

TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Charles N. Griffin**

P.O.Box 670
Byers, Colorado 80103

ATTN: Mac Armstrong

15-077-21664

26-34s-9w Harper KS

Koblitz # 2

Start Date: 2009.12.29 @ 05:22:33

End Date: 2009.12.29 @ 10:45:33

Job Ticket #: 35658

DST #: 1

NENE NW

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

RECEIVED
KANSAS CORPORATION COMMISSION

MAR 25 2010

CONSERVATION DIVISION
WICHITA, KS


**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Charles N. Griffin
P.O.Box 670
Byers, Colorado 80103
ATTN: Mac Armstrong

Koblitz # 2
26-34s-9w Harper KS
Job Ticket: 35658 DST#: 1
Test Start: 2009.12.29 @ 05:22:33

GENERAL INFORMATION:

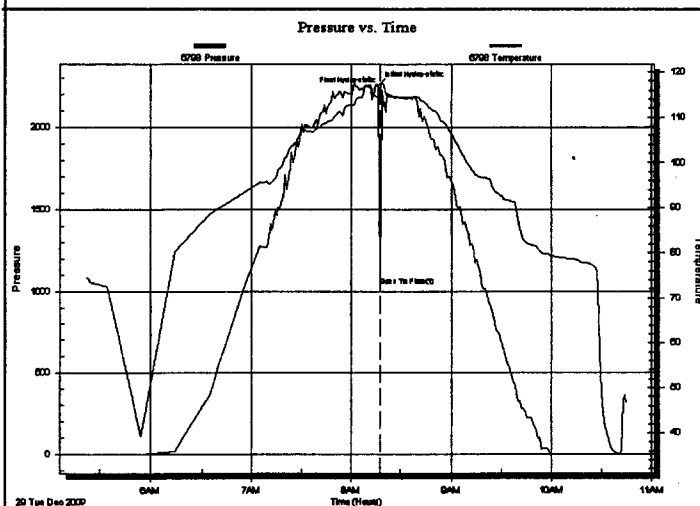
Formation: **Mississippi**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 08:18:03
Time Test Ended: 10:45:33
Interval: **4590.00 ft (KB) To 4650.00 ft (KB) (TVD)**
Total Depth: **4650.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **Jerry Adams**
Unit No: **45**
Reference Elevations: **1289.00 ft (KB)**
1274.00 ft (CF)
KB to GR/CF: **15.00 ft**

Serial #: 6798

Inside

Press@RunDepth: psig @ **4597.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2009.12.29** End Date: **2009.12.29** Last Calib.: **2009.12.29**
Start Time: **05:22:34** End Time: **10:45:33** Time On Btm: **2009.12.29 @ 08:16:33**
Time Off Btm: **2009.12.29 @ 08:19:03**

TEST COMMENT: IF: Hit bridge 20 feet off bottom, tried to push thru bridge, no packer seat. Tried two more times and got to within 15 feet from bottom, tool opened, no packer seat. Came out of hole to recondition.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2253.76	114.44	Initial Hydro-static
2	1032.06	116.31	Open To Flow (1)
3	2218.57	117.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
550.00	Drilling Mud 100% m	7.72

