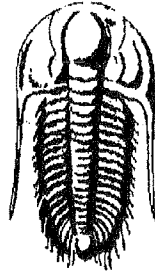


36-13s-20w

15-051-25814-00-00
KGS

(3) DSTs



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Hupfer Operating, Inc.**

PO Box 216
Hays, Ks. 67601

ATTN: Jim Musgrove

~~36-13-20~~ Ellis KS

36-13s-20w

Engel #1

Start Date: 2008.09.26 @ 02:02:19

End Date: 2008.09.26 @ 07:23:49

Job Ticket #: 32522

DST #: 1

Na S2 NW

1630 FNL

1300 FWL

RECEIVED
KANSAS CORPORATION COMMISSION

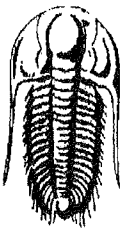
JAN 15 2009

CONSERVATION DIVISION
WICHITA KS

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hupfer Operating, Inc.

PO Box 216
Hays, Ks. 67601

ATTN: Jim Musgrove

Engel #1

36 13 20 Ellis KS

Job Ticket: 32522

DST#: 1

Test Start: 2008.09.26 @ 02:02:19

GENERAL INFORMATION:

Formation: **LKC-"F-G"**

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

Time Tool Opened: 03:51:19

Time Test Ended: 07:23:49

Test Type: **Conventional Bottom Hole**

Tester: **Jason McLemore**

Unit No: **32**

Interval: **3576.00 ft (KB) To 3630.00 ft (KB) (TVD)**

Total Depth: **3630.00 ft (KB) (TVD)**

Hole Diameter: **7.80 inches** Hole Condition: **Good**

Reference Elevations: **2234.00 ft (KB)**

2226.00 ft (CF)

KB to GR/CF: **8.00 ft**

Serial #: 6755

Inside

Press@RunDepth: **44.76 psig @ 3580.00 ft (KB)**

Start Date: **2008.09.26**

End Date:

2008.09.26

Start Time: **02:02:21**

End Time:

07:23:49

Capacity: **7000.00 psig**

Last Calib.: **2008.09.26**

Time On Btm: **2008.09.26 @ 03:50:49**

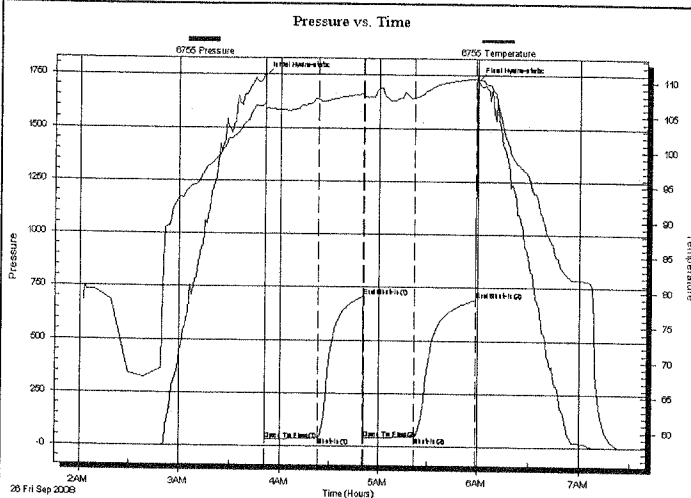
Time Off Btm: **2008.09.26 @ 05:59:49**

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

ISI-Dead

FFP-Surface Blow

FSI-Dead



PRESSURE SUMMARY

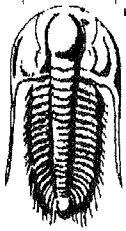
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1743.40	106.77	Initial Hydro-static
1	28.79	105.95	Open To Flow (1)
33	39.59	107.40	Shut-In (1)
60	705.83	108.22	End Shut-In (1)
61	39.43	107.74	Open To Flow (2)
91	44.76	107.65	Shut-In (2)
128	692.39	110.50	End Shut-In (2)
129	1726.65	110.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drilling Mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hupfer Operating, Inc.

