

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1
October 2008
Form Must Be Typed

6/11/10

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 4767
Name: Ritchie Exploration, Inc.
Address 1: P.O. Box 783188
Address 2: _____
City: Wichita State: KS Zip: 67278 + 3118
Contact Person: John Niernberger
Phone: (316) 691-9500
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Mike Engelbrecht
Purchaser: _____

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Designate Type of Completion:
 New Well _____ Re-Entry _____ Workover _____
_____ Oil _____ SWD _____ SIOW _____
_____ Gas _____ ENHR _____ SIGW _____
_____ CM (Coal Bed Methane) _____ Temp. Abd. _____
 Dry _____ Other _____
(Core, WSW, Expl., Cathodic, 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: _____ Plug Back Total Depth _____
_____ Commingled _____ Docket No.: _____
_____ Dual Completion _____ Docket No.: _____
_____ Other (SWD or Enhr.?) _____ Docket No.: _____
2/11/10 2/24/10 2/24/10
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 057-20664-00-00
Spot Description: 45' s & 110' W of
_____ SW _____ NE _____ SE Sec. 7 Twp. 28 S. R. 23 East West
1605 Feet from North / South Line of Section
1100 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Ford
Lease Name: Zimmerman 7CD Well #: 1
Field Name: _____
Producing Formation: _____
Elevation: Ground: 2535 Kelly Bushing: 2547
Total Depth: 5294 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 364 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 PAWS 6810
(Data must be collected from the Reserve Pit)
Chloride content: 6800 ppm Fluid volume: 1100 bbls
Dewatering method used: evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name: _____
Lease Name: _____ License No.: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
County: _____ Docket No.: _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: _____
Title: Production Manager Date: 6/11/10
Subscribed and sworn to before me this 1st day of June,
20 10.
Notary Public: Debra K Phillips
Date Commission Expires: 5-4-11

DEBRA K. PHILLIPS
Notary Public - State of Kansas
My Appt. Expires 5-4-11

KCC Office Use ONLY
 Letter of Confidentiality Received
If Denied, Yes Date: _____
 Wireline Log Received
 Geologist Report Received
_____ UIC Distribution

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Operator Name: Ritchie Exploration, Inc. Lease Name: Zimmerman 7CD Well #: 1
 Sec. 7 Twp. 28 S. R. 23 East West County: Ford

INSTRUCTIONS: Show important tops and base 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. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Submit Copy)</i> List All E. Logs Run: Dual Induction Log Compensated Density Neutron Log	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum SEE ATTACHED <div style="text-align: center;"> KCC JUN 01 2010 CONFIDENTIAL </div>
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CASING RECORD <input checked="" 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
Surface	12-1/4	8-5/8	23	363	Common	200	3% cc, 2% gel

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				

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

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TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
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 (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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#1 Zimmerman 7CD

1605' FSL & 1100' FEL
45' S & 110' W of SW NE SE Section 7-28S-23W
Ford County, Kansas
API# 15-057-20664-0000
Elevation: GL: 2535', KB: 2547'

<u>Sample Tops</u>			<u>Ref. Well</u>
B/Anhydrite	1585'	+962	-7
Chase Herington	2716'	+169	+8
Stotler	3640'	-1093	-1
Heebner	4304'	-1757	-5
Lansing	4442'	-1895	-5
Muncie Shale	4638'	-2091	-10
Hush. Shale	4808'	-2261	-12
Altamont	4925'	-2378	-12
Pawnee	4991'	-2444	-15
Cherokee Shale	5038'	-2491	-17
Atoka Shale	5152'	-2605	-17
Morrow Sand	5153'	-2606	-14
Mississippian	5207'	-2660	-60
RTD	5294'	-2747	

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ALLIED CEMENTING CO., LLC. 036380

REMIT TO J.J. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Great Bend KS

DATE <u>2-12-10</u>	SEC. <u>7</u>	TWP. <u>28</u>	RANGE <u>23</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30 AM</u>	JOB FINISH <u>8:00 AM</u>
LEASE <u>Zimmerman WELL # 7-C-01</u>				LOCATION <u>road 1 North To saddle</u>		COUNTY <u>fo-d</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)				RD 7 west 2 South 1 east N into			

CONTRACTOR <u>Duke Rig 1</u>	OWNER <u>Ritchie Exploration</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>364</u>
CASING SIZE <u>8 3/4</u>	DEPTH <u>364</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT <u>22.25 BBls fresh water</u>	
EQUIPMENT	
PUMP TRUCK CEMENTER <u>wayne-D</u>	
# <u>181</u> HELPER <u>Alvin-R</u>	
BULK TRUCK	
# <u>260</u> DRIVER <u>Jahn</u>	
BULK TRUCK	
# DRIVER	
CEMENT	
AMOUNT ORDERED <u>20054 class A</u>	
<u>3% cc 2% Gel</u>	
COMMON <u>200</u>	@ <u>13.50</u> <u>2700.00</u>
POZMIX	@
GEL <u>4</u>	@ <u>20.25</u> <u>81.00</u>
CHLORIDE <u>7</u>	@ <u>30.15</u> <u>361.50</u>
ASC	@
	@
	@
	@
	@
	@
	@
	@
	@
HANDLING <u>200</u>	@ <u>2.25</u> <u>450.00</u>
MILEAGE <u>200 x 40 x .10</u>	<u>800.00</u>
TOTAL	<u>4391.50</u>

