



## DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

1616 Voss Rd. STE 800  
Houston TX 77057

ATTN: Terry McLeod

### **Wesseler #3-28**

### **28-16s-34w Scott,KS**

Start Date: 2016.12.02 @ 04:14:15

End Date: 2016.12.02 @ 10:40:15

Job Ticket #: 65682                      DST #: 1

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

Printed: 2016.12.06 @ 16:26:47

Landmark Resources  
28-16s-34w Scott,KS  
Wesseler #3-28  
DST # 1  
LKC I  
2016.12.02



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Landmark Resources  
1616 Voss Rd. STE 800  
Houston TX 77057  
ATTN: Terry McLeod

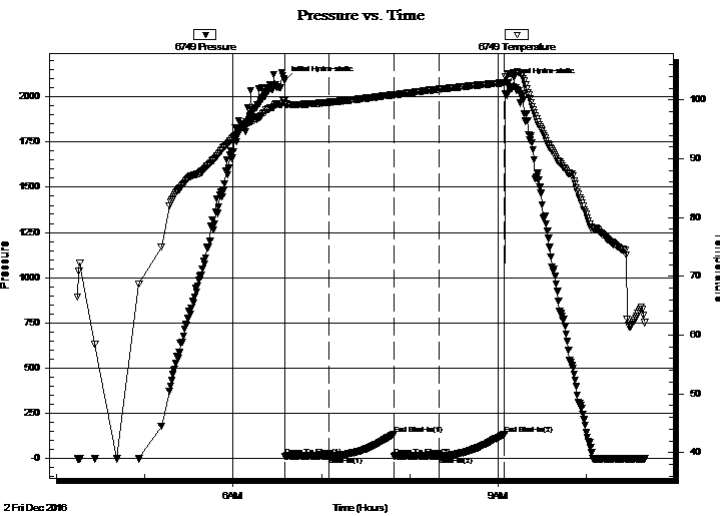
**28-16s-34w Scott,KS**  
**Wesseler #3-28**  
Job Ticket: 65682 **DST#: 1**  
Test Start: 2016.12.02 @ 04:14:15

## GENERAL INFORMATION:

Formation: **LKC I**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 06:35:15  
Time Test Ended: 10:40:15  
Interval: **4259.00 ft (KB) To 4290.00 ft (KB) (TVD)**  
Total Depth: 4259.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Mike Roberts  
Unit No: 81  
Reference Elevations: 3138.00 ft (KB)  
3133.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6749 Outside**  
Press@RunDepth: 14.02 psig @ 4260.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.12.02 End Date: 2016.12.02 Last Calib.: 2016.12.02  
Start Time: 04:14:15 End Time: 10:40:15 Time On Btm: 2016.12.02 @ 06:35:00  
Time Off Btm: 2016.12.02 @ 09:06:30

TEST COMMENT: IF: Built to 1/4" blow  
IS: No return blow  
FF: No blow  
FS: No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2089.39	99.88	Initial Hydro-static
1	13.84	99.29	Open To Flow (1)
31	14.79	99.59	Shut-In(1)
75	135.71	100.87	End Shut-In(1)
75	13.10	100.82	Open To Flow (2)
105	14.02	101.81	Shut-In(2)
150	133.73	102.93	End Shut-In(2)
152	2078.65	104.39	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65682

**DST#: 1**

ATTN: Terry McLeod

Test Start: 2016.12.02 @ 04:14:15

## Tool Information

Drill Pipe:	Length: 4246.00 ft	Diameter: 3.80 inches	Volume: 59.56 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 59.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4259.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	50.00 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			4241.00	
Shut In Tool	5.00			4246.00	
Hydraulic tool	5.00			4251.00	
Safety Joint	3.00			4254.00	
Packer	5.00			4259.00	19.00 Bottom Of Top Packer
Packer - Shale	0.00			4259.00	
Stubb	1.00			4260.00	
Recorder	0.00	8672	Inside	4260.00	
Recorder	0.00	6749	Outside	4260.00	
Perforations	25.00			4285.00	
Bullnose	5.00			4290.00	31.00 Anchor Tool

**Total Tool Length: 50.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65682

**DST#: 1**

ATTN: Terry McLeod

Test Start: 2016.12.02 @ 04:14:15

### 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: 7.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

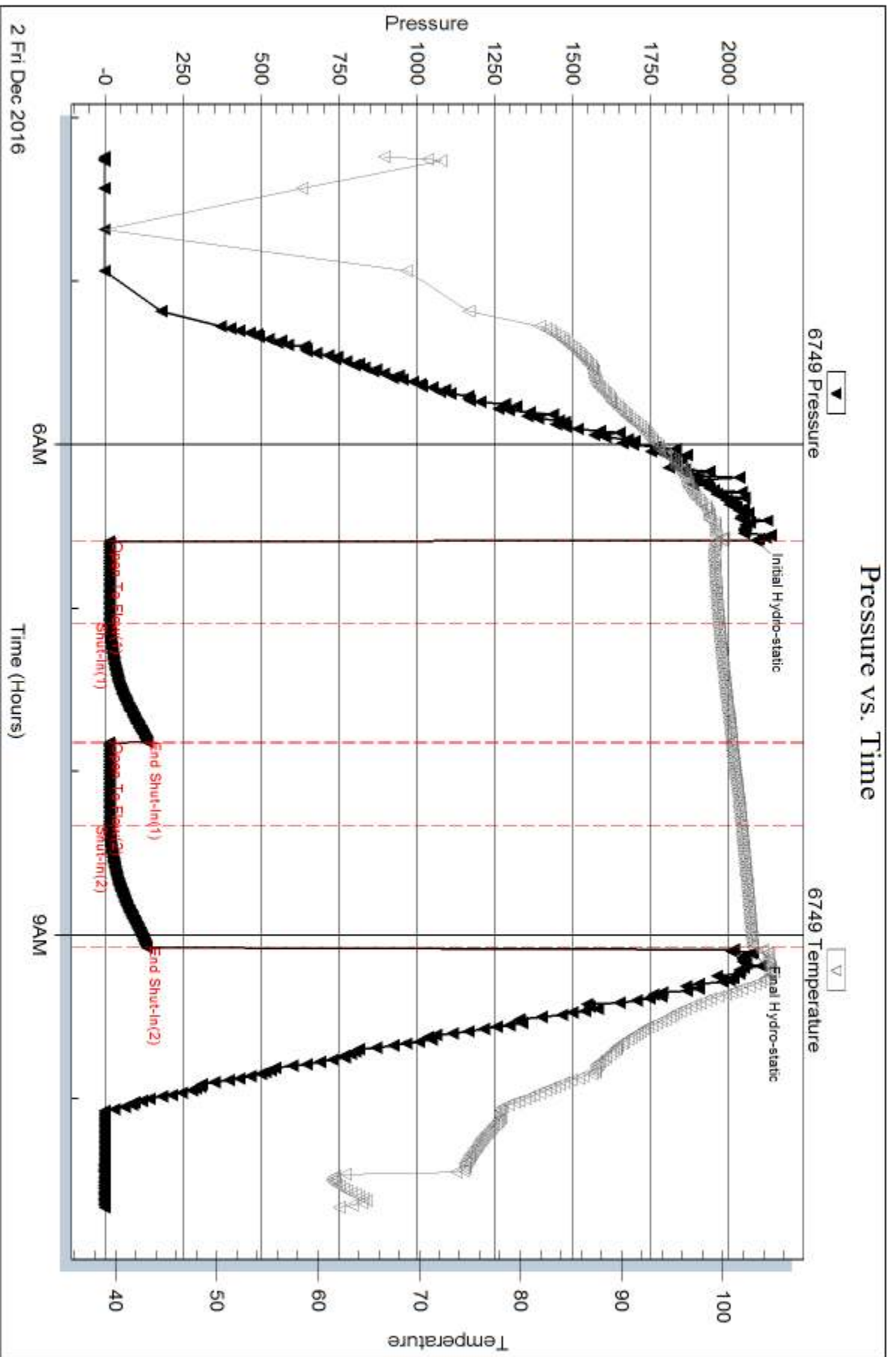
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



