



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Ritter A #2-32

32-3s-26w Decatur,KS

Start Date: 2016.07.08 @ 04:31:00

End Date: 2016.07.08 @ 12:07:00

Job Ticket #: 64937 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.07.13 @ 08:46:45



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64937

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.07.08 @ 04:31:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:30

Time Test Ended: 12:07:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 3382.00 ft (KB) To 3408.00 ft (KB) (TVD)

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3408.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 1292.73 psig @ 3385.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.08

End Date:

2016.07.08

Last Calib.:

2016.07.08

Start Time: 04:31:02

End Time:

12:06:30

Time On Btm:

2016.07.08 @ 06:26:45

Time Off Btm:

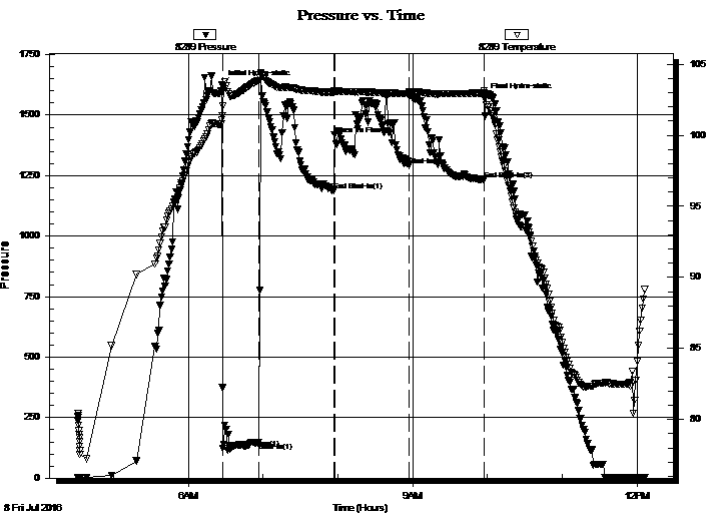
2016.07.08 @ 09:57:15

TEST COMMENT: 30-IFP- BOB in 21min

60-ISIP- No Blow

60-FFP- No Blow

60-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1626.83	101.11	Initial Hydro-static
1	123.68	102.04	Open To Flow (1)
30	149.79	103.83	Shut-In(1)
90	1188.27	103.02	End Shut-In(1)
91	1419.92	103.12	Open To Flow (2)
151	1292.73	102.93	Shut-In(2)
211	1232.12	102.98	End Shut-In(2)
211	1573.35	103.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	MCW 30% m 70% w	1.95

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64937

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.07.08 @ 04:31:00

Tool Information

Drill Pipe:	Length: 3173.00 ft	Diameter: 3.80 inches	Volume: 44.51 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 45.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3382.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	54.00 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			3355.00	
Shut In Tool	5.00			3360.00	
Hydraulic tool	5.00			3365.00	
Jars	5.00			3370.00	
Safety Joint	2.00			3372.00	
Packer	5.00			3377.00	28.00 Bottom Of Top Packer
Packer	5.00			3382.00	
Stubb	1.00			3383.00	
Perforations	2.00			3385.00	
Recorder	0.00	6668	Inside	3385.00	
Recorder	0.00	8289	Outside	3385.00	
Perforations	20.00			3405.00	
Bullnose	3.00			3408.00	26.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64937

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.07.08 @ 04:31:00

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:

90000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
260.00	MCW 30%m 70%w	1.953

Total Length: 260.00 ft Total Volume: 1.953 bbl

Num Fluid Samples: 0

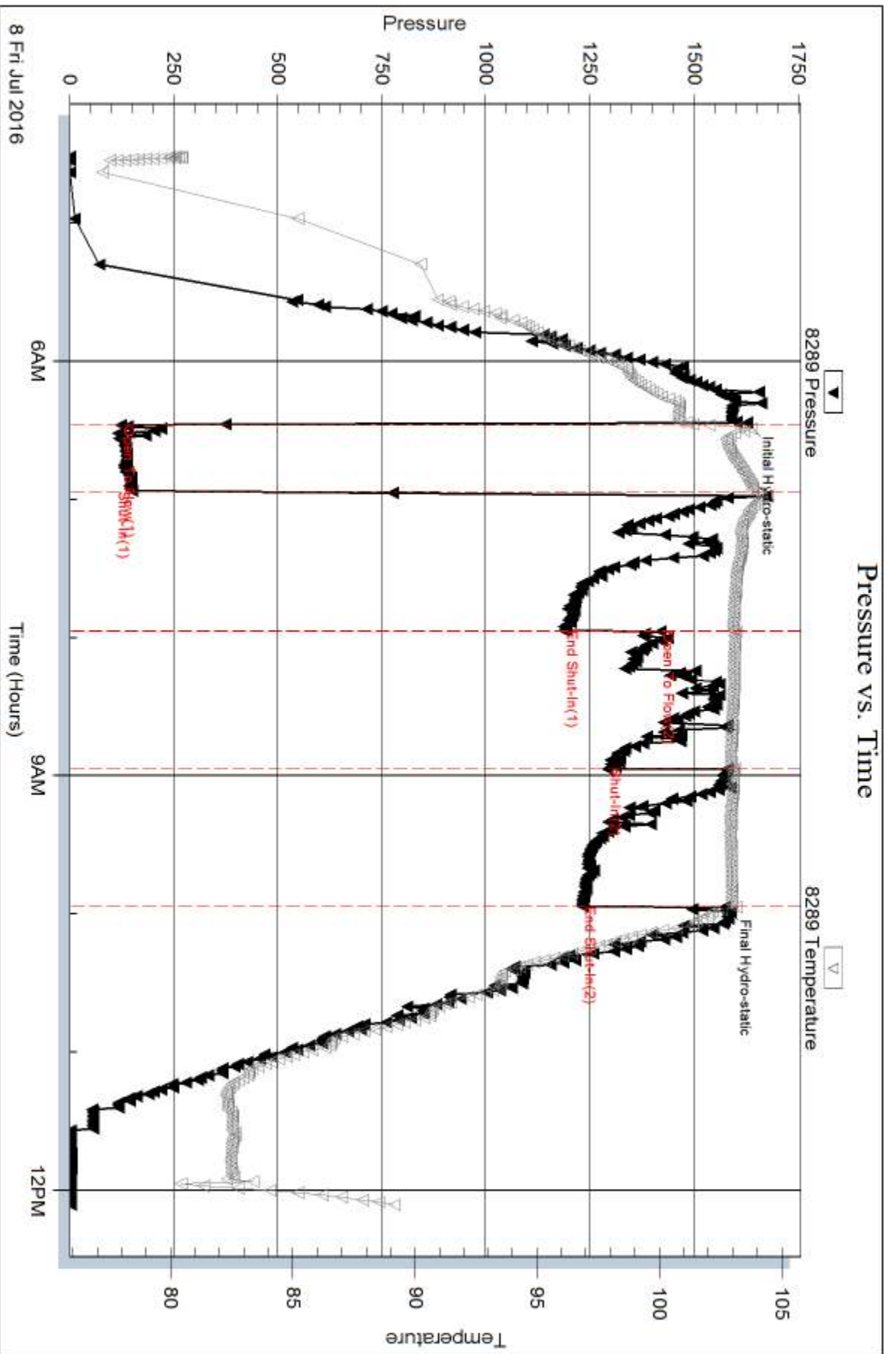
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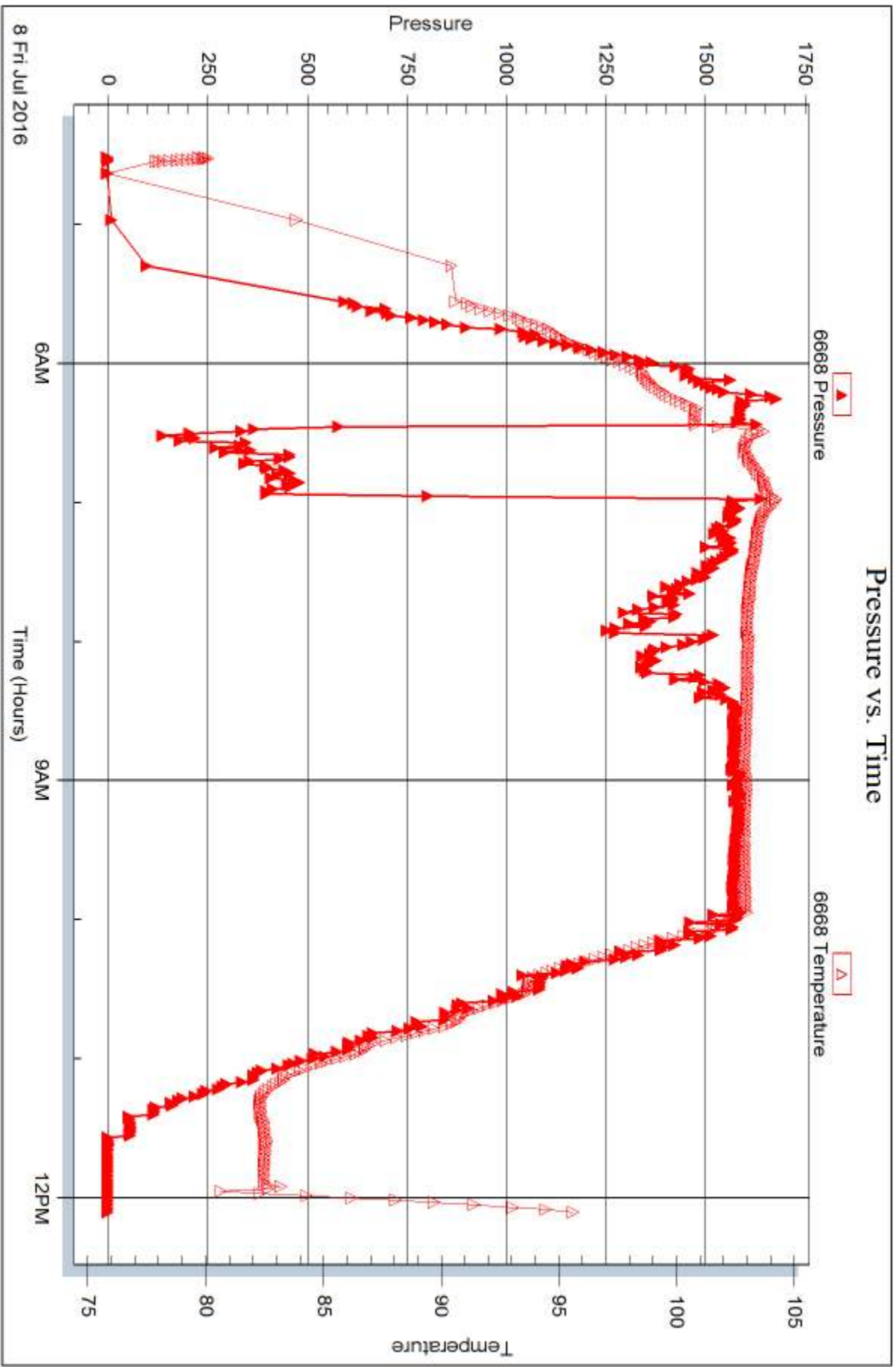
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .069 @ 90