REMARKS:
Pipe on Bottom Break circulation
with Rig
hook up to cement line
mix 20054 class A 3% cc 2% gel
shut down Release Plug
Displace BBls fresh water
Cement circulated shut in
wash up Rig Down

CHARGE TO: Ritchie Exploration
STREET _____
CITY _____ STATE _____ ZIP _____

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Mike Godfrey
SIGNATURE Mike Godfrey

SERVICE

DEPTH OF JOB <u>364</u>	
PUMP TRUCK CHARGE	<u>991.00</u>
EXTRA FOOTAGE <u>64</u>	@ <u>1.75</u> <u>48.00</u>
MILEAGE <u>40</u>	@ <u>7.00</u> <u>280.00</u>
MANIFOLD	@
	@
	@
TOTAL	<u>1319.00</u>

PLUG & FLOAT EQUIPMENT

	@
<u>1 Rubber Plug</u>	@ <u>102.00</u> <u>102.00</u>
	@
	@
	@
TOTAL	<u>102.00</u>

SALES TAX (If Any) _____
TOTAL CHARGES [scribble]
DISCOUNT _____ IF PAID IN 30 DAYS

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- JCN -

ALLIED CEMENTING CO., LLC. 039200

REMIT TO: P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Ogkley

DATE <u>2-24-10</u>	SEC <u>7</u>	TWP <u>28</u>	RANGE <u>23</u>	CALLED OUT	ON LOCATION	JOB START <u>11:20 AM</u>	JOB FINISH <u>2:30 PM</u>
LEASE <u>Zimmerman</u>	WELL# <u>2C-D1</u>	LOCATION <u>Ford 7W 2S</u>			COUNTY <u>Ford</u>	STATE <u>KS</u>	
OLD OR (NEW) (Circle one)		<u>3/4 E N into</u>					

CONTRACTOR <u>Duke Drilling Rig 1</u>	OWNER <u>same</u>
TYPE OF JOB <u>PTA</u>	
HOLE SIZE <u>7 7/8</u>	T.D. <u>5294'</u>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH <u>1530'</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

CEMENT		
AMOUNT ORDERED	<u>220 sks</u>	<u>60/40 40 gel</u>
	<u>44# FLO-SEAL</u>	
COMMON	<u>132 sks</u>	@ <u>15.45</u> <u>2039.40</u>
POZMIX	<u>88 sks</u>	@ <u>8.00</u> <u>704.00</u>
GEL	<u>8 sks</u>	@ <u>20.80</u> <u>166.40</u>
CHLORIDE		@
ASC		@
		@
	<u>Flo-seal 55 #</u>	@ <u>2.50</u> <u>137.50</u>
		@
		@
		@
		@
HANDLING	<u>230 sks</u>	@ <u>2.40</u> <u>552.00</u>
MILEAGE	<u>104 sk/mile</u>	<u>920.00</u>
		TOTAL <u>4519.30</u>

EQUIPMENT

PUMP TRUCK	CEMENTER <u>Andrew</u>
# <u>423-281</u>	HELPER <u>Larene</u>
BULK TRUCK	
# <u>396</u>	DRIVER <u>Darrin</u>
BULK TRUCK	
#	DRIVER

REMARKS:
50 sks @ 1530'
50 sks @ 600'
50 sks @ 390'
20 sks @ 60'
20 sks mouse hole
30 sks Rat hole

Thank you

SERVICE

DEPTH OF JOB	<u>1530'</u>	
PUMP TRUCK CHARGE		<u>1017.00</u>
EXTRA FOOTAGE	@	
MILEAGE	<u>40 miles</u>	@ <u>7.00</u> <u>280.00</u>
MANIFOLD	@	
	@	
	@	
		TOTAL <u>1297.00</u>

CHARGE TO: Ritchie Exploration
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
		TOTAL _____

To Allied Cementing Co., LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME MIKE GOTTREY
 SIGNATURE Mike Gottrey

SALES TAX (If Any) _____
 TOTAL CHARGES _____
 DISCOUNT ~~_____~~ IF PAID IN 30 DAYS

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DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc**

8100 E. 22nd St. N. # 700
Wichita, Kansas 67278

ATTN: Mike Engelbrecht

7-28s-23w Ford KS

Zimmerman 7 CD # 1

Start Date: 2010.02.20 @ 16:22:09

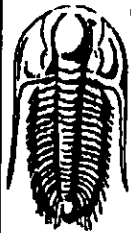
End Date: 2010.02.21 @ 01:09:09

Job Ticket #: 35676 DST #: 1

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc
8100 E 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