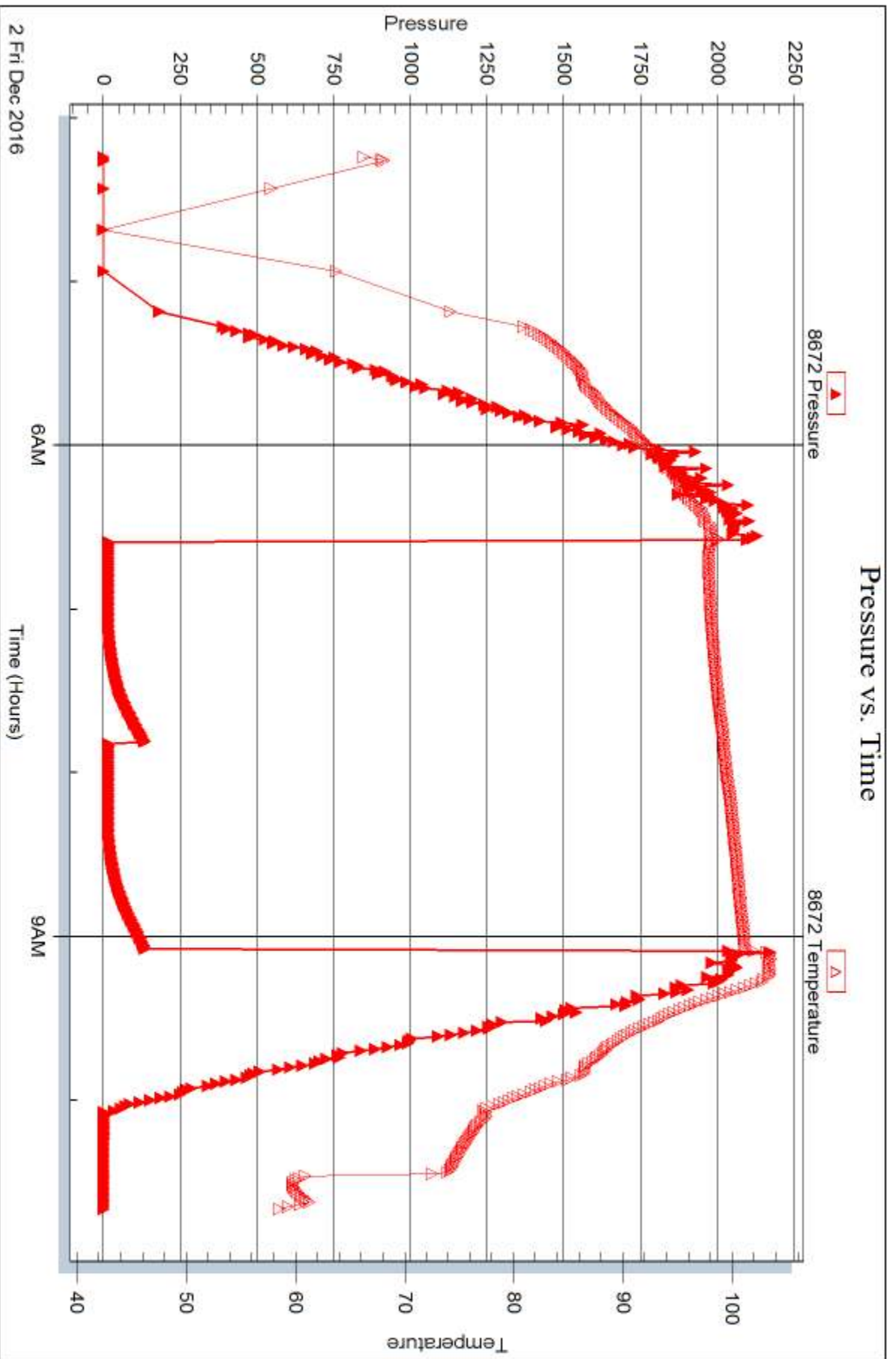
Serial #: 8672

Inside

Landmark Resources

Wesseler #3-28

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 65682

Printed: 2016.12.06 @ 16:26:48



## DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

1616 Voss Rd. STE 800  
Houston TX 77057

ATTN: Terry McLeod

### **Wesseler #3-28**

### **28-16s-34w Scott,KS**

Start Date: 2016.12.03 @ 14:13:15

End Date: 2016.12.03 @ 22:11:00

Job Ticket #: 65683                      DST #: 2

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

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**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Landmark Resources  
 1616 Voss Rd. STE 800  
 Houston TX 77057  
 ATTN: Terry McLeod

**28-16s-34w Scott,KS**  
**Wesseler #3-28**  
 Job Ticket: 65683 **DST#: 2**  
 Test Start: 2016.12.03 @ 14:13:15

## GENERAL INFORMATION:

Formation: **Marmaton**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:26:15  
 Time Test Ended: 22:11:00  
 Interval: **4472.00 ft (KB) To 4503.00 ft (KB) (TVD)**  
 Total Depth: 4503.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 3138.00 ft (KB)  
 3133.00 ft (CF)  
 KB to GR/CF: 5.00 ft