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Ritter A #2-32

32-3s-26w Decatur,KS

Start Date: 2016.07.08 @ 17:02:00

End Date: 2016.07.09 @ 01:10:00

Job Ticket #: 64938 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.07.13 @ 08:46:21



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur, KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64938

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.07.08 @ 17:02:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:03:15

Time Test Ended: 01:10:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3382.00 ft (KB) To 3408.00 ft (KB) (TVD)

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3408.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 230.44 psig @ 3385.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.08

End Date:

2016.07.09

Last Calib.:

2016.07.09

Start Time: 17:02:02

End Time:

01:10:15

Time On Btm:

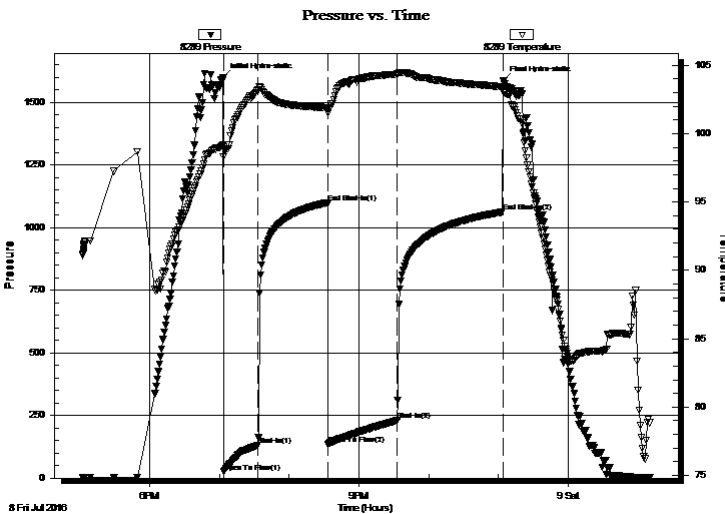
2016.07.08 @ 19:03:00

Time Off Btm:

2016.07.08 @ 23:04:30

TEST COMMENT: 30-IFP- BOB in 22 1/2 min.
60-ISIP- 1/4in. Blow Died in 9 min.
60-FFP- BOB in 26 min.
90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1597.29	99.15	Initial Hydro-static
1	24.89	98.30	Open To Flow (1)
30	131.23	103.20	Shut-In(1)
90	1097.43	101.90	End Shut-In(1)
90	135.56	101.50	Open To Flow (2)
150	230.44	104.34	Shut-In(2)
241	1062.11	103.41	End Shut-In(2)
242	1585.89	103.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
450.00	MCW 10% m 90% w	4.62

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

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64938

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.07.08 @ 17:02:00

Tool Information

Drill Pipe:	Length: 3199.00 ft	Diameter: 3.80 inches	Volume: 44.87 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 45.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3382.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	54.00 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			3355.00	
Shut In Tool	5.00			3360.00	
Hydraulic tool	5.00			3365.00	
Jars	5.00			3370.00	
Safety Joint	2.00			3372.00	
Packer	5.00			3377.00	28.00 Bottom Of Top Packer
Packer	5.00			3382.00	
Stubb	1.00			3383.00	
Perforations	2.00			3385.00	
Recorder	0.00	6668	Inside	3385.00	
Recorder	0.00	8289	Outside	3385.00	
Perforations	20.00			3405.00	
Bullnose	3.00			3408.00	26.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64938

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.07.08 @ 17:02:00

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:

85000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.95 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
450.00	MCW 10%m 90%w	4.618

Total Length: 450.00 ft Total Volume: 4.618 bbl

Num Fluid Samples: 0

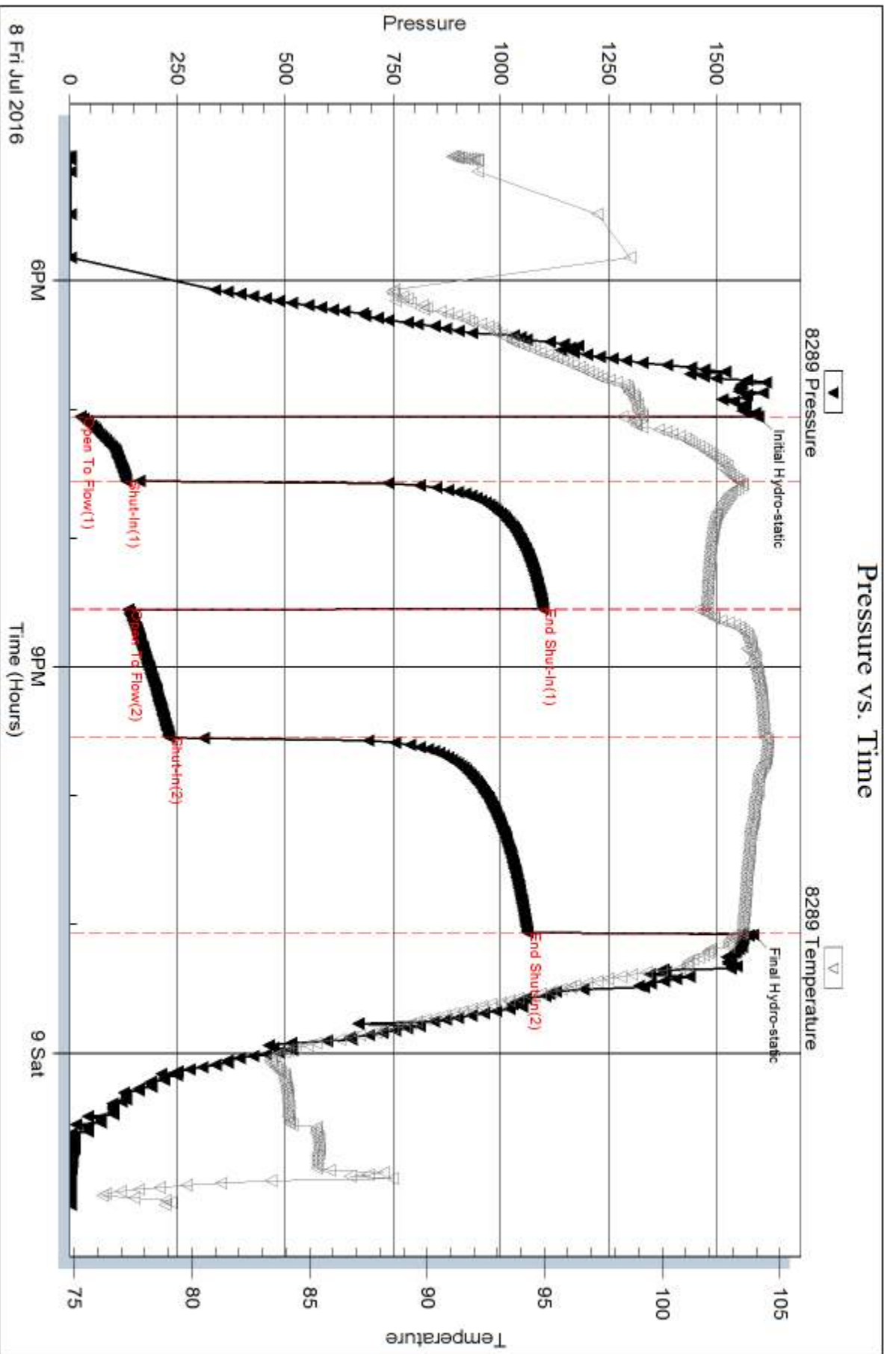
Num Gas Bombs: 0

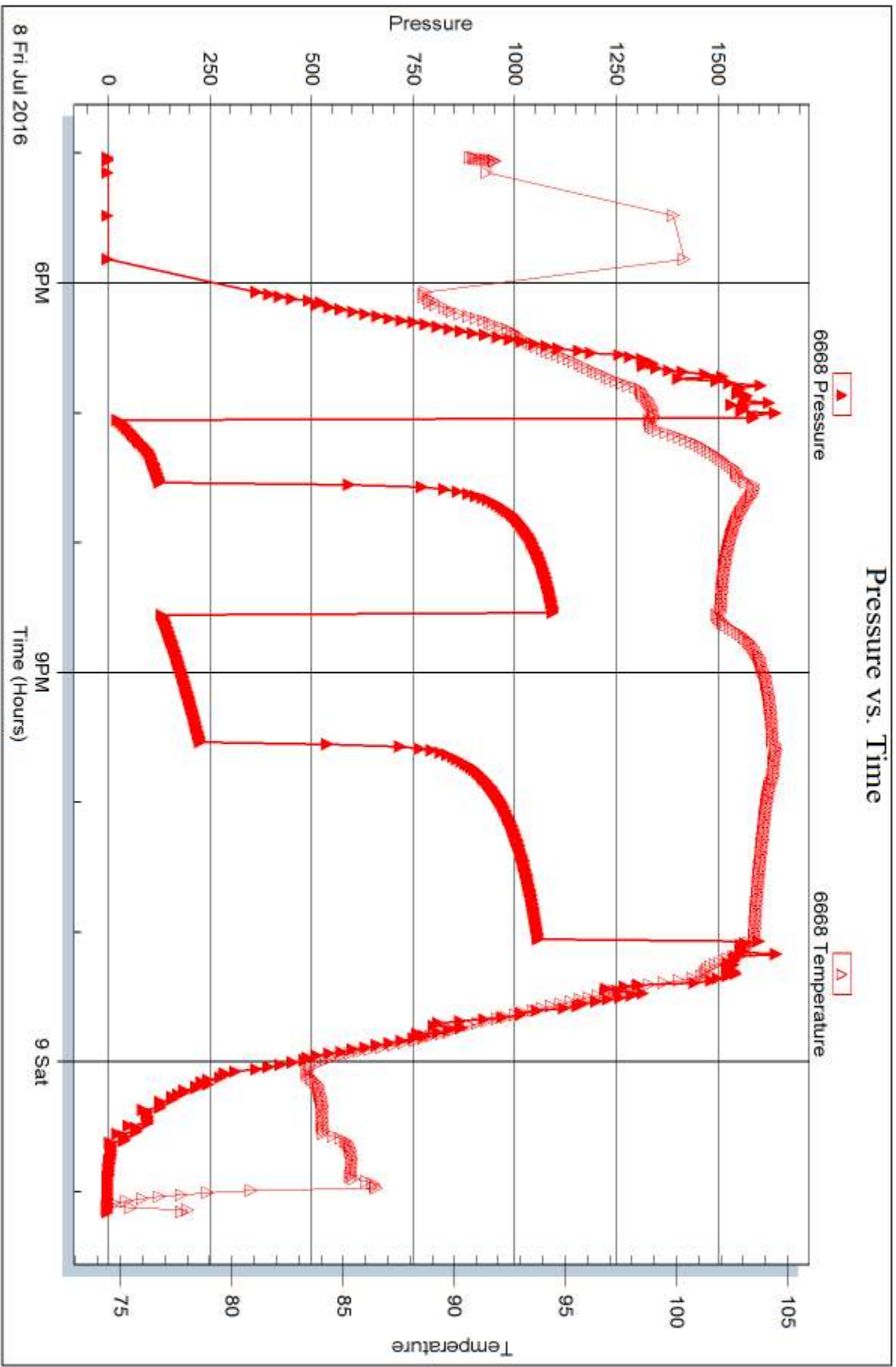
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .090 @ 73







