



## DRILL STEM TEST REPORT

Prepared For: **Deutsch Oil Co**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

ATTN: Aaron Young

**Curtis #2-15**

**15-26S-15W Pratt,KS**

Start Date: 2017.01.03 @ 15:05:30

End Date: 2017.01.03 @ 23:20:30

Job Ticket #: 63557                      DST #: 1

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

Printed: 2017.01.09 @ 10:33:55

Deutsch Oil Co  
15-26S-15W Pratt,KS  
Curtis #2-15  
DST # 1  
LKC "B"  
2017.01.03



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Deutsch Oil Co  
 8100 E 22nd St N Bldg 600  
 Wichita, KS 67226  
 ATTN: Aaron Young

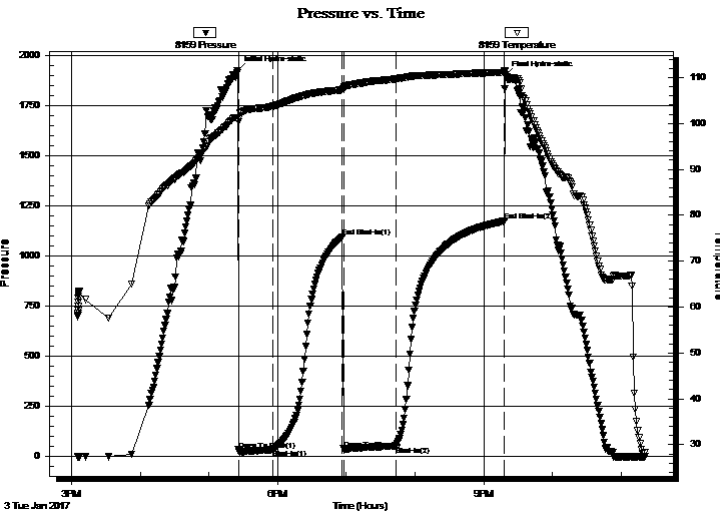
**15-26S-15W Pratt,KS**  
**Curtis #2-15**  
 Job Ticket: 63557 **DST#: 1**  
 Test Start: 2017.01.03 @ 15:05:30

## GENERAL INFORMATION:

Formation: **LKC "B"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 17:25:45 Tester: Leal Cason  
 Time Test Ended: 23:20:30 Unit No: 74  
 Interval: **3924.00 ft (KB) To 3954.00 ft (KB) (TVD)** Reference Elevations: 2063.00 ft (KB)  
 Total Depth: 3954.00 ft (KB) (TVD) 2056.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

**Serial #: 8159 Inside**  
 Press@RunDepth: 52.09 psig @ 3925.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.01.03 End Date: 2017.01.03 Last Calib.: 2017.01.03  
 Start Time: 15:05:31 End Time: 23:20:30 Time On Btm: 2017.01.03 @ 17:25:00  
 Time Off Btm: 2017.01.03 @ 21:18:45

**TEST COMMENT:** IF: Strong Blow , BOB in 4 minutes  
 IS: No Blow Back  
 FF: Fair Blow , BOB in 12 minutes  
 FS: No Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1927.75	101.22	Initial Hydro-static
1	32.67	100.43	Open To Flow (1)
31	34.02	103.70	Shut-In(1)
92	1096.65	107.31	End Shut-In(1)
93	35.57	107.74	Open To Flow (2)
139	52.09	109.73	Shut-In(2)
234	1175.00	111.16	End Shut-In(2)
234	1899.96	111.40	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
78.00	GOMCW 5%G 5%O 36%M 54%W	1.09

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Deutsch Oil Co

**15-26S-15W Pratt, KS**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

**Curtis #2-15**

Job Ticket: 63557

**DST#: 1**

ATTN: Aaron Young

Test Start: 2017.01.03 @ 15:05:30

## Tool Information

Drill Pipe:	Length: 3910.00 ft	Diameter: 3.80 inches	Volume: 54.85 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 54.85 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3924.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	56.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3903.00	
Hydraulic tool	5.00			3908.00	
Jars	5.00			3913.00	
Safety Joint	2.00			3915.00	
Packer	5.00			3920.00	26.00 Bottom Of Top Packer
Packer	4.00			3924.00	
Stubb	1.00			3925.00	
Recorder	0.00	8159	Inside	3925.00	
Recorder	0.00	6806	Outside	3925.00	
Perforations	26.00			3951.00	
Bullnose	3.00			3954.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 56.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Deutsch Oil Co

**15-26S-15W Pratt, KS**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

**Curtis #2-15**

Job Ticket: 63557

**DST#: 1**

ATTN: Aaron Young

Test Start: 2017.01.03 @ 15:05:30

### 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:

85000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
78.00	GOMCW 5%G 5%O 36%M 54%W	1.094

