



DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources, LLC**

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

Hibbert #04D-20-2029

20-20s-29w Lane,KS

Start Date: 2014.04.07 @ 14:10:00

End Date: 2014.04.07 @ 21:28:30

Job Ticket #: 56460 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.04.15 @ 16:23:43



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56460

DST#: 1

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.07 @ 14:10:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:27:30

Time Test Ended: 21:28:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 75

Interval: 3998.00 ft (KB) To 4045.00 ft (KB) (TVD)

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4045.00 ft (KB) (TVD)

2882.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8675 Inside

Press@RunDepth: 547.47 psig @ 3999.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.07

End Date:

2014.04.07

Last Calib.: 2014.04.07

Start Time: 02:10:15

End Time:

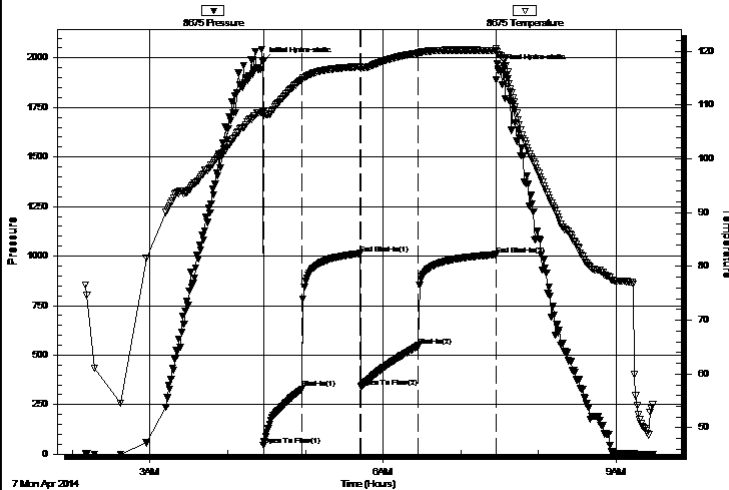
09:28:30

Time On Btm: 2014.04.07 @ 04:27:15

Time Off Btm: 2014.04.07 @ 07:28:45

TEST COMMENT: B.O.B. in 5 1/2 min.
Bled off for 5 min. No return blow
B.O.B. in 9 min.
Bled off for 5 min. No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1983.09	108.84	Initial Hydro-static
1	45.07	108.09	Open To Flow (1)
31	330.42	114.80	Shut-In (1)
75	1012.61	117.15	End Shut-In (1)
76	340.03	116.92	Open To Flow (2)
120	547.47	119.70	Shut-In (2)
180	1007.24	120.14	End Shut-In (2)
182	1946.81	119.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
646.00	100% Water	5.74
282.00	mcw 20%M 80%W	3.96
236.00	mcw 50%M 50%W	3.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

FIML Natural Resources, LLC

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

20-20s-29w Lane, KS

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Job Ticket: 56460

DST#: 1

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Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2892.00 ft (KB)

2882.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 3999.00 ft (KB)

Start Date: 2014.04.07

End Date:

2014.04.07

Start Time: 02:10:15

End Time:

09:28:15

Capacity: 8000.00 psig

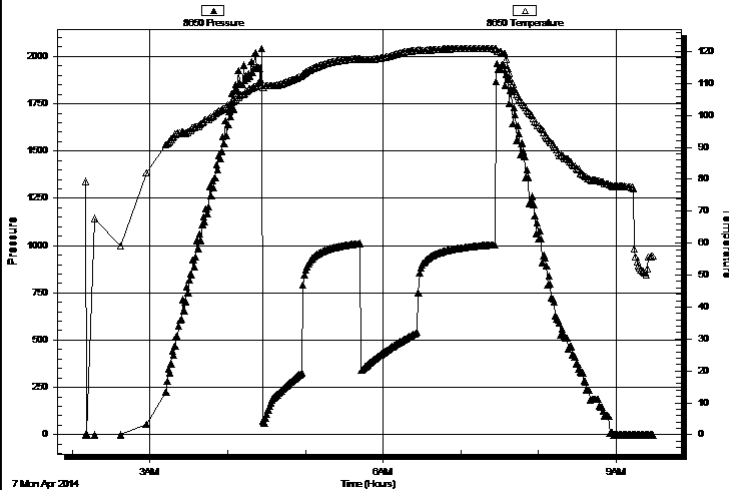
Last Calib.: 2014.04.07

Time On Btm:

Time Off Btm:

TEST COMMENT: B.O.B. in 5 1/2 min.
Bled off for 5 min. No return blow
B.O.B. in 9 min.
Bled off for 5 min. No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

Recovery

Length (ft)	Description	Volume (bbl)
646.00	100%Water	5.74
282.00	mcw 20%M 80%W	3.96
236.00	mcw 50%M 50%W	3.31

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56460

DST#: 1

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.07 @ 14:10:00

Tool Information

Drill Pipe:	Length:	3617.88 ft	Diameter:	3.80 inches	Volume:	50.75 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:	364.99 ft	Diameter:	2.25 inches	Volume:	1.79 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	52.54 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.87 ft					String Weight: Initial	62000.00 lb
Depth to Top Packer:		3998.00 ft					Final	70000.00 lb
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 Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3978.00	
Shut In Tool	5.00		Fluid	3983.00	
Hydraulic tool	5.00			3988.00	
Packer	5.00			3993.00	21.00 Bottom Of Top Packer
Packer	5.00			3998.00	
Stubb	1.00			3999.00	
Recorder	0.00	8675	Inside	3999.00	
Recorder	0.00	8650	Outside	3999.00	
Perforations	10.00		Outside	4009.00	
Change Over Sub	1.00		Outside	4010.00	
Drill Pipe	31.00			4041.00	
Change Over Sub	1.00			4042.00	
Bullnose	3.00			4045.00	47.00 Bottom Packers & Anchor

Total Tool Length: 68.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56460

DST#: 1

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.07 @ 14:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 64.00 sec/qt

Water Loss: 6.38 in³

Resistivity: ohm.m

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

deg API

Water Salinity: 55000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
646.00	100%Water	5.737
282.00	mcw 20%M 80%W	3.956
236.00	mcw 50%M 50%W	3.310

Total Length: 1164.00 ft Total Volume: 13.003 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .20 @ 40 F= 55,000

