



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley SQ PKWY  
Ste 100  
Wichita, KS 67206

ATTN: Kitt Noah

**5-22s-33w Finney,KS**

**Garden City B Twin #5**

Start Date: 2013.08.27 @ 15:05:40

End Date: 2013.08.27 @ 23:55:40

Job Ticket #: 52845                      DST #: 1

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

Printed: 2013.09.03 @ 10:40:06



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# DRILL STEM TEST REPORT

Hartman Oil Co  
 10500 E Berkeley SQ PKWY  
 Ste 100  
 Wichita, KS 67206  
 ATTN: Kitt Noah

**Garden City B Twin #5**

**5-22s-33w Finney,KS**

Job Ticket: 52845 **DST#: 1**

Test Start: 2013.08.27 @ 15:05:40

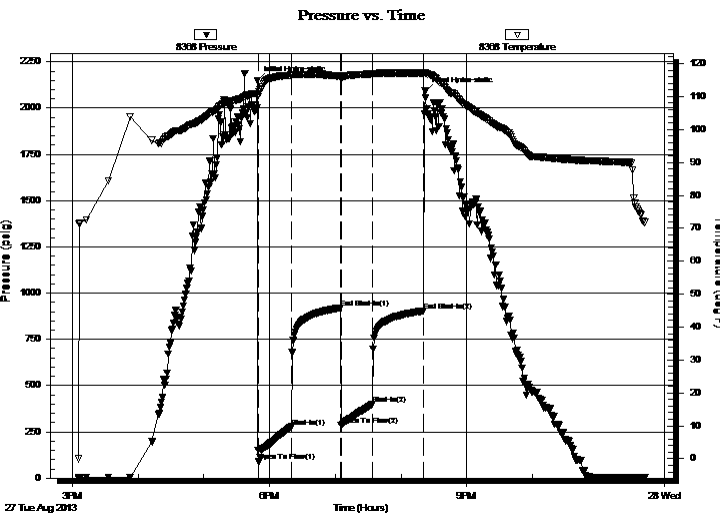
## GENERAL INFORMATION:

Formation: **Upper L**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 17:49:40 Tester: Shane McBride  
 Time Test Ended: 23:55:40 Unit No: 55  
 Interval: **4193.00 ft (KB) To 4206.00 ft (KB) (TVD)** Reference Elevations: 2900.00 ft (KB)  
 Total Depth: 4206.00 ft (KB) (TVD) 2890.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 8368 Outside**

Press @ Run Depth: 398.60 psig @ 4194.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.08.27 End Date: 2013.08.27 Last Calib.: 2013.08.27  
 Start Time: 15:05:40 End Time: 23:42:40 Time On Btm: 2013.08.27 @ 17:49:10  
 Time Off Btm: 2013.08.27 @ 20:21:55

**TEST COMMENT:** B.O.B. in 5 1/2 min  
 5" return blow (rig over rotated tool 3 rounds on shut in )  
 5" @ open B.O.B. in 6 min.  
 Weak Surface return, died in 40 min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2149.99	110.99	Initial Hydro-static
1	88.66	110.69	Open To Flow (1)
31	277.70	116.49	Shut-In(1)
76	920.26	116.17	End Shut-In(1)
76	287.04	115.85	Open To Flow (2)
105	398.60	116.89	Shut-In(2)
152	903.41	117.07	End Shut-In(2)
153	2091.85	117.28	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	s m c g o 10m 20g 70o	0.89
790.00	c g o 20g 80o	10.51
0.00	260' gas in pipe	0.00

## Gas Rates

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



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Ste 100  
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ATTN: Kitt Noah

**Garden City B Twin #5**

**5-22s-33w Finney,KS**

Job Ticket: 52845

**DST#: 1**

Test Start: 2013.08.27 @ 15:05:40

**GENERAL INFORMATION:**

Formation: **Upper L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:49:40

Time Test Ended: 23:55:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane McBride

Unit No: 55

**Interval: 4193.00 ft (KB) To 4206.00 ft (KB) (TVD)**

Total Depth: 4206.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2900.00 ft (KB)

2890.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 6667 Inside**

Press @ Run Depth: psig @ 4194.00 ft (KB)