Total Length: 78.00 ft      Total Volume: 1.094 bbl

Num Fluid Samples: 0

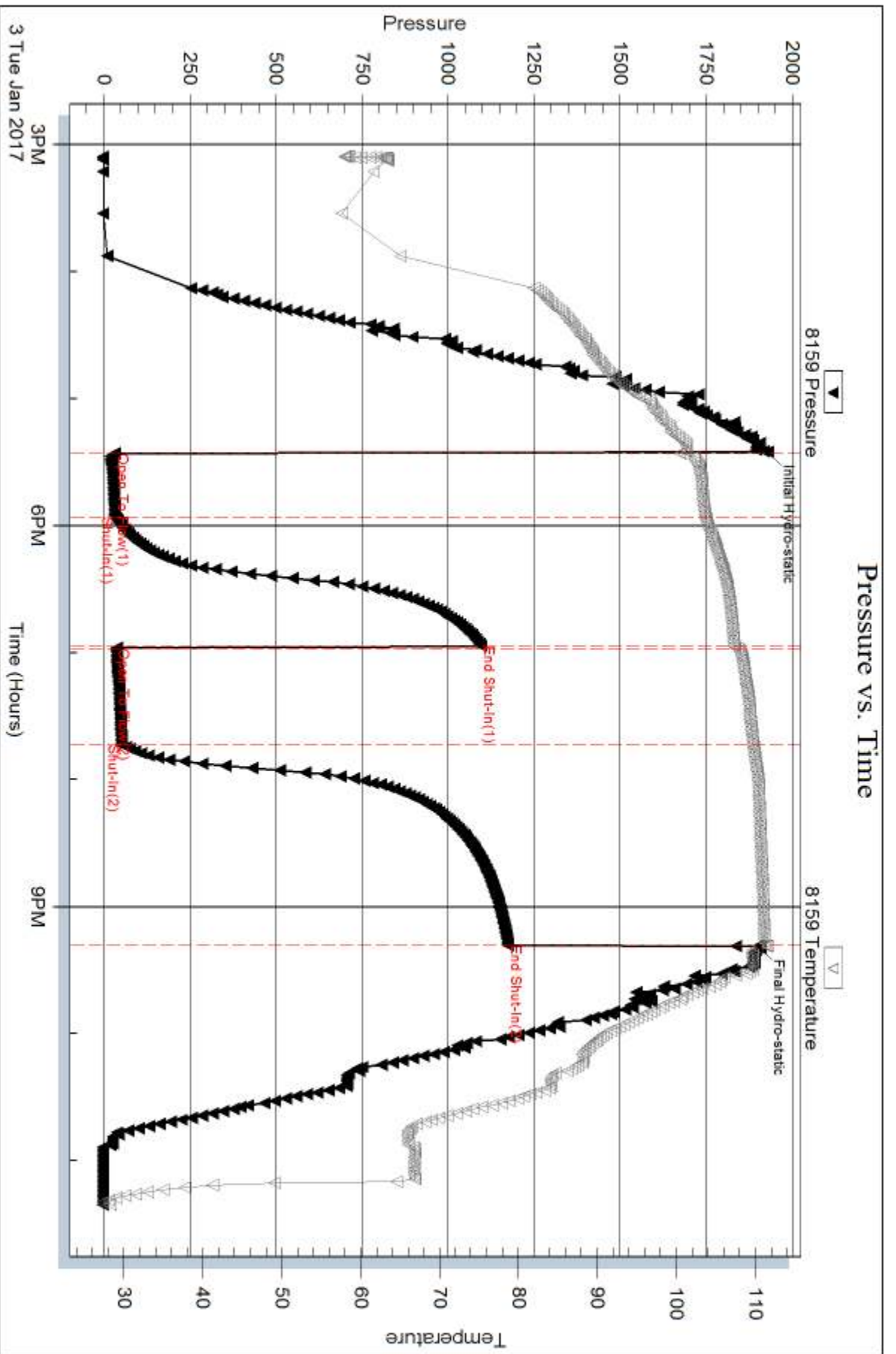
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .18 @ 35 degrees

