial #: 8846

Inside

Bear Petroleum, LLC

Higgins C#1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Bear Petroleum, LLC**

PO Box 438  
Haysville, KS 67060-0438

ATTN: Dick Schremmer/Aaron

### **Higgins C #1**

#### **10-30S-08W Kingman, KS**

Start Date: 2018.03.12 @ 21:20:00

End Date: 2018.03.13 @ 05:28:09

Job Ticket #: 62025                      DST #: 2

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

Printed: 2018.03.14 @ 14:29:09





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

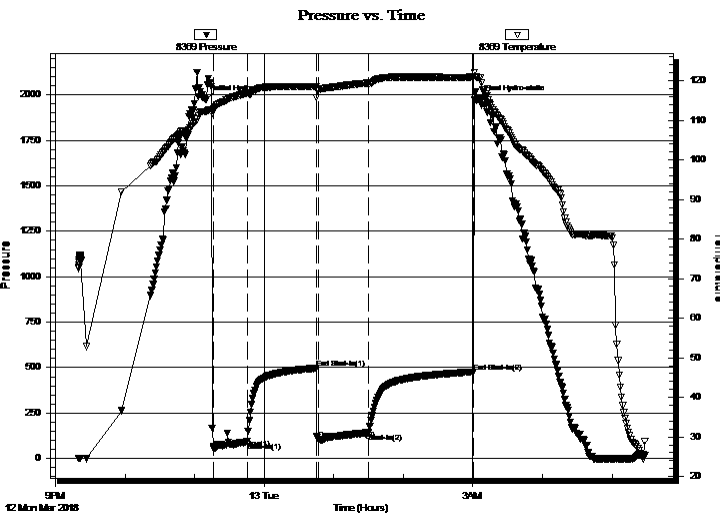
**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 62025 **DST#: 2**  
 Test Start: 2018.03.12 @ 21:20:00

## GENERAL INFORMATION:

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:16:40  
 Time Test Ended: 05:28:09  
 Interval: **4098.00 ft (KB) To 4195.00 ft (KB) (TVD)**  
 Total Depth: 4195.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80  
 Reference Elevations: 1536.00 ft (KB)  
 1525.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8369 Outside**  
 Press@RunDepth: 140.90 psig @ 4099.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.12 End Date: 2018.03.13 Last Calib.: 2018.03.12  
 Start Time: 21:20:01 End Time: 05:28:10 Time On Btm: 2018.03.12 @ 23:10:00  
 Time Off Btm: 2018.03.13 @ 03:04:20

**TEST COMMENT:** IF - Weak blow building to strong blow 1 1/2 minutes into initial flow period. Gas to surface in 27 minutes  
 IS - Strong blow throughout  
 FF - Strong blow throughout  
 FS - Strong blow back throughout



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1974.86	112.19	Initial Hydro-static
7	56.15	112.98	Open To Flow (1)
36	91.52	116.81	Shut-In(1)
95	496.35	118.59	End Shut-In(1)
97	103.95	117.73	Open To Flow (2)
140	140.90	119.41	Shut-In(2)
231	476.72	120.87	End Shut-In(2)
235	1974.80	120.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
300.00	Gassy mud 11% G 89% M	3.37
0.00	GTS	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	3.70	28.71
Last Gas Rate	0.25	2.20	26.33
Max. Gas Rate	0.25	3.70	28.71





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 62025      **DST#: 2**  
 Test Start: 2018.03.12 @ 21:20:00

**Tool Information**

Drill Pipe:	Length: 3983.00 ft	Diameter: 3.80 inches	Volume: 55.87 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 92.00 ft	Diameter: 2.25 inches	Volume: 0.45 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 56.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4098.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	125.00 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			4071.00	
Shut In Tool	5.00			4076.00	
Hydraulic tool	5.00			4081.00	
Jars	5.00			4086.00	
Safety Joint	3.00			4089.00	
Packer	4.00			4093.00	28.00      Bottom Of Top Packer
Packer	5.00			4098.00	
Stubb	1.00			4099.00	
Recorder	0.00	8369	Outside	4099.00	
Recorder	0.00	8846	Inside	4099.00	
Perforations	22.00			4121.00	
Change Over Sub	0.50			4121.50	
Blank Spacing	63.00			4184.50	
Change Over Sub	0.50			4185.00	
Perforations	5.00			4190.00	
Bullnose	5.00			4195.00	97.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>125.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bear Petroleum, LLC