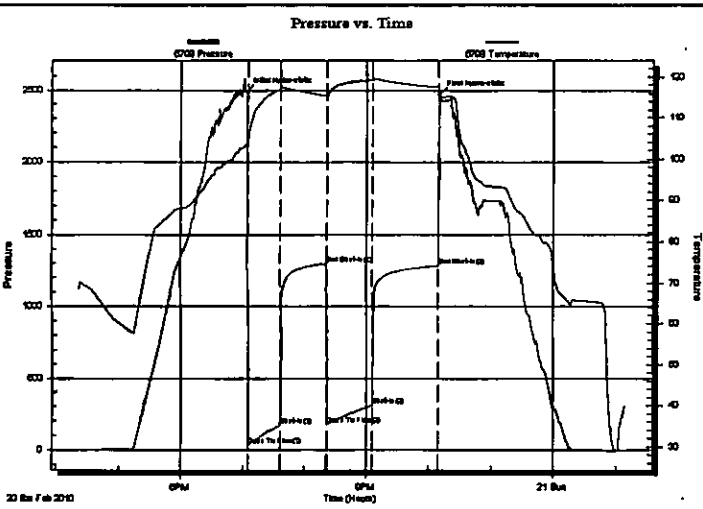
Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35676 DST#: 1
Test Start: 2010.02.20 @ 16:22:09

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: 19:04:39
Time Test Ended: 01:09:09
Interval: **4985.00 ft (KB) To 5015.00 ft (KB) (TVD)**
Total Depth: **5015.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **Jerry Adams**
Unit No: **45**
Reference Elevations: **2547.00 ft (KB)**
2535.00 ft (CF)
KB to GR/CF: **12.00 ft**

Serial #: **6798** Inside
Press@RunDepth: **311.50 psig @ 4986.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2010.02.20** End Date: **2010.02.21** Last Calib.: **2010.02.21**
Start Time: **16:22:10** End Time: **01:09:09** Time On Btm: **2010.02.20 @ 19:03:09**
Time Off Btm: **2010.02.20 @ 22:09:39**

TEST COMMENT: IF: Fair blow . B.O.B. in 10 1/2 mins.
IS: No blow .
FF: Weak blow . B.O.B. in 17 mins.
FS: No blow .



PRESSURE SUMMARY

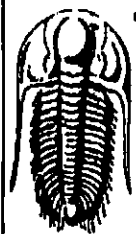
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2487.30	103.40	Initial Hydro-static
2	37.00	103.87	Open To Flow (1)
33	167.96	117.04	Shut-In(1)
78	1297.97	115.39	End Shut-In(1)
79	175.42	114.87	Open To Flow (2)
123	311.50	119.24	Shut-In(2)
186	1281.35	117.50	End Shut-In(2)
187	2469.29	115.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
573.00	Muddy Water 85%w 15%m	8.04
0.00	RW = .157 @ 50 deg.	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc
8100 E. 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35676 DST#: 1
Test Start: 2010.02.20 @ 16:22:09

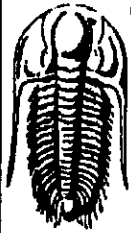
Tool Information

Drill Pipe:	Length: 4976.00 ft	Diameter: 3.80 inches	Volume: 69.80 bbl	Tool Weight: 2500.00 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: 72000.00 lb
			<u>Total Volume: 69.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4985.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4962.00	
Hydraulic tool	5.00			4967.00	
Jars	5.00			4972.00	
Safety Joint	3.00			4975.00	
Packer	5.00			4980.00	28.00 Bottom Of Top Packer
Packer	5.00			4985.00	
Stubb	1.00			4986.00	
Recorder	0.00	6798	Inside	4986.00	
Recorder	0.00	8367	Outside	4986.00	
Perforations	26.00			5012.00	
Bullnose	3.00			5015.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc
8100 E. 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35676 DST#: 1
Test Start: 2010.02.20 @ 16:22:09

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: 64000 ppm	
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.54 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 8200.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

