



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

115 S Belmont #12  
Wichita KS 67208

ATTN: Larry Nicholson

**Von Lehe 'A' #1-27**

**27-18s-24w Ness,KS**

Start Date: 2013.07.11 @ 04:45:37

End Date: 2013.07.11 @ 10:31:37

Job Ticket #: 53989                      DST #: 1

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

Printed: 2013.07.16 @ 13:47:31



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53989

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 04:45:37

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:11:37

Time Test Ended: 10:31:37

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang

Unit No: 54

**Interval: 4182.00 ft (KB) To 4212.00 ft (KB) (TVD)**

Reference Elevations: 2273.00 ft (KB)

Total Depth: 4212.00 ft (KB) (TVD)

2261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

**Serial #: 8789 Outside**

Press @ Run Depth: 19.73 psig @ 4184.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.11

End Date:

2013.07.11

Last Calib.:

2013.07.11

Start Time: 04:45:39

End Time:

10:31:37

Time On Btm:

2013.07.11 @ 07:11:22

Time Off Btm:

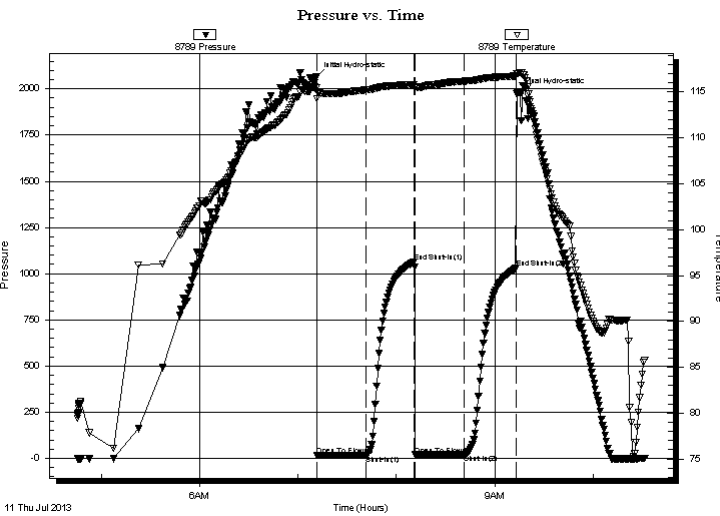
2013.07.11 @ 09:13:37

**TEST COMMENT:** Weak surface blow died @ 20 mins.

Dead no blow back

Dead no blow

Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2065.44	115.52	Initial Hydro-static
1	16.98	114.32	Open To Flow (1)
31	17.34	115.21	Shut-In(1)
60	1064.68	115.82	End Shut-In(1)
61	19.27	115.53	Open To Flow (2)
90	19.73	116.16	Shut-In(2)
122	1028.51	116.72	End Shut-In(2)
123	1979.34	117.00	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%M	0.14

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53989

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 04:45:37

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:11:37

Time Test Ended: 10:31:37

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang

Unit No: 54

**Interval: 4182.00 ft (KB) To 4212.00 ft (KB) (TVD)**

Reference Elevations: 2273.00 ft (KB)

Total Depth: 4212.00 ft (KB) (TVD)

2261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

**Serial #: 6668** Inside

Press @ RunDepth: psig @ 4184.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.11 End Date: 2013.07.11

Last Calib.: 2013.07.11

Start Time: 04:45:35 End Time: 10:31:33

Time On Btm:

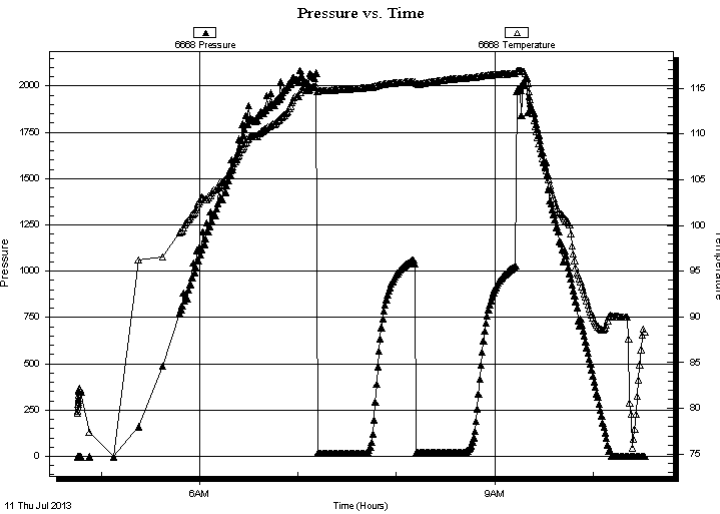
Time Off Btm:

TEST COMMENT: Weak surface blow died @ 20 mins.

Dead no blow back

Dead no blow

Dead no blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%M	0.14

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53989

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 04:45:37

## Tool Information

Drill Pipe:	Length: 4160.00 ft	Diameter: 3.80 inches	Volume: 58.35 bbl	Tool Weight: 22000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 58.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4182.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 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			4155.00	
Shut In Tool	5.00			4160.00	
Hydraulic tool	5.00			4165.00	
Jars	5.00			4170.00	
Safety Joint	2.00			4172.00	
Packer	5.00			4177.00	28.00 Bottom Of Top Packer
Packer	5.00			4182.00	
Stubb	1.00			4183.00	
Perforations	1.00			4184.00	
Recorder	0.00	6668	Inside	4184.00	
Recorder	0.00	8789	Outside	4184.00	
Perforations	25.00			4209.00	
Bullnose	3.00			4212.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53989

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 04:45:37

## 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: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 4500.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100%M	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

