



DRILL STEM TEST REPORT

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

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206

ATTN: Kitt Noah

Rose #3-1

1-16s-35w Wichita,KS

Start Date: 2014.07.28 @ 04:00:00

End Date: 2014.07.28 @ 12:18:30

Job Ticket #: 57039 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.02 @ 13:53:40



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

1-16s-35w Wichita,KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57039

DST#: 1

Test Start: 2014.07.28 @ 04:00:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:25:45

Time Test Ended: 12:18:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 75

Interval: 3924.00 ft (KB) To 3948.00 ft (KB) (TVD)

Reference Elevations: 3121.00 ft (KB)

Total Depth: 3948.00 ft (KB) (TVD)

3110.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8675

Inside

Press@RunDepth: 668.35 psig @ 3945.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.28

End Date:

2014.07.28

Last Calib.:

2014.07.28

Start Time:

04:00:15

End Time:

12:18:30

Time On Btm:

2014.07.28 @ 06:25:00

Time Off Btm:

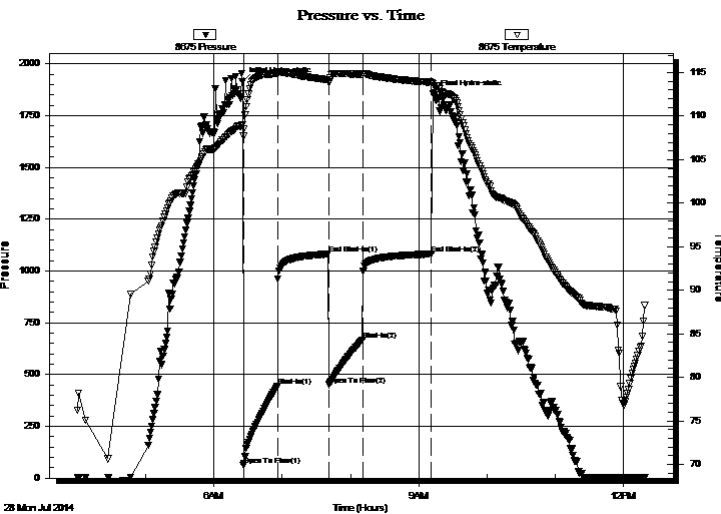
2014.07.28 @ 09:13:30

TEST COMMENT: B.O.B. in 3 1/2 min.

Bled off for 5 min. No return blow

B.O.B. in 6 min.

Bled off for 5 min. No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1915.91	108.99	Initial Hydro-static
1	61.01	107.67	Open To Flow (1)
31	444.92	114.85	Shut-In(1)
76	1082.10	114.15	End Shut-In(1)
76	451.32	113.84	Open To Flow (2)
106	668.35	114.76	Shut-In(2)
166	1081.85	113.88	End Shut-In(2)
169	1850.35	113.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
900.00	100% Water	10.34
248.00	mcw 10%M 90%W	3.48
310.00	mcw with oil scum 40%M 60%W	4.35

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Company, Inc.

1-16s-35w Wichita,KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57039

DST#: 1

Test Start: 2014.07.28 @ 04:00:00

Tool Information

Drill Pipe:	Length: 3664.96 ft	Diameter: 3.80 inches	Volume: 51.41 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 250.28 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose: 92000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.74 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3924.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	51.50 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			3897.50	
Shut In Tool	5.00			3902.50	
Hydraulic tool	5.00			3907.50	
Jars	5.00			3912.50	
Safety Joint	2.50			3915.00	
Packer	5.00			3920.00	27.50 Bottom Of Top Packer
Packer	4.00			3924.00	
Stubb	1.00			3925.00	
Perforations	20.00			3945.00	
Change Over Sub	0.00			3945.00	
Recorder	0.00	8675	Inside	3945.00	
Recorder	0.00	8650	Outside	3945.00	
Drill Pipe	0.00			3945.00	
Change Over Sub	0.00			3945.00	
Perforations	0.00			3945.00	
Bullnose	3.00			3948.00	24.00 Bottom Packers & Anchor
Total Tool Length:	51.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company, Inc.