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charles N. Griffin

Koblitz # 2

P.O.Box 670
Byers, Colorado 80103

26-34s-9w Harper KS

Job Ticket: 35658

DST#: 1

ATTN: Mac Armstrong

Test Start: 2009.12.29 @ 05:22:33

Tool Information

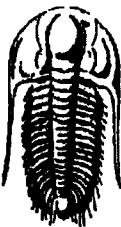
Drill Pipe:	Length: 4584.00 ft	Diameter: 3.80 inches	Volume: 64.30 bbl	Tool Weight:	2700.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	64.30 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4590.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	91.00 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			4564.00	
Sampler	3.00			4567.00	
Hydraulic tool	5.00			4572.00	
Jars	5.00			4577.00	
Safety Joint	3.00			4580.00	
Packer	5.00			4585.00	31.00 Bottom Of Top Packer
Packer	5.00			4590.00	
Stubb	1.00			4591.00	
Perforations	5.00			4596.00	
Change Over Sub	1.00			4597.00	
Recorder	0.00	6798	Inside	4597.00	
Recorder	0.00	8367	Inside	4597.00	
Blank Spacing	32.00			4629.00	
Change Over Sub	1.00			4630.00	
Perforations	17.00			4647.00	
Bullnose	3.00			4650.00	60.00 Bottom Packers & Anchor
Total Tool Length:	91.00				

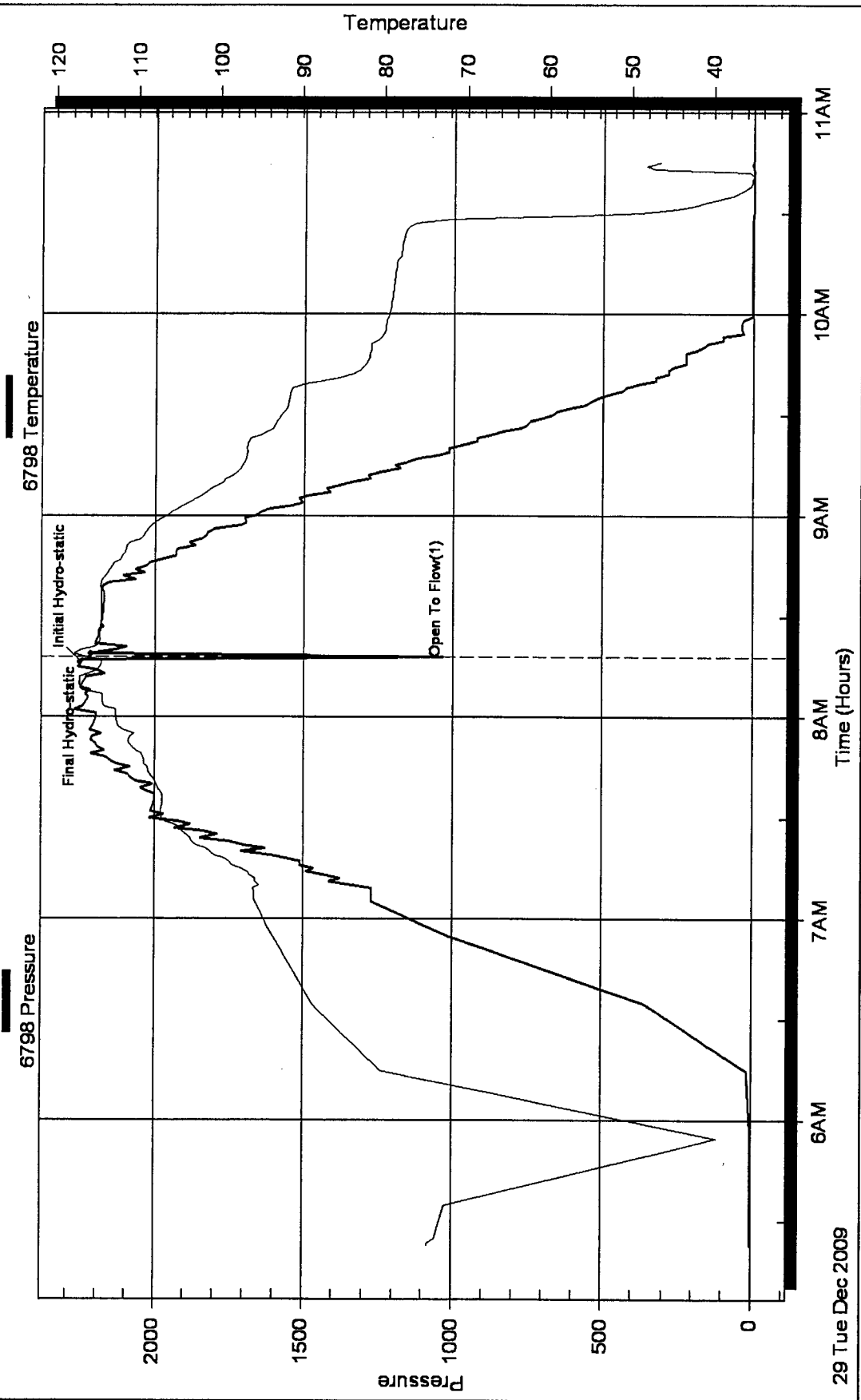
 TRILOBITE TESTING, INC	DRILL STEM TEST REPORT		FLUID SUMMARY
	Charles N. Griffin P.O.Box 670 Byers, Colorado 80103 ATTN: Mac Armstrong	Koblitz # 2 26-34s-9w Harper KS Job Ticket: 35658 DST#: 1 Test Start: 2009.12.29 @ 05:22:33	