**10-30S-08W Kingman, KS**

PO Box 438  
Haysville, KS 67060-0438

**Higgins C #1**

Job Ticket: 62025

**DST#: 2**

ATTN: Dick Schremmer/Aaron

Test Start: 2018.03.12 @ 21:20:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 13000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
300.00	Gassy mud 11% G 89% M	3.370
0.00	GTS	0.000

Total Length: 300.00 ft      Total Volume: 3.370 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**

Bear Petroleum, LLC

**10-30S-08W Kingman, KS**

PO Box 438  
Haysville, KS 67060-0438

**Higgins C #1**

Job Ticket: 62025

**DST#: 2**

ATTN: Dick Schremmer/Aaron

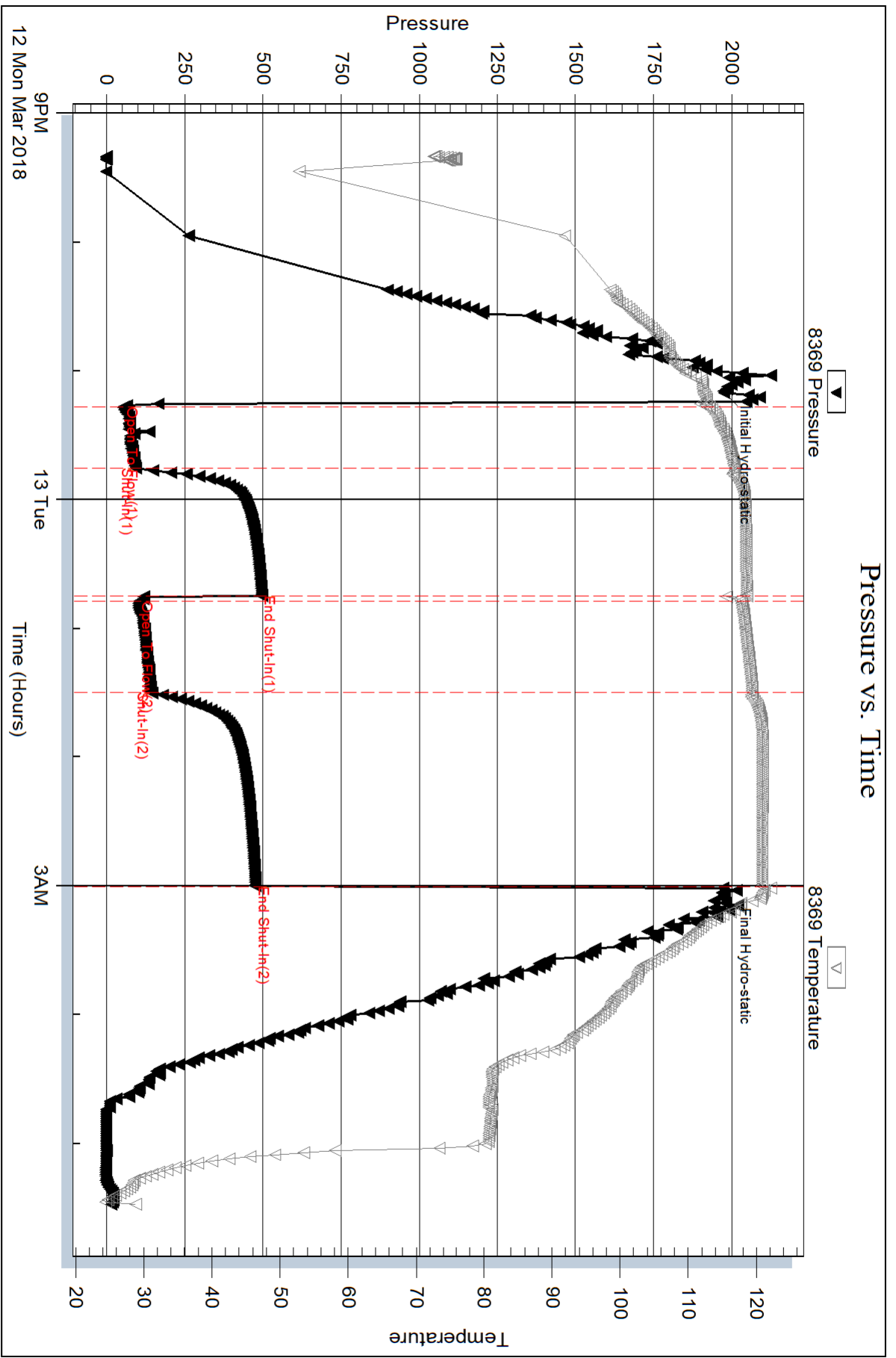
Test Start: 2018.03.12 @ 21:20:00

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	3.70	28.71
2	20	0.25	2.70	27.13
2	30	0.25	2.00	26.02
2	40	0.25	2.20	26.33
2	45	0.25	2.20	26.33