1-16s-35w Wichita,KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57039

DST#: 1

Test Start: 2014.07.28 @ 04:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 56.00 sec/qt
Water Loss: 7.19 in³
Resistivity: ohm.m
Salinity: 3400.00 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: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
900.00	100% Water	10.345
248.00	mcw 10%M 90%W	3.479
310.00	mcw with oil scum 40%M 60%W	4.348

Total Length: 1458.00 ft Total Volume: 18.172 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

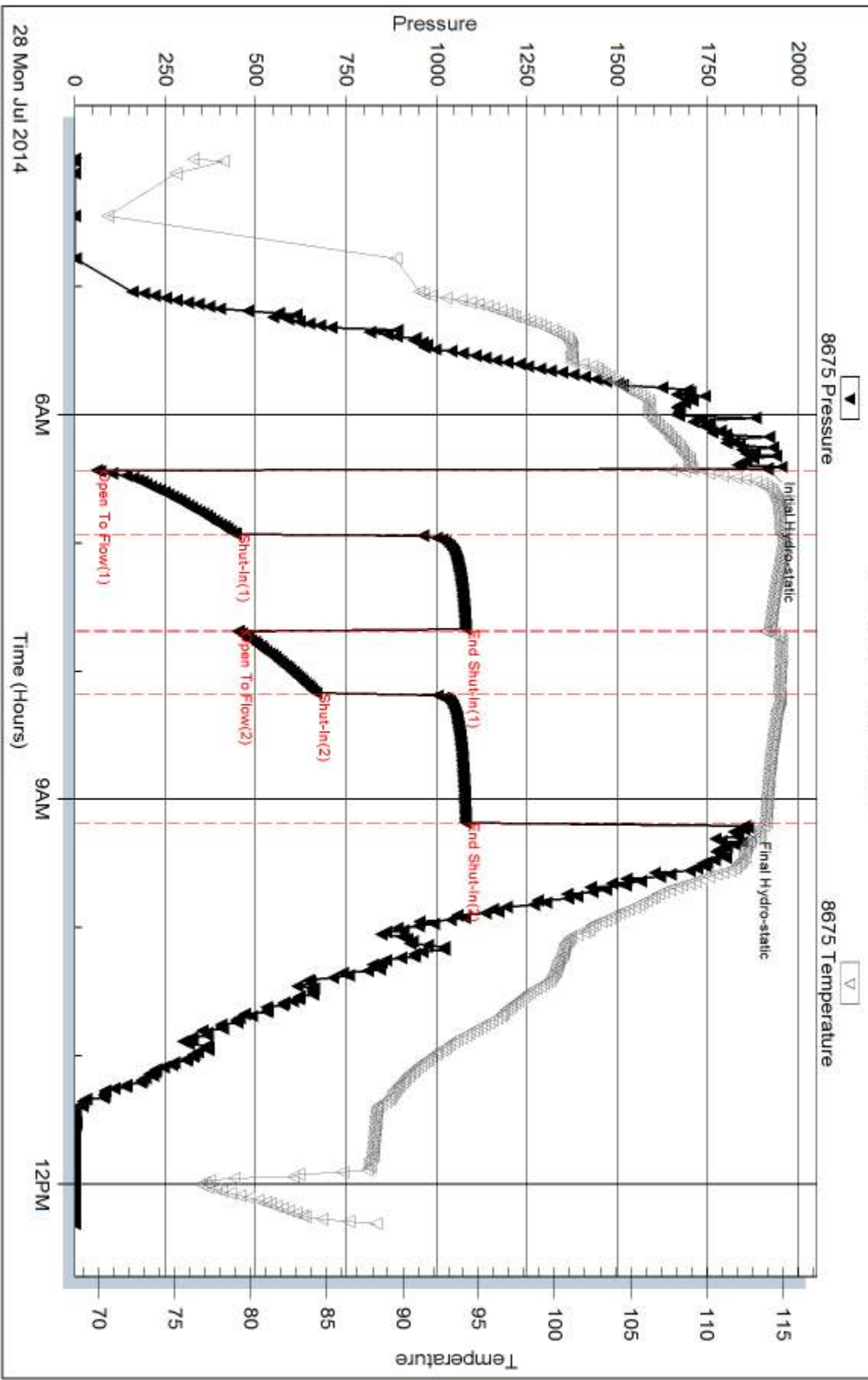
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .13 @ 90 F = 40,000

