



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company, Inc.**

10500 E. Berkeley SQ  
Pkwy St. 100  
Wichita KS 67206

ATTN: Wes Hansen

### **Noll #1-21**

### **21-17s-34w Scott, KS**

Start Date: 2013.09.24 @ 01:46:15

End Date: 2013.09.24 @ 10:07:00

Job Ticket #: 52922                      DST #: 1

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

Printed: 2013.10.01 @ 10:48:29



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pkw y St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52922

**DST#: 1**

Test Start: 2013.09.24 @ 01:46:15

## GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:39:00

Time Test Ended: 10:07:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 65

**Interval: 4448.00 ft (KB) To 4480.00 ft (KB) (TVD)**

Reference Elevations: 3131.00 ft (KB)

Total Depth: 4480.00 ft (KB) (TVD)

3121.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8846 Outside**

Press @ Run Depth: 80.04 psig @ 4450.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.24

End Date:

2013.09.24

Last Calib.: 2013.09.25

Start Time: 01:46:15

End Time:

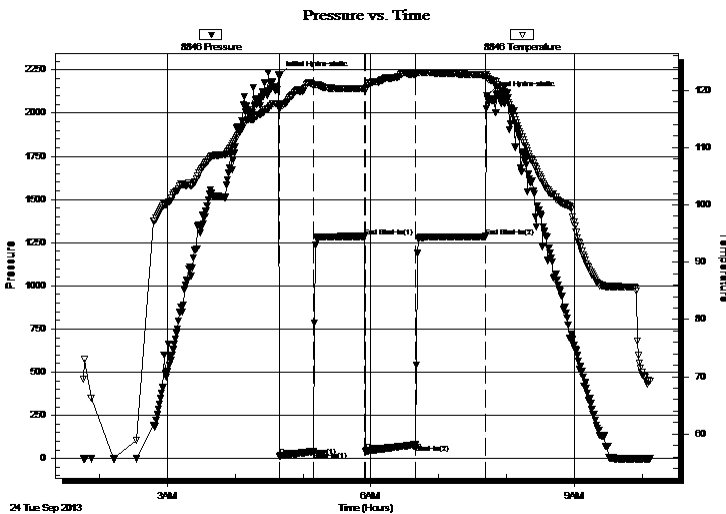
10:07:00

Time On Btm: 2013.09.24 @ 04:38:45

Time Off Btm: 2013.09.24 @ 07:42:30

**TEST COMMENT:** IF: Built to 1 1/2" blow  
IS: No return blow  
FF: Built to 1/8" blow  
FS: No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2214.94	117.71	Initial Hydro-static
1	13.91	116.69	Open To Flow (1)
31	40.43	120.82	Shut-In(1)
76	1286.11	120.24	End Shut-In(1)
77	43.72	120.04	Open To Flow (2)
121	80.04	122.80	Shut-In(2)
183	1285.50	122.64	End Shut-In(2)
184	2100.27	122.39	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcsw 15% m 85% sw	0.91

## Gas Rates

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



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Hartman Oil Company, Inc.

21-17s-34w Scott, KS

10500 E. Berkeley SQ  
Pkwy St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52922

**DST#: 1**

Test Start: 2013.09.24 @ 01:46:15

## GENERAL INFORMATION:

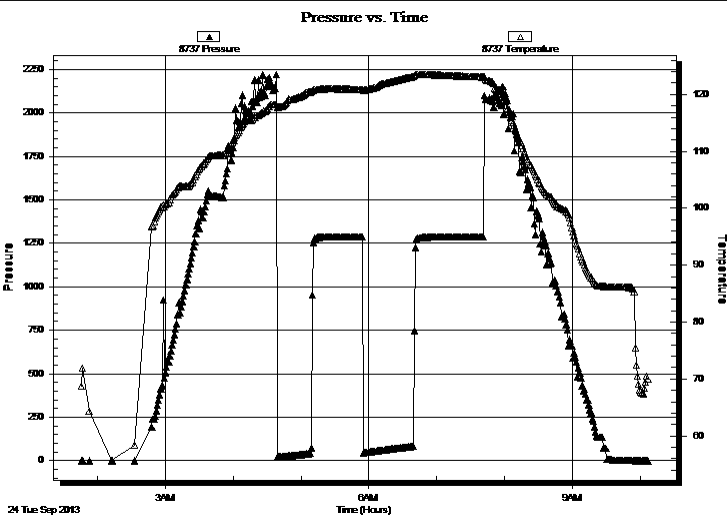
Formation: **Pleasanton**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 04:39:00  
Time Test Ended: 10:07:00  
**Interval: 4448.00 ft (KB) To 4480.00 ft (KB) (TVD)**  
Total Depth: 4480.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 3131.00 ft (KB)  
3121.00 ft (CF)  
KB to GR/CF: 10.00 ft

Test Type: Conventional Bottom Hole (Initial)  
Tester: Mike Roberts  
Unit No: 65

**Serial #: 8737 Inside**

Press @RunDepth: psig @ 4450.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2013.09.24 End Date: 2013.09.24 Last Calib.: 2013.09.25  
Start Time: 01:46:15 End Time: 10:07:00 Time On Btm:  
Time Off Btm:

TEST COMMENT: IF: Built to 1 1/2" blow  
IS: No return blow  
FF: Built to 1/8" blow  
FS: No return blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
186.00	mcsw 15% m 85% sw	0.91

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pky St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52922

**DST#: 1**

Test Start: 2013.09.24 @ 01:46:15

## Tool Information

Drill Pipe:	Length: 4203.00 ft	Diameter: 3.80 inches	Volume: 58.96 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 60.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4448.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4421.00	
Shut In Tool	5.00			4426.00	
Hydraulic tool	5.00			4431.00	
Jars	5.00			4436.00	
Safety Joint	3.00			4439.00	
Packer	5.00			4444.00	28.00 Bottom Of Top Packer
Packer	4.00			4448.00	
Stubb	1.00			4449.00	
Perforations	1.00			4450.00	
Recorder	0.00	8737	Inside	4450.00	
Recorder	0.00	8846	Outside	4450.00	
Perforations	25.00			4475.00	
Bullnose	5.00			4480.00	32.00 Bottom Packers & Anchor