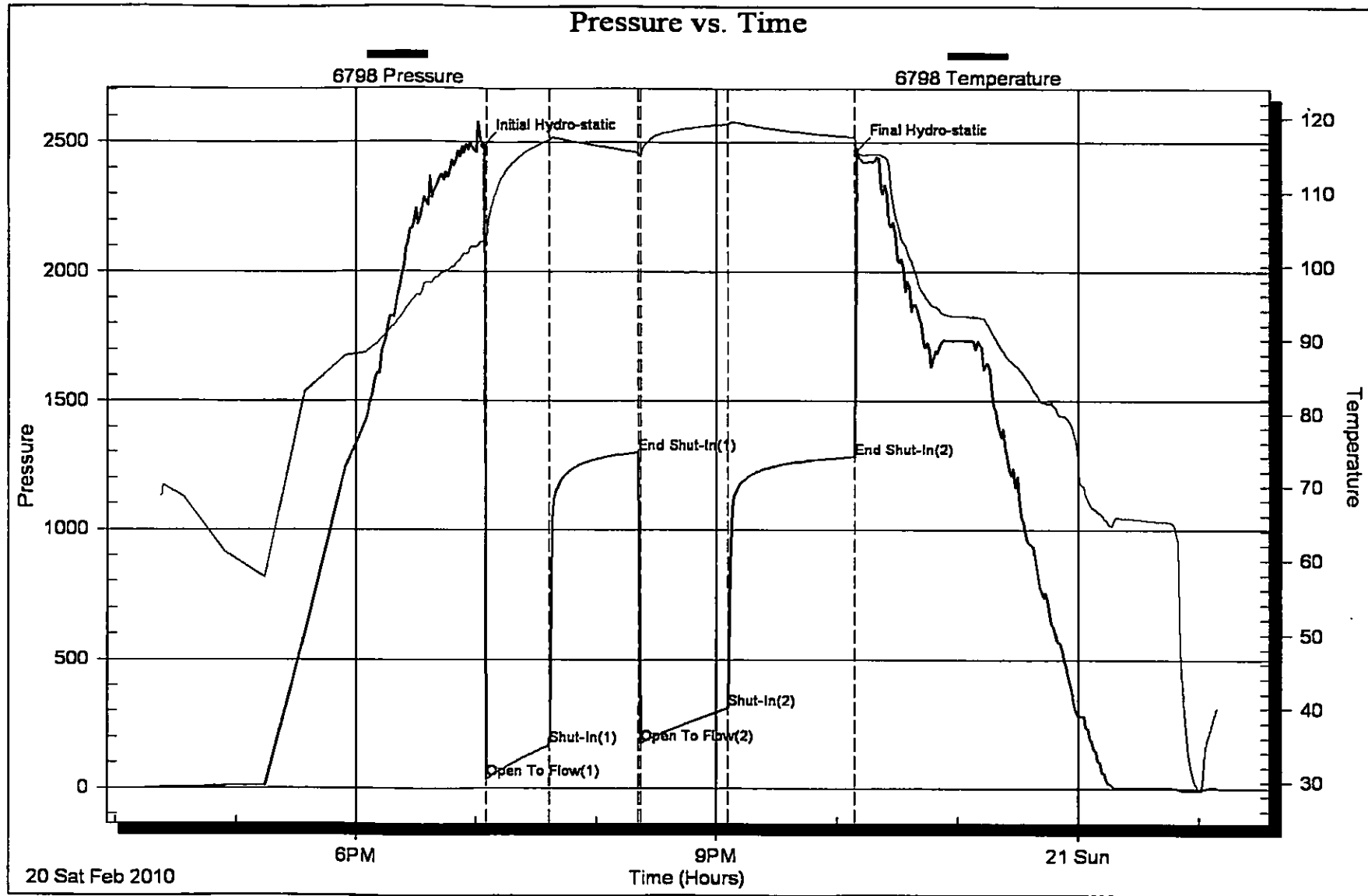
Length ft	Description	Volume bbl
573.00	Muddy Water 85%w 15%m	8.038
0.00	RW = .157 @ 50 deg.	0.000

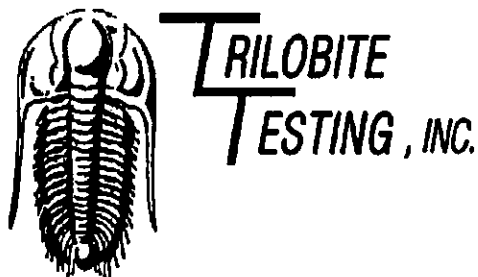
Total Length: 573.00 ft Total Volume: 8.038 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc**

8100 E. 22nd St. N. # 700
Wichita, Kansas 67278

ATTN: Mike Engelbrecht

7-28s-23w Ford KS

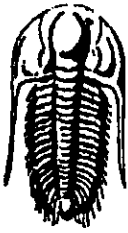
Zimmerman 7 CD # 1

Start Date: 2010.02.22 @ 00:23:17

End Date: 2010.02.22 @ 07:55:47

Job Ticket #: 35677 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc
8100 E. 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

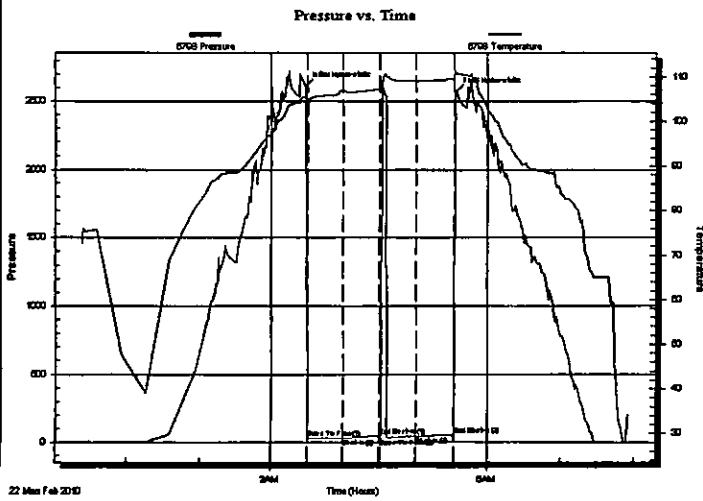
Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35677 **DST#: 2**
Test Start: 2010.02.22 @ 00:23:17

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: **03:29:47**
Time Test Ended: **07:55:47**
Interval: **5139.00 ft (KB) To 5173.00 ft (KB) (TVD)**
Total Depth: **5173.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **Jerry Adams**
Unit No: **45**
Reference Elevations: **2547.00 ft (KB)**
2535.00 ft (CF)
KB to GR/CF: **12.00 ft**

Serial #: 6798 **Inside**
Press@RunDepth: **42.24 psig @ 5140.00 ft (KB)**
Start Date: **2010.02.22** End Date: **2010.02.22**
Start Time: **00:23:18** End Time: **07:55:47**
Capacity: **8000.00 psig**
Last Calib.: **2010.02.22**
Time On Btm: **2010.02.22 @ 03:28:17**
Time Off Btm: **2010.02.22 @ 05:33:17**

