



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

115 S Belmont #12
Wichita, KS 67208

ATTN: Corey Baker

Moeder Trust A 1-22

22 11s 34w Logan,KS

Start Date: 2013.06.14 @ 22:08:00

End Date: 2013.06.15 @ 03:38:00

Job Ticket #: 53305 DST #: 1

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

Printed: 2013.06.19 @ 08:10:35



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy, LLC

22 11s 34w Logan, KS

115 S Belmont #12
Wichita, KS 67208

Moeder Trust A 1-22

Job Ticket: 53305

DST#: 1

ATTN: Corey Baker

Test Start: 2013.06.14 @ 22:08:00

GENERAL INFORMATION:

Formation: **Kansas City "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:36:45

Time Test Ended: 03:38:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cornelio Landa III (

Unit No: 53

Interval: 4230.00 ft (KB) To 4265.00 ft (KB) (TVD)

Reference Elevations: 3173.00 ft (KB)

Total Depth: 4265.00 ft (KB) (TVD)

3162.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8677

Inside

Press @ RunDepth: 28.59 psig @ 4237.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.14

End Date:

2013.06.15

Last Calib.: 2013.06.15

Start Time: 22:08:05

End Time:

03:37:59

Time On Btm: 2013.06.15 @ 00:36:30

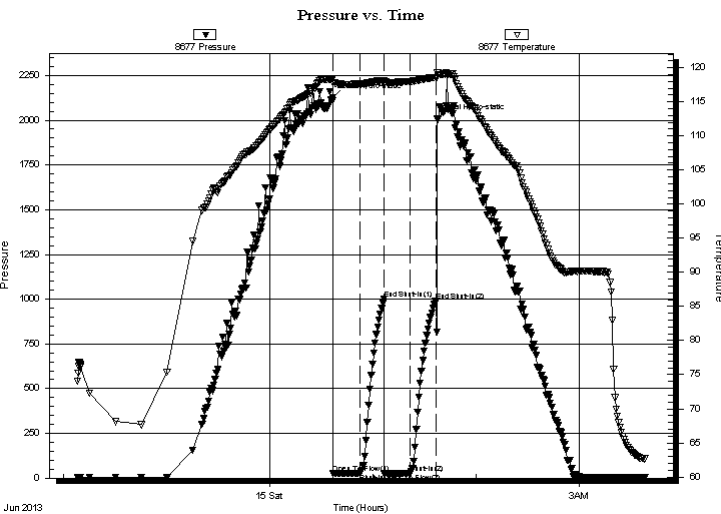
Time Off Btm: 2013.06.15 @ 01:37:15

TEST COMMENT: IF: Weak surface blow -died in 3 1/2 min

IS: No return

FF: No blow

FS: No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2126.95	118.37	Initial Hydro-static
1	25.49	117.83	Open To Flow (1)
16	27.08	117.60	Shut-In(1)
30	1000.08	118.13	End Shut-In(1)
30	27.24	117.55	Open To Flow (2)
45	28.59	117.98	Shut-In(2)
60	990.79	118.58	End Shut-In(2)
61	2010.29	119.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w ith oil specs	0.02

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

22 11s 34w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Moeder Trust A 1-22

Job Ticket: 53305

DST#: 1

ATTN: Corey Baker

Test Start: 2013.06.14 @ 22:08:00

Tool Information

Drill Pipe:	Length: 3959.00 ft	Diameter: 3.80 inches	Volume: 55.53 bbl	Tool Weight: 2500.00 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: 266.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 86000.00 lb
			<u>Total Volume: 56.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4230.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	62.00 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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Double pin	1.00			4204.00	
Shut In Tool	5.00			4209.00	
Hydraulic tool	5.00			4214.00	
Jars	5.00			4219.00	
Safety Joint	2.00			4221.00	
Packer	5.00			4226.00	27.00 Bottom Of Top Packer
Packer	4.00			4230.00	
Stubb	1.00			4231.00	
Perforations	6.00			4237.00	
Recorder	0.00	8677	Inside	4237.00	
Recorder	0.00	8522	Outside	4237.00	
Perforations	25.00			4262.00	
Bullnose	3.00			4265.00	35.00 Bottom Packers & Anchor

Total Tool Length: 62.00



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FLUID SUMMARY

Cobalt Energy, LLC

22 11s 34w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Moeder Trust A 1-22