**Total Tool Length: 60.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pky St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52922

**DST#: 1**

Test Start: 2013.09.24 @ 01:46:15

## 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:

13000 ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.33 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	mcsw 15% m 85% sw	0.915

Total Length: 186.00 ft      Total Volume: 0.915 bbl

Num Fluid Samples: 0

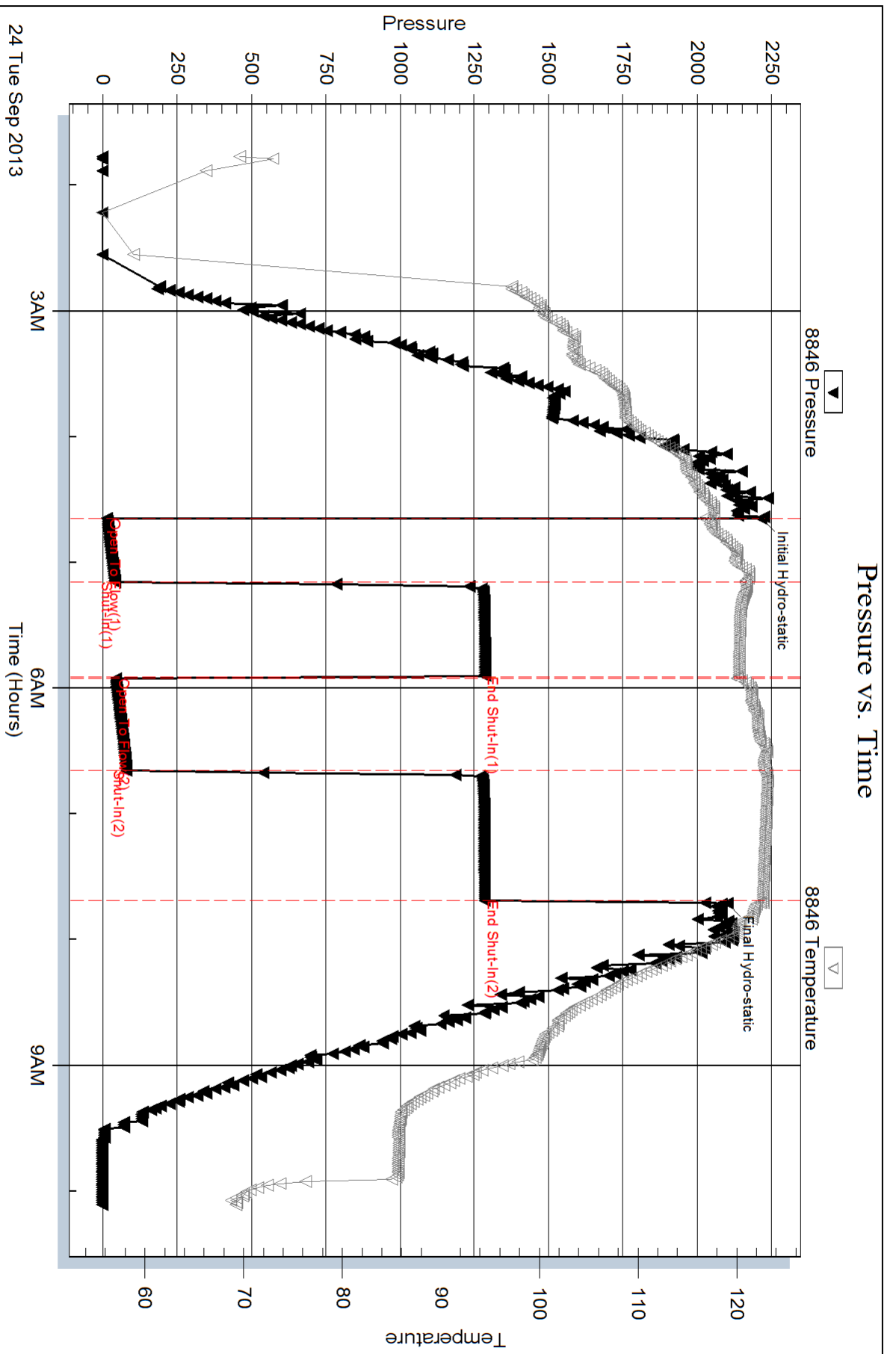
Num Gas Bombs: 0

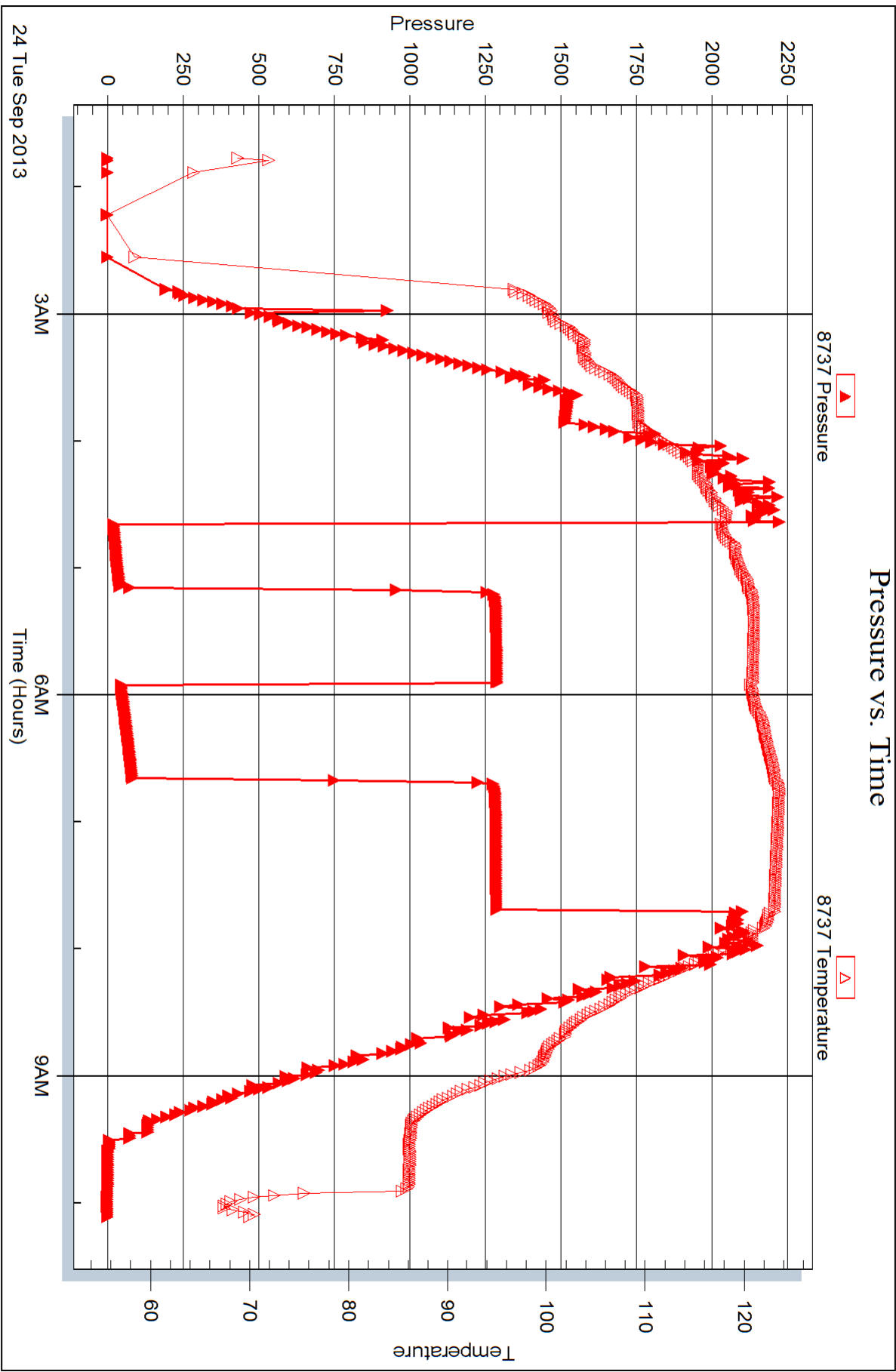
Serial #:

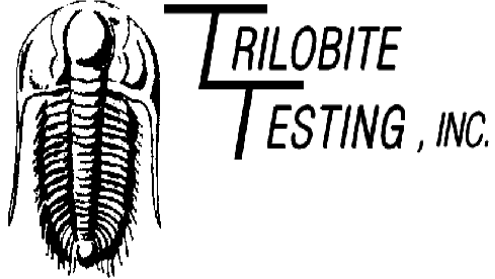
Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .584@64\*=13000 ppm







## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company, Inc.**

10500 E. Berkeley SQ  
Pkyw St. 100  
Wichita KS 67206

ATTN: Wes Hansen

### **Noll #1-21**

### **21-17s-34w Scott, KS**

Start Date: 2013.09.25 @ 00:41:15

End Date: 2013.09.25 @ 08:07:00

Job Ticket #: 52923                      DST #: 2

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

Printed: 2013.10.01 @ 10:48:02





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TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pkw y St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52923

