

15-153-20874

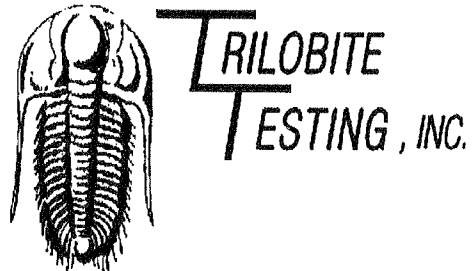
9-15-35w

IND

CONFIDENTIAL

JUN 19 2009

KCC



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water
Ste. 300
Wichita, KS 67202

ATTN: Kevin Davis

9 1 35 Rawlins KS

Wilkinson #1-9

Start Date: 2009.02.21 @ 12:15:00

End Date: 2009.02.21 @ 18:21:00

Job Ticket #: 35796 DST #: 1

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

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Murfin Drilling Co.

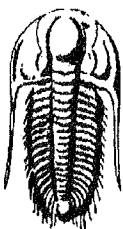
Wilkinson #1-9

9 1 35 Rawlins KS

DST # 1

LKC-A-D

2009.02.21



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

Wickinson #1-9

9 1 35 Rawlins KS

Job Ticket: 35796

DST#: 1

Test Start: 2009.02.21 @ 12:15:00

GENERAL INFORMATION:

Formation: **LKC-A-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:09:30

Time Test Ended: 18:21:00

Test Type: Conventional Bottom Hole

Tester: Chuck Kreutzer

Unit No: 30

Interval: **4080.00 ft (KB) To 4151.00 ft (KB) (TVD)**

Total Depth: 4151.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3142.00 ft (KB)

3137.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166

Inside

Press@RunDepth: 80.51 psig @ 4083.00 ft (KB)

Start Date: 2009.02.21

End Date:

2009.02.21

Start Time: 12:15:05

End Time:

18:20:59

Capacity: 7000.00 psig

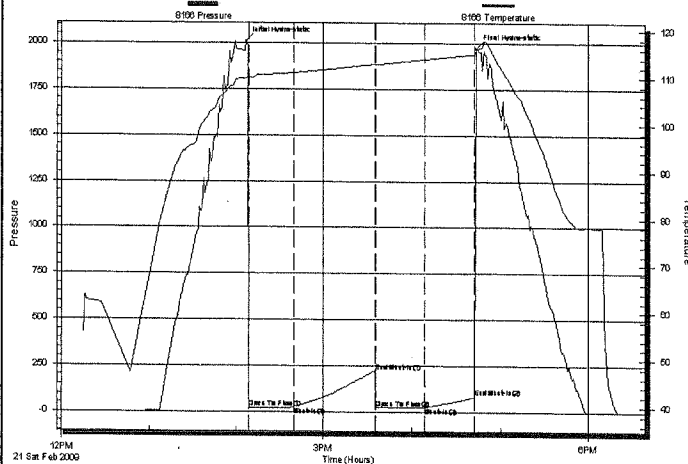
Last Calib.: 2009.02.21

Time On Btm: 2009.02.21 @ 14:07:30

Time Off Btm: 2009.02.21 @ 16:43:30

TEST COMMENT: IF: Weak blow built to 1 1/2 over 30 mins.
IS: No blow back.
FF: Weak blow, surface died 15 mins. into final open
FS: No blow back.

Pressure vs. Time



PRESSURE SUMMARY

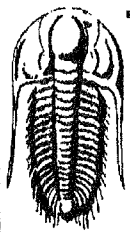
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2009.45	109.83	Initial Hydro-static
2	17.88	109.86	Open To Flow (1)
33	25.77	111.05	Shut-In(1)
88	219.39	112.90	End Shut-In(1)
89	21.55	112.85	Open To Flow (2)
122	24.17	113.92	Shut-In(2)
155	80.51	115.05	End Shut-In(2)
156	1971.43	115.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mco-80% m20%o	0.05
3.00	oil	0.01