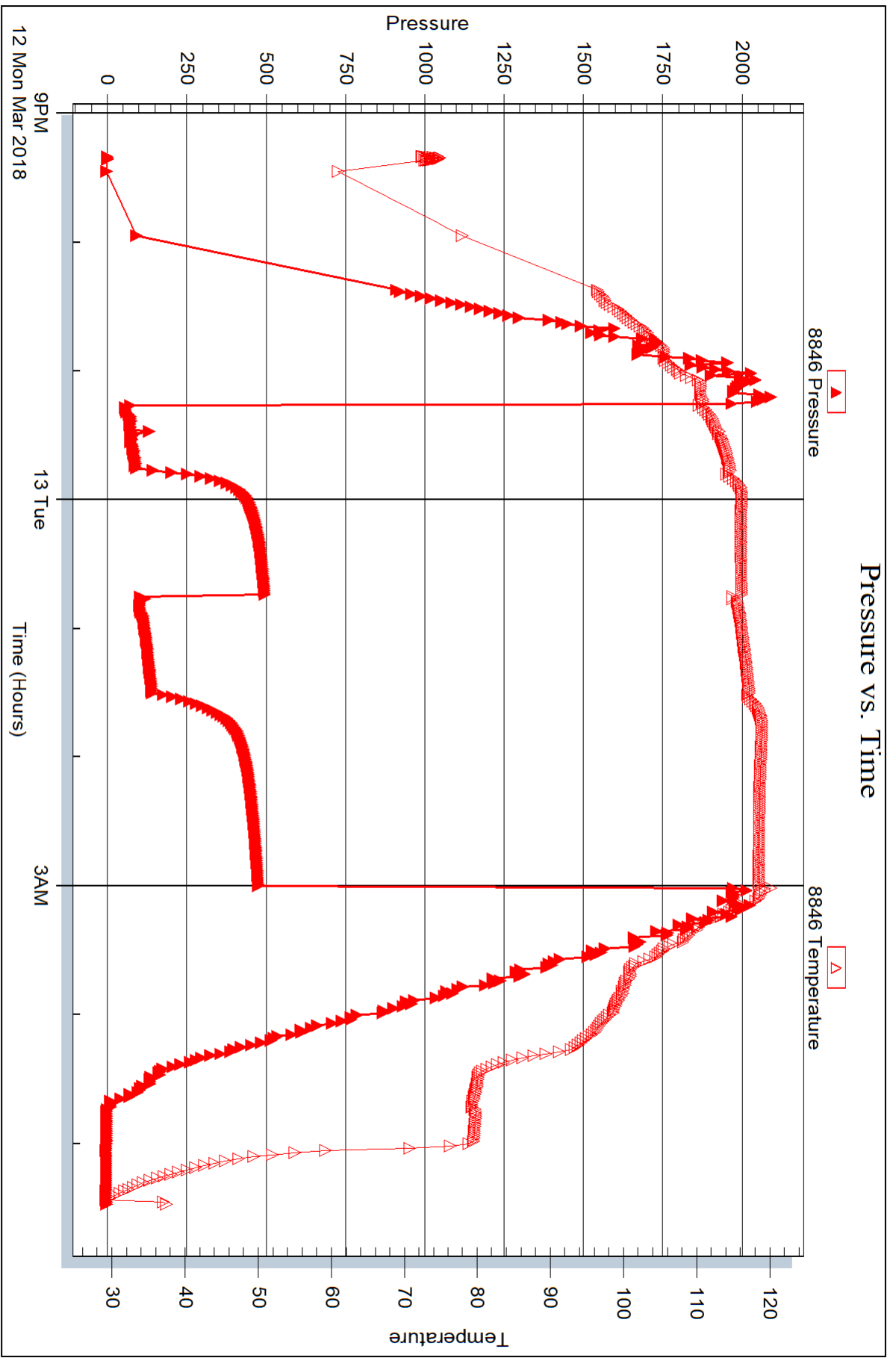
Serial #: 8846

Inside

Bear Petroleum, LLC

Higgins C#1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 62025

Printed: 2018.03.14 @ 14:29:11



## DRILL STEM TEST REPORT

Prepared For: **Bear Petroleum, LLC**

PO Box 438  
Haysville, KS 67060-0438

ATTN: Dick Schremmer/Aaron

### **Higgins C #1**

#### **10-30S-08W Kingman, KS**

Start Date: 2018.03.13 @ 12:59:00

End Date: 2018.03.13 @ 20:18:30

Job Ticket #: 63376                      DST #: 3

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

Printed: 2018.03.14 @ 14:35:08





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

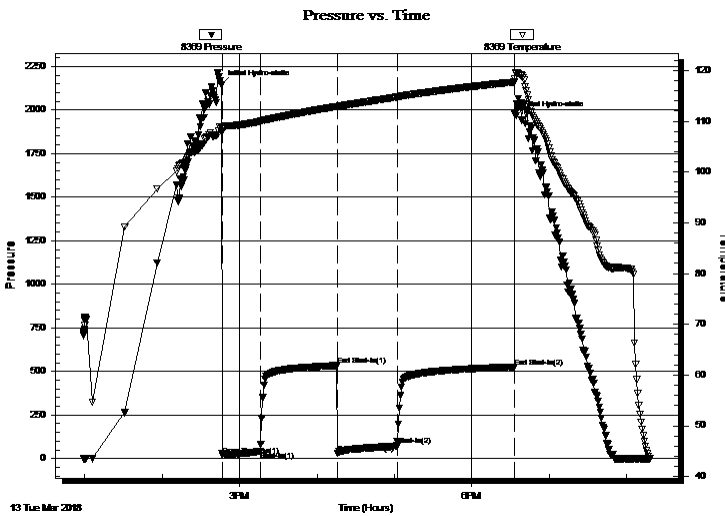
**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 63376 **DST#: 3**  
 Test Start: 2018.03.13 @ 12:59:00

## GENERAL INFORMATION:

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:46:50  
 Time Test Ended: 20:18:30  
 Interval: **4194.00 ft (KB) To 4210.00 ft (KB) (TVD)**  
 Total Depth: 4210.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80  
 Reference Elevations: 1536.00 ft (KB)  
 1525.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8369 Outside**  
