

DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper. Corp. LLC**

125 N. Market
Suite 1000
Wichita, KS 67202

ATTN: Roger Martin

30-33s-10w

Vogel #1

Start Date: 2005.01.27 @ 14:42:26

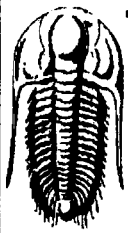
End Date: 2005.01.28 @ 02:17:26

Job Ticket #: 21855 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Woolsey Oper. Corp. LLC

125 N. Market
Suite 1000
Wichita, KS 67202
ATTN: Roger Martin

Vogel #1

30-33s-10w

Job Ticket: 21855

DST#: 1

Test Start: 2005.01.27 @ 14:42:26

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 17:44:41

Time Test Ended: 02:17:26

Test Type: **Conventional Bottom Hole**

Tester: **Davy Cline**

Unit No: **24**

Interval: **4547.00 ft (KB) To 4640.00 ft (KB) (TVD)**

Total Depth: **4640.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1508.00 ft (KB)**

1497.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: **77.55 psig @ 4556.00 ft (KB)**

Start Date: **2005.01.27**

End Date:

2005.01.28

Start Time: **14:42:31**

End Time:

02:17:26

Capacity: **7000.00 psig**

Last Calib.: **2005.01.28**

Time On Btm: **2005.01.27 @ 17:38:26**

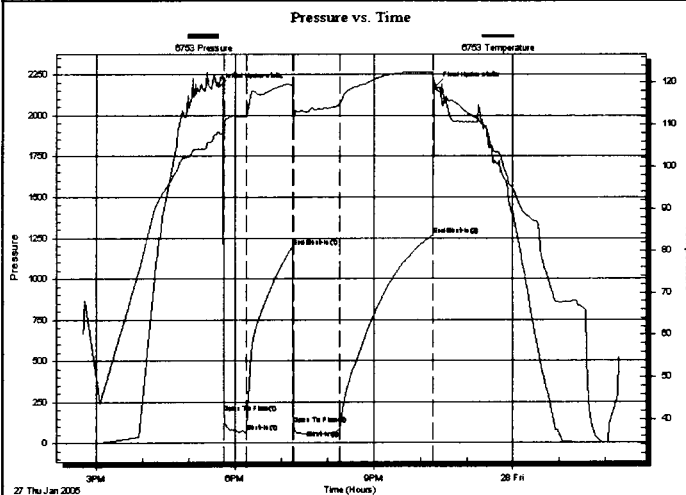
Time Off Btm: **2005.01.27 @ 22:19:26**

TEST COMMENT: IF: Strong blow. BOB 30 sec. GTS 4min 30sec. Gauged gas.

IS: Bled off for 5 min. No blow.

FF: Strong blow. BOB 5 sec. Gauged gas.

FS: Bled off for 5 min. No blow.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2176.93	108.33	Initial Hydro-static
7	183.10	107.36	Open To Flow (1)
37	66.89	111.91	Shut-In(1)
97	1196.71	119.42	End Shut-In(1)
98	115.49	106.42	Open To Flow (2)
158	77.55	115.07	Shut-In(2)
279	1267.81	122.36	End Shut-In(2)
281	2178.49	118.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	GCM 5%g 95% m	0.72
0.00	4555' GIP	0.00
0.00		0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	9.50	161.22
Last Gas Rate			
Max. Gas Rate	0.13	10.00	9.13



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper. Corp. LLC

Vogel #1

125 N. Market

30-33s-10w

Suite 1000

Job Ticket: 21855

DST#: 1

Wichita, KS 67202

Test Start: 2005.01.27 @ 14:42:26

ATTN: Roger Martin

Tool Information

Drill Pipe:	Length: 4555.00 ft	Diameter: 3.25 inches	Volume: 46.74 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 69000.00 lb
			Total Volume: 46.74 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	37.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	4547.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	122.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4519.00	
Shut In Tool	5.00			4524.00	
Hydraulic tool	5.00			4529.00	
Jars	5.00			4534.00	
Safety Joint	3.00			4537.00	
Packer	5.00			4542.00	29.00 Bottom Of Top Packer
Packer	5.00			4547.00	
Stubb	1.00			4548.00	
Perforations	8.00			4556.00	
Recorder	0.00	6753	Inside	4556.00	
Change Over Sub	1.00			4557.00	
Blank Spacing	61.00			4618.00	
Change Over Sub	1.00			4619.00	
Perforations	18.00			4637.00	
Recorder	0.00	10330	Outside	4637.00	
Bullnose	3.00			4640.00	93.00 Bottom Packers & Anchor
Total Tool Length:		122.00			