Serial #: 8675

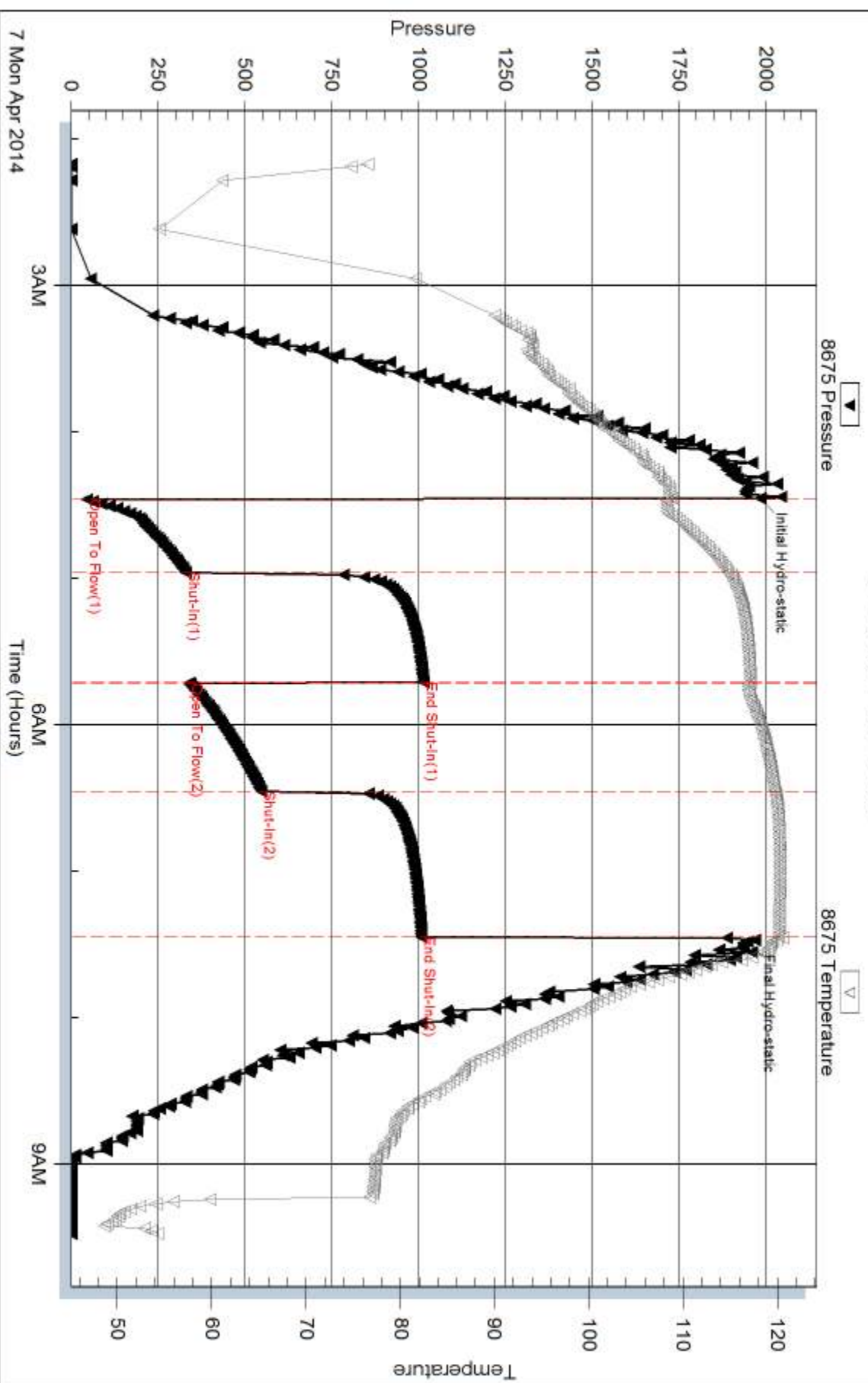
Inside

FIML Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 1

Pressure vs. Time

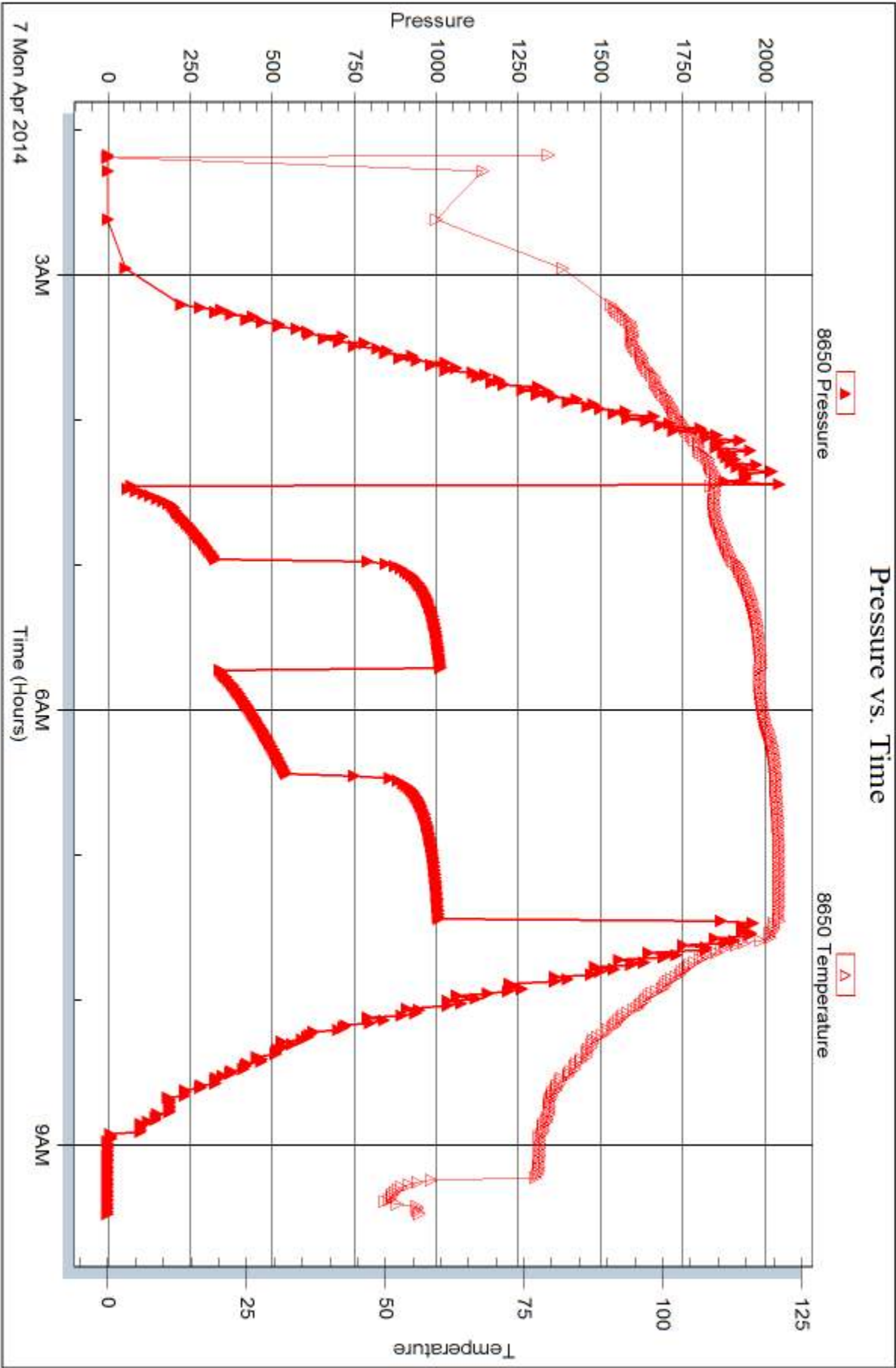


Serial #: 8650

Outside FILM Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources, LLC**

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

Hibbert #04D-20-2029

20-20s-29w Lane,KS

Start Date: 2014.04.08 @ 14:20:00

End Date: 2014.04.08 @ 22:08:15

Job Ticket #: 56461 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.15 @ 16:23:16



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TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56461

DST#: 2

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.08 @ 14:20:00

GENERAL INFORMATION:

Formation: **LKC "J & K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:57:00

Time Test Ended: 22:08:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4335.00 ft (KB) To 4400.00 ft (KB) (TVD)

Total Depth: 4400.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2892.00 ft (KB)

2882.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8675 Inside

Press@RunDepth: 186.92 psig @ 4336.00 ft (KB)

Start Date: 2014.04.08

End Date:

2014.04.08

Start Time: 14:20:15

End Time:

22:08:15

Capacity: 8000.00 psig

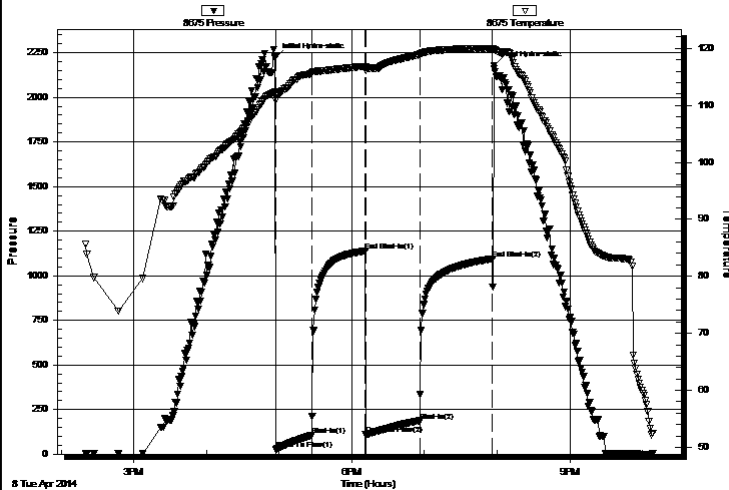
Last Calib.: 2014.04.08

Time On Btm: 2014.04.08 @ 16:56:45

Time Off Btm: 2014.04.08 @ 19:57:30

TEST COMMENT: Built to 5 1/2" blow
Bled off for 3 min. No return blow
Built to 3 1/2" blow
Bled off for 3 min. No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2223.37	112.33	Initial Hydro-static
1	25.12	110.87	Open To Flow (1)
31	106.57	115.66	Shut-In(1)
75	1139.10	116.84	End Shut-In(1)
75	108.66	116.20	Open To Flow (2)
120	186.92	118.90	Shut-In(2)
180	1095.10	119.98	End Shut-In(2)
181	2177.97	119.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
285.00	w cm 20%W 80%M	1.40

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56461

DST#: 2

ATTN: Kurt Talbot & Gary D

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Tester: Jace McKinney

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Interval: 4335.00 ft (KB) To 4400.00 ft (KB) (TVD)

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4400.00 ft (KB) (TVD)

2882.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 4336.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.08

End Date:

2014.04.08

Last Calib.:

2014.04.08

Start Time: 14:45:15

End Time:

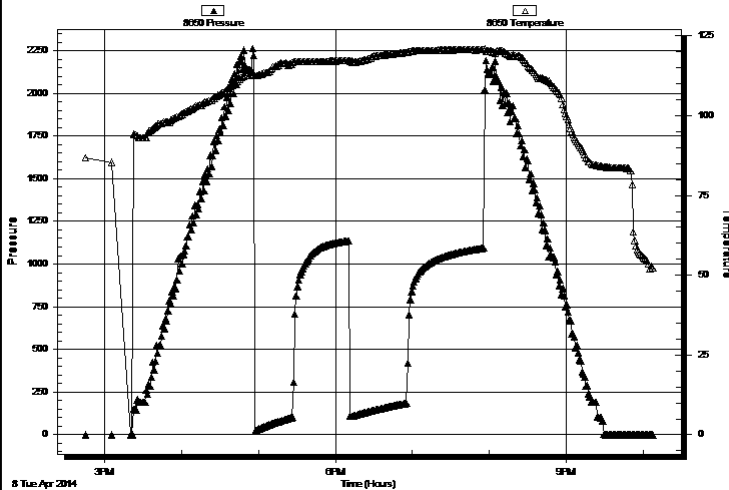
22:08:15

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 5 1/2" blow
Bled off for 3 min. No return blow
Built to 3 1/2" blow
Bled off for 3 min. No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

Recovery

Length (ft)	Description	Volume (bbl)
285.00	w cm 20%W 80%M	1.40

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56461

DST#: 2

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.08 @ 14:20:00

Tool Information

Drill Pipe:	Length:	3965.79 ft	Diameter:	3.80 inches	Volume:	55.63 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:	364.99 ft	Diameter:	2.25 inches	Volume:	1.79 bbl	Weight to Pull Loose:	78000.00 lb
					Total Volume:	57.42 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		15.78 ft					String Weight: Initial	68000.00 lb
Depth to Top Packer:		4335.00 ft					Final	68000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		65.00 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
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Change Over Sub	1.00			4316.00	
Shut In Tool	5.00			4321.00	
Hydraulic tool	5.00			4326.00	
Packer	5.00			4331.00	20.00 Bottom Of Top Packer
Packer	4.00			4335.00	
Stubb	1.00			4336.00	
Recorder	0.00	8675	Inside	4336.00	
Recorder	0.00	8650	Outside	4336.00	
perforations	27.00			4363.00	
Change Over Sub	1.00			4364.00	
Drill Pipe	32.00			4396.00	
Change Over Sub	1.00			4397.00	
Bullnose	3.00			4400.00	65.00 Bottom Packers & Anchor

Total Tool Length: 85.00



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Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56461

DST#: 2

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.08 @ 14:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 6.78 in³

Resistivity: ohm.m

Salinity: 3500.00 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
285.00	w cm 20%W 80%M	1.402

Total Length: 285.00 ft Total Volume: 1.402 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .30 @ 55 F = 30,000