 Press@RunDepth: 73.97 psig @ 4195.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.13 End Date: 2018.03.13 Last Calib.: 2018.03.13  
 Start Time: 12:59:01 End Time: 20:18:30 Time On Btm: 2018.03.13 @ 14:46:00  
 Time Off Btm: 2018.03.13 @ 18:34:20

**TEST COMMENT:** IF - Weak blow building to strong blow 29 minutes into initial flow period. Gas to surface in 29 minutes  
 IS - Surface blow back  
 FF - Strong blow throughout  
 FS - 4" blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2143.43	108.90	Initial Hydro-static
1	20.31	108.67	Open To Flow (1)
30	41.11	109.97	Shut-In(1)
90	533.67	112.94	End Shut-In(1)
91	30.47	112.76	Open To Flow (2)
136	73.97	114.75	Shut-In(2)
227	525.76	117.71	End Shut-In(2)
229	1967.98	119.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	GO and M cut W 10%G 8%O 71%W 11%	0.30
85.00	GHO and W cut M 10%G 22%O 26%w	4.0.90l
0.00	GTS	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	1.10	5.80
Last Gas Rate	0.13	3.40	6.66
Max. Gas Rate	0.13	3.40	6.66



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

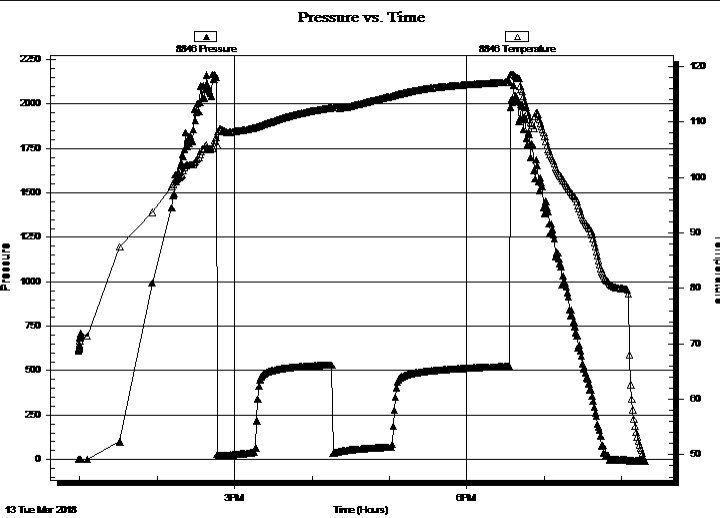
**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 63376 **DST#: 3**  
 Test Start: 2018.03.13 @ 12:59:00