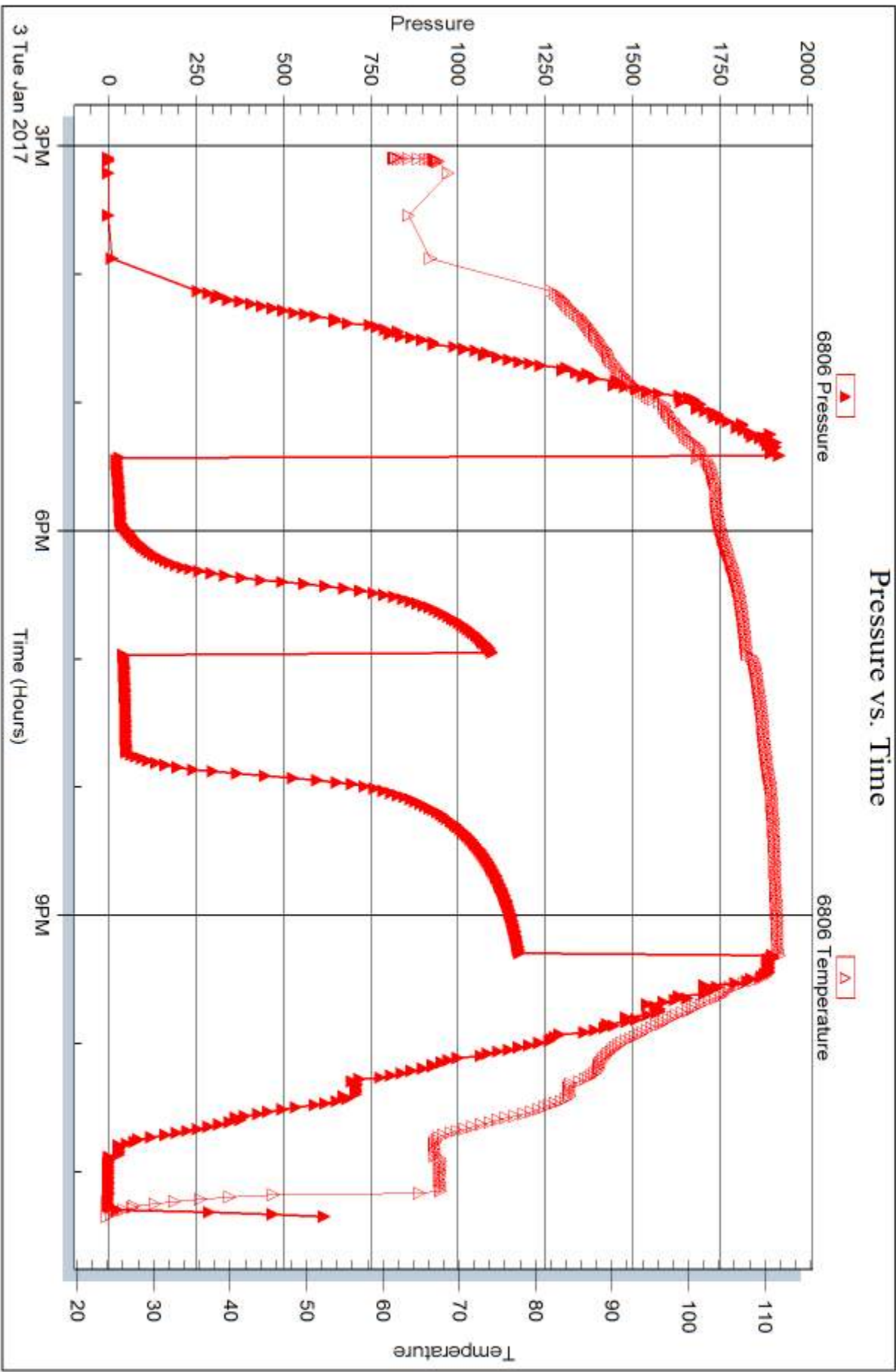


Serial #: 6806

Outside Deutsch Oil Co

Curtis #2-15

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 63557

Printed: 2017.01.09 @ 10:33:56



## DRILL STEM TEST REPORT

Prepared For: **Deutsch Oil Co**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

ATTN: Aaron Young

### **Curtis #2-15**

### **15-26S-15W Pratt,KS**

Start Date: 2017.01.04 @ 16:33:52

End Date: 2017.01.05 @ 01:31:07

Job Ticket #: 63558                      DST #: 2

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

Printed: 2017.01.09 @ 10:33:34

Deutsch Oil Co  
15-26S-15W Pratt,KS  
Curtis #2-15  
DST # 2  
LKC "H"  
2017.01.04





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Deutsch Oil Co  
 8100 E 22nd St N Bldg 600  
 Wichita, KS 67226  
 ATTN: Aaron Young

**15-26S-15W Pratt, KS**  
**Curtis #2-15**  
 Job Ticket: 63558 **DST#: 2**  
 Test Start: 2017.01.04 @ 16:33:52

## GENERAL INFORMATION:

Formation: **LKC "H"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:56:22  
 Time Test Ended: 01:31:07  
 Interval: **4050.00 ft (KB) To 4078.00 ft (KB) (TVD)**  
 Total Depth: 4078.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 74  
 Reference Elevations: 2063.00 ft (KB)  
 2056.00 ft (CF)  
 KB to GR/CF: 7.00 ft

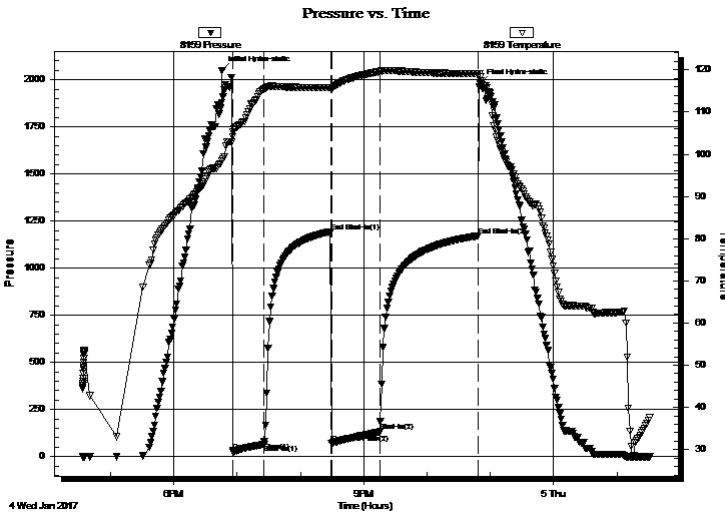
## Serial #: 8159

Inside

Press@RunDepth: 131.34 psig @ 4051.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.01.04 End Date: 2017.01.05 Last Calib.: 2017.01.05  
 Start Time: 16:33:53 End Time: 01:31:07 Time On Btm: 2017.01.04 @ 18:45:52  
 Time Off Btm: 2017.01.04 @ 22:50:37

TEST COMMENT: IF: Strong Blow , BOB in 1 minute  
 IS: No Blow Back  
 FF: Strong Blow , BOB 90 Sec  
 FS: Weak Surface Blow Back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2049.70	98.47	Initial Hydro-static
11	24.83	105.20	Open To Flow (1)
40	65.09	115.42	Shut-In(1)
103	1193.70	115.78	End Shut-In(1)
104	71.09	115.44	Open To Flow (2)
150	131.34	119.58	Shut-In(2)
243	1171.65	119.07	End Shut-In(2)
245	1978.82	118.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	Water	0.88
126.00	GOMCW 10%G 20%O 30%M 40%W	1.77
63.00	GOCM 30%G 20%O 50%M	0.88
5.00	Oil	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Deutsch Oil Co  
8100 E 22nd St N Bldg 600  
Wichita, KS 67226  
ATTN: Aaron Young

**15-26S-15W Pratt, KS**  
**Curtis #2-15**  
Job Ticket: 63558      **DST#: 2**  
Test Start: 2017.01.04 @ 16:33:52

**Tool Information**

Drill Pipe:	Length: 4034.00 ft	Diameter: 3.80 inches	Volume: 56.59 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 56.59 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4050.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	54.00 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>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			4029.00	
Hydraulic tool	5.00			4034.00	
Jars	5.00			4039.00	
Safety Joint	2.00			4041.00	
Packer	5.00			4046.00	26.00      Bottom Of Top Packer
Packer	4.00			4050.00	
Stubb	1.00			4051.00	
Recorder	0.00	8159	Inside	4051.00	
Recorder	0.00	6806	Outside	4051.00	
Perforations	24.00			4075.00	
Bullnose	3.00			4078.00	28.00      Bottom Packers & Anchor