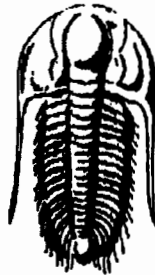
Mud and Cushion Information			
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.35 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 10500.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information		
Recovery Table		
Length ft	Description	Volume bbl
550.00	Drilling Mud 100% _m	7.715

Total Length: 550.00 ft Total Volume: 7.715 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments: Sampler Data:
 100mL Mud

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Charles N. Griffin**

P.O.Box 670
Byers, Colorado 80103

ATTN: Mac Armstrong

26-34s-9w Harper KS

Koblitz # 2

Start Date: 2009.12.29 @ 17:49:50

End Date: 2009.12.30 @ 01:55:20

Job Ticket #: 35659 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

Charles N. Griffin

Koblitz # 2

P.O.Box 670
Byers, Colorado 80103

26-34s-9w Harper KS

Job Ticket: 35659

DST#: 2

ATTN: Mac Armstrong

Test Start: 2009.12.29 @ 17:49:50

GENERAL INFORMATION:

Formation: Mississippi

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:04:20

Time Test Ended: 01:55:20

Test Type: Conventional Bottom Hole

Tester: Jerry Adams

Unit No: 45

Interval: 4590.00 ft (KB) To 4650.00 ft (KB) (TVD)

Total Depth: 4650.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1289.00 ft (KB)

1274.00 ft (CF)

KB to GR/CF: 15.00 ft

Serial #: 6798

Inside

Press@RunDepth: 120.59 psig @ 4597.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2009.12.29

End Date:

2009.12.30

Last Calib.: 2009.12.30

Start Time: 17:49:51

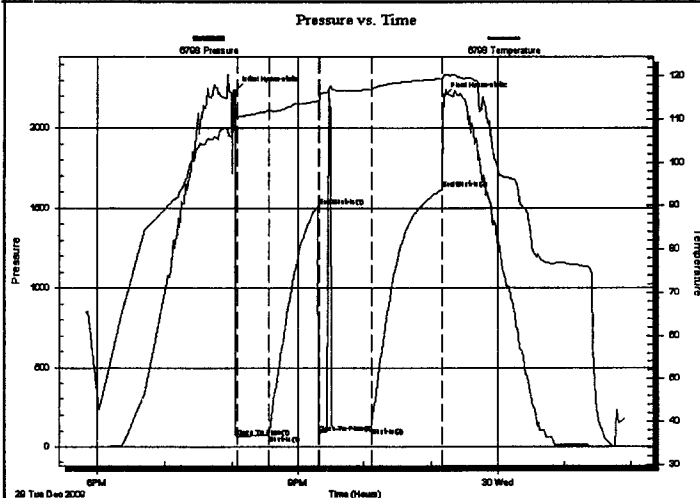
End Time:

01:55:20

Time On Btm: 2009.12.29 @ 20:02:20

Time Off Btm: 2009.12.29 @ 23:10:50

TEST COMMENT: IF: First set: Tool opened and packers failed, still 15 feet off bottom. Second set: Strong blow. B.O.B. in 1 min, 15 secs. IS: No blow. FF: Strong blow. B.O.B. immediately. GTS in 23 mins. (see gas flow)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.59	110.34	Initial Hydro-static
2	59.05	110.45	Open To Flow (1)
31	75.24	112.00	Shut-In(1)
76	1511.50	114.17	End Shut-In(1)
78	87.03	114.69	Open To Flow (2)
124	120.59	116.89	Shut-In(2)
187	1616.22	119.31	End Shut-In(2)
189	2202.24	120.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	SGCM 2%g 98%m	0.56
180.00	GCMw/oil scum 20%g 80%m	2.52
0.00	4364' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	1.00	5.76
Last Gas Rate	0.13	1.00	5.76
Max. Gas Rate	0.13	1.00	5.76



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charles N. Griffin

Koblitz # 2

P.O.Box 670
Byers, Colorado 80103

26-34s-9w Harper KS

Job Ticket: 35659

DST#: 2

ATTN: Mac Armstrong

Test Start: 2009.12.29 @ 17:49:50

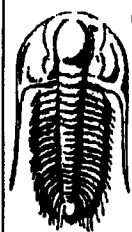
Tool Information

Drill Pipe:	Length: 4584.00 ft	Diameter: 3.80 inches	Volume: 64.30 bbl	Tool Weight: 2700.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume: 64.30 bbl		Tool Chased 15.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4590.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	91.00 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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Shut In Tool	5.00			4564.00	
Sampler	3.00			4567.00	
Hydraulic tool	5.00			4572.00	
Jars	5.00			4577.00	
Safety Joint	3.00			4580.00	
Packer	5.00			4585.00	31.00 Bottom Of Top Packer
Packer	5.00			4590.00	
Stubb	1.00			4591.00	
Perforations	5.00			4596.00	
Change Over Sub	1.00			4597.00	
Recorder	0.00	6798	Inside	4597.00	
Recorder	0.00	8367	Inside	4597.00	
Blank Spacing	32.00			4629.00	
Change Over Sub	1.00			4630.00	
Perforations	17.00			4647.00	
Bullnose	3.00			4650.00	60.00 Bottom Packers & Anchor
Total Tool Length:	91.00				


**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charles N. Griffin

Koblitz # 2

P.O.Box 670
Byers, Colorado 80103

26-34s-9w Harper KS

Job Ticket: 35659

DST#: 2

ATTN: Mac Armstrong

Test Start: 2009.12.29 @ 17:49:50

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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.16 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 13500.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	SGCM 2%g 98%m	0.561
180.00	GCM w/oil scum 20%g 80%m	2.525
0.00	4364' GP	0.000

Total Length: 220.00 ft Total Volume: 3.086 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data:

Pressure: 1300 psi



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Charles N. Griffin

Koblitz # 2

P.O.Box 670
Byers, Colorado 80103

26-34s-9w Harper KS

Job Ticket: 35659

DST#: 2

ATTN: Mac Armstrong

Test Start: 2009.12.29 @ 17:49:50

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 ³ /d)
2	30	0.13	1.00	5.76
2	30	0.13	1.00	5.76
2	40	0.13	1.00	5.76

