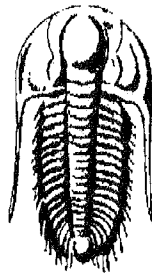


15-193-20764

22-10s-34w

IND



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

CONFIDENTIAL

JUN 23 2009

250 N Water Ste 300
Wichita, KS 67202

KCC

ATTN: Rocky Milford

22-10s-34w Thomas KS

James A #2-22

Start Date: 2009.05.27 @ 02:21:07

End Date: 2009.05.27 @ 10:27:16

Job Ticket #: 34613

DST #: 1

RECEIVED

JUN 25 2009

KCC WICHITA

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Company

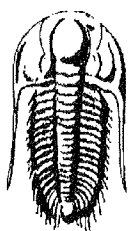
James A #2-22

22-10s-34w Thomas KS

DST # 1

Lansing A-D

2009.05.27



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34613

DST#: 1

Test Start: 2009.05.27 @ 02:21:07

GENERAL INFORMATION:

Formation: **Lansing A-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:08:02

Time Test Ended: 10:27:16

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4137.00 ft (KB) To 4201.00 ft (KB) (TVD)**

Total Depth: 4201.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3224.00 ft (KB)

3219.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press@RunDepth: 267.41 psig @ 4138.00 ft (KB)

Start Date: 2009.05.27

End Date:

2009.05.27

Start Time: 02:21:07

End Time:

10:27:16

Capacity: 7000.00 psig

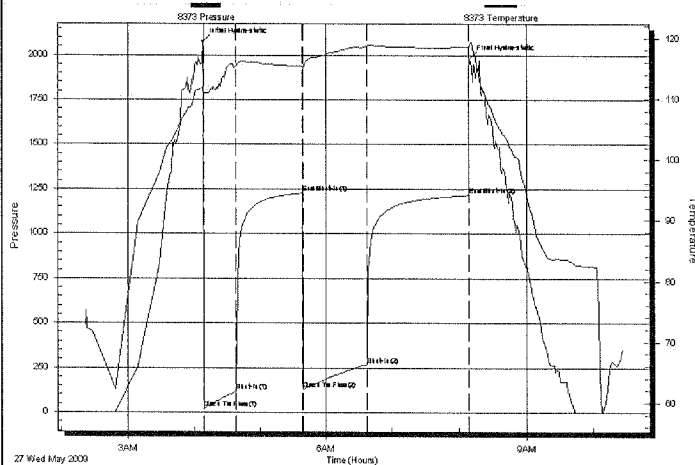
Last Calib.: 2009.05.27

Time On Btm: 2009.05.27 @ 04:07:17

Time Off Btm: 2009.05.27 @ 08:09:16

TEST COMMENT: IF: 1/4 blow built to 6 in 30 min.
IS: No return.
FF: Surface blow built to 7 in 60 min.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

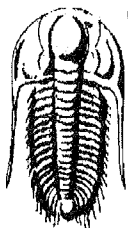
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2074.01	111.85	Initial Hydro-static
1	23.79	110.79	Open To Flow (1)
31	118.32	115.38	Shut-In(1)
91	1226.16	115.41	End Shut-In(1)
92	127.86	114.96	Open To Flow (2)
151	267.41	118.67	Shut-In(2)
241	1215.31	118.57	End Shut-In(2)
242	1980.13	118.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
182.00	mw oil spots 50%w 50%m	0.90
182.00	w cm oil spots 30%w 70%m	0.90
122.00	ocm 10%o 90%m	0.60
71.00	mud oil spots 100%m	0.44

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34613

DST#: 1

ATTN: Rocky Milford

Test Start: 2009.05.27 @ 02:21:07

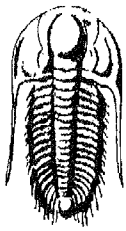
Tool Information

Drill Pipe:	Length: 3595.00 ft	Diameter: 3.80 inches	Volume: 50.43 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: 30000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose: 90000.00 lb
		Total Volume: 53.12 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4137.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 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
Stubb	1.00			4118.00	
Shut In Tool	5.00			4123.00	
Hydraulic tool	5.00			4128.00	
Packer	5.00			4133.00	20.00 Bottom Of Top Packer
Packer	4.00			4137.00	
Stubb	1.00			4138.00	
Recorder	0.00	6772	Inside	4138.00	
Recorder	0.00	8373	Inside	4138.00	
Perforations	25.00			4163.00	
Change Over Sub	1.00			4164.00	
Drill Pipe	31.00			4195.00	
Change Over Sub	1.00			4196.00	
Bullnose	5.00			4201.00	64.00 Bottom Packers & Anchor

Total Tool Length: 84.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34613

DST#: 1

ATTN: Rocky Milford

Test Start: 2009.05.27 @ 02:21:07

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

55000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.36 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
182.00	mw oil spots 50%w 50%m	0.895
182.00	w cm oil spots 30%w 70%m	0.895
122.00	ocm 10%o 90%m	0.600
71.00	mud oil spots 100%m	0.440