**Total Tool Length: 54.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Deutsch Oil Co

**15-26S-15W Pratt, KS**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

**Curtis #2-15**

Job Ticket: 63558

**DST#: 2**

ATTN: Aaron Young

Test Start: 2017.01.04 @ 16:33:52

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

70000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	Water	0.884
126.00	GOMCW 10%G 20%O 30%M 40%W	1.767
63.00	GOCM 30%G 20%O 50%M	0.884
5.00	Oil	0.070

Total Length: 257.00 ft      Total Volume: 3.605 bbl

Num Fluid Samples: 0

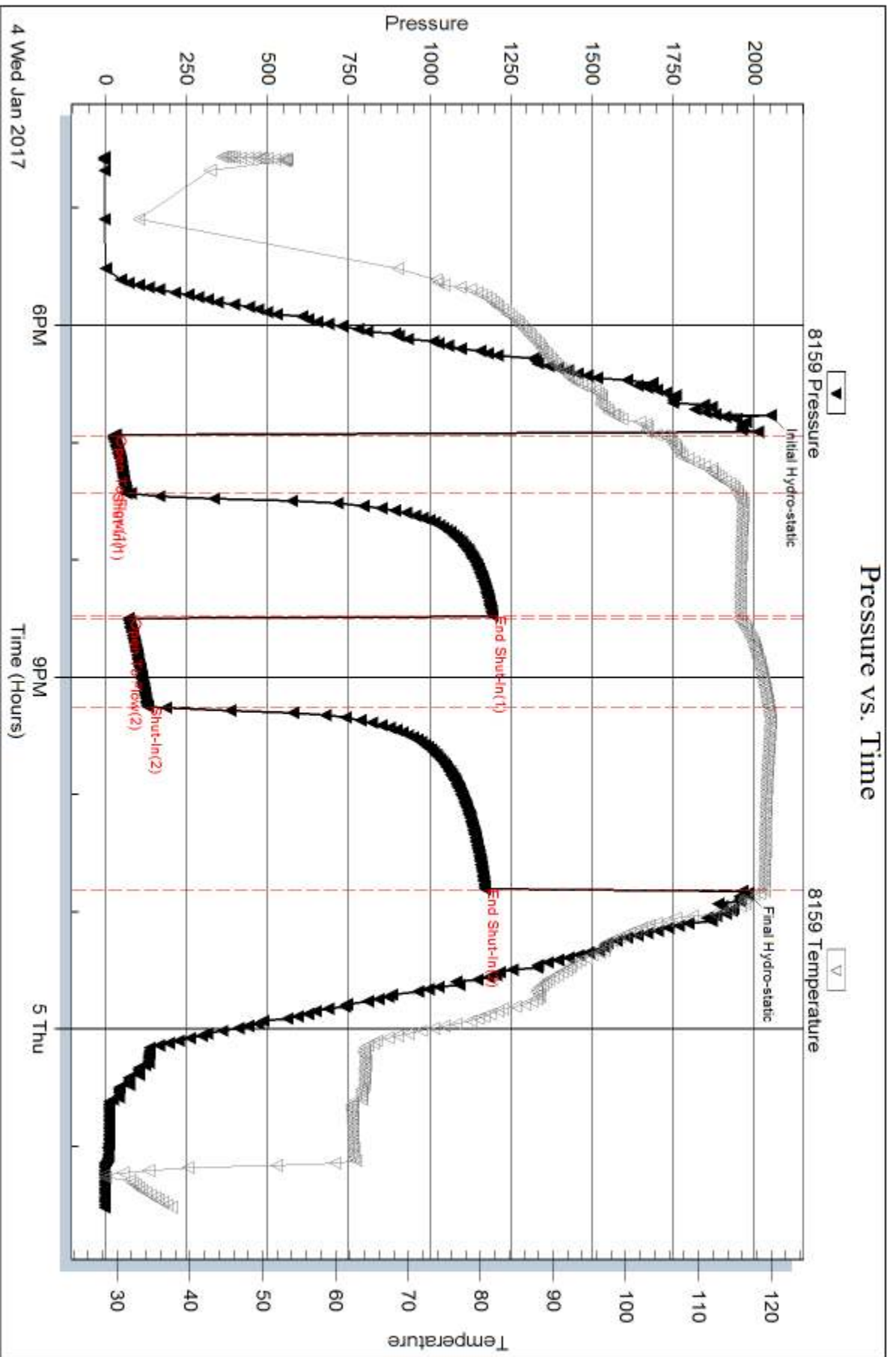
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity Was 24@ 48degrees  
RW was .25 @29. degrees

