**TRILOBITE
TESTING, INC.****DRILL STEM TEST REPORT**Prepared For: **Castle Resources**PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

31 8 28w Sheridan Ks**Cooper #1**

Start Date: 2008.11.06 @ 20:51:53

End Date: 2008.11.07 @ 05:20:23

Job Ticket #: 34295 DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION

SEP 14 2009

CONSERVATION DIVISION
WICHITA, KS

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Castle Resources

Cooper #1

31 8 28w Sheridan Ks

DST # 1

Howard "A"

2008.11.06



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources
PO Box 87
Schoenchen, KS 67667
ATTN: Jerry Green

Cooper #1

31 8 28w Sheridan Ks

Job Ticket: 34295

DST#: 1

Test Start: 2008.11.06 @ 20:51:53

GENERAL INFORMATION:

Formation: **Howard "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:57:23

Time Test Ended: 05:20:23

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: **3483.00 ft (KB) To 3530.00 ft (KB) (TVD)**

Total Depth: 3530.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2755.00 ft (KB)

2750.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6755

Inside

Press@RunDepth: 54.69 psig @ 3486.00 ft (KB)

Start Date: 2008.11.06

End Date:

2008.11.07

Capacity: 7000.00 psig

Last Calib.: 2008.11.07

Start Time: 20:51:55

End Time:

05:20:23

Time On Btm: 2008.11.06 @ 22:56:53

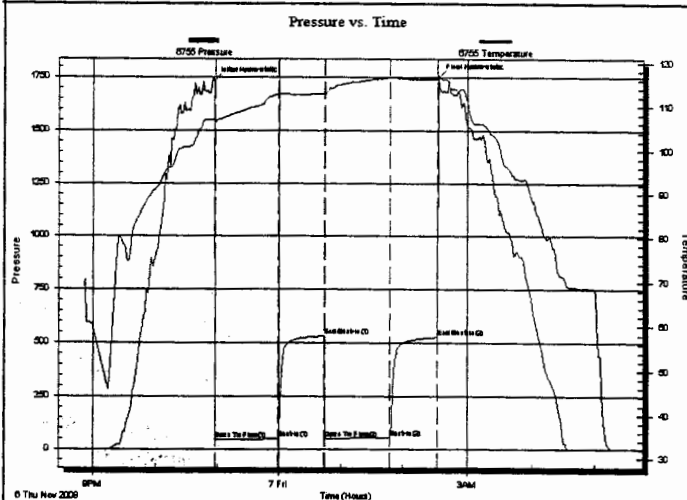
Time Off Btm: 2008.11.07 @ 02:32:53

TEST COMMENT: IFP-Weak Blow ,Built to 2-1/2"

ISI-Dead

FFP-Weak Blow ,Built to 1-1/4"

FSI-Dead



PRESSURE SUMMARY

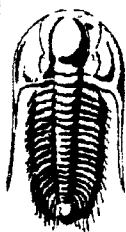
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1730.06	107.28	Initial Hydro-static
1	43.37	106.42	Open To Flow (1)
63	47.13	112.67	Shut-In(1)
108	530.06	112.94	End Shut-In(1)
109	50.75	112.70	Open To Flow (2)
171	54.69	116.61	Shut-In(2)
215	524.08	116.18	End Shut-In(2)
216	1748.97	116.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WM W/Oil Spots	0.84

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 34295

DST#: 1

ATTN: Jerry Green

Test Start: 2008.11.06 @ 20:51:53

Tool Information

Drill Pipe: Length: 3494.00 ft Diameter: 3.80 inches Volume: 49.01 bbl
Heavy Wt. Pipe: Length: 0.00 ft Diameter: 2.70 inches Volume: 0.00 bbl
Drill Collar: Length: 0.00 ft Diameter: 2.25 inches Volume: 0.00 bbl
Total Volume: 49.01 bbl

Drill Pipe Above KB: 32.00 ft

Depth to Top Packer: 3483.00 ft

Depth to Bottom Packer: ft

Interval between Packers: 47.00 ft

Tool Length: 68.00 ft

Number of Packers: 2 Diameter: 6.75 inches

Tool Comments:

Tool Weight: 2000.00 lb

Weight set on Packer: 25000.00 lb

Weight to Pull Loose: 31000.00 lb

Tool Chased 0.00 ft

String Weight: Initial 28000.00 lb

Final 28000.00 lb

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3463.00	
Shut In Tool	5.00			3468.00	
Hydraulic tool	5.00			3473.00	
Packer	5.00			3478.00	21.00 Bottom Of Top Packer
Packer	5.00			3483.00	
Stubb	1.00			3484.00	
Perforations	2.00			3486.00	
Recorder	0.00	8360	Inside	3486.00	
Recorder	0.00	6755	Inside	3486.00	
Blank Spacing	31.00			3517.00	
Perforations	10.00			3527.00	
Bullnose	3.00			3530.00	47.00 Bottom Packers & Anchor

Total Tool Length: 68.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 34295 **DST#: 1**

ATTN: Jerry Green

Test Start: 2008.11.06 @ 20:51:53

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: 20000 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	WM W/Oil Spots	0.842