Total Length: 557.00 ft

Total Volume: 2.830 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

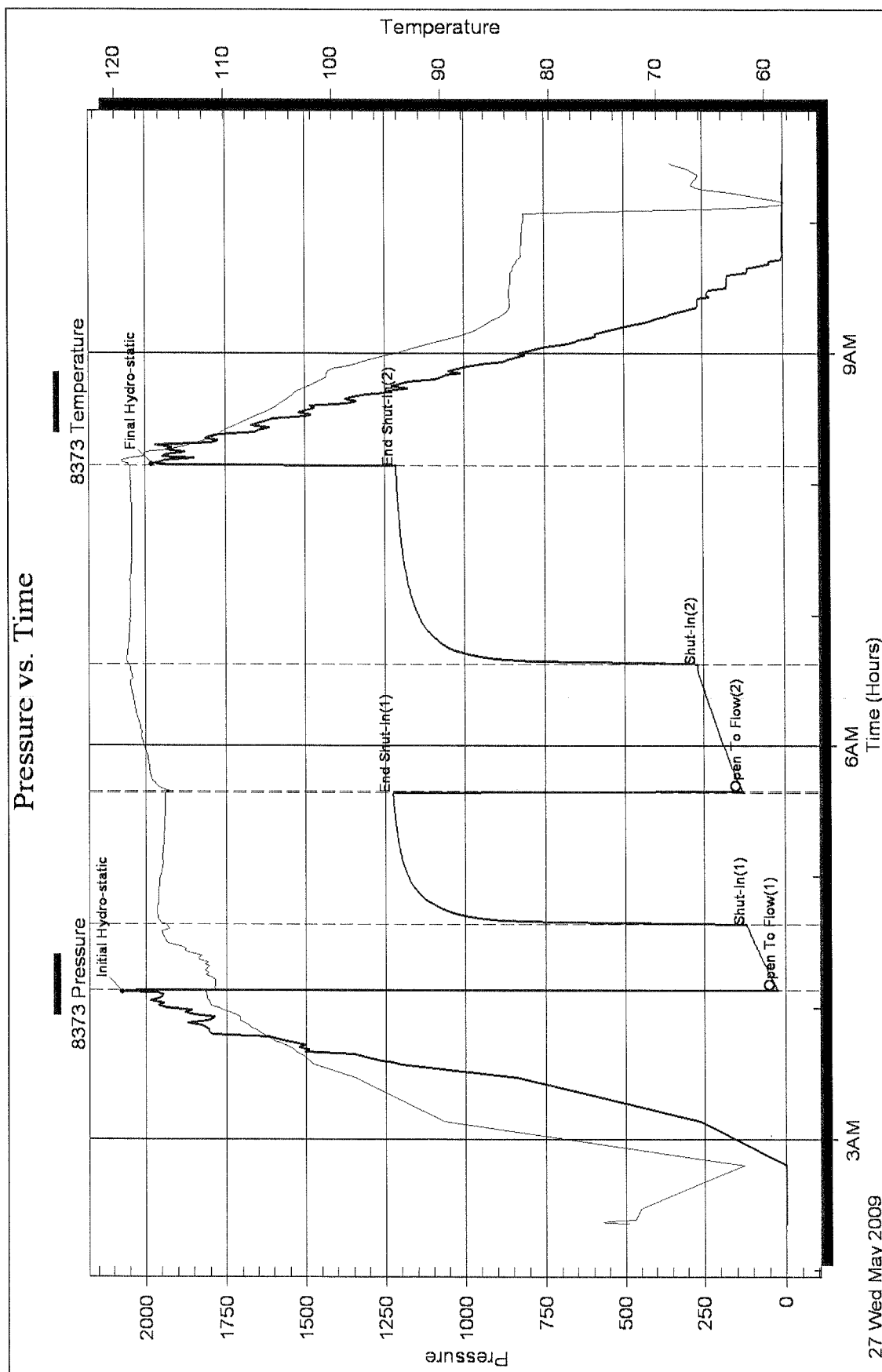
Serial #:

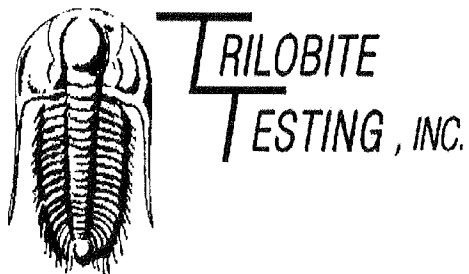
Laboratory Name:

Laboratory Location:

Recovery Comments: .18@56=55000

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

22-10s-34w Thomas KS

James A #2-22

Start Date: 2009.05.27 @ 17:46:03

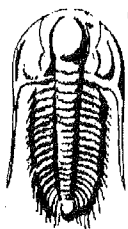
End Date: 2009.05.28 @ 01:24:12

Job Ticket #: 34614 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

Murfin Drilling Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34614

DST#: 2

Test Start: 2009.05.27 @ 17:46:03

GENERAL INFORMATION:

Formation: **Lansing E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:17:13

Time Test Ended: 01:24:12

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4233.00 ft (KB) To 4255.00 ft (KB) (TVD)**

Total Depth: 4255.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3224.00 ft (KB)

3219.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press@RunDepth: 308.08 psig @ 4234.00 ft (KB)

Start Date: 2009.05.27

End Date: 2009.05.28

Start Time: 17:46:03

End Time: 01:24:12

Capacity: 7000.00 psig

Last Calib.: 2009.05.28

Time On Btm: 2009.05.27 @ 19:16:13

Time Off Btm: 2009.05.27 @ 23:18:57

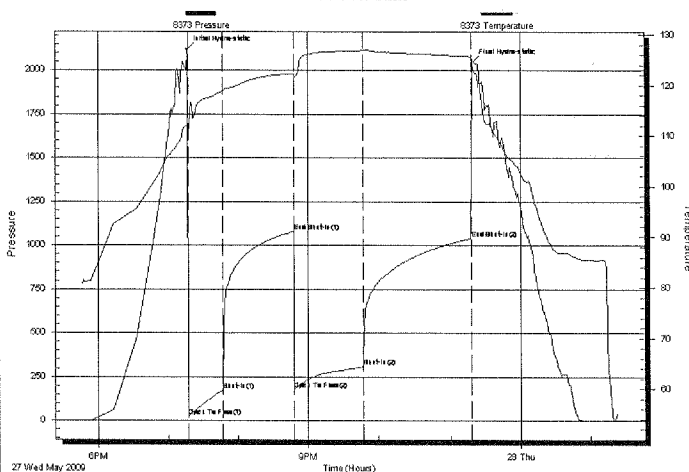
TEST COMMENT: IF: 1/4 blow built to 9 in 30 min.