**GENERAL INFORMATION:**

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:46:50  
 Time Test Ended: 20:18:30  
 Interval: **4194.00 ft (KB) To 4210.00 ft (KB) (TVD)**  
 Total Depth: 4210.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jimmy Ricketts  
 Unit No: 80  
 Reference Elevations: 1536.00 ft (KB)  
 1525.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8846 Inside**  
 Press@RunDepth: psig @ 4195.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.13 End Date: 2018.03.13 Last Calib.: 1899.12.30  
 Start Time: 12:59:01 End Time: 20:18:30 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF - Weak blow building to strong blow 29 minutes into initial flow period. Gas to surface in 29 minutes  
 IS - Surface blow back  
 FF - Strong blow throughout  
 FS - 4" blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	GO and M cut W 10%G 8%O 71%W 11%	0.30
85.00	GHO and W cut M 10%G 22%O 26%w	4.0.90l
0.00	GTS	0.00

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	1.10	5.80
Last Gas Rate	0.13	3.40	6.66
Max. Gas Rate	0.13	3.40	6.66



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bear Petroleum, LLC  
 PO Box 438  
 Haysville, KS 67060-0438  
 ATTN: Dick Schremmer/Aaron

**10-30S-08W Kingman, KS**  
**Higgins C #1**  
 Job Ticket: 63376      **DST#: 3**  
 Test Start: 2018.03.13 @ 12:59:00

**Tool Information**

Drill Pipe:	Length: 4079.00 ft	Diameter: 3.80 inches	Volume: 57.22 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 92.00 ft	Diameter: 2.25 inches	Volume: 0.45 bbl	Weight to Pull Loose: 61000.00 lb
			<u>Total Volume: 57.67 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4194.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	44.00 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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Change Over Sub	1.00			4167.00	
Shut In Tool	5.00			4172.00	
Hydraulic tool	5.00			4177.00	
Jars	5.00			4182.00	
Safety Joint	3.00			4185.00	
Packer	4.00			4189.00	28.00 Bottom Of Top Packer
Packer	5.00			4194.00	
Stubb	1.00			4195.00	
Recorder	0.00	8369	Outside	4195.00	
Recorder	0.00	8846	Inside	4195.00	
Perforations	10.00			4205.00	
Bullnose	5.00			4210.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 44.00**



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TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bear Petroleum, LLC

**10-30S-08W Kingman, KS**

PO Box 438  
Haysville, KS 67060-0438

**Higgins C #1**

Job Ticket: 63376

**DST#: 3**

ATTN: Dick Schremmer/Aaron

Test Start: 2018.03.13 @ 12:59:00

## 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:

8500 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GO and M cut W 10%G 8%O 71%W 11%M	0.295
85.00	GHO and W cut M 10%G 22%O 26%w 42%M	0.901
0.00	GTS	0.000