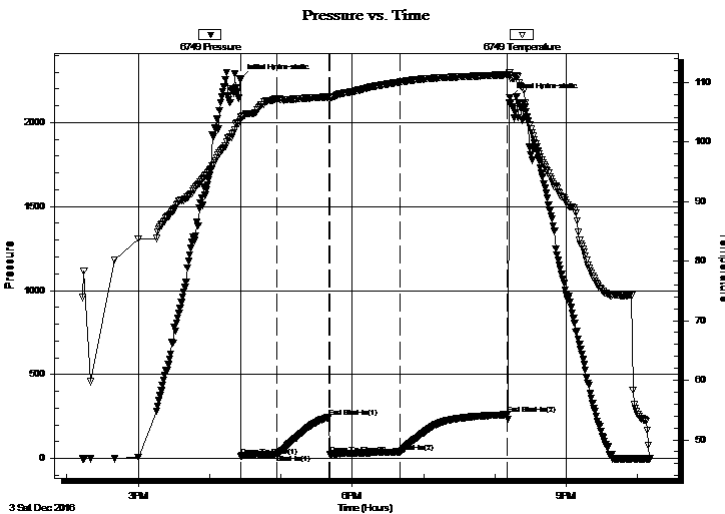
## Serial #: 6749

**Outside**

Press@RunDepth: 39.09 psig @ 4473.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.12.03 End Date: 2016.12.03 Last Calib.: 2016.12.03  
 Start Time: 14:13:15 End Time: 22:11:00 Time On Btm: 2016.12.03 @ 16:26:00  
 Time Off Btm: 2016.12.03 @ 20:12:30

TEST COMMENT: IF: Built to 2" blow  
 IS: No return blow  
 FF: Built to 5" blow  
 FS: No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2258.99	104.13	Initial Hydro-static
1	14.92	103.67	Open To Flow (1)
31	24.45	107.21	Shut-In(1)
75	244.83	107.53	End Shut-In(1)
75	24.65	107.33	Open To Flow (2)
135	39.09	110.02	Shut-In(2)
225	261.16	111.25	End Shut-In(2)
227	2148.92	111.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	372 ft GIP	0.00
10.00	gco 10%g 90%o	0.14
62.00	gcmo 5%g 30%m 65%o	0.87

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65683

**DST#: 2**

ATTN: Terry McLeod

Test Start: 2016.12.03 @ 14:13:15

## Tool Information

Drill Pipe:	Length: 4463.00 ft	Diameter: 3.80 inches	Volume: 62.60 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.60 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4472.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	50.00 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			4454.00	
Shut In Tool	5.00			4459.00	
Hydraulic tool	5.00			4464.00	
Safety Joint	3.00			4467.00	
Packer	5.00			4472.00	19.00 Bottom Of Top Packer
Packer - Shale	0.00			4472.00	
Stubb	1.00			4473.00	
Recorder	0.00	8672	Inside	4473.00	
Recorder	0.00	6749	Outside	4473.00	
Perforations	25.00			4498.00	
Bullnose	5.00			4503.00	31.00 Anchor Tool

**Total Tool Length: 50.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

## FLUID SUMMARY

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65683

**DST#: 2**

ATTN: Terry McLeod

Test Start: 2016.12.03 @ 14:13:15

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	372 ft GIP	0.000
10.00	gco 10%g 90%o	0.140
62.00	gcmo 5%g 30%m 65%o	0.870

Total Length: 72.00 ft      Total Volume: 1.010 bbl

Num Fluid Samples: 0

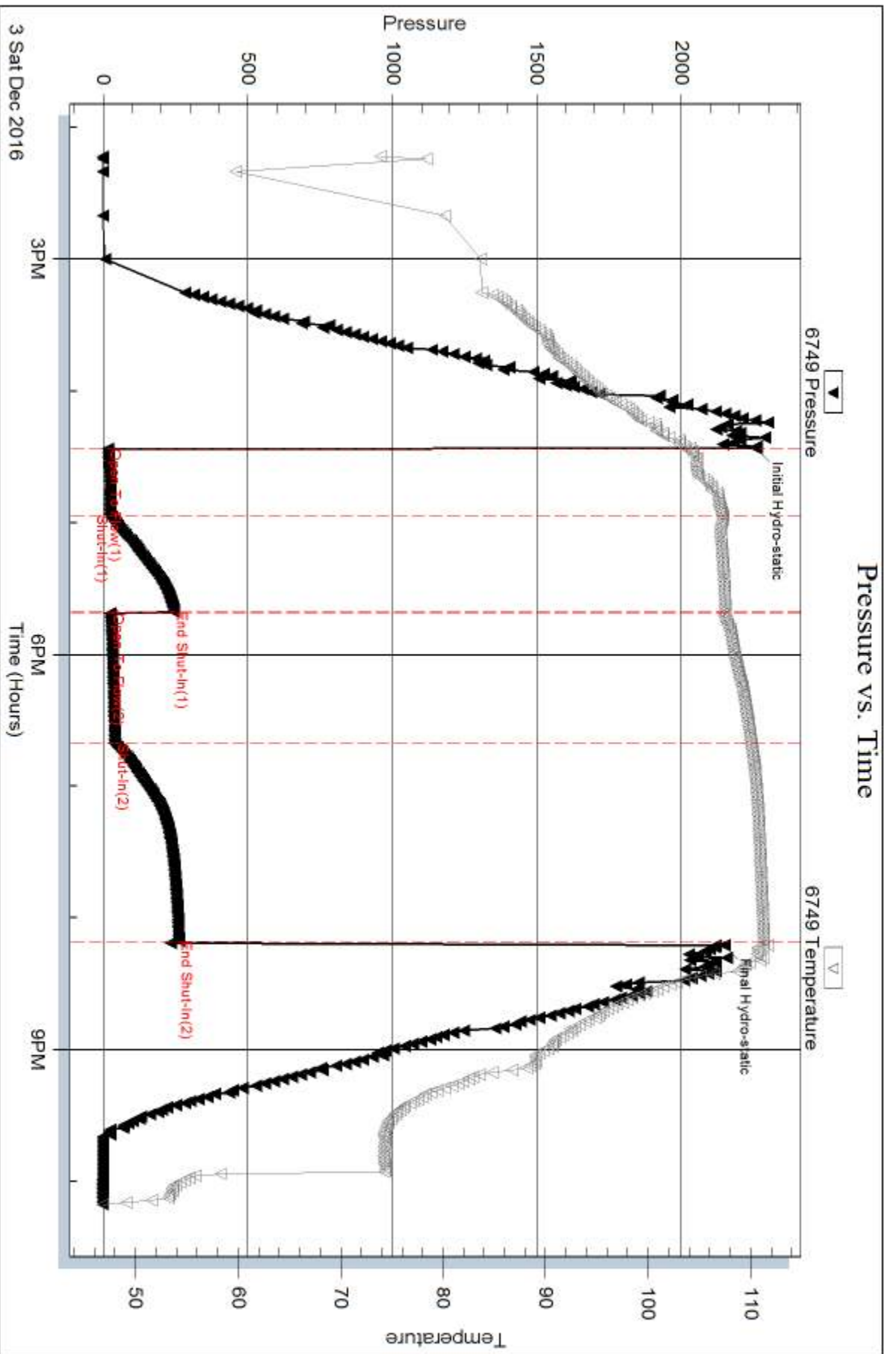
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API= 31 @ 60