**DST#: 2**

Test Start: 2013.09.25 @ 00:41:15

## GENERAL INFORMATION:

Formation: **Altamont "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:50:30

Time Test Ended: 08:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

**Interval: 4526.00 ft (KB) To 4556.00 ft (KB) (TVD)**

Reference Elevations: 3131.00 ft (KB)

Total Depth: 4556.00 ft (KB) (TVD)

3121.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8846 Outside**

Press @ Run Depth: 16.72 psig @ 4527.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.26

End Date:

2013.09.26

Last Calib.:

2013.09.26

Start Time: 00:41:15

End Time:

08:07:00

Time On Btm:

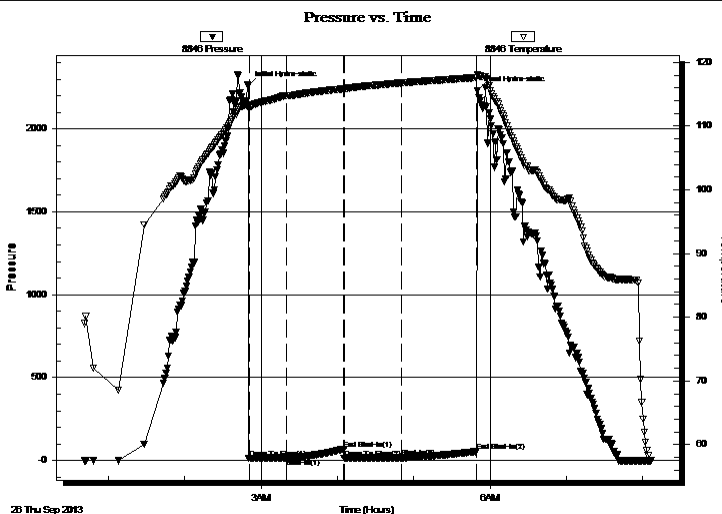
2013.09.26 @ 02:49:45

Time Off Btm:

2013.09.26 @ 05:50:15

**TEST COMMENT:** IF:Weak surface blow  
IS:No return blow  
FF:No blow  
FS:No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.71	113.24	Initial Hydro-static
1	15.31	112.96	Open To Flow (1)
31	15.87	114.74	Shut-In(1)
76	68.77	115.85	End Shut-In(1)
76	14.59	115.84	Open To Flow (2)
121	16.72	116.78	Shut-In(2)
180	54.37	117.62	End Shut-In(2)
181	2231.88	118.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 1%o 99%m	0.02