DST Test Number: 2

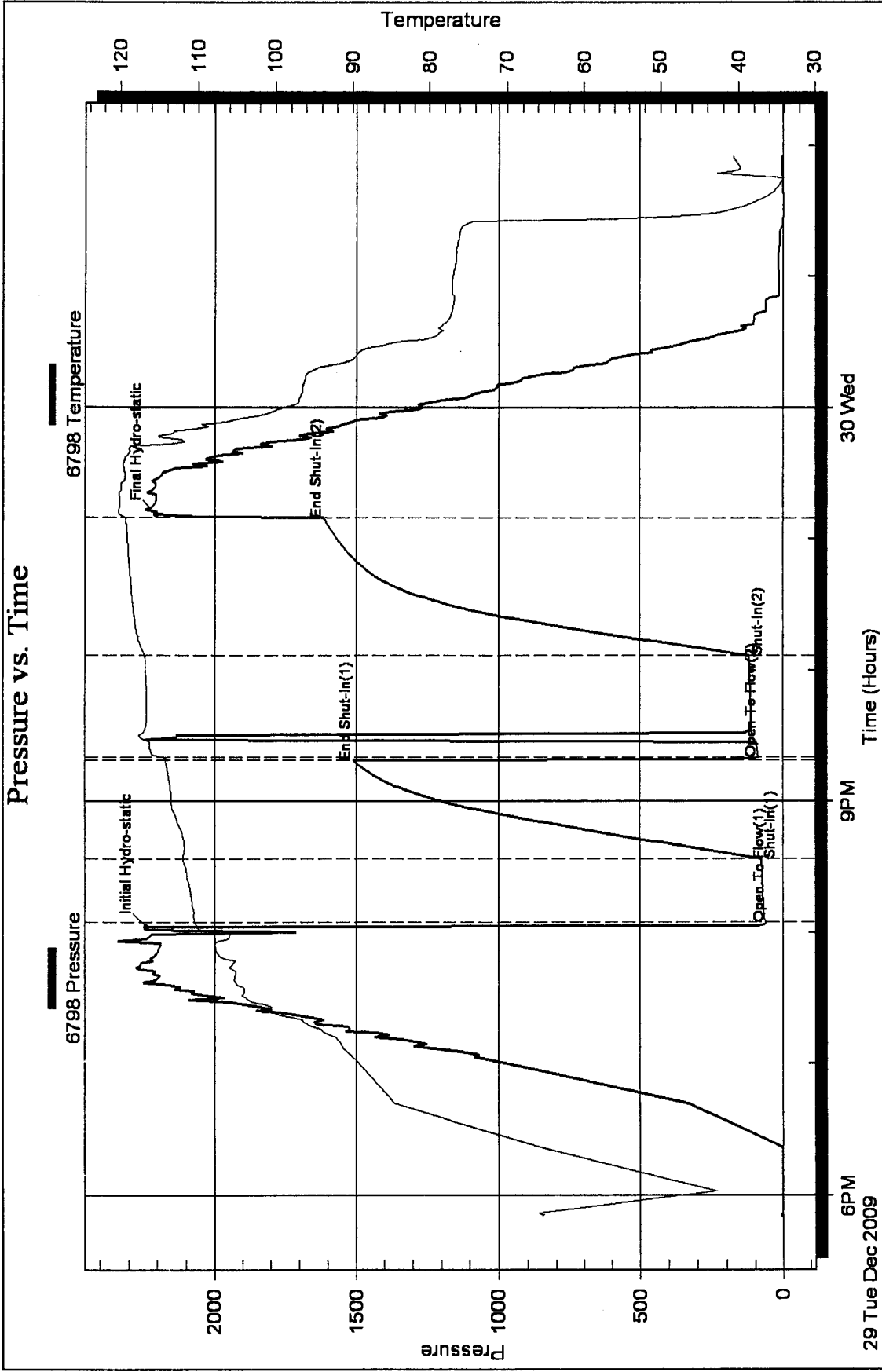
26-34s-9w Harper KS

Charles N. Griffin

Inside

Serial #: 6798

Pressure vs. Time

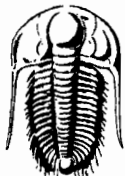


Ref. No: 35659

Trilobite Testing, Inc

Printed: 2010.01.07 @ 20:27:22 Page 6

206101



10/08

**TRILOBITE
TESTING INC.**

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
JAN 04 2010**Test Ticket**

NO. 35658 / 13765

BY: _____

Well Name & No. Koblitz #2 Test No. 1 Date 12-29-09
 Company Charles N. Griffin Elevation 1289 KB 1274 GL
 Address P.O. Box 670 Byers, Colorado 80103
 Co. Rep / Geo. Mac Armstrong Rig Duke Drig. #10
 Location: Sec. 26 Twp. 34s Rge. 9w Co. Harper State K.S.

