

## DRILL STEM TEST REPORT

Prepared For: **Castle Resources Inc**

PO Box 583  
Russell, KS 67665

ATTN: Jerry Green

### **Steinshouer #3**

#### **34-8s-29w Sheridan KS**

Start Date: 2017.09.28 @ 02:57:00

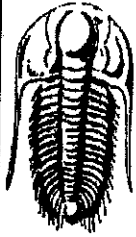
End Date: 2017.09.28 @ 10:59:45

Job Ticket #: 63310                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Castle Resources Inc

34-8s-29w Sheridan KS

PO Box 583  
Russell, KS 67665

Steinshouer #3

Job Ticket: 63310

DST#: 1

ATTN: Jerry Green

Test Start: 2017.09.28 @ 02:57:00

## GENERAL INFORMATION:

Formation: **Howard**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:06:15

Time Test Ended: 10:59:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: **3568.00 ft (KB) To 3663.00 ft (KB) (TVD)**

Total Depth: 3663.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2822.00 ft (KB)

2817.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8017** Outside

Press@RunDepth: 666.40 psig @ 3569.00 ft (KB)

Start Date: 2017.09.28

End Date:

2017.09.28

Start Time: 02:57:05

End Time:

10:59:44

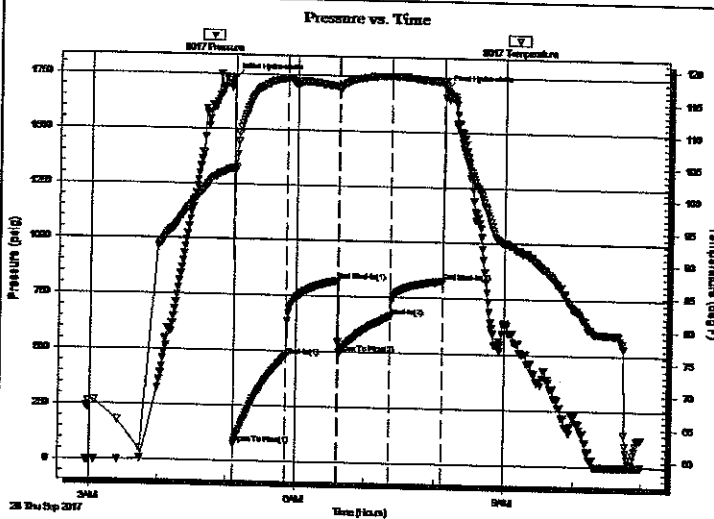
Capacity: 8000.00 psig

Last Calib.: 2017.09.28

Time On Btm: 2017.09.28 @ 05:05:30

Time Off Btm: 2017.09.28 @ 08:08:00

TEST COMMENT: 45 - IF: Blow built to BOB (11") at 1 1/2 min.  
45 - IS: Very weak intermittent surface blow back  
45 - FF: Blow built to BOB at 3 3/4 min.  
45 - FS: Weak surface blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1735.21	104.08	Initial Hydro-static
1	78.36	103.75	Open To Flow (1)
46	480.11	118.27	Shut-In(1)
91	820.17	117.15	End Shut-In(1)
92	496.21	116.98	Open To Flow (2)
136	666.40	118.81	Shut-In(2)
181	825.37	117.97	End Shut-In(2)
183	1696.85	117.51	Final Hydro-static

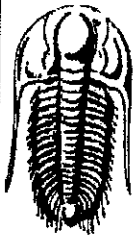
## Recovery

Length (ft)	Description	Volume (bbl)
541.00	Water w/Oil spots 94%w, 5%m, 1%o	7.59
63.00	OMCW 68%w, 20%m, 8%o, 5%g	0.88
756.00	GOMCW 38%w, 13%FO, 13%oil mx, 2%10.60%g	
33.00	MWCGO 71%o, 12%g, 11%w, 6%m	0.46
37.00	CO 94%o, 6%g	0.52