Serial #: 8675

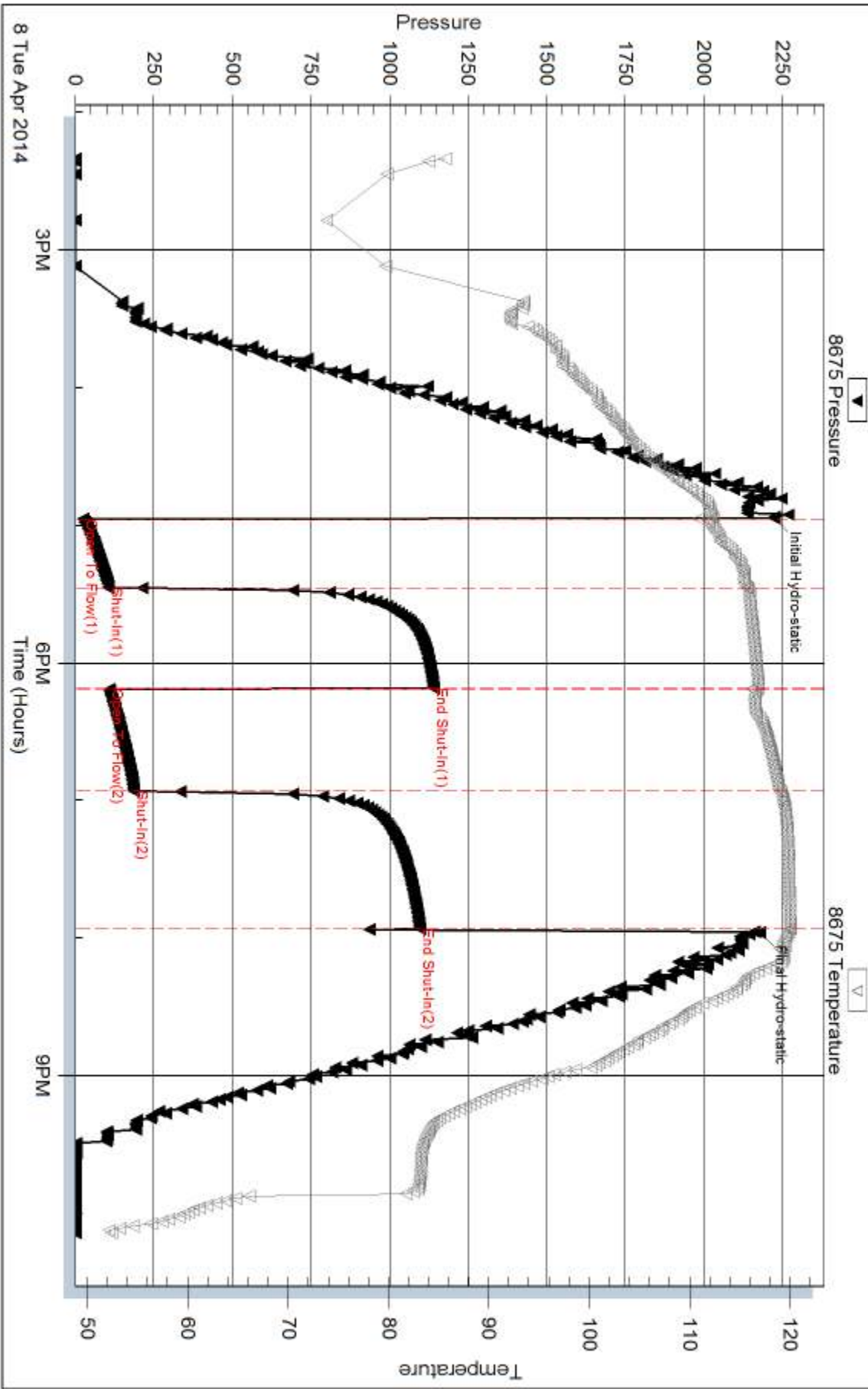
Inside

FILM Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 2

Pressure vs. Time

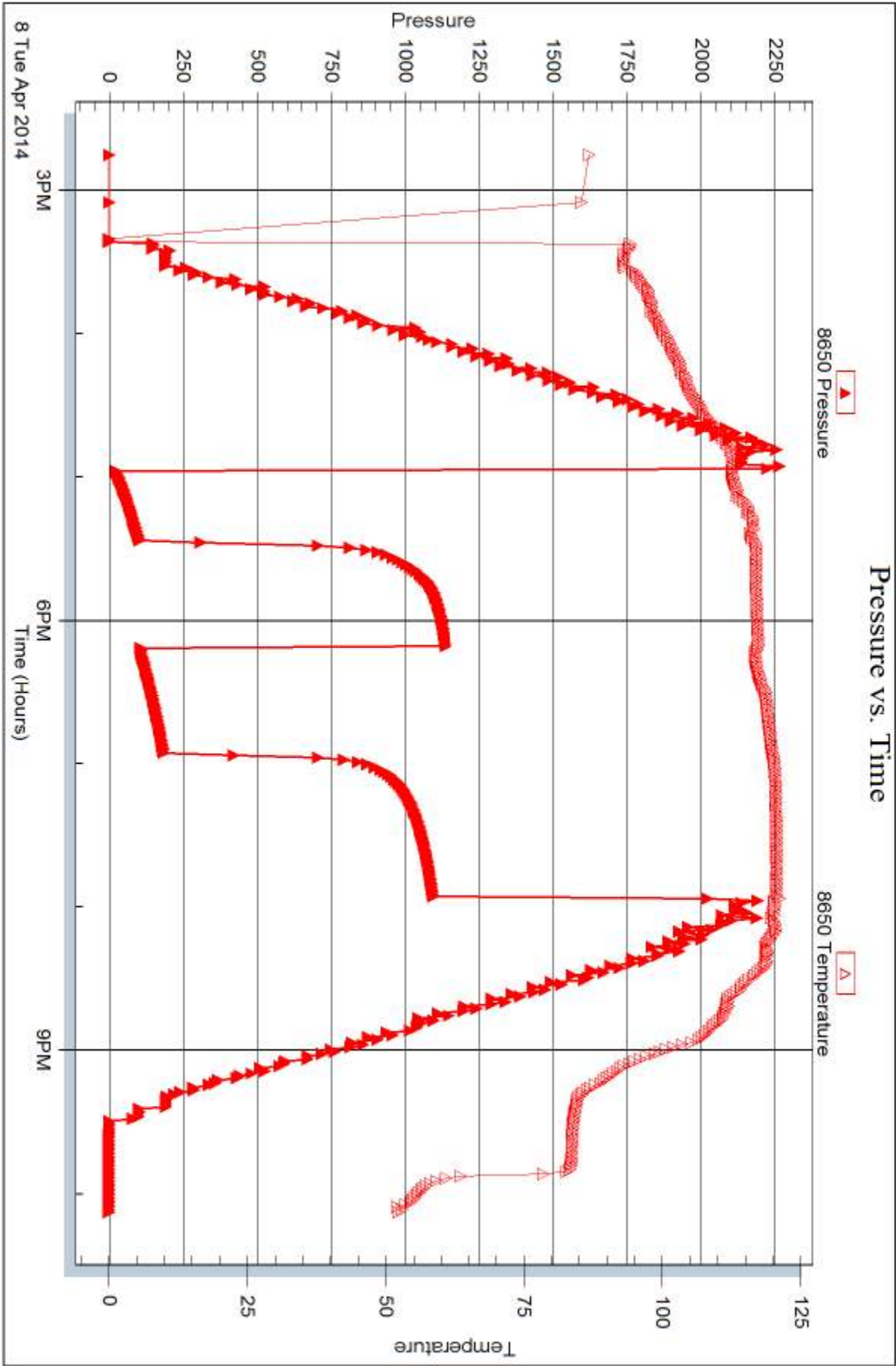


Serial #: 8650

Outside FILM Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources, LLC**

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

Hibbert #04D-20-2029

20-20s-29w Lane,KS

Start Date: 2014.04.09 @ 14:15:00

End Date: 2014.04.09 @ 22:10:45

Job Ticket #: 56462 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.15 @ 16:22:51



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56462

DST#: 3

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.09 @ 14:15:00

GENERAL INFORMATION:

Formation: **KC "L" Marm. A & B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:28:00

Time Test Ended: 22:10:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4410.00 ft (KB) To 4526.00 ft (KB) (TVD)

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4526.00 ft (KB) (TVD)

2882.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8675 Inside

Press@RunDepth: 138.20 psig @ 4411.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.09

End Date:

2014.04.09

Last Calib.: 2014.04.09

Start Time: 14:15:15

End Time:

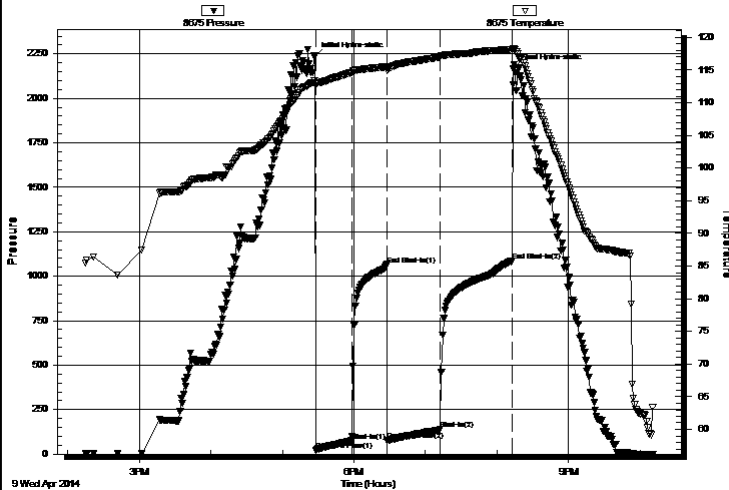
22:10:45

Time On Btm: 2014.04.09 @ 17:27:00

Time Off Btm: 2014.04.09 @ 20:13:45

TEST COMMENT: Built to 3" blow
No return blow
Built to 1 1/2" blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.99	113.37	Initial Hydro-static
1	22.68	112.85	Open To Flow (1)
31	74.22	114.64	Shut-In(1)
61	1065.85	115.52	End Shut-In(1)
61	76.27	114.99	Open To Flow (2)
106	138.20	117.02	Shut-In(2)
166	1085.89	118.14	End Shut-In(2)
167	2164.77	118.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
200.00	100% Mud	0.98

