



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co. Inc.**

10500 E. Berkeley Sq.Pkwy.  
Suite 100  
Wichita, KS 67206

ATTN: Kitt Noah

### **Doris Green #5**

#### **S19-21s-33w Finney, KS**

Start Date: 2013.03.31 @ 12:50:00

End Date: 2013.03.31 @ 21:23:10

Job Ticket #: 48499                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.08 @ 14:15:34



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co. Inc.  
 10500 E. Berkeley Sq.Pkw y.  
 Suite 100  
 Wichita, KS 67206  
 ATTN: Kitt Noah

**S19-21s-33w Finney, KS**

**Doris Green #5**

Job Ticket: 48499

**DST#: 1**

Test Start: 2013.03.31 @ 12:50:00

## GENERAL INFORMATION:

Formation: **LKC 'K'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:45:20  
 Time Test Ended: 21:23:10  
 Interval: **4046.00 ft (KB) To 4090.00 ft (KB) (TVD)**  
 Total Depth: 4090.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Chuck Smith  
 Unit No: 62  
 Reference Elevations: 2918.00 ft (KB)  
 2908.00 ft (CF)  
 KB to GR/CF: 10.00 ft

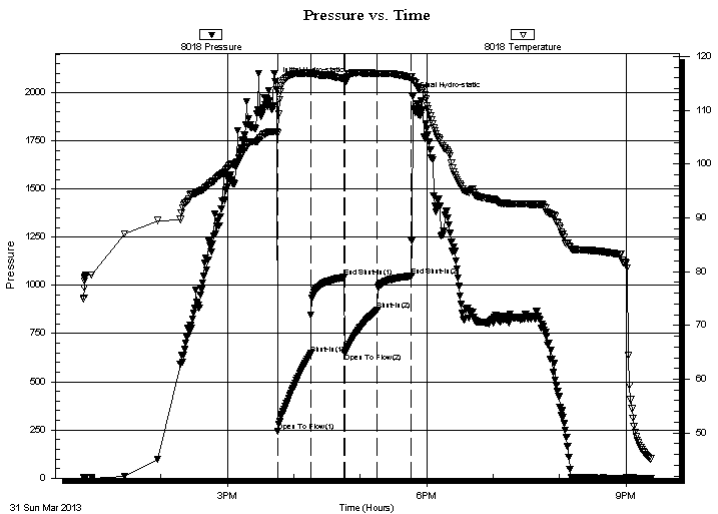
## Serial #: 8018

Inside

Press @ Run Depth: 872.05 psig @ 4047.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.31 End Date: 2013.03.31 Last Calib.: 2013.03.31  
 Start Time: 12:50:02 End Time: 21:23:10 Time On Btm: 2013.03.31 @ 15:43:20  
 Time Off Btm: 2013.03.31 @ 17:47:20

TEST COMMENT: B.O.B. @ 2 min.  
 No return.  
 B.O.B. @ 3min.  
 No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2055.92	105.96	Initial Hydro-static
2	241.99	105.74	Open To Flow (1)
32	645.86	116.92	Shut-In(1)
62	1041.90	115.94	End Shut-In(1)
63	647.39	115.50	Open To Flow (2)
92	872.05	116.85	Shut-In(2)
123	1048.09	116.15	End Shut-In(2)
125	1980.44	115.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	API: .100 @ 60 Degrees F = 93000 PPM	0.00
120.00	MW 20m 80w	0.59
1616.00	OSW 100w	21.58
62.00	OSW 100w	0.87
62.00	OCMW 3o 40m 57w	0.87
7.00	OCMW 10o 50m 40w	0.10

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co. Inc.

**S19-21s-33w Finney, KS**

10500 E. Berkeley Sq.Pkw y.  
Suite 100  
Wichita, KS 67206  
ATTN: Kitt Noah

**Doris Green #5**

Job Ticket: 48499

**DST#: 1**

Test Start: 2013.03.31 @ 12:50:00

## Tool Information

Drill Pipe:	Length: 3795.00 ft	Diameter: 3.80 inches	Volume: 53.23 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.50 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4046.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	71.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4019.50	
Shut In Tool	5.00			4024.50	
Hydraulic tool	5.00			4029.50	
Jars	5.00			4034.50	
Safety Joint	2.50			4037.00	
Packer	5.00			4042.00	27.50 Bottom Of Top Packer
Packer	4.00			4046.00	
Stubb	1.00			4047.00	
Recorder	0.00	8018	Inside	4047.00	
Recorder	0.00	6751	Outside	4047.00	
Perforations	7.00			4054.00	
Change Over Sub	1.00			4055.00	
Drill Pipe	31.00			4086.00	
Change Over Sub	1.00			4087.00	
Bullnose	3.00			4090.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 71.50**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Co. Inc.