Interval Tested 4590-4650 Zone Tested Mississippi
 Anchor Length 60' Drill Pipe Run 4584' Mud Wt. 9.2
 Top Packer Depth 4585 Drill Collars Run 0 Vis 45
 Bottom Packer Depth 4590 Wt. Pipe Run 0 WL 10.4
 Total Depth 4650 Chlorides 10,500 ppm System LCM 0

Blow Description IF: Hit bridge 20' off bottom, tried to push thru bridge, no packer seat. Tried two more times and got to within 15 feet off bottom, tool opened, no packer seat. Came out of hole to recondition.

Rec <u>550</u>	Feet of <u>Drilling Mud</u>	%gas	%oil	%water	<u>100</u> %mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 550 BHT N/A Gravity N/A API RW N/A @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2254
 (B) First Initial Flow 1032
 (C) First Final Flow N/A
 (D) Initial Shut-In N/A
 (E) Second Initial Flow N/A
 (F) Second Final Flow N/A
 (G) Final Shut-In N/A
 (H) Final Hydrostatic 2219

☒ Test 850 950
☒ Jars 250
☒ Safety Joint 75
☐ Circ Sub
☐ Hourly Standby
☒ Mileage 130 R.T.
☒ Sampler 250
☐ Straddle
☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 1655

T-On Location 0430
 T-Started 0522
 T-Open 0818
 T-Pulled 0830
 T-Out 1045
 Comments _____
☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 1655

Initial Open 2
 Initial Shut-In N/A
 Final Flow N/A
 Final Shut-In N/A

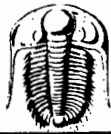
Approved By _____

Our Representative

Jerry Adams

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.

Thank You.



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 35658 Date 12-29-09
Company Name Charles N. Griffin
Lease Koblitz #2 Test No. 1
County Harper, Kansas Sec. 26 Twp. 34s Rng. 9w

SAMPLER RECOVERY

Gas N/A ML Chlorides 10,500 ppm.
Oil N/A ML Resistivity ohms @ F
Mud 100 mL ML Viscosity 45
Water N/A ML Mud Weight 9.2
Other N/A ML Filtrate 10.4
Pressure N/A ML Other
Total 100 ML

PIT MUD ANALYSIS

SAMPLER ANALYSIS

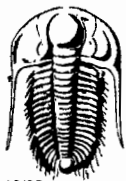
Resistivity ohms @ F
Chlorides ppm.
Gravity corrected @60F

PIPE RECOVERY

TOP
Resistivity ohms @ F
Chlorides 550' Drlg Mud ppm.

MIDDLE
Resistivity ohms @ F
Chlorides ppm.

BOTTOM
Resistivity ohms @ F
Chlorides ppm.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
JAN 04 2010

Test Ticket

NO. 35659

10/08

BY:

Well Name & No. <u>Koblitz #2</u>	Test No. <u>2</u>	Date <u>12-29-09</u>
Company <u>Charles N. Griffin</u>	Elevation <u>1289</u>	KB <u>1274</u> GL
Address <u>P.O. Box 670 Byers, Colorado 80103</u>		
Co. Rep / Geo. <u>Mac Armstrong</u>	Rig <u>Duke Drlg. #10</u>	
Location: Sec. <u>26</u> Twp. <u>34S</u> Rge. <u>9W</u>	Co. <u>Harper</u>	State <u>Ks.</u>

