



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1104469  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1104469

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Chieftain Oil Co., Inc.
Well Name	Big Chief 4
Doc ID	1104469

All Electric Logs Run

Geological Log
Compensated Neutron / Density PE Log
Sector Bond / Gamma Ray CCL Log
Micro Log
Dual Induction Log
Sonic Log

Form	ACO1 - Well Completion
Operator	Chieftain Oil Co., Inc.
Well Name	Big Chief 4
Doc ID	1104469

Tops

Name	Top	Datum
Heebner	3804	-2411
Kansas City	4355	-2961
Cherokee Sh.	4728	-3334
Mississippian	4798	-3404
Viola	5196	-3802
Upper Simpson Sd.	5319	-3925
Lower Simpson Sd.	5456	-4062
Arbuckle	5493	-4099
Total Depth	5532	-4138

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

December 11, 2012

Ron Molz  
Chieftain Oil Co., Inc.  
101 S. 5th St.; PO Box 124  
KIOWA, KS 67070-1912

Re: ACO1  
API 15-007-23939-00-00  
Big Chief 4  
SW/4 Sec.06-35S-11W  
Barber County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Ron Molz



PAGE 1 of 1	CUST NO 1000719	INVOICE DATE 09/18/2012
INVOICE NUMBER <b>1718 - 91004509</b>		

Pratt (620) 672-1201  
 B CHIEFTAIN OIL COMPANY  
 I PO Box: 124  
 L KIOWA  
 L KS US 67070  
 T  
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Big Chief 4  
 O LOCATION  
 B COUNTY Barber  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40512651	19905		Net - 30 days	10/18/2012

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 09/15/2012 to 09/15/2012</i>				
<b>ENTERED</b> SEP 25 2012 9121 BC				
0040512651				
-171806988A Cement-New Well Casing/Pi 09/15/2012				
Cement 8 5/8" Surface				
A-Con Blend Common	200.00	EA	13.50	2,700.00 T
Common Cement	200.00	EA	12.00	2,400.00 T
Celloflake	100.00	EA	2.78	277.50 T
Calcium Chloride	940.00	EA	0.79	740.25 T
Cement Gel	376.00	EA	0.19	70.50 T
"Top Rubber Cmt Plug, 8 5/8""	1.00	EA	168.75	168.75
"Baffle Plate Alum., 8 5/8"" (Blue)"	1.00	EA	127.50	127.50
"8 5/8"" Basket (Blue)"	2.00	EA	236.25	472.50
"Unit Mileage Chg (PU, cars one way)"	50.00	MI	3.19	159.38
Heavy Equipment Mileage	100.00	MI	5.25	525.00
"Proppant & Bulk Del. Chgs., per ton mil	940.00	EA	1.20	1,128.00
Depth Charge; 501'-1000'	1.00	EA	900.00	900.00
Blending & Mixing Service Charge	400.00	BAG	1.05	420.00
Plug Container Util. Chg.	1.00	EA	187.50	187.50
"Service Supervisor, first 8 hrs on loc.	1.00	EA	131.25	131.25

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	10,408.13
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	451.74
PO BOX 841903	PO BOX 10460	INVOICE TOTAL	10,859.87
DALLAS, TX 75284-1903	MIDLAND, TX 79702		





**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

09/15/12  
FIELD SERVICE TICKET

1718 06988 A

6-355-11W

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB: 9-15-12	DISTRICT: Pratt, Kansas	NEW WELL <input checked="" type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WDW <input type="checkbox"/>	CUSTOMER ORDER NO.:		
CUSTOMER: Chieftain Oil Company, Inc.		LEASE: Big Chief				WELL NO. 4			
ADDRESS:		COUNTY: Barber		STATE: Kansas					
CITY:		STATE:		SERVICE CREW: C. Messick, M. Mattal, S. Young					
AUTHORIZED BY:		JOB TYPE: C.N.W. - Surface							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
37,216	1					9-15-12		PM	1:00
						ARRIVED AT JOB		PM	3:15
19,903-19,905	1					START OPERATION		PM	6:30
						FINISH OPERATION		PM	7:30
19,826-19,860	1					RELEASED	9-15-12	PM	7:45
						MILES FROM STATION TO WELL			50

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *[Signature]*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
EP 101	A. CON Blend Common Cement	sk	200	\$	3,600.00
CP 100 C	Common Cement	sk	200	\$	3,200.00
EC 102	Cellflake	Lb	100	\$	370.00
CC 109	Calcium Chloride	Lb	940	\$	987.00
CC 200	Cement Gel	Lb	376	\$	94.00
CF 105	Top Rubber Plug, 8 5/8"	ea	1	\$	225.00
CF 253	Baffle Plate, 8 5/8"	ea	1	\$	170.00
CF 1903	Basket, 8 5/8"	ea	2	\$	630.00
E 100	Pickup Mileage	mi	50	\$	212.50
E 101	Heavy Equipment Mileage	mi	100	\$	700.00
E 113	Bulk Delivery	tm	940	\$	1,504.00
CE 201	Cement Pump: 50 Feet To 1,000 Feet	hrs	4	\$	1,200.00
CF 240	Blending and Mixing Service	sk	400	\$	560.00
CE 504	Plug Container	Job	1	\$	250.00
S 003	Service Supervisor	hrs	8	\$	175.00

