



## DRILL STEM TEST REPORT

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

10500 E. Berkeley Sq Pkwy Ste 100  
Wichita KS 67202

ATTN: Kitt Noah / Stan Mit

### **Prime Pork #1-11**

### **11-18s-34w Scott,KS**

Start Date: 2013.12.30 @ 04:10:00

End Date: 2013.12.30 @ 13:50:00

Job Ticket #: 56676                      DST #: 1

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

Printed: 2014.01.07 @ 14:41:44



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co. Inc.

**11-18s-34w Scott,KS**

10500 E. Berkeley Sq Pkw y Ste 100  
Wichita KS 67202

**Prime Pork #1-11**

Job Ticket: 56676

**DST#: 1**

ATTN: Kitt Noah / Stan Mit

Test Start: 2013.12.30 @ 04:10:00

## GENERAL INFORMATION:

Formation: **Marmaton " A - C "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:46:45

Time Test Ended: 13:50:00

Test Type: Conventional Bottom Hole (Initial)

Tester: BOB HAMEL

Unit No: 65

Interval: **4458.00 ft (KB) To 4555.00 ft (KB) (TVD)**

Reference Elevations: 3116.00 ft (KB)

Total Depth: 4555.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8846**

**Inside**

Press@RunDepth: 515.79 psig @ 4527.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.30

End Date:

2013.12.30

Last Calib.:

2013.12.30

Start Time: 04:10:15

End Time:

13:50:00

Time On Btm:

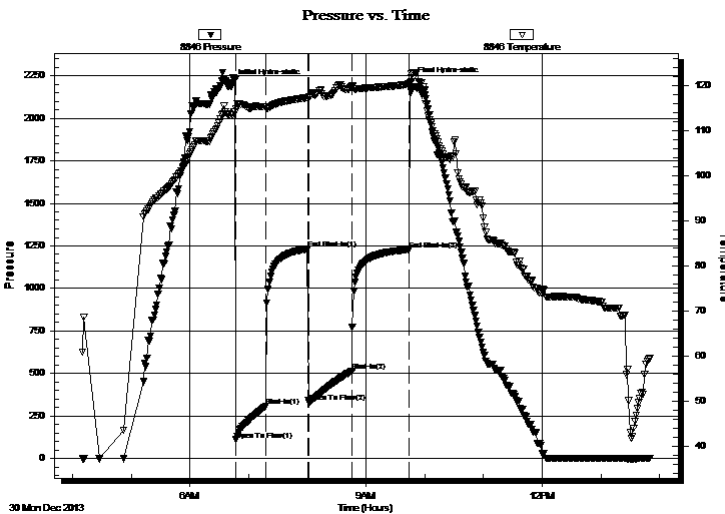
2013.12.30 @ 06:42:30

Time Off Btm:

2013.12.30 @ 09:46:15

TEST COMMENT: I.F. - 30 - BOB in 4 min  
I.S.I. - 45 - No blow back  
F.F. - 45 - BOB in 5 min  
F.S.I. - 60 - No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2206.30	113.59	Initial Hydro-static
5	110.03	114.90	Open To Flow (1)
35	308.92	115.35	Shut-In(1)
78	1232.46	117.38	End Shut-In(1)
80	329.38	117.58	Open To Flow (2)
124	515.79	119.81	Shut-In(2)
182	1228.84	120.36	End Shut-In(2)
184	2216.86	122.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
272.00	S,M,C,O,W 5% MUD 30% OIL 65% WATER	1.34
378.00	S,M,C,G,O, 5% MUD 10% GAS 85% OIL	4.39
252.00	H,G,C,O, 20% GAS 80% OIL	3.53
189.00	CLEAN OIL 100%	2.65
0.00	126' GAS IN PIPE	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co. Inc.

