



DRILL STEM TEST REPORT

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

410 17th St. STE 900
Denver, CO 90202

ATTN: Gary Doke/Jim Musgro

22-20s-27w Lane,KS

Lottie Burnett #13B-22-2027

Start Date: 2012.07.18 @ 18:30:00

End Date: 2012.07.19 @ 04:18:45

Job Ticket #: 48958 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.24 @ 12:05:45



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

Lottie Burnett #13B-22-2027

410 17th St. STE 900
Denver, CO 90202

22-20s-27w Lane, KS

Job Ticket: 48958

DST#: 1

ATTN: Gary Doke/Jim Musgro

Test Start: 2012.07.18 @ 18:30:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:46:15

Time Test Ended: 04:18:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 53

Interval: 4445.00 ft (KB) To 4505.00 ft (KB) (TVD)

Reference Elevations: 2602.00 ft (KB)

Total Depth: 4505.00 ft (KB) (TVD)

2592.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8677

Inside

Press @ Run Depth: 204.36 psig @ 4446.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.18

End Date:

2012.07.19

Last Calib.: 2012.07.19

Start Time: 18:30:05

End Time:

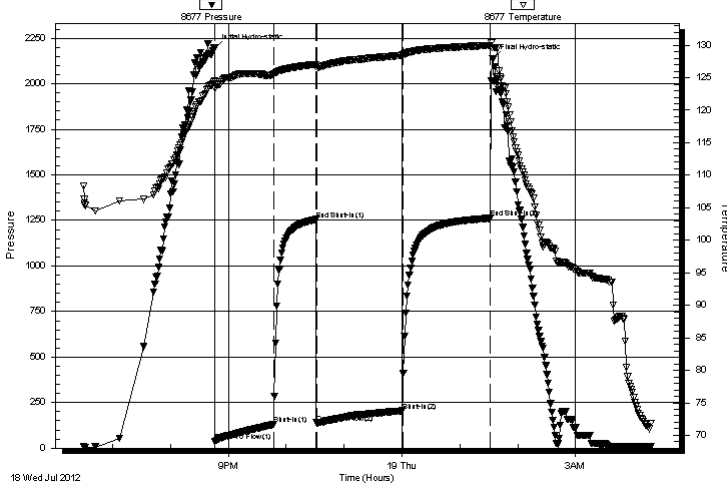
04:18:45

Time On Btm: 2012.07.18 @ 20:46:00

Time Off Btm: 2012.07.19 @ 01:34:00

TEST COMMENT: IF: 7" blow.
IS: No return.
FF: 7" blow.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.52	124.45	Initial Hydro-static
1	37.69	123.42	Open To Flow (1)
61	130.45	125.50	Shut-In(1)
105	1255.04	127.06	End Shut-In(1)
106	138.38	126.67	Open To Flow (2)
195	204.36	128.46	Shut-In(2)
286	1261.73	129.99	End Shut-In(2)
288	2135.77	129.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	ocm 15o 85m	1.28
130.00	go 5g 95o	0.73
0.00	60' gassy oder	0.00

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources, LLC

Lottie Burnett #13B-22-2027

410 17th St. STE 900
Denver, CO 90202

22-20s-27w Lane, KS

Job Ticket: 48958

DST#: 1

ATTN: Gary Doke/Jim Musgro

Test Start: 2012.07.18 @ 18:30:00

Tool Information

Drill Pipe:	Length: 4061.00 ft	Diameter: 3.20 inches	Volume: 40.40 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 371.00 ft	Diameter: 2.25 inches	Volume: 1.82 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 42.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	4445.00 ft			Final 69000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	79.00 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			4431.00	
Hydraulic tool	5.00			4436.00	
Packer	5.00			4441.00	19.00 Bottom Of Top Packer
Packer	4.00			4445.00	
Stubb	1.00			4446.00	
Recorder	0.00	8678	Outside	4446.00	
Recorder	0.00	8677	Inside	4446.00	
Perforations	23.00			4469.00	
Change Over Sub	1.00			4470.00	
Drill Pipe	31.00			4501.00	
Change Over Sub	1.00			4502.00	
Bullnose	3.00			4505.00	60.00 Bottom Packers & Anchor

Total Tool Length: 79.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources, LLC