SUB TOTAL  
NLS \$ 10,408.13

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE: *[Signature]*  
THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *[Signature]*  
(WELL OWNER OPERATOR/CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

Customer Chiefain Oil Company, Inc. Lease No. \_\_\_\_\_ Date 9-15-12  
 Lease Big Chief Well # 4  
 Field Order # 6488 Station Pratt, Kansas Casing 8 5/8 24Lb. Depth 915 Feet County Barber State Kansas  
 Type Job C.N.W. - Surface Formation \_\_\_\_\_ Legal Description 16-355-11W

PIPE DATA		PERFORATING DATA		CEMENT USED		TREATMENT RESUME		
Casing Size <u>8 5/8 24Lb./ft.</u>	Tubing Size <u>6 1/2"</u>	Shots/Ft <u>200</u>	From <u>0</u>	To <u>200</u>	Rate <u>12Lb./Gal., 14.4</u>	Press <u>2.47 cu. Ft.</u>	ISIP <u>5 Min.</u>	Cell <u>Flute</u>
Depth <u>915 Feet</u>	Depth <u>915 Feet</u>	From <u>0</u>	To <u>200</u>	To <u>200</u>	Avg <u>15Lb./Gal., 6.17</u>	Avg <u>1.34 cu. Ft.</u>	10 Min <u>15 Min.</u>	Cell <u>Flute</u>
Volume <u>58.2 Bbl.</u>	Volume <u>58.2 Bbl.</u>	From <u>0</u>	To <u>200</u>	To <u>200</u>	Flush <u>55.8 Bbl. Fresh Water</u>	Gas Volume <u>1.34 cu. Ft.</u>	Total Load	
Max Press <u>350</u>	Max Press <u>350</u>	From <u>0</u>	To <u>200</u>	To <u>200</u>	HPH Used <u>1.34 cu. Ft.</u>	Annulus Pressure		
Well Connection <u>Plug Container</u>	Annulus Vol. <u>Plug Container</u>	From <u>0</u>	To <u>200</u>	To <u>200</u>	Annulus Pressure			Annulus Pressure
Plug Depth <u>877 Feet</u>	Packer Depth <u>877 Feet</u>	From <u>0</u>	To <u>200</u>	To <u>200</u>	Annulus Pressure			Annulus Pressure

Customer Representative Larry Hunt Station Manager David Scott Treater Clarence R. Messich

Service Units	<u>37,216</u>	<u>19,903</u>	<u>19,905</u>	<u>19,826</u>	<u>19,860</u>				
Driver Names	<u>Messich</u>	<u>Mattal</u>	<u>Young</u>						

Time AM	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<u>3:15</u>					<u>Trucks on location and hold safety meeting.</u>
<u>4:45</u>					<u>Fossil Drilling start to run 23 Joints new 24Lb/ft. 8 5/8" casing. A Bastret was installed above collars #</u>
<u>6:20</u>					<u>Casing in well. Circulate for 15 minutes.</u>
<u>6:33</u>				<u>5</u>	<u>Start Freshwater Pre-Flush.</u>
			<u>10</u>	<u>6</u>	<u>Start mixing 200 sacks A-con Blend cement.</u>
			<u>98</u>	<u>5</u>	<u>Start mixing 200 sacks Common cement.</u>
	<u>0</u>		<u>146</u>		<u>Stop pumping. Shut in well. Release Top Rubber Plug. Open well.</u>
	<u>100</u>			<u>5</u>	<u>Start Fresh Water Displacement.</u>
<u>7:17</u>	<u>350</u>		<u>55.8</u>		<u>Plugdown. Shut in well. Circulated 15 sacks cement to the pit. Wash up pump truck.</u>
<u>7:45</u>					<u>Job Complete. Thank You. Clarence, Mite, Steve</u>





PAGE 1 of 1	CUST NO 1000719	INVOICE DATE 09/14/2012
INVOICE NUMBER 1718 - 91002033		

Pratt (620) 672-1201  
 B CHIEFTAIN OIL COMPANY  
 I PO Box: 124  
 L KIOWA  
 L KS US 67070  
 T  
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Big Chief 4  
 O LOCATION  
 B COUNTY Barber  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE	
40511206	19843		Net - 30 days	10/14/2012	
For Service Dates: 09/13/2012 to 09/13/2012 0040511206 171806880A Cement-New Well Casing/Pi 09/13/2012 Cement 13 3/8" Conductor Pipe		QTY U of M	UNIT PRICE	INVOICE AMOUNT	
		350.00	EA	9.00	3,149.73 T
60/40 POZ		88.00	EA	2.77	244.18 T
Celloflake		903.00	EA	0.79	711.05 T
Calcium Chloride		50.00	MI	3.19	159.36
"Unit Mileage Chg (PU, cars one way)"		100.00	MI	5.25	524.95
Heavy Equipment Mileage		753.00	EA	1.20	903.52
"Proppant & Bulk Del. Chgs., per ton mil		1.00	EA	749.94	749.94
Depth Charge; 0-500'		350.00	BAG	1.05	367.47
Blending & Mixing Service Charge		1.00	EA	131.24	131.24
"Service Supervisor, first 8 hrs on loc.					

