



DRILL STEM TEST REPORT

Prepared For: **MG Oil Inc**
PO Box 162
Russell, KS 67665-0162

ATTN: Curtis Counts

Popp #4

15-16s-14w Barton,KS

Start Date: 2012.12.04 @ 08:16:00

End Date: 2012.12.04 @ 14:01:24

Job Ticket #: 51507 DST #: 1

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

Printed: 2012.12.05 @ 16:04:43

MG Oil Inc
15-16s-14w Barton,KS
Popp #4
DST # 1
LKC E-G
2012.12.04



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

MG Oil Inc
PO Box 162
Russell, KS 67665-0162
ATTN: Curtis Counts

15-16s-14w Barton,KS

Popp #4

Job Ticket: 51507

DST#: 1

Test Start: 2012.12.04 @ 08:16:00

GENERAL INFORMATION:

Formation: **LKC E-G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:46:55

Time Test Ended: 14:01:24

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 42

Interval: 3181.00 ft (KB) To 3216.00 ft (KB) (TVD)

Total Depth: 3216.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1911.00 ft (KB)

1904.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8369 Inside

Press @ Run Depth: 57.25 psig @ 3187.00 ft (KB)

Start Date: 2012.12.04

End Date:

2012.12.04

Start Time: 08:16:00

End Time:

14:01:24

Capacity: 8000.00 psig

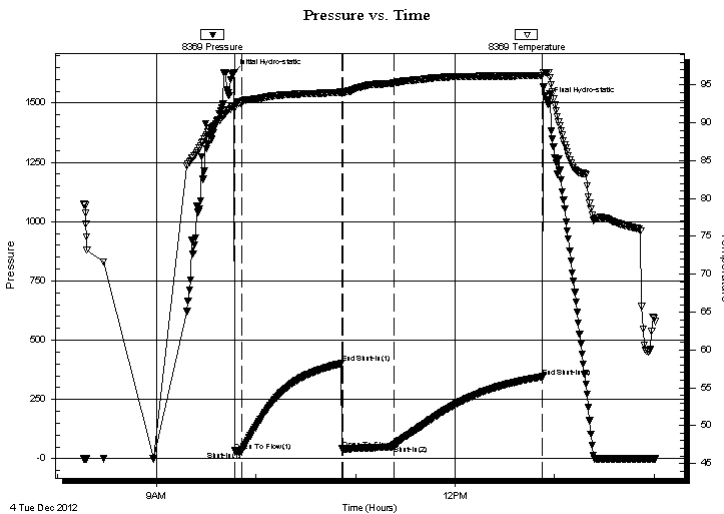
Last Calib.: 2012.12.04

Time On Btm: 2012.12.04 @ 09:45:40

Time Off Btm: 2012.12.04 @ 12:55:39

TEST COMMENT: 5-IFP-w k to strg in 3 min
60-ISIP-no bl
30-FFP-strg bl thru-out
90-FSIP-1/2" to surface bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1623.66	92.17	Initial Hydro-static
2	33.49	91.84	Open To Flow (1)
6	31.12	92.73	Shut-In(1)
66	401.69	94.04	End Shut-In(1)
67	38.80	93.96	Open To Flow (2)
98	57.25	95.27	Shut-In(2)
187	346.01	96.27	End Shut-In(2)
190	1508.52	96.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	710'GIP	0.00
35.00	HO&GCM 20%G35%O45%M	0.49
62.00	MGO 40%G10%M50%O	0.87

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

MG Oil Inc
PO Box 162
Russell, KS 67665-0162
ATTN: Curtis Counts

15-16s-14w Barton,KS
Popp #4
Job Ticket: 51507 **DST#: 1**
Test Start: 2012.12.04 @ 08:16:00

Tool Information

Drill Pipe:	Length: 3165.00 ft	Diameter: 3.80 inches	Volume: 44.40 bbl	Tool Weight:	2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 44.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	33000.00 lb
Depth to Top Packer:	3181.00 ft			Final	33000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	35.00 ft				
Tool Length:	56.00 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			3161.00	
Shut In Tool	5.00			3166.00	
Hydraulic tool	5.00			3171.00	
Packer	5.00			3176.00	21.00 Bottom Of Top Packer
Packer	5.00			3181.00	
Stubb	1.00			3182.00	
Perforations	5.00			3187.00	
Recorder	0.00	8369	Inside	3187.00	
Recorder	0.00	8700	Outside	3187.00	
Perforations	26.00			3213.00	
Bullnose	3.00			3216.00	35.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