Engel #1

PO Box 216
Hays, Ks. 67601

36 13 20 Ellis KS

Job Ticket: 32522

DST#: 1

ATTN: Jim Musgrove

Test Start: 2008.09.26 @ 02:02:19

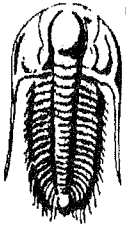
Tool Information

Drill Pipe:	Length: 3552.00 ft	Diameter: 3.80 inches	Volume: 49.83 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	72000.00 lb
		Total Volume:	49.98 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	3576.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	54.00 ft				
Tool Length:	75.00 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			3556.00	
Shut In Tool	5.00			3561.00	
Hydraulic tool	5.00			3566.00	
Packer	5.00			3571.00	21.00 Bottom Of Top Packer
Packer	5.00			3576.00	
Stubb	1.00			3577.00	
Perforations	2.00			3579.00	
Recorder	0.00	8360	Inside	3579.00	
Change Over Sub	1.00			3580.00	
Recorder	0.00	6755	Inside	3580.00	
Blank Spacing	31.00			3611.00	
Change Over Sub	1.00			3612.00	
Perforations	15.00			3627.00	
Bullnose	3.00			3630.00	54.00 Bottom Packers & Anchor

Total Tool Length: 75.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Hupfer Operating, Inc.

Engel #1

PO Box 216
Hays, Ks. 67601

36 13 20 Ellis KS

Job Ticket: 32522

DST#: 1

ATTN: Jim Musgrove

Test Start: 2008.09.26 @ 02:02:19

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 8.88 in³

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: 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
5.00	Drilling Mud	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

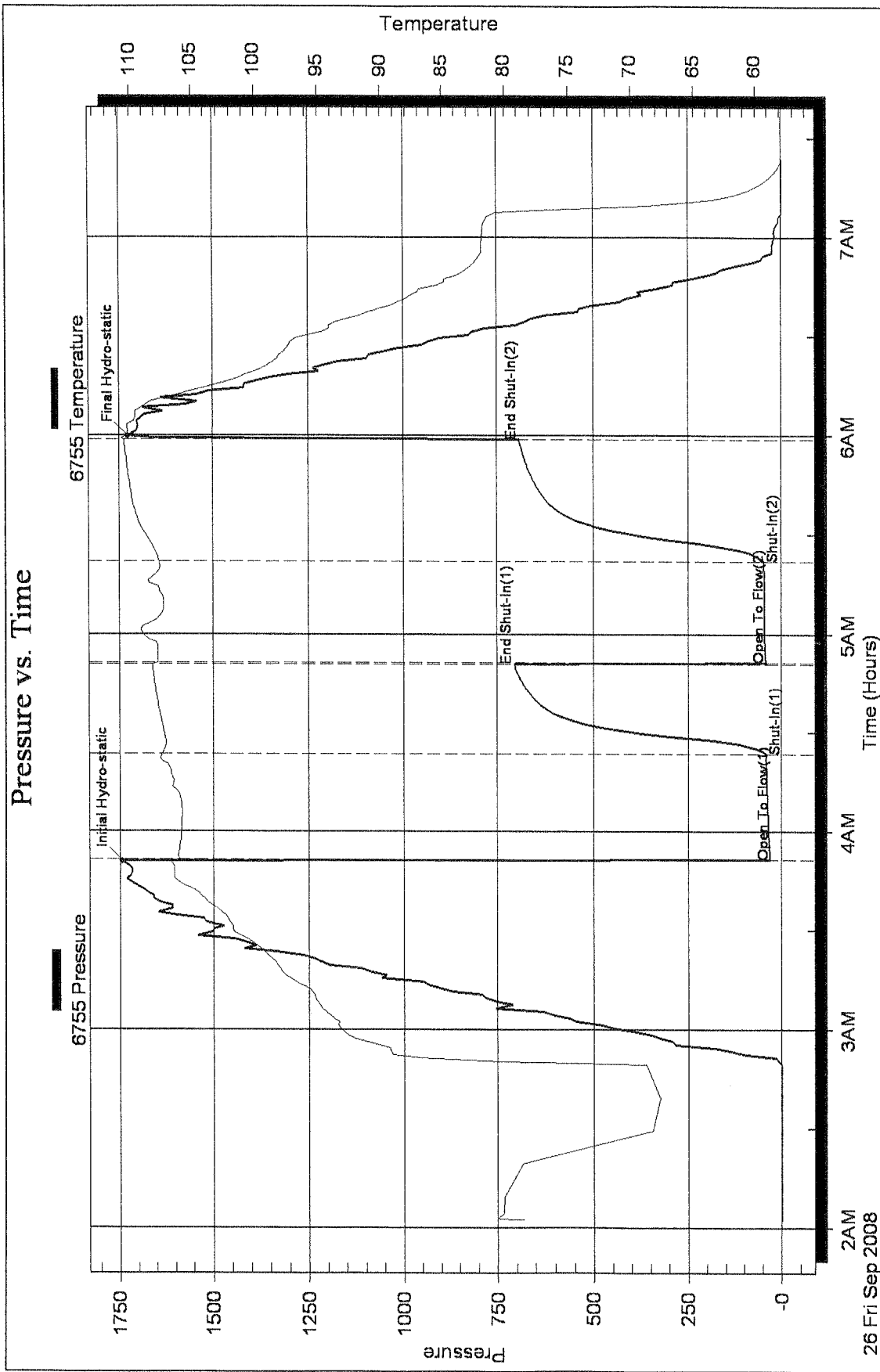
Serial #:

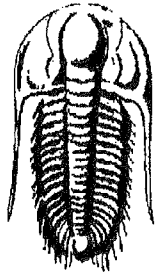
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Hupfer Operating, Inc.**

PO Box 216
Hays, Ks. 67601

ATTN: Jim Musgrove

36 13 20 Ellis KS

Engel #1

Start Date: 2008.09.26 @ 16:40:00

End Date: 2008.09.27 @ 00:28:00

Job Ticket #: 32523 DST #: 2

RECEIVED
KANSAS CORPORATION COMMISSION

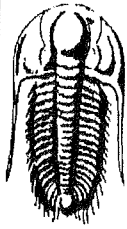
JAN 15 2009

CONSERVATION DIVISION
WICHITA, KS

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hupfer Operating, Inc.

PO Box 216
Hays, Ks. 67601

ATTN: Jim Musgrove

Engel #1

36 13 20 Ellis KS

Job Ticket: 32523

DST#: 2

Test Start: 2008.09.26 @ 16:40:00

GENERAL INFORMATION:

Formation: "I-J"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:58:30

Time Test Ended: 00:28:00

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: 3666.00 ft (KB) To 3730.00 ft (KB) (TVD)

Total Depth: 3730.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2234.00 ft (KB)

2226.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6755

Inside

Press@RunDepth: 50.03 psig @ 3670.00 ft (KB)

Start Date: 2008.09.26

End Date:

2008.09.27

Start Time: 16:40:02

End Time:

00:28:00

Capacity: 7000.00 psig

Last Calib.: 2008.09.27

Time On Btm: 2008.09.26 @ 20:58:00

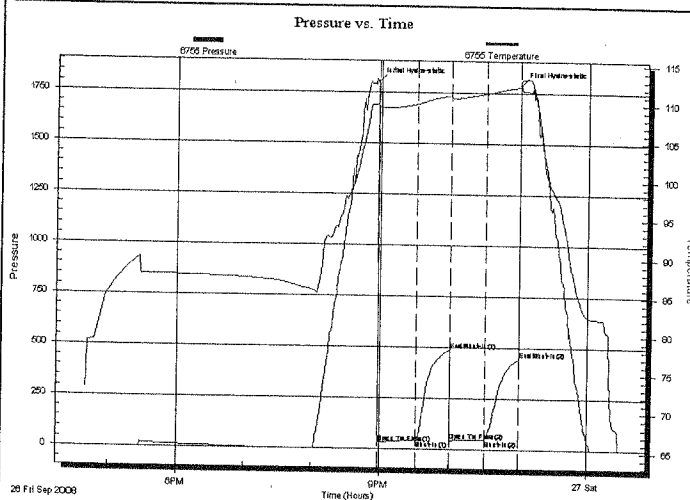
Time Off Btm: 2008.09.26 @ 23:00:30

TEST COMMENT: IFF-Weak Blow, Built to 1-1/4"

ISI-Dead

FFP-Weak Surface Blow, Died in 15 Min.