TEST COMMENT: IF:Weak blow . Built to 1/2".
IS:No blow .
FF:No blow . Flushed tool. No blow .
FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2615.15	105.36	Initial Hydro-static
2	28.83	104.89	Open To Flow (1)
32	33.29	106.99	Shut-In(1)
62	43.84	107.16	End Shut-In(1)
63	30.54	107.10	Open To Flow (2)
92	42.24	108.99	Shut-In(2)
124	53.87	109.52	End Shut-In(2)
125	2566.97	110.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drilling Mud 100% m	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc
8100 E 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35677 DST#: 2
Test Start: 2010.02.22 @ 00:23:17

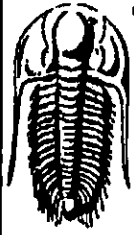
Tool Information

Drill Pipe:	Length: 5130.00 ft	Diameter: 3.80 inches	Volume: 71.96 bbl	Tool Weight: 2500.00 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: 90000.00 lb
			Total Volume: 71.96 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 67000.00 lb
Depth to Top Packer:	5139.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	62.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5116.00	
Hydraulic tool	5.00			5121.00	
Jars	5.00			5126.00	
Safety Joint	3.00			5129.00	
Packer	5.00			5134.00	28.00 Bottom Of Top Packer
Packer	5.00			5139.00	
Stubb	1.00			5140.00	
Recorder	0.00	6798	Inside	5140.00	
Recorder	0.00	8367	Outside	5140.00	
Perforations	30.00			5170.00	
Bullnose	3.00			5173.00	34.00 Bottom Packers & Anchor

Total Tool Length: 62.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc

Zimmerman 7 CD # 1

8100 E. 22nd St. N. # 700
Wichita, Kansas 67278

7-28s-23w Ford KS

Job Ticket: 35677

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2010.02.22 @ 00:23:17

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: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.15 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 10800.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
15.00	Drilling Mud 100%m	0.210