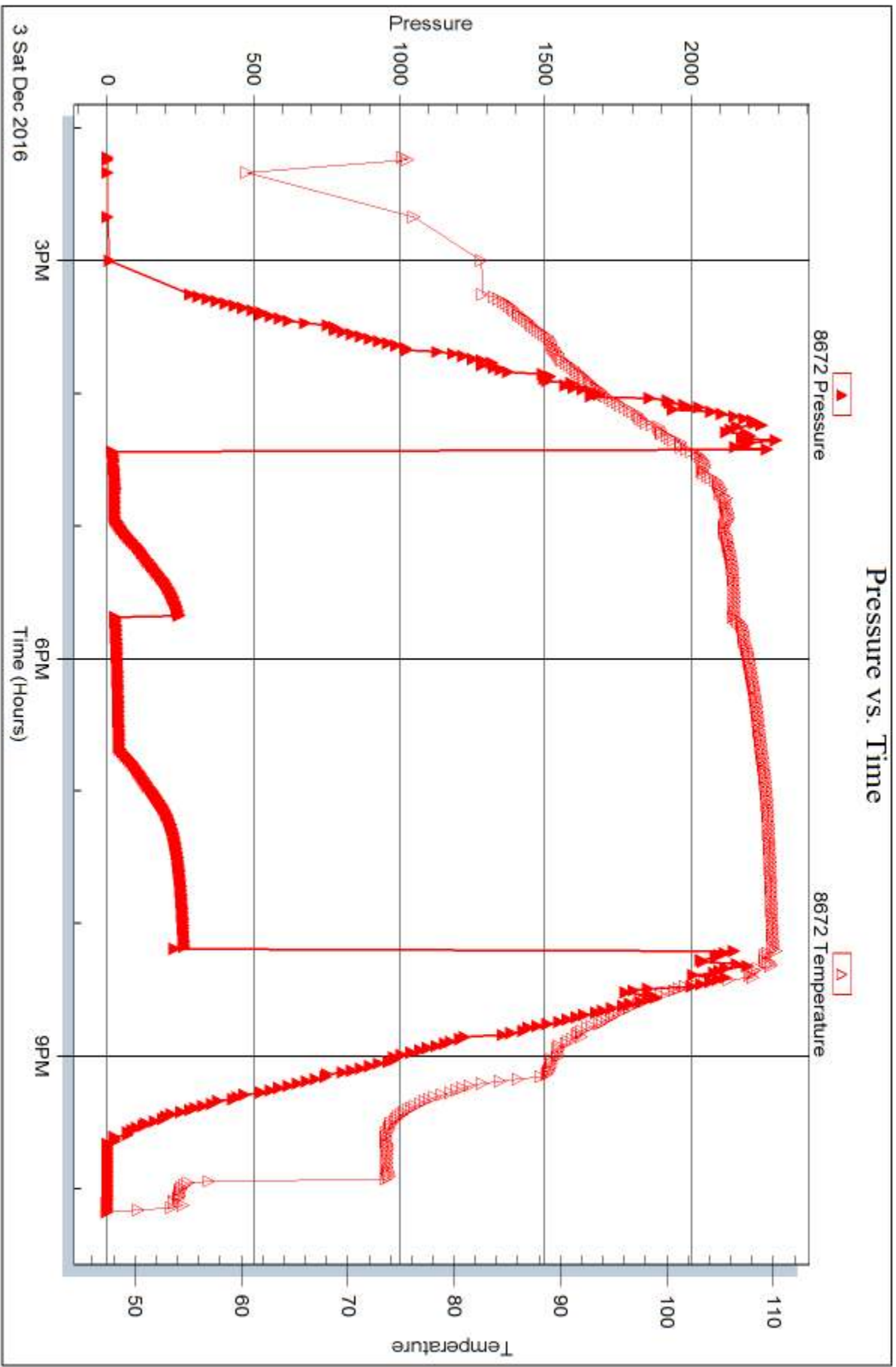
Serial #: 8672

Inside

Landmark Resources

Wesseler #3-28

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

1616 Voss Rd. STE 800  
Houston TX 77057

ATTN: Terry McLeod

### **Wesseler #3-28**

### **28-16s-34w Scott,KS**

Start Date: 2016.12.04 @ 08:28:15

End Date: 2016.12.04 @ 14:27:45

Job Ticket #: 65684                      DST #: 3

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

Printed: 2016.12.06 @ 16:26:04



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Landmark Resources  
 1616 Voss Rd. STE 800  
 Houston TX 77057  
 ATTN: Terry McLeod

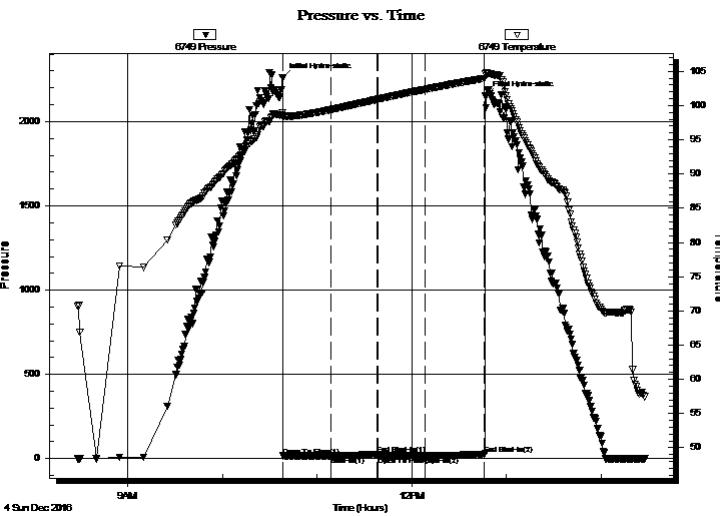
**28-16s-34w Scott,KS**  
**Wesseler #3-28**  
 Job Ticket: 65684 **DST#: 3**  
 Test Start: 2016.12.04 @ 08:28:15

## GENERAL INFORMATION:

Formation: **Lower Altamont**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:38:30  
 Time Test Ended: 14:27:45  
 Interval: **4514.00 ft (KB) To 4540.00 ft (KB) (TVD)**  
 Total Depth: 4540.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 3138.00 ft (KB)  
 3133.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6749 Outside**  
 Press@RunDepth: 16.03 psig @ 4515.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.12.04 End Date: 2016.12.04 Last Calib.: 2016.12.04  
 Start Time: 08:28:15 End Time: 14:27:45 Time On Btm: 2016.12.04 @ 10:38:15  
 Time Off Btm: 2016.12.04 @ 12:46:45

**TEST COMMENT:** IF: Built to weak surface blow and died in 5 min.  
 IS: No return blow  
 FF: Weak surface blow  
 FS: No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2258.30	98.99	Initial Hydro-static
1	15.56	98.31	Open To Flow (1)
31	16.11	99.40	Shut-In(1)
60	25.14	100.89	End Shut-In(1)
60	14.41	100.90	Open To Flow (2)
91	16.03	102.36	Shut-In(2)
128	25.34	103.97	End Shut-In(2)
129	2154.22	104.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud with oil spots 100% m	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**