Pressure vs. Time

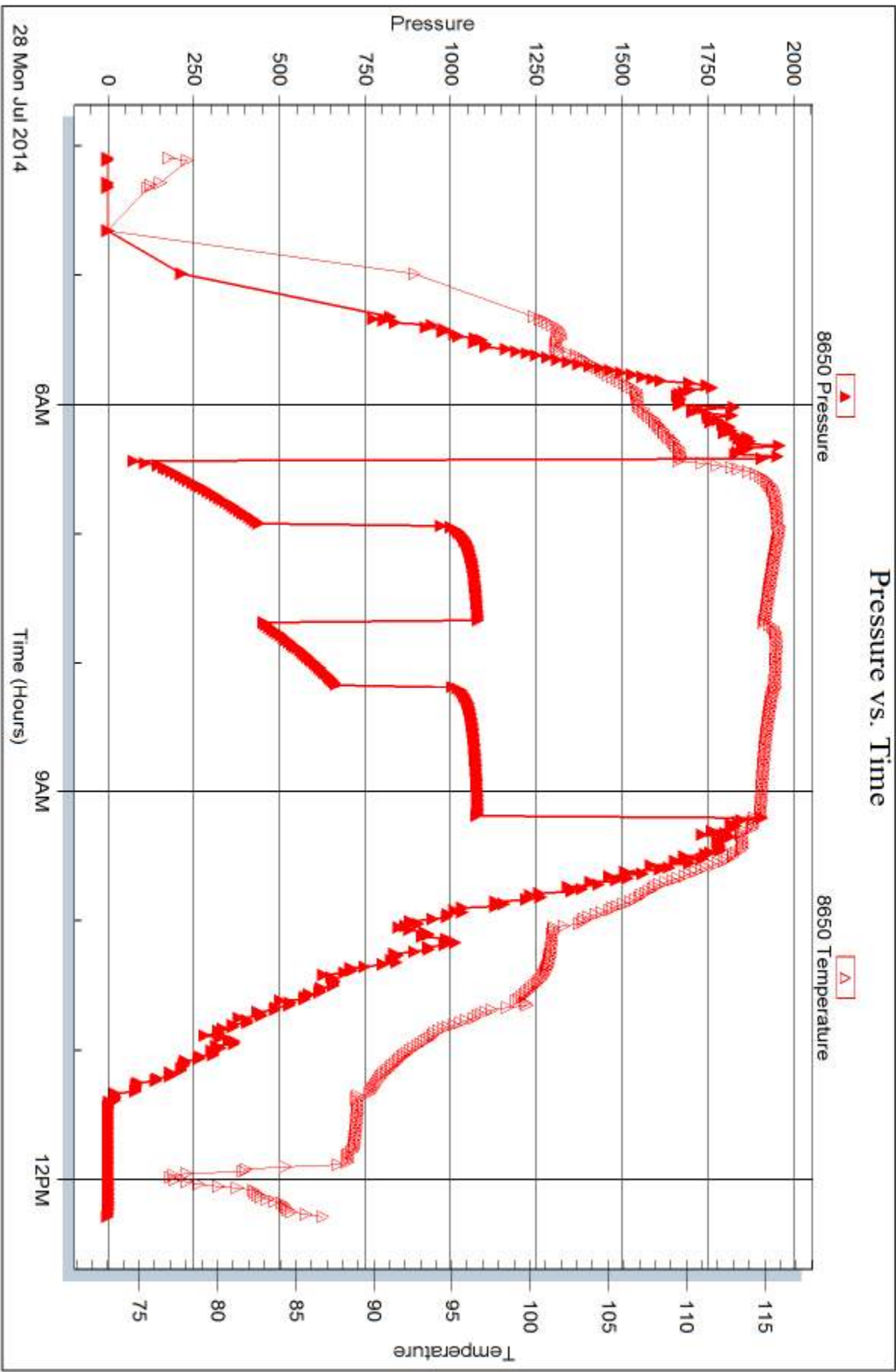


Serial #: 8650

Outside Hartman Oil Company, Inc.