Total Length: 15.00 ft

Total Volume: 0.210 bbl

Num Fluid Samples: 0

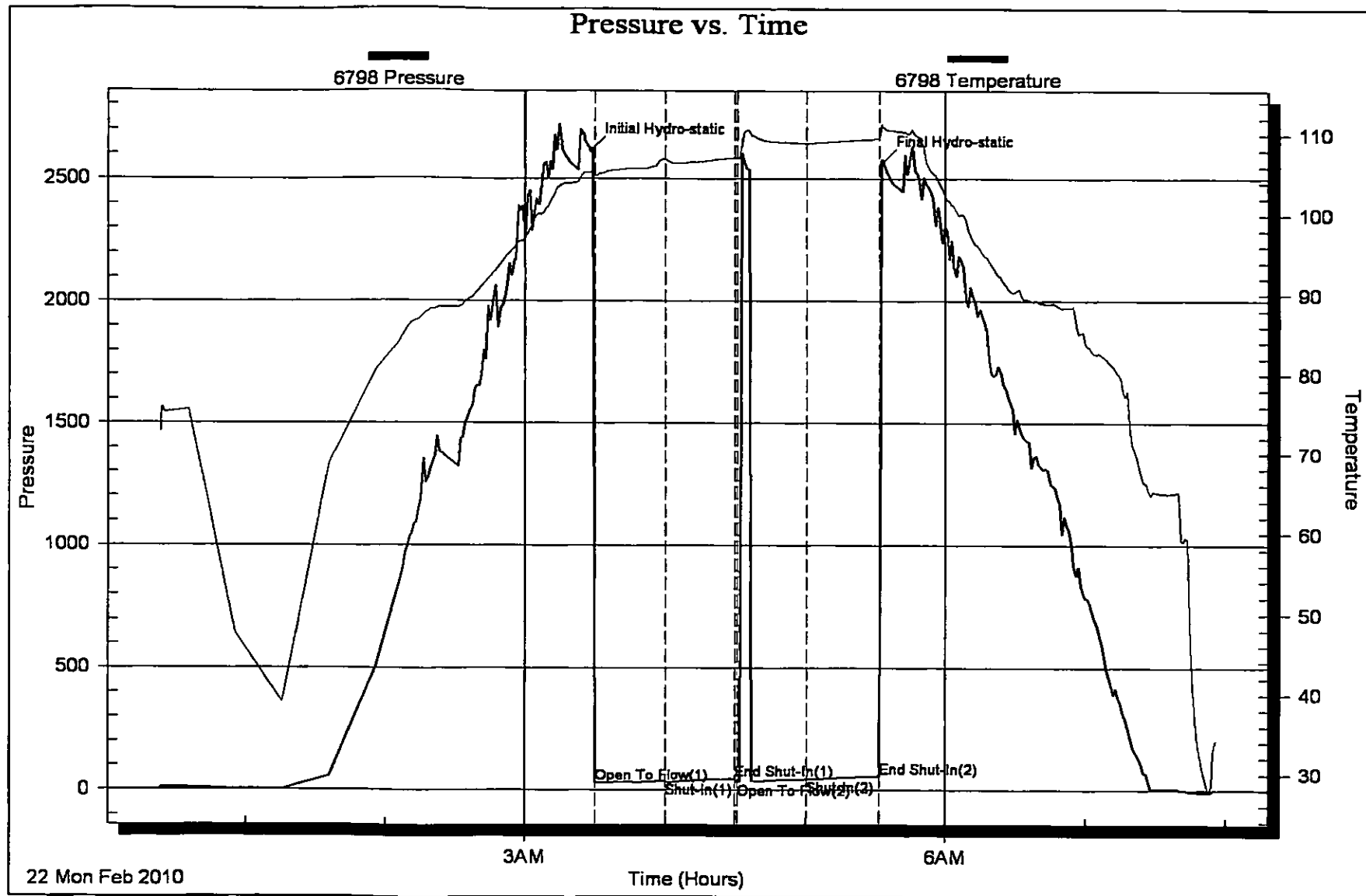
Num Gas Bombs: 0

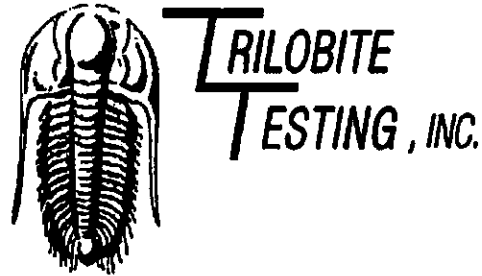
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc**

8100 E. 22nd St. N. # 700
Wichita, Kansas 67278

ATTN: Mike Engelbrecht

7-28s-23w Ford KS

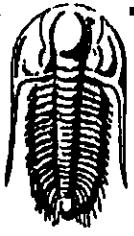
Zimmerman 7 CD # 1

Start Date: 2010.02.22 @ 18:52:28

End Date: 2010.02.23 @ 03:10:58

Job Ticket #: 35678 DST #: 3

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc
8100 E. 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

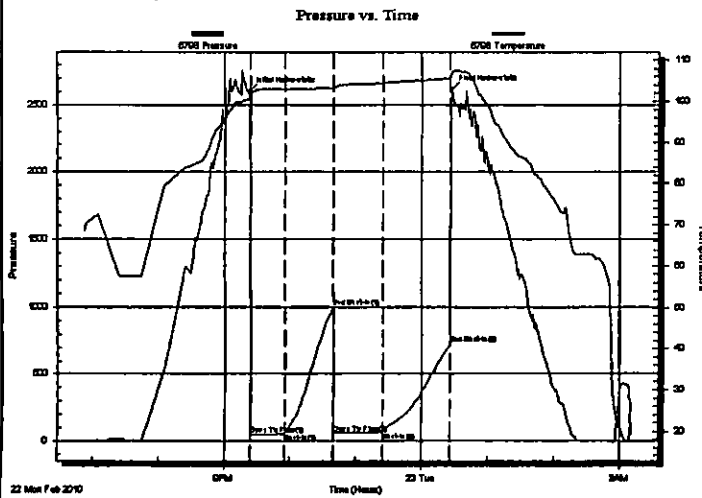
Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35678 DST#: 3
Test Start: 2010.02.22 @ 18:52:28

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: **No Whipstock:** ft (KB) Test Type: **Conventional Bottom Hole**
Time Tool Opened: **21:23:58** Tester: **Jerry Adams**
Time Test Ended: **03:10:58** Unit No: **45**
Interval: **5138.00 ft (KB) To 5193.00 ft (KB) (TVD)** Reference Elevations: **2547.00 ft (KB)**
Total Depth: **5193.00 ft (KB) (TVD)** **2535.00 ft (CF)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **12.00 ft**

Serial #: 6798 Inside
Press@RunDepth: **67.53 psig @ 5144.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2010.02.22** End Date: **2010.02.23** Last Calib.: **2010.02.23**
Start Time: **18:52:29** End Time: **03:10:58** Time On Btm: **2010.02.22 @ 21:22:28**
Time Off Btm: **2010.02.23 @ 00:27:28**

TEST COMMENT: IF:Weak blow . Built to 3 1/4".
IS:No blow .
FF:Weak blow . Built to 1/2".
FS:No blow .



PRESSURE SUMMARY

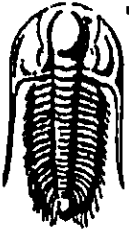
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2605.20	100.44	Initial Hydro-static
2	51.01	101.24	Open To Flow (1)
33	55.73	103.10	Shut-In(1)
77	996.17	103.39	End Shut-In(1)
78	62.24	103.36	Open To Flow (2)
123	67.53	104.55	Shut-In(2)
184	723.53	105.68	End Shut-In(2)
185	2620.63	107.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	Drilling Mud 100% m	1.12

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc
8100 E. 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35678 DST#: 3
Test Start: 2010.02.22 @ 18:52:28