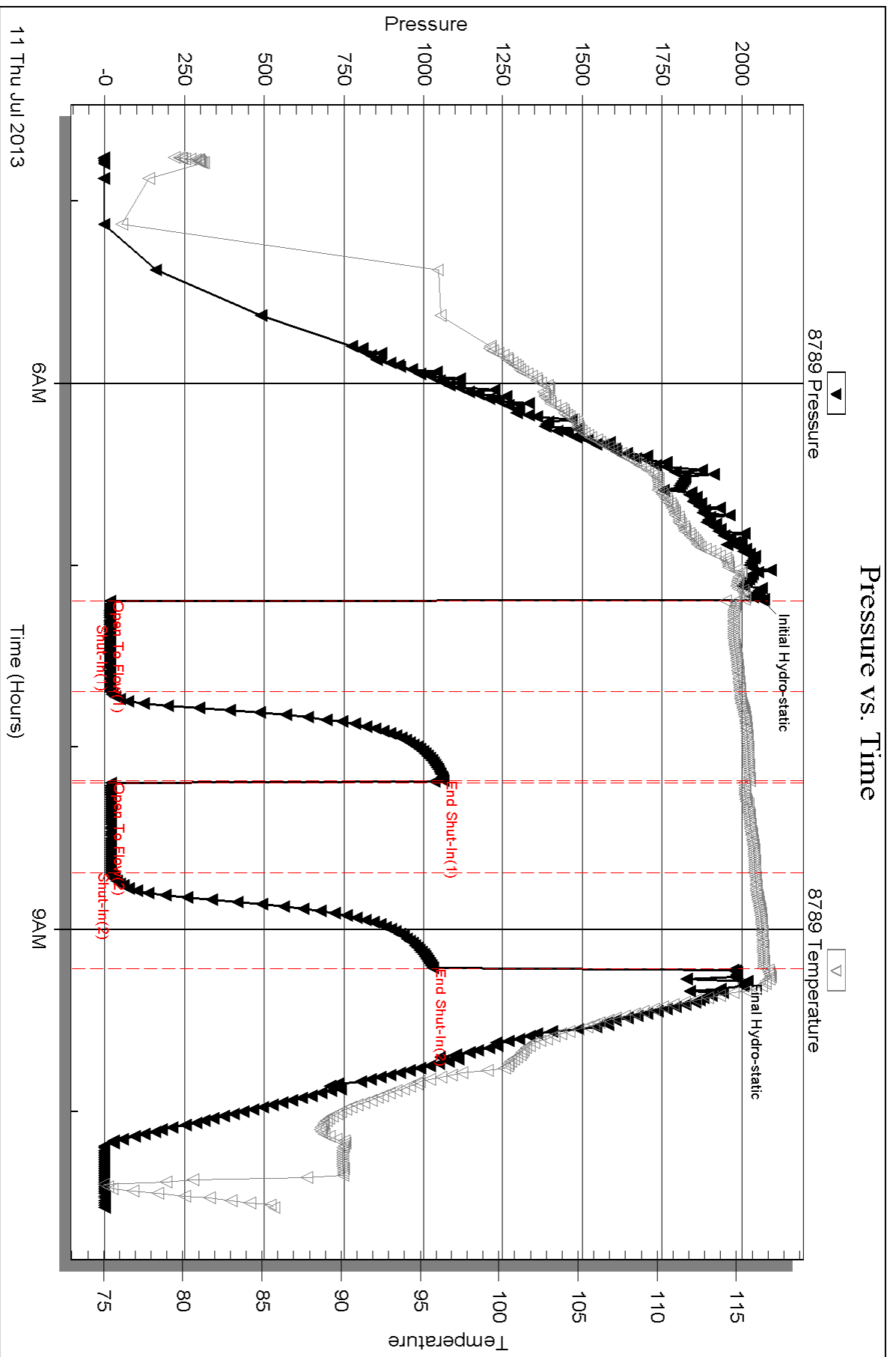
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