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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DRILL STEM TEST REPORT

FIML Natural Resources, LLC

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

20-20s-29w Lane, KS

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Job Ticket: 56462

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Tester: Jace McKinney

Unit No: 75

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Total Depth: 4526.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2892.00 ft (KB)

2882.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 4411.00 ft (KB)

Start Date: 2014.04.09

End Date:

2014.04.09

Start Time: 14:25:15

End Time:

22:10:30

Capacity: 8000.00 psig

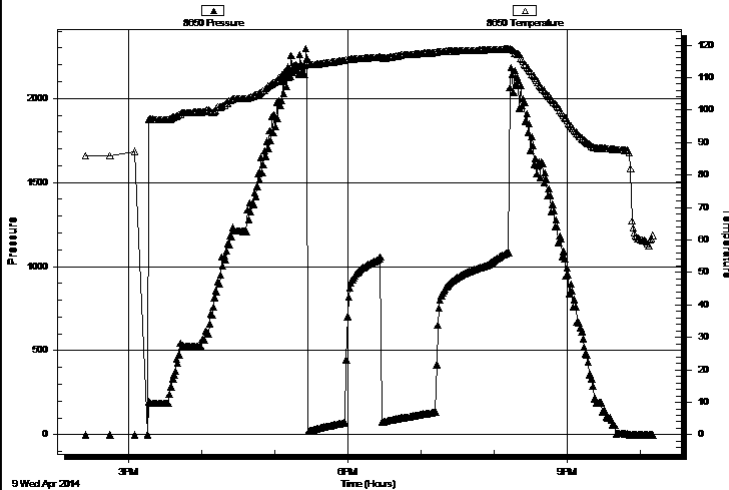
Last Calib.: 2014.04.09

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 3" blow
No return blow
Built to 1 1/2" blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

Recovery

Length (ft)	Description	Volume (bbl)
200.00	100% Mud	0.98

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56462

DST#: 3

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.09 @ 14:15:00

Tool Information

Drill Pipe:	Length: 4029.14 ft	Diameter: 3.80 inches	Volume: 56.52 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: 364.99 ft	Diameter: 2.25 inches	Volume: 1.79 bbl	Weight to Pull Loose:	80000.00 lb
		Total Volume:	58.31 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.13 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4410.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	216.00 ft				
Tool Length:	236.00 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			4391.00	
Shut In Tool	5.00			4396.00	
Hydraulic tool	5.00			4401.00	
Packer	5.00			4406.00	20.00 Bottom Of Top Packer
Packer	4.00			4410.00	
Stubb	1.00			4411.00	
Recorder	0.00	8675	Inside	4411.00	
Recorder	0.00	8650	Outside	4411.00	
perforations	2.00			4413.00	
Change Over Sub	1.00			4414.00	
Drill Pipe	94.00			4508.00	
Change Over Sub	1.00			4509.00	
Bullnose	117.00			4626.00	216.00 Bottom Packers & Anchor

Total Tool Length: 236.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56462

DST#: 3

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.09 @ 14:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 6.58 in³

Resistivity: ohm.m

Salinity: 3700.00 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
200.00	100% Mud	0.984

Total Length: 200.00 ft

Total Volume: 0.984 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

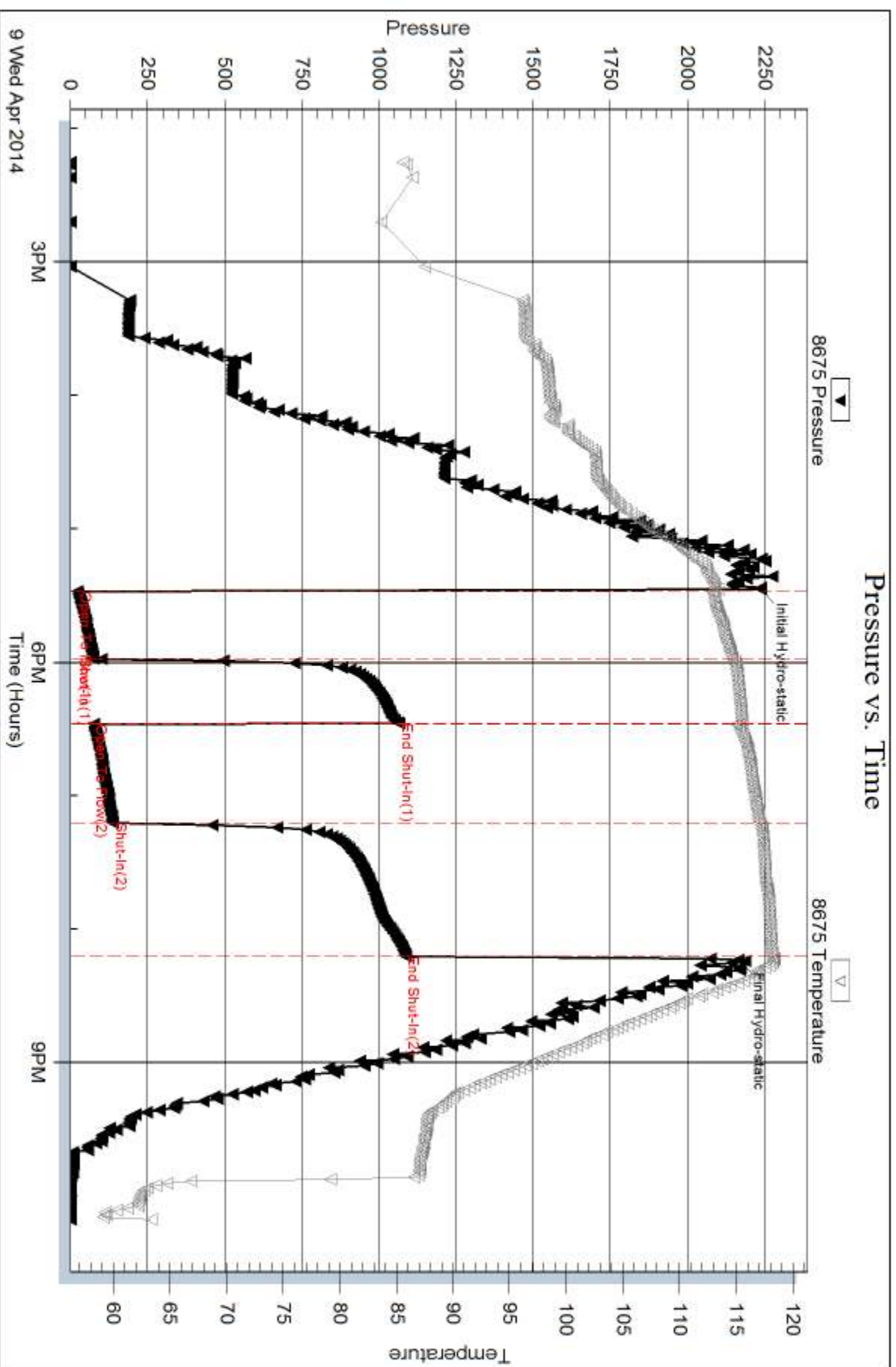
Serial #: 8675

Inside

FIML Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 3

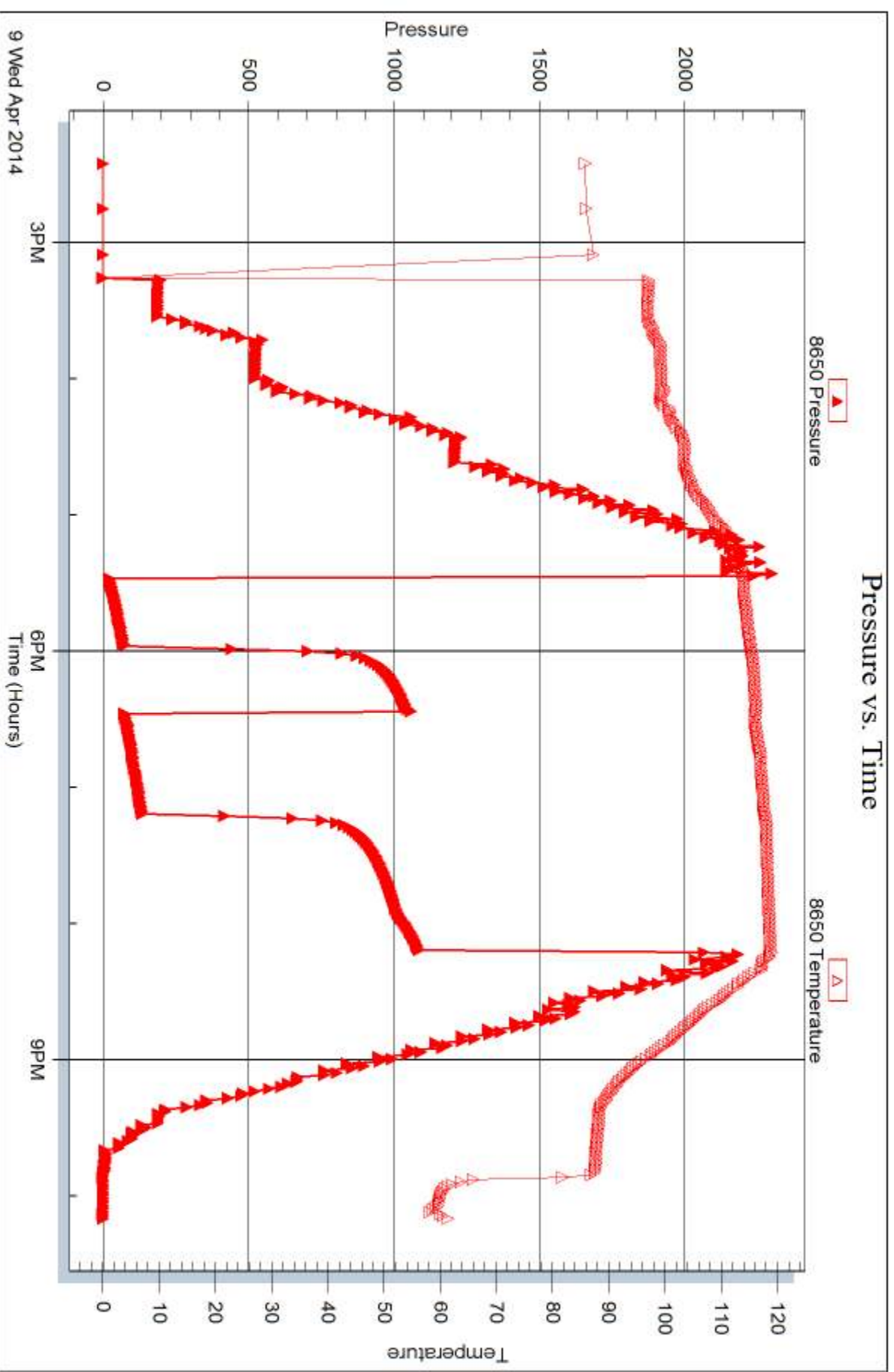


Serial #: 8650

Outside FILM Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources, LLC**

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

Hibbert #04D-20-2029

20-20s-29w Lane,KS

Start Date: 2014.04.10 @ 12:55:00

End Date: 2014.04.10 @ 19:30:45

Job Ticket #: 56463 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.15 @ 16:22:22