Lottie Burnett #13B-22-2027

410 17th St. STE 900
Denver, CO 90202

22-20s-27w Lane, KS

Job Ticket: 48958

DST#: 1

ATTN: Gary Doke/Jim Musgro

Test Start: 2012.07.18 @ 18:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 43.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
260.00	ocm 15o 85m	1.279
130.00	go 5g 95o	0.735
0.00	60' gassy oder	0.000

Total Length: 390.00 ft

Total Volume: 2.014 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

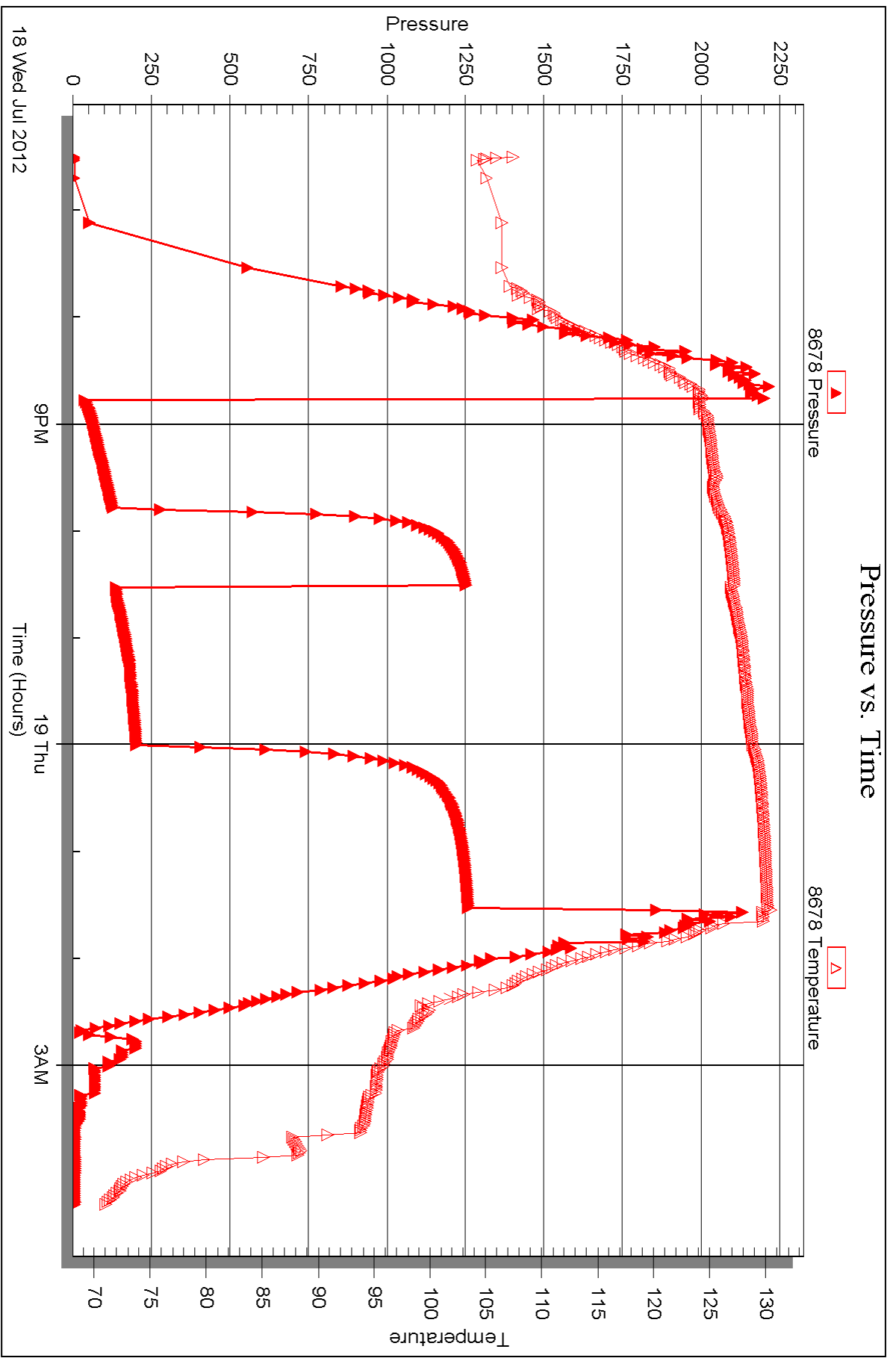
Recovery Comments:

Serial #: 8678

Outside FIML Natural Resources, LLC

22-20s-27w Lane, KS

DST Test Number: 1





DRILL STEM TEST REPORT

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

410 17th St. STE 900
Denver, CO 90202

ATTN: Gary Doke/Jim Musgro

22-20s-27w Lane,KS

Lottie Burnett #13B-22-2027

Start Date: 2012.07.19 @ 20:08:00

End Date: 2012.07.20 @ 05:55:15

Job Ticket #: 48959 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.24 @ 12:04:18



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FIML Natural Resources, LLC

Lottie Burnett #13B-22-2027

410 17th St. STE 900
Denver, CO 90202

22-20s-27w Lane, KS

Job Ticket: 48959

DST#: 2

ATTN: Gary Doke/Jim Musgro

Test Start: 2012.07.19 @ 20:08:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:59:30

Time Test Ended: 05:55:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 4505.00 ft (KB) To 4520.00 ft (KB) (TVD)

Reference Elevations: 2602.00 ft (KB)

Total Depth: 4520.00 ft (KB) (TVD)

2592.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8678 Outside

Press @ Run Depth: 1253.31 psig @ 4506.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.19

End Date:

2012.07.20

Last Calib.:

2012.07.20

Start Time: 20:08:05

End Time:

05:55:15

Time On Btm:

2012.07.19 @ 21:59:00

Time Off Btm:

2012.07.20 @ 01:50:45

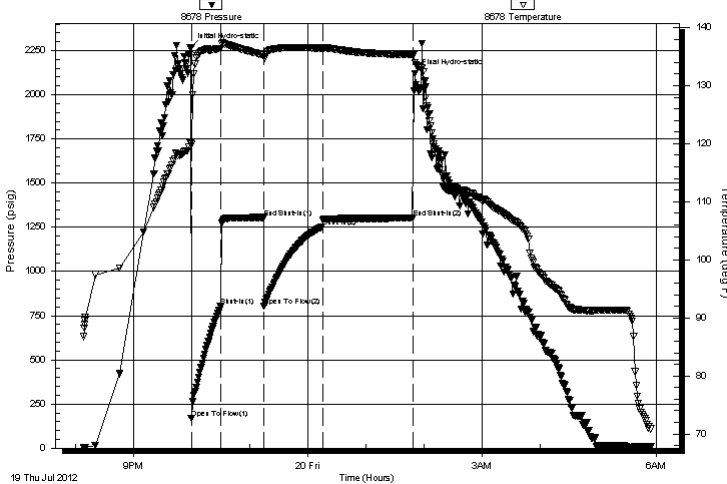
TEST COMMENT: IF: BOB @ 1 min.

IS: No return.

FF: BOB @ 1 1/2 min.

FS: BOB @ 34 min.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2265.98	120.24	Initial Hydro-static
1	169.70	119.89	Open To Flow (1)
31	804.30	136.40	Shut-In(1)
76	1305.05	135.26	End Shut-In(1)
76	804.19	134.99	Open To Flow (2)
136	1253.31	136.40	Shut-In(2)
230	1301.51	135.31	End Shut-In(2)
232	2119.61	133.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1300.00	somcw 2o 2m 96w	11.07
1740.00	go 5g 95o	17.31
0.00	60' Gassy odor	0.00

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

Lottie Burnett #13B-22-2027

410 17th St. STE 900
Denver, CO 90202

22-20s-27w Lane, KS

Job Ticket: 48959

DST#: 2

ATTN: Gary Doke/Jim Musgro

Test Start: 2012.07.19 @ 20:08:00

Tool Information

Drill Pipe:	Length: 4121.00 ft	Diameter: 3.20 inches	Volume: 40.99 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 371.00 ft	Diameter: 2.25 inches	Volume: 1.82 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 42.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	4505.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4491.00	
Hydraulic tool	5.00			4496.00	
Packer	5.00			4501.00	19.00 Bottom Of Top Packer
Packer	4.00			4505.00	
Stubb	1.00			4506.00	
Recorder	0.00	8678	Outside	4506.00	
Recorder	0.00	8677	Inside	4506.00	
Perforations	11.00			4517.00	
Bullnose	3.00			4520.00	15.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