## Gas Rates

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

\* Recovery from multiple tests



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Hartman Oil Company, Inc.  
 10500 E. Berkeley SQ  
 Pkwy St. 100  
 Wichita KS 67206  
 ATTN: Wes Hansen

**21-17s-34w Scott, KS**

**Noll #1-21**

Job Ticket: 52923

**DST#: 2**

Test Start: 2013.09.25 @ 00:41:15

## GENERAL INFORMATION:

Formation: **Altamont "B"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 02:50:30 Tester: Mike Roberts  
 Time Test Ended: 08:07:00 Unit No: 65  
 Interval: **4526.00 ft (KB) To 4556.00 ft (KB) (TVD)** Reference Elevations: 3131.00 ft (KB)  
 Total Depth: 4556.00 ft (KB) (TVD) 3121.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

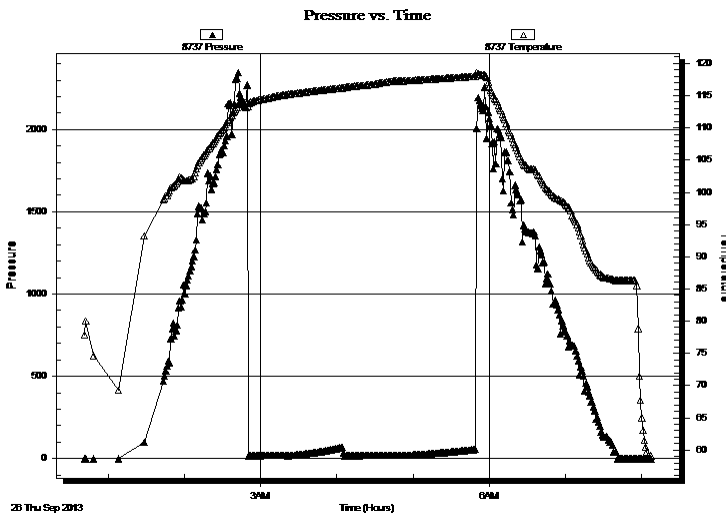
## Serial #: 8737

Inside

Press @ Run Depth: psig @ 4527.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.09.26 End Date: 2013.09.26 Last Calib.: 2013.09.26  
 Start Time: 00:41:15 End Time: 08:07:15 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: Weak surface blow  
 IS: No return blow  
 FF: No blow  
 FS: No return blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 1%o 99% m	0.02

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pky St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52923

**DST#: 2**

Test Start: 2013.09.25 @ 00:41:15

## Tool Information

Drill Pipe:	Length: 4265.00 ft	Diameter: 3.80 inches	Volume: 59.83 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 61.05 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4526.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 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			4499.00	
Shut In Tool	5.00			4504.00	
Hydraulic tool	5.00			4509.00	
Jars	5.00			4514.00	
Safety Joint	3.00			4517.00	
Packer	5.00			4522.00	28.00 Bottom Of Top Packer
Packer	4.00			4526.00	
Stubb	1.00			4527.00	
Recorder	0.00	8737	Inside	4527.00	
Recorder	0.00	8846	Outside	4527.00	
Perforations	24.00			4551.00	
Bullnose	5.00			4556.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pky St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**NoII #1-21**

Job Ticket: 52923

**DST#: 2**

Test Start: 2013.09.25 @ 00:41:15

## 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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.55 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	ocm 1%o 99%m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

