

**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Chieftain Oil Co. Inc.  
605 S.6th, P.O.Box 124  
Gow a, KS 67070  
ATTN: Arden Fatzlaff

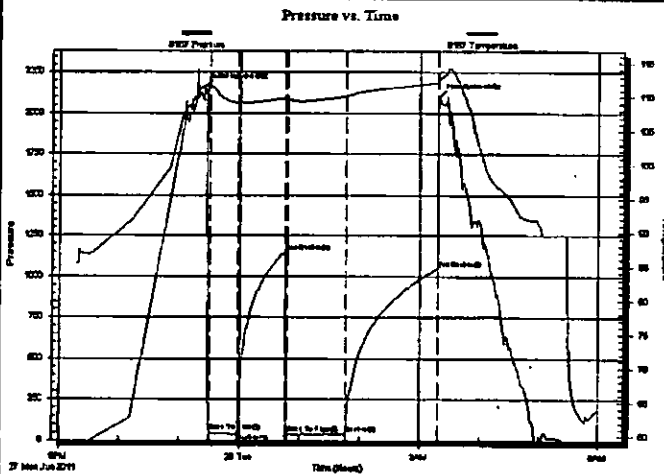
Combrink#1  
9-33s-10w Barber KS  
Job Ticket: 042507 DST#: 1  
Test Start: 2011.06.27 @ 21:18:33

### GENERAL INFORMATION:

Formation: **Hertha**  
 Deviated: **No Whipstock** ft (KB)  
 Test Type: **Conventional Bottom Hole**  
 Time Tool Opened: **23:30:03**  
 Tester: **Gary Revoteaux**  
 Time Test Ended: **05:59:33**  
 Unit No: **56**  
 Interval: **4297.00 ft (KB) To 4348.00 ft (KB) (TVD)**  
 Reference Elevations: **1509.00 ft (KB)**  
 Total Depth: **4348.00 ft (KB) (TVD)**  
**1501.00 ft (CF)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 KB to GR/CF: **8.00 ft**

**Serial #: 8167** Inside  
 Press@RunDepth: **42.75 psig @ 4298.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2011.06.27** End Date: **2011.06.28** Last Calib.: **2011.06.28**  
 Start Time: **21:18:38** End Time: **05:59:33** Time On Btm: **2011.06.27 @ 23:24:18**  
 Time Off Btm: **2011.06.28 @ 03:19:18**

TEST COMMENT: IF: Strong blow. B.O.B. in 3 secs. GTS in 4 mins. (see gas flow report)  
 IS: No blow.  
 FF: Strong blow. (see gas flow report)  
 FS: No blow.



### PRESSURE SUMMARY

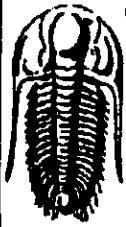
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.95	111.60	Initial Hydro-static
6	52.56	111.67	Open To Flow (1)
34	35.58	109.15	Shut-in(1)
82	1151.14	109.80	End Shut-in(1)
84	41.72	109.58	Open To Flow (2)
142	42.75	110.08	Shut-in(2)
234	1050.14	112.13	End Shut-in(2)
235	2099.98	112.52	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
90.00	GCM w trace of oil	0.44
0.00	thin layer of oil @ top of tool	0.00

### Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	8.00	82.06
Last Gas Rate	0.25	5.00	30.78
Max. Gas Rate	0.38	13.00	100.37



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Chieftain Oil Co. Inc.

Combrink#1

605 S.6th, P.O.Box 124  
Kow a, KS 67070

9-33s-10w Barber KS

Job Ticket: 042507

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2011.06.27 @ 21:18:33

### Tool Information

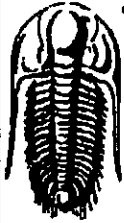
Drill Pipe:	Length: 4166.00 ft	Diameter: 3.80 inches	Volume: 58.44 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 59.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4297.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4275.00	
Shut in tool	5.00			4280.00	
HMV	5.00			4285.00	
Safety Joint	3.00			4288.00	
Packer	4.00			4292.00	23.00 Bottom Of Top Packer
Packer	5.00			4297.00	
Stubb	1.00			4298.00	
Recorder	0.00	8167	Inside	4298.00	
Recorder	0.00	8370	Outside	4298.00	
Perforations	7.00			4305.00	
Blank Spacing	32.00			4337.00	
Perforations	6.00			4343.00	
Bullnose	5.00			4348.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 74.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Chieftain Oil Co. Inc.