**11-18s-34w Scott,KS**

10500 E. Berkeley Sq Pkwy Ste 100  
Wichita KS 67202

**Prime Pork #1-11**

Job Ticket: 56676

**DST#: 1**

ATTN: Kitt Noah / Stan Mit

Test Start: 2013.12.30 @ 04:10:00

## Tool Information

Drill Pipe:	Length: 4070.00 ft	Diameter: 3.80 inches	Volume: 57.09 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 372.00 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 58.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4458.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	126.00 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			4430.00	
Shut In Tool	5.00			4435.00	
Hydraulic tool	5.00			4440.00	
Jars	5.00			4445.00	
Safety Joint	3.00			4448.00	
Packer	5.00			4453.00	29.00 Bottom Of Top Packer
Packer	5.00			4458.00	
Stubb	1.00			4459.00	
Perforations	3.00			4462.00	
Change Over Sub	1.00			4463.00	
Drill Pipe	63.00			4526.00	
Change Over Sub	1.00			4527.00	
Recorder	0.00	8846	Inside	4527.00	
Recorder	0.00	8646	Outside	4527.00	
Perforations	23.00			4550.00	
Bullnose	5.00			4555.00	97.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>126.00</b>				



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TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Co. Inc.

**11-18s-34w Scott,KS**

10500 E. Berkeley Sq Pkw y Ste 100  
Wichita KS 67202

**Prime Pork #1-11**

Job Ticket: 56676

**DST#: 1**

ATTN: Kitt Noah / Stan Mit

Test Start: 2013.12.30 @ 04:10:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

33000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
272.00	S,M,C,O,W 5%MUD 30%OIL 65%WATER	1.338
378.00	S,M,C,G,O, 5%MUD 10%GAS 85%OIL	4.391
252.00	H,G,C,O, 20%GAS 80%OIL	3.535
189.00	CLEAN OIL 100%	2.651
0.00	126' GAS IN PIPE	0.000

Total Length: 1091.00 ft      Total Volume: 11.915 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

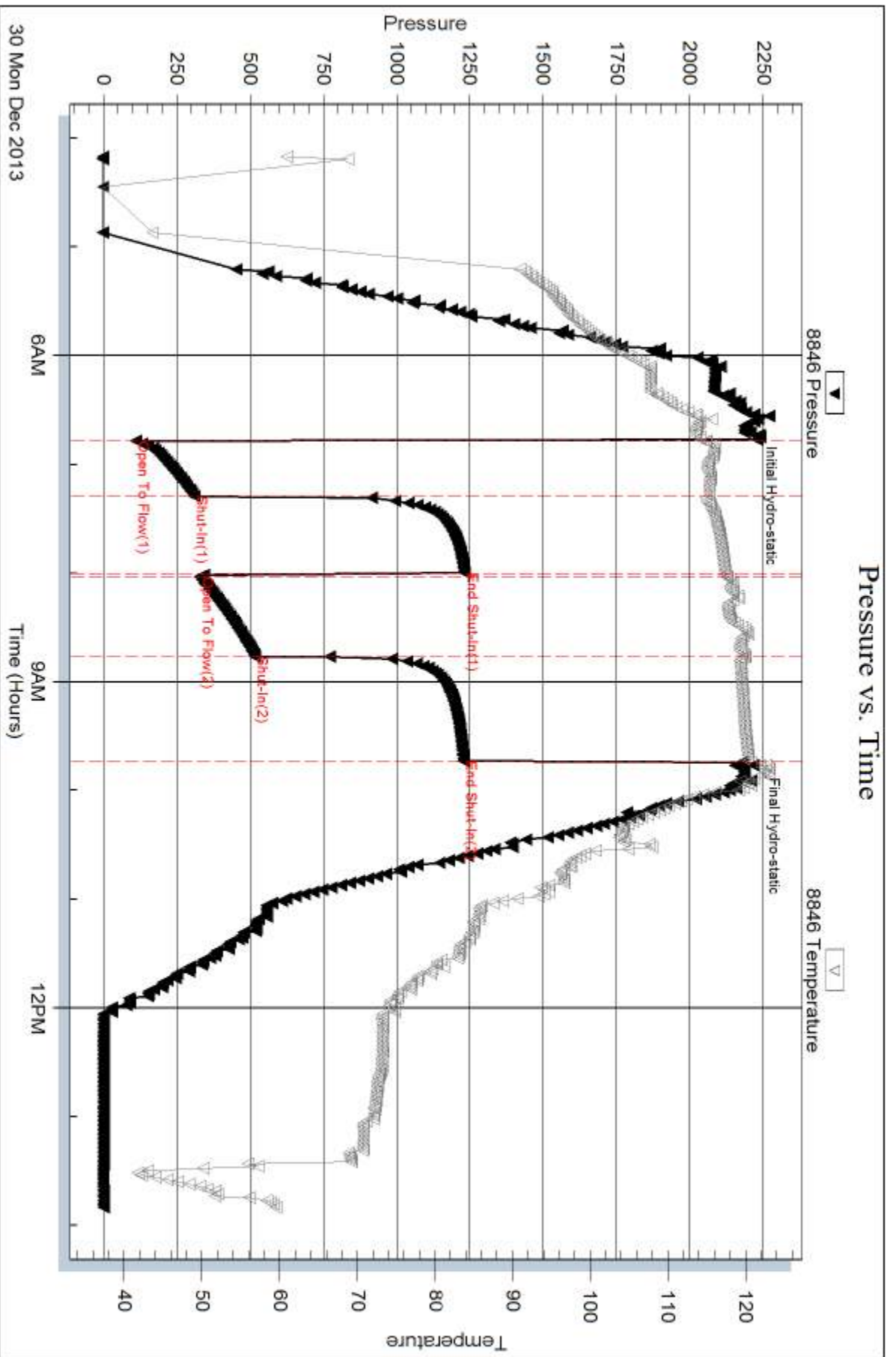
Laboratory Name:

Laboratory Location:

Recovery Comments: API 33.8 @ 60 DEG.

Rw .3 OHMS @ 50 DEG

### Pressure vs. Time

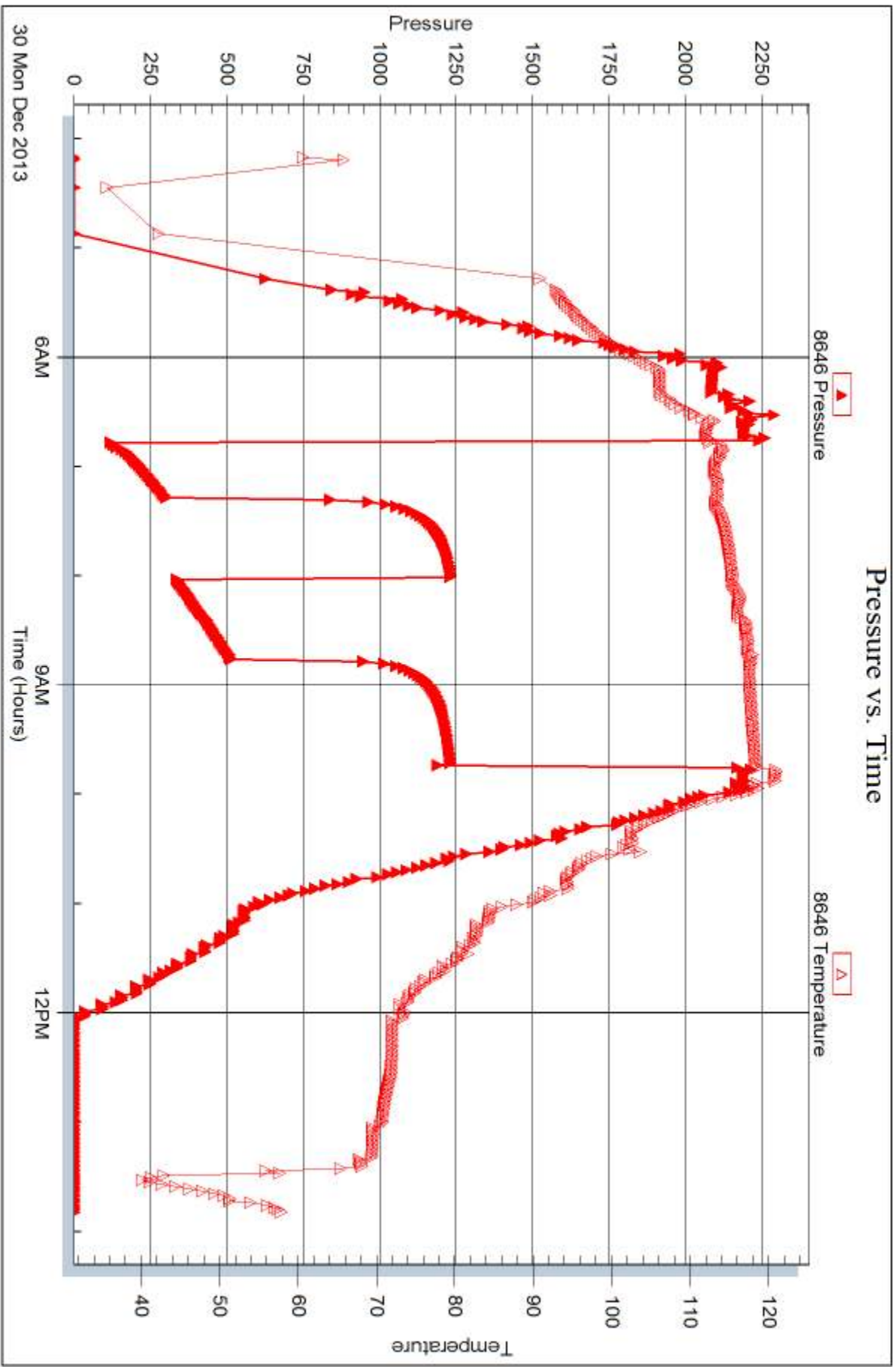


Serial #: 8646

Outside Hartman Oil Co. Inc.

Prime Pork #1-11

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 56676

Printed: 2014.01.07 @ 14:41:46



## DRILL STEM TEST REPORT

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

10500 E. Berkeley Sq Pkwy Ste 100  
Wichita KS 67202

ATTN: Kitt Noah / Stan Mit

### **Prime Pork #1-11**

#### **11-18s-34w Scott,KS**

Start Date: 2013.12.31 @ 00:13:00