Job Ticket: 53305

DST#: 1

ATTN: Corey Baker

Test Start: 2013.06.14 @ 22:08:00

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 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
5.00	Mud w ith oil specs	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

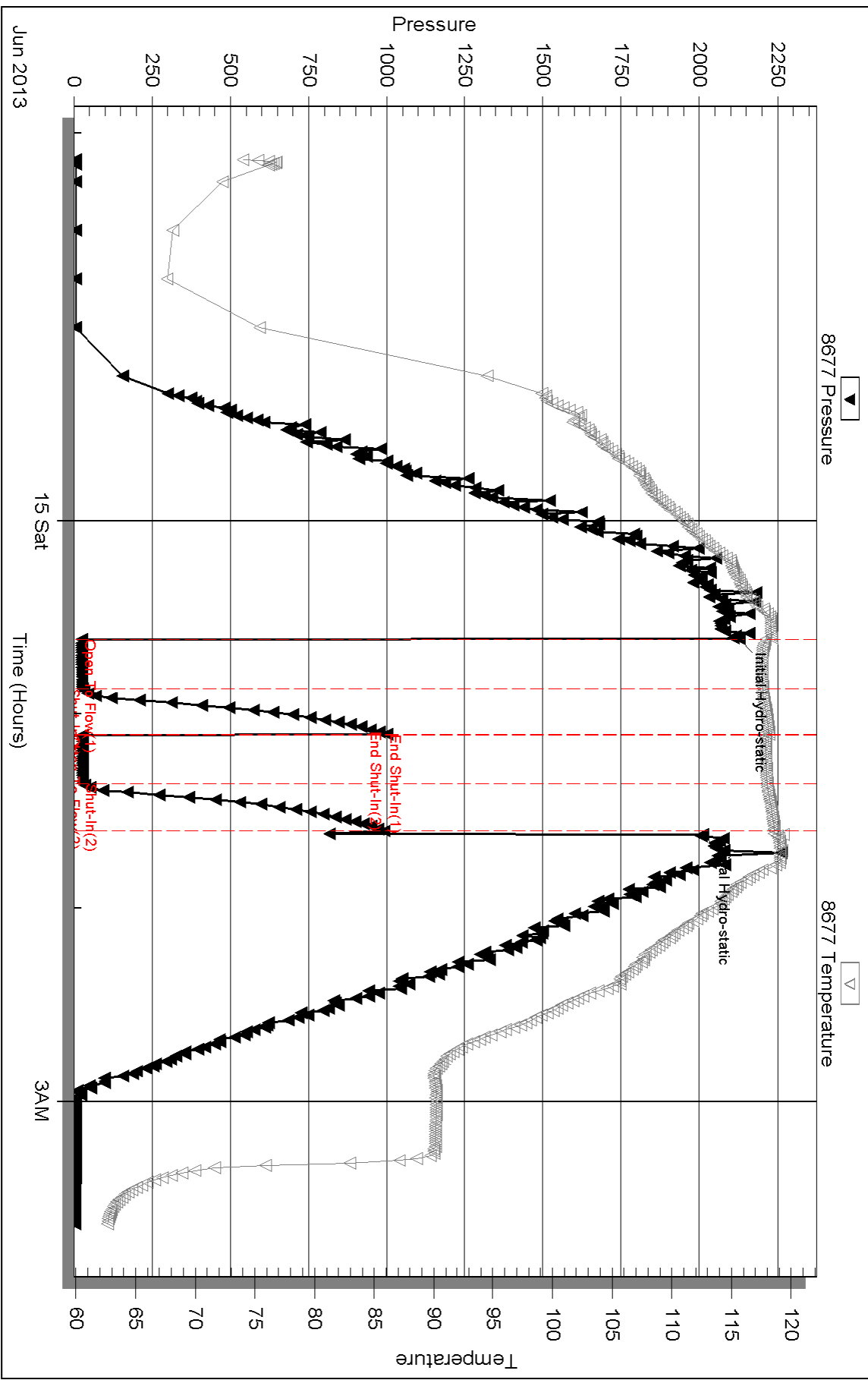
Serial #:

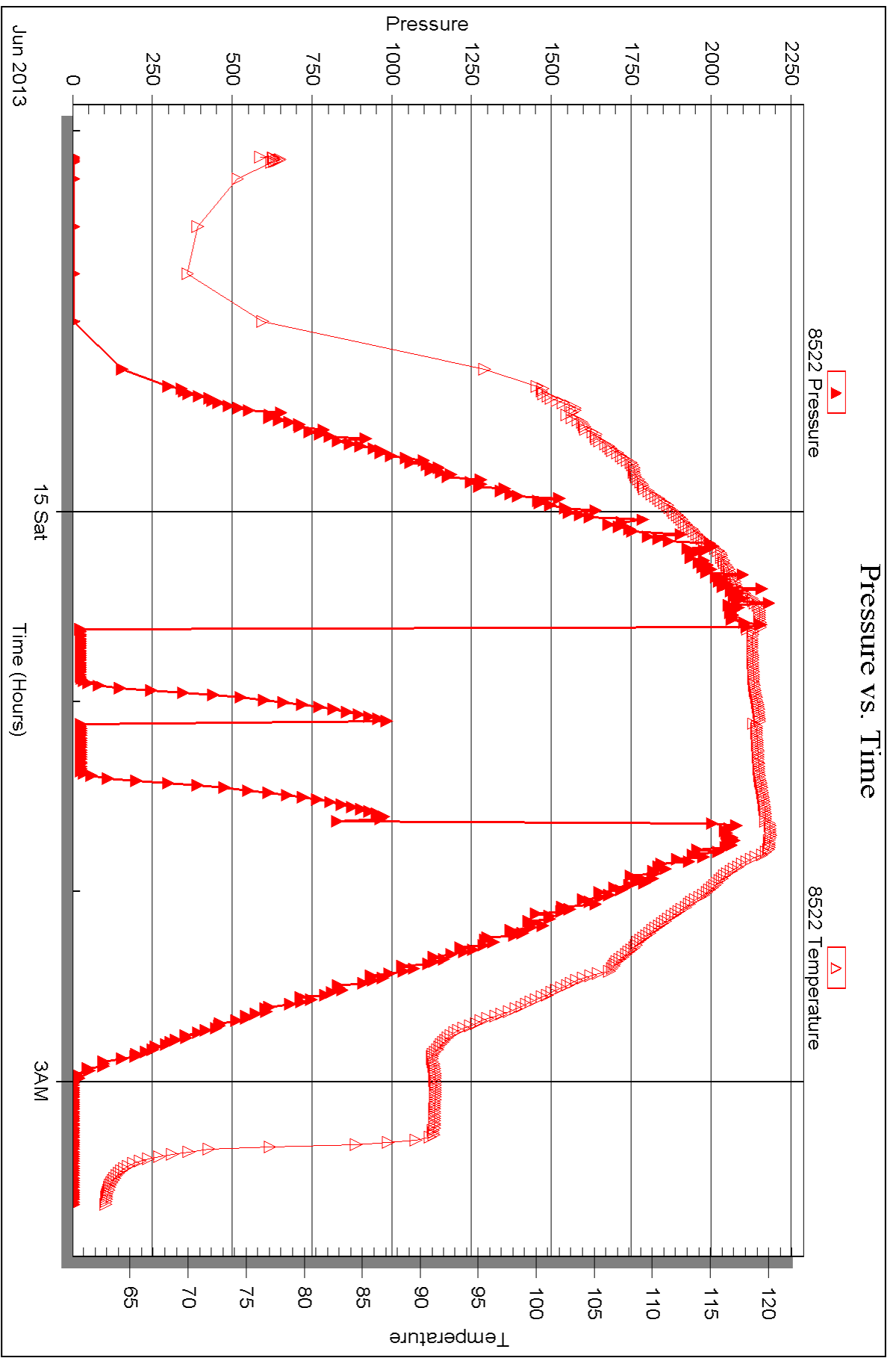
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

115 S Belmont #12
Wichita, KS 67208

ATTN: Corey Baker

Moeder Trust A 1-22

22 11s 34w Logan,KS

Start Date: 2013.06.16 @ 18:03:00

End Date: 2013.06.17 @ 02:35:15

Job Ticket #: 53306 DST #: 2

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

Printed: 2013.06.19 @ 08:09:07



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DRILL STEM TEST REPORT

Cobalt Energy, LLC

22 11s 34w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Moeder Trust A 1-22

ATTN: Corey Baker

Job Ticket: 53306

DST#: 2

Test Start: 2013.06.16 @ 18:03:00

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:24:45

Time Test Ended: 02:35:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Cornelio Landa III

Unit No: 53

Interval: 4532.00 ft (KB) To 4670.00 ft (KB) (TVD)

Reference Elevations: 3173.00 ft (KB)