**S19-21s-33w Finney, KS**

10500 E. Berkeley Sq.Pkw y.  
Suite 100  
Wichita, KS 67206  
ATTN: Kitt Noah

**Doris Green #5**

Job Ticket: 48499

**DST#: 1**

Test Start: 2013.03.31 @ 12:50:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

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

Resistivity: ohm.m

Salinity: 2900.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: 93000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	API: .100 @ 60 Degrees F = 93000 PPM	0.000
120.00	MW 20m 80w	0.590
1616.00	OSW 100w	21.575
62.00	OSW 100w	0.870
62.00	OCMW 3o 40m 57w	0.870
7.00	OCMW 10o 50m 40w	0.098

Total Length: 1867.00 ft      Total Volume: 24.003 bbl

Num Fluid Samples: 0

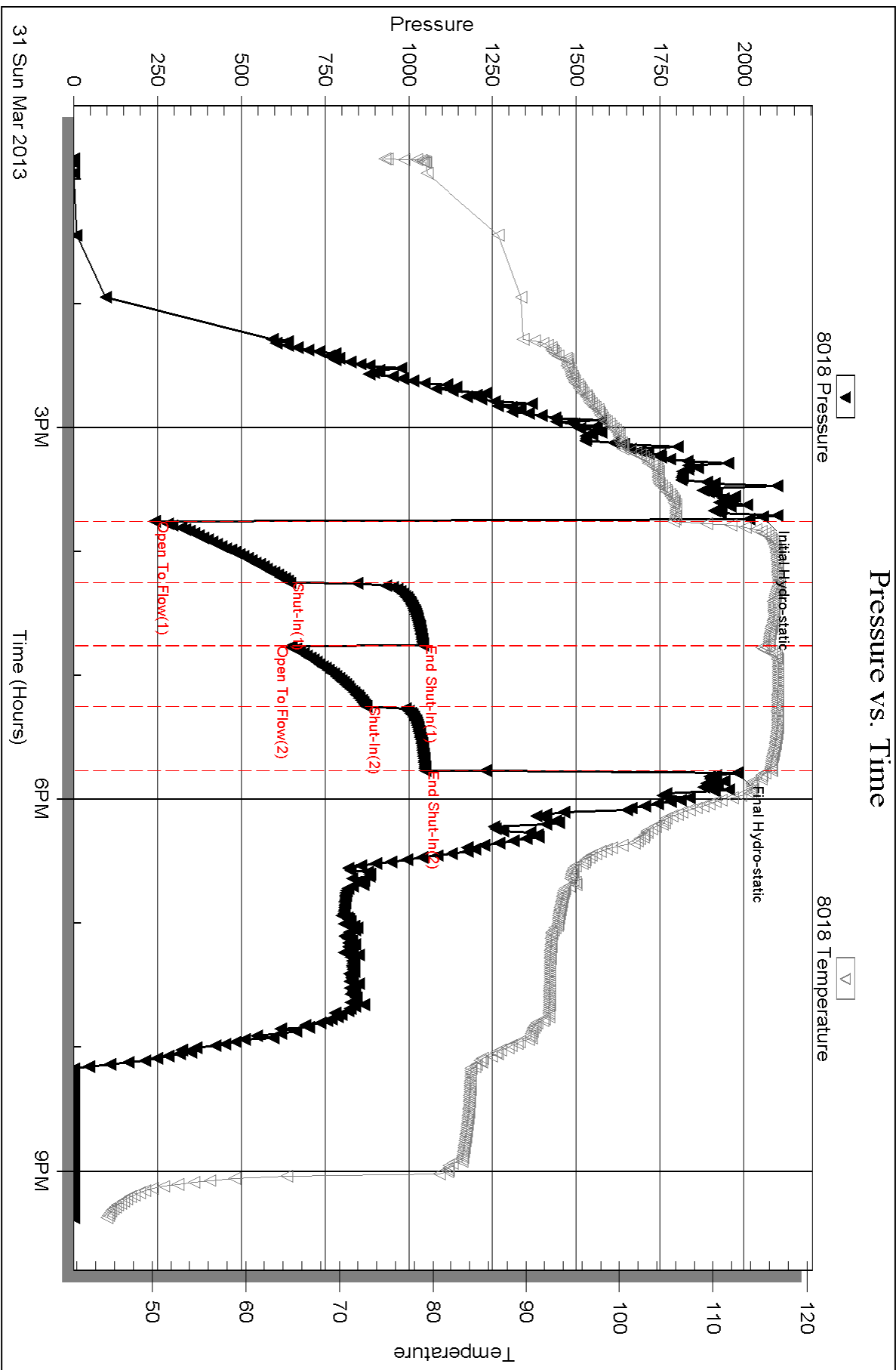
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