Start Date: 2013.08.27

End Date: 2013.08.27

Capacity: 8000.00 psig

Last Calib.: 2013.08.27

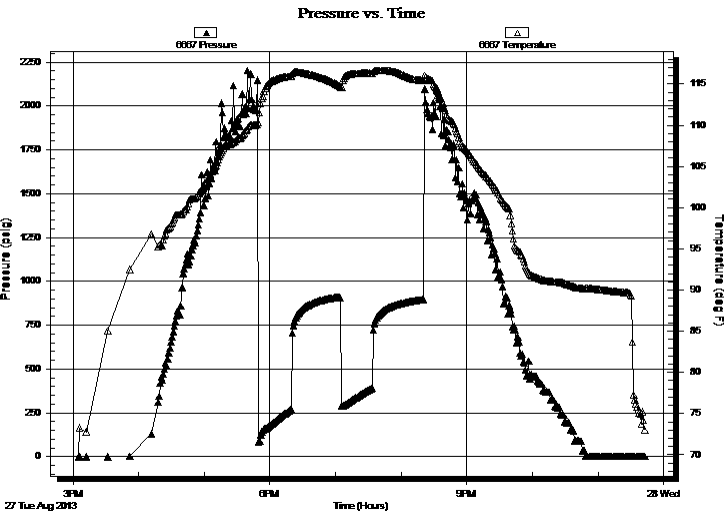
Start Time: 15:05:10

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Time On Btm:

Time Off Btm:

**TEST COMMENT:** B.O.B. in 5 1/2 min  
5" return blow (rig over rotated tool 3 rounds on shut in )  
5" @ open B.O.B. in 6 min.  
Weak Surface return, died in 40 min.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
180.00	s m c g o 10m 20g 70o	0.89
790.00	c g o 20g 80o	10.51
0.00	260' gas in pipe	0.00

**Gas Rates**

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



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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co  
10500 E Berkeley SQ PKWY  
Ste 100  
Wichita, KS 67206  
ATTN: Kitt Noah

**Garden City B Twin #5**  
**5-22s-33w Finney,KS**  
Job Ticket: 52845      **DST#: 1**  
Test Start: 2013.08.27 @ 15:05:40

**Tool Information**

Drill Pipe:	Length: 3953.00 ft	Diameter: 3.80 inches	Volume: 55.45 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: 25000.00 lb
Drill Collar:	Length: 243.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4193.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	41.00 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			4166.00	
Shut In Tool	5.00			4171.00	
Hydraulic tool	5.00			4176.00	
Jars	5.00			4181.00	
Safety Joint	3.00			4184.00	
Packer	5.00			4189.00	28.00      Bottom Of Top Packer
Packer	4.00			4193.00	
Stubb	1.00			4194.00	
Recorder	0.00	6667	Inside	4194.00	
Recorder	0.00	8368	Outside	4194.00	
Perforations	7.00			4201.00	
Bullnose	5.00			4206.00	13.00      Bottom Packers & Anchor

**Total Tool Length: 41.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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Wichita, KS 67206  
ATTN: Kitt Noah

**Garden City B Twin #5**  
**5-22s-33w Finney,KS**  
Job Ticket: 52845      **DST#: 1**  
Test Start: 2013.08.27 @ 15:05:40

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 29 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 1900.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