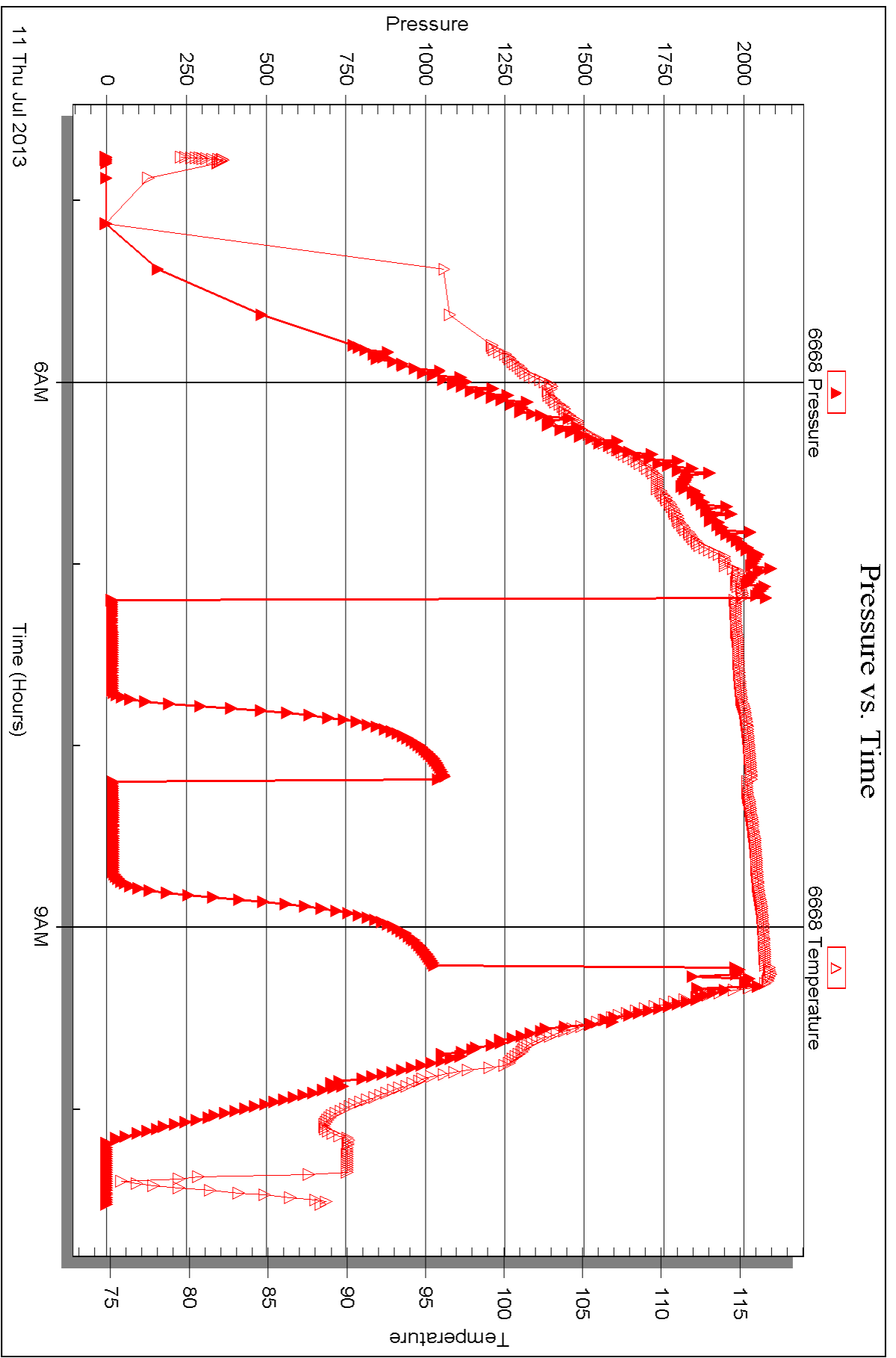
Serial #: 6668

Inside

Cobalt Energy LLC

Von Lehe 'A' #1-27

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

115 S Belmont #12  
Wichita KS 67208

ATTN: Larry Nicholson

**Von Lehe 'A' #1-27**

**27-18s-24w Ness,KS**

Start Date: 2013.07.11 @ 22:22:50

End Date: 2013.07.12 @ 04:31:35

Job Ticket #: 53990                      DST #: 2

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

Printed: 2013.07.16 @ 13:32:04





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

ATTN: Larry Nicholson

Job Ticket: 53990

**DST#: 2**

Test Start: 2013.07.11 @ 22:22:50

## GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:30:20

Time Test Ended: 04:31:35

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 54

**Interval: 4256.00 ft (KB) To 4305.00 ft (KB) (TVD)**

Reference Elevations: 2273.00 ft (KB)

Total Depth: 4305.00 ft (KB) (TVD)

2261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

**Serial #: 8789 Outside**

Press @ Run Depth: 18.13 psig @ 4259.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.11

End Date:

2013.07.12

Last Calib.:

2013.07.12

Start Time: 22:22:52

End Time:

04:31:35

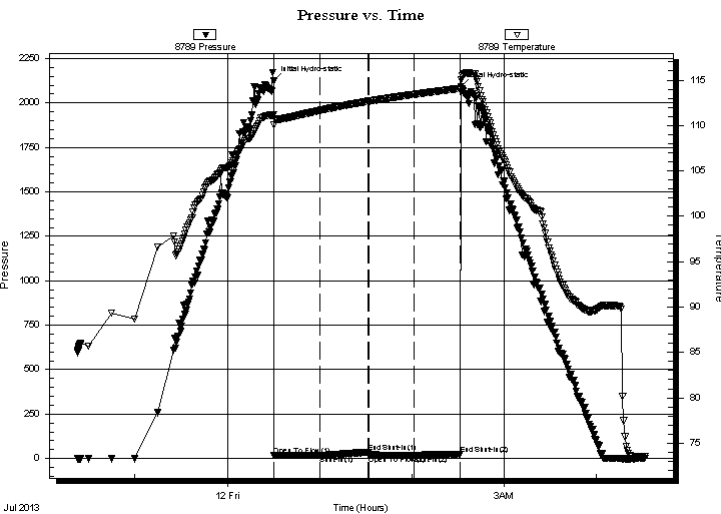
Time On Btm:

2013.07.12 @ 00:30:05

Time Off Btm:

2013.07.12 @ 02:31:50

**TEST COMMENT:** Weak surface blow  
Dead no blow back  
Dead no blow  
Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2123.68	111.21	Initial Hydro-static
1	17.36	110.02	Open To Flow (1)
31	17.80	111.66	Shut-In(1)
62	35.18	112.67	End Shut-In(1)
62	19.43	112.67	Open To Flow (2)
92	18.13	113.43	Shut-In(2)
121	24.71	114.09	End Shut-In(2)
122	2092.37	115.00	Final Hydro-static

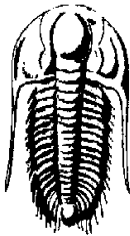
## Recovery

Length (ft)	Description	Volume (bbl)
2.00	100%M Thick Heavy Mud w ith skim oil	0.03

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Cobalt Energy LLC

27-18s-24w Ness, KS

115 S Belmont #12  
Wichita KS 67208

Von Lehe 'A' #1-27

Job Ticket: 53990

DST#: 2

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 22:22:50

### GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:30:20

Time Test Ended: 04:31:35

Interval: **4256.00 ft (KB) To 4305.00 ft (KB) (TVD)**

Total Depth: 4305.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 54

Reference Elevations: 2273.00 ft (KB)

2261.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: **6668** Inside

Press @ Run Depth: psig @ 4259.00 ft (KB)

Start Date: 2013.07.11

End Date: 2013.07.12

Capacity: 8000.00 psig

Last Calib.: 2013.07.12

Start Time: 22:22:25

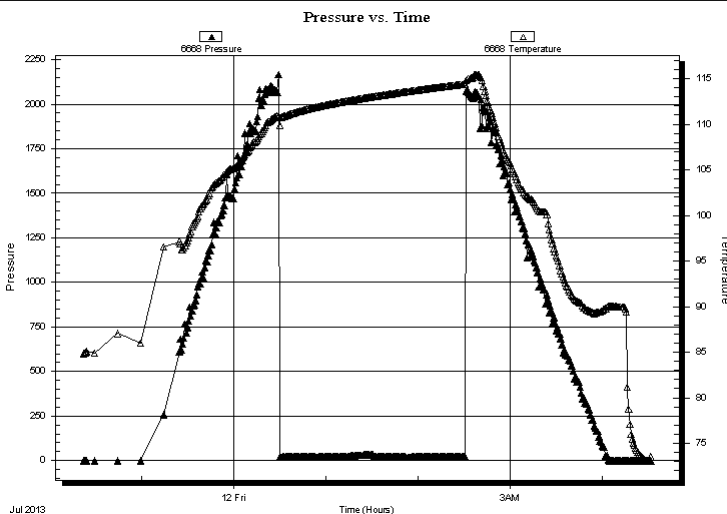
End Time: 04:31:38

Time On Btm:

Time Off Btm:

TEST COMMENT: Weak surface blow  
Dead no blow back  
Dead no blow  
Dead no blow back

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
2.00	100%M Thick Heavy Mud w ith skim oil	0.03

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53990

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 22:22:50

## Tool Information

Drill Pipe:	Length: 4252.00 ft	Diameter: 3.80 inches	Volume: 59.64 bbl	Tool Weight: 22000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 59.64 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4256.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	77.00 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			4229.00	
Shut In Tool	5.00			4234.00	
Hydraulic tool	5.00			4239.00	
Jars	5.00			4244.00	
Safety Joint	2.00			4246.00	
Packer	5.00			4251.00	28.00 Bottom Of Top Packer
Packer	5.00			4256.00	
Stubb	1.00			4257.00	
Perforations	2.00			4259.00	
Recorder	0.00	6668	Inside	4259.00	
Recorder	0.00	8789	Outside	4259.00	
Change Over Sub	1.00			4260.00	
Drill Pipe	31.00			4291.00	
Change Over Sub	1.00			4292.00	
Perforations	10.00			4302.00	
Bullnose	3.00			4305.00	49.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>77.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy LLC

**27-18s-24w Ness,KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53990

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2013.07.11 @ 22:22:50

## 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: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 5500.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	100%M Thick Heavy Mud w ith skim oil	0.028

Total Length: 2.00 ft      Total Volume: 0.028 bbl

Num Fluid Samples: 0

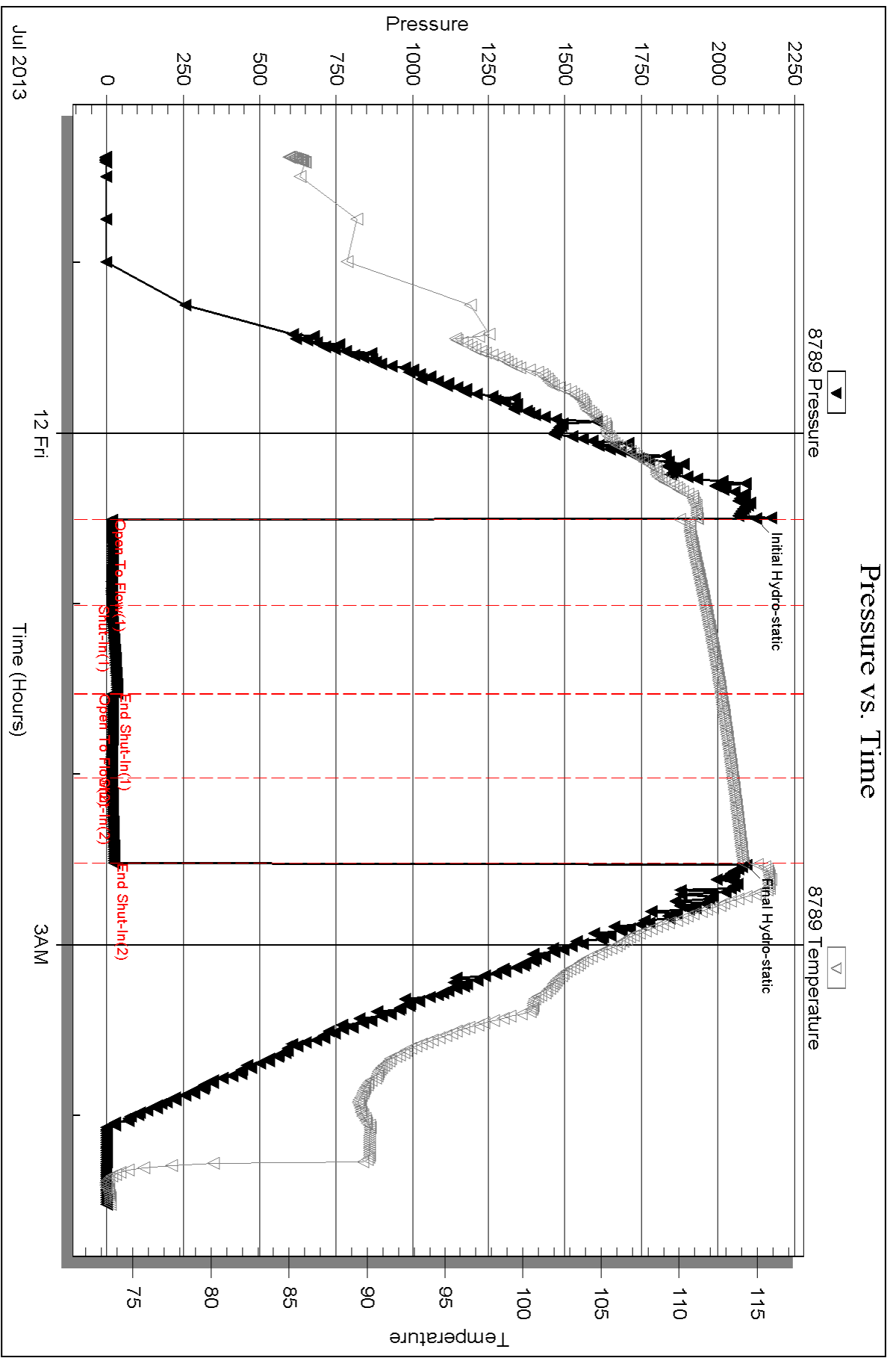
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