ENTERED  
 SEP 27 2012  
 9121 BC

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	6,941.44
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	299.66
PO BOX 841903	PO BOX 10460	INVOICE TOTAL	7,241.10
DALLAS, TX 75284-1903	MIDLAND, TX 79702		









## DRILL STEM TEST REPORT

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

PO Box 124  
Kiowa, KS 67070-1912

ATTN: David Barker / Ron M

### **Big Chief #4**

#### **6-35s-11w Barber,KS**

Start Date: 2012.09.22 @ 03:09:16

End Date: 2012.09.22 @ 12:48:46

Job Ticket #: 49547                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.27 @ 10:35:47



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49547

**DST#: 1**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 03:09:16

## GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:32:16

Time Test Ended: 12:48:46

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Reynolds

Unit No: 48

**Interval: 4795.00 ft (KB) To 4823.00 ft (KB) (TVD)**

Reference Elevations: 1395.00 ft (KB)

Total Depth: 4823.00 ft (KB) (TVD)

1383.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8790**

**Inside**

Press @ Run Depth: 53.17 psig @ 4796.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.22

End Date: 2012.09.22

Last Calib.: 2012.09.22

Start Time: 03:09:21

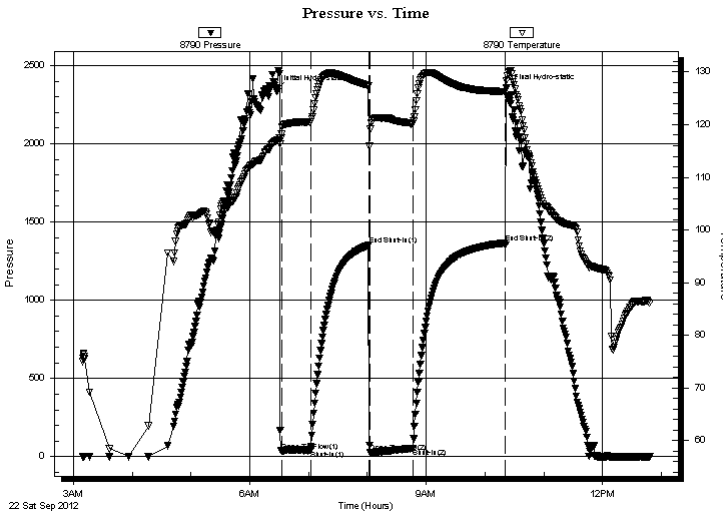
End Time: 12:48:46

Time On Btm: 2012.09.22 @ 06:27:01

Time Off Btm: 2012.09.22 @ 10:22:01

**TEST COMMENT:** IF: Strong blow . BOB 30 sec. No GTS  
IS: No blow  
FF: Strong blow . BOB immed. GTS @ 4 min. Gauged gas  
FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2343.51	116.95	Initial Hydro-static
6	37.42	118.17	Open To Flow (1)
35	43.92	120.45	Shut-In(1)
95	1350.75	127.37	End Shut-In(1)
96	30.19	119.14	Open To Flow (2)
140	53.17	120.14	Shut-In(2)
234	1366.65	126.28	End Shut-In(2)
235	2355.03	128.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	water 100%w ater	0.00
40.00	GMWO 20%gas, 20%w ater, 20%mud,	40.20il
80.00	WGOCM 5%w ater, 10%gas, 20%oil, 65%	90.39l
15.00	GOCM 5%gas, 15%oil, 80%mud	0.07

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	6.50	7.82
Last Gas Rate	0.13	16.00	11.38
Max. Gas Rate	0.13	16.00	11.38





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49547

**DST#: 1**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 03:09:16

## Tool Information

Drill Pipe:	Length: 4628.00 ft	Diameter: 3.80 inches	Volume: 64.92 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: 153.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 65.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4795.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4774.00	
Hydraulic tool	5.00			4779.00	
Jars	5.00			4784.00	
Safety Joint	2.00			4786.00	
Packer	5.00			4791.00	26.00 Bottom Of Top Packer
Packer	4.00			4795.00	
Stubb	1.00			4796.00	
Recorder	0.00	8790	Inside	4796.00	
Recorder	0.00	8792	Outside	4796.00	
Perforations	24.00			4820.00	
Bullnose	3.00			4823.00	28.00 Bottom Packers & Anchor

**Total Tool Length: 54.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49547

**DST#: 1**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 03:09:16

## 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:

66000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
1.00	water 100%w ater	0.005
40.00	GMWO 20%gas, 20%w ater, 20%mud, 40%c	0.197
80.00	WGOCM 5%w ater, 10%gas, 20%oil, 65%mu	0.393
15.00	GOCM 5%gas, 15%oil, 80%mud	0.074