Total Length: 60.00 ft

Total Volume: 0.842 bbl

Num Fluid Samples: 0

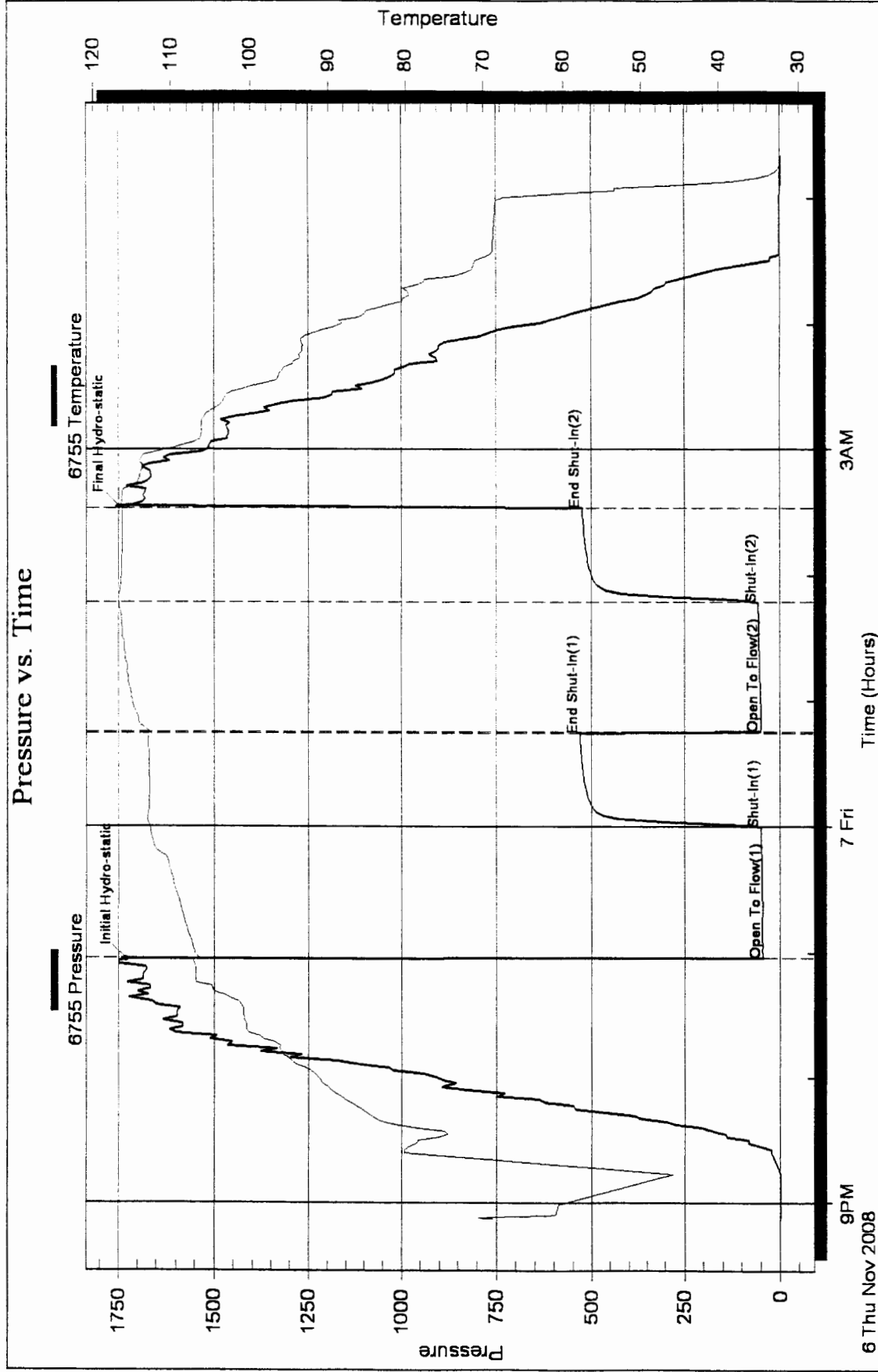
Num Gas Bombs: 0

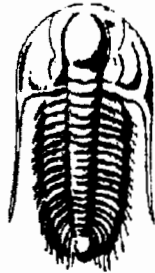
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

31 8 28w Sheridan Ks

Cooper #1

Start Date: 2008.11.07 @ 15:55:26

End Date: 2008.11.07 @ 23:42:56

Job Ticket #: 34296 DST #: 2

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

Castle Resources

Cooper #1

31 8 28w Sheridan Ks

DST # 2

Howard "C"

2008.11.07



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources
PO Box 87
Schoenchen, KS 67667
ATTN: Jerry Green

Cooper #1
31 8 28w Sheridan Ks
Job Ticket: 34296 DST#: 2
Test Start: 2008.11.07 @ 15:55:26

GENERAL INFORMATION:

Formation: **Howard "C"**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 17:50:26
Time Test Ended: 23:42:56

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 32

Interval: **3585.00 ft (KB) To 3602.00 ft (KB) (TVD)**
Total Depth: **3602.00 ft (KB) (TVD)**
Hole Diameter: **7.80 inches** Hole Condition: **Good**

Reference Elevations: **2755.00 ft (KB)**
2750.00 ft (CF)
KB to GR/CF: **5.00 ft**

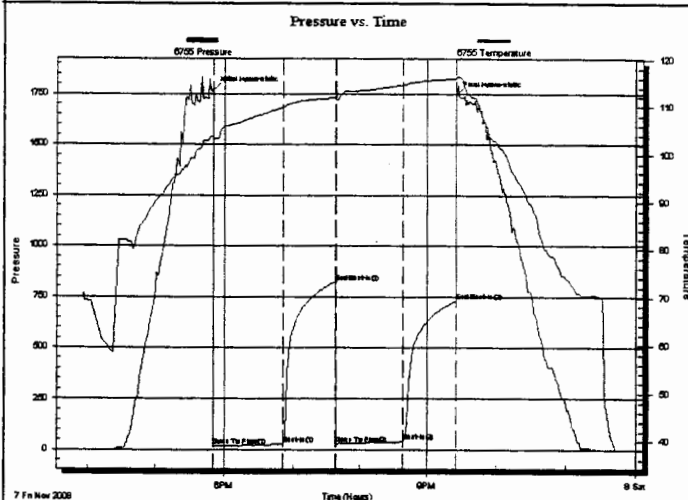
Serial #: 6755

Inside

Press@RunDepth: **40.86 psig @ 3589.00 ft (KB)**
Start Date: **2008.11.07** End Date: **2008.11.07**
Start Time: **15:55:28** End Time: **23:42:56**

Capacity: **7000.00 psig**
Last Calib.: **2008.11.07**
Time On Btm: **2008.11.07 @ 17:49:56**
Time Off Btm: **2008.11.07 @ 21:25:56**

TEST COMMENT: IFP-Weak Blow ,Built to 3"
ISI-Dead
FFP-Weak Blow ,Built to 1-1/2"
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1766.24	103.84	Initial Hydro-static
1	17.90	103.25	Open To Flow (1)
61	27.77	109.90	Shut-In (1)
108	820.86	111.92	End Shut-In (1)
108	29.99	111.53	Open To Flow (2)
169	40.86	114.66	Shut-In (2)
216	729.17	115.97	End Shut-In (2)
216	1745.72	116.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MW W/Oil Scum-85%W-15%M	0.87