FSI-Dead



PRESSURE SUMMARY

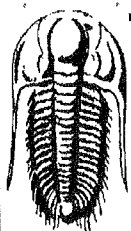
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1804.88	109.91	Initial Hydro-static
1	29.94	109.14	Open To Flow (1)
34	44.23	109.93	Shut-In(1)
63	489.30	111.05	End Shut-In(1)
63	45.54	110.80	Open To Flow (2)
93	50.03	111.33	Shut-In(2)
122	443.99	112.19	End Shut-In(2)
123	1786.92	112.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	Drilling 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

Hupfer Operating, Inc.

Engel #1

PO Box 216
Hays, Ks. 67601

36 13 20 Ellis KS

Job Ticket: 32523

DST#: 2

ATTN: Jim Musgrove

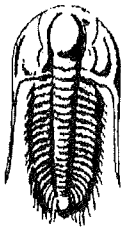
Test Start: 2008.09.26 @ 16:40:00

Tool Information

Drill Pipe:	Length: 3644.00 ft	Diameter: 3.80 inches	Volume: 51.12 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:	20000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	74000.00 lb
			Total Volume: 51.27 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	3666.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	64.00 ft				
Tool Length:	85.00 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			3646.00	
Shut In Tool	5.00			3651.00	
Hydraulic tool	5.00			3656.00	
Packer	5.00			3661.00	21.00 Bottom Of Top Packer
Packer	5.00			3666.00	
Stubb	1.00			3667.00	
Perforations	2.00			3669.00	
Recorder	0.00	8360	Inside	3669.00	
Change Over Sub	1.00			3670.00	
Recorder	0.00	6755	Inside	3670.00	
Blank Spacing	31.00			3701.00	
Change Over Sub	1.00			3702.00	
Perforations	25.00			3727.00	
Bullnose	3.00			3730.00	64.00 Bottom Packers & Anchor

Total Tool Length: 85.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Hupfer Operating, Inc.

Engel #1

PO Box 216
Hays, Ks. 67601

36 13 20 Ellis KS

Job Ticket: 32523

DST#: 2

ATTN: Jim Musgrove

Test Start: 2008.09.26 @ 16:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 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
40.00	Drilling Mud	0.279