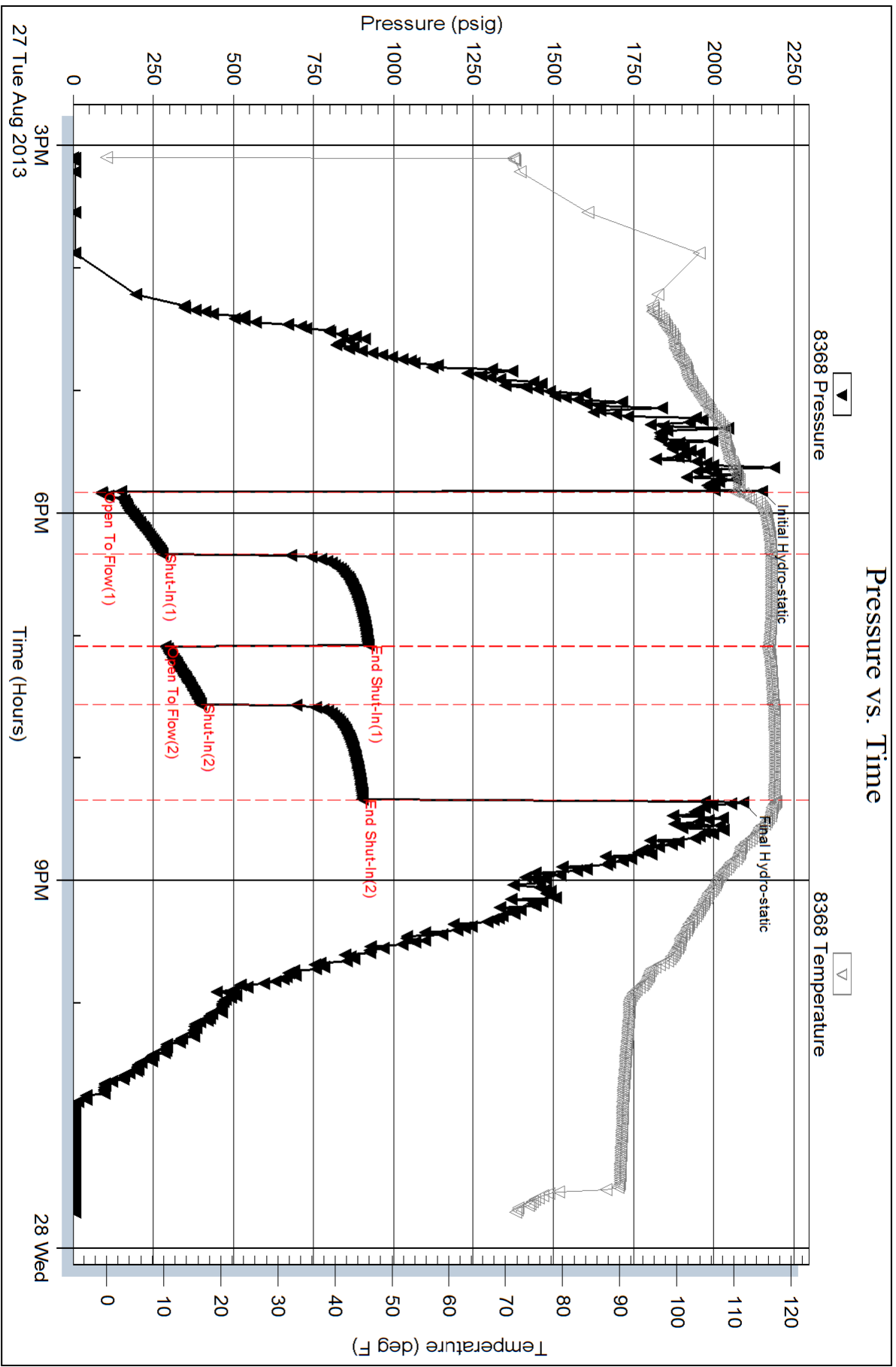
Length ft	Description	Volume bbl
180.00	s m c g o 10m 20g 70o	0.885
790.00	c g o 20g 80o	10.508
0.00	260' gas in pipe	0.000

Total Length: 970.00 ft      Total Volume: 11.393 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:



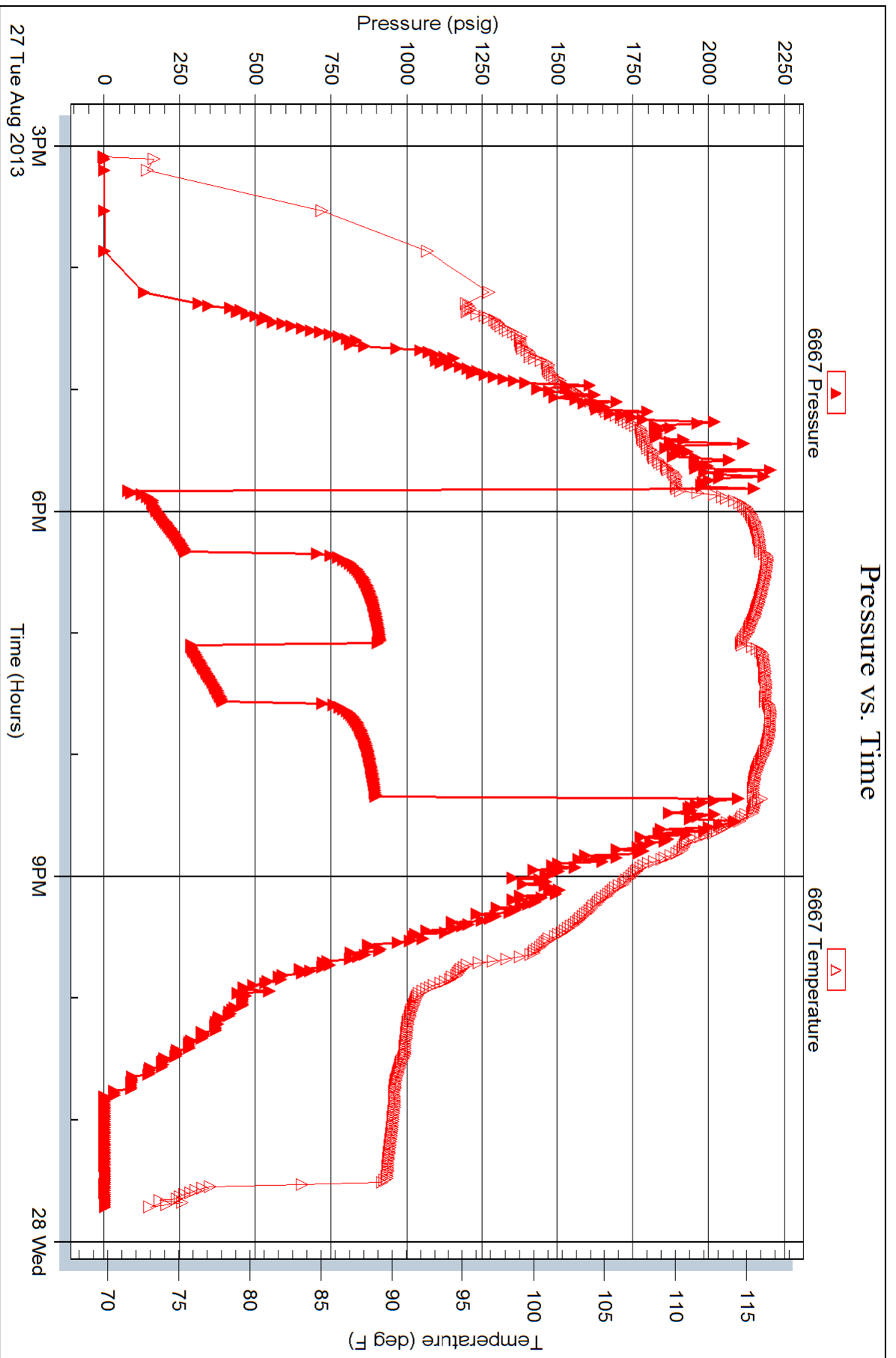
Serial #: 6667

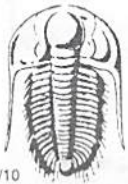
Inside

Hartman Oil Co

5-22s-33w Finney, KS

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52845

Well Name & No. Carden City B Twp #5 Test No. #1 Date 8/27/13  
 Company Hartman Oil Co. Elevation 2900 KB 2890 GL  
 Address 10500 S. Boulder, PO, P.O. Box, Delco, Wash, Ind 5 67206  
 Co. Rep / Geo. R. H. Noah Rig #2 #4  
 Location: Sec. 5 Twp. 225 Rge. 33w Co. Finney State Ks

Interval Tested 4193 4206 Zone Tested Upr L.  
 Anchor Length 13 Drill Pipe Run 3953 Mud Wt. 9.1  
 Top Packer Depth 4188 Drill Collars Run 243' Vis 58  
 Bottom Packer Depth 4193 Wt. Pipe Run --- WL 8.0  
 Total Depth 4206 Chlorides 1900 ppm System LCM #6

Blow Description B.O.B. in 5 1/2 min  
5" in return (rig over rotated shut-in by 3 rounds)  
5" @ open burst to B.O.B. in 6 min  
Weak surface return in 10 min died in 40 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>790</u>	<u>190</u>	<u>20</u>	<u>80</u>		
<u>180</u>	<u>Shago</u>	<u>20</u>	<u>70</u>		<u>10</u>
	<u>260' Gas in Pipe</u>				

Rec Total 970' BHT 117° Gravity 29 API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>2149</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>13:15</u>
(B) First Initial Flow <u>88</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>16:00</u>
(C) First Final Flow <u>277</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>18:45</u>
(D) Initial Shut-In <u>920</u>	<input checked="" type="checkbox"/> Circ Sub <u>n/c</u>	T-Pulled <u>20:15</u>
(E) Second Initial Flow <u>287</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>23:55</u>
(F) Second Final Flow <u>398</u>	<input checked="" type="checkbox"/> Mileage <u>55PT</u> 85.25	Comments
(G) Final Shut-In <u>903</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2091</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer

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

Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility 150

Sub Total 1810.25

Total 1810.25  
 MP/DST Disc't

Approved By R. H. Noah Our Representative [Signature]

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