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper. Corp. LLC

Vogel #1

125 N. Market

30-33s-10w

Suite 1000

Job Ticket: 21855

DST#: 1

Wichita, KS 67202

Test Start: 2005.01.27 @ 14:42:26

ATTN: Roger Martin

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: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	GCM 5%g 95%m	0.718
0.00	4555' GP	0.000
0.00		0.000

Total Length: 70.00 ft

Total Volume: 0.718 bbl

Num Fluid Samples: 1

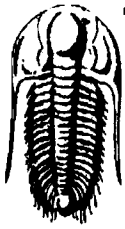
Num Gas Bombs: 0

Serial #: DC-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Woolsey Oper. Corp. LLC

Vogel #1

125 N. Market

30-33s-10w

Suite 1000

Job Ticket: 21855

DST#: 1

Wichita, KS 67202

Test Start: 2005.01.27 @ 14:42:26

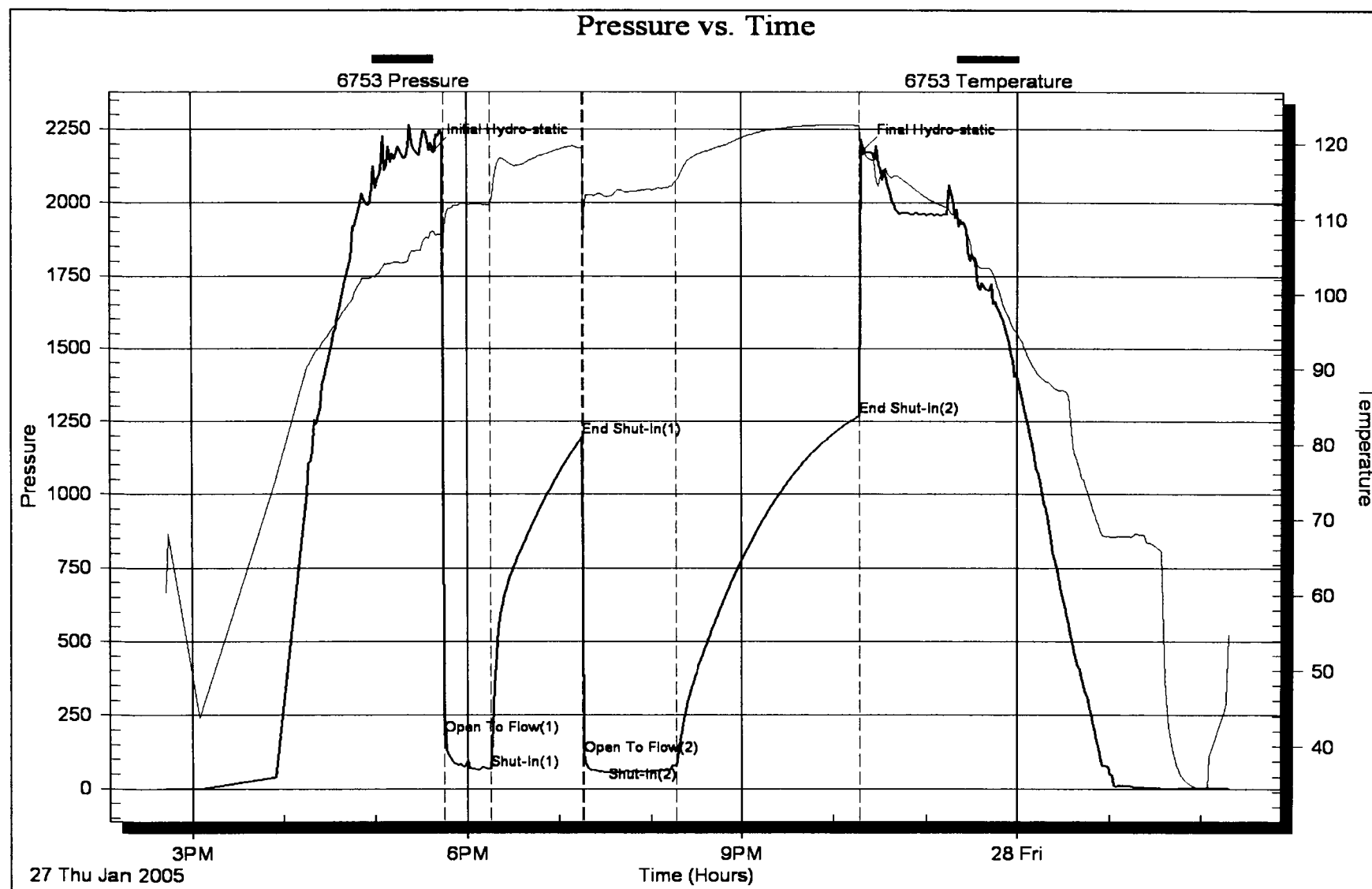
ATTN: Roger Martin

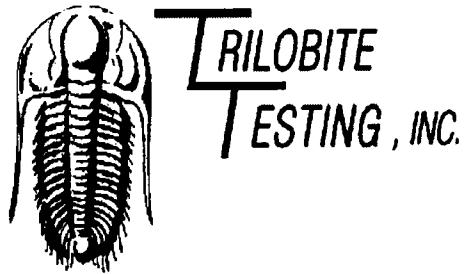
Gas Rates Information

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 (m³/d)
1	10	0.50	9.50	161.22
1	20	0.50	3.00	117.38
1	25	0.25	4.00	29.19
1	30	0.25	3.00	27.60
2	10	0.13	10.00	9.13
2	20	0.13	3.00	6.51
0	0	-999999.00	-999999.00	-999999.00





DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper. Corp. LLC**

125 N. Market