Total Depth: 4670.00 ft (KB) (TVD)

3162.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8677 Inside

Press @ Run Depth: 254.13 psig @ 4546.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.16

End Date:

2013.06.17

Last Calib.:

2013.06.17

Start Time:

18:03:05

End Time:

02:35:15

Time On Btm:

2013.06.16 @ 21:24:15

Time Off Btm:

2013.06.17 @ 00:10:30

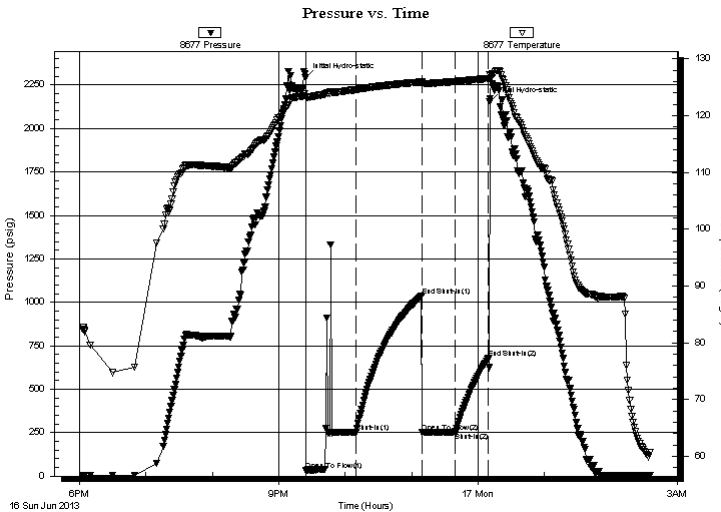
TEST COMMENT: IF: 1 inch in 15 min- Bob in 17 min geo thought packer failure-reset packer and continued test

IS: No return

FF: No blow

FS: No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2294.00	123.89	Initial Hydro-static
1	34.23	123.34	Open To Flow (1)
46	251.93	124.57	Shut-In(1)
105	1036.09	125.94	End Shut-In(1)
106	251.97	125.72	Open To Flow (2)
135	254.13	125.99	Shut-In(2)
165	676.47	126.54	End Shut-In(2)
167	2152.61	127.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
551.00	100% Mud	5.31

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

22 11s 34w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Moeder Trust A 1-22

Job Ticket: 53306

DST#: 2

ATTN: Corey Baker

Test Start: 2013.06.16 @ 18:03:00

Tool Information

Drill Pipe:	Length: 4272.00 ft	Diameter: 3.80 inches	Volume: 59.92 bbl	Tool Weight: 2500.00 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: 266.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 61.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4532.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	138.00 ft			
Tool Length:	165.00 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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Double pin	1.00			4506.00	
Shut In Tool	5.00			4511.00	
Hydraulic tool	5.00			4516.00	
Jars	5.00			4521.00	
Safety Joint	2.00			4523.00	
Packer	5.00			4528.00	27.00 Bottom Of Top Packer
Packer	4.00			4532.00	
Stubb	1.00			4533.00	
Perforations	12.00			4545.00	
change Over Sub	1.00			4546.00	
Recorder	0.00	8677	Inside	4546.00	
Recorder	0.00	8522	Outside	4546.00	
Drill Pipe	120.00			4666.00	
change Over Sub	1.00			4667.00	
Bullnose	3.00			4670.00	138.00 Bottom Packers & Anchor

Total Tool Length: 165.00



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Moeder Trust A 1-22

Job Ticket: 53306

DST#: 2

ATTN: Corey Baker

Test Start: 2013.06.16 @ 18:03:00

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:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
551.00	100% Mud	5.306