Rose #3-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 57039

Printed: 2014.08.02 @ 13:53:41



DRILL STEM TEST REPORT

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

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206

ATTN: Kitt Noah

Rose #3-1

1-16s-35w Wichita,KS

Start Date: 2014.07.28 @ 21:35:00

End Date: 2014.07.29 @ 05:41:30

Job Ticket #: 57040 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.02 @ 13:53:08

Hartman Oil Company, Inc.
1-16s-35w Wichita,KS
Rose #3-1
DST # 2
Lansing "A"
2014.07.28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

1-16s-35w Wichita,KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57040

DST#: 2

Test Start: 2014.07.28 @ 21:35:00

GENERAL INFORMATION:

Formation: **Lansing "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:28:30

Time Test Ended: 05:41:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 3964.00 ft (KB) To 3996.00 ft (KB) (TVD)

Reference Elevations: 3121.00 ft (KB)

Total Depth: 3996.00 ft (KB) (TVD)

3110.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8675 Inside

Press@RunDepth: 163.25 psig @ 3993.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.28

End Date:

2014.07.29

Last Calib.:

2014.07.29

Start Time: 21:35:15

End Time:

05:41:30

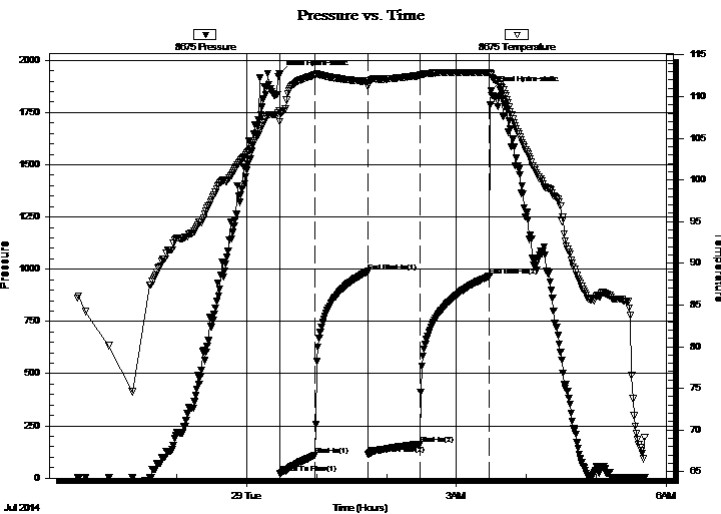
Time On Btm:

2014.07.29 @ 00:28:15

Time Off Btm:

2014.07.29 @ 03:29:30

TEST COMMENT: Built to 7 1/2" blow
Bled off for 3 min. No return blow
Built to 5 1/2" blow
Bled off for 5 min. No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1933.77	108.34	Initial Hydro-static
1	20.67	107.01	Open To Flow (1)
31	109.13	112.59	Shut-In(1)
76	989.20	111.85	End Shut-In(1)
76	113.24	111.23	Open To Flow (2)
121	163.25	112.53	Shut-In(2)
180	966.68	112.87	End Shut-In(2)
182	1852.45	112.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
250.00	mcw 30%M 70%W	1.23
80.00	mcw 10%M 90%W	1.12

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hartman Oil Company, Inc.