Suite 1000
Wichita, KS 67202

ATTN: Roger Martin

30-33s-10w

Vogel #1

Start Date: 2005.01.28 @ 12:59:10

End Date: 2005.01.28 @ 22:36:55

Job Ticket #: 21856 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Oper. Corp. LLC

125 N. Market
Suite 1000
Wichita, KS 67202
ATTN: Roger Martin

Vogel #1

30-33s-10w

Job Ticket: 21856

DST#: 2

Test Start: 2005.01.28 @ 12:59:10

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 15:05:40

Time Test Ended: 22:36:55

Test Type: **Conventional Bottom Hole**

Tester: **Davy Cline**

Unit No: **24**

Interval: **4632.00 ft (KB) To 4687.00 ft (KB) (TVD)**

Total Depth: **4640.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **1508.00 ft (KB)**

1497.00 ft (CF)

KB to GR/CF: **11.00 ft**

Serial #: 6753

Inside

Press@RunDepth: **50.83 psig @ 4638.00 ft (KB)**

Start Date: **2005.01.28**

End Date:

2005.01.28

Capacity: **7000.00 psig**

Last Calib.: **2005.01.28**

Start Time: **12:59:15**

End Time:

22:36:55

Time On Btm: **2005.01.28 @ 15:04:55**

Time Off Btm: **2005.01.28 @ 19:46:25**

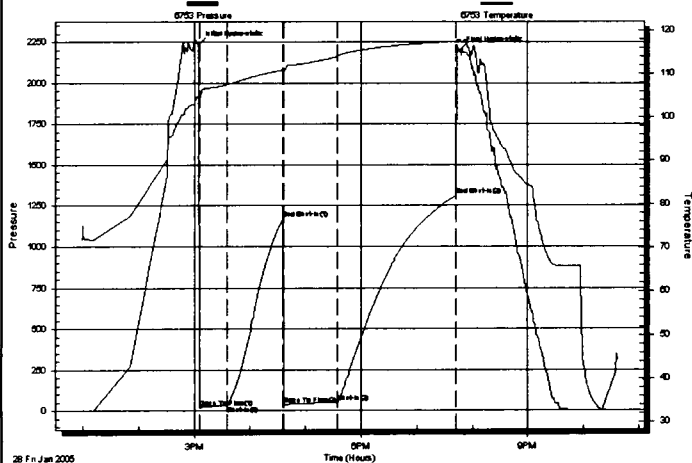
TEST COMMENT: **IF: Strong blow . BOB 6min 30sec.**

IS: Bled off for 5 min. No blow .