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65684

**DST#: 3**

ATTN: Terry McLeod

Test Start: 2016.12.04 @ 08:28:15

## Tool Information

Drill Pipe:	Length: 4522.00 ft	Diameter: 3.80 inches	Volume: 63.43 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 20000.00 lb
			<u>Total Volume: 63.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4514.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	45.00 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			4496.00	
Shut In Tool	5.00			4501.00	
Hydraulic tool	5.00			4506.00	
Safety Joint	3.00			4509.00	
Packer	5.00			4514.00	19.00 Bottom Of Top Packer
Packer - Shale	0.00			4514.00	
Stubb	1.00			4515.00	
Recorder	0.00	8672	Inside	4515.00	
Recorder	0.00	6749	Outside	4515.00	
Perforations	20.00			4535.00	
Bullnose	5.00			4540.00	26.00 Anchor Tool

**Total Tool Length: 45.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65684

**DST#: 3**

ATTN: Terry McLeod

Test Start: 2016.12.04 @ 08:28:15

## 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: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	mud w ith oil spots 100%m	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbf

Num Fluid Samples: 0

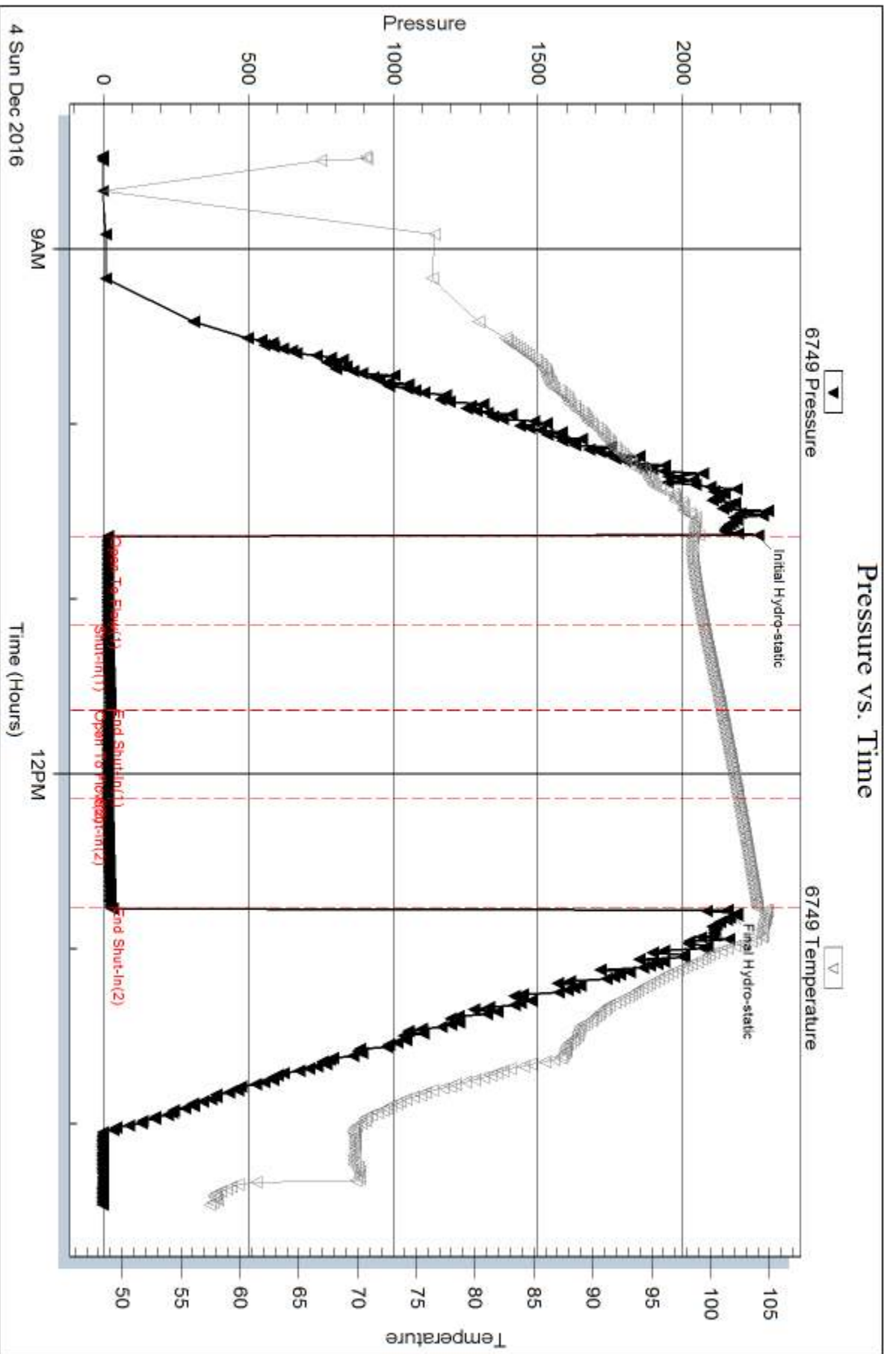
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