Total Length: 40.00 ft

Total Volume: 0.279 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

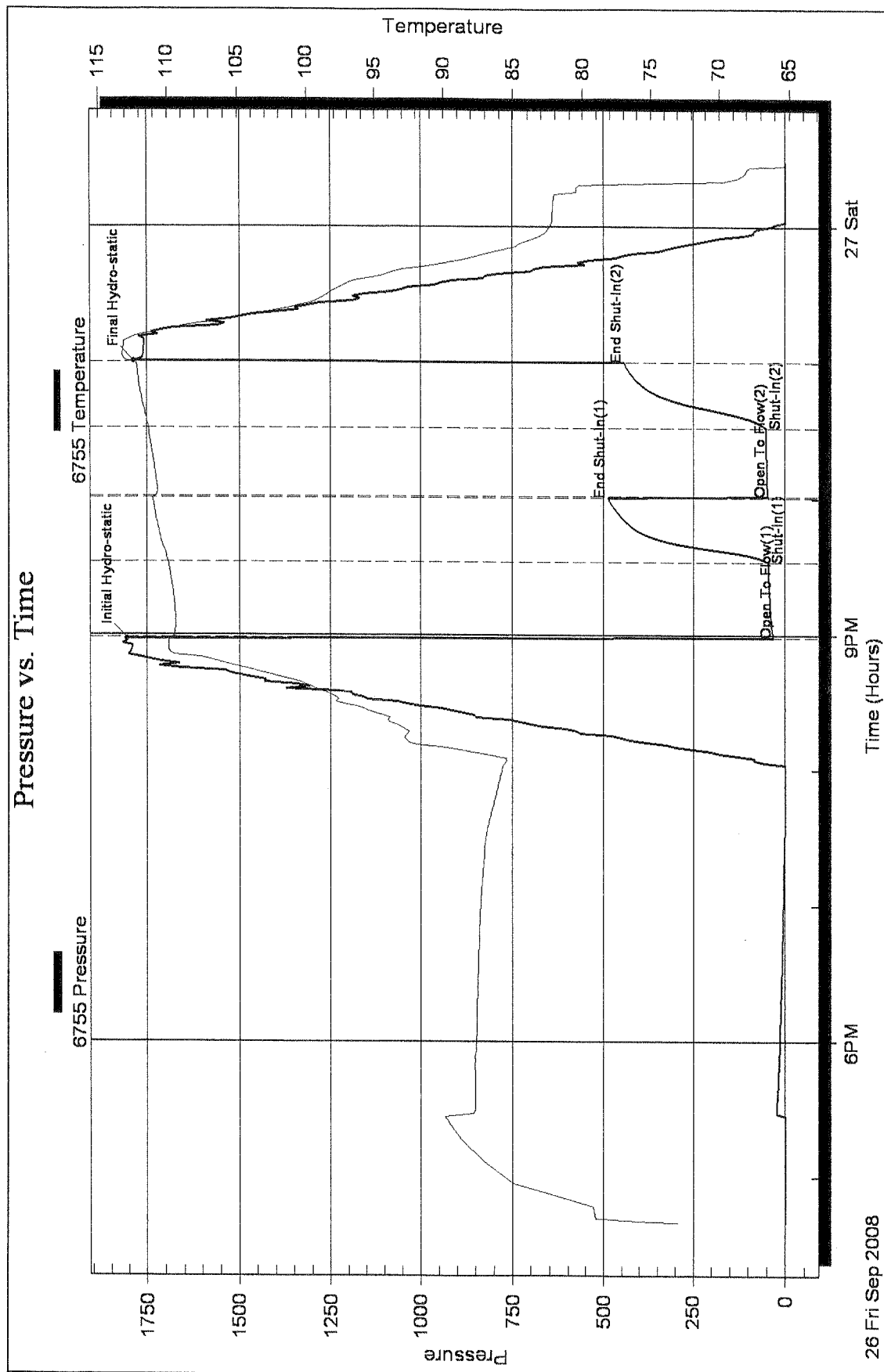
Serial #:

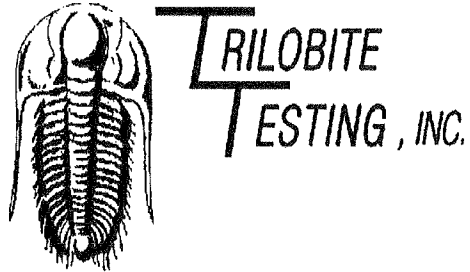
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Hupfer Operating, Inc.**

PO Box 216
Hays, Ks. 67601

ATTN: Jim Musgrove

36 13 20 Ellis KS

Engel #1

Start Date: 2008.09.27 @ 14:48:22

End Date: 2008.09.27 @ 21:24:52

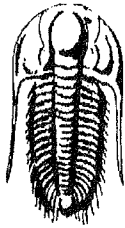
Job Ticket #: 32524 DST #: 3

RECEIVED
KANSAS CORPORATION COMMISSION

JAN 15 2009

CONSERVATION DIVISION
WICHITA, KS

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hupfer Operating, Inc.

PO Box 216
Hays, Ks. 67601

ATTN: Jim Musgrove

Engel #1

36 13 20 Ellis KS

Job Ticket: 32524

DST#: 3

Test Start: 2008.09.27 @ 14:48:22

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:12:22

Time Test Ended: 21:24:52

Interval: **3820.00 ft (KB) To 3872.00 ft (KB) (TVD)**

Total Depth: 3872.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Reference Elevations: 2234.00 ft (KB)

2226.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6755

Inside

Press@RunDepth: 240.55 psig @ 3824.00 ft (KB)