FF: Strong blow . BOB 40sec.

FS: Bled off for 5 min. No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2234.95	104.74	Initial Hydro-static
1	20.28	104.18	Open To Flow (1)
31	33.40	107.49	Shut-In(1)
91	1167.58	110.84	End Shut-In(1)
92	37.51	110.58	Open To Flow (2)
150	50.83	114.08	Shut-In(2)
278	1309.75	117.31	End Shut-In(2)
282	2195.03	117.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	SI GCWD w/ oil specs 5%g 35%w 60%0.77	
0.00	4050' GIP	0.00
0.00		0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper. Corp. LLC

Vogel #1

125 N. Market
Suite 1000
Wichita, KS 67202
ATTN: Roger Martin

30-33s-10w

Job Ticket: 21856

DST#: 2

Test Start: 2005.01.28 @ 12:59:10

Tool Information

Drill Pipe:	Length: 4616.00 ft	Diameter: 3.25 inches	Volume: 47.36 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 84000.00 lb
			Total Volume: 47.36 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4632.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	84.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4604.00	
Shut In Tool	5.00			4609.00	
Hydraulic tool	5.00			4614.00	
Jars	5.00			4619.00	
Safety Joint	3.00			4622.00	
Packer	5.00			4627.00	29.00 Bottom Of Top Packer
Packer	5.00			4632.00	
Stubb	1.00			4633.00	
Perforations	5.00			4638.00	
Recorder	0.00	6753	Inside	4638.00	
Change Over Sub	1.00			4639.00	
Blank Spacing	32.00			4671.00	
Change Over Sub	1.00			4672.00	
Perforations	12.00			4684.00	
Recorder	0.00	10330	Outside	4684.00	
Bullnose	3.00			4687.00	55.00 Bottom Packers & Anchor
Total Tool Length:		84.00			



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DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper. Corp. LLC

Vogel #1

125 N. Market

30-33s-10w

Suite 1000

Job Ticket: 21856

DST#: 2

Wichita, KS 67202

Test Start: 2005.01.28 @ 12:59:10

ATTN: Roger Martin

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:

38000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	SI GCMD w/ oil specs 5%g 35%w 60%m	0.770
0.00	4050' GIP	0.000
0.00		0.000