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources Inc

**34-8s-29w Sheridan KS**

PO Box 583  
Russell, KS 67665

**Steinshouer #3**

Job Ticket: 63310

**DST#: 1**

ATTN: Jerry Green

Test Start: 2017.09.28 @ 02:57:00

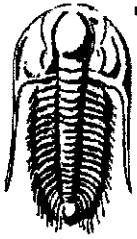
## Tool Information

Drill Pipe:	Length: 3551.00 ft	Diameter: 3.80 inches	Volume: 49.81 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 55000.00 lb
			<u>Total Volume: 49.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3568.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.00 ft			
Tool Length:	116.00 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			3548.00	
Shut In Tool	5.00			3553.00	
Hydraulic tool	5.00			3558.00	
Packer - Shale	0.00			3558.00	
Packer	5.00			3563.00	21.00 Bottom Of Top Packer
Packer	5.00			3568.00	
Packer - Shale	0.00			3568.00	
Stubb	1.00			3569.00	
Recorder	0.00	6625	Inside	3569.00	
Recorder	0.00	8017	Outside	3569.00	
Perforations	25.00			3594.00	
Blank Spacing	65.00			3659.00	
Perforations	1.00			3660.00	
Bullnose	3.00			3663.00	95.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>116.00</b>				



**TRILOBITE  
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# DRILL STEM TEST REPORT

## FLUID SUMMARY

Castle Resources Inc

34-8s-29w Sheridan KS

PO Box 583  
Russell, KS 67665

Steinshouer #3

Job Ticket: 63310

DST#: 1

ATTN: Jerry Green

Test Start: 2017.09.28 @ 02:57:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 8.00 lb/gal

Viscosity: 68.00 sec/qt

Water Loss: 6.39 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: 21 deg API

Water Salinity: 17000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
541.00	Water w/Oil spots 94%w, 5%m, 1%o	7.589
63.00	OMCW 68%w, 20%m, 8%o, 5%g	0.884
756.00	GOMCW 38%w, 13%FO, 13%oil mix, 21%g, 1%o	10.605
33.00	MVCGO 71%o, 12%g, 11%w, 6%m	0.463
37.00	CO 94%o, 6%g	0.519

Total Length: 1430.00 ft      Total Volume: 20.060 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 21.6 api @ 66 deg F Corrected Gravity = 21 api

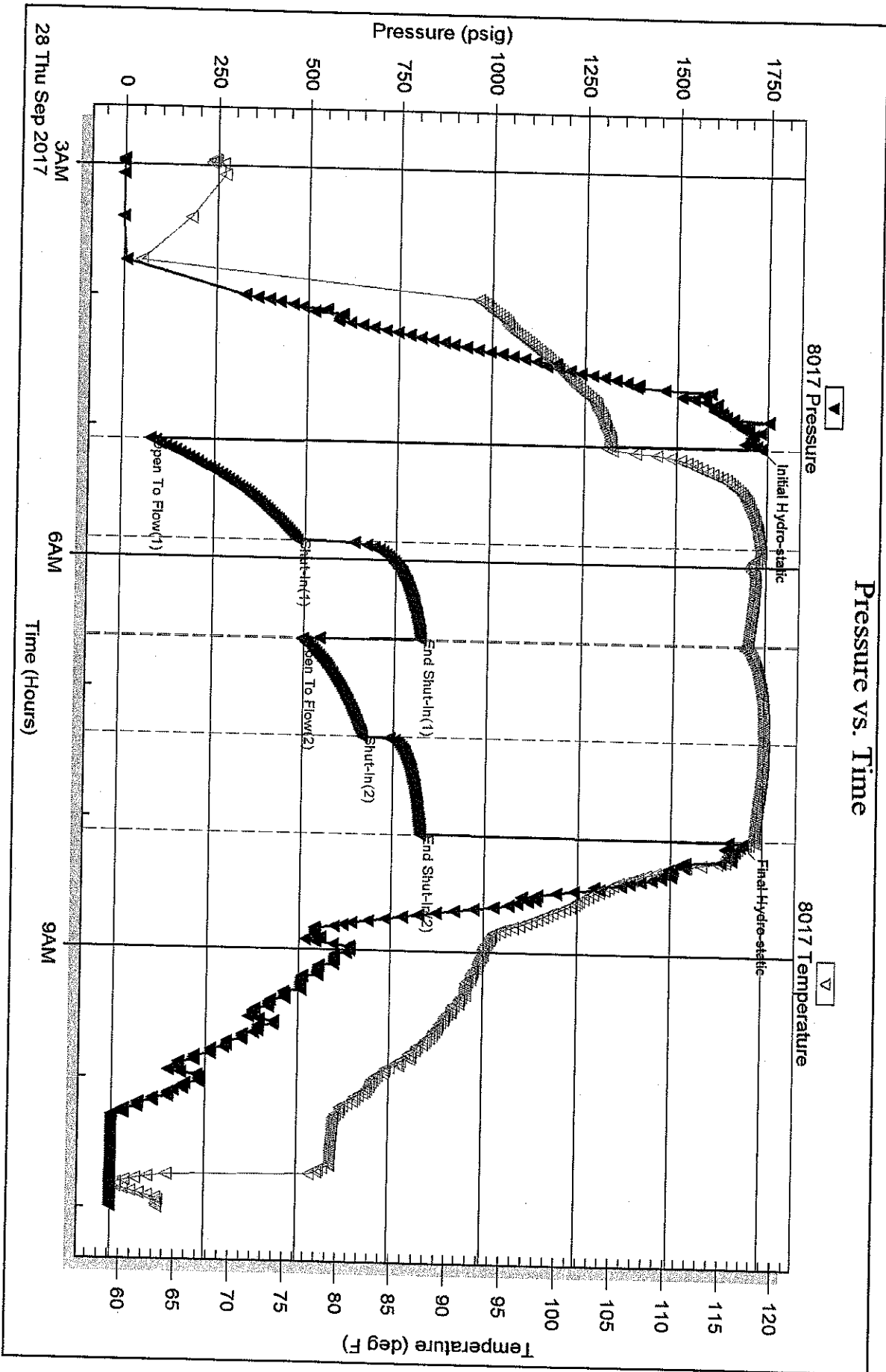
RW = .560 ohms @ 63.3 deg F Chlorides = 17,000 ppm