End Date: 2013.12.31 @ 06:12:30

Job Ticket #: 54721                      DST #: 2

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

Printed: 2014.01.07 @ 14:40:40





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Hartman Oil Co. Inc.  
 10500 E. Berkeley Sq Pkw y Ste 100  
 Wichita KS 67202  
 ATTN: Kitt Noah / Stan Mit

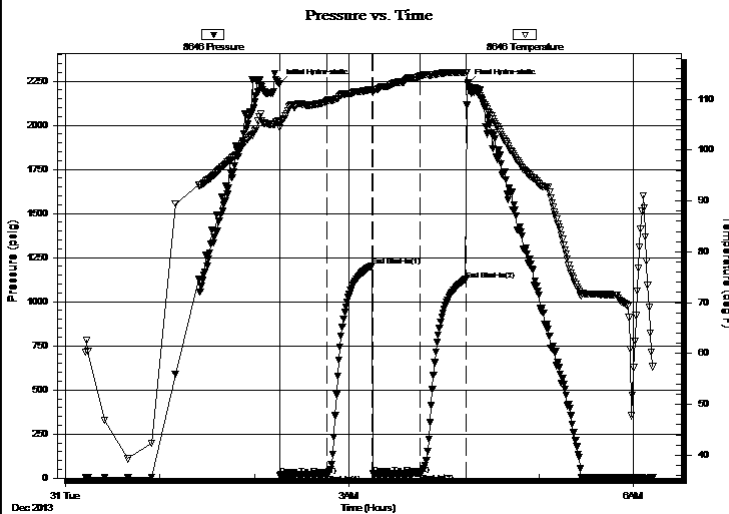
**11-18s-34w Scott,KS**  
**Prime Pork #1-11**  
 Job Ticket: 54721 **DST#: 2**  
 Test Start: 2013.12.31 @ 00:13:00