Total Length: 75.00 ft Total Volume: 0.770 bbl

Num Fluid Samples: 0

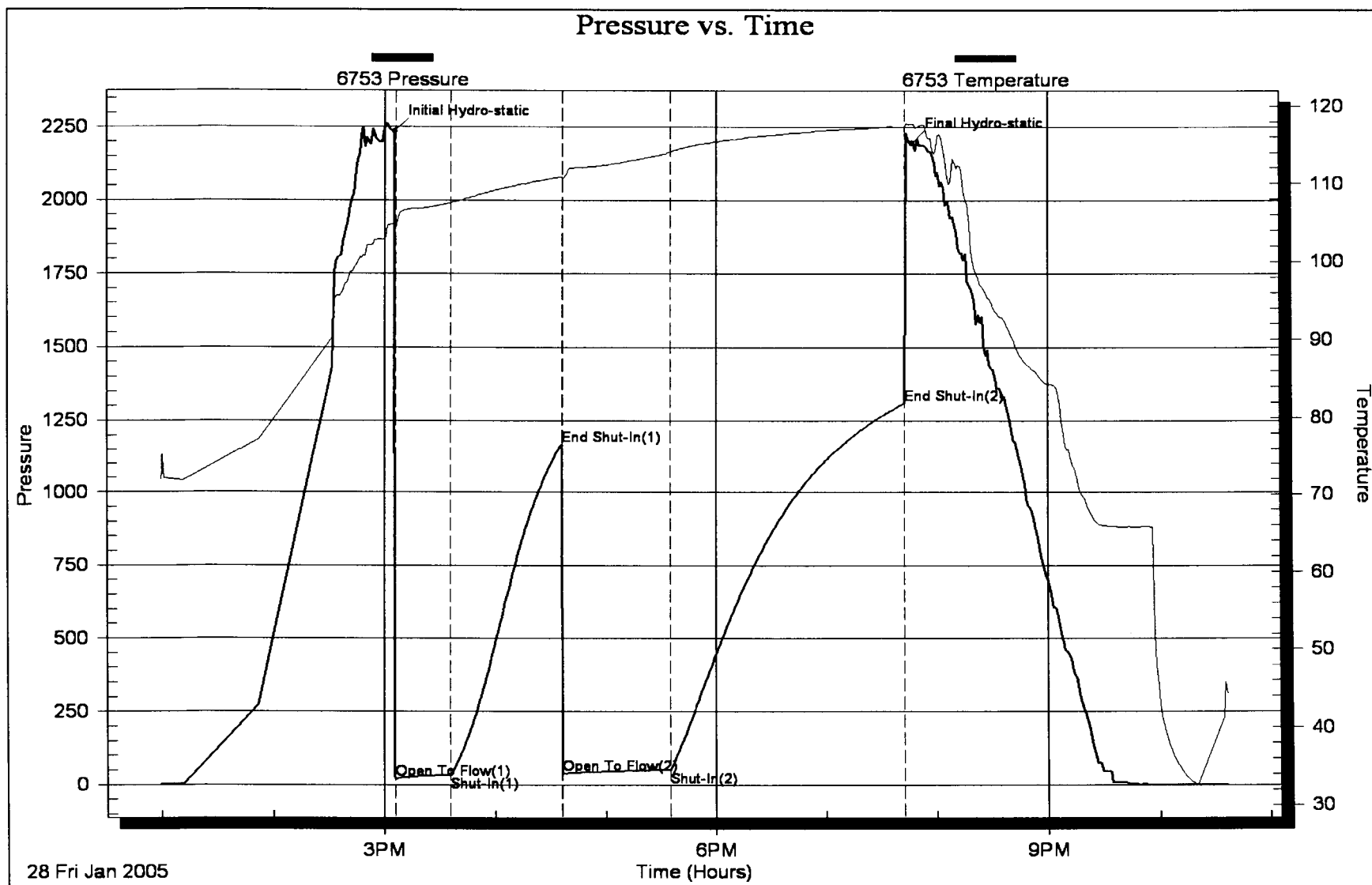
Num Gas Bombs: 0

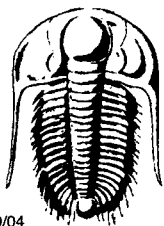
Serial #: N/A

Laboratory Name:

Laboratory Location:

Recovery Comments: Recovery water- 55 deg. @ .22 ohms





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

TWV
7154

No 21855

9/04

Test Ticket

Well Name & No. <u>Vogel #1</u>	Test No. <u>1</u>	Date <u>1-27-05</u>
Company <u>Woolsey Oper. Co LLC</u>	Zone Tested <u>Miss.</u>	
Address <u>125 N Market Ste 1000 Wichita, KS 67202</u>	Elevation <u>1508</u> KB <u>1492</u> GL	
Co. Rep / Geo. <u>Roger Martin</u>	Cont. <u>Duke Drly #1</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>30</u> Twp. <u>33s</u> Rge. <u>10w</u> Co. <u>Barber</u> State <u>KS</u>		
No. of Copies <u>5</u> Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____		

Interval Tested <u>4547 - 4640</u>	Initial Str Wt./Lbs. <u>69000</u>	Unseated Str Wt./Lbs. <u>69,000</u>
Anchor Length <u>93'</u>	Wt. Set Lbs. <u>20000</u>	Wt. Pulled Loose/Lbs. <u>80,000</u>
Top Packer Depth <u>4547</u>	Tool Weight <u>2100</u>	
Bottom Packer Depth <u>4542</u>	Hole Size <u>7 7/8" ✓</u>	Rubber Size <u>6 3/4" ✓</u>
Total Depth <u>4640</u>	Wt. Pipe Run _____	Drill Collar Run <u>0</u>
Mud Wt. <u>9.2</u> LCM _____ Vis. <u>47</u> WL <u>9.6</u>	Drill Pipe Size <u>4 1/2" XH</u>	Ft. Run <u>4555</u>
Blow Description <u>IF: Strong blow. BOB 30 secs. GTS 4 1/2 min.</u>		