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

Cooper #1

31 8 28w Sheridan Ks

Job Ticket: 34296

DST#: 2

Test Start: 2008.11.07 @ 15:55:26

Tool Information

Drill Pipe:	Length: 3589.00 ft	Diameter: 3.80 inches	Volume: 50.34 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	35000.00 lb
		Total Volume:	50.34 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	30000.00 lb
Depth to Top Packer:	3585.00 ft			Final	30000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	38.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

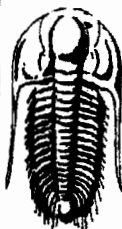
Tool Comments:

Tool Description

Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00		3565.00	
Shut In Tool	5.00		3570.00	
Hydraulic tool	5.00		3575.00	
Packer	5.00		3580.00	21.00 Bottom Of Top Packer
Packer	5.00		3585.00	
Stubb	1.00		3586.00	
Perforations	3.00		3589.00	
Recorder	0.00	8360	Inside 3589.00	
Recorder	0.00	6755	Inside 3589.00	
Perforations	10.00		3599.00	
Bullnose	3.00		3602.00	17.00 Bottom Packers & Anchor

Total Tool Length: 38.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 34296

DST#: 2

ATTN: Jerry Green

Test Start: 2008.11.07 @ 15:55:26

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:

21000 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	MW W/Oil Scum-85%W-15%M	0.870

Total Length: 62.00 ft

Total Volume: 0.870 bbl

Num Fluid Samples: 0

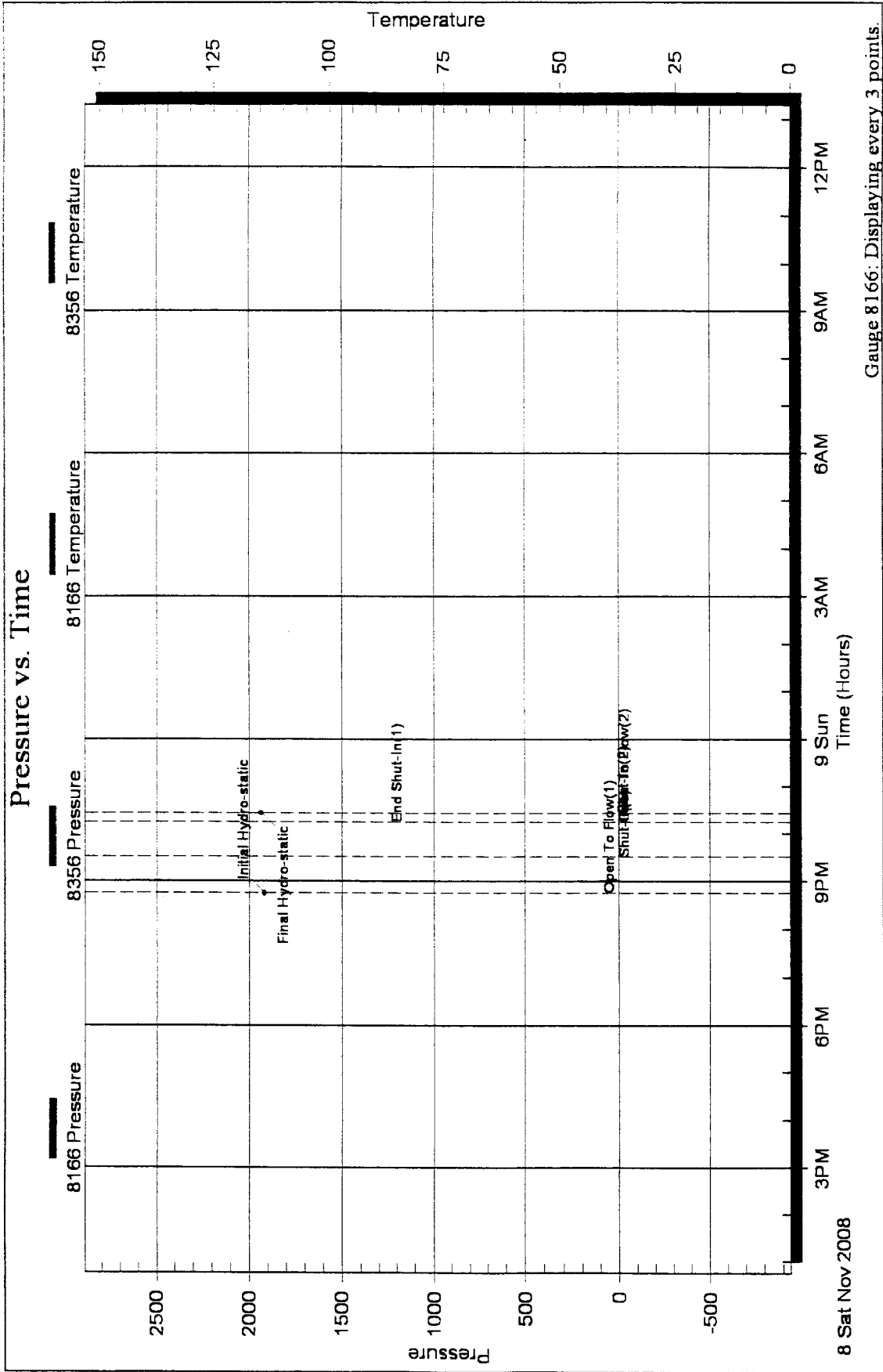
Num Gas Bombs: 0

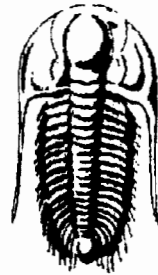
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

31 8 28w Sheridan Ks

Cooper #1

Start Date: 2008.11.08 @ 18:42:48

End Date: 2008.11.09 @ 07:16:48

Job Ticket #: 33736 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Castle Resources

Cooper #1

31 8 28w Sheridan Ks

DST # 3

TORONTO

2008.11.08



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Castle Resources

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

Cooper #1

31 8 28w Sheridan Ks

Job Ticket: 33736

DST#: 3

Test Start: 2008.11.08 @ 18:42:48

GENERAL INFORMATION:

Formation: **TORONTO**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:45:18