Combrink#1

605 S.6th, P.O.Box 124  
Kow a, KS 67070

9-33s-10w Barber KS

Job Ticket: 042507

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2011.06.27 @ 21:18:33

**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:

3100 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.58 in<sup>2</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: 0.20 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
90.00	GCM w trace of oil	0.443
0.00	thin layer of oil @ top of tool	0.000

Total Length: 90.00 ft      Total Volume: 0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRIOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Chieftain Oil Co. Inc.

Combrink#1

605 S.6th, P.O.Box 124  
Kow a, KS 67070

9-33s-10w Barber KS

Job Ticket: 042507

DST#: 1

ATTN: Arden Ratzlaff

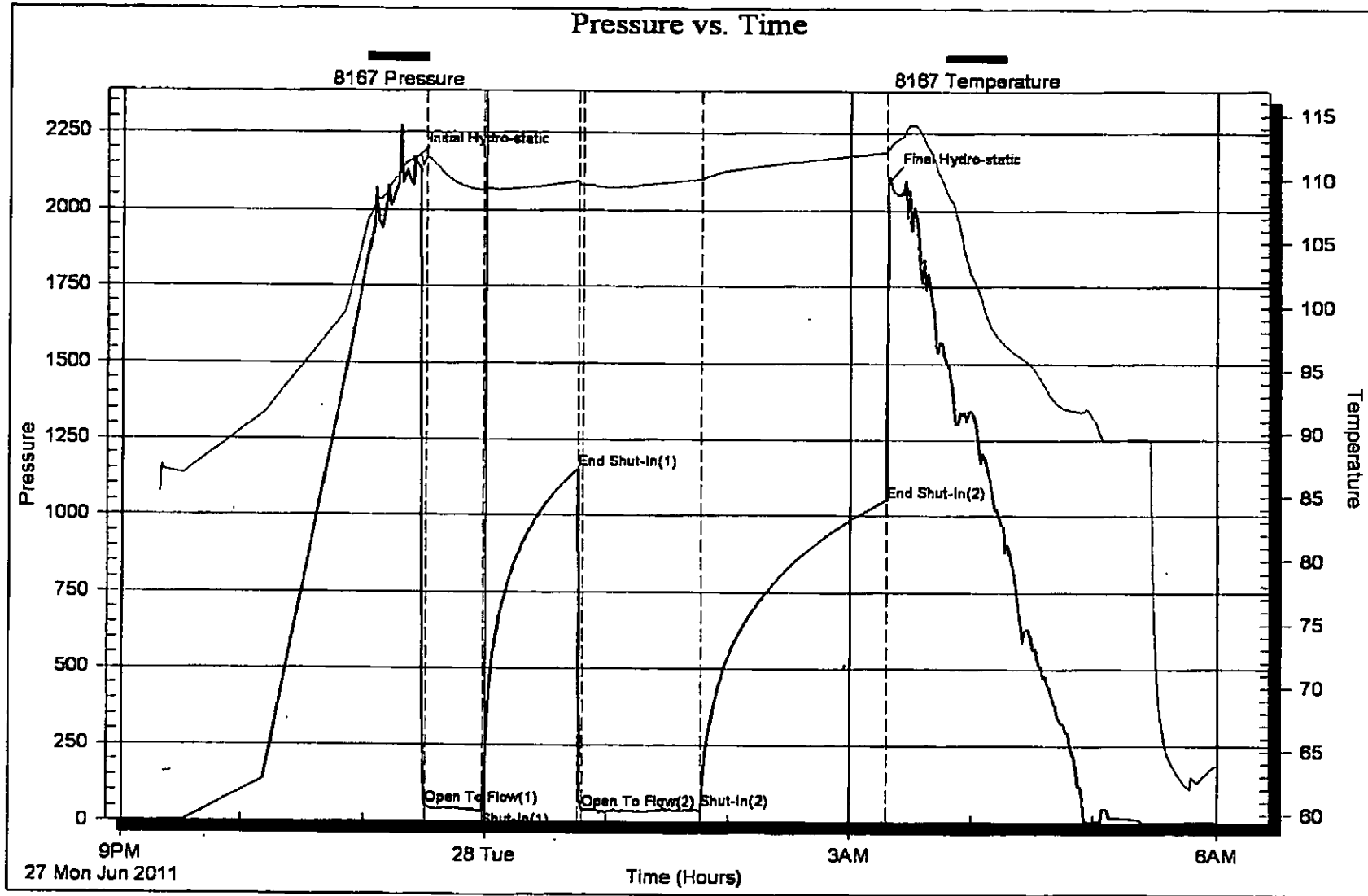
Test Start: 2011.06.27 @ 21:18:33

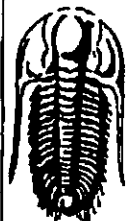
### Gas Rates Information

Temperature: 59 deg C  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m <sup>3</sup> /d)
1	10	0.38	8.00	82.06
1	10	0.38	8.00	82.06
1	20	0.38	7.00	78.39