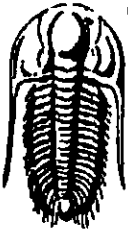
Tool Information

Drill Pipe:	Length: 5130.00 ft	Diameter: 3.80 inches	Volume: 71.96 bbl	Tool Weight: 2500.00 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: 95000.00 lb
			<u>Total Volume: 71.96 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 67000.00 lb
Depth to Top Packer:	5138.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:
Tool slid 2' to bottom.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5115.00	
Hydraulic tool	5.00			5120.00	
Jars	5.00			5125.00	
Safety Joint	3.00			5128.00	
Packer	5.00			5133.00	28.00 Bottom Of Top Packer
Packer	5.00			5138.00	
Stubb	1.00			5139.00	
Perforations	4.00			5143.00	
Change Over Sub	1.00			5144.00	
Recorder	0.00	6798	Inside	5144.00	
Recorder	0.00	8367	Outside	5144.00	
Blank Spacing	30.00			5174.00	
Change Over Sub	1.00			5175.00	
Perforations	15.00			5190.00	
Bullnose	3.00			5193.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc
8100 E 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35678 DST#: 3
Test Start: 2010.02.22 @ 18:52:28

Mud and Cushion Information

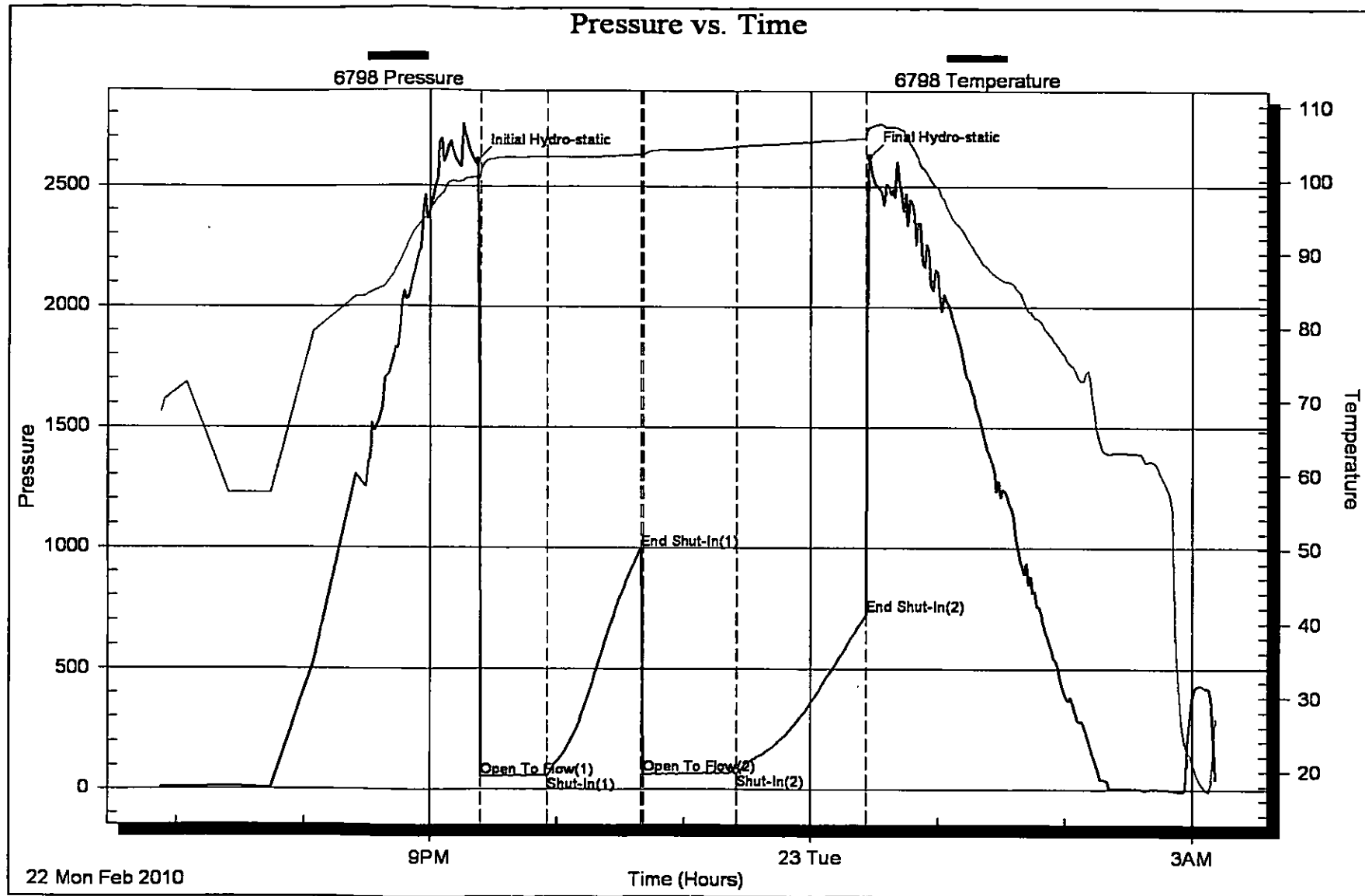
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 73.00 sec/qt	Cushion Volume: bbl		
Water Loss: 14.75 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 12000.00 ppm			
Filter Cake: 0.20 inches			

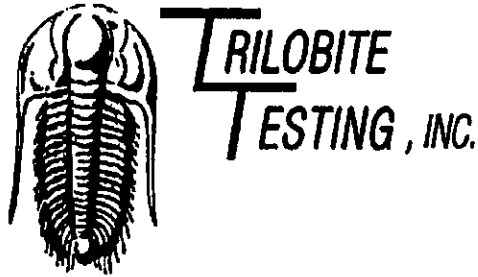
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	Drilling Mud 100% _m	1.122