MG Oil Inc
PO Box 162
Russell, KS 67665-0162
ATTN: Curtis Counts

15-16s-14w Barton,KS
Popp #4
Job Ticket: 51507 **DST#: 1**
Test Start: 2012.12.04 @ 08:16:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 68.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.93 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3600.00 ppm			
Filter Cake: 1.00 inches			

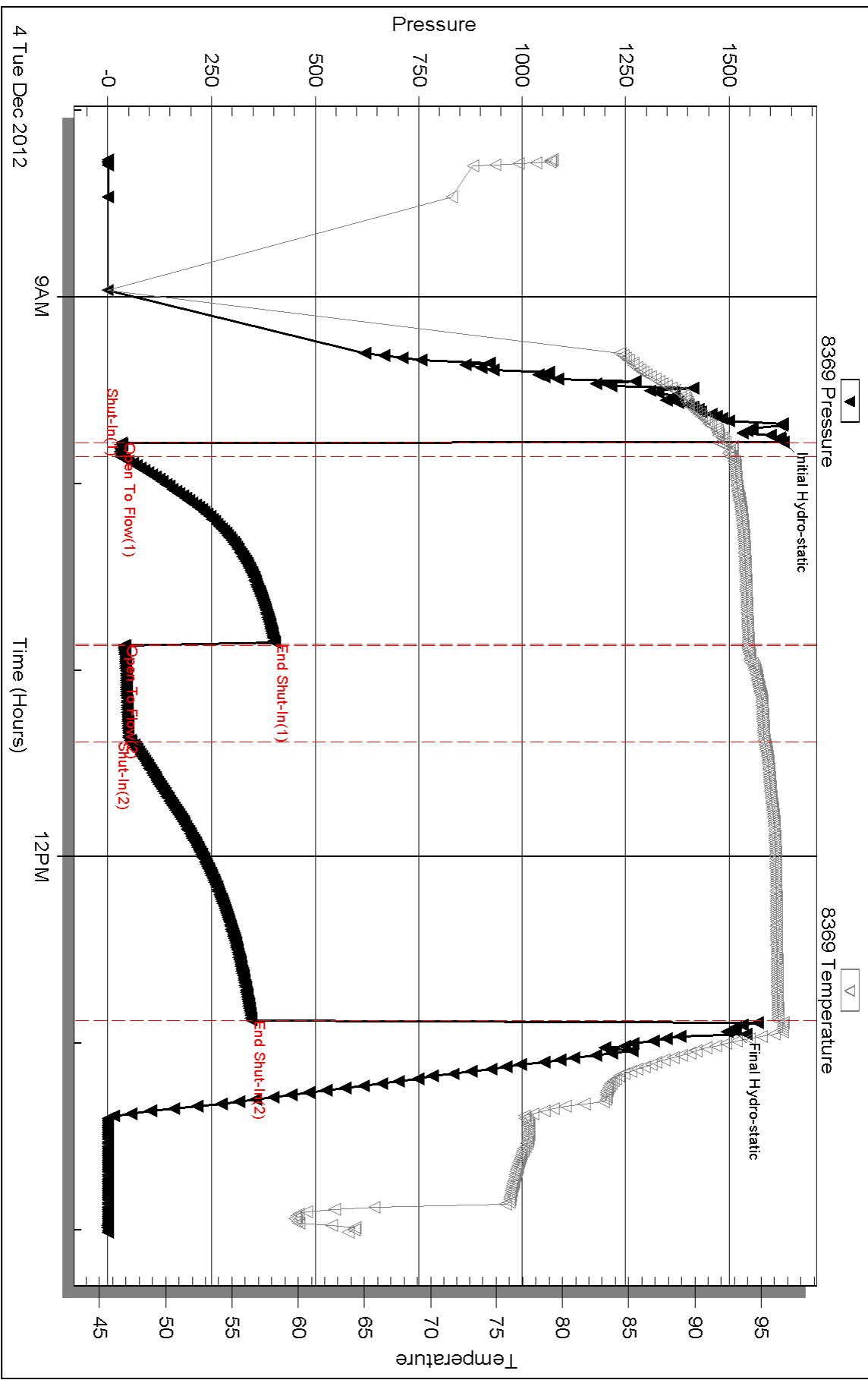
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	710'GIP	0.000
35.00	HO&GCM 20%G35%O45%M	0.491
62.00	MGO 40%G10%M50%O	0.870