1-16s-35w Wichita, KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57040

DST#: 2

Test Start: 2014.07.28 @ 21:35:00

GENERAL INFORMATION:

Formation: **Lansing "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:28:30

Time Test Ended: 05:41:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 3964.00 ft (KB) To 3996.00 ft (KB) (TVD)

Reference Elevations: 3121.00 ft (KB)

Total Depth: 3996.00 ft (KB) (TVD)

3110.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 3993.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.07.28

End Date:

2014.07.29

Last Calib.:

2014.07.29

Start Time: 21:35:15

End Time:

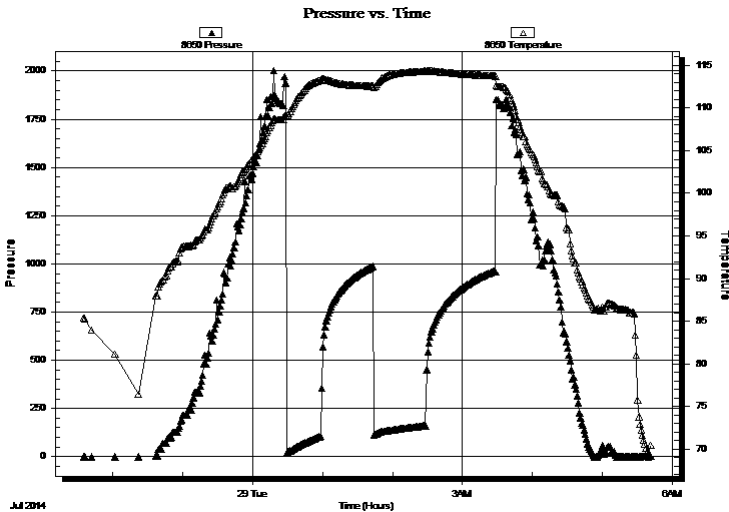
05:41:15

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 7 1/2" blow
Bled off for 3 min. No return blow
Built to 5 1/2" blow
Bled off for 5 min. No return blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
250.00	mcw 30%M 70%W	1.23
80.00	mcw 10%M 90%W	1.12

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.

1-16s-35w Wichita,KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57040

DST#: 2

Test Start: 2014.07.28 @ 21:35:00

Tool Information

Drill Pipe:	Length: 3696.90 ft	Diameter: 3.80 inches	Volume: 51.86 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 250.28 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	88000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	67000.00 lb
Drill Pipe Above KB:	10.68 ft			Final	68000.00 lb
Depth to Top Packer:	3964.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	32.00 ft				
Tool Length:	59.50 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			3937.50	
Shut In Tool	5.00			3942.50	
Hydraulic tool	5.00			3947.50	
Jars	5.00			3952.50	
Safety Joint	2.50			3955.00	
Packer	5.00			3960.00	27.50 Bottom Of Top Packer
Packer	4.00			3964.00	
Stubb	1.00			3965.00	
Perforations	28.00			3993.00	
Change Over Sub	0.00			3993.00	
Recorder	0.00	8675	Inside	3993.00	
Recorder	0.00	8650	Outside	3993.00	
Drill Pipe	0.00			3993.00	
Change Over Sub	0.00			3993.00	
Perforations	0.00			3993.00	
Bullnose	3.00			3996.00	32.00 Bottom Packers & Anchor
Total Tool Length:	59.50				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Company, Inc.

1-16s-35w Wichita,KS

10500 E Berkeley SQ PKWY
STE 100
Wichita KS 67206
ATTN: Kitt Noah

Rose #3-1

Job Ticket: 57040

DST#: 2

Test Start: 2014.07.28 @ 21:35:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 55.00 sec/qt
Water Loss: 7.99 in³
Resistivity: ohm.m
Salinity: 5000.00 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: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
250.00	mcw 30%M 70%W	1.229
80.00	mcw 10%M 90%W	1.120

Total Length: 330.00 ft Total Volume: 2.349 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