Total Length: 551.00 ft Total Volume: 5.306 bbl

Num Fluid Samples: 0

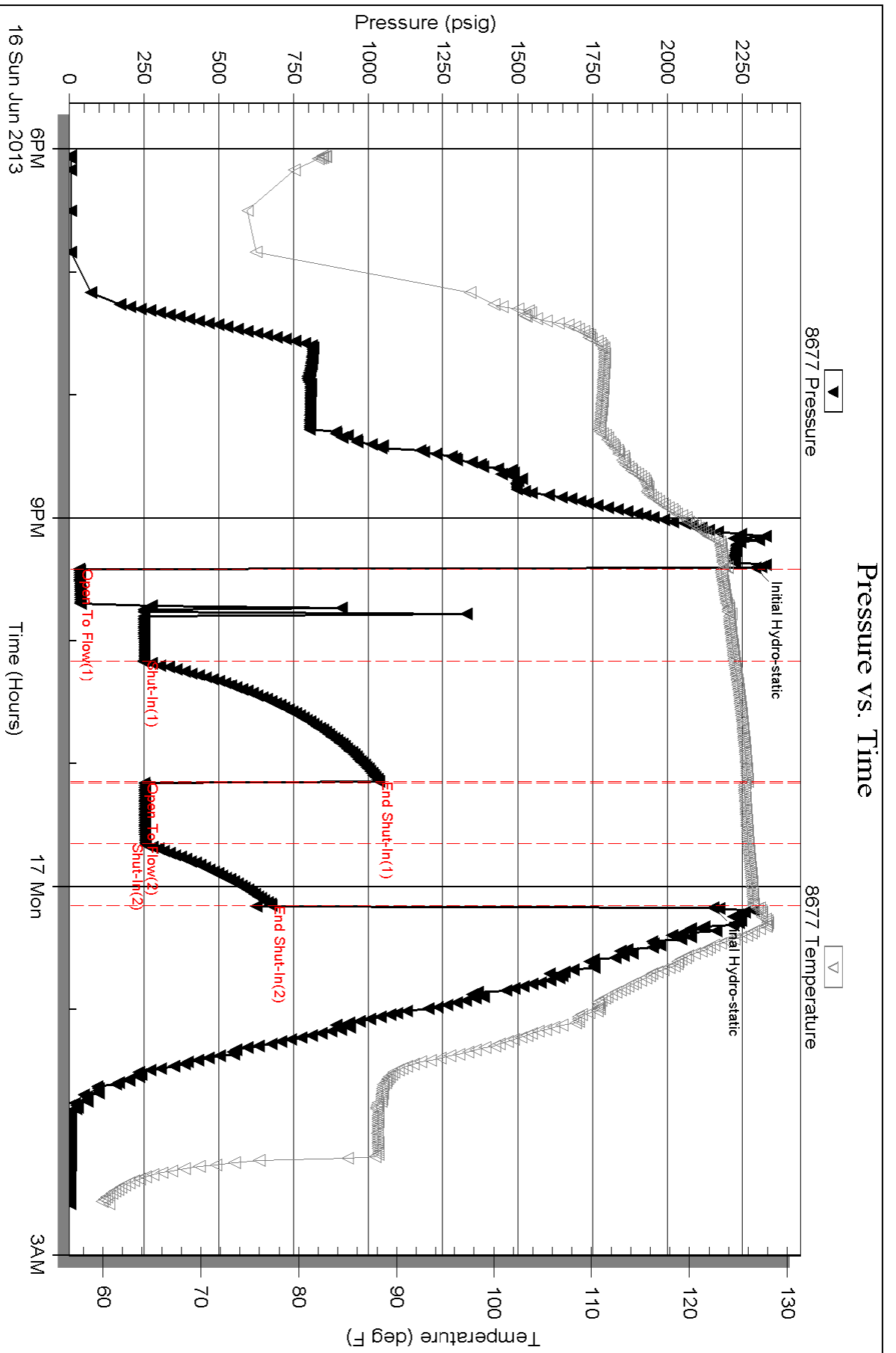
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