Total Length: 136.00 ft

Total Volume: 0.669 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49547

**DST#: 1**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 03:09:16

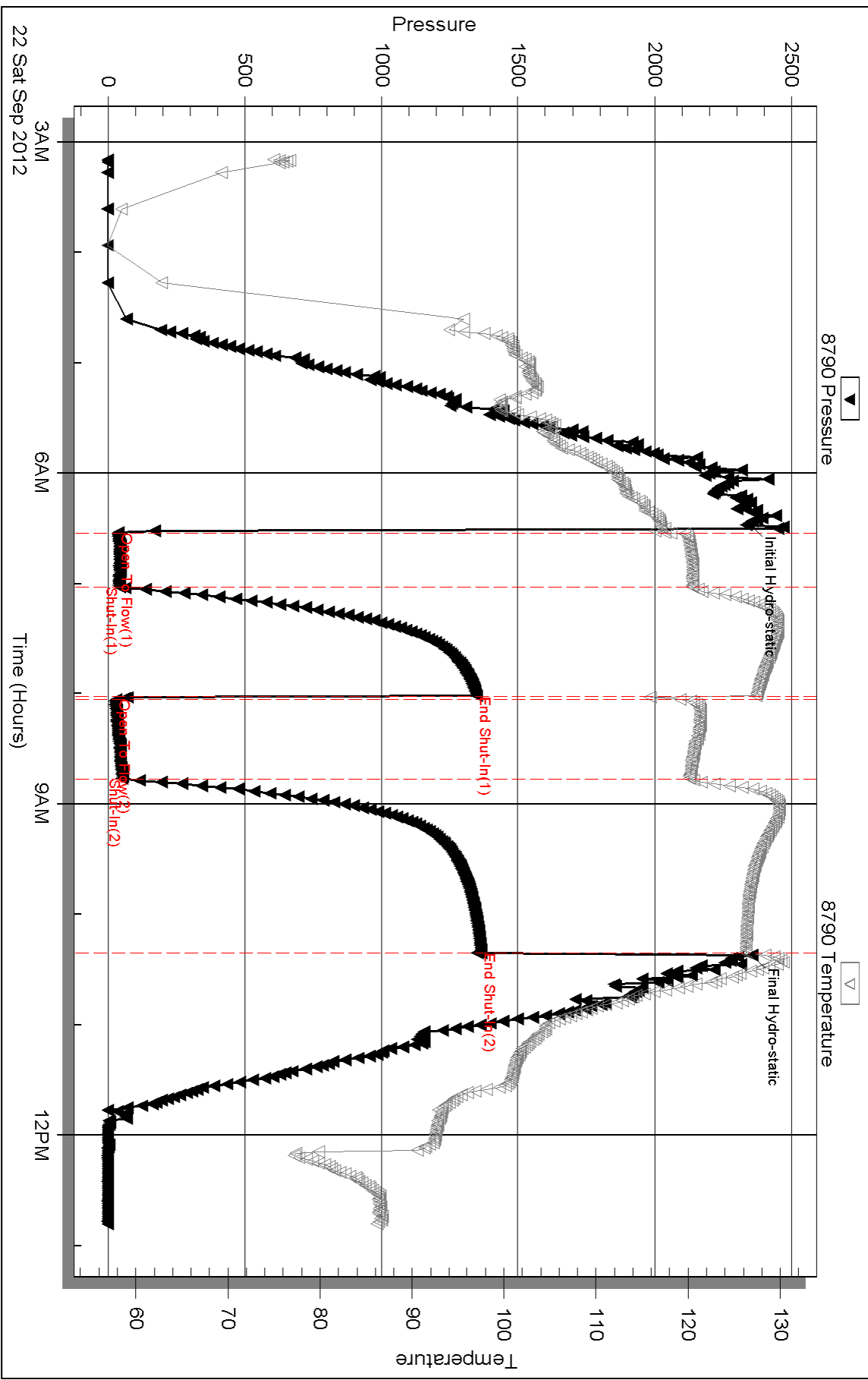
### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	6.50	7.82
2	10	0.13	6.50	7.82
2	20	0.13	9.00	8.76
2	30	0.13	11.00	9.51
2	40	0.13	16.00	11.38