Total Length: 145.00 ft

Total Volume: 1.196 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**

Bear Petroleum, LLC

**10-30S-08W Kingman, KS**

PO Box 438  
Haysville, KS 67060-0438

**Higgins C #1**

Job Ticket: 63376

**DST#: 3**

ATTN: Dick Schremmer/Aaron

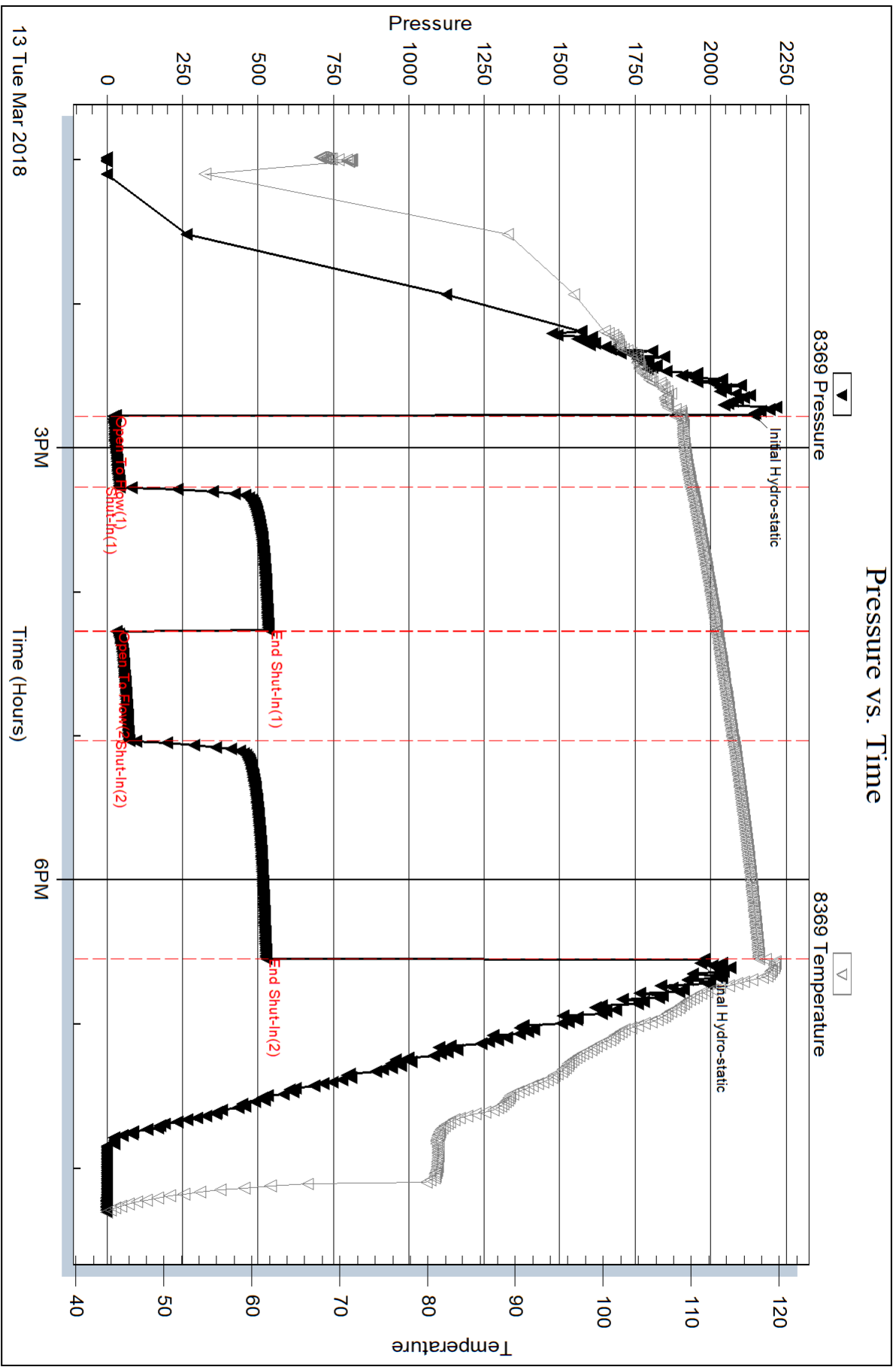
Test Start: 2018.03.13 @ 12:59:00

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	1.10	5.80
2	20	0.13	1.90	6.10
2	30	0.13	2.90	6.47
2	40	0.13	3.20	6.59
2	45	0.13	3.40	6.66