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Lottie Burnett #13B-22-2027

410 17th St. STE 900
Denver, CO 90202

22-20s-27w Lane, KS

Job Ticket: 48959

DST#: 2

ATTN: Gary Doke/Jim Musgro

Test Start: 2012.07.19 @ 20:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

34000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1300.00	somcw 2o 2m 96w	11.066
1740.00	go 5g 95o	17.308
0.00	60' Gassy odor	0.000

Total Length: 3040.00 ft Total Volume: 28.374 bbl

Num Fluid Samples: 0

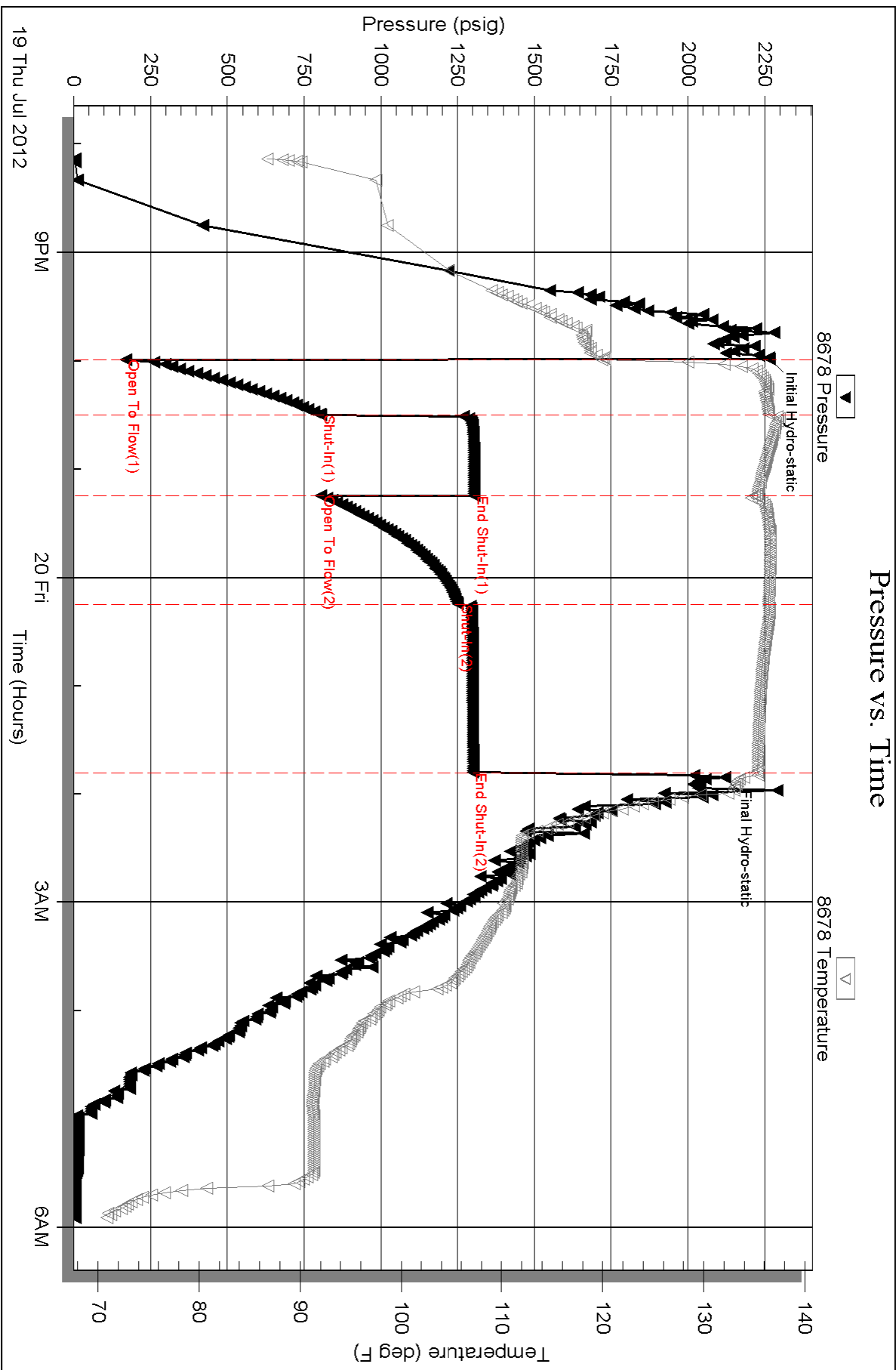
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .255 @ 65F = 34000 ppm