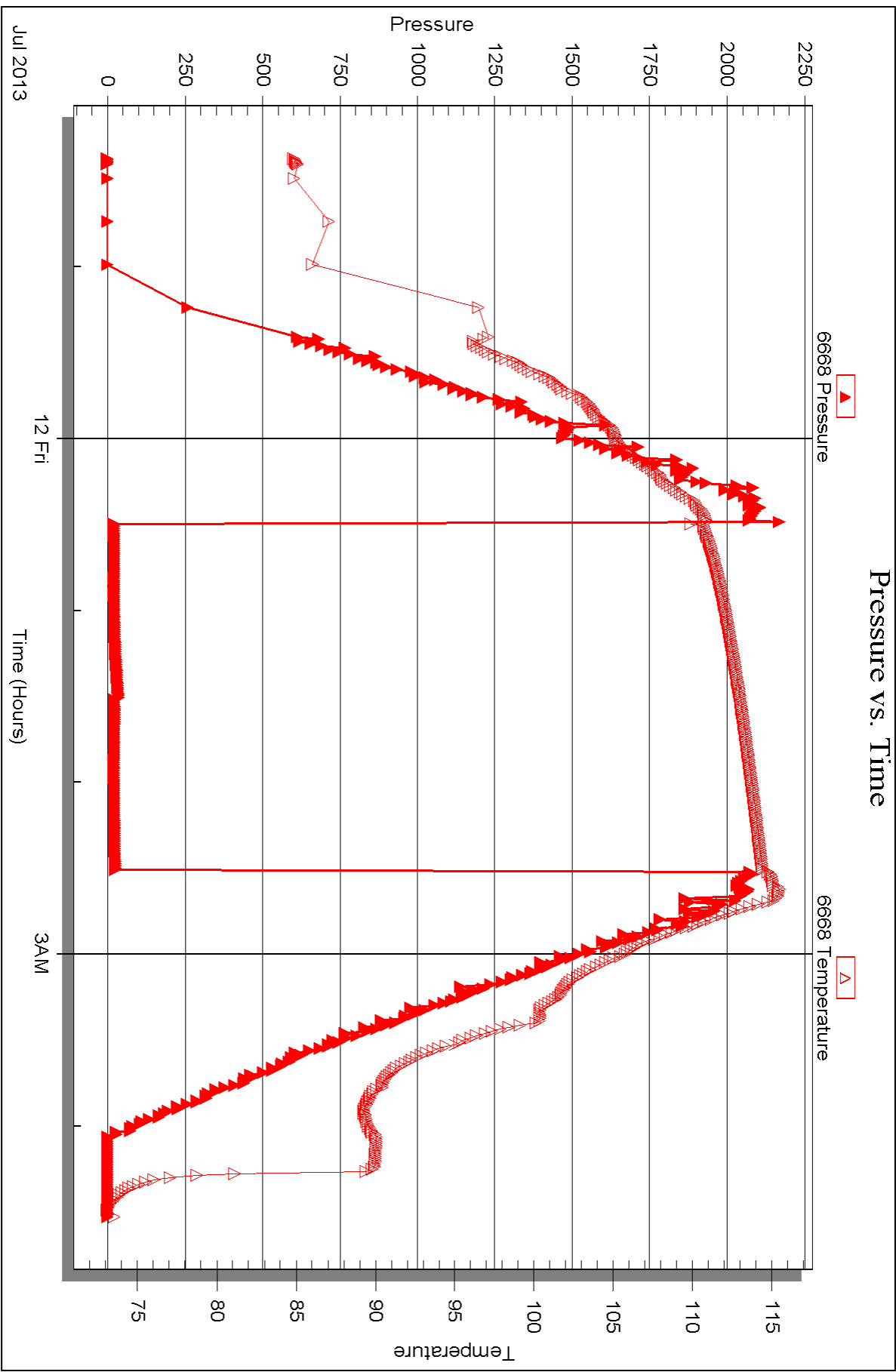
Serial #: 6668

Inside

Cobalt Energy LLC

Von Lehe 'A' #1-27

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

115 S Belmont #12  
Wichita KS 67208

ATTN: Larry Nicholson

**Von Lehe 'A' #1-27**

**27-18s-24w Ness,KS**

Start Date: 2013.07.12 @ 11:35:36

End Date: 2013.07.12 @ 21:53:21

Job Ticket #: 53991                      DST #: 3

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

Printed: 2013.07.16 @ 13:31:16



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

ATTN: Larry Nicholson

Job Ticket: 53991

**DST#: 3**

Test Start: 2013.07.12 @ 11:35:36

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:28:36  
 Time Test Ended: 21:53:21  
 Interval: **4295.00 ft (KB) To 4315.00 ft (KB) (TVD)**  
 Total Depth: 4315.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Tate Lang  
 Unit No: 54  
 Reference Elevations: 2273.00 ft (KB)  
 2261.00 ft (CF)  
 KB to GR/CF: 12.00 ft

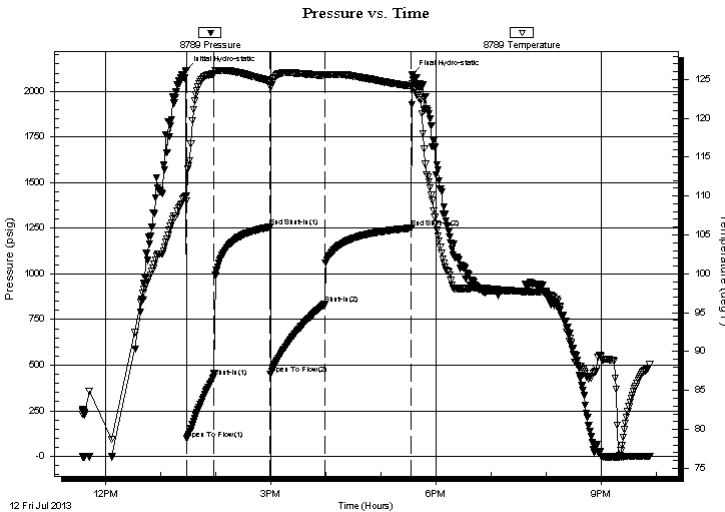
## Serial #: 8789

**Outside**

Press @ Run Depth: 833.06 psig @ 4297.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.12 End Date: 2013.07.12 Last Calib.: 2013.07.12  
 Start Time: 11:35:38 End Time: 21:53:21 Time On Btm: 2013.07.12 @ 13:28:06  
 Time Off Btm: 2013.07.12 @ 17:34:21