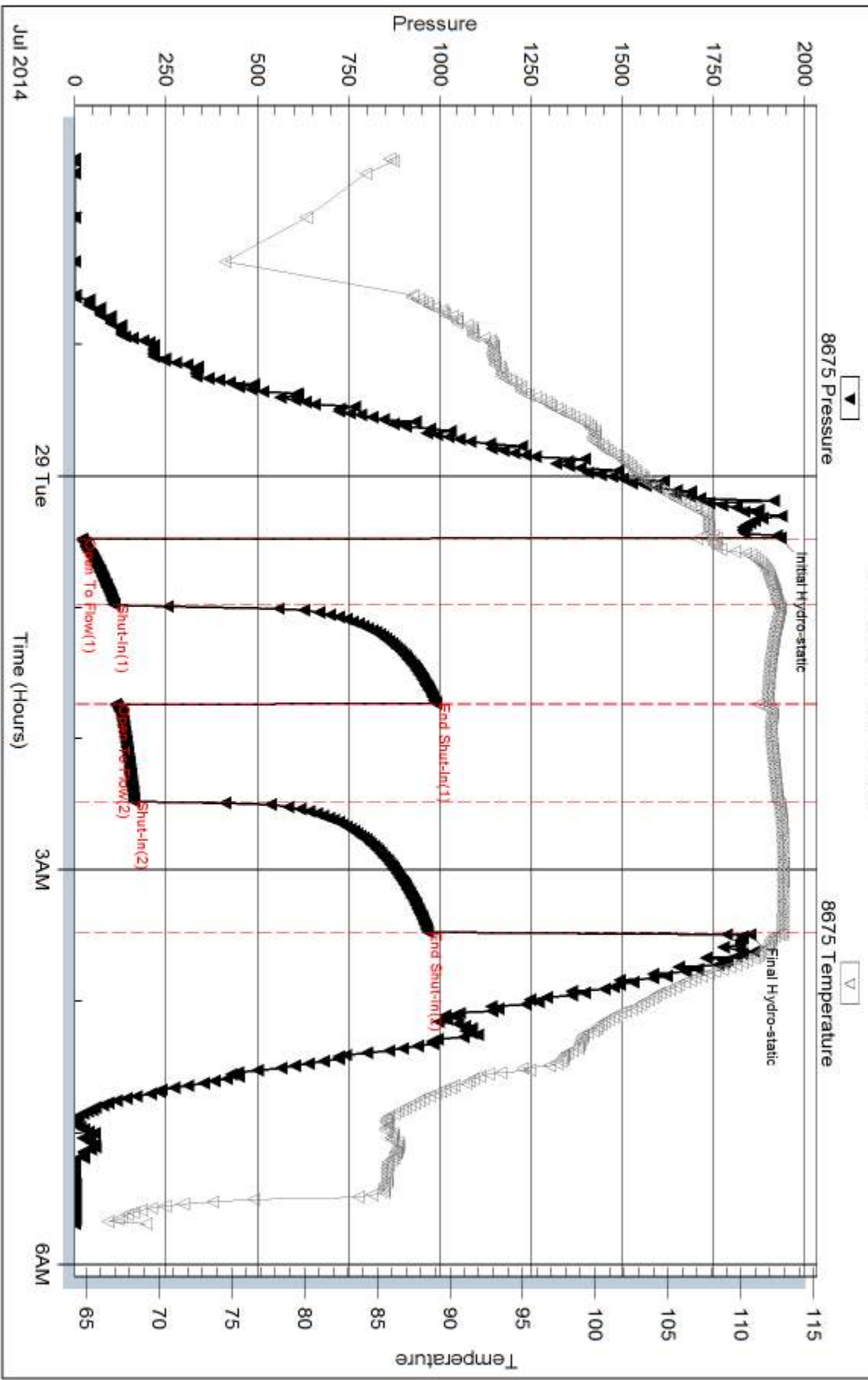
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