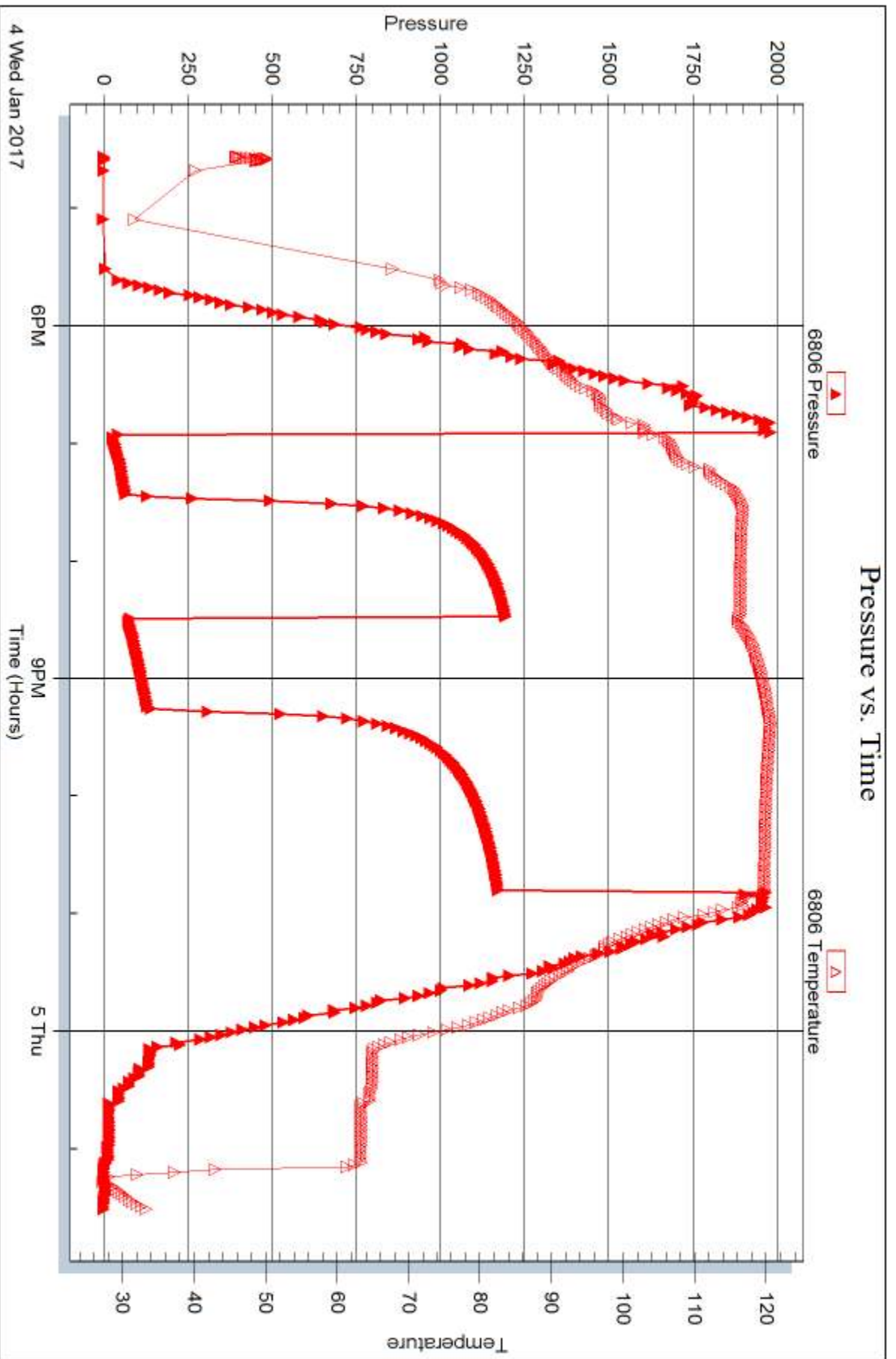


Serial #: 6806

Outside Deutsch Oil Co

Curtis #2-15

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63558

Printed: 2017.01.09 @ 10:33:35



## DRILL STEM TEST REPORT

Prepared For: **Deutsch Oil Co**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

ATTN: Aaron Young

**Curtis #2-15**

**15-26S-15W Pratt,KS**

Start Date: 2017.01.06 @ 09:48:15

End Date: 2017.01.06 @ 17:44:30

Job Ticket #: 63559                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.01.09 @ 10:33:12



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Deutsch Oil Co  
 8100 E 22nd St N Bldg 600  
 Wichita, KS 67226  
 ATTN: Aaron Young

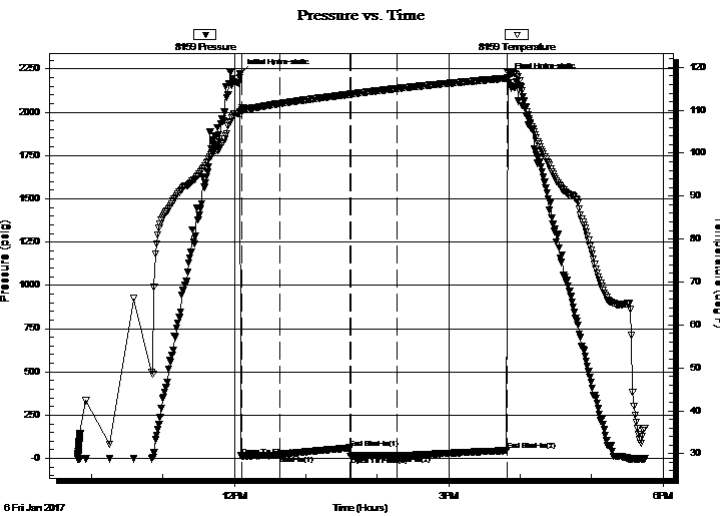
**15-26S-15W Pratt, KS**  
**Curtis #2-15**  
 Job Ticket: 63559 **DST#: 3**  
 Test Start: 2017.01.06 @ 09:48:15

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:06:00  
 Time Test Ended: 17:44:30  
 Interval: **4426.00 ft (KB) To 4448.00 ft (KB) (TVD)**  
 Total Depth: 4448.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 74  
 Reference Elevations: 2063.00 ft (KB)  
 2056.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8159 Inside**  
 Press@RunDepth: 16.18 psig @ 4427.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.01.06 End Date: 2017.01.06 Last Calib.: 2017.01.06  
 Start Time: 09:48:16 End Time: 17:44:30 Time On Btm: 2017.01.06 @ 12:04:45  
 Time Off Btm: 2017.01.06 @ 15:49:30

TEST COMMENT: IF: Weak Blow , Built to 4"  
 IS: No Blow Back  
 FF: Weak 1" Blow  
 FS: No Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2224.75	109.64	Initial Hydro-static
2	14.26	110.23	Open To Flow (1)
34	19.90	111.58	Shut-In(1)
93	60.54	113.74	End Shut-In(1)
93	12.85	113.74	Open To Flow (2)
132	16.18	115.07	Shut-In(2)
224	45.59	117.47	End Shut-In(2)
225	2198.13	118.83	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	SGCM 2%G 98%M	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Deutsch Oil Co  
 8100 E 22nd St N Bldg 600  
 Wichita, KS 67226  
 ATTN: Aaron Young