**TEST COMMENT:** B.O.B. in 2 mins  
 Strong surface blow back built to 10 in.  
 B.O.B. in 3 mins.  
 Weak surface blow back died in 15 mins.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2114.77	110.02	Initial Hydro-static
1	96.90	109.37	Open To Flow (1)
31	434.90	125.70	Shut-In(1)
92	1255.80	124.75	End Shut-In(1)
92	451.22	124.00	Open To Flow (2)
151	833.06	125.50	Shut-In(2)
245	1251.29	124.14	End Shut-In(2)
247	2092.11	124.12	Final Hydro-static

## Recovery

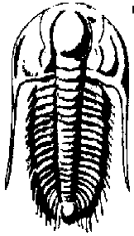
Length (ft)	Description	Volume (bbl)
120.00	2%G 78%W 20%M	1.68
2428.00	25%G 75%O	34.06
0.00	620 GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Cobalt Energy LLC

27-18s-24w Ness, KS

115 S Belmont #12  
Wichita KS 67208

Von Lehe 'A' #1-27

Job Ticket: 53991

DST#: 3

ATTN: Larry Nicholson

Test Start: 2013.07.12 @ 11:35:36

### GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:28:36

Time Test Ended: 21:53:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 54

Interval: **4295.00 ft (KB) To 4315.00 ft (KB) (TVD)**

Reference Elevations: 2273.00 ft (KB)

Total Depth: 4315.00 ft (KB) (TVD)

2261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

**Serial #: 6668** Inside

Press @ Run Depth: psig @ 4297.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.12

End Date:

2013.07.12

Last Calib.:

2013.07.12

Start Time: 11:35:31

End Time:

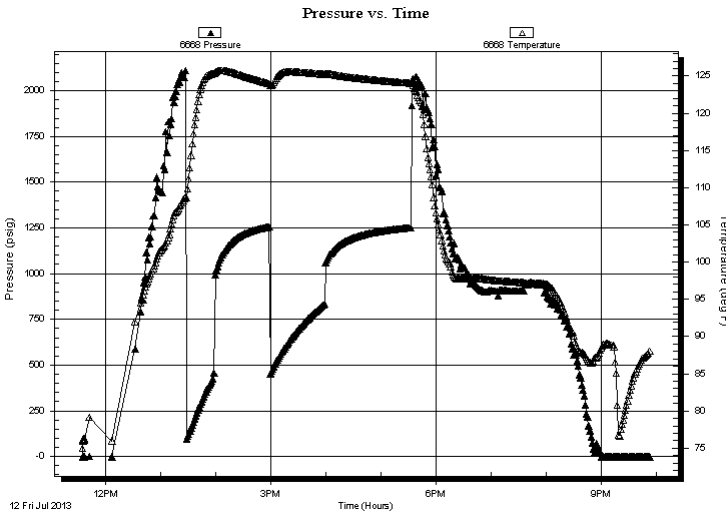
21:53:14

Time On Btm:

Time Off Btm:

TEST COMMENT: B.O.B. in 2 mins  
Strong surface blow back built to 10 in.  
B.O.B. in 3 mins.  
Weak surface blow back died in 15 mins.

### PRESSURE SUMMARY



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

### Recovery

### Gas Rates

Length (ft)	Description	Volume (bbl)
120.00	2%G 78%W 20%M	1.68
2428.00	25%G 75%O	34.06
0.00	620 GIP	0.00

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy LLC

**27-18s-24w Ness, KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53991

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2013.07.12 @ 11:35:36

## Tool Information

Drill Pipe:	Length: 4282.00 ft	Diameter: 3.80 inches	Volume: 60.07 bbl	Tool Weight: 22000.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4295.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 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			4268.00	
Shut In Tool	5.00			4273.00	
Hydraulic tool	5.00			4278.00	
Jars	5.00			4283.00	
Safety Joint	2.00			4285.00	
Packer	5.00			4290.00	28.00 Bottom Of Top Packer
Packer	5.00			4295.00	
Stubb	1.00			4296.00	
Perforations	1.00			4297.00	
Recorder	0.00	6668	Inside	4297.00	
Recorder	0.00	8789	Outside	4297.00	
Perforations	15.00			4312.00	
Bullnose	3.00			4315.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy LLC

**27-18s-24w Ness,KS**

115 S Belmont #12  
Wichita KS 67208

**Von Lehe 'A' #1-27**

Job Ticket: 53991

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2013.07.12 @ 11:35:36

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 10.00 lb/gal  
Viscosity: 60.00 sec/qt  
Water Loss: 9.99 in<sup>3</sup>  
Resistivity: 6400.00 ohm.m  
Salinity: ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 37 deg API  
Water Salinity: 11000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	2%G 78%W 20%M	1.683
2428.00	25%G 75%O	34.058
0.00	620 GIP	0.000

Total Length: 2548.00 ft      Total Volume: 35.741 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