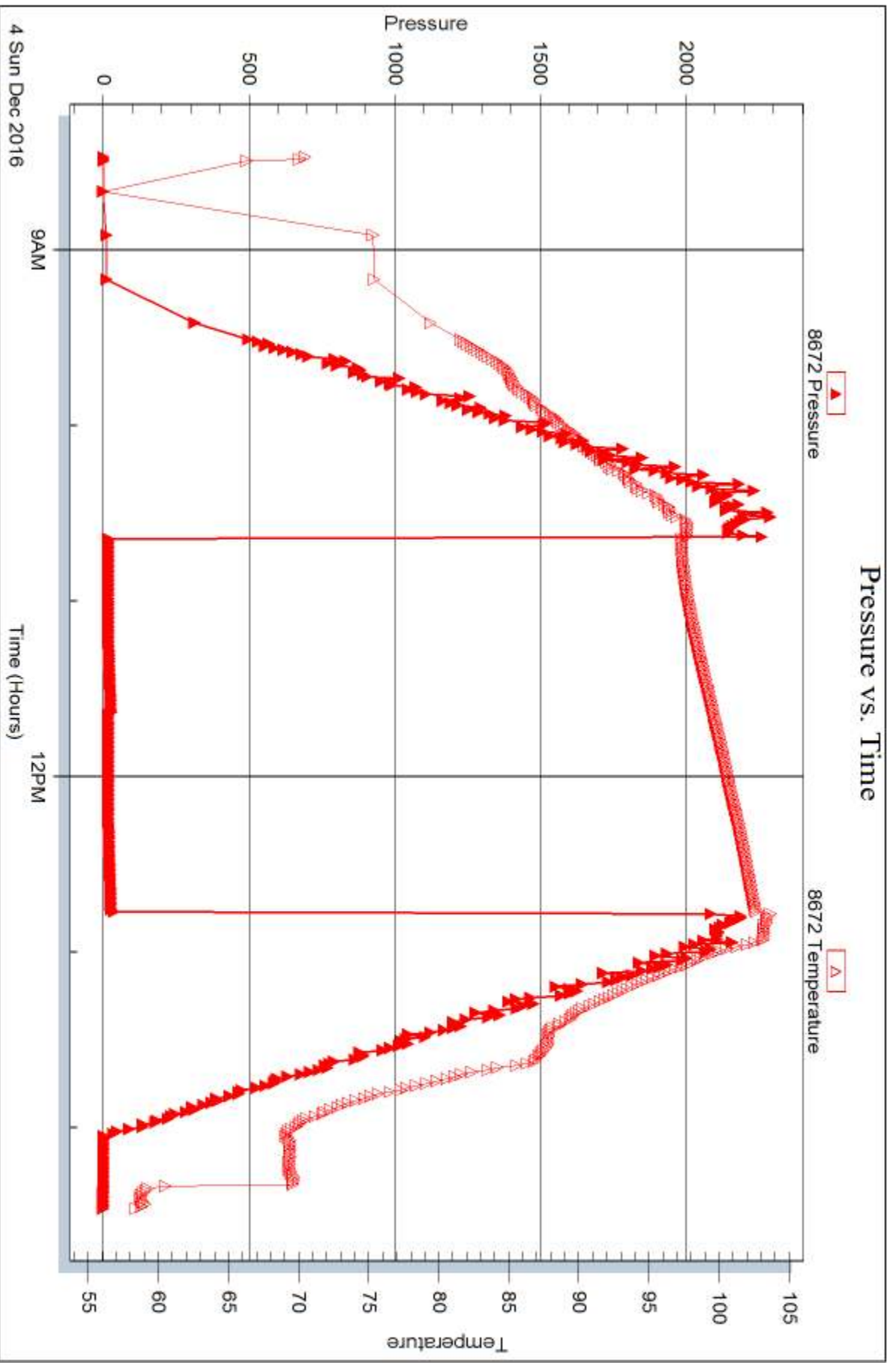
Serial #: 8672

Inside

Landmark Resources

Wesseler #3-28

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

1616 Voss Rd. STE 800  
Houston TX 77057

ATTN: Terry McLeod

### **Wesseler #3-28**

#### **28-16s-34w Scott,KS**

Start Date: 2016.12.05 @ 01:16:15

End Date: 2016.12.05 @ 08:22:00

Job Ticket #: 65685                      DST #: 4

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

Printed: 2016.12.06 @ 16:25:23



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Landmark Resources  
1616 Voss Rd. STE 800  
Houston TX 77057  
ATTN: Terry McLeod

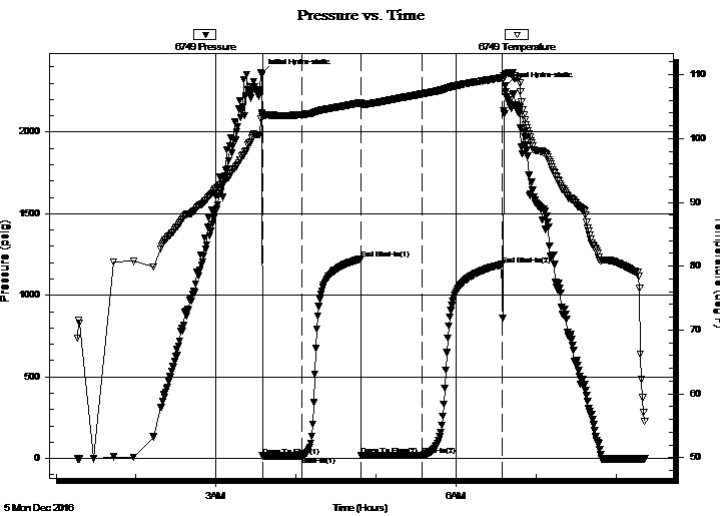
**28-16s-34w Scott,KS**  
**Wesseler #3-28**  
Job Ticket: 65685 **DST#: 4**  
Test Start: 2016.12.05 @ 01:16:15

## GENERAL INFORMATION:

Formation: **Ft. Scott**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 03:34:45  
Time Test Ended: 08:22:00  
Interval: **4601.00 ft (KB) To 4610.00 ft (KB) (TVD)**  
Total Depth: 4610.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Mike Roberts  
Unit No: 81  
Reference Elevations: 3138.00 ft (KB)  
3133.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6749 Outside**  
Press@RunDepth: 18.79 psig @ 4602.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.12.05 End Date: 2016.12.05 Last Calib.: 2016.12.05  
Start Time: 01:16:15 End Time: 08:22:00 Time On Btm: 2016.12.05 @ 03:34:30  
Time Off Btm: 2016.12.05 @ 06:36:45

TEST COMMENT: IF:Built to 1/4" blow  
IS:No return blow  
FF:Built to 1/4" blow  
FS:No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2357.23	103.95	Initial Hydro-static
1	15.82	103.45	Open To Flow (1)
30	16.92	103.74	Shut-In(1)
75	1223.64	105.59	End Shut-In(1)
75	17.86	105.22	Open To Flow (2)
120	18.79	106.97	Shut-In(2)
180	1188.90	109.50	End Shut-In(2)
183	2281.43	109.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%m	0.14

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65685

**DST#: 4**

ATTN: Terry McLeod

Test Start: 2016.12.05 @ 01:16:15

## Tool Information

Drill Pipe:	Length: 4593.00 ft	Diameter: 3.80 inches	Volume: 64.43 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 64.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4601.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	28.00 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			4583.00	
Shut In Tool	5.00			4588.00	
Hydraulic tool	5.00			4593.00	
Safety Joint	3.00			4596.00	
Packer	5.00			4601.00	19.00 Bottom Of Top Packer
Packer - Shale	0.00			4601.00	
Stubb	1.00			4602.00	
Recorder	0.00	8672	Inside	4602.00	
Recorder	0.00	6749	Outside	4602.00	
Perforations	3.00			4605.00	
Bullnose	5.00			4610.00	9.00 Anchor Tool

**Total Tool Length: 28.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Landmark Resources

**28-16s-34w Scott,KS**

1616 Voss Rd. STE 800  
Houston TX 77057

**Wesseler #3-28**

Job Ticket: 65685

**DST#: 4**

ATTN: Terry McLeod

Test Start: 2016.12.05 @ 01:16:15

### 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 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
10.00	mud 100%m	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