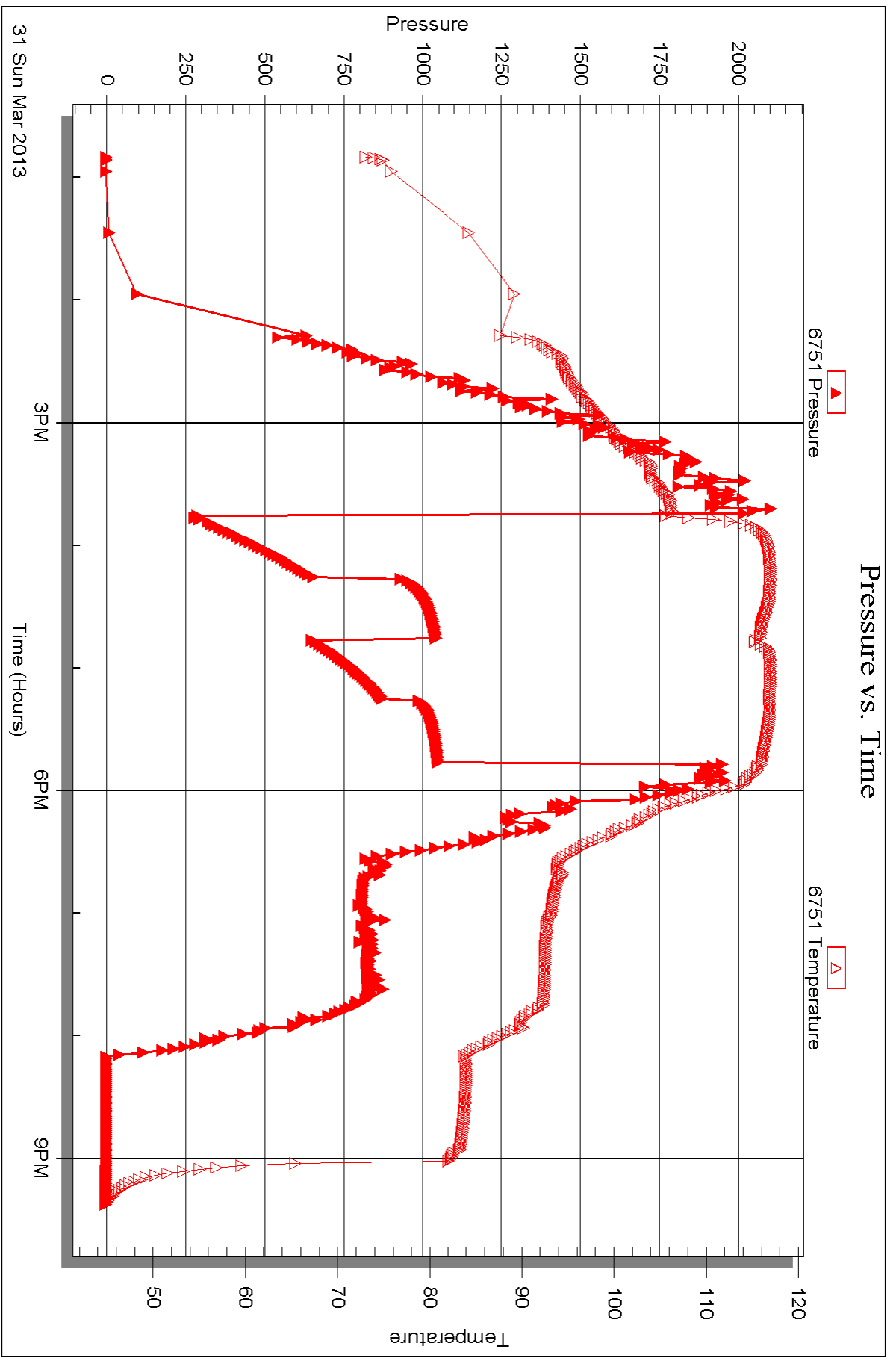


Serial #: 6751

Outside Hartman Oil Co. Inc.

Doris Green #5

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 48499

Printed: 2013.04.08 @ 14:15:37



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co. Inc.**

10500 E. Berkeley Sq.Pkwy.  
Suite 100  
Wichita, KS 67206

ATTN: Kitt Noah

### **Doris Green #5**

#### **S19-21s-33w Finney, KS**

Start Date: 2013.04.02 @ 15:16:00

End Date: 2013.04.02 @ 22:44:30

Job Ticket #: 48500                      DST #: 2

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

Printed: 2013.04.08 @ 14:14:15

Hartman Oil Co. Inc. S19-21s-33w Finney, KS Doris Green #5 DST # 2 Pawnee/Ft. Scott 2013.04.02





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co. Inc.

**S19-21s-33w Finney, KS**

10500 E. Berkeley Sq.Pkw y.  
Suite 100  
Wichita, KS 67206  
ATTN: Kitt Noah

**Doris Green #5**

Job Ticket: 48500

**DST#: 2**

Test Start: 2013.04.02 @ 15:16:00

## GENERAL INFORMATION:

Formation: **Pawnee/Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:41:00