Total Length: 97.00 ft Total Volume: 1.361 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time



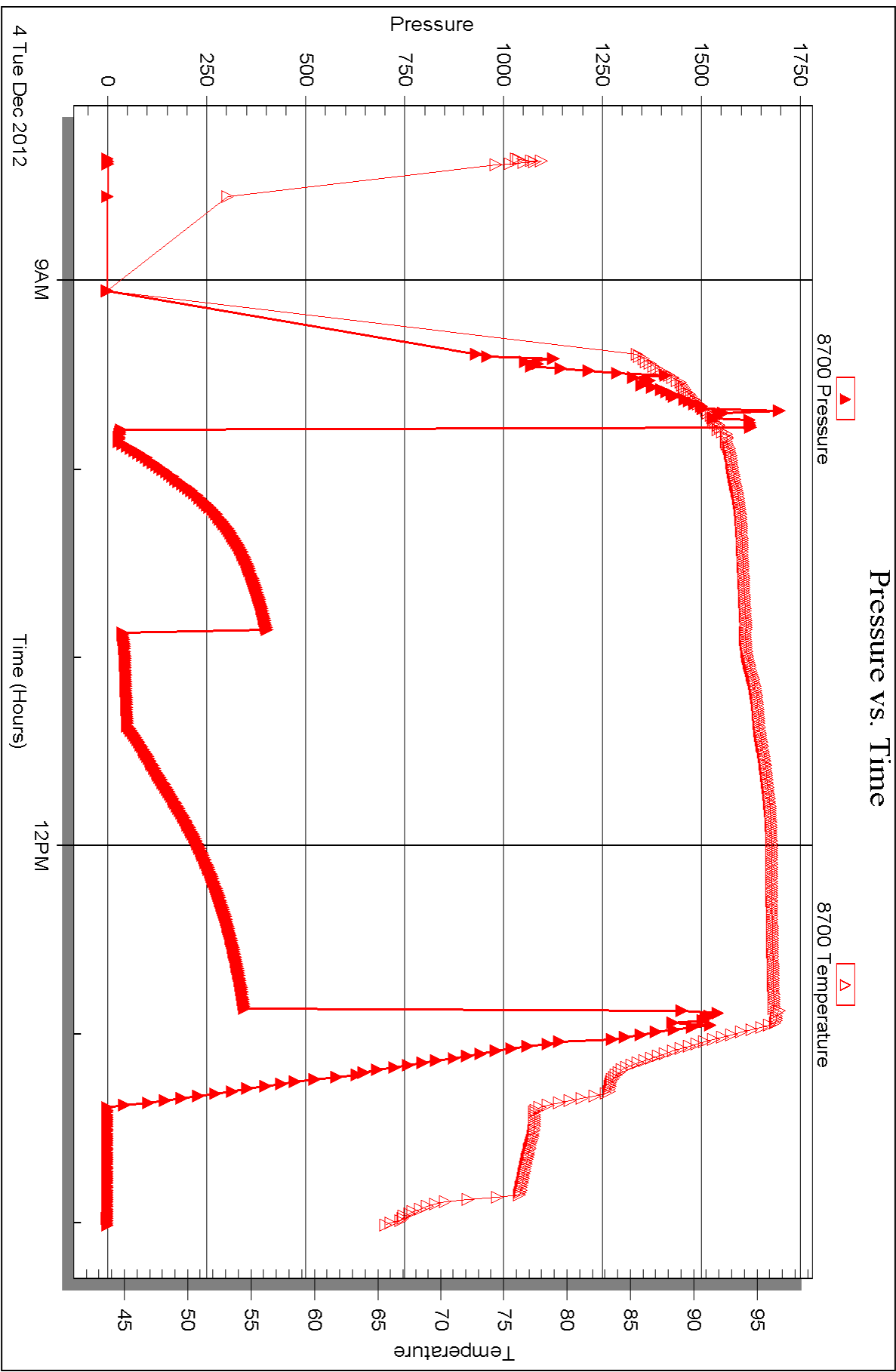
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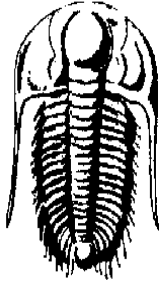
Outside