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Ritter A #2-32

32-3s-26w Decatur,KS

Start Date: 2016.07.09 @ 12:58:00

End Date: 2016.07.09 @ 19:10:00

Job Ticket #: 64939 DST #: 3

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

Printed: 2016.07.13 @ 08:45:58



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64939

DST#: 3

ATTN: Larry Nicholson

Test Start: 2016.07.09 @ 12:58:00

GENERAL INFORMATION:

Formation: **LKC " A "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:16:45

Time Test Ended: 19:10:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3560.00 ft (KB) To 3577.00 ft (KB) (TVD)

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3577.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 23.04 psig @ 3564.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.09 End Date: 2016.07.09

Last Calib.: 2016.07.09

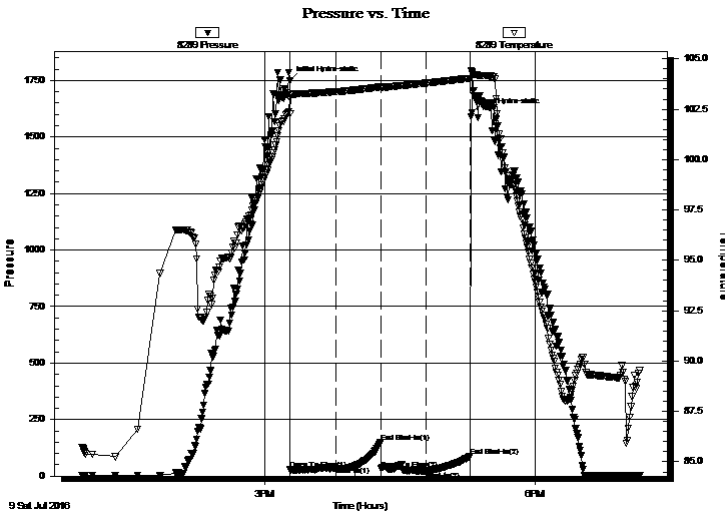
Start Time: 12:58:02 End Time: 19:10:00

Time On Btm: 2016.07.09 @ 15:16:30

Time Off Btm: 2016.07.09 @ 17:18:00

TEST COMMENT: 30-IFP- No Blow
30-ISIP- No Blow
30-FFP- No Blow
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1747.93	103.06	Initial Hydro-static
1	31.52	102.29	Open To Flow (1)
31	42.81	103.37	Shut-In(1)
61	149.22	103.61	End Shut-In(1)
61	31.90	103.56	Open To Flow (2)
91	23.04	103.79	Shut-In(2)
121	87.99	104.04	End Shut-In(2)
122	1608.39	104.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00
0.00	Oil Specks in Tool Tool Plugged	0.00

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64939

DST#: 3

ATTN: Larry Nicholson

Test Start: 2016.07.09 @ 12:58:00

GENERAL INFORMATION:

Formation: **LKC " A "**

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Time Tool Opened: 15:16:45

Tester: Jim Svaty

Time Test Ended: 19:10:00

Unit No: 76

Interval: **3560.00 ft (KB) To 3577.00 ft (KB) (TVD)**

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3577.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6668 Inside

Press@RunDepth: psig @ 3564.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.09

End Date:

2016.07.09

Last Calib.:

2016.07.09

Start Time: 12:58:02

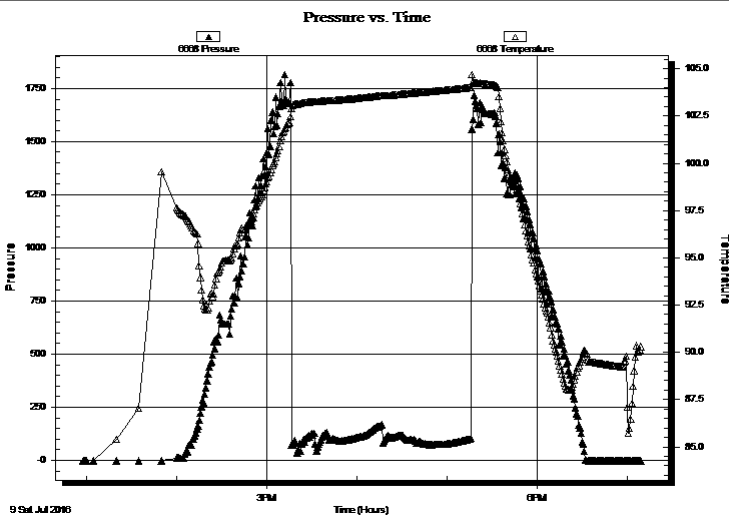
End Time:

19:09:45

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP- No Blow
30-ISIP- No Blow
30-FFP- No Blow
30-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00
0.00	Oil Specks in Tool Tool Plugged	0.00

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

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64939

DST#: 3

ATTN: Larry Nicholson

Test Start: 2016.07.09 @ 12:58:00

Tool Information

Drill Pipe:	Length: 3357.00 ft	Diameter: 3.80 inches	Volume: 47.09 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3560.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	45.00 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			3533.00	
Shut In Tool	5.00			3538.00	
Hydraulic tool	5.00			3543.00	
Jars	5.00			3548.00	
Safety Joint	2.00			3550.00	
Packer	5.00			3555.00	28.00 Bottom Of Top Packer
Packer	5.00			3560.00	
Stubb	1.00			3561.00	
Perforations	3.00			3564.00	
Recorder	0.00	6668	Inside	3564.00	
Recorder	0.00	8289	Outside	3564.00	
Perforations	10.00			3574.00	
Bullnose	3.00			3577.00	17.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64939

DST#: 3

ATTN: Larry Nicholson

Test Start: 2016.07.09 @ 12:58:00

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: 60.00 sec/qt

Cushion Volume: bbl

Water Loss: 6.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud 100%	0.005
0.00	Oil Specks in Tool Tool Plugged	0.000

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

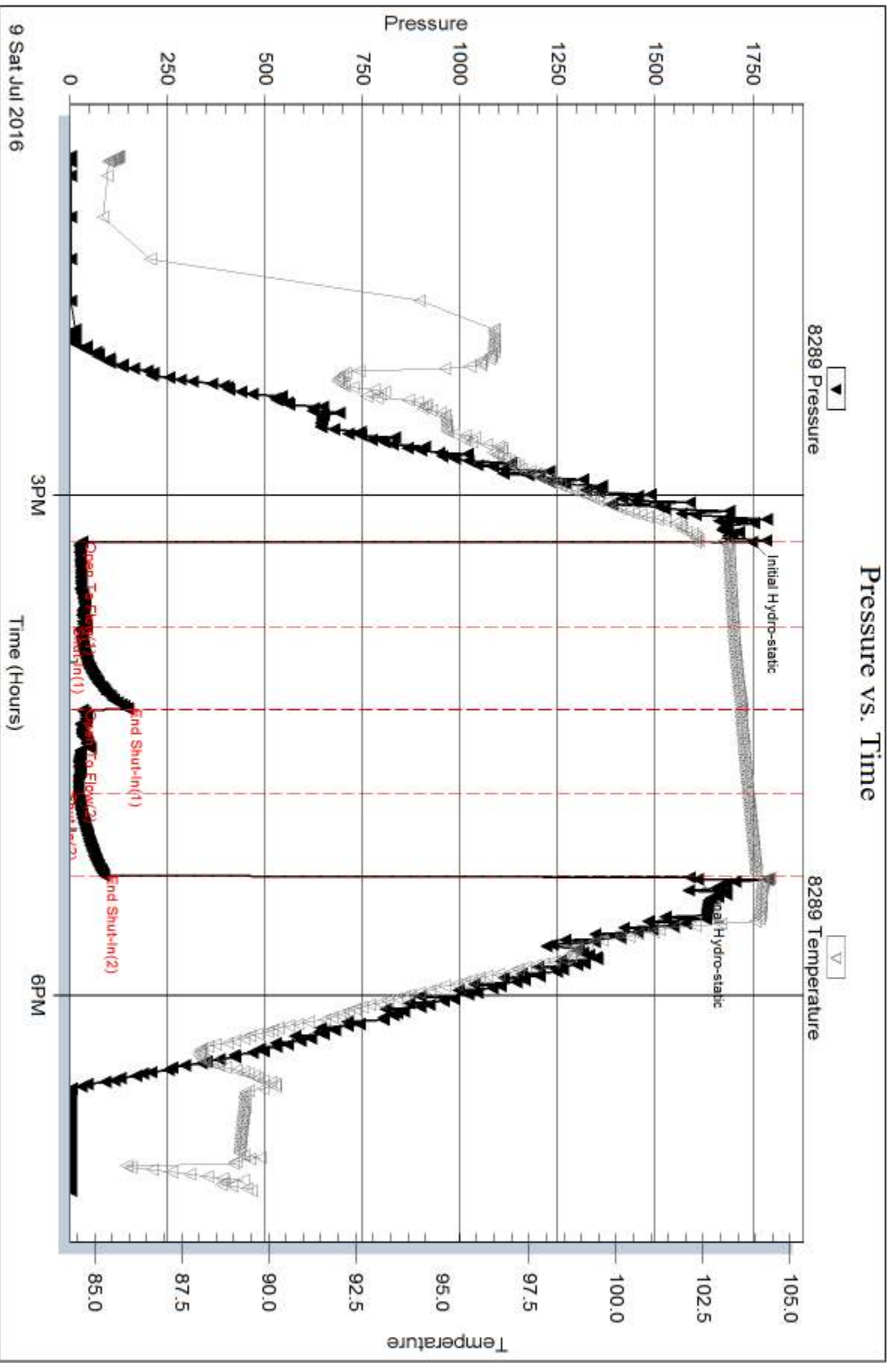
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