### Pressure vs. Time

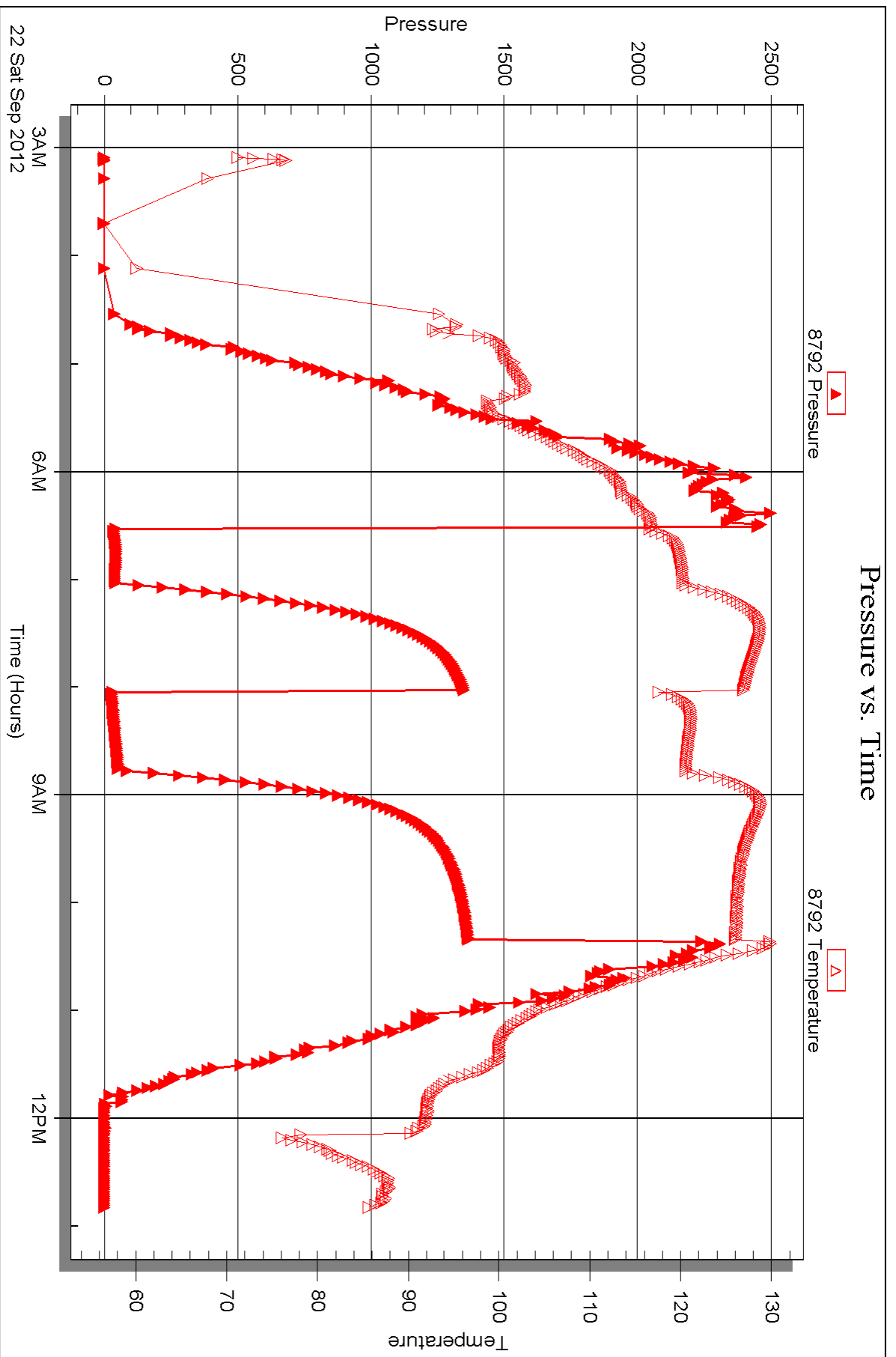


Serial #: 8792

Outside Chieftain Oil Co. Inc.

Big Chief #4

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 49547

Printed: 2012.09.27 @ 10:35:52



## DRILL STEM TEST REPORT

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

PO Box 124  
Kiowa, KS 67070-1912

ATTN: David Barker / Ron M

### **Big Chief #4**

#### **6-35s-11w Barber,KS**

Start Date: 2012.09.22 @ 19:42:34

End Date: 2012.09.23 @ 04:43:34

Job Ticket #: 49548                      DST #: 2

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

Printed: 2012.09.27 @ 10:24:25



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49548

**DST#: 2**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 19:42:34

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 22:23:34  
 Tester: Ryan Reynolds  
 Time Test Ended: 04:43:34  
 Unit No: 48  
 Interval: **4822.00 ft (KB) To 4860.00 ft (KB) (TVD)**  
 Reference Elevations: 1395.00 ft (KB)  
 Total Depth: 4860.00 ft (KB) (TVD)  
 1383.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 12.00 ft

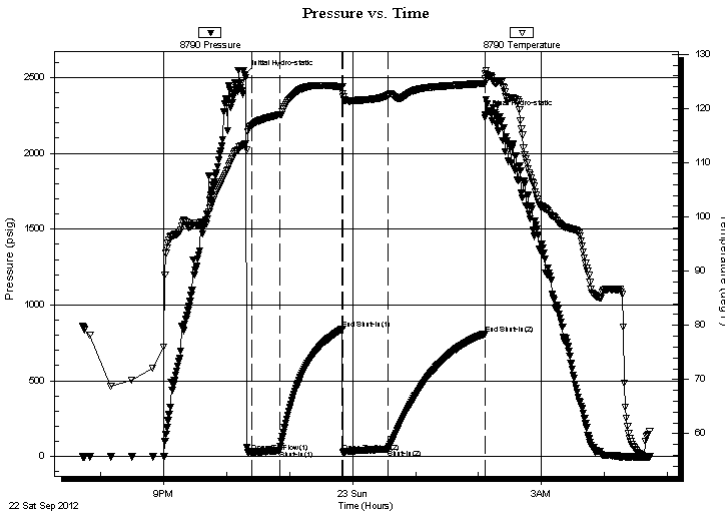
## Serial #: 8790

Inside

Press @ Run Depth: 49.27 psig @ 4823.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.09.22 End Date: 2012.09.23 Last Calib.: 2012.09.23  
 Start Time: 19:42:39 End Time: 04:43:34 Time On Btm: 2012.09.22 @ 22:17:04  
 Time Off Btm: 2012.09.23 @ 02:06:19