Serial #: 8017

Outside Castle Resources Inc

Steinsouer #3

DST Test Number: 1



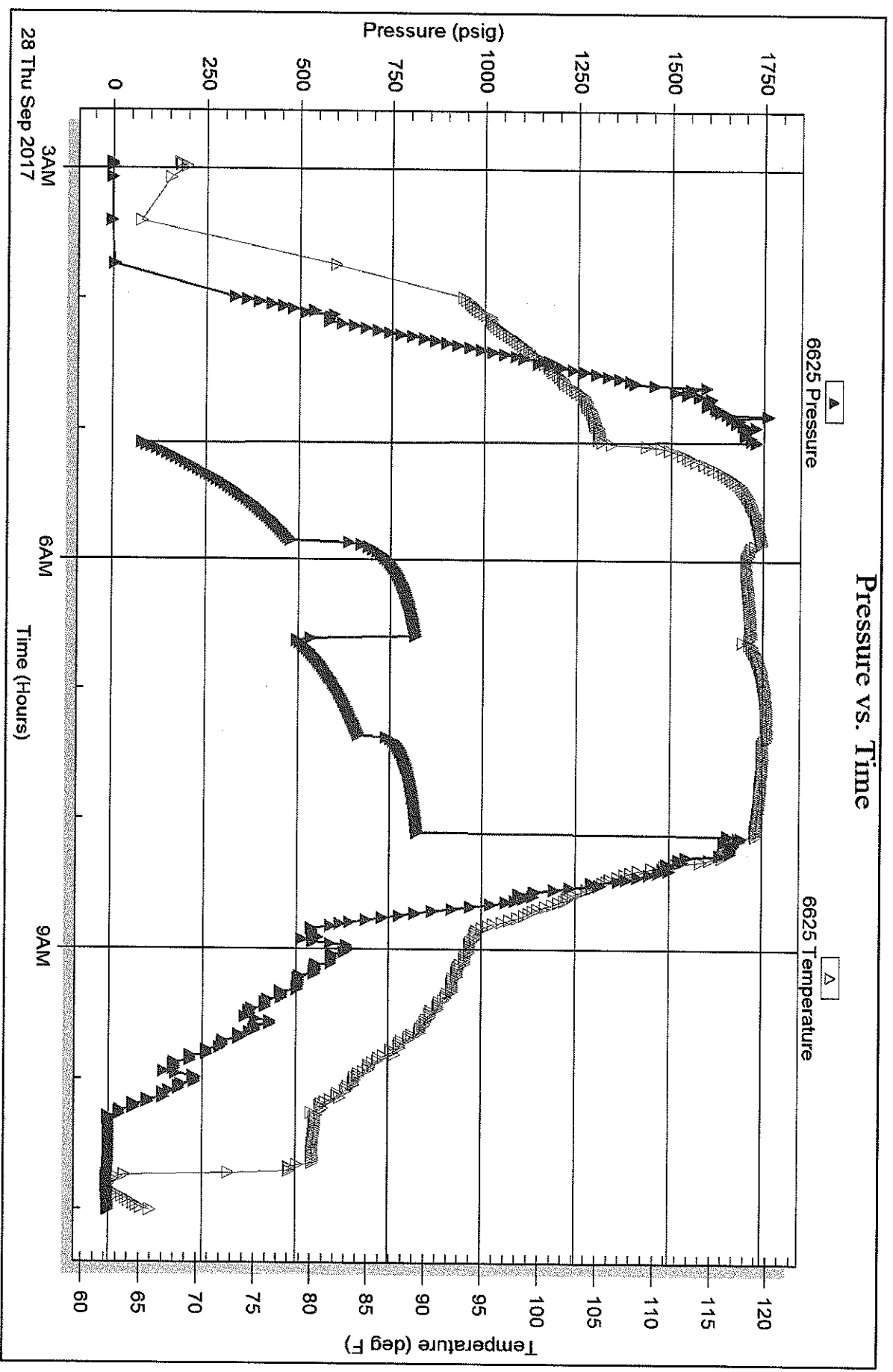
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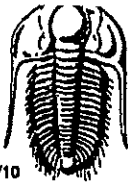
Inside