Time Test Ended: 22:44:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

**Interval: 4369.00 ft (KB) To 4418.00 ft (KB) (TVD)**

Reference Elevations: 2918.00 ft (KB)

Total Depth: 4418.00 ft (KB) (TVD)

2908.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8018**

**Inside**

Press @ Run Depth: 34.39 psig @ 4375.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.02

End Date:

2013.04.02

Last Calib.:

2013.04.02

Start Time: 15:16:02

End Time:

22:44:30

Time On Btm:

2013.04.02 @ 17:38:40

Time Off Btm:

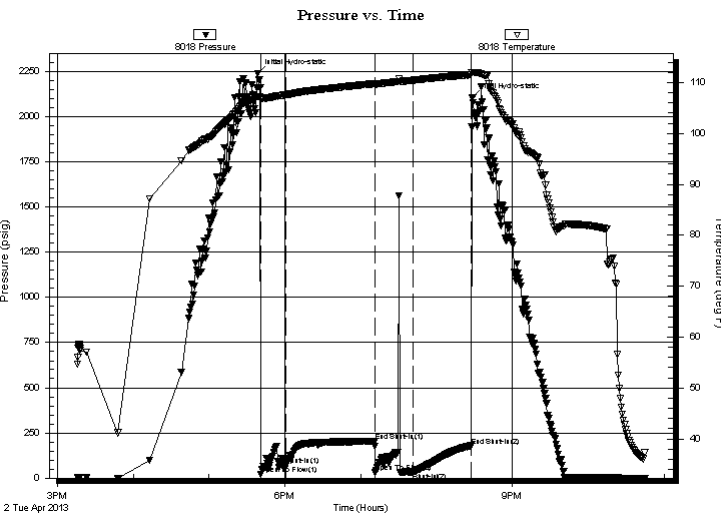
2013.04.02 @ 20:28:20

**TEST COMMENT:** 1/4" Blow .

No return.

No blow , flushed tool, surge died.

No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2238.92	107.25	Initial Hydro-static
3	22.42	106.56	Open To Flow (1)
22	73.00	107.57	Shut-In(1)
93	202.85	109.76	End Shut-In(1)
93	33.65	109.66	Open To Flow (2)
123	34.39	110.43	Shut-In(2)
169	178.08	111.51	End Shut-In(2)
170	2104.20	111.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	SOCM 1 to 99m	0.05

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co. Inc.