## GENERAL INFORMATION:

Formation: **Pawnee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:16:00  
 Time Test Ended: 06:12:30  
 Interval: **4560.00 ft (KB) To 4588.00 ft (KB) (TVD)**  
 Total Depth: 4588.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 65  
 Reference Elevations: 3116.00 ft (KB)  
 3104.00 ft (CF)  
 KB to GR/CF: 12.00 ft

**Serial #: 8646 Inside**  
 Press@RunDepth: 25.58 psig @ 4561.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.31 End Date: 2013.12.31 Last Calib.: 2013.12.31  
 Start Time: 00:13:00 End Time: 06:12:30 Time On Btm: 2013.12.31 @ 02:15:45  
 Time Off Btm: 2013.12.31 @ 04:15:00

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



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2234.27	105.73	Initial Hydro-static
1	17.50	104.42	Open To Flow (1)
30	21.47	109.65	Shut-In(1)
59	1204.71	111.91	End Shut-In(1)
60	23.33	111.39	Open To Flow (2)
89	25.58	114.56	Shut-In(2)
118	1123.97	115.28	End Shut-In(2)
120	2238.33	112.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud with oil spots	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**

Hartman Oil Co. Inc.

**11-18s-34w Scott,KS**

10500 E. Berkeley Sq Pkw y Ste 100  
Wichita KS 67202

**Prime Pork #1-11**

Job Ticket: 54721

**DST#: 2**

ATTN: Kitt Noah / Stan Mit

Test Start: 2013.12.31 @ 00:13:00

## Tool Information

Drill Pipe:	Length: 4312.00 ft	Diameter: 3.80 inches	Volume: 60.49 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 61.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	4560.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	48.00 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			4541.00	
Shut In Tool	5.00			4546.00	
Hydraulic tool	5.00			4551.00	
Packer	5.00			4556.00	20.00 Bottom Of Top Packer
Packer	4.00			4560.00	
Stubb	1.00			4561.00	
Recorder	0.00	8646	Inside	4561.00	
Recorder	0.00	8846	Outside	4561.00	
Perforations	22.00			4583.00	
Bullnose	5.00			4588.00	28.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>48.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hartman Oil Co. Inc.

**11-18s-34w Scott,KS**

10500 E. Berkeley Sq Pkw y Ste 100  
Wichita KS 67202

**Prime Pork #1-11**

Job Ticket: 54721

**DST#: 2**

ATTN: Kitt Noah / Stan Mit

Test Start: 2013.12.31 @ 00:13:00

### 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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud w ith oil spots	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