ISI: Bled off for 5 min. No blow.
FF: Strong blow. BOB 5 secs.
FSI: Bled off for 5 min. No blow. (Had to work on Rig a little.)
Long Test

Recovery - Total Feet <u>70</u>	GIP <u>4555'</u>	Ft. in DC <u>0</u>	Ft. in DP <u>70</u>
Rec. <u>70</u> Feet of <u>GCM</u>	%gas _____ %oil _____ %water <u>95%</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 _____		
BHT <u>122</u> °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API			
RW <u>N✓</u> @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides <u>4000</u> ppm System			

(A) Initial Hydrostatic Mud	AK-1 Alpine 2177 PSI	Recorder No. <u>6753</u>	Test <u>✓</u>
(B) First Initial Flow Pressure	183 PSI	(depth) <u>4556</u>	Jars <u>✓</u>
(C) First Final Flow Pressure	67 PSI	Recorder No. <u>10330</u>	Safety Jt. <u>✓</u>
(D) Initial Shut-In Pressure	1197 PSI	(depth) <u>4637</u>	Circ Sub <u>✓ N/C</u>
(E) Second Initial Flow Pressure	115 PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure	78 PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure	1268 PSI	Initial Opening <u>30</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud	2178 PSI	Initial Shut-In <u>60</u>	Shale Packer _____

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.