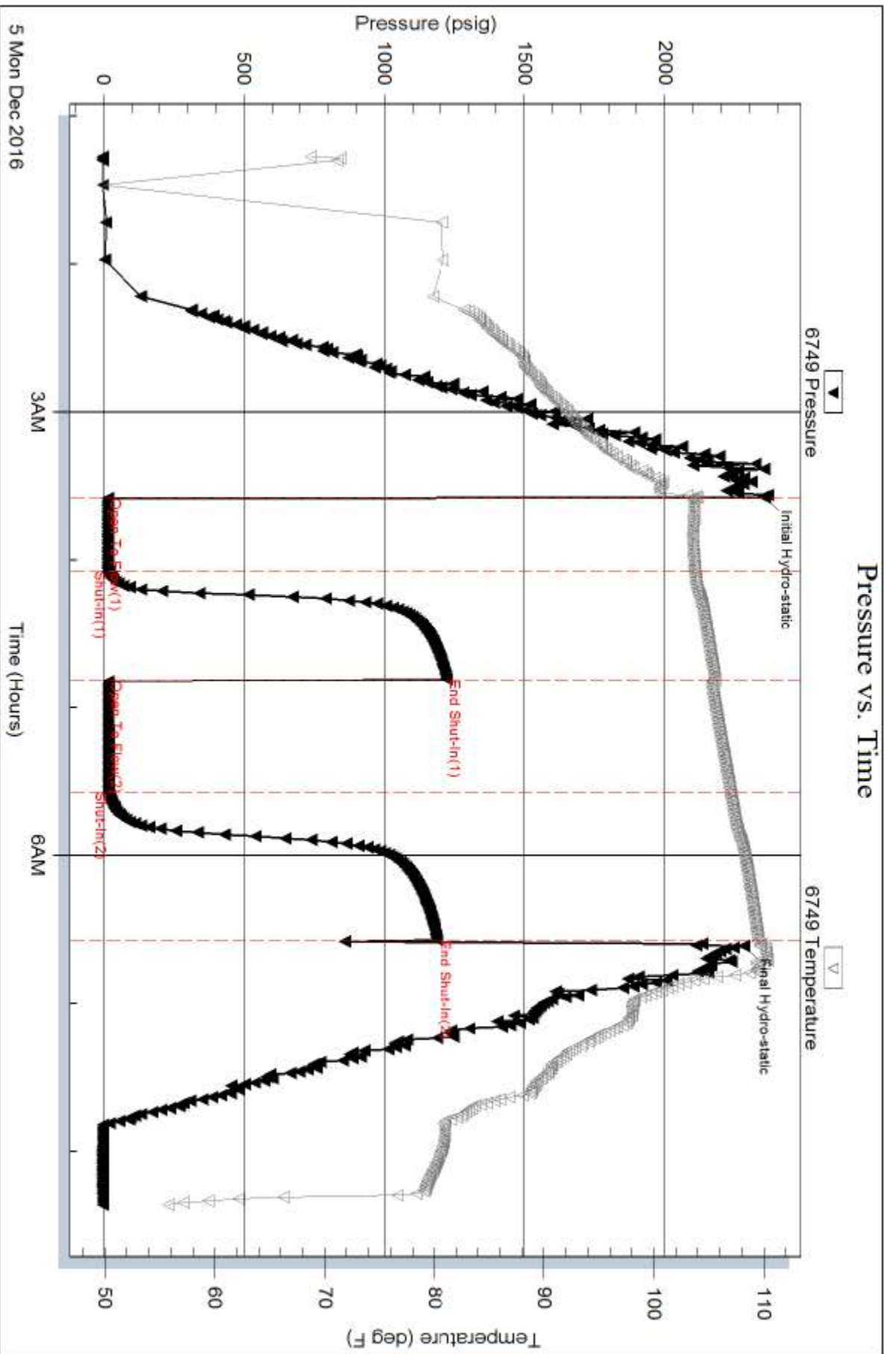
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



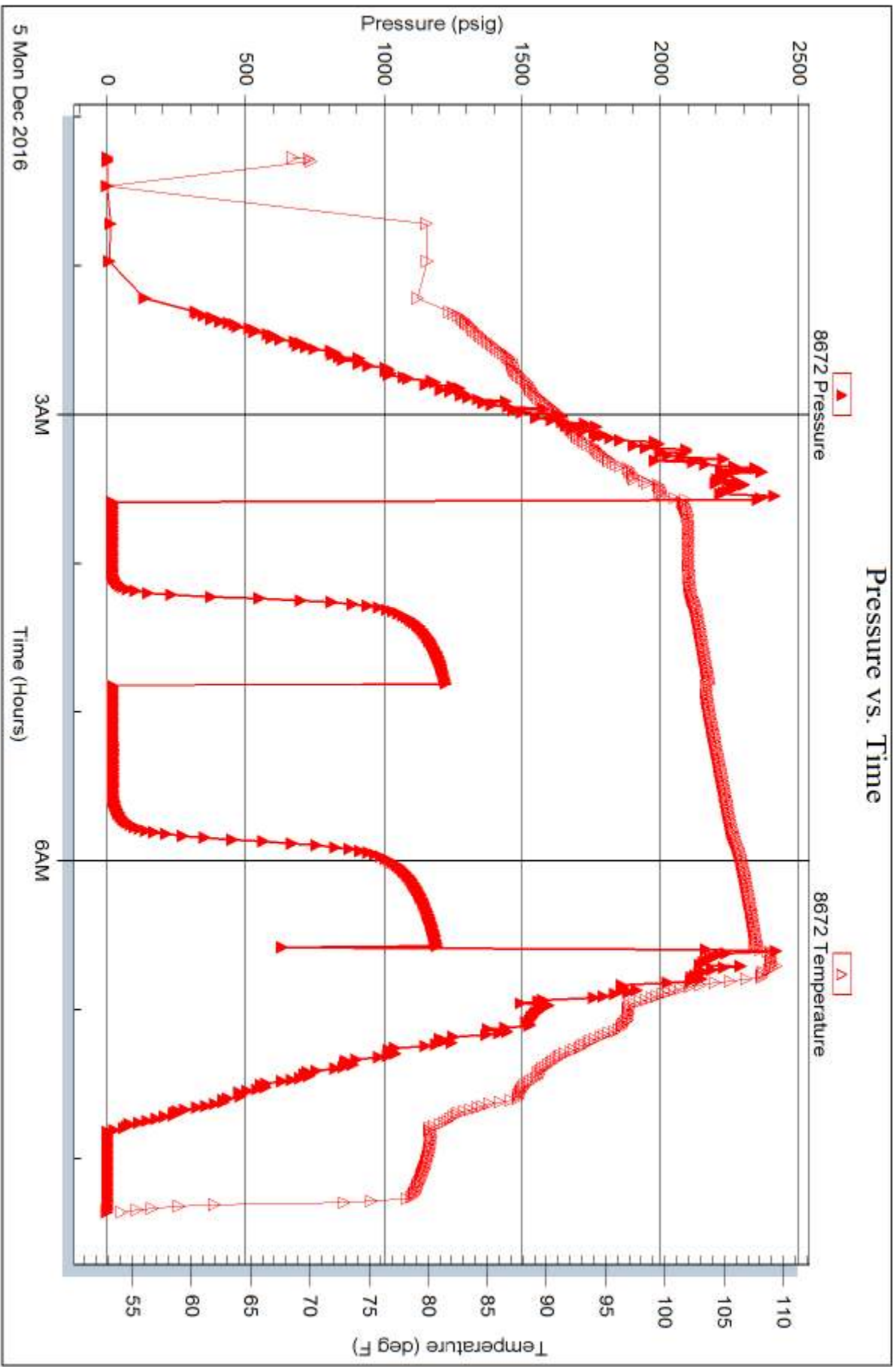
Serial #: 8672

Inside

Landmark Resources

Wesseler #3-28

DST Test Number: 4



Tribble Testing, Inc

Ref. No: 65685

Printed: 2016.12.06 @ 16:25:24



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65682**

Well Name & No. ~~Landmark~~ Wesseler 3-28 Test No. 1 Date 12-2-16  
 Company Landmark Resources Elevation 3138 KB 3133 GL  
 Address 1416 S. Voss Rd STE 800 Houston TX 77057  
 Co. Rep / Geo. Terry McLeod Rig LD  
 Location: Sec. 28 Twp. 16 Rge. 34 Co. Scott State KS