MG Oil Inc

Popp #4

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **MG Oil Inc**

PO Box 162
Russell, KS 67665-0162

ATTN: Curtis Counts

Popp #4

15-16s-14w Barton,KS

Start Date: 2012.12.04 @ 22:00:43

End Date: 2012.12.05 @ 04:05:52

Job Ticket #: 51508 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.05 @ 16:01:56

MG Oil Inc
15-16s-14w Barton,KS
Popp #4
DST # 2
LKC I-J
2012.12.04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

MG Oil Inc
 PO Box 162
 Russell, KS 67665-0162
 ATTN: Curtis Counts

15-16s-14w Barton, KS
Popp #4
 Job Ticket: 51508 **DST#: 2**
 Test Start: 2012.12.04 @ 22:00:43

GENERAL INFORMATION:

Formation: **LKC I-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:37:23
 Time Test Ended: 04:05:52
 Interval: **3271.00 ft (KB) To 3307.00 ft (KB) (TVD)**
 Total Depth: 3307.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1911.00 ft (KB)
 1904.00 ft (CF)
 KB to GR/CF: 7.00 ft

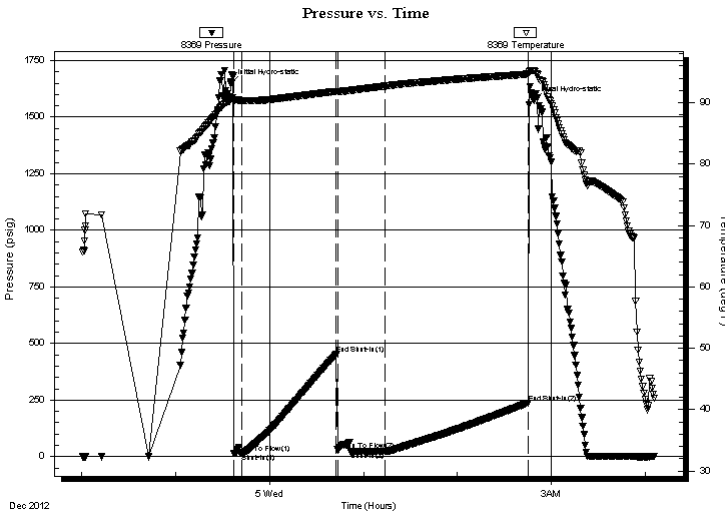
Serial #: 8369

Inside

Press @ Run Depth: 24.97 psig @ 3278.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.12.04 End Date: 2012.12.05 Last Calib.: 2012.12.05
 Start Time: 22:00:43 End Time: 04:05:52 Time On Btm: 2012.12.04 @ 23:35:23
 Time Off Btm: 2012.12.05 @ 02:48:37

TEST COMMENT: 5-IFP-w k bl thru-out 1/4" to 2" bl
 60-ISIP-no bl
 30-FFP-w k to a gd bl 1" to 8" bl
 90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1648.79	90.55	Initial Hydro-static
2	15.72	90.25	Open To Flow (1)
7	16.69	90.34	Shut-In(1)
68	452.01	91.83	End Shut-In(1)
68	29.82	91.76	Open To Flow (2)
99	24.97	92.70	Shut-In(2)
190	237.64	94.64	End Shut-In(2)
194	1573.40	95.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	90'GIP	0.00
30.00	GMO 25%G35%M40%O	0.42

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

MG Oil Inc
PO Box 162
Russell, KS 67665-0162
ATTN: Curtis Counts

15-16s-14w Barton,KS
Popp #4
Job Ticket: 51508 **DST#: 2**
Test Start: 2012.12.04 @ 22:00:43