Start Date: 2008.09.27

End Date: 2008.09.27

Start Time: 14:48:24

End Time: 21:24:52

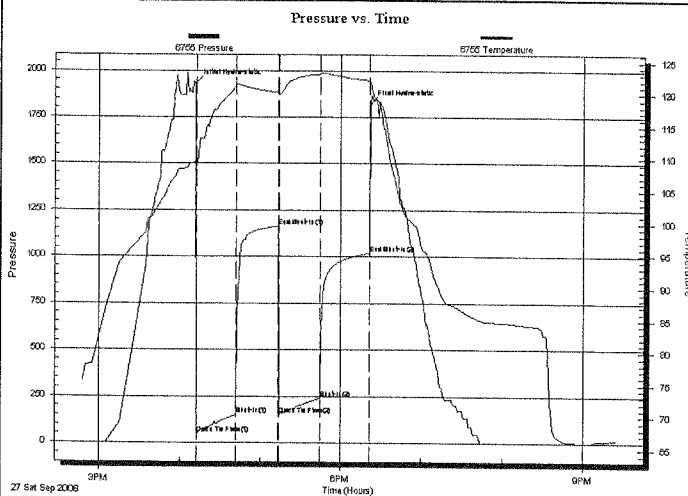
Capacity: 7000.00 psig

Last Calib.: 2008.09.27

Time On Btm: 2008.09.27 @ 16:11:52

Time Off Btm: 2008.09.27 @ 18:22:22

TEST COMMENT: IFP-Good Blow ,BOB in 9 Mn.
IS-Dead
FFP-Good Blow ,BOB in 12 Mn.
FSI-Dead



PRESSURE SUMMARY

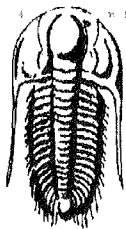
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1929.46	109.51	Initial Hydro-static
1	145.24	108.92	Open To Flow (1)
30	150.53	121.24	Shut-In (1)
61	1162.27	120.30	End Shut-In (1)
62	152.78	119.86	Open To Flow (2)
93	240.55	123.12	Shut-In (2)
130	1017.93	122.16	End Shut-In (2)
131	1820.28	122.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	SOCMV-5%G-10%O-80%W-5%M	2.24
290.00	GOCVM-20%G-22%O-20%W-38%M	4.07
0.00	130' Gas In Pipe	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hupfer Operating, Inc.

Engel #1

PO Box 216
Hays, Ks. 67601

36 13 20 Ellis KS

Job Ticket: 32524

DST#: 3

ATTN: Jim Musgrove

Test Start: 2008.09.27 @ 14:48:22

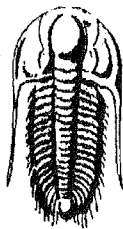
Tool Information

Drill Pipe:	Length: 3803.00 ft	Diameter: 3.80 inches	Volume: 53.35 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 82000.00 lb
		Total Volume: 53.50 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	3820.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	68.00 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			3805.00	
Shut In Tool	5.00			3810.00	
Hydraulic tool	5.00			3815.00	
Packer	5.00			3820.00	16.00 Bottom Of Top Packer
Packer - Shale	0.00			3820.00	
Stubb	1.00			3821.00	
Perforations	2.00			3823.00	
Recorder	0.00	8360	Inside	3823.00	
Change Over Sub	1.00			3824.00	
Recorder	0.00	6755	Inside	3824.00	
Blank Spacing	31.00			3855.00	
Change Over Sub	1.00			3856.00	
Perforations	13.00			3869.00	
Bullnose	3.00			3872.00	52.00 Anchor Tool

Total Tool Length: 68.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Hupfer Operating, Inc.

Engel #1

PO Box 216
Hays, Ks. 67601

36 13 20 Ellis KS

Job Ticket: 32524

DST#: 3

ATTN: Jim Musgrove

Test Start: 2008.09.27 @ 14:48:22

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 9.18 in³

Resistivity: ohm.m

Salinity: 4000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

deg API

Water Salinity:

32000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	SOCMW-5%G-10%O-80%W-5%M	2.243
290.00	GOCWM-20%G-22%O-20%W-38%M	4.068
0.00	130' Gas In Pipe	0.000

Total Length: 470.00 ft

Total Volume: 6.311 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .209 @ 70F = 32000 chlorides

Pressure vs. Time