Total Length: 80.00 ft Total Volume: 1.122 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc**

8100 E. 22nd St. N. # 700
Wichita, Kansas 67278

ATTN: Mike Engelbrecht

7-28s-23w Ford KS

Zimmerman 7 CD # 1

Start Date: 2010.02.23 @ 12:07:55

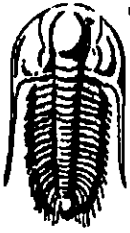
End Date: 2010.02.23 @ 19:40:55

Job Ticket #: 35679 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc
8100 E 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

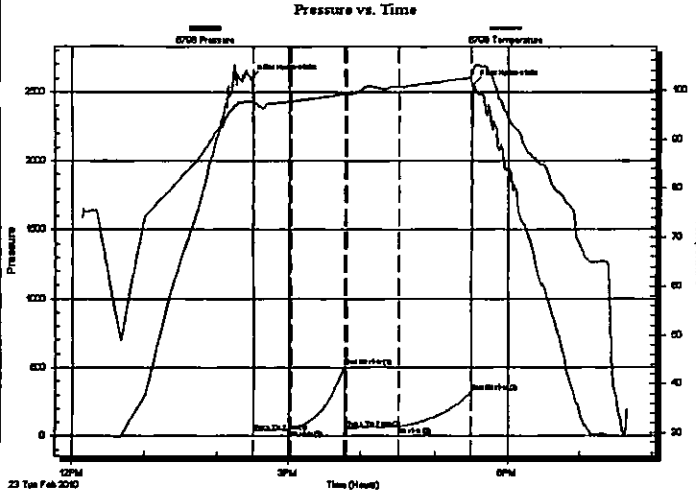
Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35679 DST#: 4
Test Start: 2010.02.23 @ 12:07:55

GENERAL INFORMATION:

Formation: **Morrow**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 14:29:55
 Time Test Ended: 19:40:55
 Interval: **5140.00 ft (KB) To 5206.00 ft (KB) (TVD)**
 Total Depth: **5206.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**
 Test Type: **Conventional Bottom Hole**
 Tester: **Jerry Adams**
 Unit No: **45**
 Reference Elevations: **2547.00 ft (KB)**
2535.00 ft (CF)
 KB to GR/CF: **12.00 ft**

Serial #: 6798 Inside
 Press@RunDepth: **65.94 psig @ 5145.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2010.02.23** End Date: **2010.02.23** Last Calib.: **2010.02.23**
 Start Time: **12:07:56** End Time: **19:40:55** Time On Btm: **2010.02.23 @ 14:27:55**
 Time Off Btm: **2010.02.23 @ 17:31:25**

TEST COMMENT: IF:Weak blow . Built to 4".
 IS:No blow .
 FF:Weak blow . Built to 1 3/4".
 FS:No blow .



PRESSURE SUMMARY

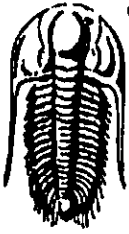
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2594.92	97.70	Initial Hydro-static
2	33.99	97.25	Open To Flow (1)
33	46.99	97.64	Shut-In(1)
78	505.52	99.28	End Shut-In(1)
80	53.82	99.15	Open To Flow (2)
123	65.94	100.54	Shut-In(2)
182	319.11	102.61	End Shut-In(2)
184	2553.41	103.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	Drilling Mud w / oil scum 100%rn	1.12

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc
8100 E 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35679 DST#: 4
Test Start: 2010.02.23 @ 12:07:55

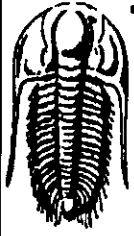
Tool Information

Drill Pipe:	Length: 5128.00 ft	Diameter: 3.80 inches	Volume: 71.93 bbl	Tool Weight: 2500.00 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: 100000.0 lb
			<u>Total Volume: 71.93 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	5140.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5117.00	
Hydraulic tool	5.00			5122.00	
Jars	5.00			5127.00	
Safety Joint	3.00			5130.00	
Packer	5.00			5135.00	28.00 Bottom Of Top Packer
Packer	5.00			5140.00	
Stubb	1.00			5141.00	
Perforations	3.00			5144.00	
Change Over Sub	1.00			5145.00	
Recorder	0.00	6798	Inside	5145.00	
Recorder	0.00	8367	Outside	5145.00	
Blank Spacing	32.00			5177.00	
Change Over Sub	1.00			5178.00	
Perforations	25.00			5203.00	
Bullnose	3.00			5206.00	66.00 Bottom Packers & Anchor

Total Tool Length: 94.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc
8100 E 22nd St. N. # 700
Wichita, Kansas 67278
ATTN: Mike Engelbrecht

Zimmerman 7 CD # 1
7-28s-23w Ford KS
Job Ticket: 35679 DST#: 4
Test Start: 2010.02.23 @ 12:07:55

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil APt	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.37 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 11100.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	Drilling Mud w / oil scum 100% _m	1.122

Total Length: 80.00 ft Total Volume: 1.122 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