FIML Natural Resources, LLC

20-20s-29w Lane,KS

Hibbert #04D-20-2029

DST # 4

Pawnee - Top Cherokee

2014.04.10



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56463

DST#: 4

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.10 @ 12:55:00

GENERAL INFORMATION:

Formation: **Pawnee - Top Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:35:30

Time Test Ended: 19:30:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4530.00 ft (KB) To 4630.00 ft (KB) (TVD)

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4630.00 ft (KB) (TVD)

2882.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8675 Inside

Press@RunDepth: 45.58 psig @ 4531.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.10

End Date:

2014.04.10

Last Calib.: 2014.04.10

Start Time: 12:55:15

End Time:

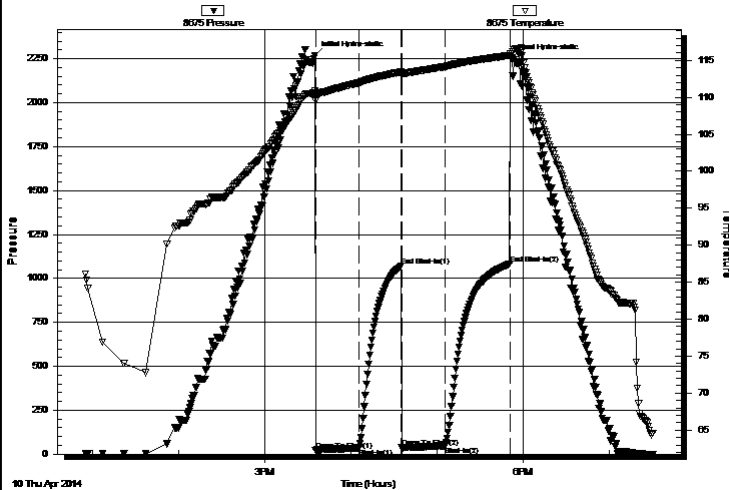
19:30:45

Time On Btm: 2014.04.10 @ 15:35:15

Time Off Btm: 2014.04.10 @ 17:51:30

TEST COMMENT: Built to 1" blow
No return blow
No blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2268.04	110.91	Initial Hydro-static
1	21.94	109.51	Open To Flow (1)
31	33.16	111.96	Shut-In(1)
60	1072.15	113.43	End Shut-In(1)
61	36.06	113.05	Open To Flow (2)
91	45.58	114.15	Shut-In(2)
136	1081.93	115.69	End Shut-In(2)
137	2251.36	115.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	100% Mud	0.10

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56463

DST#: 4

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.10 @ 12:55:00

GENERAL INFORMATION:

Formation: **Pawnee - Top Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:35:30

Time Test Ended: 19:30:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4530.00 ft (KB) To 4630.00 ft (KB) (TVD)

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4630.00 ft (KB) (TVD)

2882.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 4531.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.10

End Date:

2014.04.10

Last Calib.:

2014.04.10

Start Time: 12:55:15

End Time:

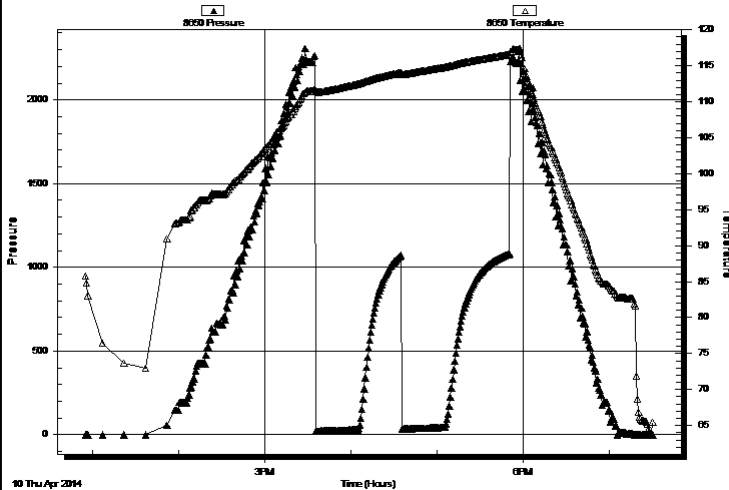
19:30:45

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 1" blow
No return blow
No blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
20.00	100% Mud	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56463

DST#: 4

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.10 @ 12:55:00

Tool Information

Drill Pipe:	Length: 4154.75 ft	Diameter: 3.80 inches	Volume: 58.28 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: 364.99 ft	Diameter: 2.25 inches	Volume: 1.79 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	60.07 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.74 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4530.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	100.00 ft				
Tool Length:	120.00 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			4511.00	
Shut In Tool	5.00			4516.00	
Hydraulic tool	5.00			4521.00	
Packer	5.00			4526.00	20.00 Bottom Of Top Packer
Packer	4.00			4530.00	
Stubb	1.00			4531.00	
Recorder	0.00	8675	Inside	4531.00	
Recorder	0.00	8650	Outside	4531.00	
perforations	6.00			4537.00	
Change Over Sub	1.00			4538.00	
Drill Pipe	63.00			4601.00	
Change Over Sub	1.00			4602.00	
Bullnose	28.00			4630.00	100.00 Bottom Packers & Anchor

Total Tool Length: 120.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56463

DST#: 4

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.10 @ 12:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 6.39 in³

Resistivity: ohm.m

Salinity: 2800.00 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
20.00	100% Mud	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:

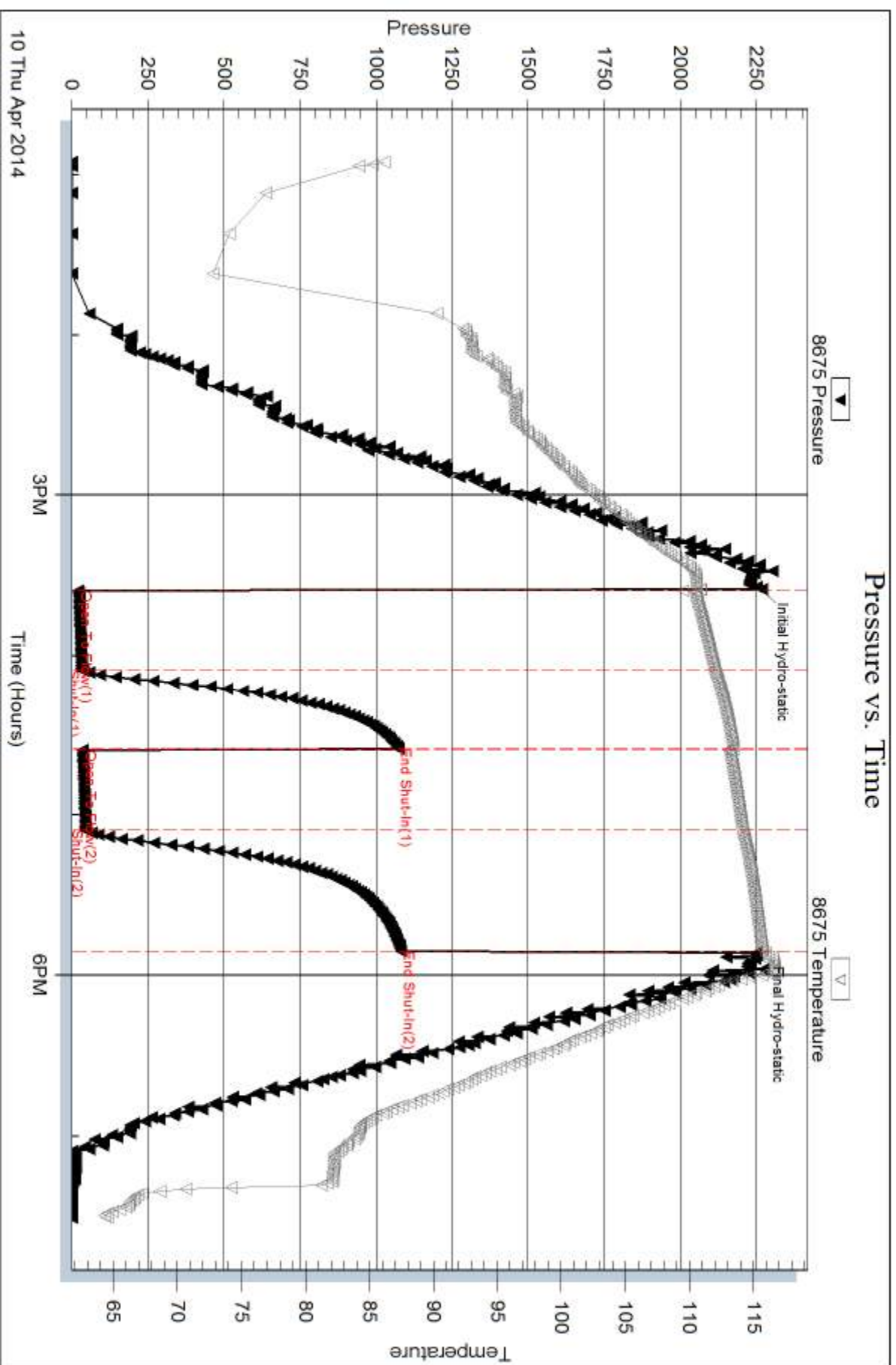
Serial #: 8675

Inside

FIML Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 4

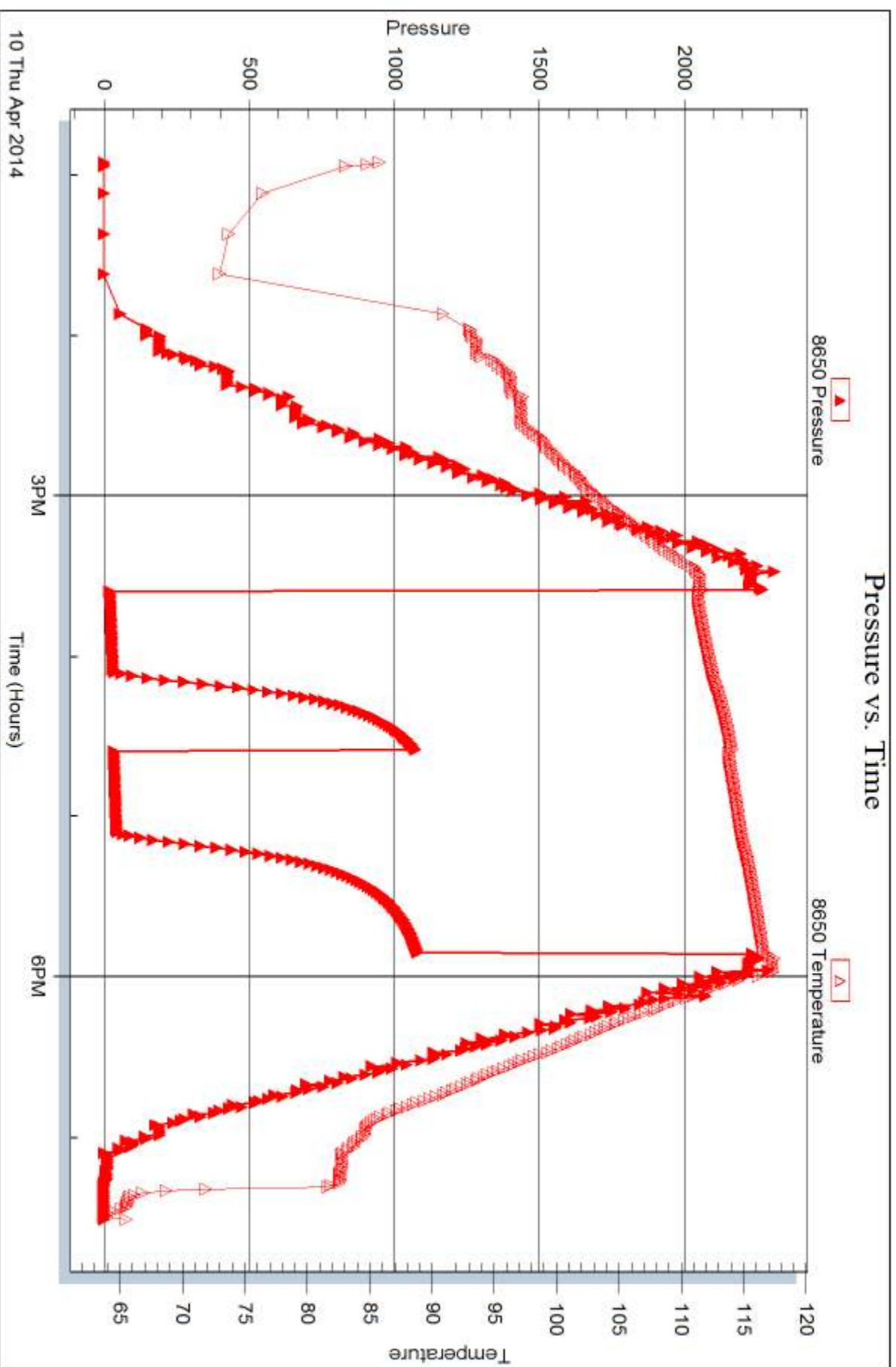


Serial #: 8650

Outside FIML Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources, LLC**

410 17ST STE 900
Denver CO 80202-4420

ATTN: Kurt Talbot & Gary D

Hibbert #04D-20-2029

20-20s-29w Lane,KS

Start Date: 2014.04.11 @ 08:45:00

End Date: 2014.04.11 @ 15:29:30

Job Ticket #: 56464 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.15 @ 16:21:50



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56464

DST#: 5

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.11 @ 08:45:00

GENERAL INFORMATION:

Formation: **Johnson Zone - Sperg**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:50:30

Time Test Ended: 15:29:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4624.00 ft (KB) To 4712.00 ft (KB) (TVD)

Total Depth: 4712.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2892.00 ft (KB)

2882.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8675 Inside

Press@RunDepth: 163.71 psig @ 4625.00 ft (KB)

Start Date: 2014.04.11

End Date:

2014.04.11

Start Time: 08:45:15

End Time:

15:29:30

Capacity: 8000.00 psig

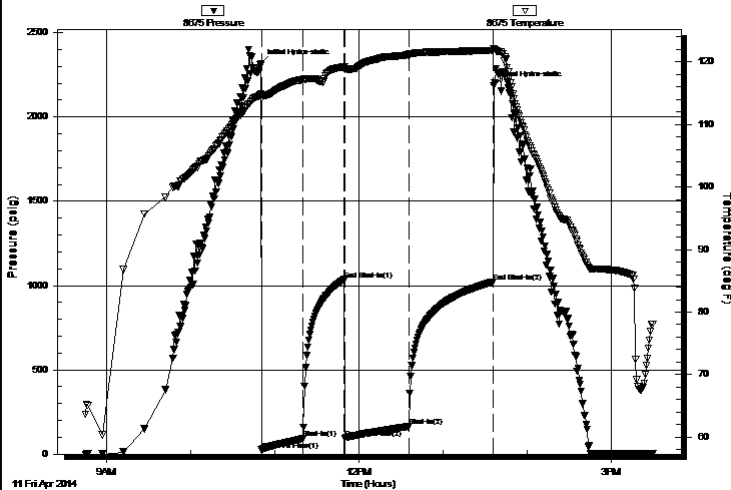
Last Calib.: 2014.04.11

Time On Btm: 2014.04.11 @ 10:50:15

Time Off Btm: 2014.04.11 @ 13:36:15

TEST COMMENT: Built to 4 1/2" blow
No return blow
Built to 2" blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2314.46	114.94	Initial Hydro-static
1	24.88	114.22	Open To Flow (1)
30	91.47	117.11	Shut-In(1)
60	1035.08	119.16	End Shut-In(1)
60	95.16	118.81	Open To Flow (2)
106	163.71	121.13	Shut-In(2)
166	1020.80	121.82	End Shut-In(2)
166	2185.82	122.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
288.00	w cm 5%W 95%M	1.42

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56464

DST#: 5

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.11 @ 08:45:00

GENERAL INFORMATION:

Formation: **Johnson Zone - Sperg**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:50:30

Time Test Ended: 15:29:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4624.00 ft (KB) To 4712.00 ft (KB) (TVD)

Reference Elevations: 2892.00 ft (KB)

Total Depth: 4712.00 ft (KB) (TVD)

2882.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 4625.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.11

End Date:

2014.04.11

Last Calib.:

2014.04.11

Start Time: 08:45:15

End Time:

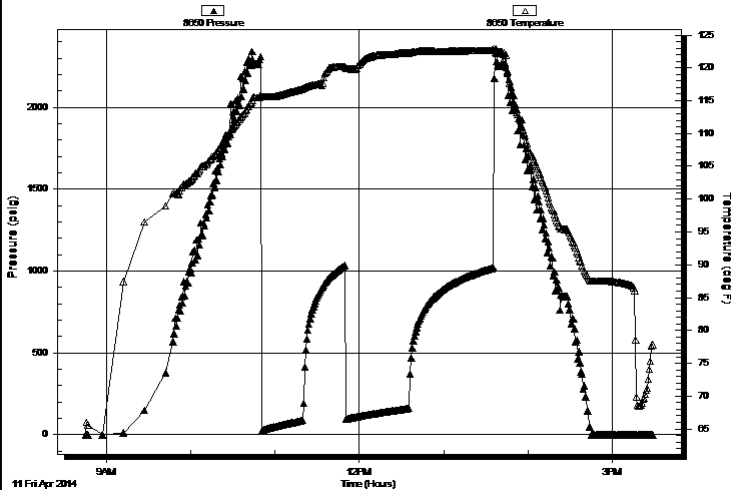
15:29:15

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 4 1/2" blow
No return blow
Built to 2" blow
No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

Recovery

Length (ft)	Description	Volume (bbl)
288.00	w cm 5%W 95%M	1.42

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56464

DST#: 5

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.11 @ 08:45:00

Tool Information

Drill Pipe:	Length:	4249.19 ft	Diameter:	3.80 inches	Volume:	59.60 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:	364.99 ft	Diameter:	2.25 inches	Volume:	1.79 bbl	Weight to Pull Loose:	90000.00 lb
					Total Volume:	61.39 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		10.18 ft					String Weight: Initial	70000.00 lb
Depth to Top Packer:		4624.00 ft					Final	70000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		88.00 ft						
Tool Length:		108.00 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			4605.00	
Shut In Tool	5.00			4610.00	
Hydraulic tool	5.00			4615.00	
Packer	5.00			4620.00	20.00 Bottom Of Top Packer
Packer	4.00			4624.00	
Stubb	1.00			4625.00	
Recorder	0.00	8675	Inside	4625.00	
Recorder	0.00	8650	Outside	4625.00	
perforations	5.00			4630.00	
Change Over Sub	1.00			4631.00	
Drill Pipe	63.00			4694.00	
Change Over Sub	1.00			4695.00	
Bullnose	17.00			4712.00	88.00 Bottom Packers & Anchor