TEST COMMENT: IF: Strong blow . BOB 2 1/2 min. No GTS  
 IS: No blow  
 FF: Strong blow . BOB immed. No GTS  
 FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2517.09	113.42	Initial Hydro-static
7	26.55	116.89	Open To Flow (1)
33	39.89	118.87	Shut-In(1)
93	841.00	124.02	End Shut-In(1)
94	28.14	122.71	Open To Flow (2)
137	49.27	122.45	Shut-In(2)
229	809.58	124.63	End Shut-In(2)
230	2255.97	126.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	OGCWM 7%oil, 13%gas, 20%w ater, 60%0.17d	
40.00	SLI GOCM 1%gas, 2%oil, 97% mud	0.20
0.00	1175' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49548

**DST#: 2**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 19:42:34

## Tool Information

Drill Pipe:	Length: 4659.00 ft	Diameter: 3.80 inches	Volume: 65.35 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: 25000.00 lb
Drill Collar:	Length: 153.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 66.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4822.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4801.00	
Hydraulic tool	5.00			4806.00	
Jars	5.00			4811.00	
Safety Joint	2.00			4813.00	
Packer	5.00			4818.00	26.00 Bottom Of Top Packer
Packer	4.00			4822.00	
Stubb	1.00			4823.00	
Recorder	0.00	8790	Inside	4823.00	
Recorder	0.00	8792	Outside	4823.00	
Perforations	34.00			4857.00	
Bullnose	3.00			4860.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Chieftain Oil Co. Inc.

**6-35s-11w Barber,KS**

PO Box 124  
Kiowa, KS 67070-1912

**Big Chief #4**

Job Ticket: 49548

**DST#: 2**

ATTN: David Barker / Ron M

Test Start: 2012.09.22 @ 19:42:34

## 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:

69000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	OGCWM 7%oil, 13%gas, 20%water, 60%mu	0.172
40.00	SLI GOCM 1%gas, 2%oil, 97%mud	0.197
0.00	1175' GIP	0.000

