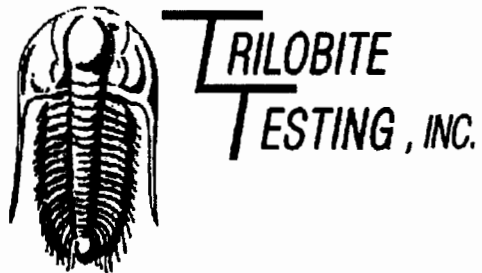


15-065-23707

15-9s-23w



DRILL STEM TEST REPORT

Prepared For: **Phillips Exploration CO LC**

1601 Sagebrush
Wichita KS 67230

ATTN: Jim Phillips

15-9s-23w-Graham KS

Brandyberry #1-15

Start Date: 2011.01.30 @ 09:30:35

End Date: 2011.01.30 @ 14:46:50

Job Ticket #: 41300 DST #: 1

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

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Phillips Exploration CO LC

1601 Sagebrush
Wichita KS 67230

ATTN: Jim Phillips

Brandyberry #1-15

15-9s-23w-Graham KS

Job Ticket: 41300

DST#: 1

Test Start: 2011.01.30 @ 09:30:35

GENERAL INFORMATION:

Formation: E-F

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:03:50

Time Test Ended: 14:46:50

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 54

Interval: 3700.00 ft (KB) To 3722.00 ft (KB) (TVD)

Total Depth: 3722.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2298.00 ft (KB)

2293.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6755

Inside

Press@RunDepth: 29.41 psig @ 3704.00 ft (KB)

Start Date: 2011.01.30

End Date:

2011.01.30

Start Time: 09:30:37

End Time:

14:46:50

Capacity: 8000.00 psig

Last Calib.: 2011.01.30

Time On Btm: 2011.01.30 @ 11:03:35

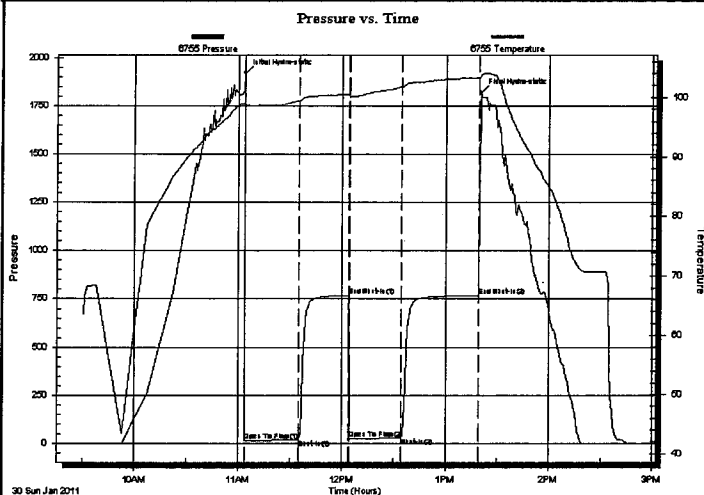
Time Off Btm: 2011.01.30 @ 13:20:05

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

ISI-dead

FFP-Weak,Built to 1"

FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1918.90	99.12	Initial Hydro-static
1	13.64	98.26	Open To Flow (1)
32	21.69	99.39	Shut-In(1)
61	768.45	100.48	End Shut-In(1)
61	22.84	99.94	Open To Flow (2)
91	29.41	101.77	Shut-In(2)
136	768.55	103.28	End Shut-In(2)
137	1820.65	103.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud W/Oil Spots, Like Tar Balls	0.10

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploration CO LC

Brandyberry #1-15

1601 Sagebrush
Wichita KS 67230

15-9s-23w-Graham KS

Job Ticket: 41300

DST#: 1

ATTN: Jim Phillips

Test Start: 2011.01.30 @ 09:30:35

Tool Information

Drill Pipe:	Length: 3675.00 ft	Diameter: 3.80 inches	Volume: 51.55 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	51.70 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3700.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	45.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3678.00	
Shut In Tool	5.00			3683.00	
Hydraulic tool	5.00			3688.00	
Safety Joint	2.00			3690.00	
Packer	5.00			3695.00	23.00 Bottom Of Top Packer
Packer	5.00			3700.00	
Stubb	1.00			3701.00	
Perforations	3.00			3704.00	
Recorder	0.00	6755	Inside	3704.00	
Recorder	0.00	8673	Outside	3704.00	
Perforations	15.00			3719.00	
Bullnose	3.00			3722.00	22.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploration CO LC

Brandyberry #1-15

1601 Sagebrush
Wichita KS 67230

15-9s-23w-Graham KS

Job Ticket: 41300

DST#: 1

ATTN: Jim Phillips

Test Start: 2011.01.30 @ 09:30:35

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: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud W/Oil Spots, Like Tar Balls	0.098