Tool Information

Drill Pipe:	Length: 3258.00 ft	Diameter: 3.80 inches	Volume: 45.70 bbl	Tool Weight:	2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 45.70 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	34000.00 lb
Depth to Top Packer:	3271.00 ft			Final	34000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	57.00 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			3251.00	
Shut In Tool	5.00			3256.00	
Hydraulic tool	5.00			3261.00	
Packer	5.00			3266.00	21.00 Bottom Of Top Packer
Packer	5.00			3271.00	
Stubb	1.00			3272.00	
Perforations	6.00			3278.00	
Recorder	0.00	8369	Inside	3278.00	
Recorder	0.00	8700	Outside	3278.00	
Perforations	26.00			3304.00	
Bullnose	3.00			3307.00	36.00 Bottom Packers & Anchor

Total Tool Length: 57.00



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FLUID SUMMARY

MG Oil Inc
PO Box 162
Russell, KS 67665-0162
ATTN: Curtis Counts

15-16s-14w Barton,KS
Popp #4
Job Ticket: 51508 **DST#: 2**
Test Start: 2012.12.04 @ 22:00:43

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.94 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

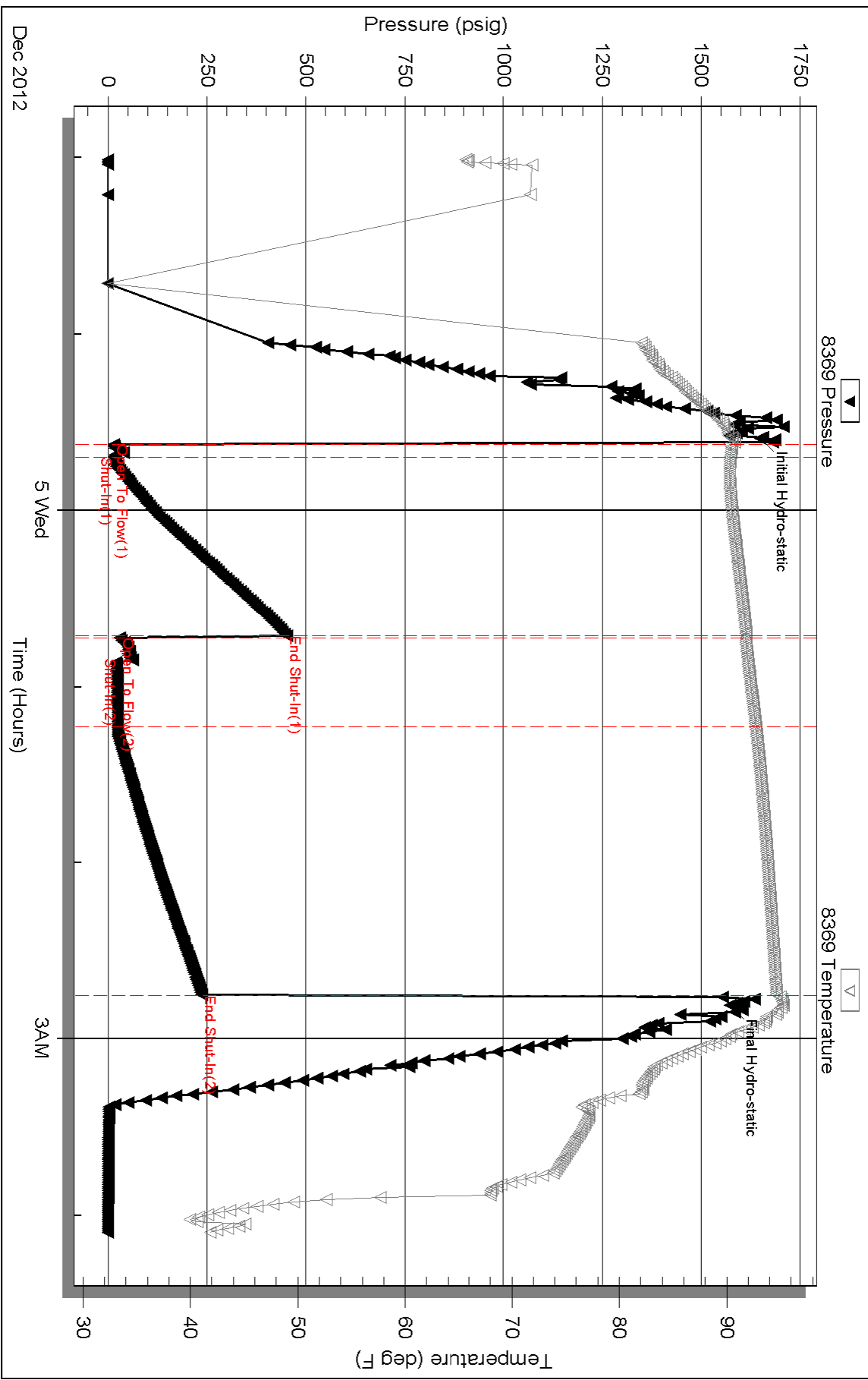
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	90'GIP	0.000
30.00	GMO 25%G35%M40%O	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