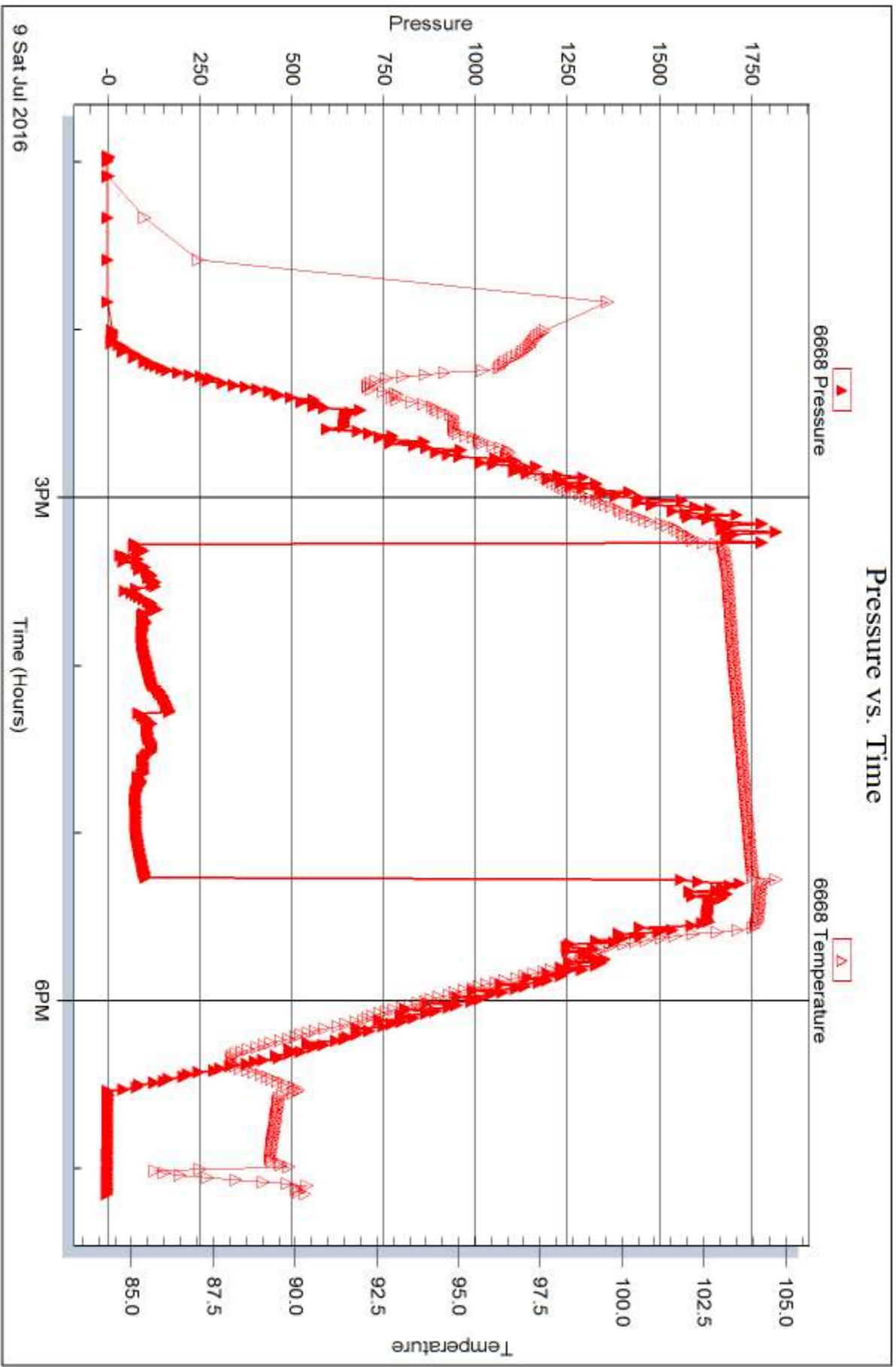
Serial #: 6668

Inside

Cobalt Energy LLC

Ritter A #2-32

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 64939

Printed: 2016.07.13 @ 08:46:00



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Ritter A #2-32

32-3s-26w Decatur,KS

Start Date: 2016.07.10 @ 03:03:00

End Date: 2016.07.10 @ 11:43:00

Job Ticket #: 64940 DST #: 4

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

Printed: 2016.07.13 @ 08:45:03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64940

DST#: 4

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 03:03:00

GENERAL INFORMATION:

Formation: **LKC " C "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:42:45

Time Test Ended: 11:43:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3579.00 ft (KB) To 3603.00 ft (KB) (TVD)

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3603.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 34.92 psig @ 3580.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.10 End Date: 2016.07.10

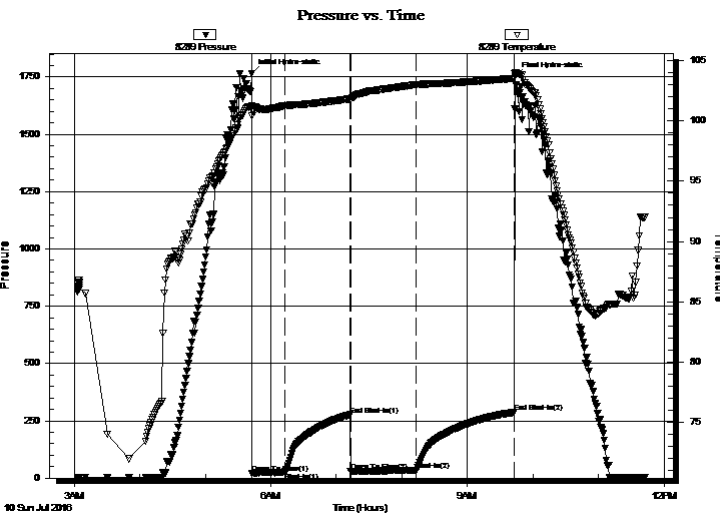
Last Calib.: 2016.07.10

Start Time: 03:03:02 End Time: 11:43:00

Time On Btm: 2016.07.10 @ 05:42:30

Time Off Btm: 2016.07.10 @ 09:43:30

TEST COMMENT: 30-IFP- Weak Surface Blow
60-ISIP- No Blow
60-FFP- No Blow
90-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1763.72	101.23	Initial Hydro-static
1	20.50	100.43	Open To Flow (1)
31	24.96	101.26	Shut-In(1)
90	276.57	101.84	End Shut-In(1)
91	28.36	101.74	Open To Flow (2)
151	34.92	103.00	Shut-In(2)
241	286.69	103.52	End Shut-In(2)
241	1752.42	104.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	MCW 40% m 60% w Show of Oil	0.05

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur, KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64940

DST#: 4

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 03:03:00

GENERAL INFORMATION:

Formation: **LKC " C "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:42:45

Time Test Ended: 11:43:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: **3579.00 ft (KB) To 3603.00 ft (KB) (TVD)**

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3603.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6668

Inside

Press@RunDepth: psig @ 3580.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.10

End Date:

2016.07.10

Last Calib.:

2016.07.10

Start Time: 03:03:02

End Time:

11:42:45

Time On Btm:

Time Off Btm:

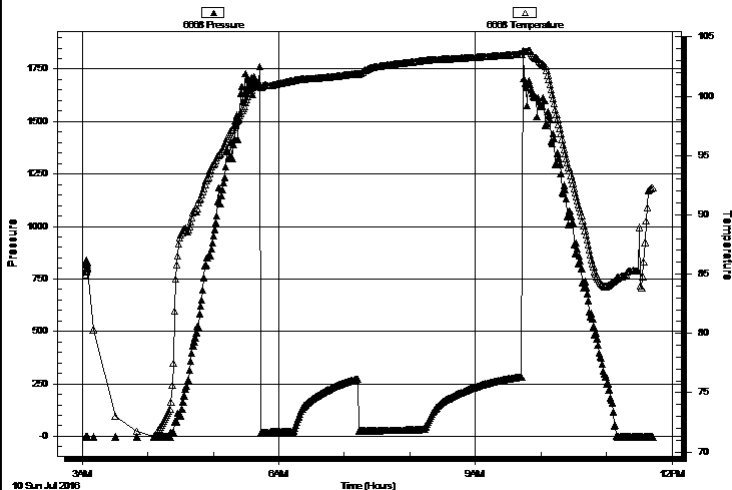
TEST COMMENT: 30-IFP- Weak Surface Blow

60-ISIP- No Blow

60-FFP- No Blow

90-FSIP- No Blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	MCW 40% m 60% w Show of Oil	0.05

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

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64940

DST#: 4

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 03:03:00

Tool Information

Drill Pipe:	Length: 3389.00 ft	Diameter: 3.80 inches	Volume: 47.54 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3579.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	52.00 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			3552.00	
Shut In Tool	5.00			3557.00	
Hydraulic tool	5.00			3562.00	
Jars	5.00			3567.00	
Safety Joint	2.00			3569.00	
Packer	5.00			3574.00	28.00 Bottom Of Top Packer
Packer	5.00			3579.00	
Stubb	1.00			3580.00	
Recorder	0.00	6668	Inside	3580.00	
Recorder	0.00	8289	Outside	3580.00	
Perforations	20.00			3600.00	
Bullnose	3.00			3603.00	24.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64940

DST#: 4

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 03:03:00

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:

19000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	MCW 40%m 60%w Show of Oil	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbf

Num Fluid Samples: 0

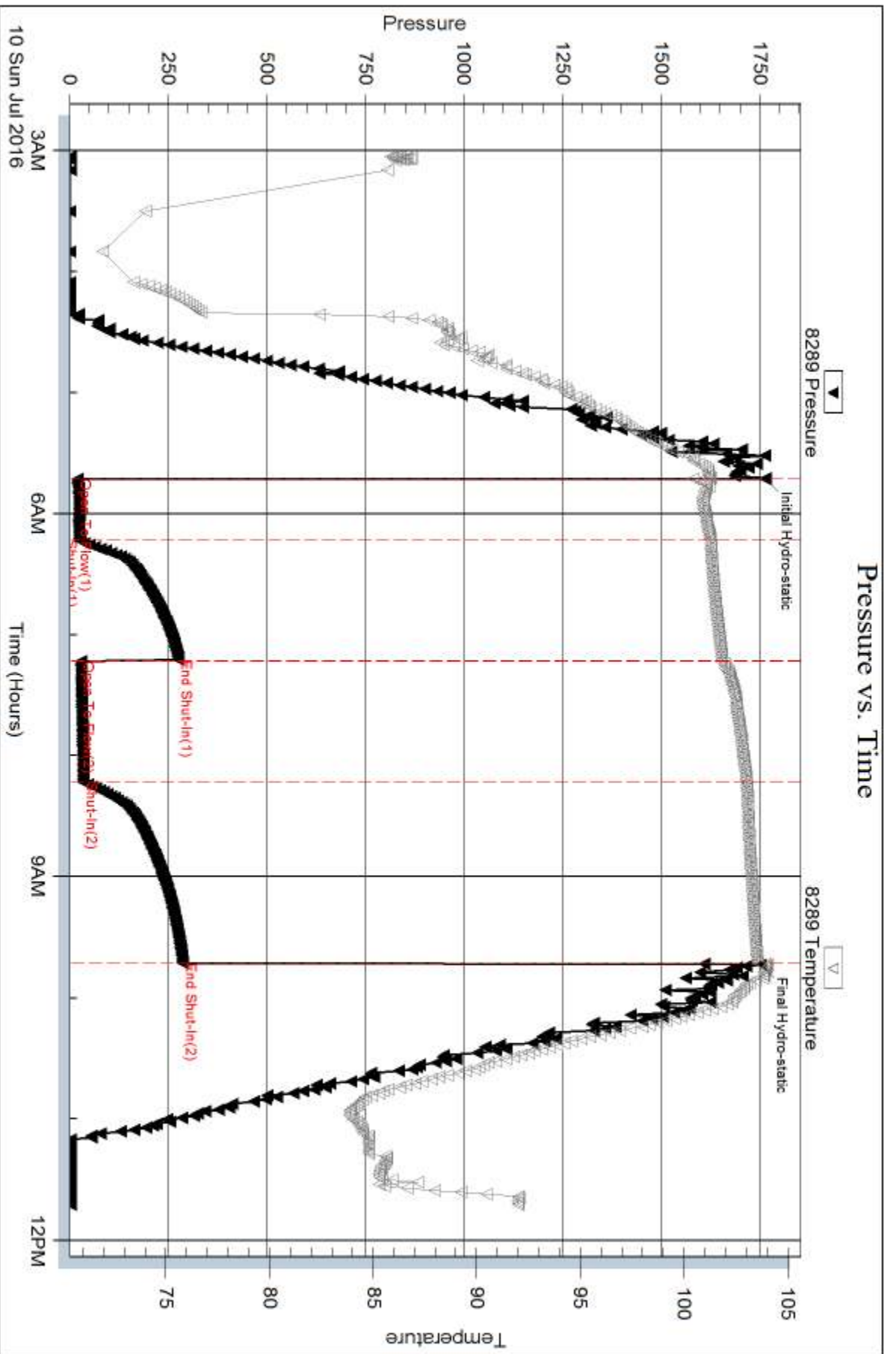
Num Gas Bombs: 0

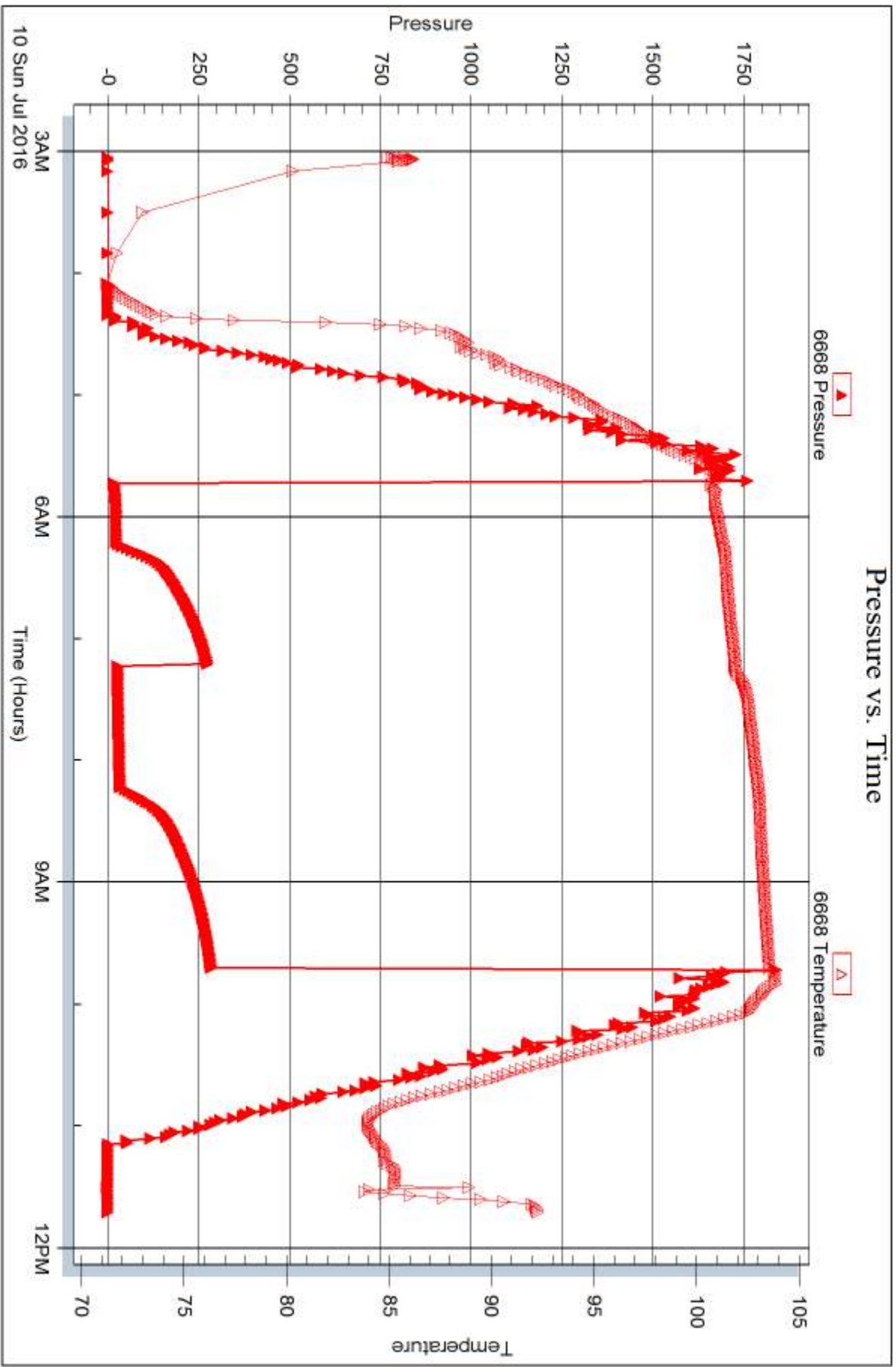
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .226 @ 108







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Ritter A #2-32

32-3s-26w Decatur,KS

Start Date: 2016.07.10 @ 23:16:00

End Date: 2016.07.11 @ 07:47:00

Job Ticket #: 64941 DST #: 5

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

Printed: 2016.07.13 @ 08:37:17



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur, KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64941

DST#: 5

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 23:16:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:48:00

Time Test Ended: 07:47:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3610.00 ft (KB) To 3688.00 ft (KB) (TVD)

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3688.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 77.87 psig @ 3616.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.10

End Date:

2016.07.11

Last Calib.:

2016.07.11

Start Time: 23:16:02

End Time:

07:47:00

Time On Btm:

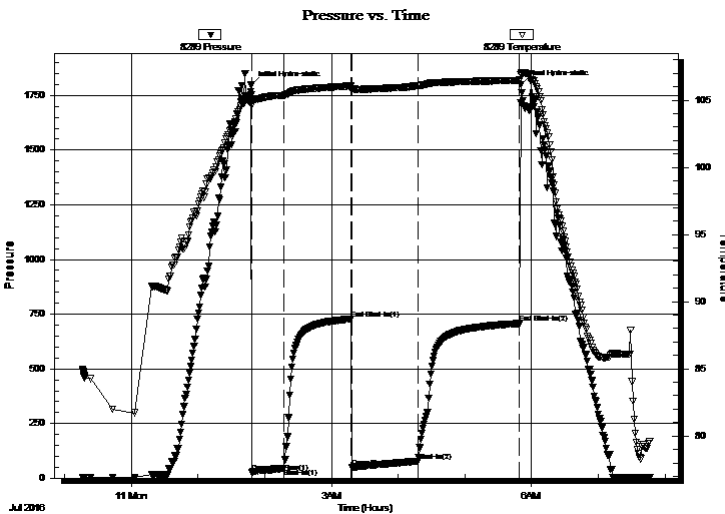
2016.07.11 @ 01:47:45

Time Off Btm:

2016.07.11 @ 05:50:30

TEST COMMENT: 30-IFP- Surface Blow Building to 1"
60-ISIP- No Blow
60-FFP- Weak Surface Blow in 12 min.
90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1797.21	105.39	Initial Hydro-static
1	24.77	104.60	Open To Flow (1)
30	44.70	105.37	Shut-In(1)
90	727.42	106.07	End Shut-In(1)
91	49.76	105.72	Open To Flow (2)
150	77.87	106.07	Shut-In(2)
242	707.21	106.49	End Shut-In(2)
243	1800.32	107.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	MCW 30% m 70% w Show of Oil in Tool	0.37

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur, KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64941

DST#: 5

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 23:16:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:48:00

Time Test Ended: 07:47:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: **3610.00 ft (KB) To 3688.00 ft (KB) (TVD)**

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3688.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6668 **Inside**

Press@RunDepth: psig @ 3616.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.10 End Date: 2016.07.11