Total Length: 75.00 ft

Total Volume: 0.369 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8790

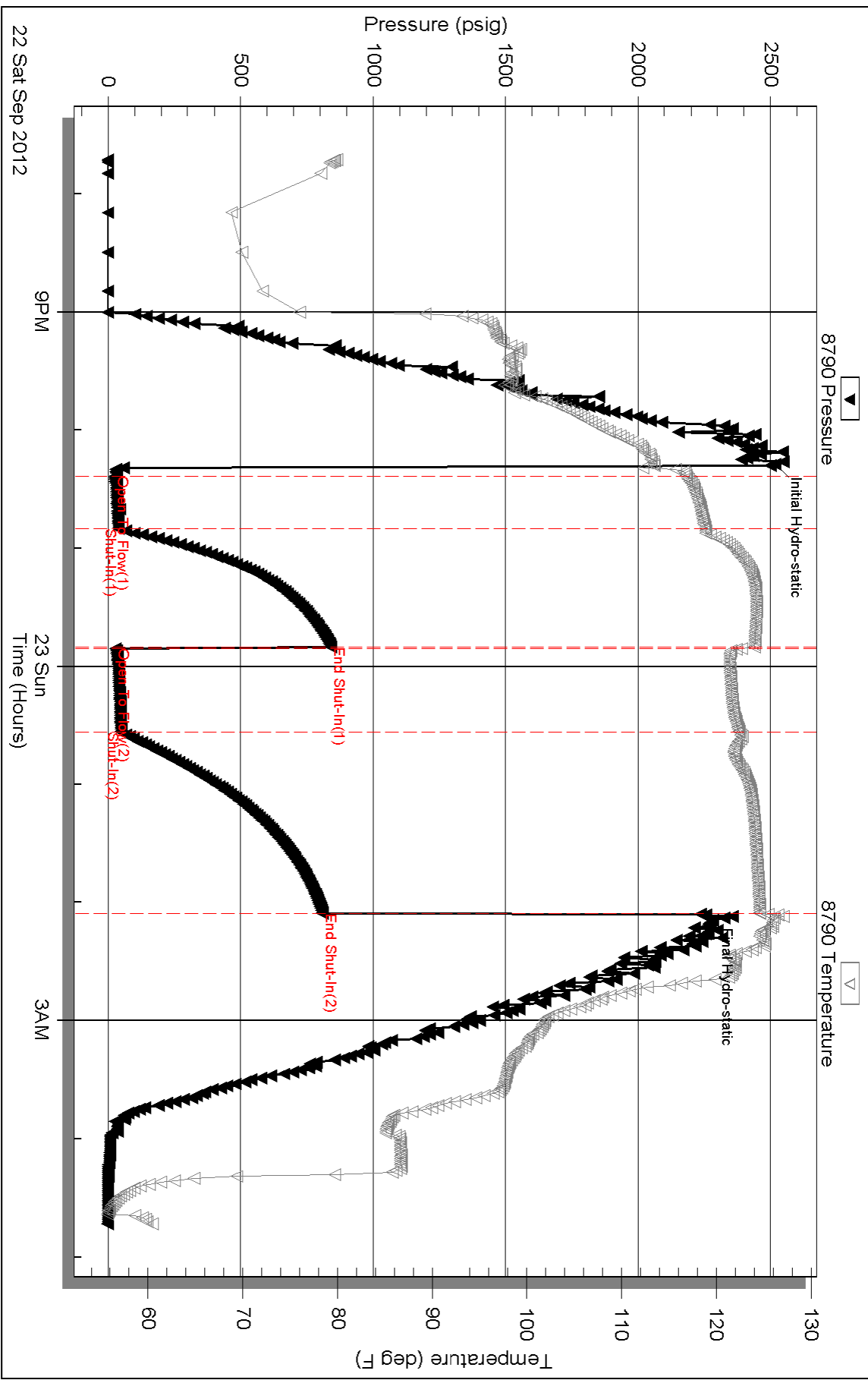
Inside

Chieftain Oil Co. Inc.

Big Chief #4

DST Test Number: 2

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 49548

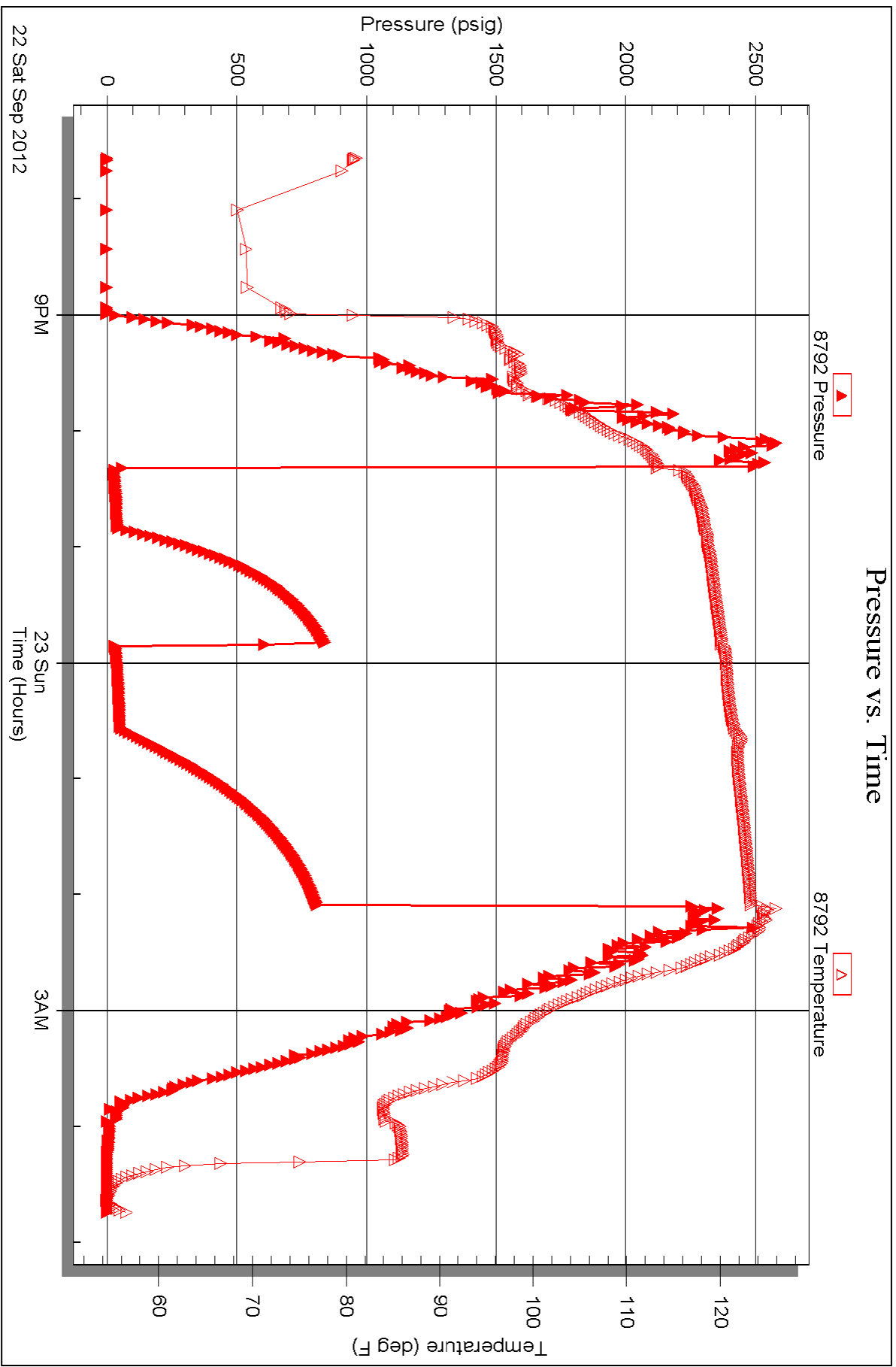
Printed: 2012.09.27 @ 10:24:30

Serial #: 8792

Outside Chieftain Oil Co. Inc.