Time Test Ended: 07:16:48

Test Type: Conventional Bottom Hole

Tester: KYLE WILEY

Unit No: 30

Interval: **3818.00 ft (KB) To 3850.00 ft (KB) (TVD)**

Total Depth: 3850.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2755.00 ft (KB)

2750.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166

Inside

Press@RunDepth: 16.22 psig @ 3819.00 ft (KB)

Start Date: 2008.11.08

End Date:

2008.11.09

Capacity: 7000.00 psig

Last Calib.: 2008.11.09

Start Time: 18:42:53

End Time:

07:16:48

Time On Btm: 2008.11.08 @ 20:44:48

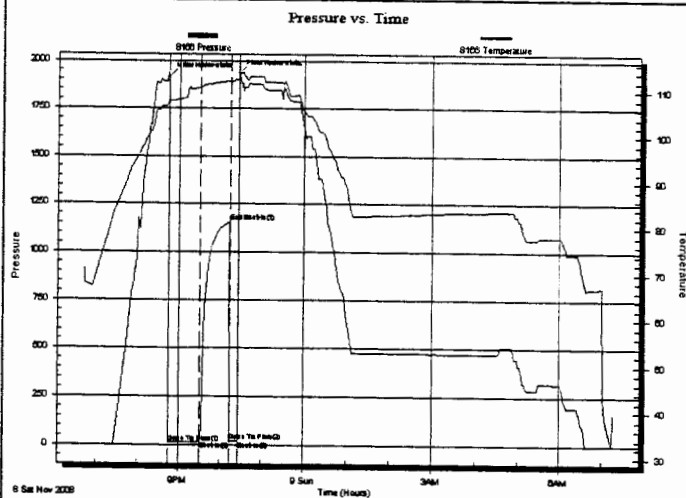
Time Off Btm: 2008.11.08 @ 22:26:48

TEST COMMENT: IF:WEAK SURFACE BLOW

IS:NO RETURN

FF:NO BLOW

FS: FLUSHED TOOL



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1916.56	108.29	Initial Hydro-static
1	10.99	107.94	Open To Flow (1)
46	16.22	110.77	Shut-In(1)
90	1156.77	112.23	End Shut-In(1)
90	17.68	111.87	Open To Flow (2)
102	19.08	112.48	Shut-In(2)
102	1933.11	113.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	100% MUD	0.28

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33736

DST#: 3

ATTN: Jerry Green

Test Start: 2008.11.08 @ 18:42:48

Tool Information

Drill Pipe:	Length: 3797.00 ft	Diameter: 3.80 inches	Volume: 53.26 bbl	Tool Weight:	1500.00 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:	40000.00 lb
			Total Volume: 53.26 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	34000.00 lb
Depth to Top Packer:	3818.00 ft			Final	34000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	59.00 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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Change Over Sub	1.00			3793.00	
Shut In Tool	5.00			3798.00	
Hydraulic tool	5.00			3803.00	
Jars	5.00			3808.00	
Packer	5.00			3813.00	26.00 Bottom Of Top Packer
Packer	5.00			3818.00	
Stubb	1.00			3819.00	
Recorder	0.00	8166	Inside	3819.00	
Recorder	0.00	8356	Inside	3819.00	
Perforations	29.00			3848.00	
Bullnose	3.00			3851.00	33.00 Bottom Packers & Anchor

Total Tool Length: 59.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33736

DST#: 3

ATTN: Jerry Green

Test Start: 2008.11.08 @ 18:42:48

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: 36.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.15 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	100% MUD	0.281

Total Length: 20.00 ft

Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

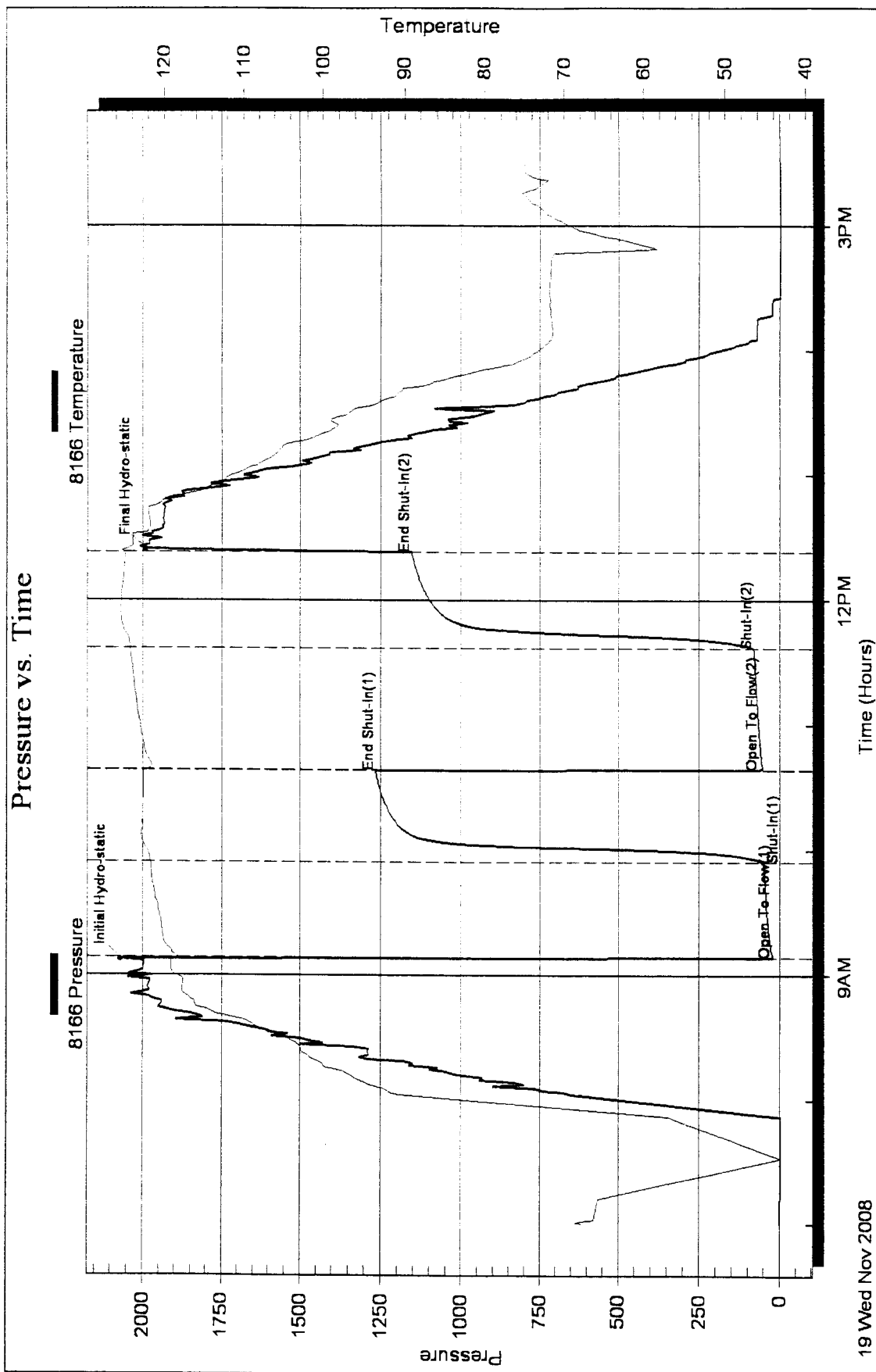
Serial #:

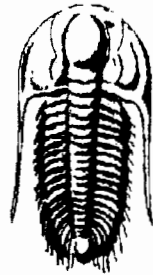
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

31 8 28w Sheridan Ks

Cooper #1

Start Date: 2008.11.19 @ 07:00:00

End Date: 2008.11.19 @ 15:00:00

Job Ticket #: 33380 DST #: 4

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

Castle Resources

Cooper #1

31 8 28w Sheridan Ks

DST # 4

LKC-J

2008.11.19



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources
PO Box 87
Schoenchen, KS 67667
ATTN: Jerry Green

Cooper #1

31 8 28w Sheridan Ks

Job Ticket: 33380

DST#: 4

Test Start: 2008.11.19 @ 07:00:00

GENERAL INFORMATION:

Formation: **LKC- J**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 09:08:30
Time Test Ended: 15:00:00

Test Type: **Conventional Straddle**
Tester: **Chuck Kreutzer**
Unit No: **30**

Interval: **4022.00 ft (KB) To 4041.00 ft (KB) (TVD)**
Total Depth: **4150.00 ft (KB) (TVD)**
Hole Diameter: **7.80 inches** Hole Condition: **Fair**

Reference Elevations: **2755.00 ft (KB)**
2750.00 ft (CF)
KB to GR/CF: **5.00 ft**

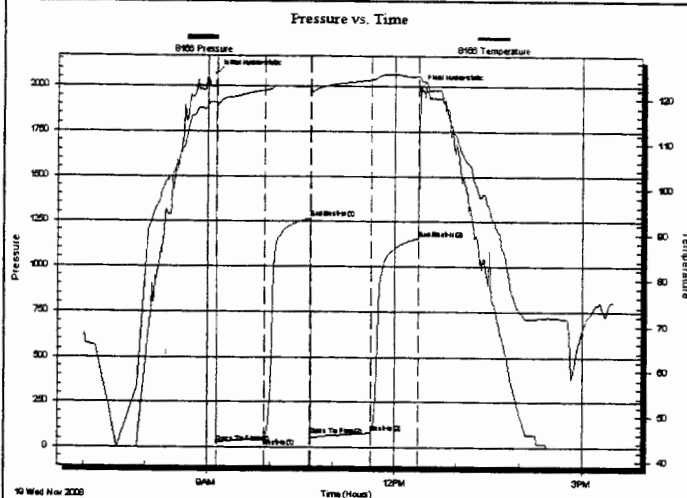
Serial #: 8166

Inside

Press@RunDepth: **79.68 psig @ 4023.00 ft (KB)**
Start Date: **2008.11.19** End Date: **2008.11.19**
Start Time: **07:00:05** End Time: **15:29:59**

Capacity: **7000.00 psig**
Last Calib.: **2008.11.19**
Time On Btm: **2008.11.19 @ 09:07:30**
Time Off Btm: **2008.11.19 @ 12:24:29**

TEST COMMENT: IF: Weak blow built to 7in. over 45mins
IS: No blow back.
FF: Weak blow built to 4in. over 60mins.
FSI: No blow back.



PRESSURE SUMMARY

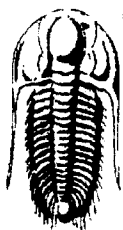
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2067.47	119.18	Initial Hydro-static
1	22.49	118.29	Open To Flow (1)
47	48.34	121.81	Shut-In(1)
91	1265.52	122.65	End Shut-In(1)
91	63.22	122.15	Open To Flow(2)
150	79.68	124.25	Shut-In(2)
196	1155.85	124.91	End Shut-In(2)
197	1991.47	124.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	ghocm-20%g30%o40%m	1.77
62.00	ghocm-26%g34%o40%m	0.87
62.00	ghocm-2%g38%o60%m	0.87

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33380

DST#:4

ATTN: Jerry Green

Test Start: 2008.11.19 @ 07:00:00

Tool Information

Drill Pipe:	Length: 4026.00 ft	Diameter: 3.80 inches	Volume: 56.47 bbl	Tool Weight: 2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
		Total Volume: 56.47 bbl		Tool Chased 2.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	4022.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	4037.00 ft			
Interval between Packers:	15.00 ft			
Tool Length:	148.00 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			4007.00	
Hydraulic tool	5.00			4012.00	
Packer	5.00			4017.00	20.00 Bottom Of Top Packer
Packer	5.00			4022.00	
Stubb	1.00			4023.00	
Recorder	0.00	8166	Inside	4023.00	
Perforations	13.00			4036.00	
Blank Off Sub	1.00			4037.00	15.00 Tool Interval
Packer	4.00			4041.00	
Stubb	1.00			4042.00	
Recorder	0.00	8356	Below	4042.00	
Change Over Sub	1.00			4043.00	
Blank Spacing	94.00			4137.00	
Change Over Sub	1.00			4138.00	
Perforations	9.00			4147.00	
Bullnose	3.00			4150.00	113.00 Bottom Packers & Anchor
Total Tool Length:	148.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33380