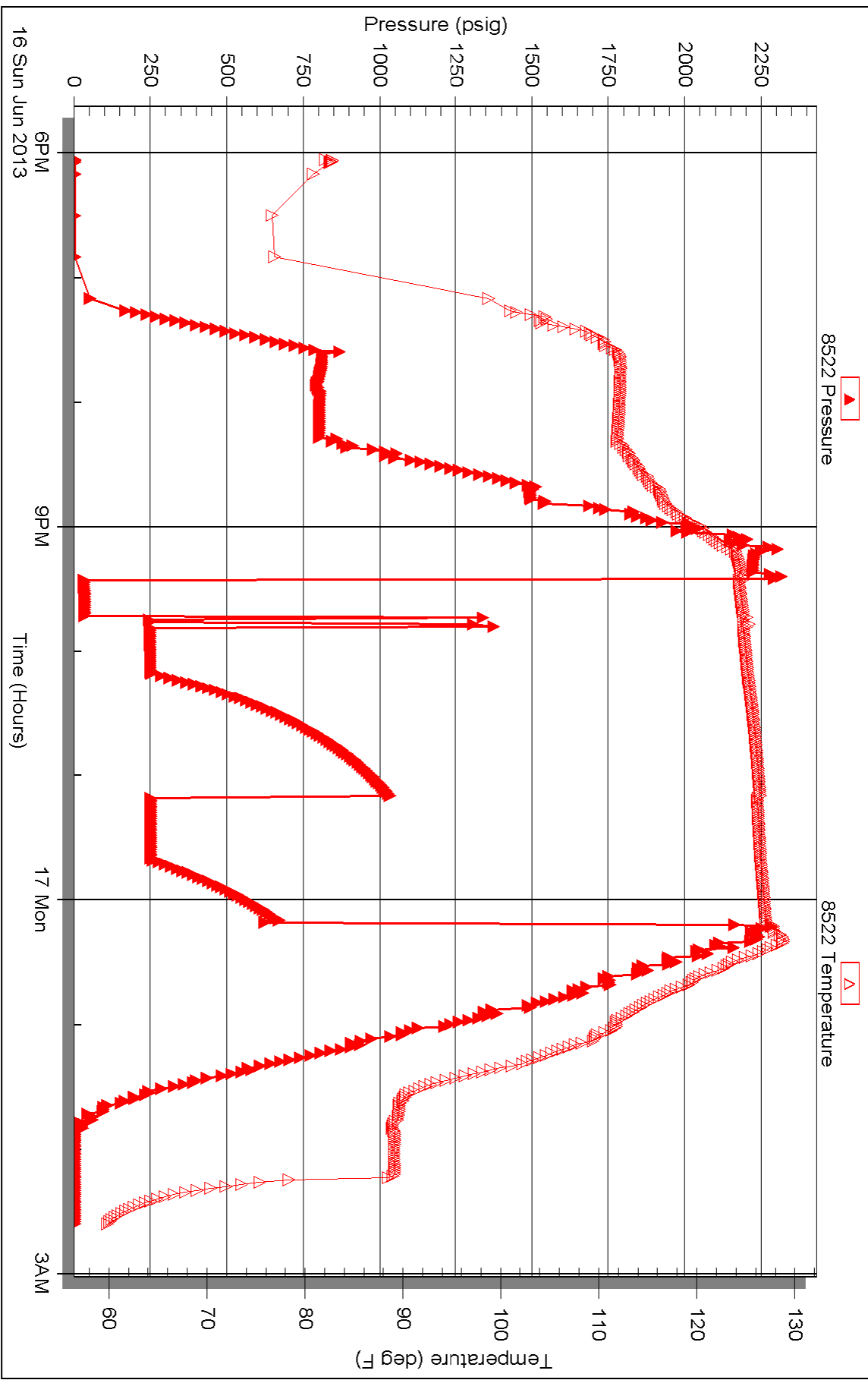
Serial #: 8522

Outside Cobalt Energy, LLC

Moeder Trust A 1-22

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 53306

Printed: 2013.06.19 @ 08:09:12



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53305

4/10

Well Name & No. Maeder Trust "A" #1-22 Test No. 1 Date 6-14-13
 Company Cobalt Energy, LLC Elevation 3173 KB 3162 GL
 Address 115 S Belmont #12 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Murton 21
 Location: Sec. 22 Twp. 11S Rge. 34W Co. Logan State KS

Interval Tested 4230-4265 Zone Tested Kansas City "H"
 Anchor Length 35' Drill Pipe Run 3959 Mud Wt. 9.0
 Top Packer Depth 4226 Drill Collars Run 266 Vis 48
 Bottom Packer Depth 4230 Wt. Pipe Run 6 WL 8.8
 Total Depth 4265 Chlorides 3000 ppm System LCM 2

Blow Description IF: weak surface blow - dried in 3 1/2 min
DST: no Return
FF: no blow
FSI: no Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud w/ oil specs</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 5 BHT 119 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2126 Test 1250 T-On Location 21:05
 (B) First Initial Flow 25 Jars 250 T-Started 22:08
 (C) First Final Flow 27 Safety Joint 75 T-Open 00:38
 (D) Initial Shut-In 1000 Circ Sub N/C T-Pulled 1:38
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 3:39
 (F) Second Final Flow 28 Mileage 120 R/T 186 Comments _____
 (G) Final Shut-In 990 Sampler _____
 (H) Final Hydrostatic 2010 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 15
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 15
 Sub Total 0
 Total 1761
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature] CRT

Trilobite Testing Inc. shall not be liable for damaged or 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.