Total Tool Length: 108.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources, LLC

20-20s-29w Lane, KS

410 17ST STE 900
Denver CO 80202-4420

Hibbert #04D-20-2029

Job Ticket: 56464

DST#: 5

ATTN: Kurt Talbot & Gary D

Test Start: 2014.04.11 @ 08:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 6.39 in³

Resistivity: ohm.m

Salinity: 3400.00 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
288.00	w cm 5%W 95%M	1.416

Total Length: 288.00 ft

Total Volume: 1.416 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8675

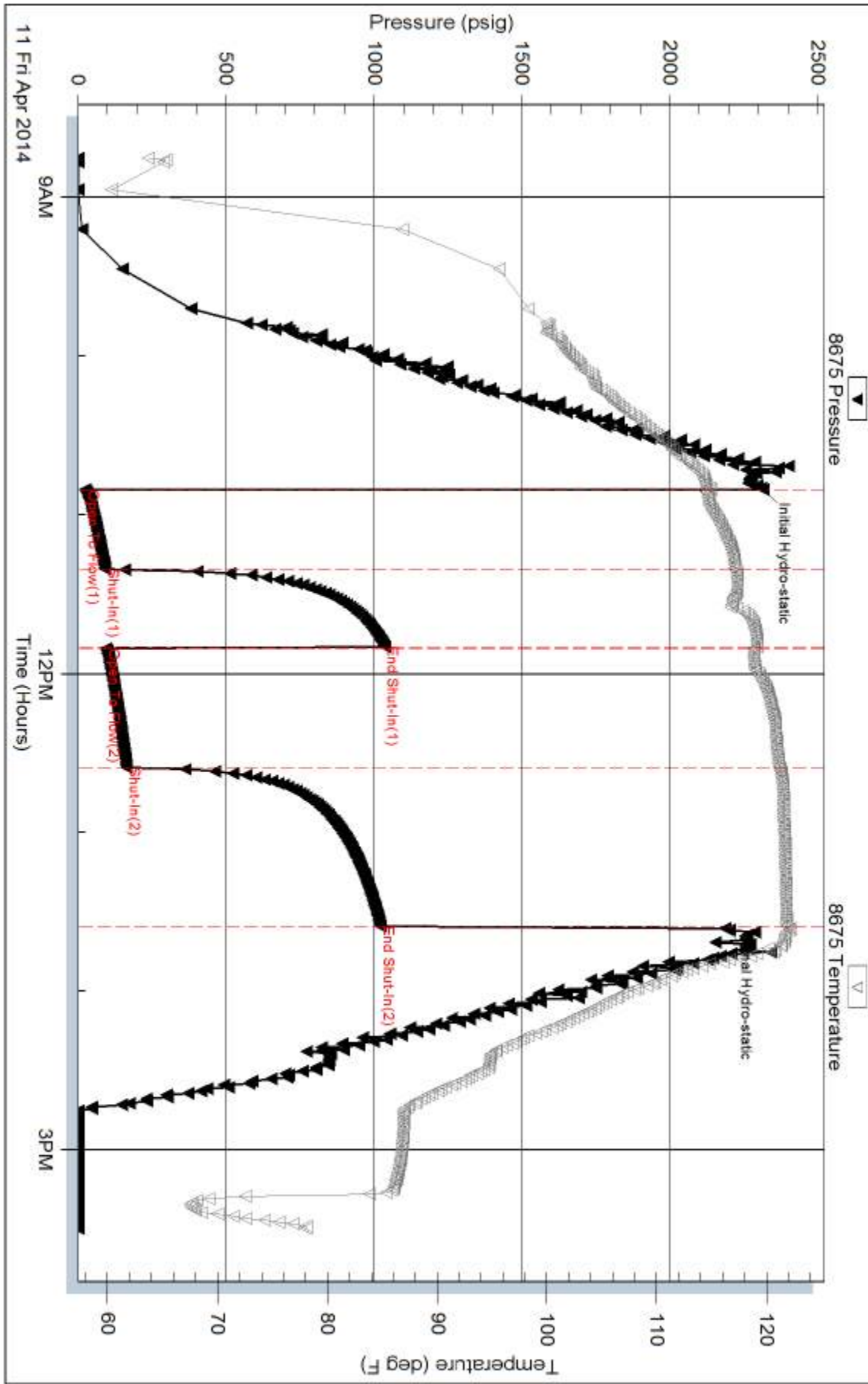
Inside

FIML Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 5

Pressure vs. Time

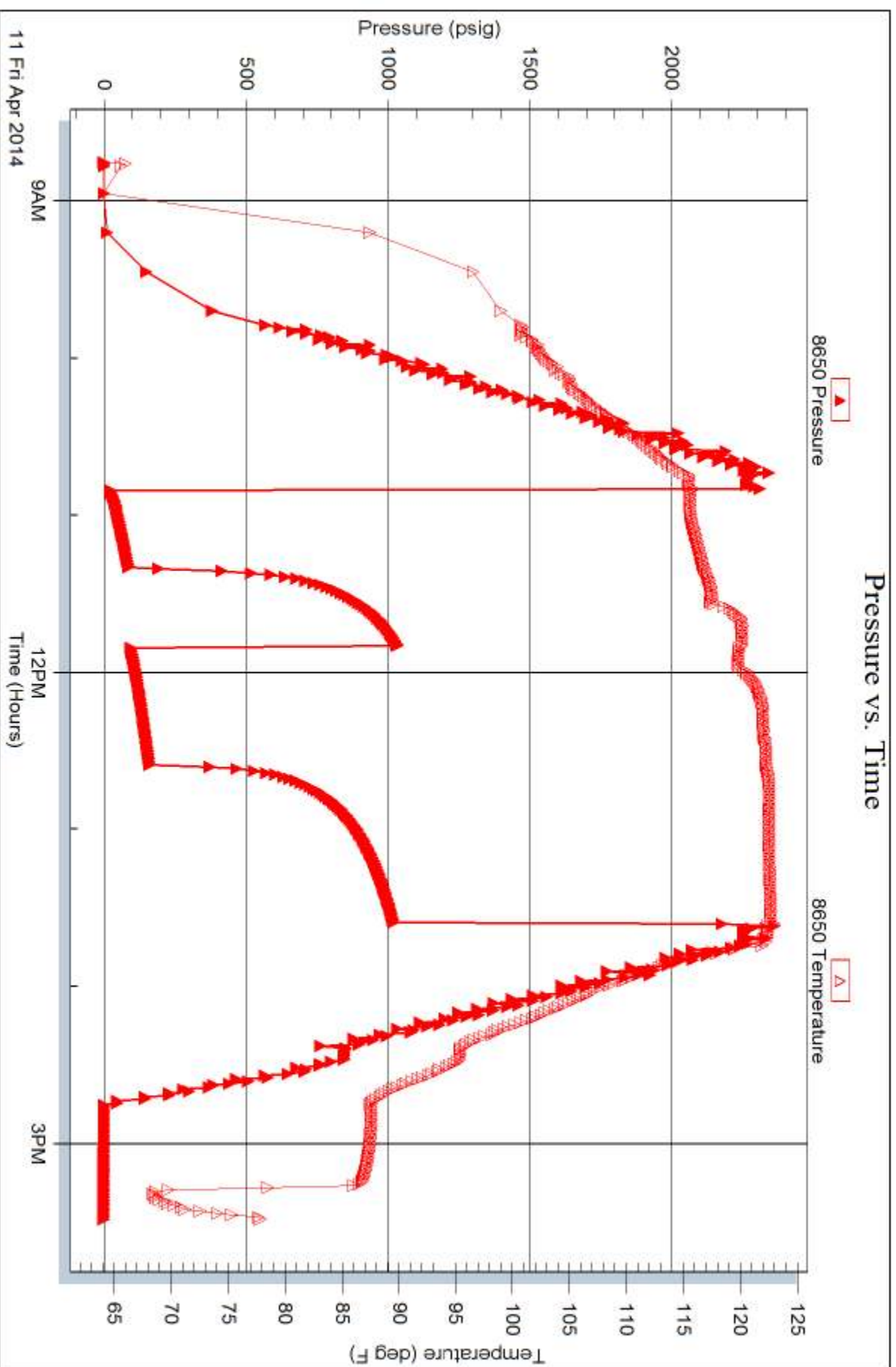


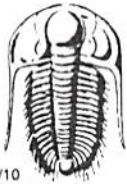
Serial #: 8650

Outside FILM Natural Resources, LLC

Hibbert #04D-20-2029

DST Test Number: 5





**TRILOBITE
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56460**

Well Name & No. Hildebert 04D-20-2029 Test No. 1 Date 4/7/14
Company FIM Natural Resources, LLC Elevation 2892 KB 2882 GL
Address 410 17th ST STE 900, Denver CO. 80202-4420
Co. Rep / Geo. Kurt Talbott & Gary Duke Rig H2 Rig 1
Location: Sec. 20 Twp. 20s Rge. 29w Co. Lane County State Kansas

Interval Tested 3998-4045 Zone Tested Toronto
Anchor Length 47 Drill Pipe Run 3617.88 Mud Wt. 8.8
Top Packer Depth 3994 Drill Collars Run 364.99 Vis 64
Bottom Packer Depth 3998 Wt. Pipe Run WL 6.4
Total Depth 4045 Chlorides 3,500 ppm System LCM 3#

Blow Description B.O.B. in 5 1/2 min.
Bled off for 5 min. No return below
B.O.B. in 9 min.