Interval Tested 4259-4290 Zone Tested I  
 Anchor Length 31 Drill Pipe Run 4246 Mud Wt. 8.8  
 Top Packer Depth 4254 Drill Collars Run Ø Vis 59  
 Bottom Packer Depth 4259 Wt. Pipe Run Ø WL 7.2  
 Total Depth 4290 Chlorides 3300 ppm System LCM 2  
 Blow Description IF: Boil to 1/4" Blow  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100</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 103 Gravity — API RW —@ — °F Chlorides — ppm

(A) Initial Hydrostatic 2089  Test \$1150.00/- T-On Location 01:40  
 (B) First Initial Flow 13  Jars — T-Started 04:14  
 (C) First Final Flow 14  Safety Joint \$75.00/- T-Open 06:35  
 (D) Initial Shut-In 135  Circ Sub NC T-Pulled 09:05  
 (E) Second Initial Flow 13  Hourly Standby — T-Out 10:40  
 (F) Second Final Flow 14  Mileage 50 RT = \$37.50/- Comments —  
 (G) Final Shut-In 133  Sampler —  
 (H) Final Hydrostatic 2078  Straddle —  
 Shale Packer \$250.00/-  Ruined Shale Packer —  
 Extra Packer —  Ruined Packer —  
 Extra Recorder —  Extra Copies —  
 Initial Open 30  Day Standby — Sub Total 0  
 Initial Shut-In 45  Accessibility — Total 1512.50  
 Final Flow 30 Sub Total \$1512.50 MP/DST Disc't —  
 Final Shut-In 45

Approved By \_\_\_\_\_ Our Representative Mike Roberts

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. **65683**

Well Name & No. Wesseler 3-28 Test No. 2 Date 12-3-16  
 Company Landmark Resources Elevation 3138 KB 3133 GL  
 Address 1616 S. Voss Rd STE 800 Houston TX 77057  
 Co. Rep / Geo. Terry McLeod Rig LD  
 Location: Sec. 28 Twp. 16 Rge. 34 Co. Scott State KS

Interval Tested 4472-4503 Zone Tested Marmaton  
 Anchor Length 31 Drill Pipe Run 4463 Mud Wt. 9.0  
 Top Packer Depth 4467 Drill Collars Run Ø Vis 52  
 Bottom Packer Depth 4472 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4503 Chlorides 3000 ppm System LCM 5  
 Blow Description IFI Built to 2" Blow  
IS: No Return Blow  
FF Built to 5" Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>900</u>	<u>10</u>	<u>90</u>		
<u>62</u>	<u>900</u>	<u>5</u>	<u>65</u>	<u>30</u>	
<u>Ø</u>	<u>372' GIP</u>	<u>100</u>			

Rec Total 72 BHT 111 Gravity 31 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2258</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>14:00</u>
(B) First Initial Flow <u>14</u>	<input type="checkbox"/> Jars	T-Started <u>14:13</u>
(C) First Final Flow <u>24</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>16:26</u>
(D) Initial Shut-In <u>244</u>	<input type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>20:11</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>22:11</u>
(F) Second Final Flow <u>39</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT = \$37.50/-</u>	Comments
(G) Final Shut-In <u>261</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2148</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>\$250.00/-</u>	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1512.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>\$1512.50/-</u>	

Approved By Lyn A. McKay Our Representative Mike Roberts

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65684**

Well Name & No. Wesseter 3-28 Test No. 3 Date 12-4-16  
 Company Landmark Resources Elevation 3138 KB 3133 GL  
 Address 1616 S. Voss Rd STE 800 Houston TX 77057  
 Co. Rep / Geo. Terry McLeod Rig LD  
 Location: Sec. 28 Twp. 16 Rge. 34 Co. SCOTT State KS

Interval Tested 4514-4540 Zone Tested Lower Altamont  
 Anchor Length 26 Drill Pipe Run 4522 Mud Wt. 9.0  
 Top Packer Depth 4509 Drill Collars Run Ø Vis 52  
 Bottom Packer Depth 4514 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4540 Chlorides 3000 ppm System LCM 5  
 Blow Description IF: Weak Surface Blow died in 5 MIN  
IS: No Return Blow  
FF: Weak Surface Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD with oil spots</u>			<u>100</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 102 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2258  Test 1150 T-On Location 07:50  
 (B) First Initial Flow 15  Jars \_\_\_\_\_ T-Started 08:28  
 (C) First Final Flow 16  Safety Joint 75 T-Open 10:40  
 (D) Initial Shut-In 25  Circ Sub \_\_\_\_\_ T-Pulled 12:40  
 (E) Second Initial Flow ~~14~~  Hourly Standby \_\_\_\_\_ T-Out 14:27  
 (F) Second Final Flow 16  Mileage 50 RT 37.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 25  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2154  Straddle \_\_\_\_\_  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1512.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1512.50

Approved By Terry L. McLeod Our Representative Mike Roberts

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65685**

Well Name & No: Wesseler 3-28 Test No. 4 Date 12-5-16  
 Company Landmark Resources Elevation 3138 KB- 3133 GL  
 Address 1616 S. Voss Rd STE 800 Houston TX 77057  
 Co. Rep / Geo. Terry McLeod Rig LD  
 Location: Sec. 28 Twp. 16 Rge. 34 Co. Scott State KS

Interval Tested 4601-4610 Zone Tested Ft. Scott  
 Anchor Length 9 Drill Pipe Run 4593 Mud Wt. 9.1  
 Top Packer Depth 4596 Drill Collars Run 0 Vis 58  
 Bottom Packer Depth 4601 Wt. Pipe Run 0 WL 9.2  
 Total Depth 4610 Chlorides 4400 ppm System LCM 6  
 Blow Description IF: Built to 1/4" Blow  
FS: No Return Blow  
FF: Built to 1/4" Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>			<u>100</u>	

Rec Total 10 BHT 110 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2357</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>00:40</u>
(B) First Initial Flow <u>15</u>	<input type="checkbox"/> Jars	T-Started <u>01:16</u>
(C) First Final Flow <u>16</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u> <del>105</del>	T-Open <u>03:34</u>
(D) Initial Shut-In <u>1223</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>06:34</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>08:22</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT X2</u> 37.50	Comments <u>loaded tools</u>
(G) Final Shut-In <u>1188</u>	<input type="checkbox"/> Sampler	<u>00400 12-6-</u>
(H) Final Hydrostatic <u>2281</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<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>1550</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1550</u>	

Approved By Terry A. McLeod Our Representative Mike Roberts

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