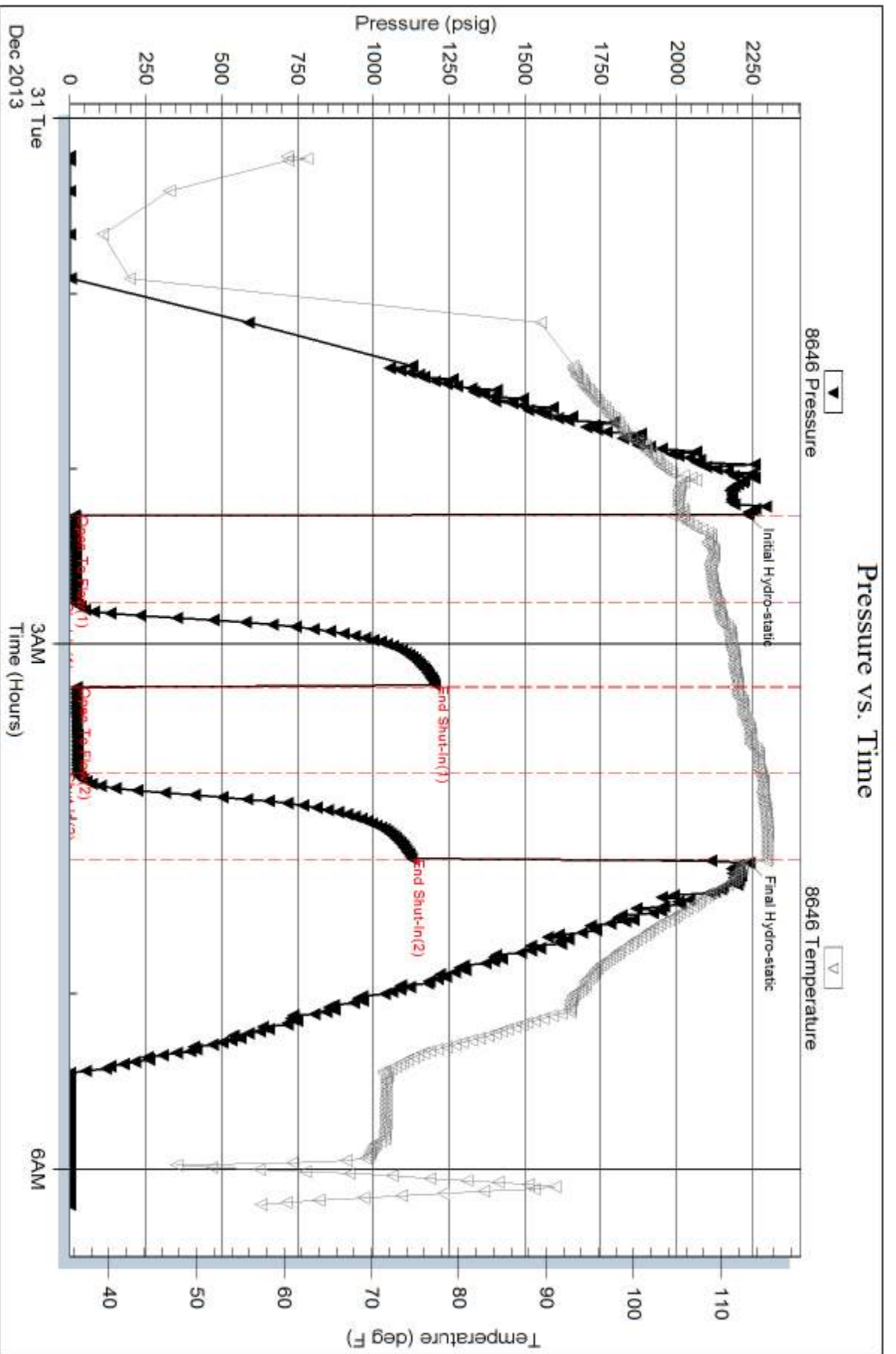
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