1	30	0.38	4.00	67.40
2	5	0.38	13.00	100.37
2	10	0.38	8.00	82.06
2	20	0.25	6.00	32.36
2	30	0.25	5.50	31.57
2	40	0.25	5.00	30.78
2	50	0.25	5.00	30.78





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Chieftain Oil Co. Inc.  
605 S.6th, P.O.Box 124  
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Combrink#1

9-33s-10w Barber KS

Job Ticket: 042508 DST#: 2

Test Start: 2011.06.30 @ 19:33:40

### GENERAL INFORMATION:

Formation: **Simpson**  
Deviated: **No Whipstock** ft (KB)  
Time Tool Opened: 22:27:25  
Time Test Ended: 05:35:40

Test Type: **Conventional Bottom Hole**  
Tester: **Gary Pevoteaux**  
Unit No: **56**

Interval: **4916.00 ft (KB) To 4950.00 ft (KB) (TVD)**  
Total Depth: **4950.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1509.00 ft (KB)**  
**1501.00 ft (CF)**  
KB to GR/CF: **8.00 ft**

### Serial #: 8167

Inside

Press@RunDepth: **87.14 psig @ 4917.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2011.06.30**

End Date:

**2011.07.01**

Last Calib.: **2011.07.01**

Start Time: **19:33:45**

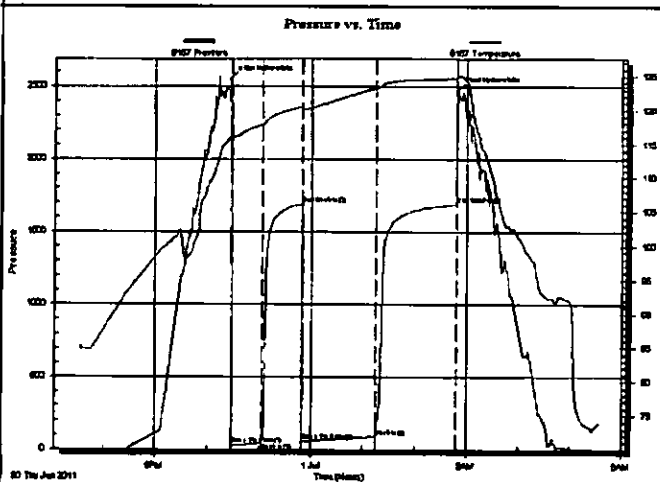
End Time:

**05:35:40**

Time On Btm: **2011.06.30 @ 22:25:55**

Time Off Btm: **2011.07.01 @ 02:49:10**

TEST COMMENT: IF:Weak blow. 1/2 - 2'.  
IS:No blow.  
FF:Weak blow. Slow increase to 1 3/4".  
FS:No blow.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2550.57	116.05	Initial Hydro-static
2	28.02	115.80	Open To Flow (1)
37	42.97	117.90	Shut-in (1)
83	1687.24	120.45	End Shut-in (1)
84	54.63	120.11	Open To Flow (2)
169	87.14	123.23	Shut-in (2)
262	1885.10	124.73	End Shut-in (2)
264	2475.98	124.89	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
125.00	M/W 19% m 81% w / R/w .085 hrs @ 84 deg	0.62
50.00	M/W w trace of oil 29% m 71% w	0.70

### Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mc/d)



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Chieftain Oil Co. Inc.

Combrink#1

605 S.6th, P.O.Box 124  
Klowa, KS 67070

9-33s-10w Barber KS

Job Ticket: 042508

DST#: 2

ATTN: Arden Ratzlaff

Test Start: 2011.06.30 @ 19:33:40

**Tool Information**

Drill Pipe:	Length: 4795.00 ft	Diameter: 3.80 inches	Volume: 67.26 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 67.87 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 59500.00 lb
Depth to Top Packer:	4916.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4894.00	
Shut in tool	5.00			4899.00	
HMV	5.00			4904.00	
Safety Joint	3.00			4907.00	
Packer	4.00			4911.00	23.00 Bottom Of Top Packer
Packer	5.00			4916.00	
Stubb	1.00			4917.00	
Recorder	0.00	8167	Inside	4917.00	
Recorder	0.00	8370	Outside	4917.00	
Perforations	28.00			4945.00	
Bullnose	5.00			4950.00	34.00 Bottom Packers & Anchor

**Total Tool Length: 67.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Chieftain Oil Co. Inc.

Combrink#1

605 S.6th, P.O.Box 124  
Kiowa, KS 67070

9-33s-10w Barber KS

Job Ticket: 042508

DST#: 2

ATTN: Arden Patzloff

Test Start: 2011.06.30 @ 19:33:40

**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:

77000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: 0.20 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
125.00	MW 19% m 81% w / Rw .085 hrs @ 84 deg	0.624
50.00	MW w trace of oil 29% m 71% w	0.701

Total Length:

175.00 ft

Total Volume:

1.325 bbl

Num Fluid Samples: 0

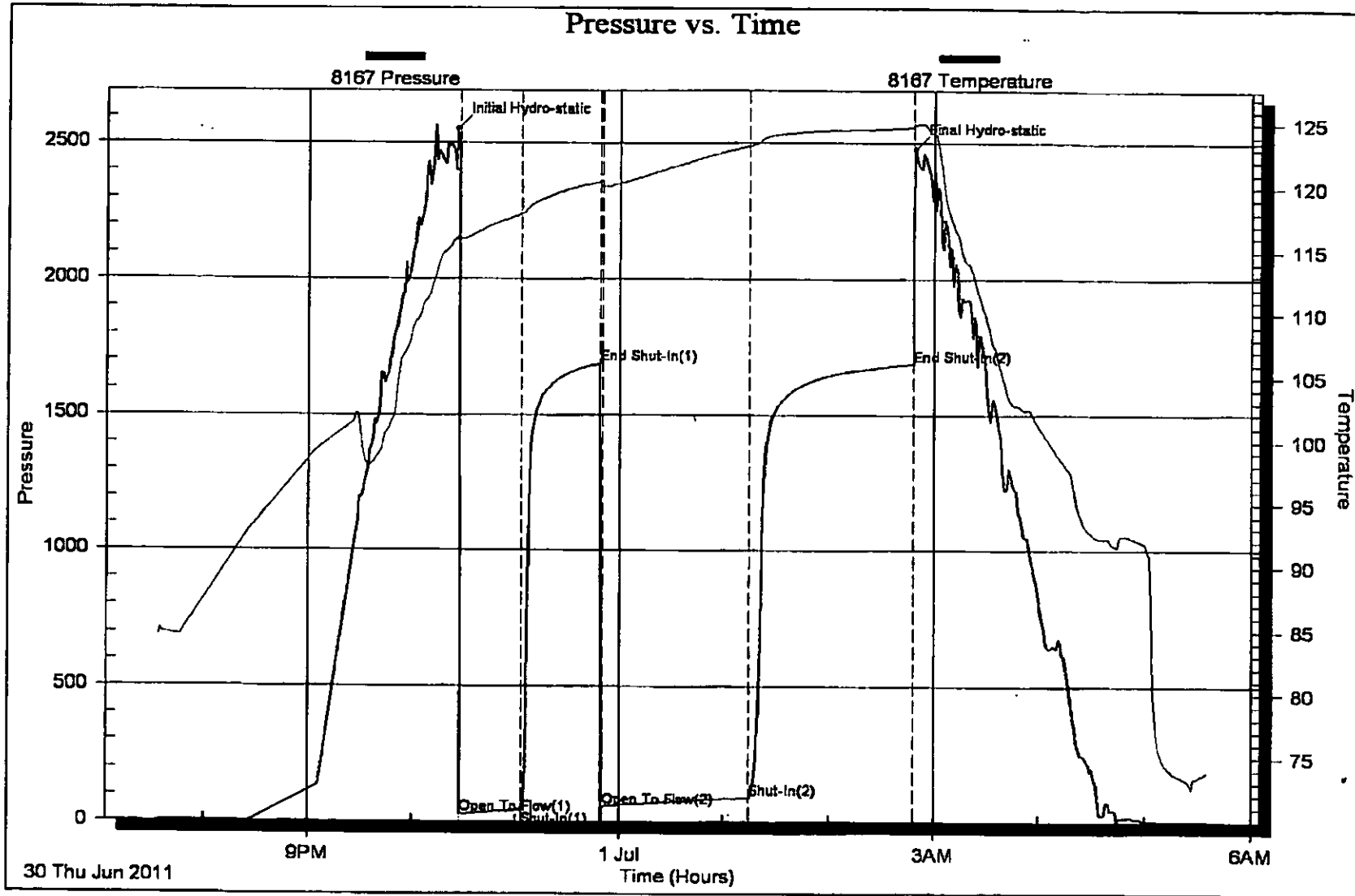
Num Gas Bombs: 0

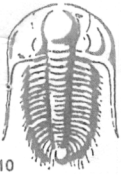
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
JUL 03 2011

## Test Ticket

NO. 042507 15969

Well Name & No. COMBRIK #1 BY: \_\_\_\_\_ Test No. 1 Date 6-27-11  
 Company CHIEFTAIN OIL Co. Inc. Elevation 1509 KB 1501 GL  
 Address 605 S. 6TH, P.O. Box 124, Krowa, Ks. 67070  
 Co. Rep / Geo. ARDEN RATZLAFF Rig FOSSIL DRILLG. #2  
 Location: Sec. 9 Twp. 33S Rge. 10W Co. BARBER State Ks

Interval Tested 4297 - 4348' Zone Tested HERTHA  
 Anchor Length 51' Drill Pipe Run 4166' Mud Wt. 9.4  
 Top Packer Depth 4292' Drill Collars Run 124' Vis 61  
 Bottom Packer Depth 4297' Wt. Pipe Run 0 WL 816cc  
 Total Depth 4348' Chlorides 3100 ppm System LCM 0

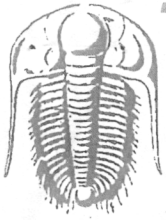
Blow Description IF: Strong blow. B.O.B. in 3 sec. GTS in 4 min.  
(See gas flow report) ISI: No blow.  
FF: Strong blow. (see gas flow report) FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>GCM w/trace of oil</u>	<u>6</u>	<u>94</u>		
	<u>Thin layer of oil @ top of tool</u>				