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

Wickinson #1-9

9 1 35 Rawlins KS

Job Ticket: 35796

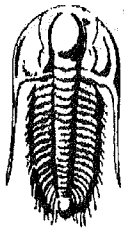
DST#: 1

Test Start: 2009.02.21 @ 12:15:00

Tool Information

Drill Pipe:	Length: 3539.00 ft	Diameter: 3.80 inches	Volume: 49.64 bbl	Tool Weight: 2800.00 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: 546.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose: 85000.00 lb
			Total Volume: 52.33 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4080.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	71.00 ft			
Tool Length:	99.00 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			4057.00	
Hydraulic tool	5.00			4062.00	
Jars	5.00			4067.00	
Safety Joint	3.00			4070.00	
Packer	5.00			4075.00	28.00 Bottom Of Top Packer
Packer	5.00			4080.00	
Stubb	1.00			4081.00	
Perforations	1.00			4082.00	
Change Over Sub	1.00			4083.00	
Recorder	0.00	8166	inside	4083.00	
Recorder	0.00	8356	inside	4083.00	
Blank Spacing	31.00			4114.00	
Perforations	34.00			4148.00	
Bullnose	3.00			4151.00	71.00 Bottom Packers & Anchor
Total Tool Length:		99.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Wickinson #1-9

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

9 1 35 Rawlins KS

Job Ticket: 35796

DST#: 1

Test Start: 2009.02.21 @ 12:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 6.39 in³

Resistivity: ohm.m

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mco-80% m20%o	0.049
3.00	oil	0.015

Total Length: 13.00 ft

Total Volume: 0.064 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

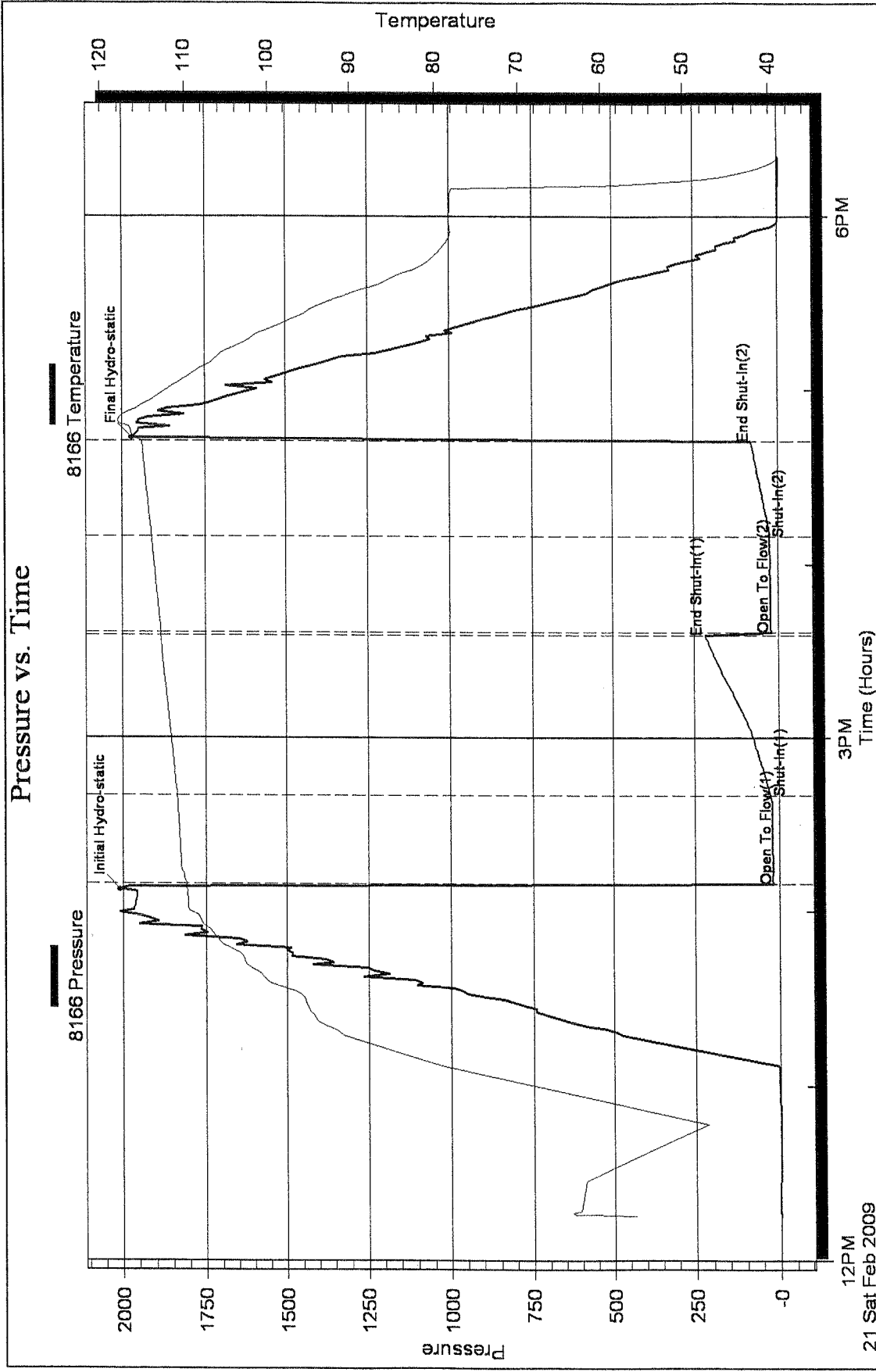
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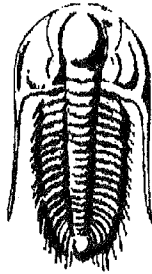
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water
Ste. 300
Wichita, KS 67202