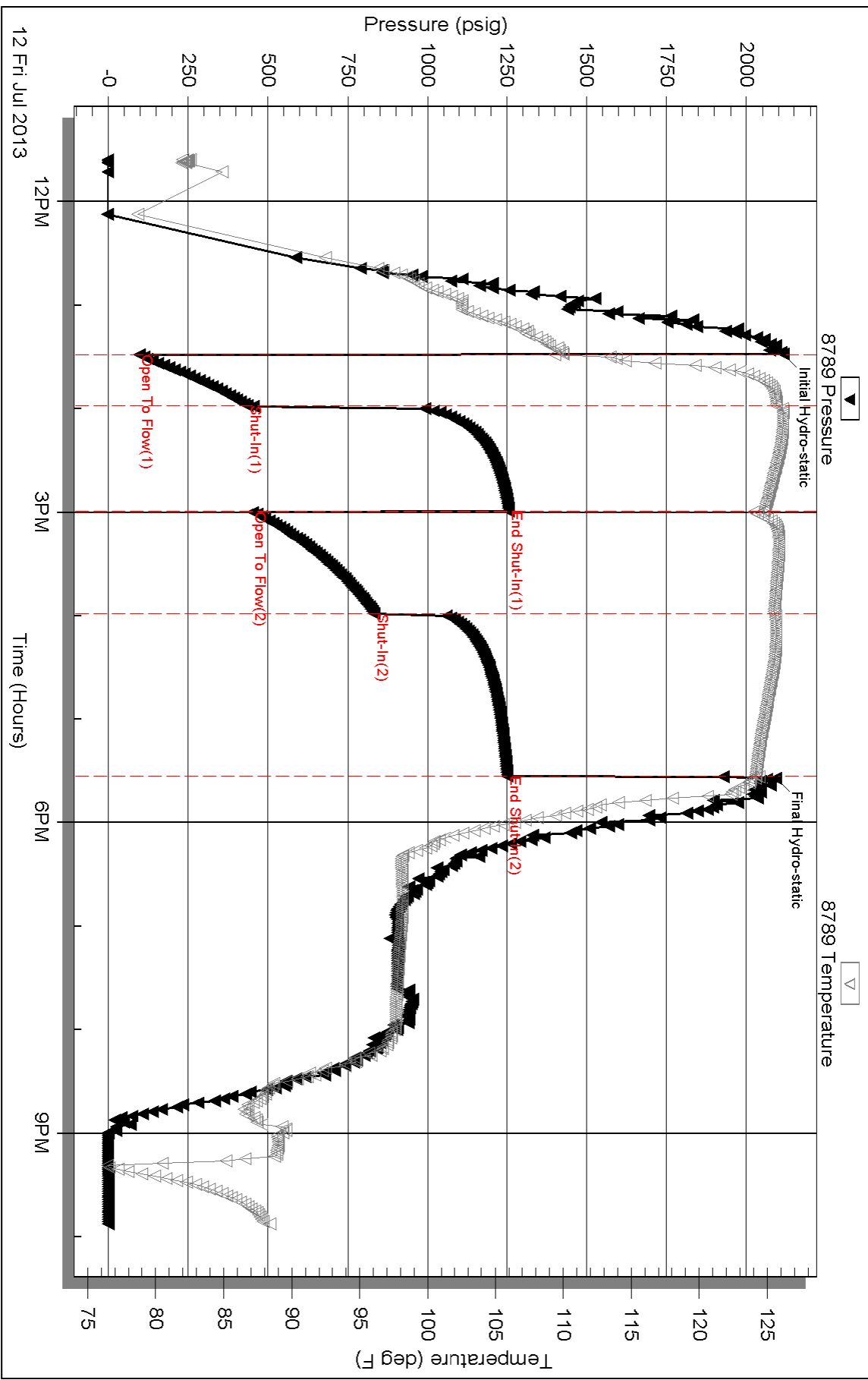
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