Last Calib.: 2016.07.11

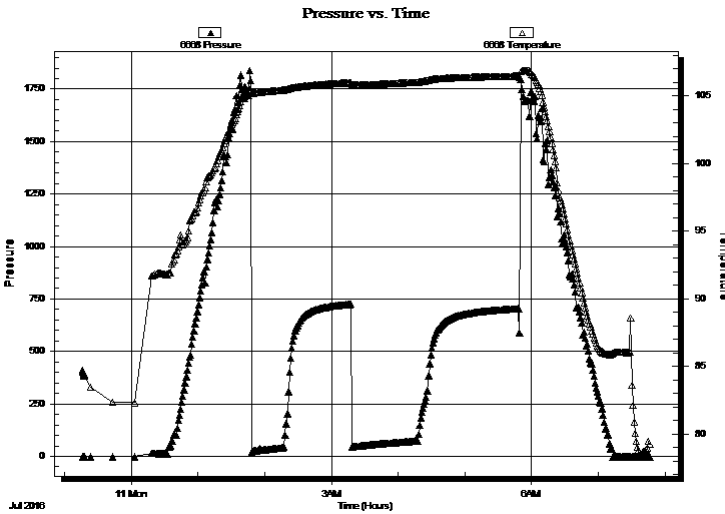
Start Time: 23:16:02 End Time: 07:46:45

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP- Surface Blow Building to 1"
60-ISIP- No Blow
60-FFP- Weak Surface Blow in 12 min.
90-FSIP- No Blow

PRESSURE SUMMARY



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

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
75.00	MCW 30% m 70% w Show of Oil in Tool	0.37

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64941

DST#: 5

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 23:16:00

Tool Information

Drill Pipe:	Length: 3421.00 ft	Diameter: 3.80 inches	Volume: 47.99 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3610.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	106.00 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			3583.00	
Shut In Tool	5.00			3588.00	
Hydraulic tool	5.00			3593.00	
Jars	5.00			3598.00	
Safety Joint	2.00			3600.00	
Packer	5.00			3605.00	28.00 Bottom Of Top Packer
Packer	5.00			3610.00	
Stubb	1.00			3611.00	
Perforations	4.00			3615.00	
Change Over Sub	1.00			3616.00	
Recorder	0.00	6668	Inside	3616.00	
Recorder	0.00	8289	Outside	3616.00	
Blank Spacing	63.00			3679.00	
Change Over Sub	1.00			3680.00	
Perforations	5.00			3685.00	
Bullnose	3.00			3688.00	78.00 Bottom Packers & Anchor
Total Tool Length:	106.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64941

DST#: 5

ATTN: Larry Nicholson

Test Start: 2016.07.10 @ 23:16:00

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:

62000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
75.00	MCW 30% m 70% w Show of Oil in Tool	0.369

Total Length: 75.00 ft Total Volume: 0.369 bbf

Num Fluid Samples: 0

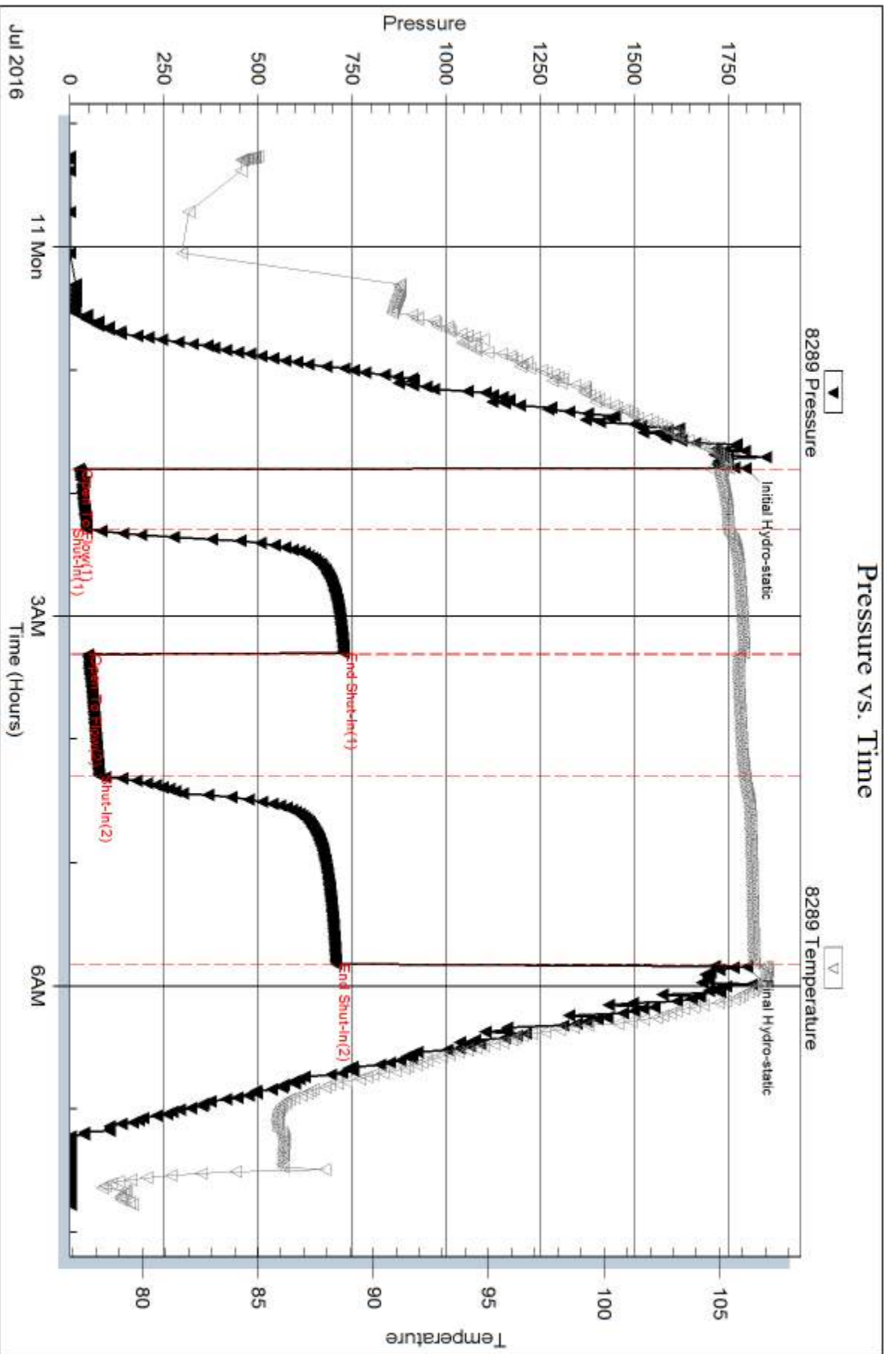
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .112 @ 79



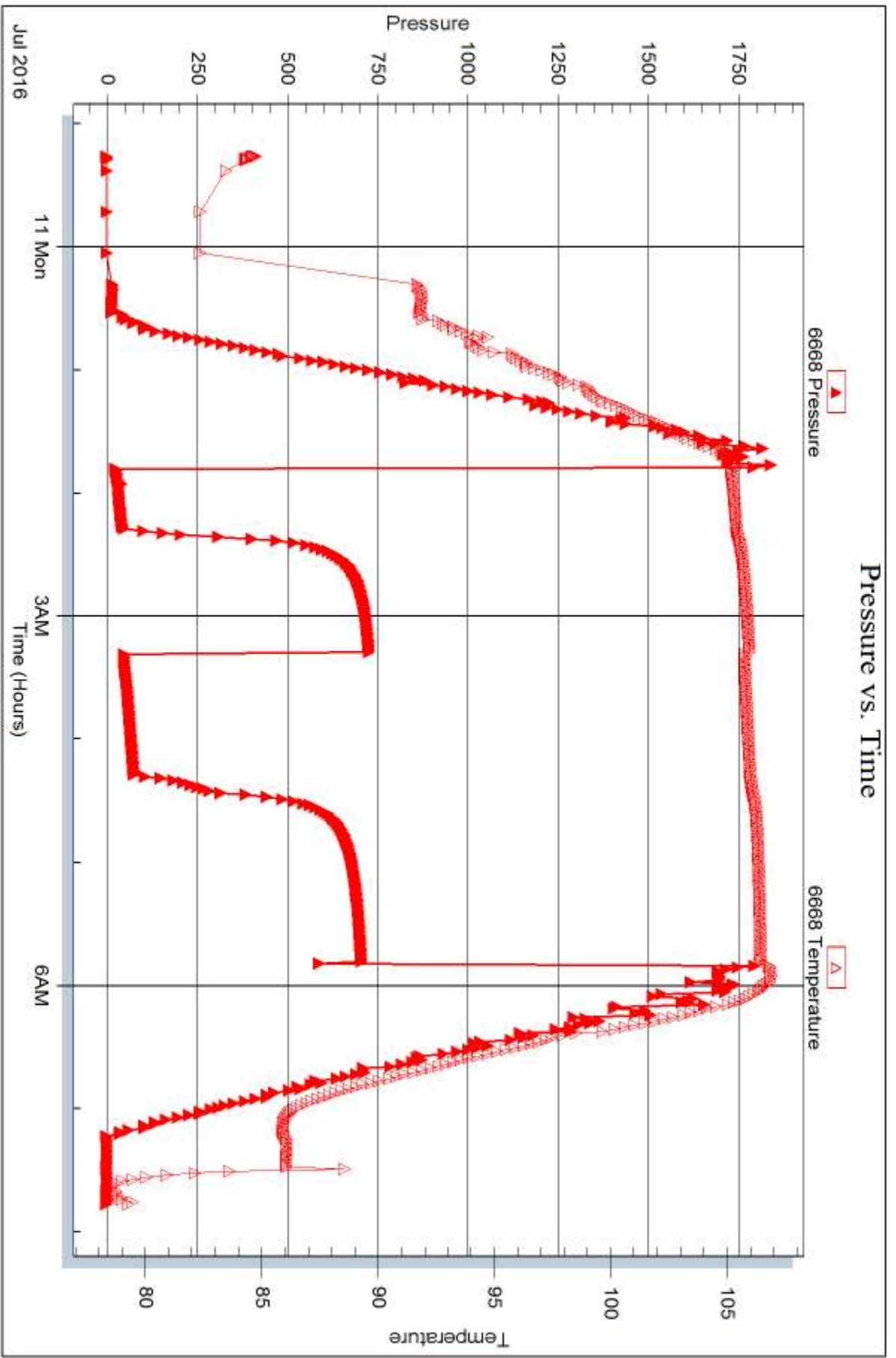
Serial #: 6668

Inside

Cobalt Energy LLC

Ritter A #2-32

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 64941

Printed: 2016.07.13 @ 08:37:19



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Ritter A #2-32

32-3s-26w Decatur,KS

Start Date: 2016.07.11 @ 18:02:00

End Date: 2016.07.12 @ 00:46:00

Job Ticket #: 64942 DST #: 6

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

Printed: 2016.07.13 @ 08:36:36



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

32-3s-26w Decatur, KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64942

DST#: 6

ATTN: Larry Nicholson

Test Start: 2016.07.11 @ 18:02:00

GENERAL INFORMATION:

Formation: **LKC "J - L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:10:45

Time Test Ended: 00:46:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3695.00 ft (KB) To 3762.00 ft (KB) (TVD)

Reference Elevations: 2568.00 ft (KB)

Total Depth: 3762.00 ft (KB) (TVD)

2563.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 25.29 psig @ 3701.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.07.11

End Date:

2016.07.12

Last Calib.:

2016.07.12

Start Time: 18:02:02

End Time:

00:46:15

Time On Btm:

2016.07.11 @ 20:10:30

Time Off Btm:

2016.07.11 @ 22:41:15

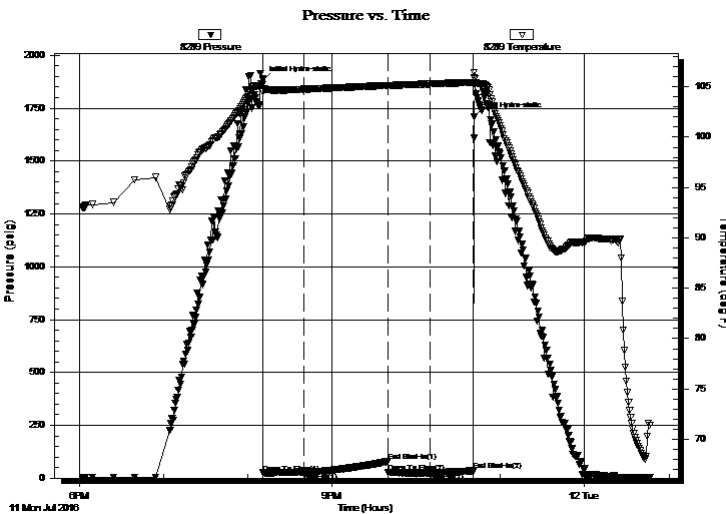
TEST COMMENT: 30-IFP- Weak Surface Blow Died in 11 min.

60-ISIP- No Blow

30-FFP- No Blow

30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1882.27	105.19	Initial Hydro-static
1	25.04	104.55	Open To Flow (1)
30	26.51	104.76	Shut-In(1)
90	79.17	105.13	End Shut-In(1)
90	26.25	105.09	Open To Flow (2)
120	25.29	105.29	Shut-In(2)
151	34.85	105.43	End Shut-In(2)
151	1707.98	105.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	OSM 100%	0.01

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

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64942

DST#: 6

ATTN: Larry Nicholson

Test Start: 2016.07.11 @ 18:02:00

Tool Information

Drill Pipe:	Length: 3485.00 ft	Diameter: 3.80 inches	Volume: 48.89 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 49.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3695.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	95.00 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			3668.00	
Shut In Tool	5.00			3673.00	
Hydraulic tool	5.00			3678.00	
Jars	5.00			3683.00	
Safety Joint	2.00			3685.00	
Packer	5.00			3690.00	28.00 Bottom Of Top Packer
Packer	5.00			3695.00	
Stubb	1.00			3696.00	
Perforations	5.00			3701.00	
Recorder	0.00	6668	Inside	3701.00	
Recorder	0.00	8289	Outside	3701.00	
Perforations	25.00			3726.00	
Change Over Sub	1.00			3727.00	
Blank Spacing	31.00			3758.00	
Change Over Sub	1.00			3759.00	
Bullnose	3.00			3762.00	67.00 Bottom Packers & Anchor
Total Tool Length:	95.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

32-3s-26w Decatur,KS

PO Box 8037
Wichita KS 67208

Ritter A #2-32

Job Ticket: 64942

DST#: 6

ATTN: Larry Nicholson

Test Start: 2016.07.11 @ 18:02:00

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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	OSM 100%	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0

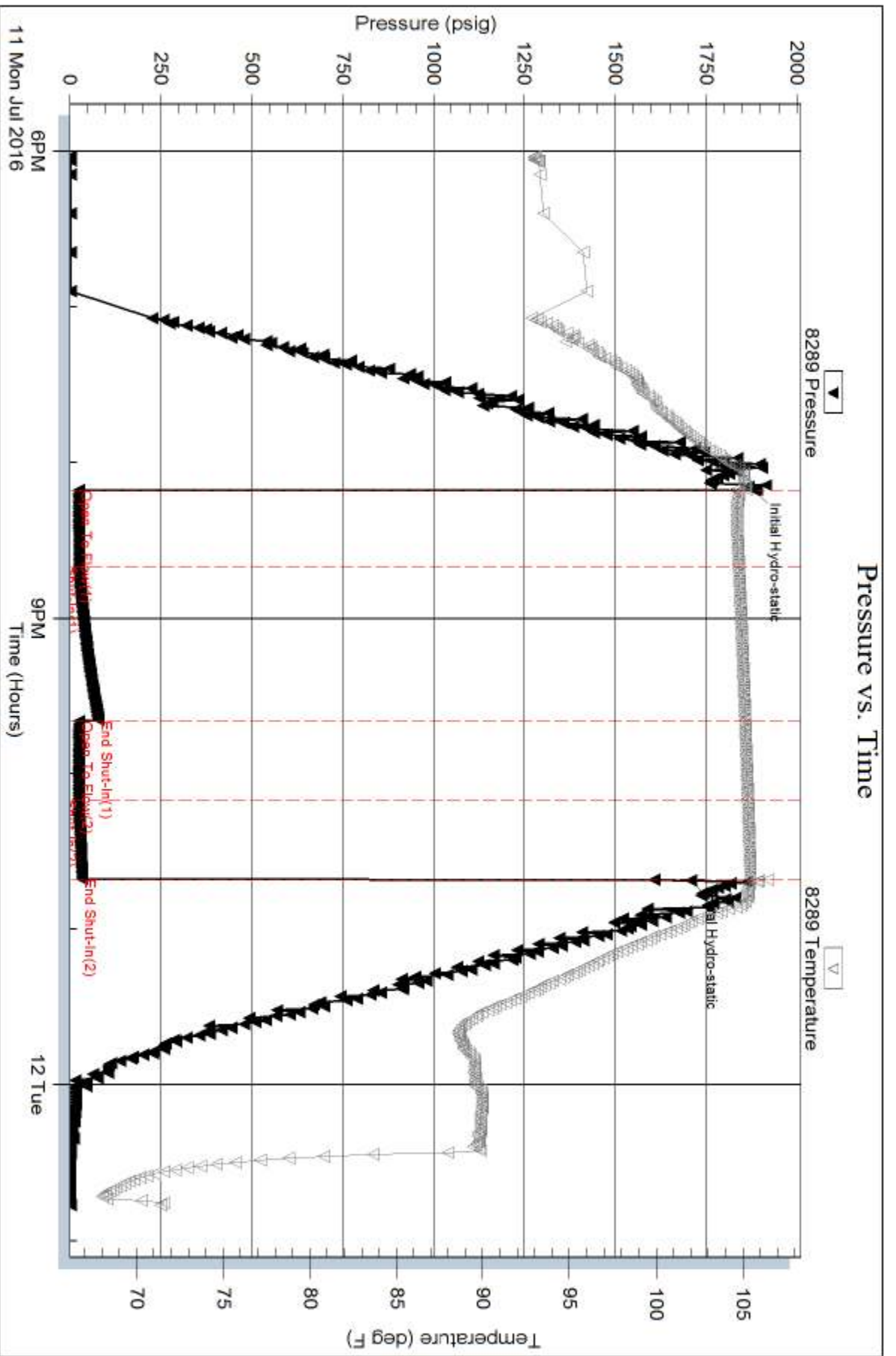
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