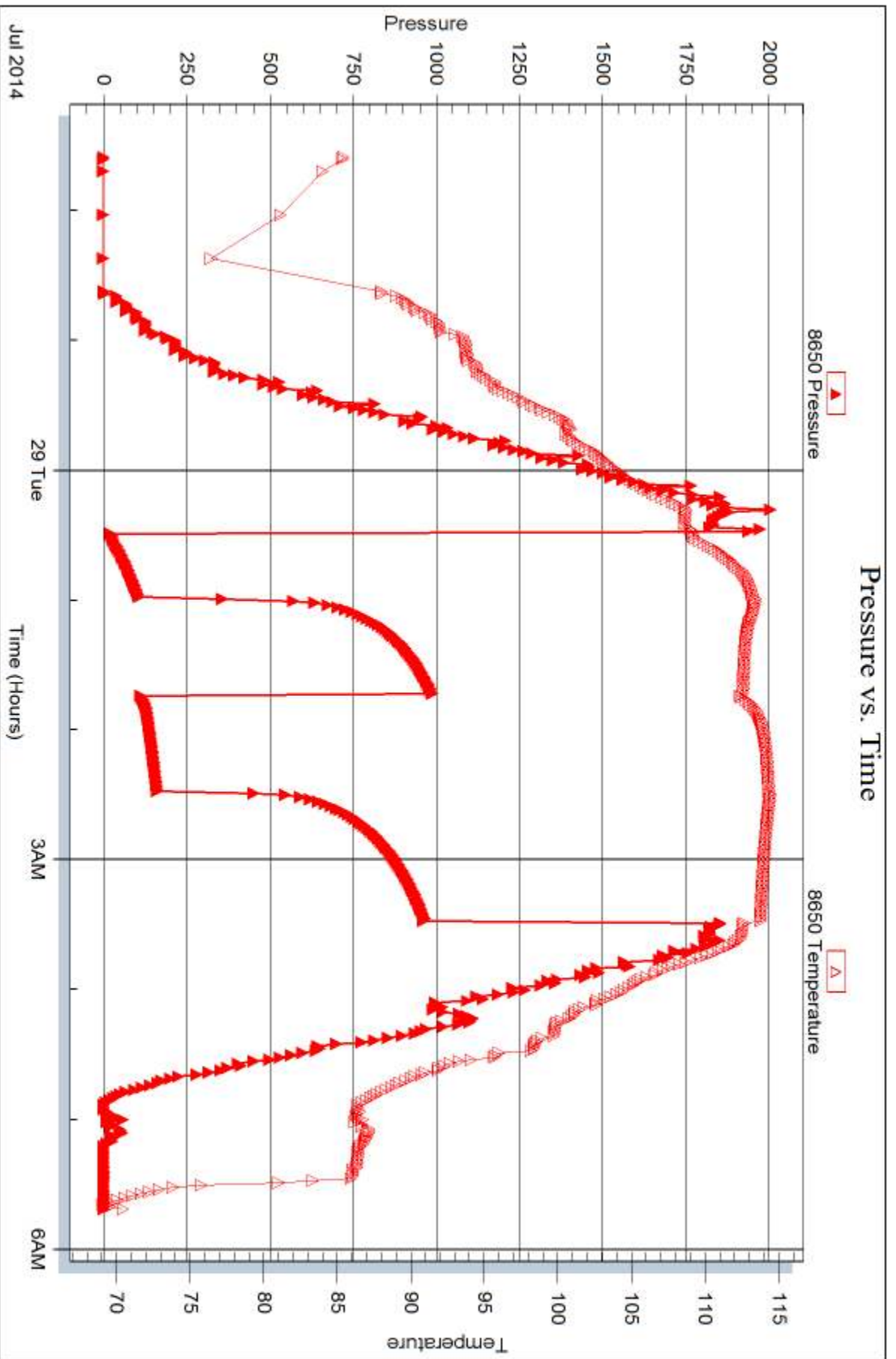
Laboratory Name:

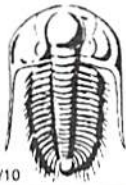
Laboratory Location:

Recovery Comments: RW: .20 @ 60 F = 40,000

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57039

4/10

Well Name & No. Rose #3-1 Test No. 1 Date 7/28/14
 Company Hartman Oil Company, Inc Elevation 3121 KB 3110 GL
 Address 10500 E Berkeley SA PKWY, STE 100, Wichita KS, 67206
 Co. Rep / Geo. Kiff Noah Rig HR Drilling Rig 2
 Location: Sec. 1 Twp. 11es Rge. 36w Co. Wichita County State KS

Interval Tested 3924-3948 Zone Tested Toronto
 Anchor Length 24 Drill Pipe Run 31664.96 Mud Wt. 8.7
 Top Packer Depth 3920 Drill Collars Run 250.28 Vis 56
 Bottom Packer Depth 3924 Wt. Pipe Run _____ WL 7.2
 Total Depth 3948 Chlorides 3,400 ppm System LCM 2#

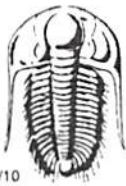
Blow Description B.O.B. in 3 1/2 min.
Bled off for 5 min. No return blow
B.O.B. in 6 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>310</u>	<u>Feet of mud with oil sum</u>		<u>60</u>	<u>40</u>	
<u>248</u>	<u>Feet of mud</u>		<u>90</u>	<u>10</u>	
<u>900</u>	<u>Feet of water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1,458 BHT 114 Gravity _____ API RW 13 @ 90 ° F Chlorides 40,000 ppm
 (A) Initial Hydrostatic 1,916 Test 1150 T-On Location 02:00
 (B) First Initial Flow 61 Jars 250 T-Started 04:00
 (C) First Final Flow 445 Safety Joint 75 T-Open 06:24
 (D) Initial Shut-In 1,082 Circ Sub n/c T-Pulled 09:09
 (E) Second Initial Flow 451 Hourly Standby 2 hours .75h T-Out 12:18
 (F) Second Final Flow 1668 Mileage 58 RT 89.90 Comments Told on bank @ 02:30
 (G) Final Shut-In 1,082 Sampler _____ was on bank until 04:30
 (H) Final Hydrostatic 1,850 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 17898.90
 Final Flow 30 Accessibility 150 MP/DST Disc't
 Final Shut-In 60 Sub Total 1789.90

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. 57040

4/10

Well Name & No. Rose #3-1 Test No. 2 Date 7/28/14 7/29/14
 Company Hartman Oil Company, Inc Elevation 3121 KB 3110 GL
 Address 10500 E Berkeley SQ HWY, STE 100, Wichita KS, 67206
 Co. Rep / Geo. Kitt Noah Rig H2 Drilling Rig 2
 Location: Sec. 1 Twp. 16S Rge. 35W Co. Wichita County State KS

Interval Tested 3964 - 3996 Zone Tested Lansing "A"
 Anchor Length 32 Drill Pipe Run 3696.90 Mud Wt. 9.2
 Top Packer Depth 3960 Drill Collars Run 250.28 Vis 55
 Bottom Packer Depth 3960 Wt. Pipe Run _____ WL 8.0
 Total Depth 3996 Chlorides 5,000 ppm System LCM 1#

Blow Description Built to 7 1/2" below
Bled off for 3 min. No return below
Built to 5 1/2" below
Bled off for 5 min. No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>mcw</u>		<u>70</u>	<u>30</u>	
<u>250</u>	<u>mcw</u>		<u>90</u>	<u>10</u>	

Rec Total 330 BHT 113 Gravity _____ API RW 20 @ 60 ° F Chlorides 40,000 ppm

(A) Initial Hydrostatic <u>1.934</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>21:10</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>21:35</u>
(C) First Final Flow <u>109</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>00:28</u>
(D) Initial Shut-In <u>989</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>03:28</u>
(E) Second Initial Flow <u>113</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>05:41</u>
(F) Second Final Flow <u>163</u>	<input checked="" type="checkbox"/> Mileage <u>58 AT + 2</u> 179.80	Comments <u>Loaded tools 7/30</u>
(G) Final Shut-In <u>967</u>	<input type="checkbox"/> Sampler _____	<u>@ 20:46</u>
(H) Final Hydrostatic <u>1.852</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>800</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1 day + 15 hours</u>	Total <u>2604.80</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't <input checked="" type="checkbox"/>
	Sub Total <u>1804.80</u>	

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.