Big Chief #4

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49547

4/10

Well Name & No. Big Chief #4 Test No. 1 Date 9-22-12  
 Company Chieftan Oil Co., Inc. Elevation 1395 KB 1383 GL  
 Address 101 S. 5th St. / P.O. Box 124 Kiowa, KS 67070-1912  
 Co. Rep / Geo. David Barker / Ron Molz Rig Fossil #3  
 Location: Sec. 6 Twp. 35s. Rge. 11w. Co. Barber State KS

Interval Tested 4795-4823 Zone Tested Miss.  
 Anchor Length 28 Drill Pipe Run 4628 Mud Wt. 9.1  
 Top Packer Depth 4790 Drill Collars Run 153 Vis 56  
 Bottom Packer Depth 4795 Wt. Pipe Run Ø WL 7.8  
 Total Depth 4823 Chlorides 5000 ppm System LCM Ø  
 Blow Description IF: Strong blow. BOB 30 sec. No GTS ISI: No blow

FF: Strong blow. BOB immed. GTS @ 4 min. Guaged gas  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>GoCM</u>	<u>5</u>	<u>15</u>	<u>80</u>	<u>0</u>
<u>80</u>	<u>WGOCM</u>	<u>10</u>	<u>20</u>	<u>5</u>	<u>65</u>
<u>48</u>	<u>GMWO</u>	<u>20</u>	<u>40</u>	<u>20</u>	<u>20</u>
<u>1</u>	<u>Water</u>	<u>0</u>	<u>0</u>	<u>100</u>	<u>0</u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

Rec Total 136 BHT 2344 Gravity API RW -11 @ 75 ° F Chlorides 66000 ppm  
 (A) Initial Hydrostatic 2344  Test 1250 T-On Location 0200  
 (B) First Initial Flow 37  Jars 250 T-Started 0309  
 (C) First Final Flow 44  Safety Joint 75 T-Open 0632  
 (D) Initial Shut-In 1351  Circ Sub T-Pulled 1010  
 (E) Second Initial Flow 30  Hourly Standby T-Out 1249  
 (F) Second Final Flow 53  Mileage 120 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 1367  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2355  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1761 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 45  
 Final Shut-In 90

Approved By [Signature] Our Representative Ryan Reynolds  
 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 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49548

4/10

Well Name & No. Big Chief #4 Test No. 2 Date 9-22-12  
 Company Chiefstan Oil Co. Inc. Elevation 1395 KB 1383 GL  
 Address 101 S. 5th St. / P.O. Box 124 Kiowa, KS 67070-1912  
 Co. Rep / Geo. David Barker / Ron Molz Rig Fossil #3  
 Location: Sec. 6 Twp. 35s Rge. 11w. Co. Barber State KS

Interval Tested 4822-4860 Zone Tested Miss.  
 Anchor Length 38 Drill Pipe Run 4659 Mud Wt. 9.3  
 Top Packer Depth 4817 Drill Collars Run 153 Vis 56  
 Bottom Packer Depth 4822 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4860 Chlorides 6800 ppm System LCM 1#  
 Blow Description IF: Strong blow, BOB 2 1/2 min, No GTS ISI: No blow

FF: Strong blow, BOB immed. No GTS  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1175</u>	<u>GIP</u>	<u>100</u>			
<u>40</u>	<u>SLIGCM</u>	<u>1</u>	<u>2</u>	<u>97</u>	
<u>35</u>	<u>OGLWM</u>	<u>13</u>	<u>7</u>	<u>20</u>	<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1250 BHT 126 Gravity N/C API RW 12 @ 65 ° F Chlorides 69000 ppm  
 (A) Initial Hydrostatic 2517  Test 1250 T-On Location 1930  
 (B) First Initial Flow 27  Jars 250 T-Started 1943  
 (C) First Final Flow 40  Safety Joint 75 T-Open 2224  
 (D) Initial Shut-In 841  Circ Sub \_\_\_\_\_ T-Pulled 0204  
 (E) Second Initial Flow 28  Hourly Standby \_\_\_\_\_ T-Out 0449  
 (F) Second Final Flow 49  Mileage 372 120 + 120 <sup>Test Pick ↑ tools</sup> Comments \_\_\_\_\_  
 (G) Final Shut-In 810  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2256  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 60  Day Standby 1 Day Total 1947  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90 Sub Total 1947

Approved By [Signature] Our Representative Ryan Reynolds

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.