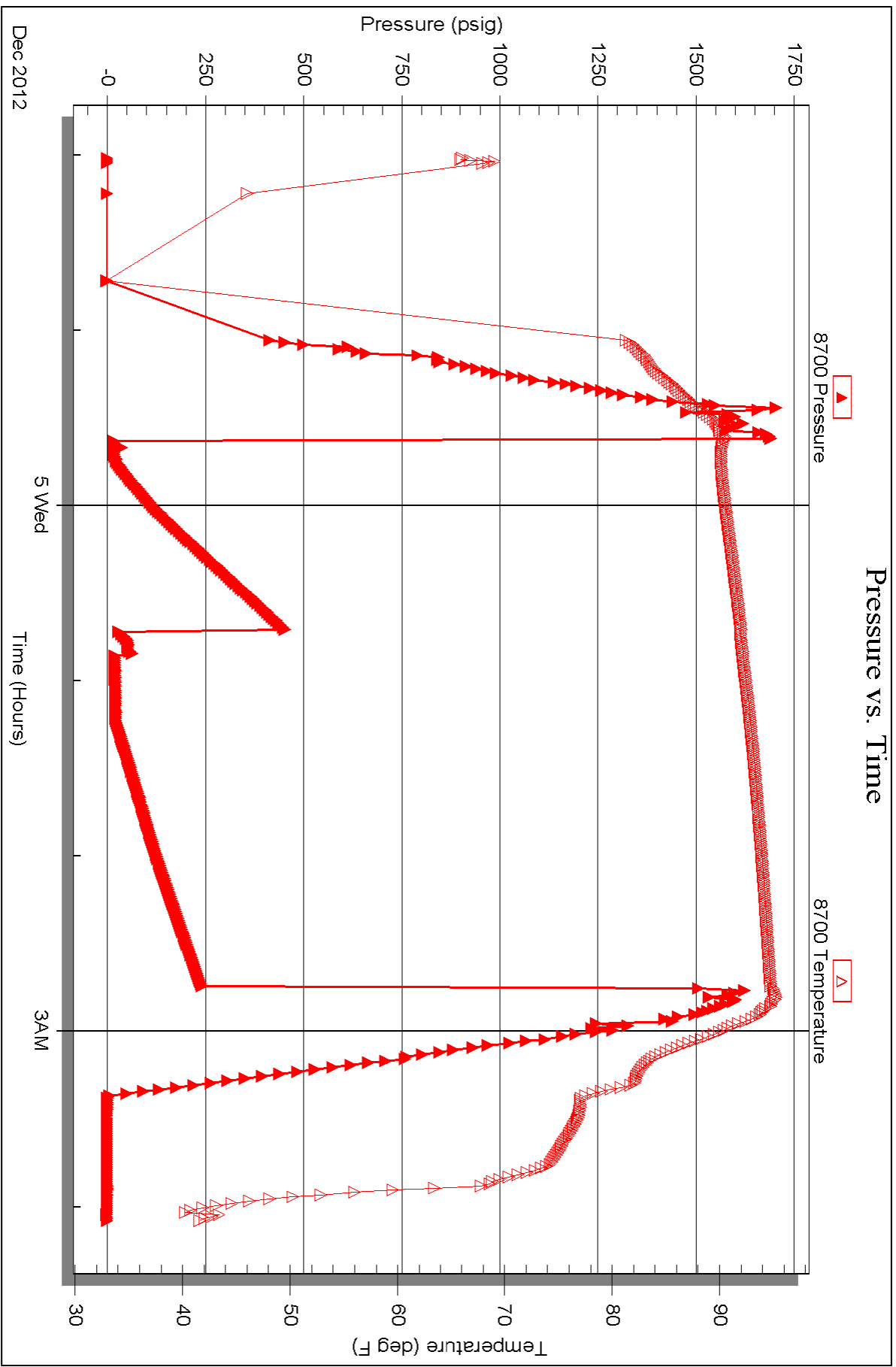
Serial #: 8700

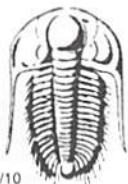
Outside

MG Oil Inc

Popp #4

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51507

Well Name & No. Popp #4 Test No. 1 Date 12-4-12
 Company MG OIL Inc Elevation 1910 KB 1904 GL
 Address PO Box 162 Russell, Ks 67665-0162
 Co. Rep / Geo. Curtis Counts Rig Royal rig 2
 Location: Sec. 15 Twp. 16^s Rge. 14^w Co. BARTON State Ks

Interval Tested 3181-3216 Zone Tested LKC E-G
 Anchor Length 35 Drill Pipe Run 3165 Mud Wt. 8.8
 Top Packer Depth 3176 Drill Collars Run - Vis 68
 Bottom Packer Depth 3181 Wt. Pipe Run - WL 8
 Total Depth 3216 Chlorides 3600 ppm System LCM 1 1/2 #

Blow Description IFP - Weak to Strong in 3min
ISTP - NO Blow
FFP - Strong Blow thru-out
FSIP - 1/2" to surface Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>710</u>	<u>GIP</u>				
<u>35</u>	<u>HO + GCM</u>	<u>20</u>	<u>35</u>	<u>45</u>	
<u>62</u>	<u>MGO</u>	<u>40</u>	<u>50</u>	<u>10</u>	

Rec Total 97 BHT 96 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1623 Test 1150 T-On Location 0750
 (B) First Initial Flow 33 Jars _____ T-Started 0815
 (C) First Final Flow 31 Safety Joint _____ T-Open 0945
 (D) Initial Shut-In 401 Circ Sub _____ T-Pulled 1250
 (E) Second Initial Flow 38 Hourly Standby _____ T-Out 1401
 (F) Second Final Flow 57 Mileage BORT 124 Comments MOtel
 (G) Final Shut-In 346 Sampler _____
 (H) Final Hydrostatic 1508 Straddle _____ Ruined Shale Packer _____

Initial Open 5 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 60 Extra Packer _____ Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 90 Day Standby _____ Total 1274