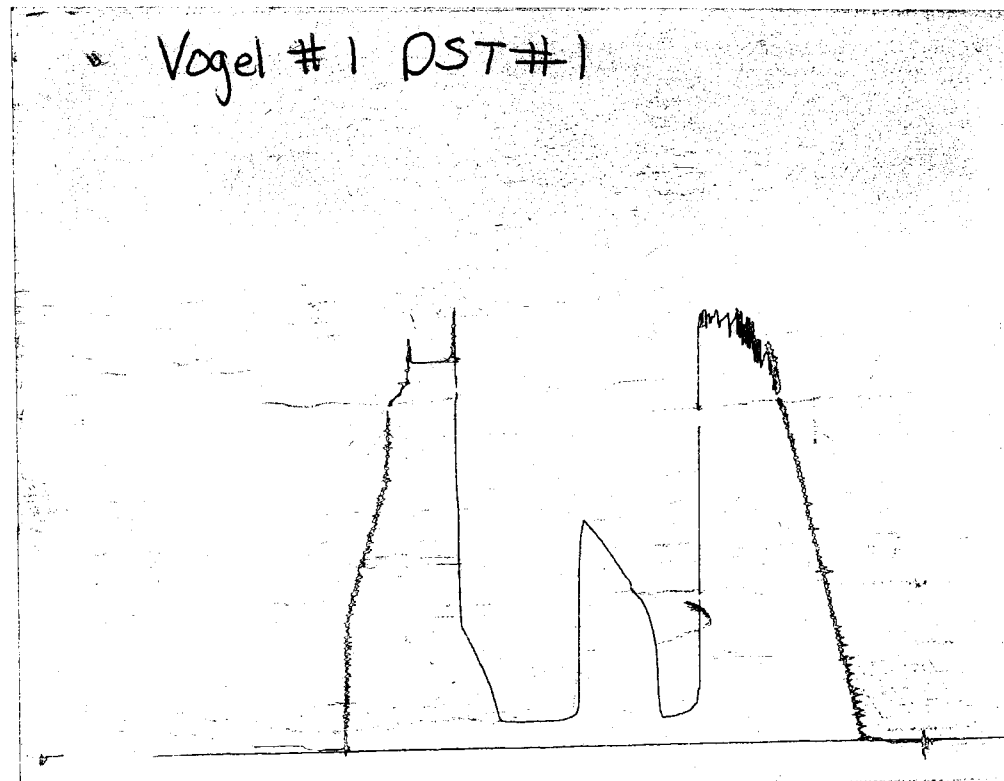
Approved By Roger Martin

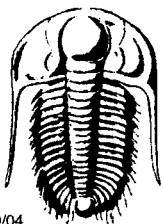
Our Representative Danny Cline

Final Flow	<u>60</u>	Ruined Packer	
Final Shut-In	<u>120</u>	Mileage <u>✓ 110 total</u>	
T-On Location	<u>13:15</u>	Sub Total: <u>1360</u>	
T-Started	<u>14:42</u>	Std. By <u>3 3/4 hrs 112.5</u>	
T-Open	<u>17:44</u>	Other _____	
T-Pulled	<u>22:15</u>	Total: <u>1472.50</u>	
T-Out	<u>02:00</u>		

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 21856

9/04

Test Ticket

Well Name & No.	Vogel #1	Test No.	2	Date	1-28-08
Company	Woolsey Oper, Co. LLC	Zone Tested	Miss.		
Address	125 N. Market Ste. 1000 Wichita, KS 67202	Elevation	15084	KB	1498
Co. Rep / Geo.	Roger Martin	Cont.	Duke Drilg. #1	Est. Ft. of Pay	Por. %
Location: Sec.	30	Twp.	33s	Rge.	10w
		Co.	Barber	State	KS
No. of Copies	5	Disbtribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	4632 - 4687	Initial Str Wt./Lbs.	68,000	Unseated Str Wt./Lbs.	68,000
Anchor Length	55'	Wt. Set Lbs.	20,000	Wt. Pulled Loose/Lbs.	84,000
Top Packer Depth	4627	Tool Weight	2100		
Bottom Packer Depth	4632	Hole Size 7 7/8"	✓	Rubber Size 6 3/4"	✓
Total Depth	4687	Wt. Pipe Run		Drill Collar Run	0
Mud Wt.	9.1	LCM		Vis.	46
		WL	10.4	Drill Pipe Size	4 1/2" X H
		Ft. Run	4616		

Blow Description IF: Strong blow. BOB 6 1/2 min.

ISI: Bled off for 5 min. No blow.

FF: Strong blow. BOB 40 sec.

FSI: Bled off for 5 min. No blow.

Recovery - Total Feet	75	GIP	4050	Ft. in DC	0	Ft. in DP	75
Rec.	75	Feet of	51 GCWM w/oil spec	%gas	5	%oil	0.5
				%water	70	%mud	70
Rec.		Feet of	51 GCWM w/oil spec	%gas	5	%oil	35
				%water	60	%mud	60
Rec.		Feet of		%gas		%oil	
				%water		%mud	
Rec.		Feet of		%gas		%oil	
				%water		%mud	
BHT	117	°F Gravity		°API D @		°F Corrected Gravity	
		°API					
RW	22 chms @	55 °F	Chlorides 38,000 ppm	Recovery		Chlorides 5000 ppm	System

(A) Initial Hydrostatic Mud	AK-1	Alpine	2235 PSI	Recorder No.	6753	Test	✓
(B) First Initial Flow Pressure			20 PSI	(depth)	4638	Jars	✓
(C) First Final Flow Pressure			33 PSI	Recorder No.	10330	Safety Jt.	✓
(D) Initial Shut-In Pressure			1168 PSI	(depth)	4684	Circ Sub	✓ N-C
(E) Second Initial Flow Pressure			38 PSI	Recorder No.		Sampler	
(F) Second Final Flow Pressure			51 PSI	(depth)		Straddle	
(G) Final Shut-In Pressure			1310 PSI	Initial Opening	30	Ext. Packer	
(Q) Final Hydrostatic Mud			2195 PSI	Initial Shut-In	60	Shale Packer	

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Approved By Roger Martin

Our Representative Danny

Final Flow	60	Mileage	✓ 110 total
Final Shut-In	120	Sub Total:	1360
T-On Location	11:30	Std. By	✓ 1 3/4 hrs 52.5
T-Started	15:05	Other	
T-Open	12:59	Total:	1412.50
T-Pulled	19:40		
T-Out	22:15		

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.