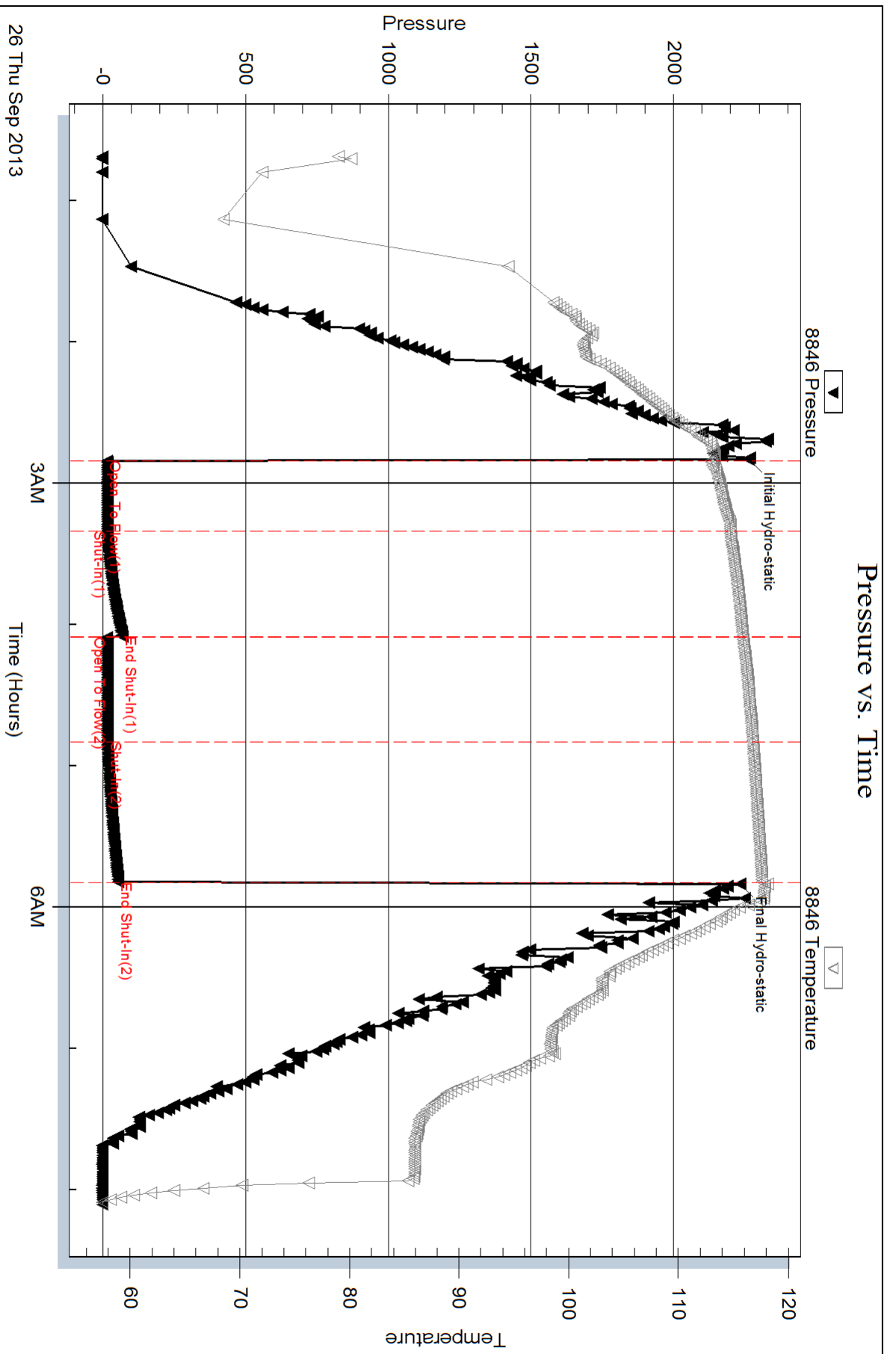
Num Gas Bombs: 0

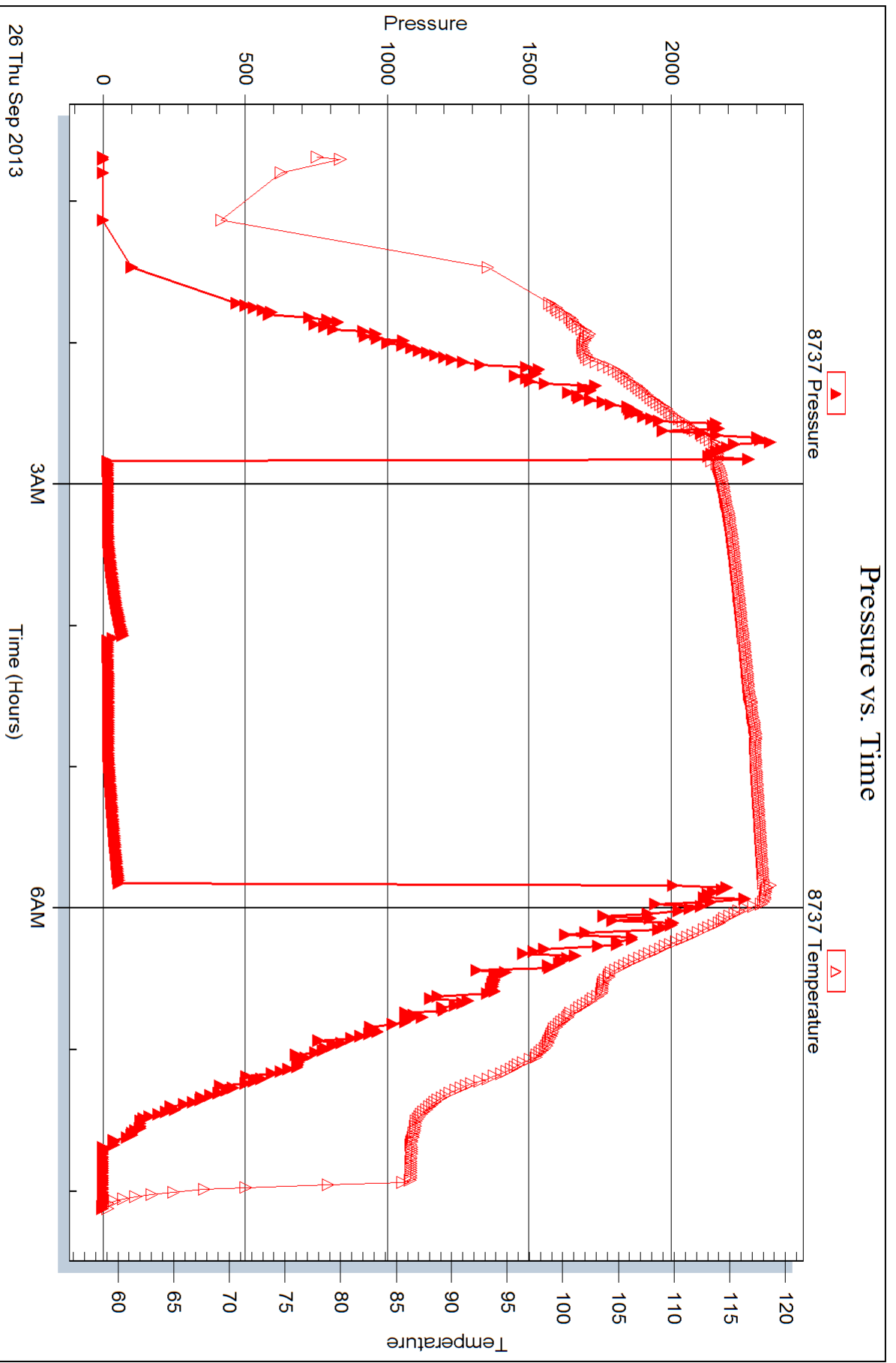
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company, Inc.**

10500 E. Berkeley SQ  
Pkwy St. 100  
Wichita KS 67206

ATTN: Wes Hansen

### **Noll #1-21**

#### **21-17s-34w Scott, KS**

Start Date: 2013.09.26 @ 17:54:15

End Date: 2013.09.27 @ 01:42:15

Job Ticket #: 52924                      DST #: 3

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

Printed: 2013.10.01 @ 10:47:35



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pkw y St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52924