Total Length: 20.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

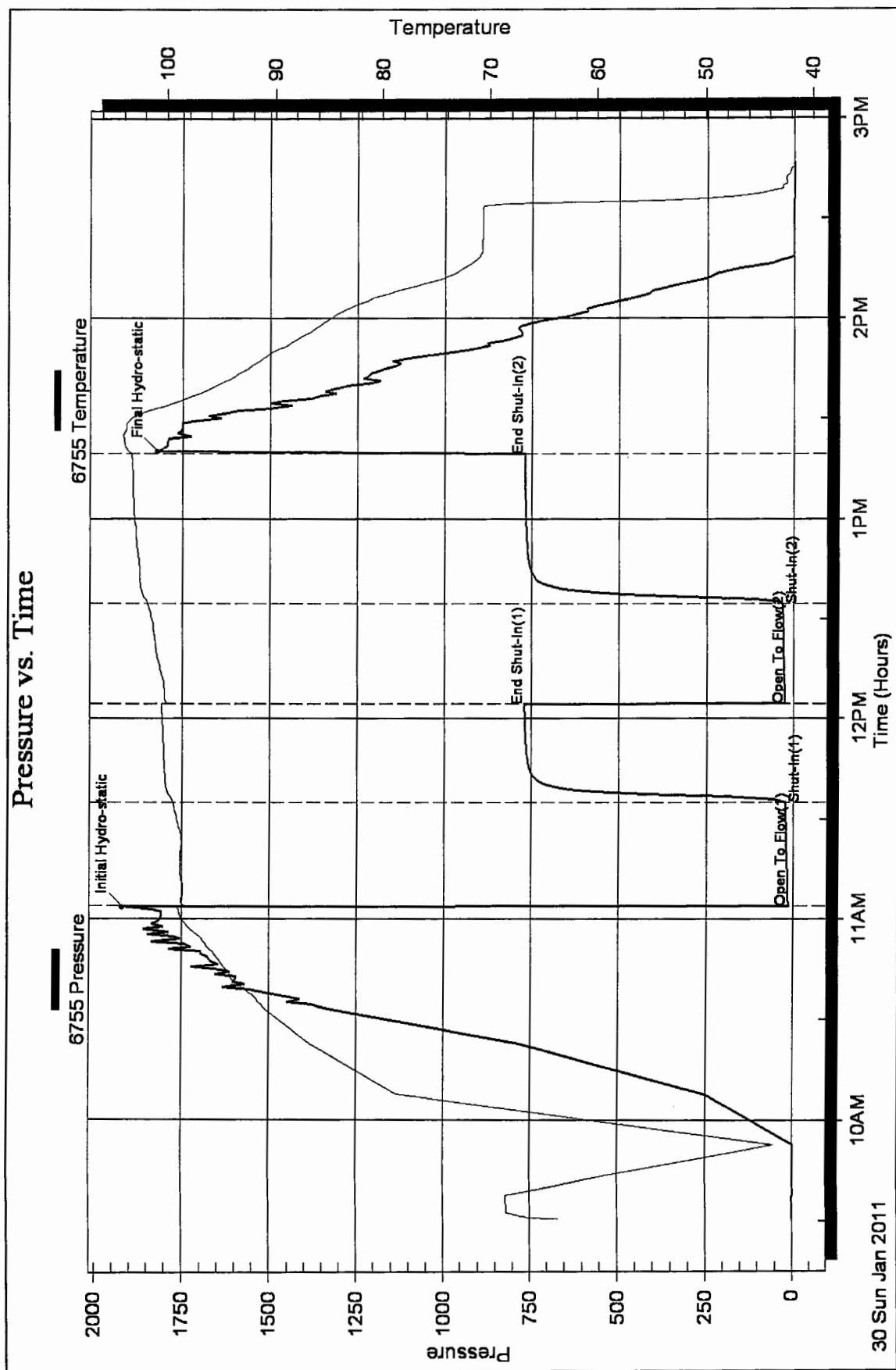
15-9s-23w-Graham KS

Phillips Exploration CO LC

Inside

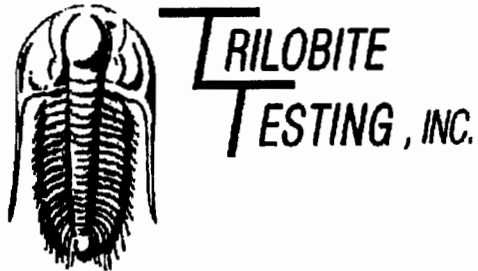
Serial #: 6755

Pressure vs. Time



Ref. No: 41300

Trilobite Testing, Inc



DRILL STEM TEST REPORT

Prepared For: **Phillips Exploration CO LC**

1601 Sagebrush
Wichita KS 67230

ATTN: Jim Phillips

15-9s-23w-Graham KS

Brandyberry #1-15

Start Date: 2011.01.31 @ 03:29:49

End Date: 2011.01.31 @ 10:29:49

Job Ticket #: 41835 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

Phillips Exploration CO LC

1601 Sagebrush
Wichita KS 67230

ATTN: Jim Phillips

Brandyberry #1-15

15-9s-23w-Graham KS

Job Ticket: 41835

DST#: 2

Test Start: 2011.01.31 @ 03:29:49

GENERAL INFORMATION:

Formation: LKC "J,K&L"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:28:04

Time Test Ended: 10:29:49

Test Type: Conventional Bottom Hole

Tester: Dustin Rash

Unit No: 54

Interval: 3800.00 ft (KB) To 3850.00 ft (KB) (TVD)

Total Depth: 3850.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Poor

Reference Elevations: 2298.00 ft (KB)

2293.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8673

Outside

Press@RunDepth: 145.64 psig @ 3837.00 ft (KB)

Start Date: 2011.01.31

End Date:

2011.01.31

Start Time: 03:29:51

End Time:

10:29:49

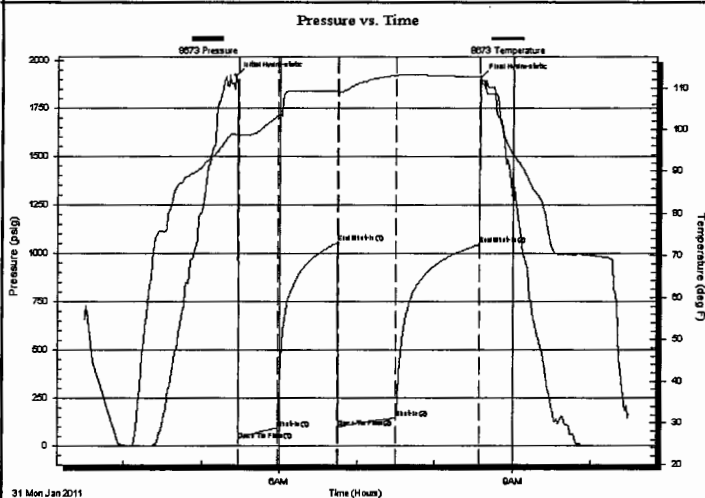
Capacity: 8000.00 psig

Last Calib.: 2011.01.31

Time On Btm: 2011.01.31 @ 05:26:04

Time Off Btm: 2011.01.31 @ 08:34:49

TEST COMMENT: IF-Weak building blow . Built to 8&1/2 inches.
ISI-Return @ 2 minutes. Surface blow . Died after 5&1/2 minutes.
FF-Weak building blow . Built to 7&1/4 inches.
FSI-Return @ 2 minutes. Surging surface



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1919.57	98.74	Initial Hydro-static
2	28.25	97.92	Open To Flow (1)
33	91.95	103.31	Shut-In (1)
79	1053.07	109.29	End Shut-In (1)
80	97.17	108.92	Open To Flow (2)
124	145.64	112.93	Shut-In (2)
188	1044.16	112.63	End Shut-In (2)
189	1910.00	112.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	80%Water/20%Mud	0.57
124.00	50%Mud/45%Water/5%Oil	1.74
62.00	70%Mud/25%Water/5%Oil	0.87
30.00	50%Mud/25%Water/25%Oil	0.42
8.00	100%Oil	0.11

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploration CO LC

Brandyberry #1-15

1601 Sagebrush
Wichita KS 67230

15-9s-23w-Graham KS

Job Ticket: 41835

DST#: 2

ATTN: Jim Phillips

Test Start: 2011.01.31 @ 03:29:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

58000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.24 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	80%Water/20%Mud	0.568
124.00	50%Mud/45%Water/5%Oil	1.739
62.00	70%Mud/25%Water/5%Oil	0.870
30.00	50%Mud/25%Water/25%Oil	0.421
8.00	100%Oil	0.112

Total Length: 284.00 ft

Total Volume: 3.710 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploration CO LC

Brandyberry #1-15

1601 Sagebrush
Wichita KS 67230

15-9s-23w-Graham KS

Job Ticket: 41835

DST#: 2

ATTN: Jim Phillips

Test Start: 2011.01.31 @ 03:29:49

Tool Information

Drill Pipe:	Length: 3772.00 ft	Diameter: 3.80 inches	Volume: 52.91 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: 24000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 3000.00 lb
		Total Volume: 53.06 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3800.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	73.00 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			3778.00	
Shut In Tool	5.00			3783.00	
Hydraulic tool	5.00			3788.00	
Safety Joint	2.00			3790.00	
Packer	5.00			3795.00	23.00 Bottom Of Top Packer
Packer	5.00			3800.00	
Stubb	1.00			3801.00	
Perforations	3.00			3804.00	
Change Over Sub	1.00			3805.00	
Drill Pipe	31.00			3836.00	
Change Over Sub	1.00			3837.00	
Recorder	0.00	6755	Inside	3837.00	
Recorder	0.00	8673	Outside	3837.00	
Perforations	10.00			3847.00	
Bullnose	3.00			3850.00	50.00 Bottom Packers & Anchor