DST#: 4

ATTN: Jerry Green

Test Start: 2008.11.19 @ 07:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 11.13 in³

Resistivity: ohm.m

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	ghocm-20%g30%o40%m	1.767
62.00	ghocm-26%g34%o40%m	0.870
62.00	ghocm-2%g38%o60%m	0.870

Total Length: 250.00 ft

Total Volume: 3.507 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

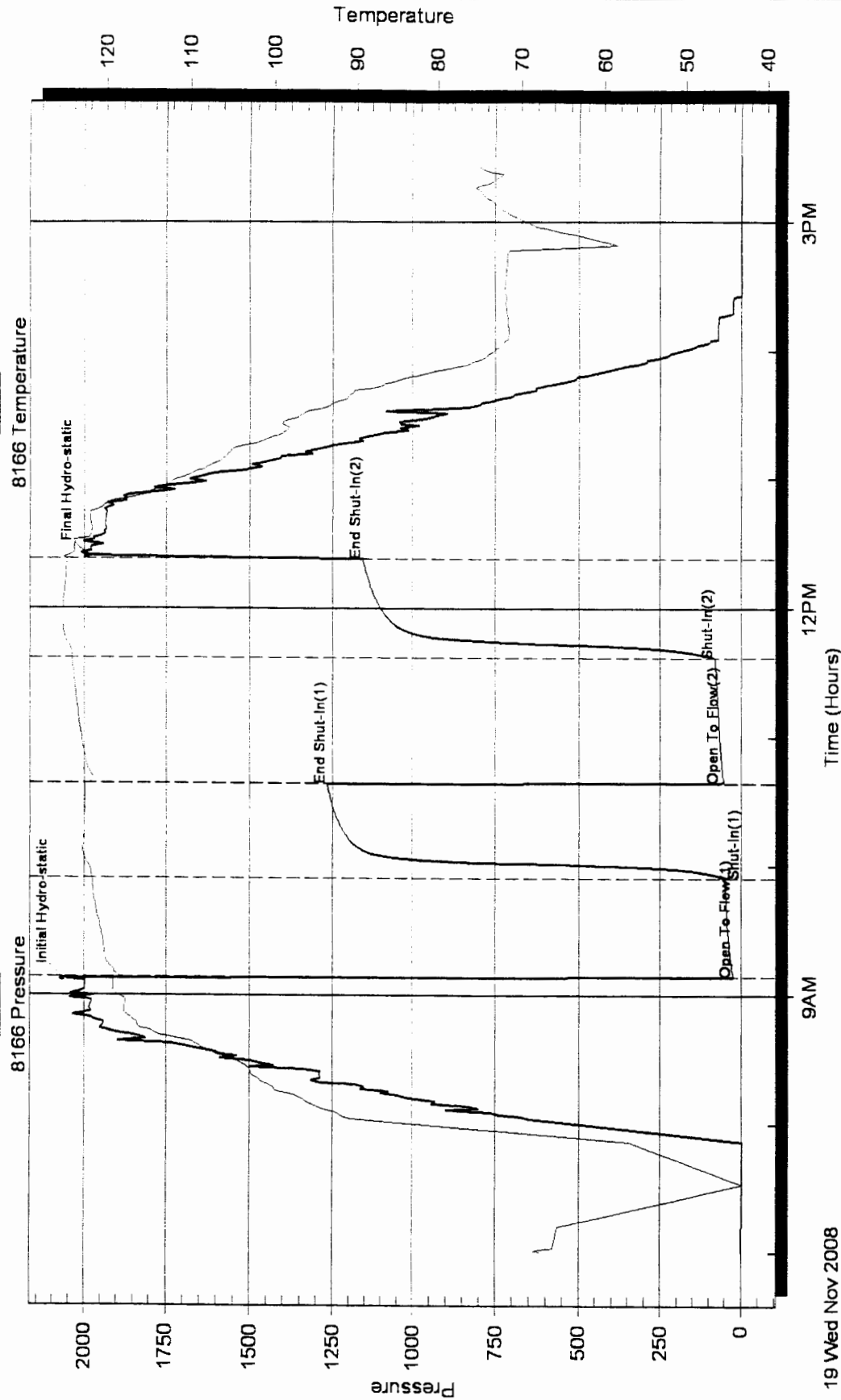
Serial #:

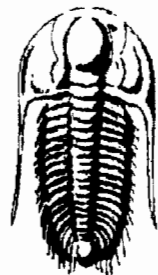
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

31 8 28w Sheridan Ks

Cooper #1

Start Date: 2008.11.19 @ 17:15:00

End Date: 2008.11.19 @ 23:30:00

Job Ticket #: 33381 DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Castle Resources

Cooper #1

31 8 28w Sheridan Ks

DST # 5

LKC - C,D,E,F,G

2008.11.19



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

Cooper #1

31 8 28w Sheridan Ks

Job Ticket: 33381

DST#: 5

Test Start: 2008.11.19 @ 17:15:00

GENERAL INFORMATION:

Formation: **LKC - C,D,E,F,G**

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

Time Tool Opened: 19:00:00

Time Test Ended: 23:30:00

Test Type: **Conventional Straddle**

Tester: **Chuck Kreutzer**

Unit No: **30**

Interval: **3865.00 ft (KB) To 3950.00 ft (KB) (TVD)**

Total Depth: **4150.00 ft (KB) (TVD)**

Hole Diameter: **7.80 inches** Hole Condition: **Fair**

Reference Elevations: **2755.00 ft (KB)**

2750.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 8356 **Below (Straddle)**

Press@RunDepth: **psig @ 3952.00 ft (KB)**

Start Date: **2008.11.19**

End Date:

2008.11.20

Capacity: **7000.00 psig**

Last Calib.: **2008.11.19**

Start Time: **17:15:05**

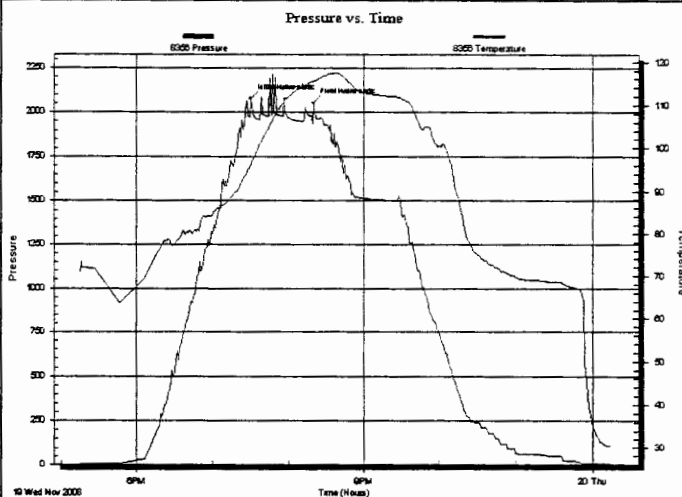
End Time:

00:14:59

Time On Btm: **2008.11.19 @ 19:30:30**

Time Off Btm: **2008.11.19 @ 20:20:00**

TEST COMMENT: **Ms-Run**



PRESSURE SUMMARY

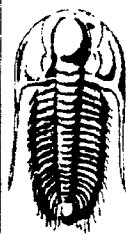
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.77	96.42	Initial Hydro-static
50	2056.14	115.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33381

DST#: 5

ATTN: Jerry Green

Test Start: 2008.11.19 @ 17:15:00

Tool Information

Drill Pipe: Length: 3862.00 ft Diameter: 3.80 inches Volume: 54.17 bbl
Heavy Wt. Pipe: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
Drill Collar: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
Total Volume: 54.17 bbl

Drill Pipe Above KB: 25.00 ft
Depth to Top Packer: 3865.00 ft
Depth to Bottom Packer: 3947.00 ft
Interval between Packers: 82.00 ft
Tool Length: 310.00 ft

Number of Packers: 3 Diameter: 6.75 inches

Tool Comments:

Tool Weight: 2200.00 lb
Weight set on Packer: 20000.00 lb
Weight to Pull Loose: 50000.00 lb
Tool Chased 2.00 ft
String Weight: Initial 38000.00 lb
Final 42000.00 lb

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Shut In Tool	5.00			3842.00	
Hydraulic tool	5.00			3847.00	
Jars	5.00			3852.00	
Safety Joint	3.00			3855.00	
Packer	5.00			3860.00	28.00 Bottom Of Top Packer
Packer	5.00			3865.00	
Stubb	1.00			3866.00	
Recorder	0.00	8166	Inside	3866.00	
Blank Spacing	62.00			3928.00	
Perforations	18.00			3946.00	
Blank Off Sub	1.00			3947.00	82.00 Tool Interval
Packer	4.00			3951.00	
Stubb	1.00			3952.00	
Recorder	0.00	8356	Below	3952.00	
Change Over Sub	1.00			3953.00	
Blank Spacing	187.00			4140.00	
Perforations	4.00			4144.00	
Bullnose	3.00			4147.00	200.00 Bottom Packers & Anchor

Total Tool Length: 310.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33381

DST#: 5

ATTN: Jerry Green

Test Start: 2008.11.19 @ 17:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length:

ft

Total Volume:

bbl

Num Fluid Samples: 0

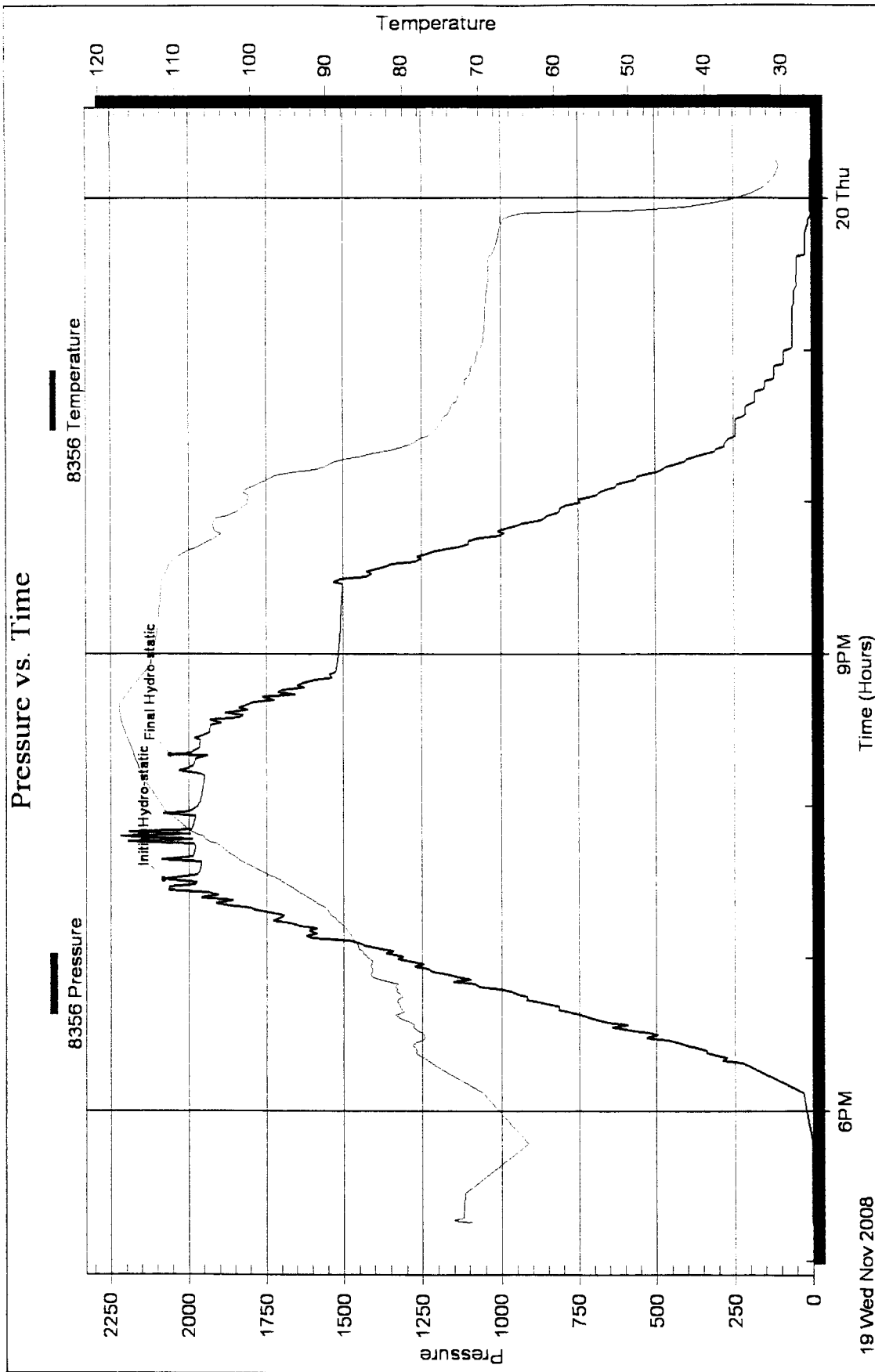
Num Gas Bombs: 0

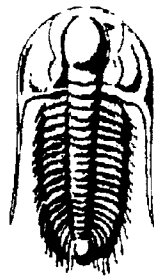
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