ATTN: Kevin Davis

9 1 35 Rawlins KS

Wickinson #1-9

Start Date: 2009.02.22 @ 02:50:00

End Date: 2009.02.22 @ 11:41:30

Job Ticket #: 35797 DST #: 2

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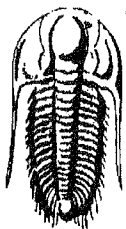
JUN 19 2009

KCC WICHITA

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

Wickinson #1-9

9 1 35 Rawlins KS

Job Ticket: 35797

DST#: 2

Test Start: 2009.02.22 @ 02:50:00

GENERAL INFORMATION:

Formation: **LKC-E-G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:55:00

Time Test Ended: 11:41:30

Test Type: Conventional Bottom Hole

Tester: Chuck Kreutzer

Unit No: 30

Interval: **4150.00 ft (KB) To 4213.00 ft (KB) (TVD)**

Total Depth: 4151.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3142.00 ft (KB)

3137.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166

Inside

Press@RunDepth: 306.15 psig @ 4153.00 ft (KB)

Start Date: 2009.02.22

End Date:

2009.02.22

Capacity: 7000.00 psig

Last Calib.: 2009.02.22

Start Time: 02:50:05

End Time:

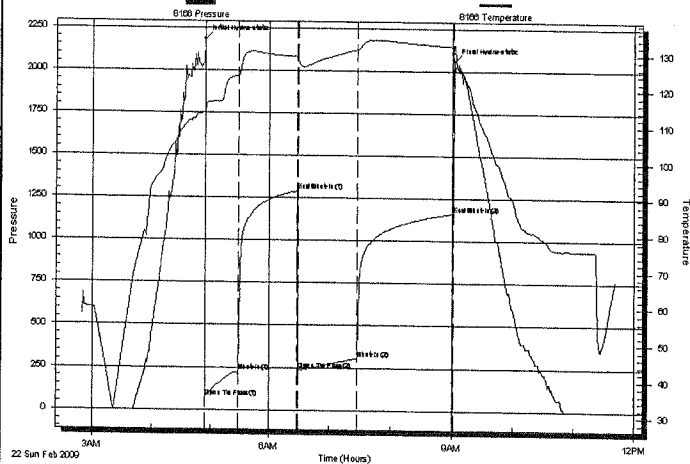
11:41:30

Time On Btm: 2009.02.22 @ 04:54:30

Time Off Btm: 2009.02.22 @ 09:02:00

TEST COMMENT: IF: Strong blow, B.O.B in 5 mins.
IS: Bled off, fair blow 7 in. over 60 mins.
FF: Bled off, strong blow B.O.B in 7 mins.
FS: Bled off, fair blow built to 6 in. over 90 mins.