Interval Tested <u>4590-4650</u>	Zone Tested <u>Mississippi</u>
Anchor Length <u>60'</u>	Drill Pipe Run <u>4584</u> Mud Wt. <u>8.7</u>
Top Packer Depth <u>4585</u>	Drill Collars Run <u>0</u> Vis <u>47</u>
Bottom Packer Depth <u>4590</u>	Wt. Pipe Run <u>0</u> WL <u>11.2</u>
Total Depth <u>4650</u>	Chlorides <u>13,500</u> ppm System LCM <u>0</u>

Blow Description IF! First set: Tool opened and packers failed, still 15' off bottom.
Second set: Strong blow. B.O.B. in tmin. 15secs.
ISI: No blow. FF! Strong blow. B.O.B. immediately. GTS in 23 mins.
(see gas flow report.) Tool finally slid the 15' to bottom. FSI: No blow.

Rec <u>40</u>	Feet of <u>SGCM</u>	<u>2</u> %gas	%oil	%water <u>98</u>	%mud
Rec <u>180</u>	Feet of <u>GCM w/oil/SCM</u>	<u>20</u> %gas	%oil	%water <u>80</u>	%mud
Rec <u>0</u>	Feet of <u>4364' G.I.P</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 220 BHT 119 Gravity N/C API RW N/A @ — °F Chlorides — ppm

(A) Initial Hydrostatic	<u>2237</u>
(B) First Initial Flow	<u>59</u>
(C) First Final Flow	<u>75</u>
(D) Initial Shut-In	<u>1512</u>
(E) Second Initial Flow	<u>87</u>
(F) Second Final Flow	<u>121</u>
(G) Final Shut-In	<u>1616</u>
(H) Final Hydrostatic	<u>2202</u>

☒ Test	<u>1150</u>
☒ Jars	<u>250</u>
☒ Safety Joint	<u>75</u>
☐ Circ Sub	
☐ Hourly Standby	
☒ Mileage	<u>130 R.T.</u>
☒ Sampler	<u>250</u>
☐ Straddle	
☐ Shale Packer	
☐ Extra Packer	
☐ Extra Recorder	
☐ Day Standby	
☐ Accessibility	

T-On Location	<u>1600</u>
T-Started	<u>1749</u>
T-Open	<u>2004</u>
T-Pulled	<u>2310</u>
T-Out	<u>0155</u>

Comments

Initial Open	<u>30</u>
Initial Shut-In	<u>45</u>
Final Flow	<u>45</u>
Final Shut-In	<u>60</u>

☐ Ruined Shale Packer	
☐ Ruined Packer	
☐ Extra Copies	
Sub Total	<u>0</u>
Total	<u>1855</u>

Sub Total 1855

Approved By Martin M. Amity

Our Representative

Gerry Adams

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Thank You.



GAS VOLUME REPORT

Koblitz #2

2
OST NO.

Remarks:



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 35659 Date 12-29-09
Company Name Charles N. Griffin Cont. Duke Dalg. #10
Lease Koblitz #2 Test No. 2
County Harper, Kansas Sec. 26 Twp. 34s Rng. 9W

SAMPLER RECOVERY

Gas 100 ML Chlorides 13,500 ppm.
Oil 50.0m ML Resistivity ohms @ F
Mud 300 ML Viscosity 47
Water N/A ML Mud Weight 8.7
Other N/A ML Filtrate 11.2
Pressure 1300 psi ML Other None
Total 400 ML

PIT MUD ANALYSIS

SAMPLER ANALYSIS

Resistivity ohms @ F
Chlorides ppm.
Gravity corrected @60F

PIPE RECOVERY

TOP
Resistivity ohms @ F
Chlorides 40' 56cm ppm.

MIDDLE
Resistivity ohms @ F
Chlorides 180' 6cm w/oil 50cm ppm.

BOTTOM
Resistivity ohms @ F
Chlorides ppm.