31 8 28w Sheridan Ks

Cooper #1

Start Date: 2008.11.20 @ 10:33:00

End Date: 2008.11.20 @ 18:30:30

Job Ticket #: 33382 DST #: 6

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

Castle Resources

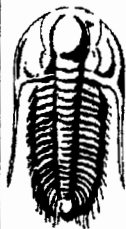
Cooper #1

31 8 28w Sheridan Ks

DST # 6

Topeka

2008.11.20



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources

PO Box 87
Schoenchen, KS 67667

ATTN: Jerry Green

Cooper #1

31 8 28w Sheridan Ks

Job Ticket: 33382

DST#: 6

Test Start: 2008.11.20 @ 10:33:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:25:00

Time Test Ended: 18:30:30

Test Type: Conventional Straddle

Tester: Chuck Kreutzer

Unit No: 30

Interval: 3750.00 ft (KB) To 3769.00 ft (KB) (TVD)

Total Depth: 4150.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2755.00 ft (KB)

2750.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166 Inside

Press@RunDepth: 70.80 psig @ 3751.00 ft (KB)

Start Date: 2008.11.20

End Date:

2008.11.20

Capacity: 7000.00 psig

Last Calib.: 2008.11.20

Start Time: 10:33:05

End Time:

18:52:29

Time On Btm: 2008.11.20 @ 12:14:00

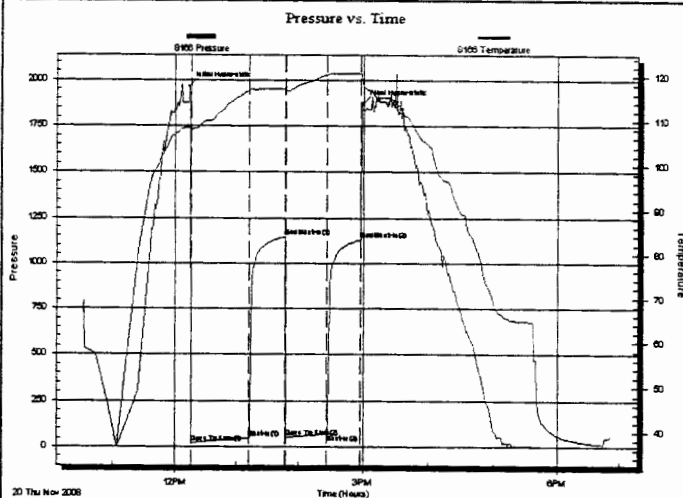
Time Off Btm: 2008.11.20 @ 14:59:29

TEST COMMENT: IF: Weak blow built to 3" over 60mins.

ISI: No blow back.

FF: Weak surface blow.

FSI: No blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1964.56	108.44	Initial Hydro-static
2	21.22	107.89	Open To Flow (1)
59	50.04	116.83	Shut-In (1)
93	1146.33	117.15	End Shut-In (1)
94	51.50	116.92	Open To Flow (2)
133	70.80	120.33	Shut-In (2)
164	1130.47	120.60	End Shut-In (2)
166	1874.07	118.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud	0.42
120.00	50% m49% w 1% o	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33382

DST#: 6

ATTN: Jerry Green

Test Start: 2008.11.20 @ 10:33:00

Tool Information

Drill Pipe: Length: 3754.00 ft Diameter: 3.80 inches Volume: 52.66 bbl
Heavy Wt. Pipe: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
Drill Collar: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
Total Volume: 52.66 bbl

Drill Pipe Above KB: 24.00 ft

Depth to Top Packer: 3750.00 ft

Depth to Bottom Packer: 3769.00 ft

Interval between Packers: 19.00 ft

Tool Length: 421.00 ft

Number of Packers: 3 Diameter: 6.75 inches

Tool Comments:

Tool Weight: 2200.00 lb

Weight set on Packer: 25000.00 lb

Weight to Pull Loose: 50000.00 lb

Tool Chased 3.00 ft

String Weight: Initial 40000.00 lb

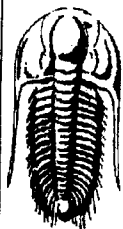
Final 42000.00 lb

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Shut In Tool	5.00			3735.00	
Hydraulic tool	5.00			3740.00	
Packer	5.00			3745.00	20.00 Bottom Of Top Packer
Packer	5.00			3750.00	
Stubb	1.00			3751.00	
Recorder	0.00	8166	Inside	3751.00	
Perforations	13.00			3764.00	
Blank Off Sub	1.00			3765.00	
Blank Spacing	4.00			3769.00	19.00 Tool Interval
Packer	0.00			3769.00	
Stubb	1.00			3770.00	
Recorder	0.00	8356	Below	3770.00	
Change Over Sub	1.00			3771.00	
Blank Spacing	377.00			4148.00	
Bullnose	3.00			4151.00	382.00 Bottom Packers & Anchor

Total Tool Length: 421.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

Cooper #1

PO Box 87
Schoenchen, KS 67667

31 8 28w Sheridan Ks

Job Ticket: 33382

DST#: 6

ATTN: Jerry Green

Test Start: 2008.11.20 @ 10:33:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 11.15 in³

Resistivity: 1.10 ohm.m

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	mud	0.421
120.00	50% m 49%w 1%o	1.683

Total Length: 150.00 ft

Total Volume: 2.104 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