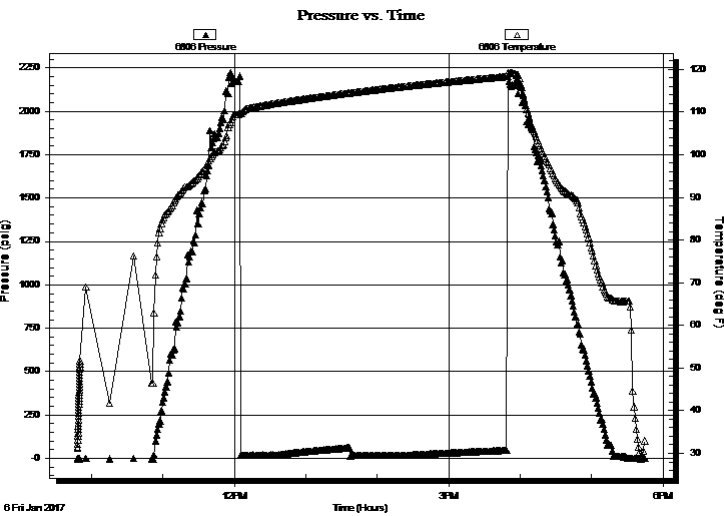
**15-26S-15W Pratt, KS**  
**Curtis #2-15**  
 Job Ticket: 63559 **DST#: 3**  
 Test Start: 2017.01.06 @ 09:48:15

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:06:00  
 Time Test Ended: 17:44:30  
 Interval: **4426.00 ft (KB) To 4448.00 ft (KB) (TVD)**  
 Total Depth: 4448.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 74  
 Reference Elevations: 2063.00 ft (KB)  
 2056.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 6806 Outside**  
 Press@RunDepth: psig @ 4427.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.01.06 End Date: 2017.01.06 Last Calib.: 2017.01.06  
 Start Time: 09:48:16 End Time: 17:44:30 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF: Weak Blow , Built to 4"  
 IS: No Blow Back  
 FF: Weak 1" Blow  
 FS: No Blow Back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	SGCM 2%G 98%M	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Deutsch Oil Co

**15-26S-15W Pratt, KS**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

**Curtis #2-15**

Job Ticket: 63559

**DST#: 3**

ATTN: Aaron Young

Test Start: 2017.01.06 @ 09:48:15

## Tool Information

Drill Pipe:	Length: 4407.00 ft	Diameter: 3.80 inches	Volume: 61.82 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 61.82 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4426.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4405.00	
Hydraulic tool	5.00			4410.00	
Jars	5.00			4415.00	
Safety Joint	2.00			4417.00	
Packer	5.00			4422.00	26.00 Bottom Of Top Packer
Packer	4.00			4426.00	
Stubb	1.00			4427.00	
Recorder	0.00	8159	Inside	4427.00	
Recorder	0.00	6806	Outside	4427.00	
Perforations	18.00			4445.00	
Bullnose	3.00			4448.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Deutsch Oil Co

**15-26S-15W Pratt, KS**

8100 E 22nd St N Bldg 600  
Wichita, KS 67226

**Curtis #2-15**

Job Ticket: 63559

**DST#: 3**

ATTN: Aaron Young

Test Start: 2017.01.06 @ 09:48:15

### 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:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SGCM 2%G 98%M	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

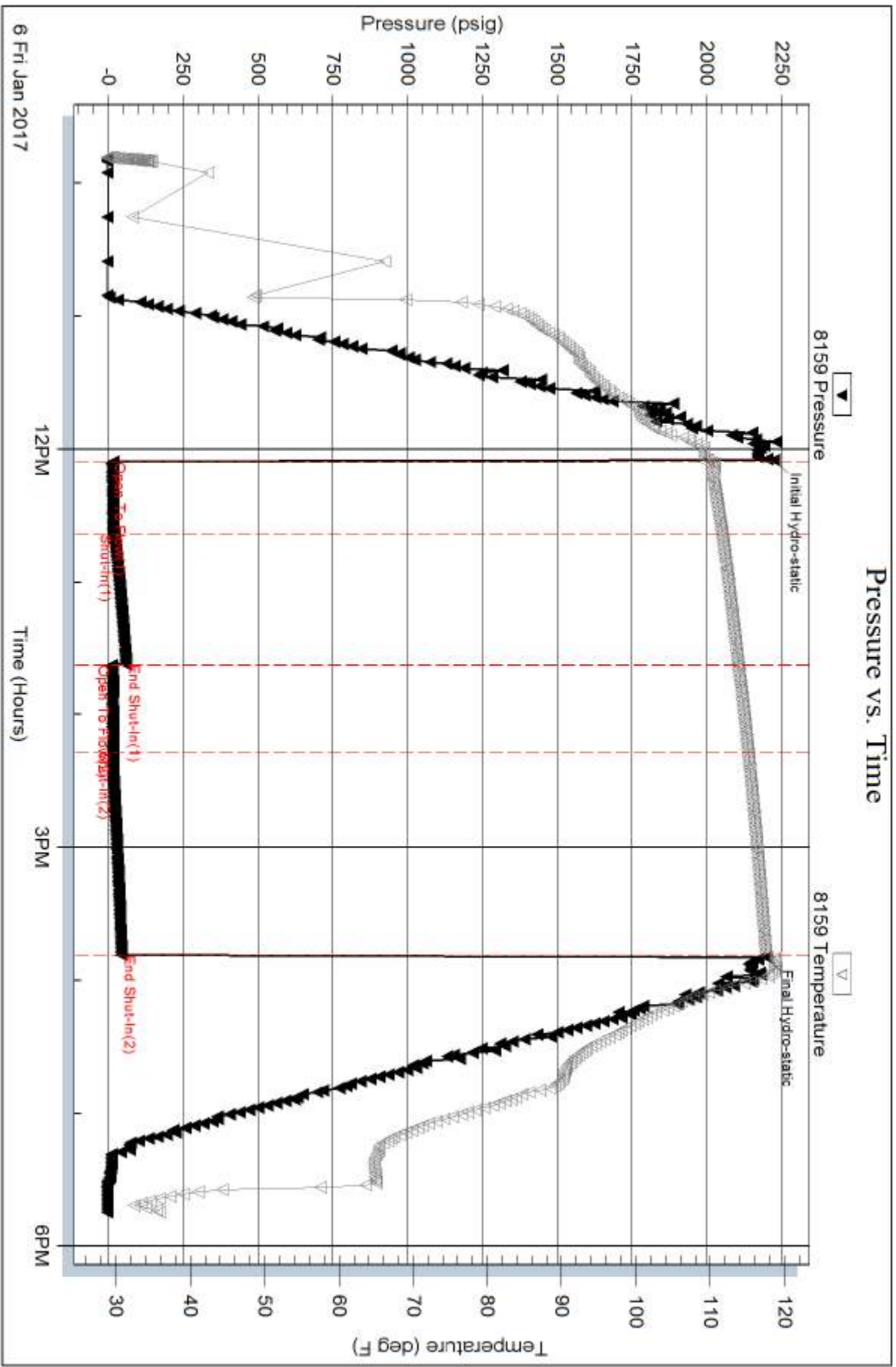
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