Rec Total 90 Fluid BHT 112° Gravity N/A API RW N.C. @ 2 °F Chlorides 3100 ppm

(A) Initial Hydrostatic 2162  Test 1225- T-On Location 2006  
 (B) First Initial Flow 53  Jars \_\_\_\_\_ T-Started 2118  
 (C) First Final Flow 36  Safety Joint 115- T-Open 2330  
 (D) Initial Shut-In 1151  Circ Sub \_\_\_\_\_ T-Pulled 0318  
 (E) Second Initial Flow 42  Hourly Standby \_\_\_\_\_ T-Out 0559  
 (F) Second Final Flow 43  Mileage 1021 142.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 1050  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2100  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 1442.80  
 Final Flow 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90 Sub Total 1442.80

Approved By Arden Ratzlaff Our Representative Cory Pustang  
 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.**

P.O. Box 362 • Hays, Kansas 67601 • (785) 625-4778

RECEIVED  
JUL 03 2011

BY: \_\_\_\_\_

**GAS VOLUME REPORT**

CHIEFTAIN OIL CO. INC.

COMBRIW/C #1

OPERATOR

WELL NAME AND NO.

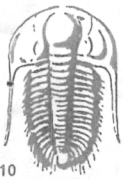
DST NO. 1

INITIAL OPEN

FINAL OPEN

Min.	Ins. of Water PSIG	Orifice Size	FIELD		Min.	Ins. of Water PSIG	Orifice Size	FIELD	
			MCF/D	ATMS 2000				MCF/D	ATMS 2000
4	~	1/2"	GTS		5	13 PSI	3/8"	94	100
10	8 PSI	3/8"	77	82	10	8 PSI	3/8"	77	82
20	7 PSI	3/8"	74	79	20	6 PSI	*1/4"	30	32
30	4 PSI	3/8"	63	67	30	5.5 PSI	1/4"	29	32
					40	5 PSI	1/4"	29	31
					50	5 PSI	1/4"	29	31
					60	5 PSI	1/4"	29	31

Remarks:



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
JUL 03 2011

## Test Ticket

NO. 042508

Well Name & No. COMBRINK #1 Test No. 2 Date 6-30-11  
 Company CHIEFTAIN OIL Co. Inc. Elevation 1509 KB 1501 GL  
 Address 605 S. 6TH, P.O. Box 124, KIOWA KS. 67070  
 Co. Rep / Geo. ARDEN RATZLAFF Rig FOSSIL DRUG.#2  
 Location: Sec. 9 Twp. 33S Rge. 10W Co. BARBER State KS.

Interval Tested 4916 - 4950' Zone Tested SIMPSON  
 Anchor Length 34' Drill Pipe Run 4795' Mud Wt. 9.1  
 Top Packer Depth 4911' Drill Collars Run 124' Vis 58  
 Bottom Packer Depth 4916' Wt. Pipe Run 0 WL 8.6 cc  
 Total Depth 4950' Chlorides 6800 ppm System LCM 4#  
 Blow Description IF: Weak blow. 1/2 - 2". FSI: No blow.

FF: Weak blow. Slow increase to 1 3/4". FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>MW/w trace of oil</u>			<u>29</u>	<u>29</u>
<u>125</u>	<u>MW</u>			<u>81</u>	<u>19</u>

Rec Total 175 Fluid BHT 125 Gravity N/A API RW 0.85 @ 84 °F Chlorides 77,000 ppm  
 (A) Initial Hydrostatic 2551  Test 1225 T-On Location 1404  
 (B) First Initial Flow 28  Jars \_\_\_\_\_ T-Started 193.3  
 (C) First Final Flow 43  Safety Joint 75 T-Open 2227  
 (D) Initial Shut-In 1687  Circ Sub \_\_\_\_\_ T-Pulled 0247  
 (E) Second Initial Flow 55  Hourly Standby 5 1/2 hr 550 T-Out 0535  
 (F) Second Final Flow 87  Mileage (102) 142.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 1685  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2476  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1992.80

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 90  
 Final Shut-In 90  
 Sub Total 1992.80  
 Approved By Arden Ratzlaff Our Representative Cory [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.