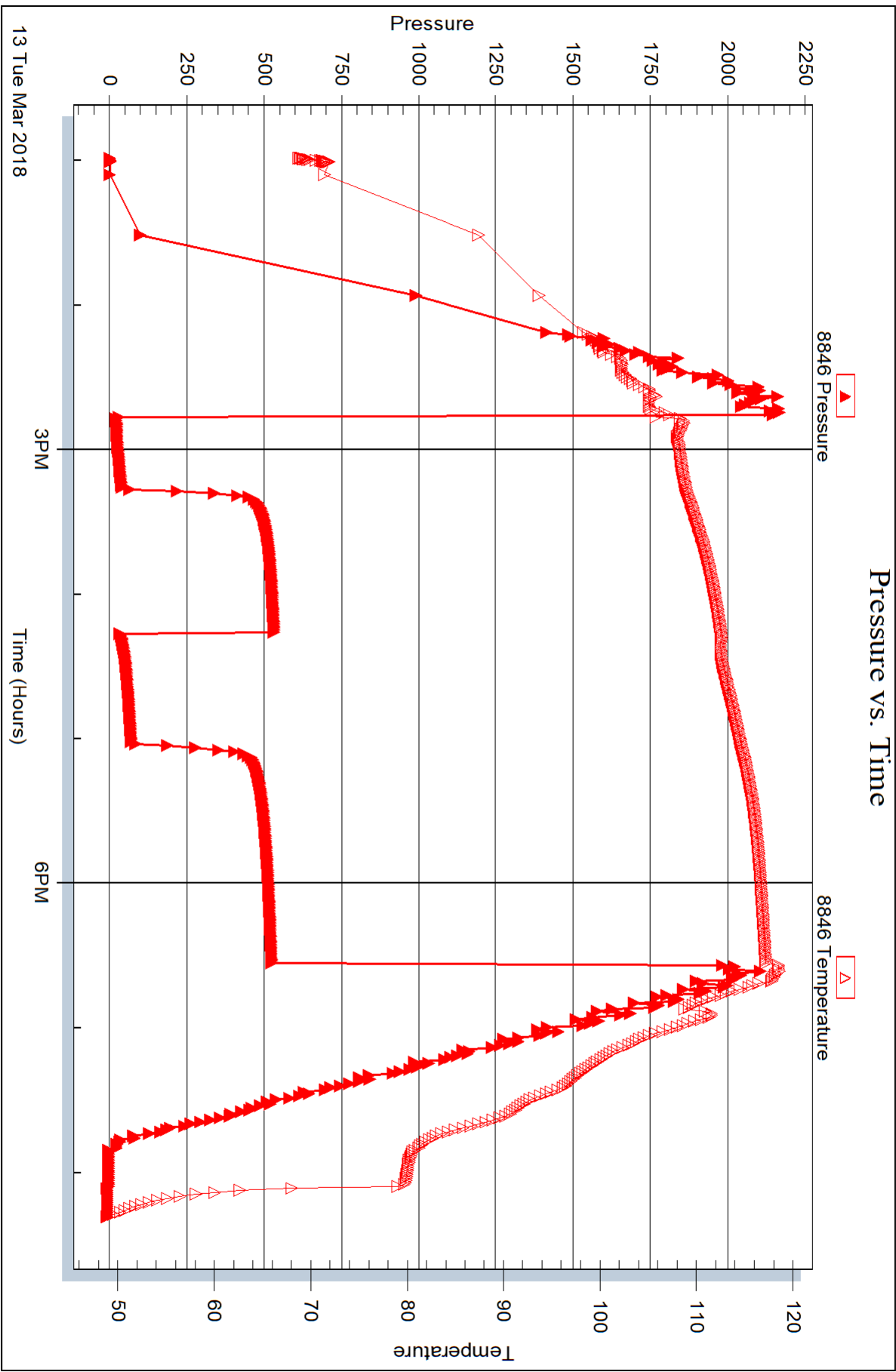
Serial #: 8846

Inside

Bear Petroleum, LLC

Higgins C#1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63376

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62024

Well Name & No. Higgins OC #1 Test No. 1 Date 3-11-18  
 Company Bear Petroleum, LLC Elevation 1536 KB 1525 GL  
 Address P.O. Box 438 Haysville, KS, 67060-0438  
 Co. Rep / Geo. Dick Schreiner/Aaron Young Rig Martin Drilling #20  
 Location: Sec. 10 Twp. 30 S Rge. 8 W Co. Kingman State KS

Interval Tested 3850 - 3874 Zone Tested Hertha  
 Anchor Length 24' Drill Pipe Run 3761 Mud Wt. 9.6  
 Top Packer Depth 3845 Drill Collars Run 92 Vis 48  
 Bottom Packer Depth 3850 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3874 Chlorides 13500 ppm System LCM  
 Blow Description IF - weak blow building to 2 inches IFP  
FF - weak blow building to 2 inches FFP.

Rec	Feet of	%gas	%oil	%water	%mud
<u>220</u>	<u>Heavy mud cut water</u>	<u>TR</u>		<u>74</u>	<u>26</u>
	<u>with trace oil</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 220 BHT 118 Gravity API RW .137 @ 47.1 °F Chlorides 95000 ppm  
 (A) Initial Hydrostatic 1911  Test 1050 T-On Location 1330  
 (B) First Initial Flow 20  Jars 250 T-Started 1403  
 (C) First Final Flow 75  Safety Joint 75 T-Open 1555  
 (D) Initial Shut-In 1504  Circ Sub \_\_\_\_\_ T-Pulled 1943  
 (E) Second Initial Flow 80  Hourly Standby \_\_\_\_\_ T-Out 2230  
 (F) Second Final Flow 119  Mileage 102 RT 102 Comments \_\_\_\_\_  
 (G) Final Shut-In 1496  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1885  Straddle \_\_\_\_\_  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 33  Day Standby \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 60  Accessibility \_\_\_\_\_ Total 1727  
 Final Flow 45 Sub Total 1727 MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90

Approved By

Our Representative

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

## Test Ticket

NO. 62025

Well Name & No. Higgins C #1 Test No. 2 Date 3-12-18  
 Company Bear Petroleum, LLC Elevation 1536 KB 1525 GL  
 Address P.O. Box 438 Haysville, KS. 67060-0438  
 Co. Rep / Geo. Dick Schremmer / Aaron Young Rig Markin Drilling #20  
 Location: Sec. 10 Twp. 30 S Rge. 8 W Co. Kingman State KS.