IS: No return.

FF: Surface blow built to 9 1/2 in 60 min.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

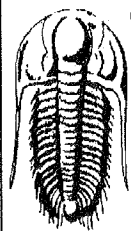
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2117.64	111.88	Initial Hydro-static
1	23.89	110.77	Open To Flow (1)
31	173.05	118.80	Shut-In(1)
92	1079.81	122.28	End Shut-In(1)
92	179.23	121.81	Open To Flow (2)
151	308.08	126.89	Shut-In(2)
242	1041.60	125.73	End Shut-In(2)
243	2046.13	124.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
427.00	mcw 95%w 5%m	2.10
120.00	mcw 90%w 10%m	0.59
93.00	mcw 70%w 30%m	1.30

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34614

DST#: 2

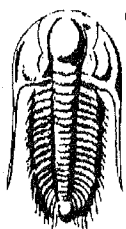
Test Start: 2009.05.27 @ 17:46:03

Tool Information

Drill Pipe:	Length: 3689.00 ft	Diameter: 3.80 inches	Volume: 51.75 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:	30000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	54.44 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	4233.00 ft			Final	74000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	42.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			4214.00		
Shut In Tool	5.00			4219.00		
Hydraulic tool	5.00			4224.00		
Packer	5.00			4229.00	20.00	Bottom Of Top Packer
Packer	4.00			4233.00		
Stubb	1.00			4234.00		
Recorder	0.00	6772	Inside	4234.00		
Recorder	0.00	8373	Inside	4234.00		
Perforations	16.00			4250.00		
Bullnose	5.00			4255.00	22.00	Bottom Packers & Anchor
Total Tool Length:	42.00					



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34614

DST#: 2

ATTN: Rocky Milford

Test Start: 2009.05.27 @ 17:46:03

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

95000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
427.00	mcw 95%w 5%m	2.100
120.00	mcw 90%w 10%m	0.590
93.00	mcw 70%w 30%m	1.305

Total Length: 640.00 ft

Total Volume: 3.995 bbl

Num Fluid Samples: 0

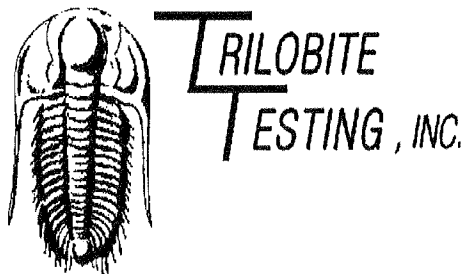
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .11@54= 95000



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

22-10s-34w Thomas KS

James A #2-22

Start Date: 2009.05.28 @ 12:30:50

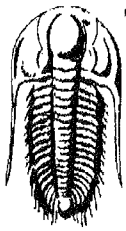
End Date: 2009.05.28 @ 21:53:45

Job Ticket #: 34615 DST #: 3

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 Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34615

DST#: 3

Test Start: 2009.05.28 @ 12:30:50

GENERAL INFORMATION:

Formation: **Lansing H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:19:00

Time Test Ended: 21:53:45

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4283.00 ft (KB) To 4375.00 ft (KB) (TVD)**

Total Depth: 4375.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3224.00 ft (KB)

3219.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press@RunDepth: 341.00 psig @ 4284.00 ft (KB)

Start Date: 2009.05.28

End Date:

2009.05.28

Start Time: 12:30:50

End Time:

21:53:45

Capacity: 7000.00 psig

Last Calib.: 2009.05.28

Time On Btm: 2009.05.28 @ 14:18:45

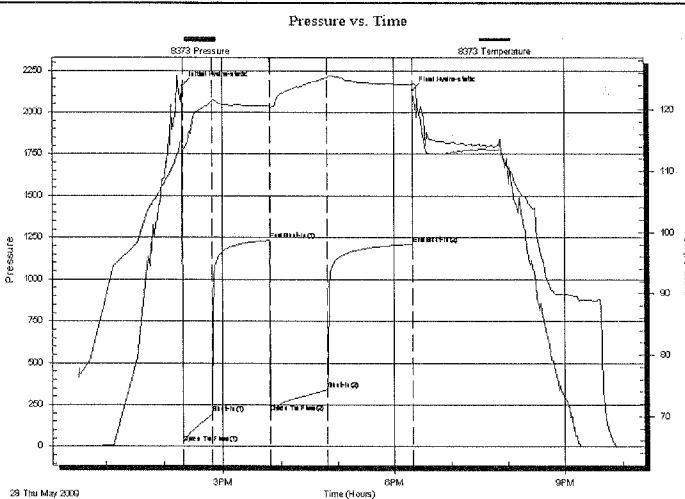
Time Off Btm: 2009.05.28 @ 18:19:44

TEST COMMENT: IF: 1/4 blow BOB in 23 min.

IS: No return.

FF: Surface blow BOB in 40 min.

FS: No return.