**S19-21s-33w Finney, KS**

10500 E. Berkeley Sq.Pkw y.  
Suite 100  
Wichita, KS 67206  
ATTN: Kitt Noah

**Doris Green #5**

Job Ticket: 48500

**DST#: 2**

Test Start: 2013.04.02 @ 15:16:00

## Tool Information

Drill Pipe:	Length: 4109.00 ft	Diameter: 3.80 inches	Volume: 57.64 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: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 58.82 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.50 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	4369.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	49.00 ft				
Tool Length:	76.50 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			4342.50	
Shut In Tool	5.00			4347.50	
Hydraulic tool	5.00			4352.50	
Jars	5.00			4357.50	
Safety Joint	2.50			4360.00	
Packer	5.00			4365.00	27.50 Bottom Of Top Packer
Packer	4.00			4369.00	
Stubb	1.00			4370.00	
Perforations	5.00			4375.00	
Recorder	0.00	8018	Inside	4375.00	
Recorder	0.00	6751	Outside	4375.00	
Perforations	7.00			4382.00	
Change Over Sub	1.00			4383.00	
Drill Pipe	31.00			4414.00	
Change Over Sub	1.00			4415.00	
Bullnose	3.00			4418.00	49.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>76.50</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Co. Inc.

**S19-21s-33w Finney, KS**

10500 E. Berkeley Sq.Pkw y.  
Suite 100  
Wichita, KS 67206  
ATTN: Kitt Noah

**Doris Green #5**

Job Ticket: 48500

**DST#: 2**

Test Start: 2013.04.02 @ 15:16:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 9.98 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	SOCM 1o 99m	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

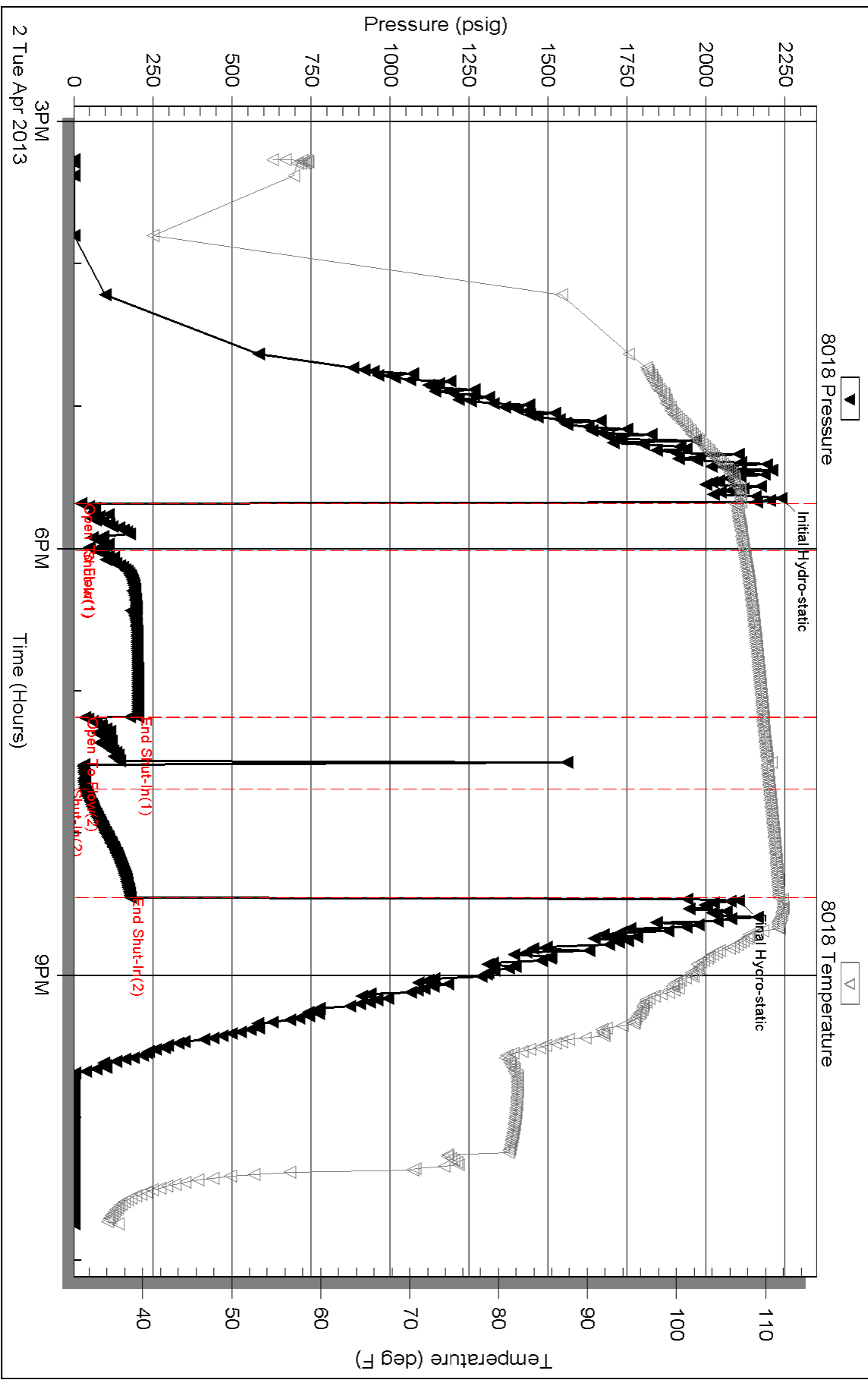
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time