Castle Resources Inc

Steinshouer #3

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63310

Well Name & No. Steinshouer #3 Test No. 1 Date 9-28-17  
 Company Castle Resources Inc Elevation 2822 KB 2817 GL  
 Address PO Box #583 Russell, KS 67665  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 34 Twp. 8s Rge. 29w Co. Sheridan State KS

Interval Tested 3568 - 3663 Zone Tested Howard  
 Anchor Length 95 Drill Pipe Run 3551 Mud Wt. 7.9  
 Top Packer Depth 3563 (shale) Drill Collars Run - Vis 68  
 Bottom Packer Depth 3568 (shale) Wt. Pipe Run - WL 6.4  
 Total Depth 3663 Chlorides 2000 ppm System LCM 1 1/2  
 Blow Description IF: Blow built to BOB (11") at 1 1/2 min.  
ISI: Very weak intermittent surface blowback  
FF: Blow built to BOB at 3 3/4 min.  
FST: weak surface blowback

Rec	Feet of	%gas	%oil	%water	%mud
37	CO	6	94	-	-
33	MWC60	12	71	11	6
756	GOMCW	21	13 <sup>free oil</sup>	38	15
63	OMCW	5	8 <sup>mixture</sup>	68	20
541	Water w/oil spots	-	1	94	5

Rec Total 1430 BHT 118 Gravity 21 API RW 560 @ 63.3 °F Chlorides 17,000 ppm  
 (A) Initial Hydrostatic 1735  Test 1050 T-On Location 1:10  
 (B) First Initial Flow 78  Jars \_\_\_\_\_ T-Started 2:57  
 (C) First Final Flow 480  Safety Joint \_\_\_\_\_ T-Open 5:06  
 (D) Initial Shut-In 820  Circ Sub \_\_\_\_\_ T-Pulled 8:06  
 (E) Second Initial Flow 496  Hourly Standby \_\_\_\_\_ T-Out 10:55  
 (F) Second Final Flow 666  Mileage 98RT 73.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 825  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1697  Straddle \_\_\_\_\_  
 Shale Packer X2 500  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1623.50  
 Sub Total 1623.50 MP/DST Disc't \_\_\_\_\_

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45

Approved By [Signature]

Our Representative James Winder

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