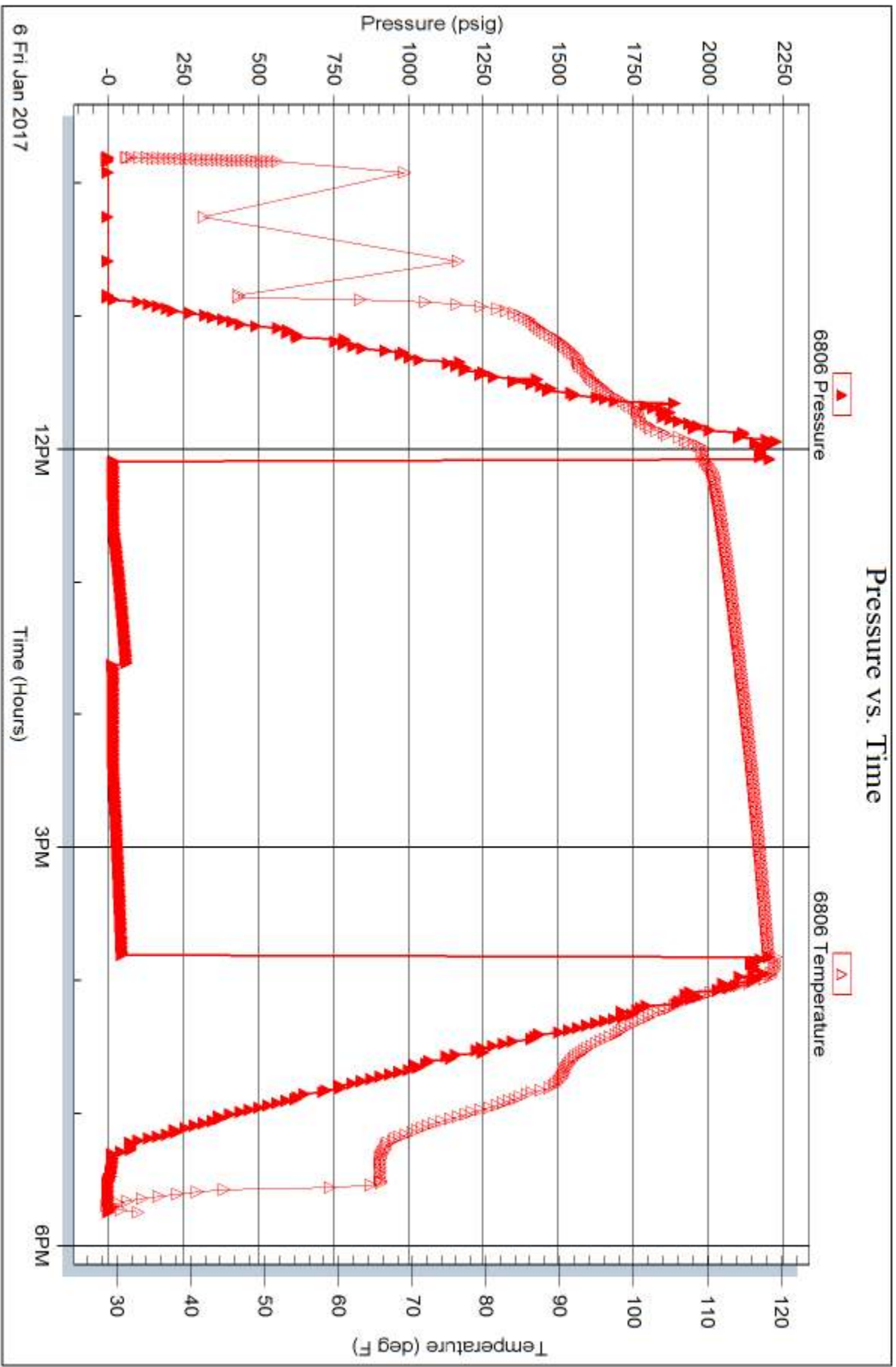


Serial #: 6806

Outside Deutsch Oil Co

Curtis #2-15

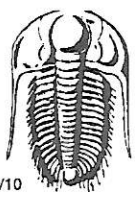
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63559