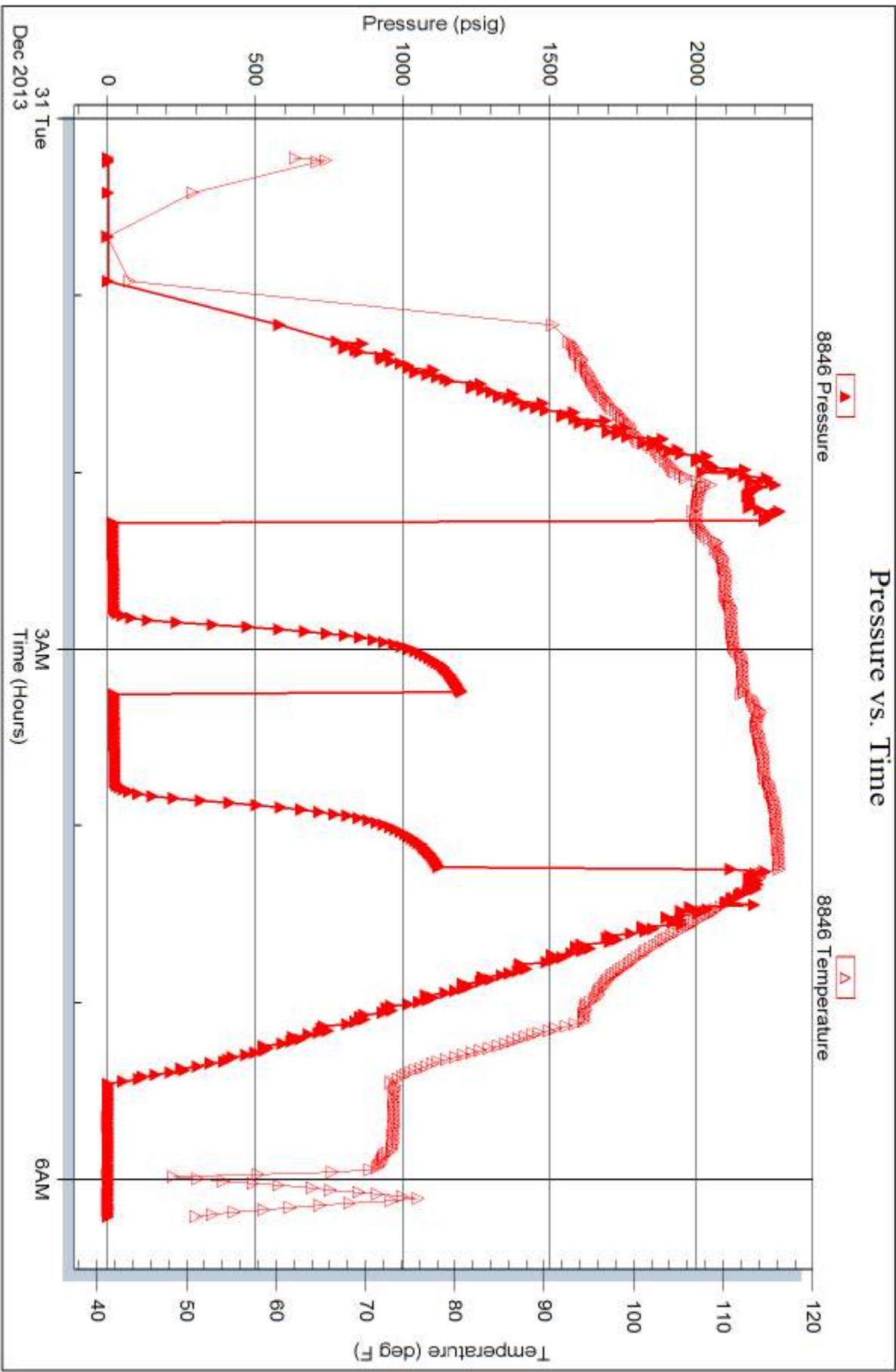


Serial #: 8846

Outside Hartman Oil Co. Inc.

Prime Pork #1-11

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 54721

Printed: 2014.01.07 @ 14:40:43





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56676

Well Name & No. Prime Pock # 1-11 Test No. 1 Date 12-30-13  
 Company Hartman oil co. INC. Elevation 3116 KB \_\_\_\_\_ GL \_\_\_\_\_  
 Address 10500 E. Berkeley Sq. Pkwy. Suite 100 Wichita KS. 67206  
 Co. Rep / Geo. Ritt Noah / Stan Mitchell Rig H2 Rig # 2  
 Location: Sec. 11 Twp. 18-S Rge. 34-W Co. Scott State KS.