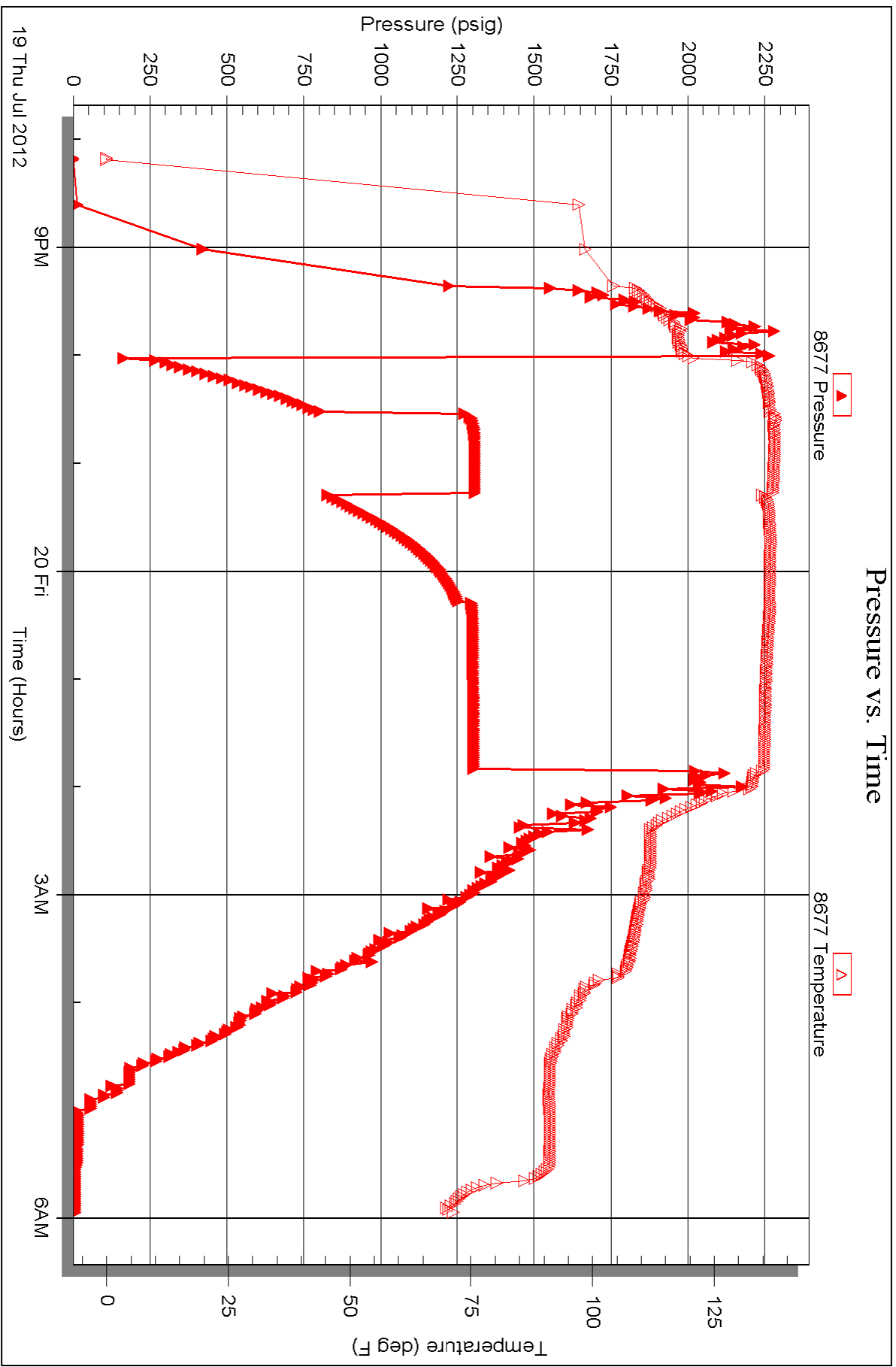
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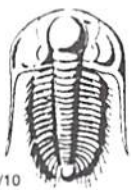
Inside