PRESSURE SUMMARY

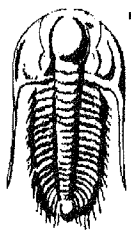
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2159.55	114.93	Initial Hydro-static
1	22.17	113.83	Open To Flow (1)
31	195.96	121.34	Shut-In (1)
90	1233.38	120.68	End Shut-In (1)
91	202.49	120.29	Open To Flow (2)
151	341.00	125.30	Shut-In (2)
241	1211.95	124.17	End Shut-In (2)
241	2133.06	124.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
183.00	mcw 80%w 20%m	0.90
244.00	mcw 60%w 40%m	1.20
182.00	mw 50%w 50%m	1.46
102.00	w cm 10%w 90%m	1.43

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34615

DST#: 3

ATTN: Rocky Milford

Test Start: 2009.05.28 @ 12:30:50

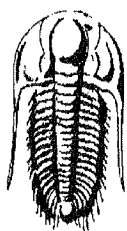
Tool Information

Drill Pipe:	Length: 3747.00 ft	Diameter: 3.80 inches	Volume: 52.56 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: 30000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 55.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 73000.00 lb
Depth to Top Packer:	4283.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	92.00 ft			
Tool Length:	112.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4264.00	
Shut In Tool	5.00			4269.00	
Hydraulic tool	5.00			4274.00	
Packer	5.00			4279.00	20.00 Bottom Of Top Packer
Packer	4.00			4283.00	
Stubb	1.00			4284.00	
Recorder	0.00	6772	Inside	4284.00	
Recorder	0.00	8373	Inside	4284.00	
Perforations	22.00			4306.00	
Change Over Sub	1.00			4307.00	
Drill Pipe	62.00			4369.00	
Change Over Sub	1.00			4370.00	
Bullnose	5.00			4375.00	92.00 Bottom Packers & Anchor

Total Tool Length: 112.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34615

DST#: 3

ATTN: Rocky Milford

Test Start: 2009.05.28 @ 12:30:50

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

65000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
183.00	mcw 80%w 20% _m	0.900
244.00	mcw 60%w 40% _m	1.200
182.00	rmw 50%w 50% _m	1.460
102.00	wcm 10%w 90% _m	1.431

Total Length: 711.00 ft Total Volume: 4.991 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

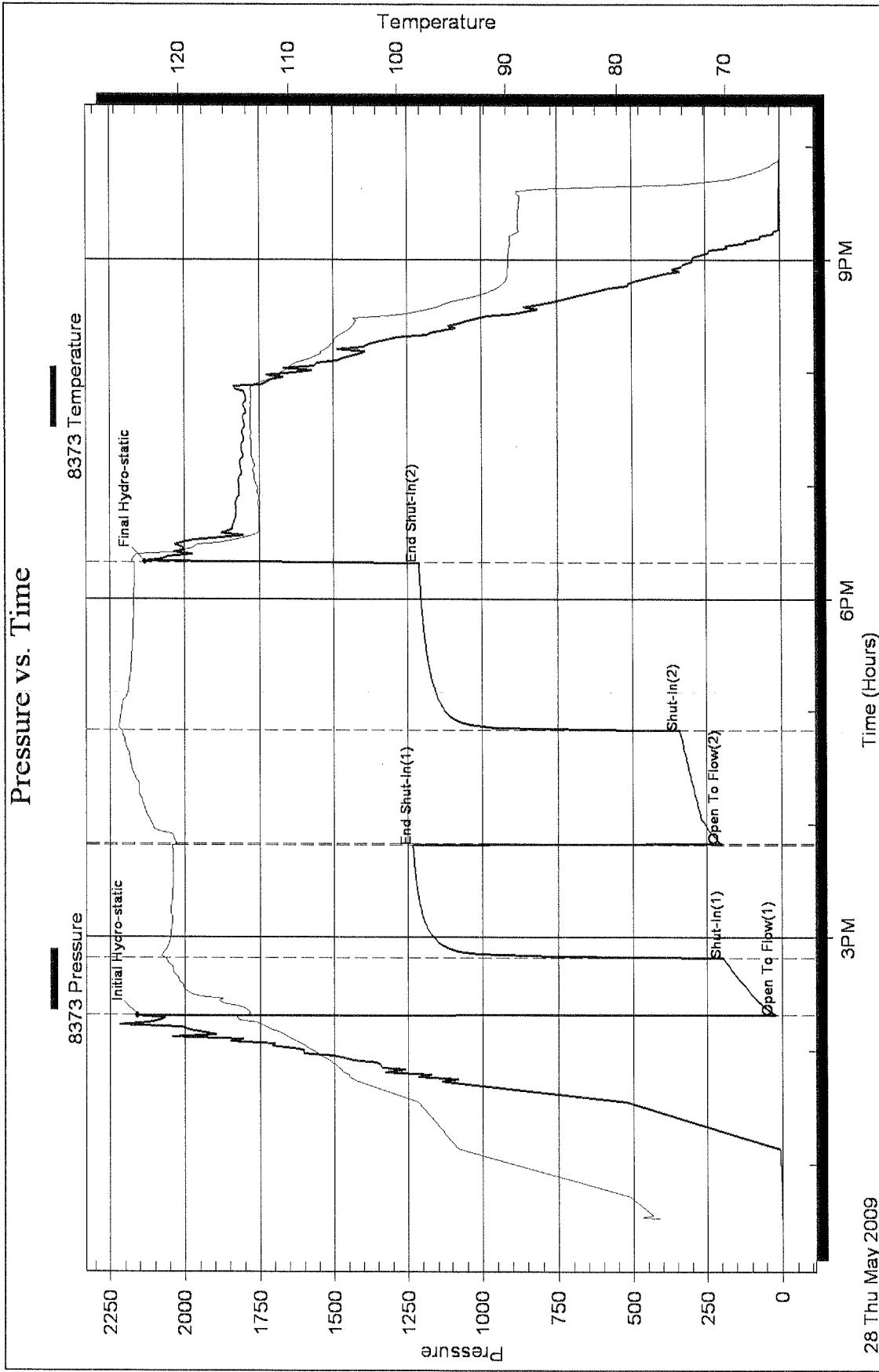
Serial #:

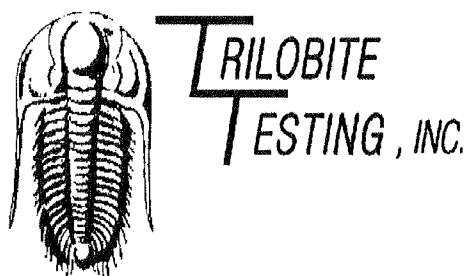
Laboratory Name:

Laboratory Location:

Recovery Comments: .11@76=65000

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

22-10s-34w Thomas KS

James A #2-22

Start Date: 2009.05.29 @ 04:55:23

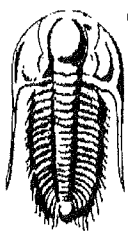
End Date: 2009.05.29 @ 11:31:17

Job Ticket #: 34616 DST #: 4

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 Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34616

DST#: 4

Test Start: 2009.05.29 @ 04:55:23

GENERAL INFORMATION:

Formation: **lansing K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:32:33

Time Test Ended: 11:31:17

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4369.00 ft (KB) To 4408.00 ft (KB) (TVD)**

Reference Elevations: 3224.00 ft (KB)

Total Depth: 4408.00 ft (KB) (TVD)

3219.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press@RunDepth: 39.97 psig @ 4370.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2009.05.29

End Date: 2009.05.29

Last Calib.: 2009.05.29

Start Time: 04:55:23

End Time: 11:31:17

Time On Btm: 2009.05.29 @ 06:32:03

Time Off Btm: 2009.05.29 @ 09:34:32

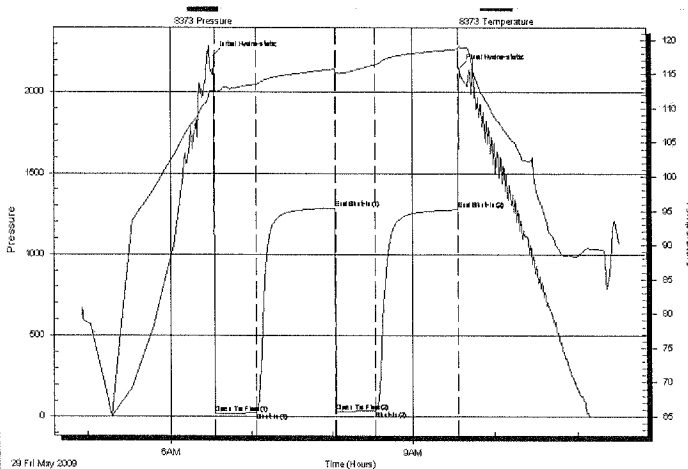
TEST COMMENT: IF: 1/4 blow built to 1 1/4 in 15 min died back to surface blow.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

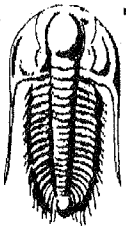
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.82	113.02	Initial Hydro-static
1	17.96	112.42	Open To Flow (1)
31	25.36	113.49	Shut-In(1)
90	1285.79	115.75	End Shut-In(1)
91	30.24	114.82	Open To Flow (2)
120	39.97	116.37	Shut-In(2)
182	1276.27	118.65	End Shut-In(2)
183	2149.01	119.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	ocm 5%o 95%m	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 Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34616

DST#: 4

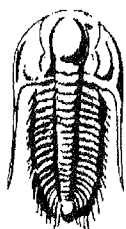
ATTN: Rocky Milford

Test Start: 2009.05.29 @ 04:55:23

Tool Information

Drill Pipe:	Length: 3810.00 ft	Diameter: 3.80 inches	Volume: 53.44 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: 30000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 56.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 73000.00 lb
Depth to Top Packer:	4369.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 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
Stubb	1.00			4350.00	
Shut In Tool	5.00			4355.00	
Hydraulic tool	5.00			4360.00	
Packer	5.00			4365.00	20.00 Bottom Of Top Packer
Packer	4.00			4369.00	
Stubb	1.00			4370.00	
Recorder	0.00	6772	Inside	4370.00	
Recorder	0.00	8373	Inside	4370.00	
Perforations	33.00			4403.00	
Bullnose	5.00			4408.00	39.00 Bottom Packers & Anchor
Total Tool Length:	59.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34616

DST#: 4

ATTN: Rocky Milford

Test Start: 2009.05.29 @ 04:55:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	ocm 5%o 95%m	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