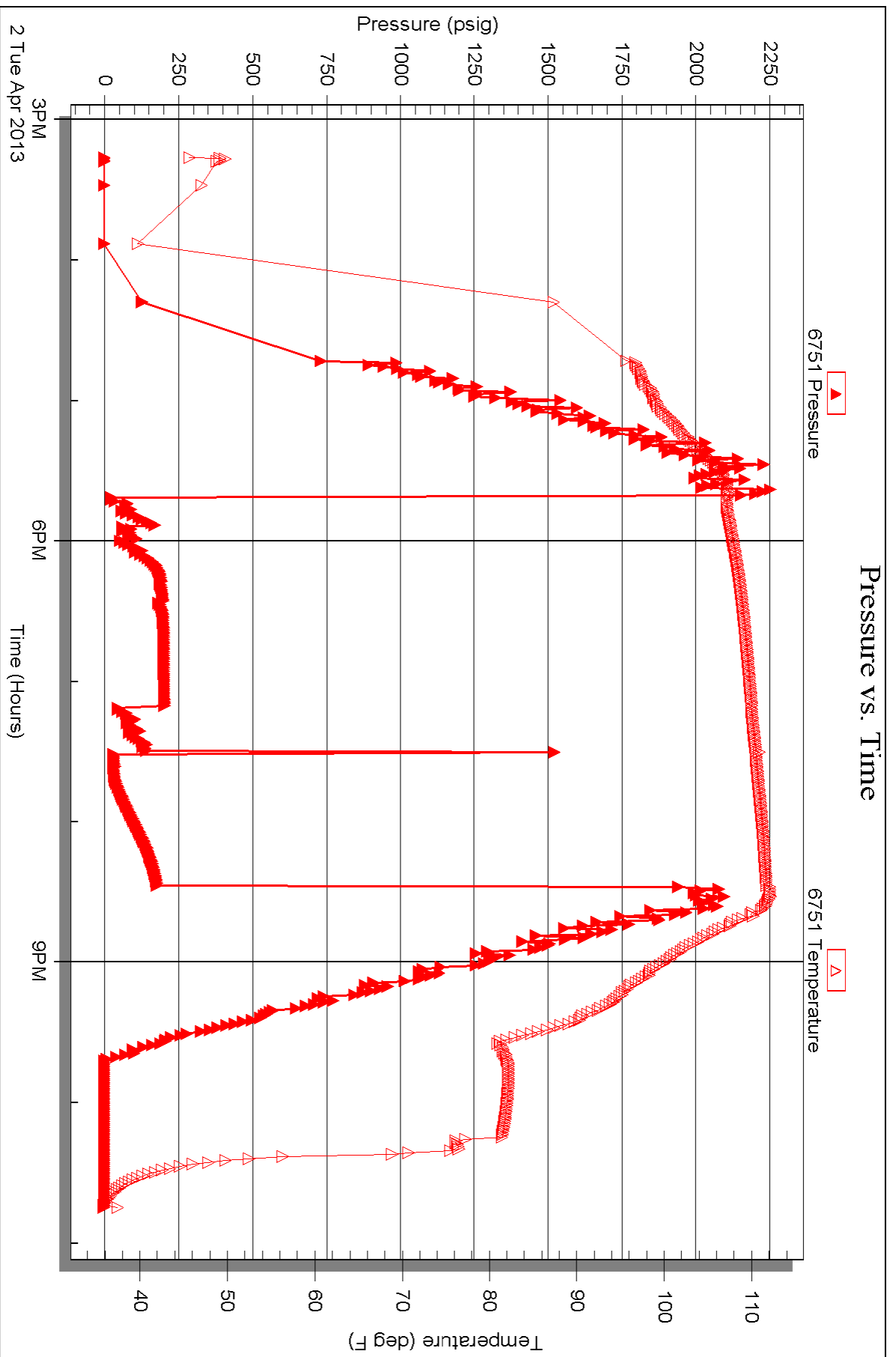


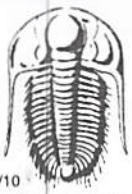
Serial #: 6751

Outside Hartman Oil Co. Inc.

Doris Green #5

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48499

Well Name & No. Doris Green #5 Test No. 1 Date 3-31-13  
 Company Hartman Oil Co., Inc. Elevation 2918 KB 2908 GL  
 Address 10500 E. Berkeley Sq. Pkwy Ste. 100 Wichita, KS 67206  
 Co. Rep / Geo. Kitt Noah Rig H2#2  
 Location: Sec. 19 Twp. 21s Rge. 33w Co. Finney State KS

Interval Tested 4046-4090 Zone Tested LKC 'K'  
 Anchor Length 44 Drill Pipe Run 379.5 Mud Wt. 9.2  
 Top Packer Depth 4042 Drill Collars Run 240 Vis 57  
 Bottom Packer Depth 4046 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4090 Chlorides 2900 ppm System LCM 9#  
 Blow Description B.O.B. @ 2 min  
No return  
B.O.B. @ 3 min  
No return

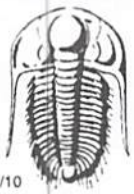
Rec	Feet of	%gas	%oil	%water	%mud
<u>7</u>	<u>OCMW</u>	<u>10</u>	<u>40</u>	<u>50</u>	<u>0</u>
<u>62</u>	<u>OCMW</u>	<u>3</u>	<u>57</u>	<u>40</u>	<u>0</u>
<u>62</u>	<u>OSW</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>1616</u>	<u>OSW Circulated out</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>120</u>	<u>MW</u>	<u>80</u>	<u>20</u>	<u>0</u>	<u>0</u>

Rec Total 1867 BHT 116 Gravity — API RW .100 @ 60 °F Chlorides 93,000 ppm

(A) Initial Hydrostatic 2056  Test 1250 T-On Location 12:00  