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1274

Approved By Curt Counts Our Representative RAY SCHWAGER *thank you*

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. 51508

Well Name & No. Popp #4 Test No. 2 Date 12-4-12
 Company MG Oil Inc Elevation 1911 KB 1904 GL
 Address PO Box 162 Russell, Ks 67665-0162
 Co. Rep / Geo. Curtis Counts Rig Royal rig 2
 Location: Sec. 15 Twp. 16^s Rge. 14^w Co. BARTON State Ks

Interval Tested 3271-3307 Zone Tested LKC I-J
 Anchor Length 36 Drill Pipe Run 3258 Mud Wt. 8.8
 Top Packer Depth 3266 Drill Collars Run - Vis 64
 Bottom Packer Depth 3271 Wt. Pipe Run - WL 8
 Total Depth 3307 Chlorides 4000 ppm System LCM 1#

Blow Description TFP - WEAK Blow Thru-out 1/4 TO 2" Blow
TSIP - NO Blow
FFP - WEAK TO A Good Blow 1" TO 8" Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>GIP</u>				
<u>30</u>	<u>GMO</u>	<u>25</u>	<u>40</u>	<u>35</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 94 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1648 Test 1150 T-On Location 2115
 (B) First Initial Flow 15 Jars T-Started 2200
 (C) First Final Flow 16 Safety Joint T-Open 2335
 (D) Initial Shut-In 452 Circ Sub T-Pulled 0240
 (E) Second Initial Flow 29 Hourly Standby T-Out 0405
 (F) Second Final Flow 24 Mileage 124 Comments _____
 (G) Final Shut-In 237 Sampler _____
 (H) Final Hydrostatic 1573 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 5 Ruined Shale Packer _____
 Initial Shut-In 60 Ruined Packer _____
 Final Flow 30 Extra Copies _____
 Final Shut-In 90 Sub Total 0
 Total 1274
 MP/DST Disc't _____

Approved By _____ Our Representative Ray Schwager Thank you

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.