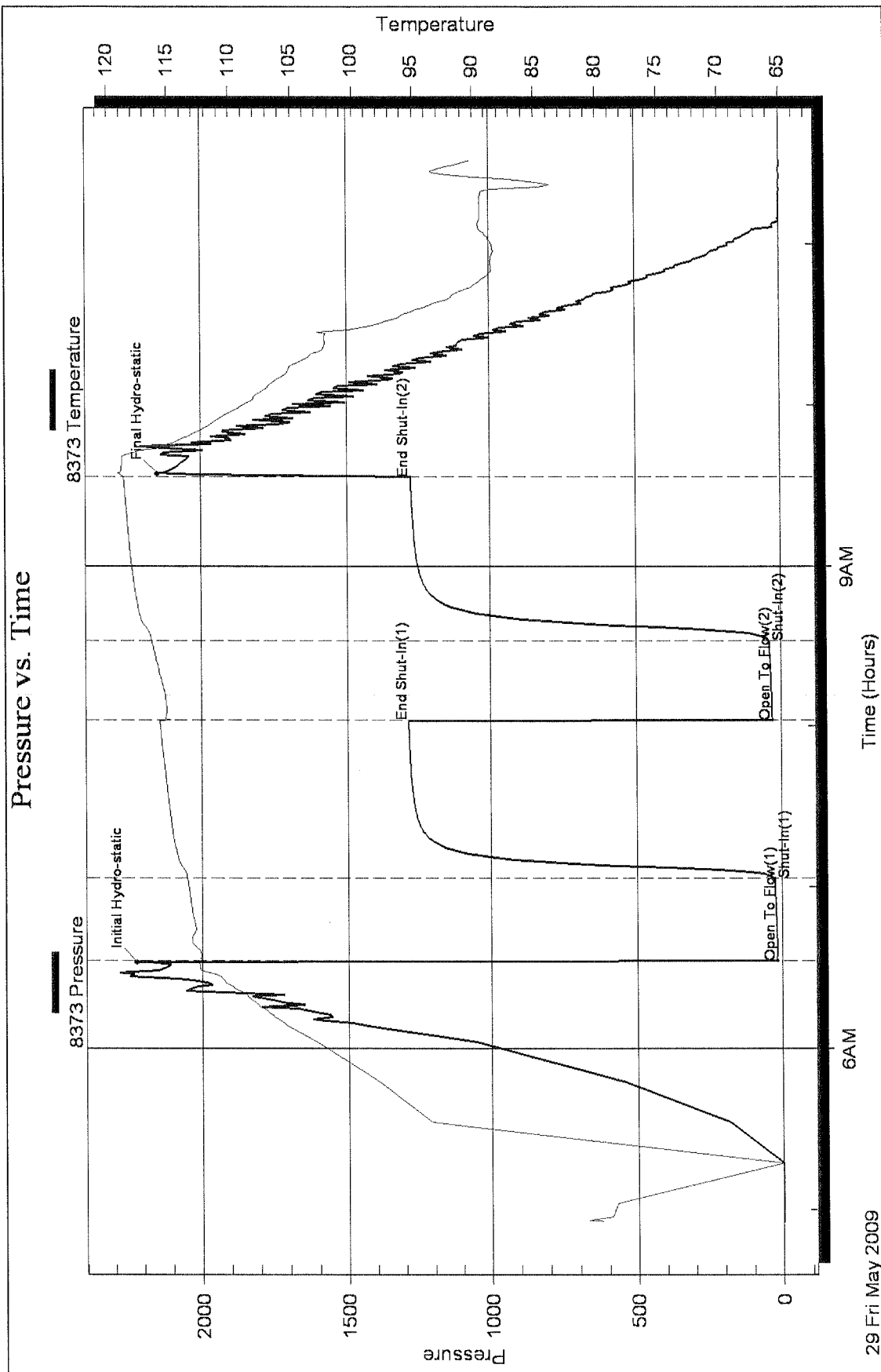
Serial #:

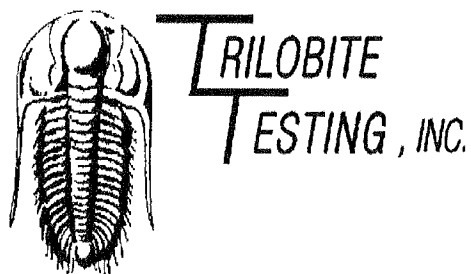
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

22-10s-34w Thomas KS

James A #2-22

Start Date: 2009.05.30 @ 10:30:53

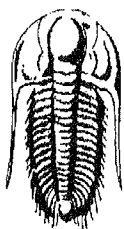
End Date: 2009.05.30 @ 18:43:17

Job Ticket #: 34617 DST #: 5

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 Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34617

DST#: 5

Test Start: 2009.05.30 @ 10:30:53

GENERAL INFORMATION:

Formation: **Lower Pawnee- Ft Sco**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:20:18

Time Test Ended: 18:43:17

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4587.00 ft (KB) To 4650.00 ft (KB) (TVD)**

Total Depth: 4650.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3224.00 ft (KB)

3219.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press@RunDepth: 310.44 psig @ 4588.00 ft (KB)

Start Date: 2009.05.30

End Date:

2009.05.30

Start Time: 10:30:53

End Time:

18:43:17

Capacity: 7000.00 psig

Last Calib.: 2009.05.30

Time On Btm: 2009.05.30 @ 12:19:48

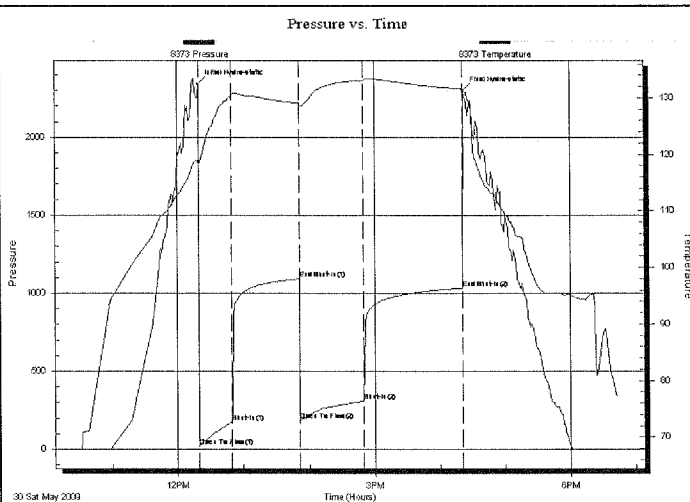
Time Off Btm: 2009.05.30 @ 16:21:32

TEST COMMENT: IF: 1/4 blow BOB in 21 min.

IS: Surface blow died in 15 min.

FF: 1/4 blow BOB in 41 min.

IS: Surface blow died in 20 min.