**DST#: 3**

Test Start: 2013.09.26 @ 17:54:15

## GENERAL INFORMATION:

Formation: **Altamont "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:30:00

Time Test Ended: 01:42:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 65

**Interval: 4546.00 ft (KB) To 4590.00 ft (KB) (TVD)**

Total Depth: 4590.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3131.00 ft (KB)

3121.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 8846 Inside**

Press @ Run Depth: 19.54 psig @ 4547.00 ft (KB)

Start Date: 2013.09.26

End Date: 2013.09.27

Start Time: 17:54:15

End Time: 01:42:15

Capacity: 8000.00 psig

Last Calib.: 2013.09.27

Time On Btm: 2013.09.26 @ 20:29:45

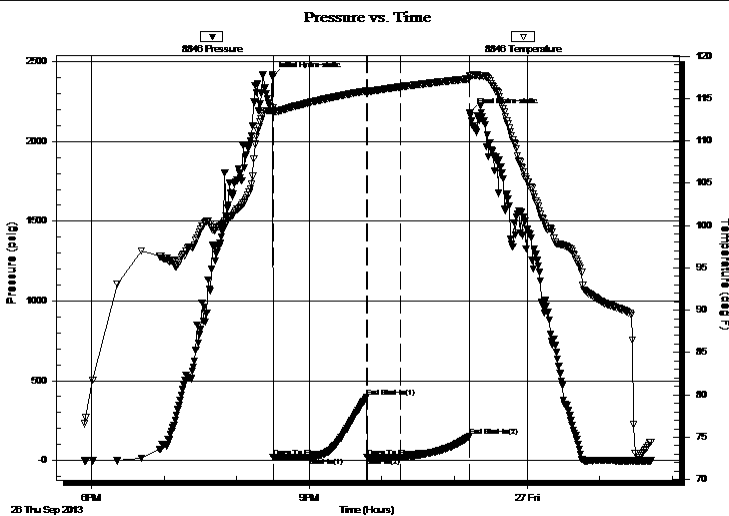
Time Off Btm: 2013.09.26 @ 23:12:45

**TEST COMMENT:** IF:Weak blow died in 7 min.

IS:No return blow

FF:No blow

FS:No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2405.25	113.87	Initial Hydro-static
1	18.92	113.25	Open To Flow (1)
31	21.99	114.52	Shut-In(1)
78	396.75	115.89	End Shut-In(1)
78	19.45	115.73	Open To Flow (2)
106	19.54	116.35	Shut-In(2)
163	152.51	117.32	End Shut-In(2)
163	2179.49	117.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w / oil spots	0.02

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pky St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**Noll #1-21**

Job Ticket: 52924

**DST#: 3**

Test Start: 2013.09.26 @ 17:54:15

## Tool Information

Drill Pipe:	Length: 4289.00 ft	Diameter: 3.80 inches	Volume: 60.16 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 61.38 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4546.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 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			4518.00	
Shut In Tool	5.00			4523.00	
Hydraulic tool	5.00			4528.00	
Jars	5.00			4533.00	
Safety Joint	3.00			4536.00	
Packer	5.00			4541.00	29.00 Bottom Of Top Packer
Packer	5.00			4546.00	
Stubb	1.00			4547.00	
Recorder	0.00	8846	Inside	4547.00	
Recorder	0.00	8737	Outside	4547.00	
Perforations	4.00			4551.00	
Change Over Sub	1.00			4552.00	
Drill Pipe	32.00			4584.00	
Change Over Sub	1.00			4585.00	
Bullnose	5.00			4590.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 73.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Company, Inc.

**21-17s-34w Scott, KS**

10500 E. Berkeley SQ  
Pky St. 100  
Wichita KS 67206  
ATTN: Wes Hansen

**NoII #1-21**

Job Ticket: 52924

**DST#: 3**

Test Start: 2013.09.26 @ 17:54:15

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 10.32 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 5600.00 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
5.00	Mud w / oil spots	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