Pressure vs. Time



PRESSURE SUMMARY

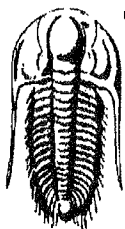
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2181.80	113.77	Initial Hydro-static
1	75.06	114.12	Open To Flow (1)
34	223.67	123.97	Shut-In (1)
93	1289.99	129.24	End Shut-In (1)
94	235.92	128.45	Open To Flow (2)
152	306.15	131.17	Shut-In (2)
246	1160.97	132.14	End Shut-In (2)
248	2056.76	132.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	gmco-20%g30%m50%o	0.91
620.00	go-20%g80%o	5.42
763.00	gas in pipe	10.70

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

Wickinson #1-9

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

9 1 35 Rawlins KS

Job Ticket: 35797

DST#: 2

Test Start: 2009.02.22 @ 02:50:00

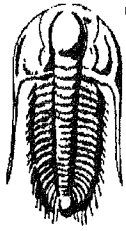
Tool Information

Drill Pipe:	Length: 3594.00 ft	Diameter: 3.80 inches	Volume: 50.41 bbl	Tool Weight:	2800.00 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: 546.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	53.10 bbl	Tool Chased	15.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4150.00 ft			Final	74000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 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			4127.00	
Hydraulic tool	5.00			4132.00	
Jars	5.00			4137.00	
Safety Joint	3.00			4140.00	
Packer	5.00			4145.00	28.00 Bottom Of Top Packer
Packer	5.00			4150.00	
Stubb	1.00			4151.00	
Perforations	1.00			4152.00	
Change Over Sub	1.00			4153.00	
Recorder	0.00	8166	Inside	4153.00	
Recorder	0.00	8356	Inside	4153.00	
Blank Spacing	31.00			4184.00	
Perforations	26.00			4210.00	
Bullnose	3.00			4213.00	63.00 Bottom Packers & Anchor

Total Tool Length: 91.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Wickinson #1-9

250 N. Water

9 1 35 Rawlins KS

Ste. 300

Job Ticket: 35797

DST#: 2

Wichita, KS 67202

Test Start: 2009.02.22 @ 02:50:00

ATTN: Kevin Davis

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	gmco-20%g30%m50%o	0.915
620.00	go-20%g80%o	5.418
763.00	gas in pipe	10.703