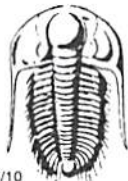
Bled off for 5 min. No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>236</u>	<u>muw</u>		<u>50</u>	<u>50</u>	
<u>282</u>	<u>muw</u>		<u>80</u>	<u>20</u>	
<u>646</u>	<u>water</u>		<u>100</u>		

Rec Total 1164 BHT 120 Gravity API RW 20 @ 40 °F Chlorides 55,000 ppm
(A) Initial Hydrostatic 1,983 ☒ Test 1250 T-On Location 01:20
(B) First Initial Flow 45 ☐ Jars T-Started 02:10
(C) First Final Flow 330 ☐ Safety Joint T-Open 04:27
(D) Initial Shut-In 1,013 ☒ Circ Sub N/C T-Pulled 07:27
(E) Second Initial Flow 340 ☐ Hourly Standby T-Out 09:28
(F) Second Final Flow 547 ☒ Mileage 86 RT 133.30 Comments
(G) Final Shut-In 1,007 ☐ Sampler
(H) Final Hydrostatic 1,947 ☐ Straddle

Initial Open 30 ☐ Ruined Shale Packer
Initial Shut-In 45 ☐ Ruined Packer
Final Flow 45 ☐ Extra Packer
Final Shut-In 60 ☐ Extra Recorder
☐ Day Standby Sub Total 0
☒ Accessibility 150 Total 1533.30
Sub Total 1533.30 MP/DST Disc't

Approved By Our Representative
TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56461**

Well Name & No. Hildcrest 040-20-2029 Test No. 2 Date 4/8/14
Company Firm Natural Resources, LLC Elevation 2892 KB 2882 GL
Address 410 17th STE 900, Denver CO. 80202-4420
Co. Rep / Geo. Kurt Talbot & Gary Duke Rig H2 Rig 1
Location: Sec. 20 Twp. 20s Rge. 24w Co. Lane County State Kansas

Interval Tested 4335-4400 Zone Tested Kansas City "J+K"
Anchor Length 65 Drill Pipe Run 3965.79 Mud Wt. 9.3
Top Packer Depth 4331 Drill Collars Run 364.99 Vis 52
Bottom Packer Depth 4335 Wt. Pipe Run WL 6.8
Total Depth 4400 Chlorides 3500 ppm System LCM 4#

Blow Description Built to 5 1/2" below
Bled off for 3 min. No return below
Built to 3 1/2" below

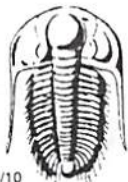
Bled off for 3 min. No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>285</u>	<u>20cm</u>			<u>20</u>	<u>80</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total	BHT	Gravity	API RW	@	°F	Chlorides	ppm
<u>285</u>	<u>120</u>		<u>30</u>	<u>55</u>		<u>30,000</u>	
(A) Initial Hydrostatic	<u>2,223</u>	☒ Test	<u>1250</u>	T-On Location <u>13:50</u>			
(B) First Initial Flow	<u>25</u>	☐ Jars		T-Started <u>14:20</u>			
(C) First Final Flow	<u>107</u>	☐ Safety Joint		T-Open <u>16:57</u>			
(D) Initial Shut-In	<u>1,139</u>	☒ Circ Sub <u>N/C</u>		T-Pulled <u>19:57</u>			
(E) Second Initial Flow	<u>107</u>	☐ Hourly Standby		T-Out <u>22:08</u>			
(F) Second Final Flow	<u>187</u>	☒ Mileage <u>86.41</u>	<u>133.30</u>	Comments			
(G) Final Shut-In	<u>1,095</u>	☐ Sampler					
(H) Final Hydrostatic	<u>2,178</u>	☐ Straddle					

Initial Open	Initial Shut-In	Final Flow	Final Shut-In	Sub Total	Total	MP/DST Disc't
<u>30</u>	<u>45</u>	<u>45</u>	<u>60</u>	<u>141.67</u>	<u>1674.97</u>	
Sub Total <u>1533.30</u>						

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56462

Well Name & No. Hildeart 040-20-2029 Test No. 3 Date 4/9/14
Company FIML Natural Resources, LLC Elevation 2892 KB 2882 GL
Address 410 17th STE 900, Denver CO. 80202-4420
Co. Rep / Geo. Kurt Talbot & Gary Dole Rig H2 Rig 1
Location: Sec. 20 Twp. 20s Rge. 29w Co. Lane County State Kansas

Interval Tested 4410 - 4526 Zone Tested Kansas City "L" - Marmaton "A" & "B"
Anchor Length 116 Drill Pipe Run 4029.14 Mud Wt. 9.15
Top Packer Depth 4406 Drill Collars Run 364.99 Vis 57
Bottom Packer Depth 4410 Wt. Pipe Run WL 6.66
Total Depth 4526 Chlorides 3,700 ppm System LCM 3H

Blow Description Built to 3" below
No return below
Built to
No return below

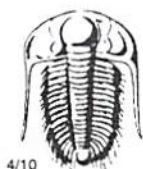
Rec	Feet of	%gas	%oil	%water	%mud
<u>200</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total	BHT	Gravity	API RW	@	F	Chlorides	ppm
<u>200</u>	<u>118</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
(A) Initial Hydrostatic	<u>2,237</u>	☒ Test	<u>1250</u>	T-On Location <u>14:00</u>			
(B) First Initial Flow	<u>23</u>	☐ Jars	T-Started <u>14:15</u>				
(C) First Final Flow	<u>74</u>	☐ Safety Joint	T-Open <u>17:28</u>				
(D) Initial Shut-In	<u>1,066</u>	☒ Circ Sub <u>n/c</u>	T-Pulled <u>20:13</u>				
(E) Second Initial Flow	<u>76</u>	☐ Hourly Standby	T-Out <u>22:10</u>				
(F) Second Final Flow	<u>138</u>	☒ Mileage <u>86 AT</u>	<u>133.30</u>	Comments <u> </u>			
(G) Final Shut-In	<u>1,086</u>	☐ Sampler					
(H) Final Hydrostatic	<u>2,165</u>	☐ Straddle					

Initial Open	Initial Shut-In	Final Flow	Final Shut-In	Sub Total	Total	MP/DST Disc't
<u>30</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>0</u>	<u>1533.30</u>	
Sub Total				<u>1533.30</u>	Our Representative <u> </u>	

Approved By

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**TRILOBITE
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56463**

Well Name & No. Hilbert 04D-20-2029 Test No. 4 Date 4/10/14
Company FIML Natural Resources, LLC Elevation 2892 KB 2882 GL
Address 410 17th STE 900, Denver CO. 80202-4420
Co. Rep / Geo. Jim Mastropae & Corey Dake Rig H2 Rig 1
Location: Sec. 20 Twp. 20s Rge. 29w Co. Lane County State Kansas

Interval Tested 4530-4630 Zone Tested Pawnee, Myric Station, Fort Scott, & Top of Cherokee
Anchor Length 100 Drill Pipe Run 4154.75 Mud Wt. 9.2
Top Packer Depth 4526 Drill Collars Run 364.99 Vis 51
Bottom Packer Depth 4530 Wt. Pipe Run WL 6.4
Total Depth 4630 Chlorides 2800 ppm System LCM 3#

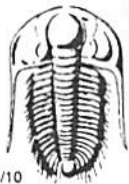
Blow Description Built to 1' below
No return below
No below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 116 Gravity API RW @ °F Chlorides ppm
(A) Initial Hydrostatic 2,268 ☒ Test 1250 T-On Location 12:05
(B) First Initial Flow 22 ☐ Jars T-Started 12:55
(C) First Final Flow 33 ☐ Safety Joint T-Open 15:35
(D) Initial Shut-In 1,072 ☒ Circ Sub N/C T-Pulled 17:50
(E) Second Initial Flow 36 ☐ Hourly Standby T-Out 19:30
(F) Second Final Flow 46 ☒ Mileage 86 Rt 133.30 Comments
(G) Final Shut-In 1,082 ☐ Sampler
(H) Final Hydrostatic 2,251 ☐ Straddle
☐ Ruined Shale Packer

Initial Open 30 ☐ Shale Packer
Initial Shut-In 30 ☐ Extra Packer
Final Flow 30 ☐ Extra Recorder
Final Shut-In 45 ☐ Day Standby
☒ Accessibility 150 Sub Total 1533.30 Sub Total 0
Total 1533.30 MP/DST Disc't

Approved By [Signature] Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56464

Well Name & No. Hilecoast 04D-20-2029 Test No. 5 Date 4/11/14
 Company FEM Natural Resources, LLC Elevation 2892 KB 2882 GL
 Address 410 17th STE 900, DENVER CO. 80202-4420
 Co. Rep / Geo. Tom Musgrave & Gary Duke Rig H2 R. 1
 Location: Sec. 20 Twp. 20S Rge. 29W Co. Lincoln County State Kansas

Interval Tested 4624-4712 Zone Tested Schubert Zone - Miss Spurgeon
 Anchor Length 88 Drill Pipe Run 4249.19 Mud Wt. 9.4
 Top Packer Depth 4620 Drill Collars Run 364.99 Vis 52
 Bottom Packer Depth 4624 Wt. Pipe Run WL 64
 Total Depth 4712 Chlorides 3,400 ppm System LCM 3#

Blow Description Built to 4 1/2" below
No return below
Built to 8" below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>288</u>	<u>100m</u>			<u>5</u>	<u>95</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 288 BHT 122 Gravity API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2314 ☒ Test 1250 T-On Location 08:30
 (B) First Initial Flow 25 ☐ Jars T-Started 08:45
 (C) First Final Flow 91 ☐ Safety Joint T-Open 10:51
 (D) Initial Shut-In 1.0 35 ☒ Circ Sub N/C T-Pulled 13:36
 (E) Second Initial Flow 95 ☒ Hourly Standby N/C T-Out 15:29
 (F) Second Final Flow 164 ☒ Mileage 86 RT 133.30 Comments
 (G) Final Shut-In 1.0 21 ☐ Sampler
 (H) Final Hydrostatic 2186 ☐ Straddle

Initial Open 30 ☐ Ruined Shale Packer
 Initial Shut-In 30 ☐ Ruined Packer
 Final Flow 45 ☐ Extra Packer
 Final Shut-In 60 ☐ Extra Recorder
☐ Day Standby Sub Total 0
☒ Accessibility 150 Total 1533.30
 Sub Total 1533.30 MP/DST Disc't

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