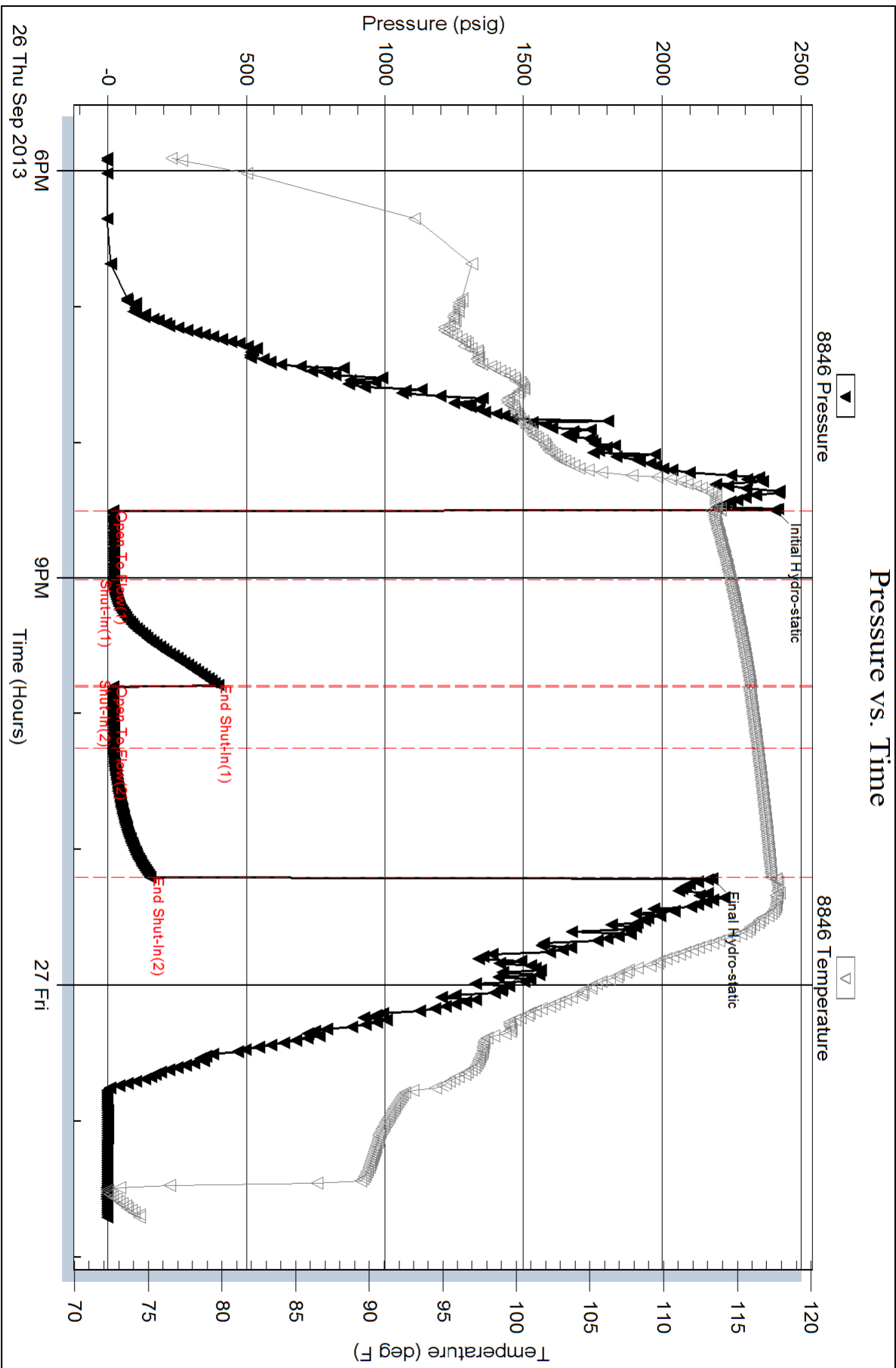
Num Gas Bombs: 0

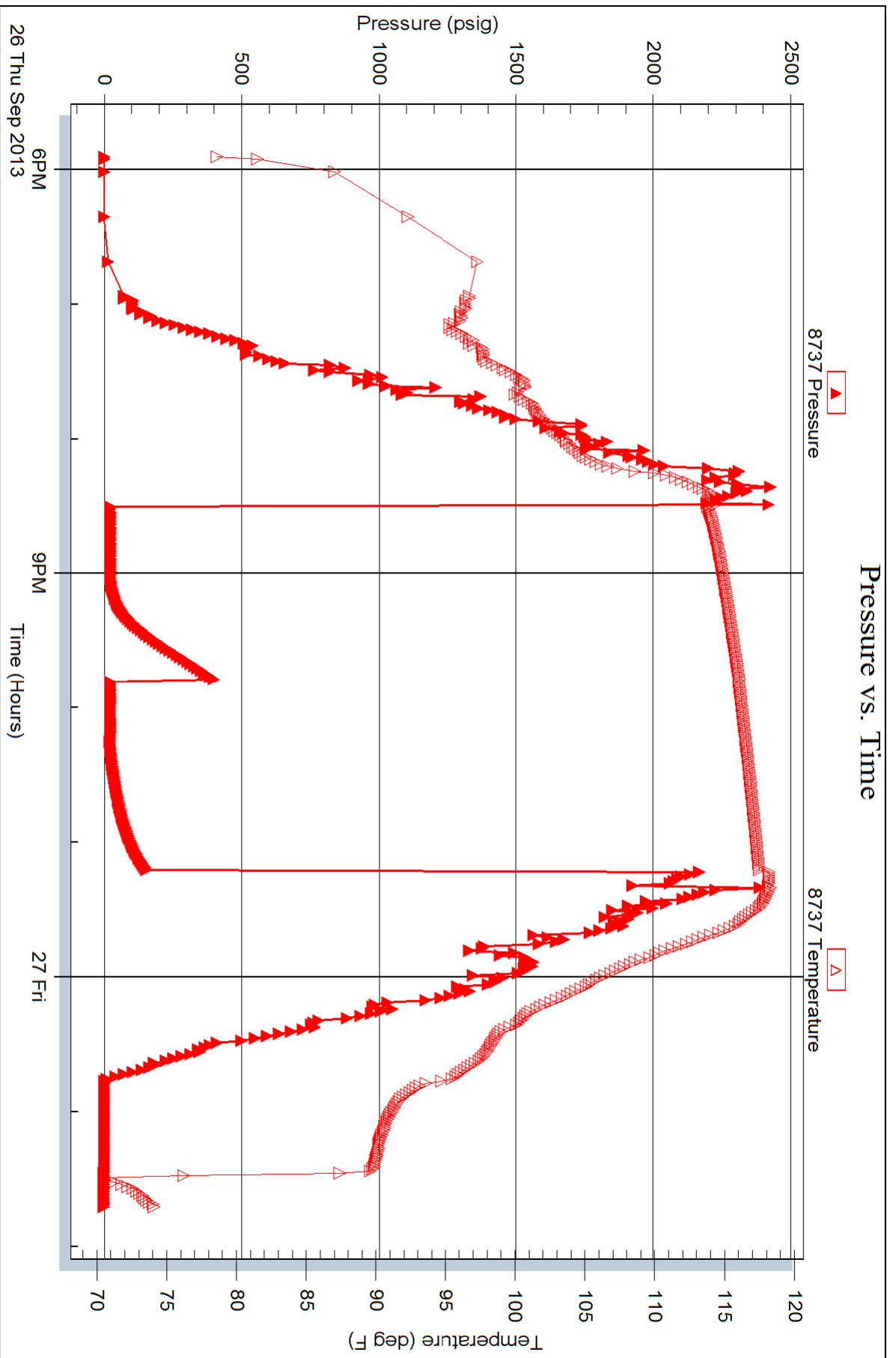
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52922