Total Tool Length: 73.00

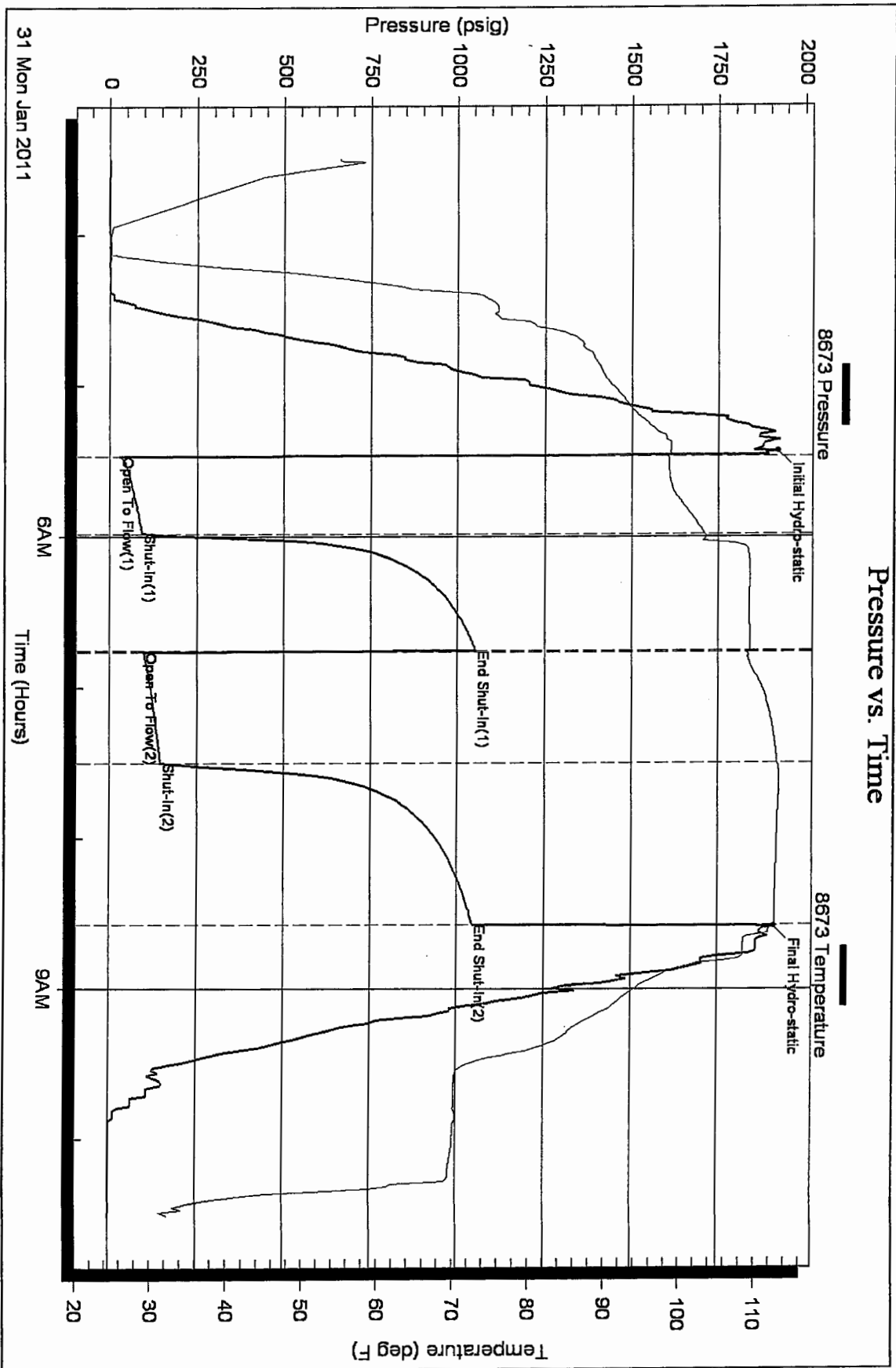
Serial #: 8673

Outside Phillips Exploration CO LC

15-9s-23w-Graham KS

DST Test Number: 2

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 41835

Printed: 2011.02.17 @ 09:37:00 Page 5