PRESSURE SUMMARY

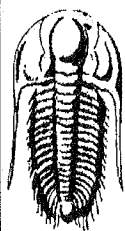
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2340.93	118.97	Initial Hydro-static
1	20.40	118.18	Open To Flow (1)
31	175.97	130.47	Shut-In (1)
92	1091.21	129.08	End Shut-In (1)
92	185.91	128.70	Open To Flow (2)
150	310.44	133.14	Shut-In (2)
241	1033.06	131.61	End Shut-In (2)
242	2302.24	131.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
366.00	mcw 90%w 10%m	1.80
181.00	mcw 50%w 50%m	0.89
62.00	w cm 40%w 60%m	0.87
61.00	w cm trace of oil 20%w 80%m	0.86
1.00	free oil 100%o	0.01
0.00	GIP 62	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

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34617

DST#: 5

ATTN: Rocky Milford

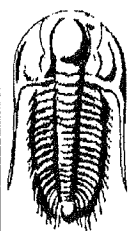
Test Start: 2009.05.30 @ 10:30:53

Tool Information

Drill Pipe:	Length: 4050.00 ft	Diameter: 3.80 inches	Volume: 56.81 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: 30000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose: 90000.00 lb
			Total Volume: 59.50 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4587.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4568.00	
Shut In Tool	5.00			4573.00	
Hydraulic tool	5.00			4578.00	
Packer	5.00			4583.00	20.00 Bottom Of Top Packer
Packer	4.00			4587.00	
Stubb	1.00			4588.00	
Recorder	0.00	6772	Inside	4588.00	
Recorder	0.00	8373	Inside	4588.00	
Perforations	24.00			4612.00	
Change Over Sub	1.00			4613.00	
Drill Pipe	31.00			4644.00	
Change Over Sub	1.00			4645.00	
Bullnose	5.00			4650.00	63.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

ATTN: Rocky Milford

Job Ticket: 34617

DST#: 5

Test Start: 2009.05.30 @ 10:30:53

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

56000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
366.00	mcw 90%w 10%m	1.800
181.00	mw 50%w 50%m	0.890
62.00	wcm 40%w 60%m	0.870
61.00	wcm trace of oil 20%w 80%m	0.856
1.00	free oil 100%o	0.014
0.00	GIP 62	0.000

Total Length: 671.00 ft Total Volume: 4.430 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

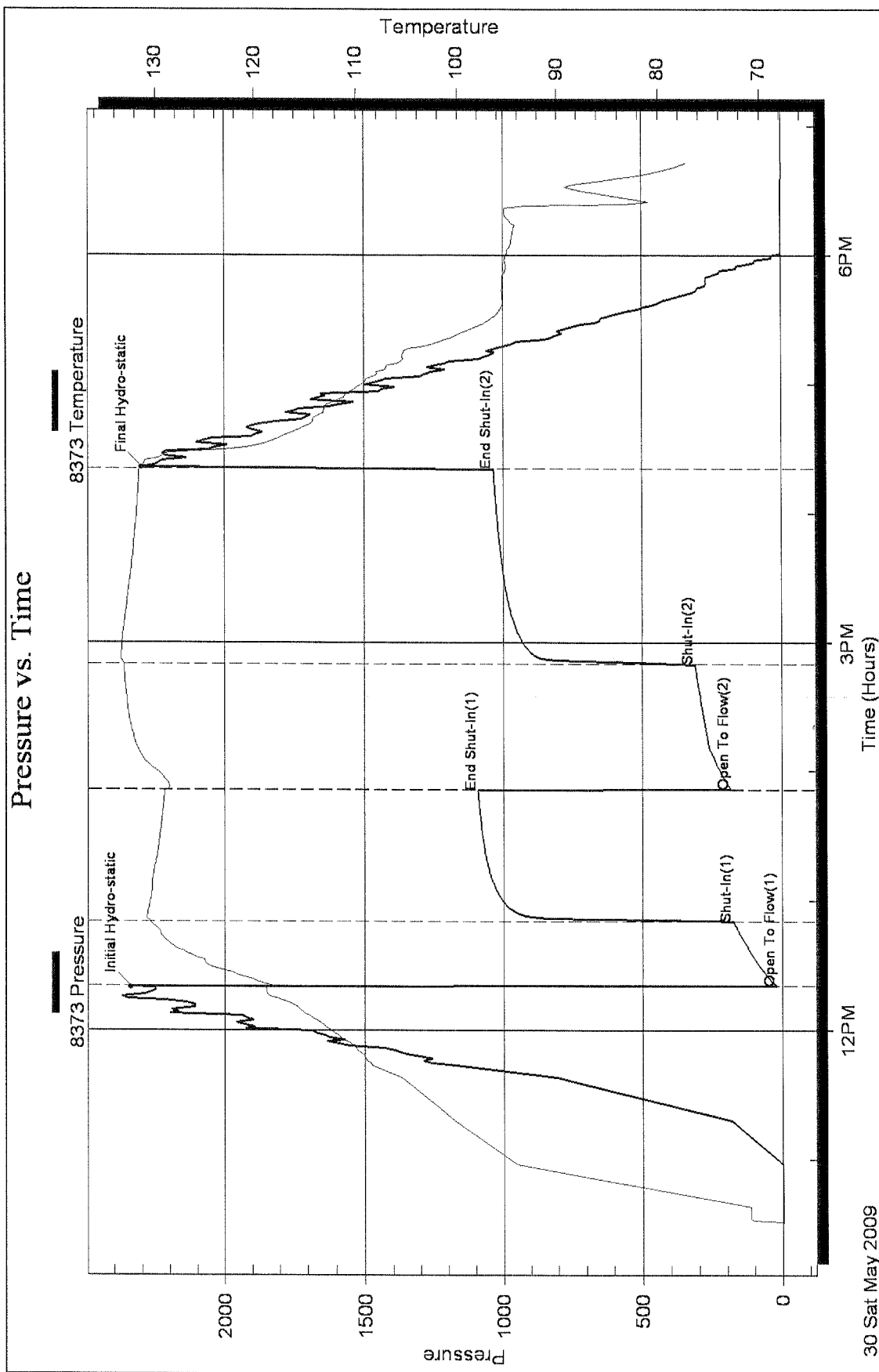
Serial #:

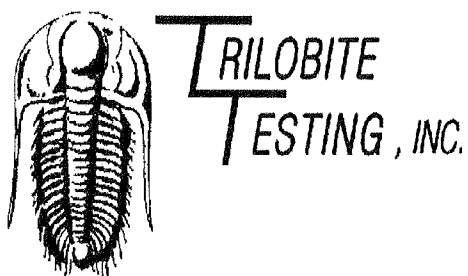
Laboratory Name:

Laboratory Location:

Recovery Comments: .11@86=56000

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

22-10s-34w Thomas KS

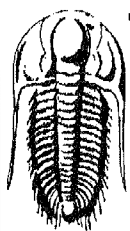
James A #2-22

Start Date: 2009.05.31 @ 05:00:51

End Date: 2009.05.31 @ 12:16:30

Job Ticket #: 34618 DST #: 6

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 Company

250 N Water Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

James A #2-22

22-10s-34w Thomas KS

Job Ticket: 34618

DST#: 6

Test Start: 2009.05.31 @ 05:00:51

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:07:46

Time Test Ended: 12:16:30

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4645.00 ft (KB) To 4730.00 ft (KB) (TVD)**

Total Depth: 4730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3224.00 ft (KB)

3219.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8373 Inside

Press@RunDepth: 126.93 psig @ 4646.00 ft (KB)

Start Date: 2009.05.31

End Date: 2009.05.31

Start Time: 05:00:51

End Time: 12:16:30

Capacity: 7000.00 psig

Last Calib.: 2009.05.31

Time On Btm: 2009.05.31 @ 07:07:31

Time Off Btm: 2009.05.31 @ 10:10:15

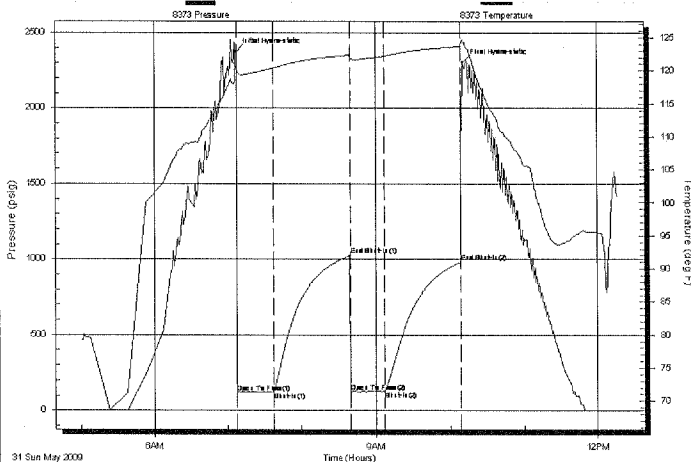
TEST COMMENT: IF: Packer failed after 10 sec. Reset 1/4 blow built to 1 1/4 died in 25 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

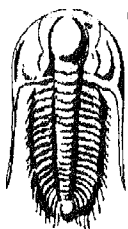
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2374.64	121.09	Initial Hydro-static
1	119.73	120.24	Open To Flow (1)
30	122.88	120.37	Shut-In(1)
93	1027.75	122.38	End Shut-In(1)
93	125.18	121.96	Open To Flow (2)
120	126.93	122.21	Shut-In(2)
181	983.27	123.71	End Shut-In(2)
183	2304.66	124.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
244.00	ocm 5%o 95%om	1.20

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 Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34618

DST#: 6

ATTN: Rocky Milford

Test Start: 2009.05.31 @ 05:00:51

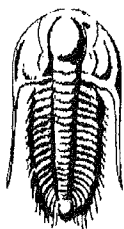
Tool Information

Drill Pipe:	Length: 4082.00 ft	Diameter: 3.80 inches	Volume: 57.26 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:	30000.00 lb
Drill Collar:	Length: 547.00 ft	Diameter: 2.25 inches	Volume: 2.69 bbl	Weight to Pull Loose:	100000.0 lb
			Total Volume: 59.95 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	74000.00 lb
Depth to Top Packer:	4645.00 ft			Final	74000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	85.00 ft				
Tool Length:	105.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4626.00	
Shut In Tool	5.00			4631.00	
Hydraulic tool	5.00			4636.00	
Packer	5.00			4641.00	20.00 Bottom Of Top Packer
Packer	4.00			4645.00	
Stubb	1.00			4646.00	
Recorder	0.00	6772	Inside	4646.00	
Recorder	0.00	8373	Inside	4646.00	
Perforations	15.00			4661.00	
Change Over Sub	1.00			4662.00	
Drill Pipe	62.00			4724.00	
Change Over Sub	1.00			4725.00	
Bullnose	5.00			4730.00	85.00 Bottom Packers & Anchor

Total Tool Length: 105.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

James A #2-22

250 N Water Ste 300
Wichita, KS 67202

22-10s-34w Thomas KS

Job Ticket: 34618

DST#: 6

ATTN: Rocky Milford

Test Start: 2009.05.31 @ 05:00:51

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
244.00	ocm 5%o 95%m	1.200

Total Length: 244.00 ft

Total Volume: 1.200 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