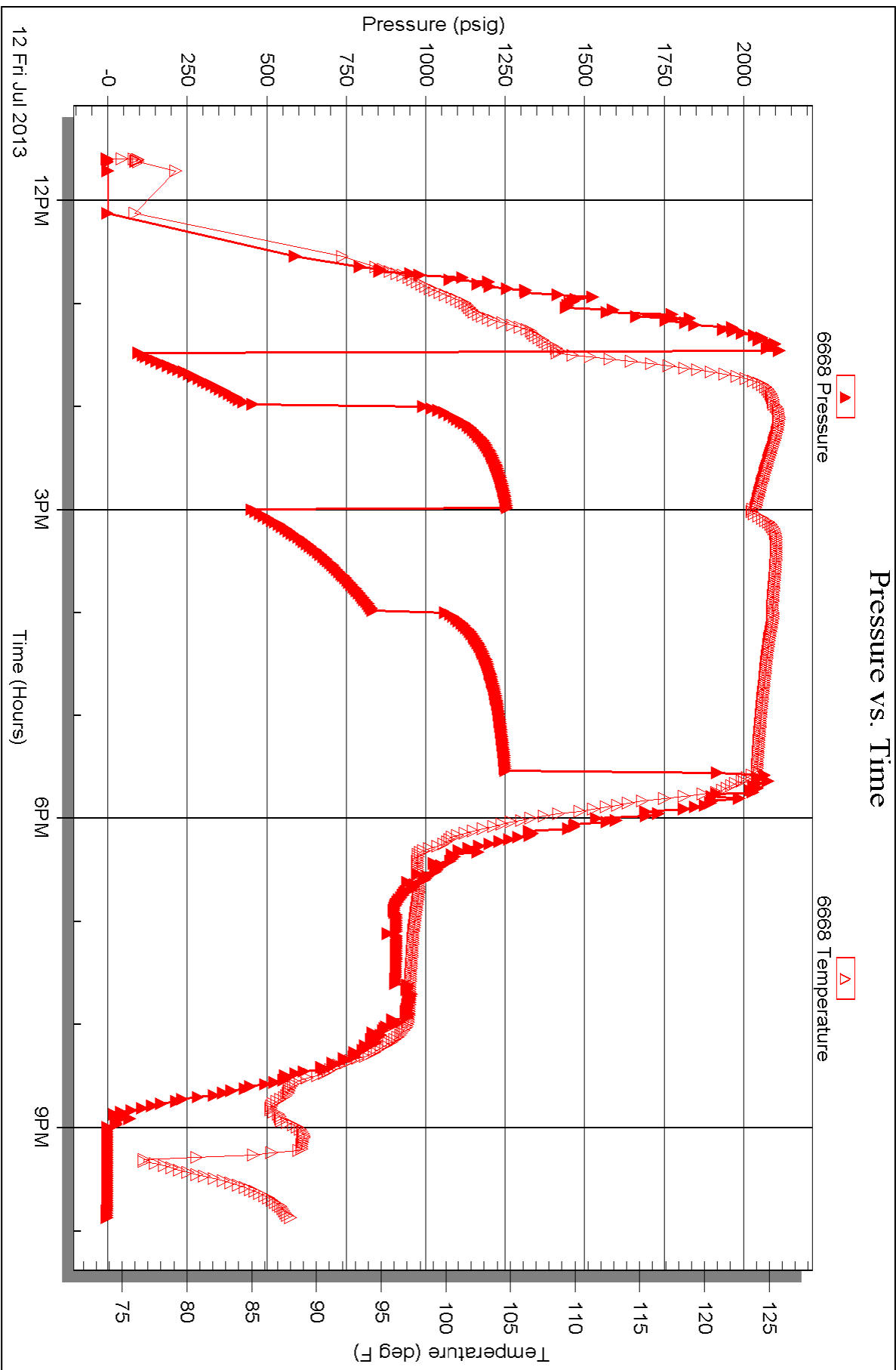
Serial #: 6668

Inside

Cobalt Energy LLC

Von Lehe 'A' #1-27

DST Test Number: 3





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53989

Well Name & No. VonLehe 'A' #1-27 Test No. 1 Date 7-11-13  
 Company Cobalt Energy LLC Elevation 2273 KB 2261 GL  
 Address 115 S Belmont #12 Wichita KS 67208  
 Co. Rep / Geo. Larry Nicholson Rig Southwind Rig #70  
 Location: Sec. 27 Twp. 18 Rge. 24 Co. Ness State KS

Interval Tested 4182 4212 Zone Tested Ft. Scott  
 Anchor Length 30 Drill Pipe Run 4160 Mud Wt. 9.3  
 Top Packer Depth 4178 Drill Collars Run 0 Vis 48  
 Bottom Packer Depth 4182 Wt. Pipe Run 0 WL 9.2  
 Total Depth 4212 Chlorides 4500 ppm System LCM 20

Blow Description Weak surface blow died in 20 mins  
Dead no blow back  
Dead no blow  
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>100% Mud</u>				<u>100% mud</u>

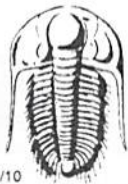
Rec Total 10 BHT 117 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2065  Test 1250 T-On Location 03:50  
 (B) First Initial Flow 17  Jars 250 T-Started 04:45  
 (C) First Final Flow 17  Safety Joint 75 T-Open 07:13  
 (D) Initial Shut-In 1065  Circ Sub T-Pulled 09:13  
 (E) Second Initial Flow 19  Hourly Standby T-Out 10:32  
 (F) Second Final Flow 20  Mileage 201.50 130 R/M Comments \_\_\_\_\_  
 (G) Final Shut-In 1029  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1979  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1776.50  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1776.50

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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53990

Well Name & No. VonLeche 'A' #1-27 Test No. 2 Date 7-1-13  
 Company Cobalt Energy LLC Elevation 2273 KB 2261 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Larry Nicholson Rig Southwind Rig # 70  
 Location: Sec. 27 Twp. 18 Rge. 24 Co. Ness State Ks

Interval Tested 4256 4305 Zone Tested Miss.  
 Anchor Length \_\_\_\_\_ 49' Drill Pipe Run 4252 Mud Wt. 9.13  
 Top Packer Depth \_\_\_\_\_ 4252 Drill Collars Run 0 Vis 48  
 Bottom Packer Depth \_\_\_\_\_ 4256 Wt. Pipe Run 0 WL 8.8  
 Total Depth \_\_\_\_\_ 4305 Chlorides 5500 ppm System LCM 0#

Blow Description Weak surface blow  
Dead no blow back  
Dead no blow back  
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>2</u>	Feet of <u>Heavy thick mud with skin of oil</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

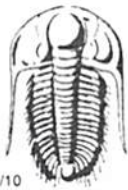
Rec Total 2 BHT 117 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>21.24</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>21:45</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>22:22</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>00:30 (7-12)</u>
(D) Initial Shut-In <u>35</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>02:30 (7-12)</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>04:30 (7-12)</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>201.50</u> <u>130 R/T</u>	Comments _____
(G) Final Shut-In <u>25</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2092</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1776.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1776.50</u>	

Approved By \_\_\_\_\_ Our Representative [Signature] Thanks

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. 53991

Well Name & No. VonLehe 'A' #1-27 Test No. 3 Date 7-12-13  
 Company Cobalt Energy LLC Elevation 2273 KB 261 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Larry Nicholson Rig Southwind Rig # 70  
 Location: Sec. 27 Twp. 18 Rge. 24 Co. Ness State KS

Interval Tested 4295 4315 Zone Tested Miss  
 Anchor Length \_\_\_\_\_ Drill Pipe Run 4282 Mud Wt. 9.5  
 Top Packer Depth \_\_\_\_\_ Drill Collars Run 0 Vis 60  
 Bottom Packer Depth \_\_\_\_\_ Wt. Pipe Run 0 WL 10.8  
 Total Depth \_\_\_\_\_ Chlorides 6400 ppm System LCM 0#

Blow Description B.O.B. in 2mins  
Strong surface blow back built to 10in.  
B.O.B. in 3mins.  
Weak surface blow back died in 15mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>620</u>	<u>GIP</u>	<u>100</u>			
<u>209</u>	<u>60</u>	<u>25</u>	<u>75</u>		
<u>120</u>	<u>MCGW</u>	<u>2</u>		<u>78</u>	<u>20</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	<u>437</u>	<u>98</u>	%mud

Rec Total 2428 BHT 125 Gravity 37 API RW 35 @ 80 ° F Chlorides 11000 ppm  
 (A) Initial Hydrostatic 2115  Test 1150 T-On Location 10:55  
 (B) First Initial Flow 97  Jars 250 T-Started 11:35  
 (C) First Final Flow 435  Safety Joint 75 T-Open 13:28  
 (D) Initial Shut-In 1256  Circ Sub Dropped Bar 50 T-Pulled 17:28  
 (E) Second Initial Flow 451  Hourly Standby 1hr 100 T-Out 21:53  
 (F) Second Final Flow 823  Mileage 130 RT 201.50  
 (G) Final Shut-In 1251  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2092  Straddle \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow 60  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Shut-In 90  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1826.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1826.50

Approved By \_\_\_\_\_ 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.