FIML Natural Resources, LLC

22-20s-27w Lane, KS

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48958

Well Name & No. Lottie Burnett 13 B-22-2027 Test No. 1 Date 07/19/12
 Company FIML Natural Resources, LLC Elevation 2600 KB 2592 GL
 Address 410 17th St. STE 900 Denver, Co 90202
 Co. Rep / Geo. Gary Duke Rig H2#1
 Location: Sec. 22 Twp. 20S Rge. 27W Co. Lane State Ks

Interval Tested 4445 - 4505 Zone Tested Marathon Mississippian
 Anchor Length 60' Drill Pipe Run 4061 Mud Wt. 9.3
 Top Packer Depth 4440 Drill Collars Run 371 Vis 43
 Bottom Packer Depth 4445 Wt. Pipe Run 0 WL 6.8
 Total Depth 4505 Chlorides 1700 ppm System LCM 2#
 Blow Description IF: 7" blow
ISI: No return.
FF: 7" blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>130</u>	<u>60</u>	<u>5</u>	<u>95</u>		
<u>260</u>	<u>OCM</u>		<u>15</u>		<u>85</u>
	<u>60' Gassy ODER</u>				

Rec Total 390 BHT 130 Gravity 34 API RW — @ — °F Chlorides — ppm

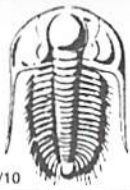
(A) Initial Hydrostatic 2192 Test 1250 T-On Location 1745
 (B) First Initial Flow 38 Jars — T-Started 1829
 (C) First Final Flow 130 Safety Joint — T-Open 2046
 (D) Initial Shut-In 1255 Circ Sub H/L T-Pulled 0131 07/19/12
 (E) Second Initial Flow 138 Hourly Standby .5h 50 T-Out 0418
 (F) Second Final Flow 204 Mileage 85 RT 131.75
 (G) Final Shut-In 1262 Sampler —
 (H) Final Hydrostatic 2136 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1581.75
 Accessibility 150 MP/DST Disc't —
 Sub Total 1581.75

Initial Open 60
 Initial Shut-In 45
 Final Flow 90
 Final Shut-In 90

Approved By [Signature]

Our Representative [Signature]

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.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48959

Well Name & No. Lottie Burnett 13B-22-2027 Test No. 2 Date 07/20/12
 Company FIML Natural Resources, LLC Elevation 2602 KB 2592 GL
 Address 410 17th St STE 900 Denver, Co 90202
 Co. Rep / Geo. Gary Duke Rig H2 #1
 Location: Sec. 22 Twp. 20S Rge. 27W Co. Lane State Ks

Interval Tested 4505 - 4520 Zone Tested Mississippian
 Anchor Length 15' Drill Pipe Run 4121 Mud Wt. 9.15
 Top Packer Depth 4500 Drill Collars Run 371 Vis 5g
 Bottom Packer Depth 4505 Wt. Pipe Run 0 WL 8.0
 Total Depth 4520 Chlorides 3000 ppm System LCM 5#

Blow Description IF: BOB @ 1 min.
TSI: No return.
FF: BOB @ 1 1/2 min.
FSI: BOB @ 34 min.

Rec	Feet of	%gas	%oil	%water	%mud
1740	60	5	95		
1300	5600W	2	2	96	
	60' Gassy Oder				

Rec Total 3040 BHT 135 Gravity 29 API RW .255 @ 65 °F Chlorides 34,000 ppm

(A) Initial Hydrostatic <u>2266</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>2000</u>
(B) First Initial Flow <u>170</u>	<input type="checkbox"/> Jars	T-Started <u>2008</u>
(C) First Final Flow <u>804</u>	<input type="checkbox"/> Safety Joint	T-Open <u>2200</u>
(D) Initial Shut-In <u>1305</u>	<input checked="" type="checkbox"/> Circ Sub <u>n/c</u>	T-Pulled <u>0145</u>
(E) Second Initial Flow <u>804</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0557</u>
(F) Second Final Flow <u>1253</u>	<input checked="" type="checkbox"/> Mileage <u>85 RT X2 263.50</u>	Comments <u>went to rig</u>
(G) Final Shut-In <u>1302</u>	<input type="checkbox"/> Sampler	<u>twice due to</u>
(H) Final Hydrostatic <u>2120</u>	<input type="checkbox"/> Straddle	<u>fishing for chain</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1663.50</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't
	Sub Total <u>1663.50</u>	

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damages 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.