 (B) First Initial Flow 242  Jars 250 T-Started 12:50  
 (C) First Final Flow 646  Safety Joint 75 T-Open 15:45  
 (D) Initial Shut-In 1042  Circ Sub 50 T-Pulled 17:46  
 (E) Second Initial Flow 647  Hourly Standby \_\_\_\_\_ T-Out 21:23  
 (F) Second Final Flow 872  Mileage 57RT 88.35 Comments \_\_\_\_\_  
 (G) Final Shut-In 1048  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1980  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1863.35  
 Accessibility 150 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1863.35

Approved By Kitt Noah Our Representative Chuck Smith

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 of 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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48500

Well Name & No. Doris Green #5 Test No. 2 Date 4-2-13  
 Company Hartman Oil Co., Inc. Elevation 2918 KB 2908 GL  
 Address 10500 E. Berkeley Sq. Pkwy. Ste. 100 Wichita, KS 67206  
 Co. Rep / Geo. KiH Nonh Rig H2 #2  
 Location: Sec. 19 Twp. 21s Rge. 33w Co. Finney State KS

Interval Tested 4369 - 4418 Zone Tested Pawnee - Fort Scott  
 Anchor Length 49 Drill Pipe Run 4109 Mud Wt. 9.2  
 Top Packer Depth 4365 Drill Collars Run 240 Vis 52  
 Bottom Packer Depth 4369 Wt. Pipe Run 0 WL 10.0  
 Total Depth 4418 Chlorides 3500 ppm System LCM 12"  
 Blow Description 1/4" Blow.  
No return  
No blow, flushed tool, surge died.  
No return.