Well Name & No. Noll 1-21 Test No. 1 Date 9-24-13  
 Company Hartman Oil Company Inc. Elevation 3131 KB 3121 GL  
 Address 10500 E Berkeley Sq Pkwy ST100 Wichita KS 67206  
 Co. Rep / Geo. Wes Hansen Rig ~~FE~~ HZ#4  
 Location: Sec. 21 Twp. 17S Rge. 34W Co. SCOTT State KS

Interval Tested 4448 - 4480 Zone Tested Pleasanton  
 Anchor Length 32 Drill Pipe Run 4203 Mud Wt. 9.4  
 Top Packer Depth 4444 Drill Collars Run 248 Vis 41  
 Bottom Packer Depth 4448 Wt. Pipe Run Ø WL 10.4  
 Total Depth 4480 Chlorides 4000 ppm System LCM 2#

Blow Description IF: Built to 1 1/2" Blow  
FS: No Return Blow  
FF: Built to 1/8" Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>186</u>	<u>masw</u>		<u>85</u>	<u>15</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

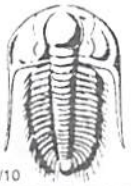
Rec Total 186 BHT 120 Gravity — API RW 584 @ 64 ° F Chlorides 13,000 ppm

(A) Initial Hydrostatic <u>2214</u>	<input checked="" type="checkbox"/> Test <u>1250.00/-</u>	T-On Location <u>22:30</u>
(B) First Initial Flow <u>13</u>	<input checked="" type="checkbox"/> Jars <u>250.00/-</u>	T-Started <u>01:46</u>
(C) First Final Flow <u>40</u>	<input checked="" type="checkbox"/> Safety Joint <u>75.00/-</u>	T-Open <u>04:39</u>
(D) Initial Shut-In <u>1286</u>	<input checked="" type="checkbox"/> Circ Sub <u>NL</u>	T-Pulled <u>07:39</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:07</u>
(F) Second Final Flow <u>80</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT 46.50/-</u>	Comments
(G) Final Shut-In <u>1285</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2100</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30  Shale Packer  
 Initial Shut-In 45  Shale Packer  
 Final Flow 45  Extra Packer  
 Final Shut-In 60  Extra Recorder  
 Day Standby  
 Accessibility #150.00/-  
 Sub Total #1771.50/-

Approved By Wesley Hansen Our Representative Mike Roberts  
 Sub Total 0 Total 1771.50 MP/DST Disc't

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. 52923

Well Name & No. Noll 1-21 Test No. 2 Date 9-25-13  
 Company Hartman Oil Company Inc. Elevation 3131 KB 3121 GL  
 Address 10500 E. Berkeley SQ Pkwy ST 100 Wichita KS 67206  
 Co. Rep / Geo. Wes Hansen Rig H2 #4  
 Location: Sec. 21 Twp. 17S Rge. 34W Co. SCOTT State KS

Interval Tested 4526-4556 Zone Tested Altamont "B"  
 Anchor Length 30' Drill Pipe Run 4265 Mud Wt. 9.4  
 Top Packer Depth 4522 Drill Collars Run 248 Vis 51  
 Bottom Packer Depth 4526 Wt. Pipe Run 0 WL 9.6  
 Total Depth 4556 Chlorides 5400 ppm System LCM 2  
 Blow Description IF: Weak Surface Blow  
IS: NO Return Blow  
FF: NO Blow  
FS: NO Return Blow

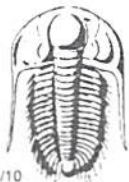
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OCM</u>		<u>1</u>		<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 121 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>2261</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>22:30</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:41</u>
(C) First Final Flow <u>15</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>02:50</u>
(D) Initial Shut-In <u>68</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>05:50</u>
(E) Second Initial Flow <u>14</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>08:07</u>
(F) Second Final Flow <u>16</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT</u> 46.50	Comments
(G) Final Shut-In <u>54</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2231</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1771.50</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't
	Sub Total <u>1771.50</u>	

Approved By Wesley Hansen Our Representative Mike Roberts

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52924

Well Name & No. Noll 1-21 Test No. 3 Date 9-26-13  
 Company Hartman Oil Company Inc Elevation 3131 KB 3121 GL  
 Address 10500 E. Berkeley SQ Pkwy St 100 Wichita KS 67206  
 Co. Rep / Geo. Wrs Hansen Rig H2 Rig#4  
 Location: Sec. 21 Twp. 17S Rge. 34W Co. Scott State KS

Interval Tested 4546-4590 Zone Tested Altamont 'E''  
 Anchor Length 44' Drill Pipe Run 4289 Mud Wt. 9.2  
 Top Packer Depth 4542 Drill Collars Run 248 Vis 51  
 Bottom Packer Depth 4546 Wt. Pipe Run Ø WL 8.8  
 Total Depth 4590 Chlorides 5600 ppm System LCM 2  
 Blow Description IF: Weak Blow Died in 7 Min  
FS: NO Return Blow  
FF: NO 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 118 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2405</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>17:00</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>17:54</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>20:30</u>
(D) Initial Shut-In <u>396</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>28:00</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>01:42</u>
(F) Second Final Flow <u>19</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT X 2</u> 93	Comments <u>Loaded tools</u>
(G) Final Shut-In <u>152</u>	<input type="checkbox"/> Sampler	<u>9-27-13 19:30</u>
(H) Final Hydrostatic <u>2179</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u><del>45</del> 30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u><del>45</del> 45</u>	<input type="checkbox"/> Day Standby	Total <u>1818</u>
	<input checked="" type="checkbox"/> Accessibility 150	MP/DST Disc't
	Sub Total <u>1818</u>	

Approved By Wesley Hansen Our Representative Mike Rohlf

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