Interval Tested 4098-4195 Zone Tested Mississippian  
 Anchor Length 97 Drill Pipe Run 3983 Mud Wt. 9.5  
 Top Packer Depth 4093 Drill Collars Run 92 Vis 49  
 Bottom Packer Depth 4098 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4195 Chlorides 13000 ppm System LCM

Blow Description IF-Weak blow building to Strong blow 1 1/2 mins into IFP  
Gas to Surface 27 mins. into IFP. Strong blow back during FSP.  
FF- Strong blow throughout FFP

Rec	Feet of	%gas	%oil	%water	%mud
<u>300</u>	<u>Gassy Mud</u>	<u>11</u>		<u>89</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

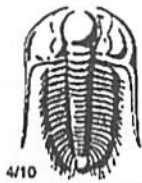
Rec Total 300 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1975</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2040</u>
(B) First Initial Flow <u>56</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2120</u>
(C) First Final Flow <u>92</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2315</u>
(D) Initial Shut-In <u>496</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0300</u>
(E) Second Initial Flow <u>104</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>0520</u>
(F) Second Final Flow <u>141</u>	<input checked="" type="checkbox"/> Mileage <u>102</u> <u>RT 102</u>	Comments _____
(G) Final Shut-In <u>477</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1975</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1827</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1827</u>	

Approved By \_\_\_\_\_ Our Representative Jimmy Dickel

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63376**

Well Name & No. Higgins C #1 Test No. 3 Date 3-13-18  
 Company Bear Petroleum, LLC Elevation 1536 KB 1525 GL  
 Address P.O. Box 438 Haysville, KS. 67060-0438  
 Co. Rep / Geo. Dick Schremmer / Aaron Young Rig Murfin Drilling #20  
 Location: Sec. 10 Twp 30S Rge. 8W Co. Kingman State KS

Interval Tested 4194-4210 Zone Tested Mississippian  
 Anchor Length 16' Drill Pipe Run 4079 Mud Wt. 9.1  
 Top Packer Depth 4189 Drill Collars Run 92 Vis 58  
 Bottom Packer Depth 4194 Wt. Pipe Run 0 WL 8.4  
 Total Depth 4210 Chlorides 8500 ppm System LCM

Blow Description IF- Weak blow building to Strong blow 2mins into FFP  
Gas to Surface 29 mins. Into IFP. Surface Blow back during FSP.

FF- Strong blow throughout FFP.

FS- 4 inch blow back during FSP

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>Cassy oil and mud cut water</u>	<u>10</u>	<u>8</u>	<u>71</u>	<u>11</u>
<u>85</u>	<u>Cassy Heavy oil and water cut mud</u>	<u>10</u>	<u>22</u>	<u>26</u>	<u>42</u>
<u>    </u>	<u><del>Cassy oil and mud cut water</del></u>	<u><del>10</del></u>	<u><del>8</del></u>	<u><del>71</del></u>	<u><del>11</del></u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

Rec Total 145 BHT      Gravity      API RW 090 @ 55 °F Chlorides 8500 ppm

(A) Initial Hydrostatic 2143  Test 1150 T-On Location 1230  
 (B) First Initial Flow 20  Jars 250 T-Started 1259  
 (C) First Final Flow 41  Safety Joint 75 T-Open 1446  
 (D) Initial Shut-In 534  Circ Sub      T-Pulled 1833  
 (E) Second Initial Flow 30  Hourly Standby      T-Out 2010  
 (F) Second Final Flow 74  Mileage 102 RT 102 Comments       
 (G) Final Shut-In 526  Sampler       
 (H) Final Hydrostatic 1968  Straddle       Ruined Shale Packer       
 Shale Packer 250  Ruined Packer       
 Extra Packer       Extra Copies       
 Initial Open 30  Extra Recorder      Sub Total 0  
 Initial Shut-In 60  Day Standby      Total 1827  
 Final Flow 45  Accessibility      MP/DST Disc't       
 Final Shut-In 92 Sub Total 1827

Approved By      Our Representative Jimmy Ricketts

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