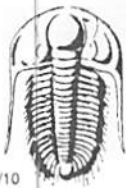
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>10</u>	Feet of <u>SOCM</u>	%gas	<u>1</u> %oil	%water	<u>99</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 112 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2239  Test 1250 T-On Location 15:15  
 (B) First Initial Flow 22  Jars \_\_\_\_\_ T-Started 15:16  
 (C) First Final Flow 73  Safety Joint \_\_\_\_\_ T-Open 17:41  
 (D) Initial Shut-In 203  Circ Sub NIC T-Pulled 20:28  
 (E) Second Initial Flow 34  Hourly Standby \_\_\_\_\_ T-Out 22:45  
 (F) Second Final Flow 34  Mileage 57RT 88.35 Comments \_\_\_\_\_  
 (G) Final Shut-In 178  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2104  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 591.67  
 Initial Shut-In 45  Day Standby 41.75 hrs 1d 17.75h Total 2080.02  
 Final Flow 30  Accessibility 150 MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1488.35

Approved By [Signature] Our Representative Chuck Smith  
 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. 51726

4/10

Well Name & No.	<u>Doris Green #5</u>	Test No.	<u>N/A</u>	Date	<u>4-4-13</u>
Company	<u>Hartman Oil Co., Inc.</u>	Elevation	<u>2918</u>	KB	<u>2908</u> GL
Address	<u>10500 E. Berkeley Sq. Pkwy Ste. 100 Wichita, KS 67206</u>				
Co. Rep / Geo.	<u>Kitt Noah</u>	Rig	<u>H2#2</u>		
Location: Sec.	<u>19</u>	Twp.	<u>21s</u>	Rge.	<u>33w</u>
		Co.	<u>Finney</u>	State	<u>KS</u>

Interval Tested	<u>N/A</u>	Zone Tested	_____
Anchor Length	_____	Drill Pipe Run	_____
Top Packer Depth	_____	Drill Collars Run	_____
Bottom Packer Depth	_____	Wt. Pipe Run	_____
Total Depth	_____	Chlorides	_____ ppm System
Blow Description	_____		

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	Feet of	%gas	%oil	%water	%mud

Rec Total	_____	BHT	_____	Gravity	_____	API RW	_____	@	_____ °F	Chlorides	_____ ppm
(A) Initial Hydrostatic	_____	<input type="checkbox"/> Test	_____	T-On Location	<u>22:32</u>						
(B) First Initial Flow	_____	<input type="checkbox"/> Jars	_____	T-Started	<u>23:30</u>						
(C) First Final Flow	_____	<input type="checkbox"/> Safety Joint	_____	T-Open	_____						
(D) Initial Shut-In	_____	<input type="checkbox"/> Circ Sub	_____	T-Pulled	_____						
(E) Second Initial Flow	_____	<input type="checkbox"/> Hourly Standby	_____	T-Out	_____						
(F) Second Final Flow	_____	<input type="checkbox"/> Mileage	<u>88.35</u>	Comments	<u>Started loading tool @ catwalk 23:30 waiting for loggers</u>						
(G) Final Shut-In	_____	<input type="checkbox"/> Sampler	_____	<input type="checkbox"/> Ruined Shale Packer	_____						
(H) Final Hydrostatic	_____	<input type="checkbox"/> Straddle	_____	<input type="checkbox"/> Ruined Packer	_____						
Initial Open	_____	<input type="checkbox"/> Shale Packer	_____	<input type="checkbox"/> Extra Copies	_____						
Initial Shut-In	_____	<input type="checkbox"/> Extra Packer	_____	Sub Total	<u>800</u>						
Final Flow	_____	<input type="checkbox"/> Extra Recorder	_____	Total	<u>888.35</u>						
Final Shut-In	_____	<input checked="" type="checkbox"/> Day Standby	<u>48.75 hrs.</u>	MP/DST Disc't	_____						
		<input type="checkbox"/> Accessibility	_____	Sub Total	<u>88.35</u>						

Approved By \_\_\_\_\_ Our Representative Chuck Smith

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.