Printed: 2017.01.09 @ 10:33:13



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **63557**

Well Name & No. Curtis 2-15 Test No. 1 Date 01/03/17  
 Company Deutsch oil co Elevation 2063 KB 2056 GL  
 Address 8100 E 22nd St N Bldg 600 Wichita, KS 67226  
 Co. Rep / Geo. Aaron Young Rig Pickrell 10  
 Location: Sec. 15 Twp. 26S Rge. 15W Co. Pratt State KS

Interval Tested 3924 - 3954 Zone Tested Lansing B  
 Anchor Length 30 Drill Pipe Run 3910 Mud Wt. 9.2  
 Top Packer Depth 3919 Drill Collars Run 0 Vis 49  
 Bottom Packer Depth 3924 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3954 Chlorides 4000 ppm System LCM 2

Blow Description IF: strong Blow, BOB in 4 minutes  
ISI: No Blow Back  
FF: Fair Blow, BOB in 12 minutes  
FSI: no Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>78</u>	<u>GOMCW</u>	<u>5</u>	<u>5</u>	<u>54</u>	<u>36</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 78 BHT 111 Gravity N/C API RW -18 @ 35° F Chlorides 85000 ppm

- (A) Initial Hydrostatic 1928
- (B) First Initial Flow 33
- (C) First Final Flow 34
- (D) Initial Shut-In 1097
- (E) Second Initial Flow 35
- (F) Second Final Flow 52
- (G) Final Shut-In 1175
- (H) Final Hydrostatic 1899

- Test
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage (40)
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total

T-On Location 10:00  
 T-Started 15:05  
 T-Open 17:25  
 T-Pulled 21:18  
 T-Out 23:20

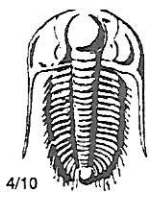
Comments \_\_\_\_\_  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total \_\_\_\_\_  
 Total \_\_\_\_\_  
 MP/DST Disc't \_\_\_\_\_

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

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged or 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. **63558**

Well Name & No. Curtis 2-15 Test No. 2 Date 01/04/17  
 Company Deutsch Oil Com Elevation 2063 KB 2056 GL  
 Address 8100 E 22nd st N Bldg 600 Wichita KS 67226  
 Co. Rep / Geo. Aaron Youngs Rig Pickrell 10  
 Location: Sec. 15 Twp. 26S Rge. 15W Co. Pratt State KS

Interval Tested 4050 - 4078 Zone Tested LKC H  
 Anchor Length 28 Drill Pipe Run 4034 Mud Wt. 94  
 Top Packer Depth 4055 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 4050 Wt. Pipe Run 0 WL 9.6  
 Total Depth 4078 Chlorides 4000 ppm System LCM 2

Blow Description IF: Strong Blow, BOB in 1 min

ISI: NO Blow Back

FF: Strong Blow, BOB 90 sec.

ESI: Weak surface blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>oil</u>				
<u>63</u>	<u>GOCM</u>	<u>30%</u>	<u>20%</u>	<del>50%</del>	<u>50%</u>
<u>126</u>	<u>GOMCW</u>	<u>10%</u>	<u>20%</u>	<u>40%</u>	<u>30%</u>
<u>63</u>	<u>water</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 257 BHT 118 Gravity 25.2 API RW .25 @ 29 °F Chlorides 70000 ppm

- (A) Initial Hydrostatic 2050
- (B) First Initial Flow 23
- (C) First Final Flow 65
- (D) Initial Shut-In 1194
- (E) Second Initial Flow 71
- (F) Second Final Flow 131
- (G) Final Shut-In 1172
- (H) Final Hydrostatic 1979

- Test
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage (40)
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility

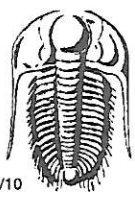
- T-On Location 1500
- T-Started
- T-Open
- T-Pulled 22:48
- T-Out
- Comments
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total
- Total
- MP/DST Disc't

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

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

## Test Ticket

NO. **63559**

Well Name & No. Curtis 2-15 Test No. 3 Date 01/06/17  
 Company Deutsch Oil Co Elevation 2063 KB 2056 GL  
 Address 8100 E 22nd St N Bldg 600 Wichita, KS 67226  
 Co. Rep / Geo. Aaron Young Rig Pickrell 10  
 Location: Sec. 15 Twp. 26S Rge. 15W Co. Pratt State KS

Interval Tested 4426 - 4448 Zone Tested Mississippi  
 Anchor Length 22 Drill Pipe Run 4407 Mud Wt. 9.5  
 Top Packer Depth 4421 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 4426 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4448 Chlorides 4000 ppm System LCM 3

Blow Description IF: weak Blow, Built to 4 inches  
ISI: No Blow Back  
FF: weak 1 inch Blow  
FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>56CM</u>	<u>2</u>		<u>98</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 118 Gravity NK API RW NK @ NK °F Chlorides NK ppm

(A) Initial Hydrostatic 2225  Test \_\_\_\_\_ T-On Location 08:45  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 09:48  
 (C) First Final Flow 20  Safety Joint \_\_\_\_\_ T-Open 12:06  
 (D) Initial Shut-In 61  Circ Sub \_\_\_\_\_ T-Pulled 15:48  
 (E) Second Initial Flow 13  Hourly Standby \_\_\_\_\_ T-Out 17:44  
 (F) Second Final Flow 16  Mileage (40) \_\_\_\_\_ Comments Loaded Tools  
 (G) Final Shut-In 46  Sampler \_\_\_\_\_ @ 6:15 on 01/07  
 (H) Final Hydrostatic 2198  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Ruined Packer \_\_\_\_\_  
 Final Flow 45  Extra Copies \_\_\_\_\_  
 Final Shut-In 90  Sub Total \_\_\_\_\_  
 Sub Total \_\_\_\_\_ Total \_\_\_\_\_  
 MP/DST Disc't \_\_\_\_\_

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.