Interval Tested 4458-4555 Zone Tested Macmaton "A-C"  
 Anchor Length 97 Drill Pipe Run 4070 Mud Wt. 9.3  
 Top Packer Depth 4453 Drill Collars Run 372 Vis 50  
 Bottom Packer Depth 4458 Wt. Pipe Run \_\_\_\_\_ WL 10.0  
 Total Depth 4555 Chlorides 6,000 ppm System LCM 2

Blow Description I.F. - 30 - 1/2 INT. Blow Built to (B.O.B. in 4 Min.)  
I.S.I. - 45 - NO B.B.  
E.F. - 45 - 1/4 INT. Blow Built to (B.O.B. in 5 Min.)  
F.S.I. - 60 - NO B.B.

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>GIP</u>	<u>100</u>			
<u>189</u>	<u>Clean oil</u>		<u>100</u>		
<u>252</u>	<u>HgCO</u>	<u>20</u>	<u>80</u>		
<u>378</u>	<u>S/MC go</u>	<u>10</u>	<u>85</u>		<u>5</u>
<u>272</u>	<u>S/MC oil</u>		<u>30</u>	<u>65</u>	<u>5</u>

Rec Total 1091 BHT 123 Gravity 33.8 API RW -3 @ 50 ° F Chlorides 33,000 ppm

(A) Initial Hydrostatic 2,206  Test 1250 T-On Location 02:50:00  
 (B) First Initial Flow 110  Jars 250 T-Started 04:10:00  
 (C) First Final Flow 309  Safety Joint 75 T-Open 06:49:00  
 (D) Initial Shut-In 1,232  Circ Sub \_\_\_\_\_ T-Pulled 09:49:00  
 (E) Second Initial Flow 330  Hourly Standby \_\_\_\_\_ T-Out 13:50:00  
 (F) Second Final Flow 516  Mileage 20 R.T. 31 Comments \_\_\_\_\_  
 (G) Final Shut-In 1,229  Sampler \_\_\_\_\_ "Thank-you"  
 (H) Final Hydrostatic 2,186  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1756  
 Final Flow 45  Accessibility 150 MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 Sub Total 1756

Approved By \_\_\_\_\_ Our Representative [Signature]

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. **54721**

Well Name & No. Prime Post #1-11 Test No. 2 Date 12-31-13  
 Company Hartman Oil Co. Inc. Elevation 3116 KB 3104 GL  
 Address 10500 E. Berkeley SQ Pkwy. Suite 100 Wichita KS  
 Co. Rep / Geo. KiH Noah Rig H2#2  
 Location: Sec. 11 Twp. 18 Rge. 34 Co. Scott State KS

Interval Tested 4560 - 4588 Zone Tested Pawnee  
 Anchor Length 28 Drill Pipe Run ~~4312~~ 4312 Mud Wt. 9.4  
 Top Packer Depth 4556 Drill Collars Run 241 Vis 46  
 Bottom Packer Depth 4560 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4588 Chlorides 8000 ppm System LCM 2

Blow Description IF: Built to 1/2" Blow  
IS: No Return Blow  
FF: Built to Weak Surface Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</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 15 BHT 110 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2234  Test 1250 T-On Location 23:45  
 (B) First Initial Flow 17  Jars \_\_\_\_\_ T-Started 00:13  
 (C) First Final Flow 21  Safety Joint \_\_\_\_\_ T-Open 02:15  
 (D) Initial Shut-In 1204  Circ Sub NC T-Pulled 04:15  
 (E) Second Initial Flow 23  Hourly Standby \_\_\_\_\_ T-Out 06:12  
 (F) Second Final Flow 25  Mileage 20RT 31  
 (G) Final Shut-In 1123  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2238  Straddle \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Day Standby \_\_\_\_\_ Total 1431  
 Accessibility 150 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1431

Approved By KiH Noah 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.