Total Length: 1569.00 ft

Total Volume: 17.036 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

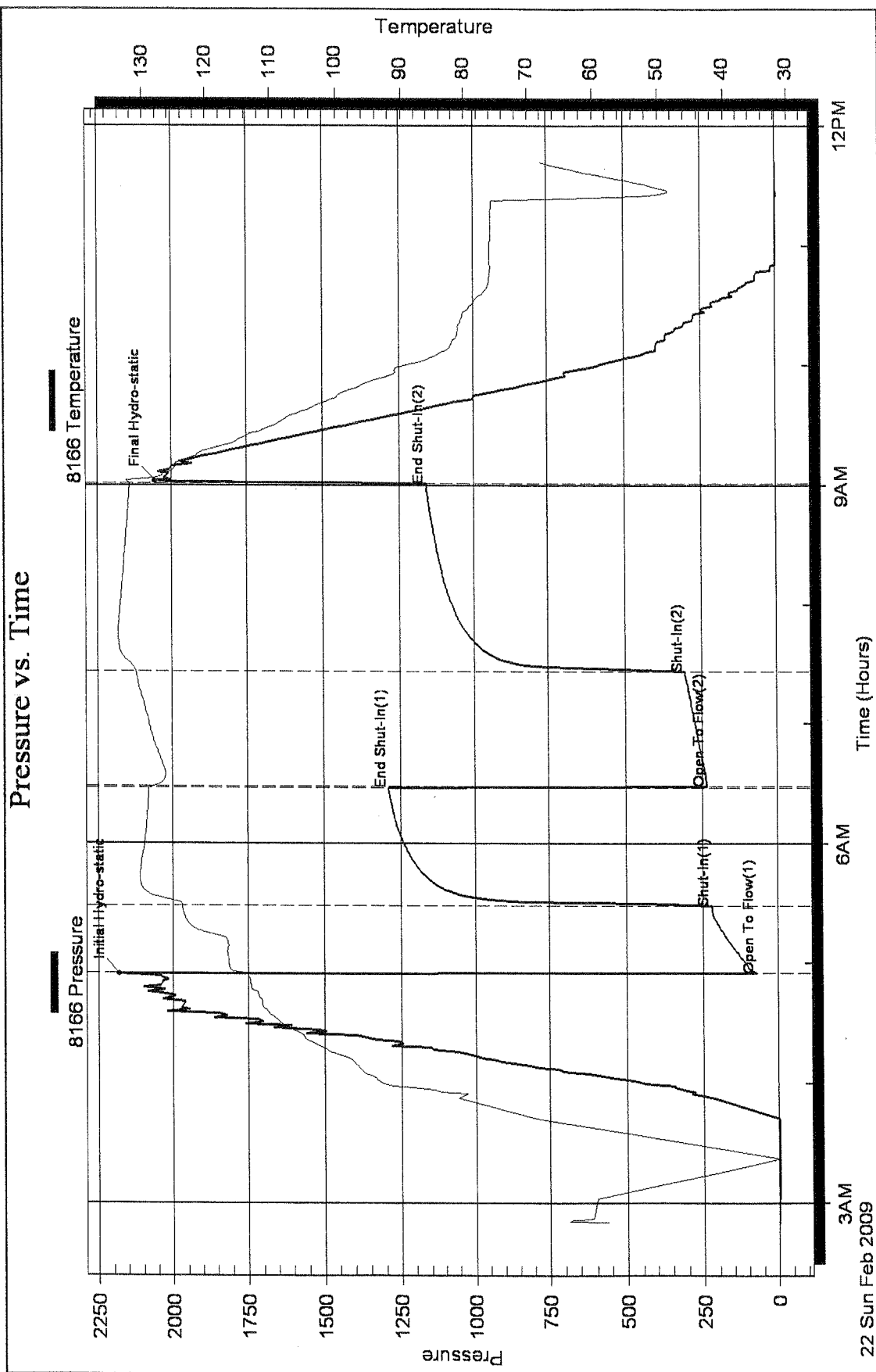
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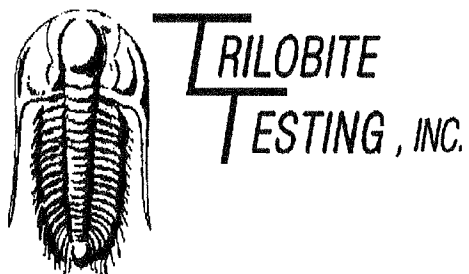
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water
Ste. 300
Wichita, KS 67202

ATTN: Kevin Davis

9 1 35 Rawlins KS

Wickinson #1-9

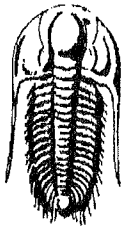
Start Date: 2009.02.22 @ 23:20:00

End Date: 2009.02.23 @ 07:18:00

Job Ticket #: 35798 DST #: 3

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

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JUN 19 2009
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

Wickinson #1-9

9 1 35 Rawlins KS

Job Ticket: 35798

DST#: 3

Test Start: 2009.02.22 @ 23:20:00

GENERAL INFORMATION:

Formation: **LKC-H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:13:00

Time Test Ended: 07:18:00

Interval: **4218.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Total Depth: 4151.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Chuck Kreutzer

Unit No: 30

Reference Elevations: 3142.00 ft (KB)

3137.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8166 Inside

Press@RunDepth: 56.13 psig @ 4221.00 ft (KB)

Start Date: 2009.02.22

End Date: 2009.02.23

Start Time: 23:20:05

End Time: 07:17:59

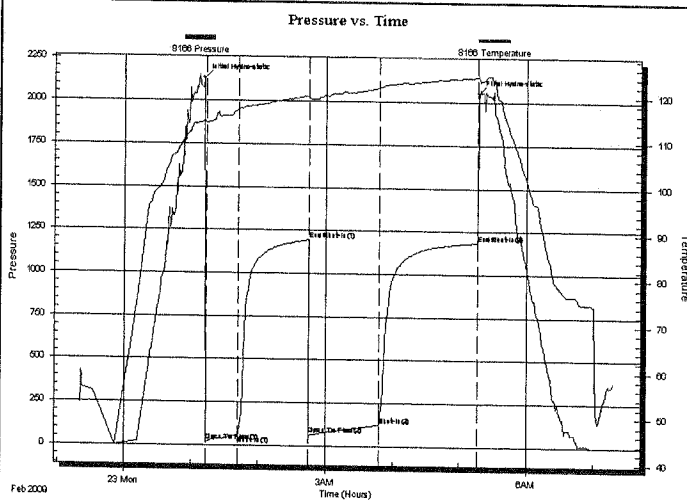
Capacity: 7000.00 psig

Last Calib.: 2009.02.23

Time On Btm: 2009.02.23 @ 01:12:00

Time Off Btm: 2009.02.23 @ 05:16:29

TEST COMMENT: IF: Weak surface blow, built to 3 in. over 30 mins.
IS: Bled off, Weak surface blow after 15 mins. Never built passed surface.
FF: Weak blow built to 3 in. over 50 mins.
IS: Bled off, Weak surfac



PRESSURE SUMMARY

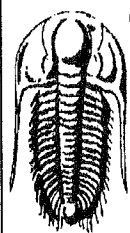
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2132.86	114.24	Initial Hydro-static
2	20.65	114.01	Open To Flow (1)
31	56.13	116.98	Shut-In (1)
93	1194.81	120.02	End Shut-In (1)
93	66.33	119.48	Open To Flow (2)
155	123.94	121.95	Shut-In (2)
244	1185.52	124.29	End Shut-In (2)
245	2054.74	124.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	ghocm-10%g40%o50%m	0.61
62.00	gmco-10%g60%o30%m	0.30
62.00	go-10%g90%o	0.30

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

Wickinson #1-9

9 1 35 Rawlins KS

Job Ticket: 35798

DST#: 3

Test Start: 2009.02.22 @ 23:20:00

Tool Information

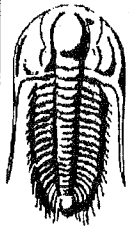
Drill Pipe:	Length: 3662.00 ft	Diameter: 3.80 inches	Volume: 51.37 bbl	Tool Weight:	2800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 546.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose:	85000.00 lb
		Total Volume:	54.06 bbl	Tool Chased	2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	75000.00 lb
Depth to Top Packer:	4218.00 ft			Final	75000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	82.00 ft				
Tool Length:	102.00 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			4203.00	
Hydraulic tool	5.00			4208.00	
Packer	5.00			4213.00	20.00 Bottom Of Top Packer
Packer	5.00			4218.00	
Stubb	1.00			4219.00	
Perforations	1.00			4220.00	
Change Over Sub	1.00			4221.00	
Recorder	0.00	8166	Inside	4221.00	
Recorder	0.00	8356	Inside	4221.00	
Blank Spacing	62.00			4283.00	
Change Over Sub	1.00			4284.00	
Perforations	13.00			4297.00	
Bullnose	3.00			4300.00	82.00 Bottom Packers & Anchor

Total Tool Length: 102.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

Wickinson #1-9

250 N. Water
Ste. 300
Wichita, KS 67202
ATTN: Kevin Davis

9 1 35 Rawlins KS

Job Ticket: 35798

DST#: 3

Test Start: 2009.02.22 @ 23:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 6.39 in³

Resistivity: ohm.m

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

31 deg API

Water Salinity:

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	ghocm-10%g40%o50%m	0.610
62.00	gmco-10%g60%o30%m	0.305
62.00	go-10%g90%o	0.305

Total Length: 248.00 ft

Total Volume: 1.220 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