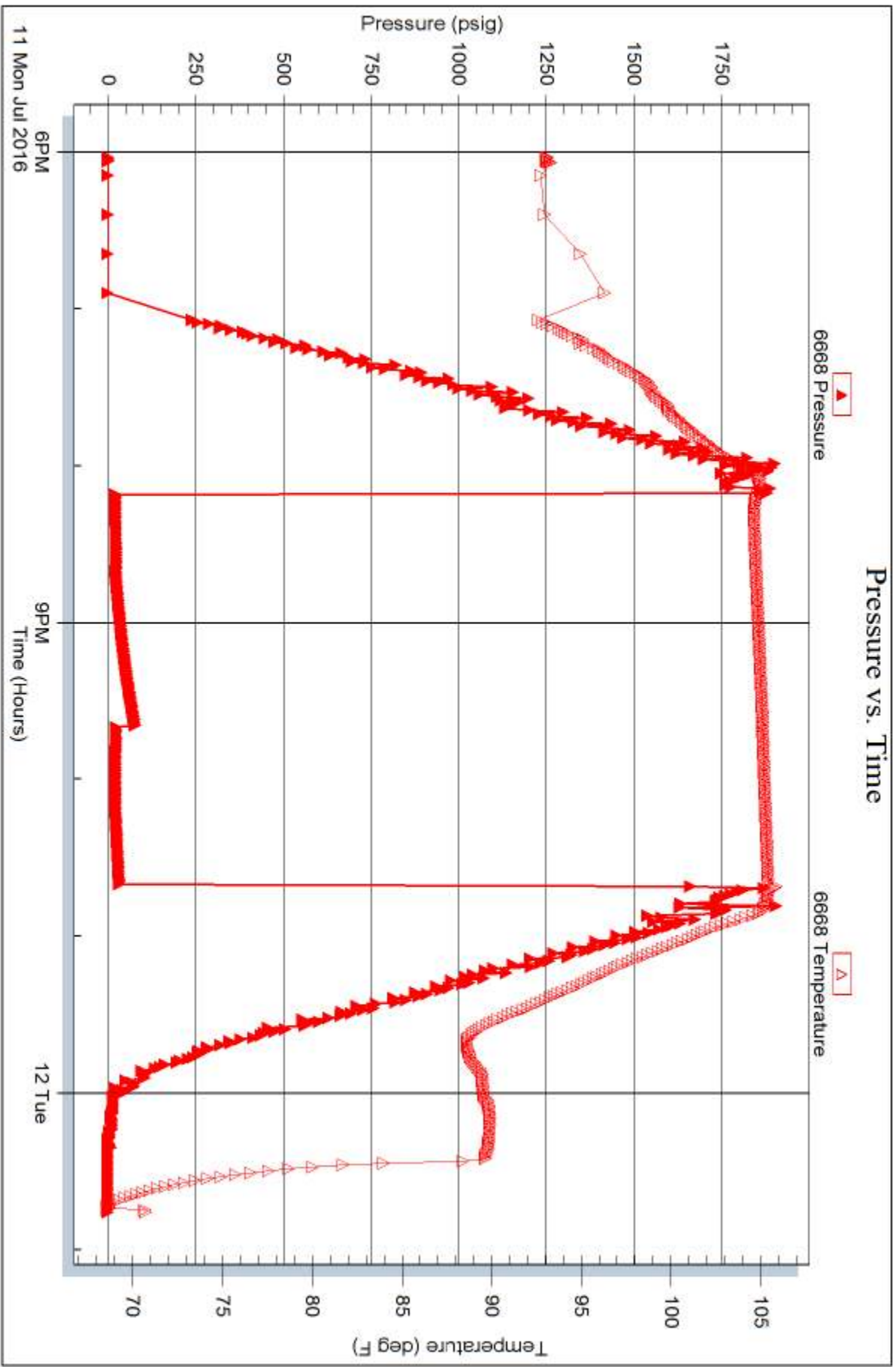
Serial #: 6668

Inside

Cobalt Energy LLC

Ritter A #2-32

DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 64942

Printed: 2016.07.13 @ 08:36:38



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64937**

Well Name & No. Ritter "A" 2-32 Test No. 1 Date 7-8-16
 Company Cobalt Energy LLC Elevation 2568 KB 2563 GL
 Address 115 S. Belmont #12 Box 8037 Wichita KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Mur Fin 7
 Location: Sec. 32 Twp. 3 S Rge. 26 W Co. Decatur State KS

Interval Tested 3382-3408 Zone Tested Topeka
 Anchor Length 26 Drill Pipe Run 3173 Mud Wt. 8.9
 Top Packer Depth 3377 Drill Collars Run 186 Vis 50
 Bottom Packer Depth 3382 Wt. Pipe Run 0 WL 6.0
 Total Depth 3408 Chlorides 1600 ppm System LCM 2

Blow Description IFF- BOB in 21min.
ISIP- No Blow
FFP- No Blow
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>260</u>	<u>mcw</u>		<u>70</u>	<u>30</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 260 BHT 103 Gravity _____ API RW .069 @ 90 ° F Chlorides 90000 ppm

(A) Initial Hydrostatic <u>1626</u>	<input checked="" type="checkbox"/> Test <u>850</u>	T-On Location <u>03:37</u>
(B) First Initial Flow <u>123</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>04:31</u>
(C) First Final Flow <u>149</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>06:27</u>
(D) Initial Shut-In <u>1188</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>09:57</u>
(E) Second Initial Flow <u>1419</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>12:07</u>
(F) Second Final Flow <u>1292</u>	<input checked="" type="checkbox"/> Mileage <u>30</u>	Comments _____
(G) Final Shut-In <u>1232</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1573</u>	<input type="checkbox"/> Straddle _____	_____

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1205</u>
	Sub Total <u>1205</u>	MP/DST Disc't _____

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.

7856395864



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64938

Well Name & No. Ritter "A" 2-32 Test No. 2 Date 7-8-16
 Company Cobalt Energy LLC Elevation 2568 KB 2563 GL
 Address 115 S. Belmont #12 Box 8037 Wichita KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Murfin #7
 Location: Sec. 32 Twp. 35 Rge. 26W Co. Decatur State KS

Interval Tested 3382-3408 Zone Tested Topeka
 Anchor Length 26 Drill Pipe Run 3199 Mud Wt. 8.9
 Top Packer Depth 3377 Drill Collars Run 186 Vis 50
 Bottom Packer Depth 3382 Wt. Pipe Run 0 WL 6.0
 Total Depth 3408 Chlorides 1600 ppm System LCM 2

Blow Description IFP - BOB in 22 1/2 min.
ISIP - 1/4 in Blow Died in 9 min.
FFP - BOB 26 min.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>450</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 450 BHT 103 Gravity _____ API RW .090 @ 72 °F Chlorides 85000 ppm
 (A) Initial Hydrostatic 1597 Test 1050 T-On Location 16:41
 (B) First Initial Flow 24 Jars 250 T-Started 17:02
 (C) First Final Flow 131 Safety Joint 75 T-Open 19:03
 (D) Initial Shut-In 1097 Circ Sub _____ T-Pulled 23:03
 (E) Second Initial Flow 135 Hourly Standby _____ T-Out 01:10
 (F) Second Final Flow 230 Mileage 30 40 RT Comments _____
 (G) Final Shut-In 1062 Sampler _____
 (H) Final Hydrostatic 1585 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 0
 Total 1655
 MP/DST Disc't _____
 Sub Total 1655

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64939**

4/10

Well Name & No. Ritter "A" 2-32 Test No. 3 Date 7-9-16
 Company Cobalt Energy LLC Elevation 2568 KB 2563 GL
 Address 115 S. Belmont #12 Box 8037 Wichita KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Murfin 7
 Location: Sec. 32 Twp. 3^s Rge. 26^w Co. Decatur State KS

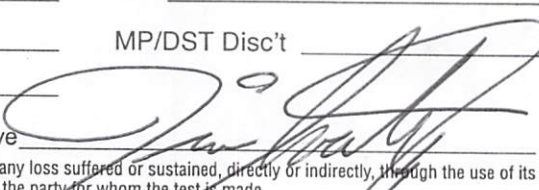
Interval Tested 3560 - 3577 Zone Tested LKC "A"
 Anchor Length 17 Drill Pipe Run 3357 Mud Wt. 9.1
 Top Packer Depth 3555 Drill Collars Run 186 Vis 60
 Bottom Packer Depth 3560 Wt. Pipe Run 0 WL 6.2
 Total Depth 3577 Chlorides 1600 ppm System LCM 2

Blow Description IFP - No Blow
ISIP - No Blow
FFP - No Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Heavy Mud (Plugged)</u>			<u>100</u>	
	<u>Oil Specks in Tool</u>				

Rec Total 1 BHT 104 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1747</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>12:53</u>
(B) First Initial Flow <u>31</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:58</u>
(C) First Final Flow <u>42</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:17</u>
(D) Initial Shut-In <u>149</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>17:17</u>
(E) Second Initial Flow <u>31</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>19:10</u>
(F) Second Final Flow <u>23</u>	<input checked="" type="checkbox"/> Mileage <u>30</u>	Comments _____
(G) Final Shut-In <u>88</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1608</u>	<input type="checkbox"/> Straddle _____	
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility _____	Total <u>1655</u>
	Sub Total <u>1655</u>	MP/DST Disc't _____

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64940**

Well Name & No. Ritter "A" 2-32 Test No. 4 Date 7-10-16
 Company Cobalt Energy LLC Elevation 2568 KB 2563 GL
 Address 115 S. Belmont #12 Box 8037 Wichita KS. 67208
 Co. Rep / Geo. Larry Nicholson Rig 3 Murfin 7
 Location: Sec. 32 Twp. 35 Rge. 26 W Co. Decatur State KS

Interval Tested 3579-3603 Zone Tested LKC "C"
 Anchor Length 24 Drill Pipe Run 3389 Mud Wt. 9.1
 Top Packer Depth 3574 Drill Collars Run 186 Vis 60
 Bottom Packer Depth 3579 Wt. Pipe Run 2 WL 6.2
 Total Depth 3603 Chlorides 1600 ppm System LCM 2

Blow Description IFP - Weak Surface Blow
ISIP - No Blow
F+P - No Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MCW</u>		<u>60</u>	<u>40</u>	
	<u>Show of Oil</u>				

Rec Total 10 BHT 104 Gravity _____ API RW: 226 @ 108 °F Chlorides 19000 ppm

(A) Initial Hydrostatic <u>1763</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>01:53</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>03:03</u>
(C) First Final Flow <u>24</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>05:43</u>
(D) Initial Shut-In <u>276</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>09:43</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>11:43</u>
(F) Second Final Flow <u>34</u>	<input checked="" type="checkbox"/> Mileage <u>30</u>	Comments _____
(G) Final Shut-In <u>286</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1752</u>	<input type="checkbox"/> Straddle _____	
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1655</u>
	Sub Total <u>1655</u>	MP/DST Disc't _____

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

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64941

Well Name & No. Ritter "A" 2-32 Test No. 5 Date 7-10-16
 Company Cobalt Energy LLC Elevation 2568 KB 2563 GL
 Address 115 S Belmont #12 Box 8037 Wichita KS 67208
 Co. Rep / Geo. Larry Nicholson Rig MurFin 7
 Location: Sec. 32 Twp. 35 Rge. 26^w Co. Decatur State KS

Interval Tested 3610 - 3688 Zone Tested LKC "H"
 Anchor Length 78 Drill Pipe Run 3421 Mud Wt. 9.1
 Top Packer Depth 3605 Drill Collars Run 168 Vis 61
 Bottom Packer Depth 3610 Wt. Pipe Run 0 WL 6.8
 Total Depth 3688 Chlorides 1600 ppm System LCM 2

Blow Description IFP - Surface Blow Building to Lin.
ISIP - No Blow
FFP - Weak Surface Blow in 12 min.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>75</u>	<u>mcw</u>			<u>70</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
	<u>Show of Oil in Tool</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 75 BHT 107 Gravity _____ API RW .112 @ 79 °F Chlorides 62000 ppm

(A) Initial Hydrostatic <u>1797</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>22:58</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:16</u>
(C) First Final Flow <u>44</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>01:48</u>
(D) Initial Shut-In <u>727</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>05:48</u>
(E) Second Initial Flow <u>49</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>07:47</u>
(F) Second Final Flow <u>77</u>	<input checked="" type="checkbox"/> Mileage <u>30</u>	Comments _____
(G) Final Shut-In <u>707</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1800</u>	<input type="checkbox"/> Straddle _____	
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	Total <u>1655</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1655</u>	

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

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64942**

Well Name & No. Ritter "A" 2-32 Test No. 6 Date 7-11-16
 Company Cobalt Energy LLC Elevation 2568 KB 2563 GL
 Address 115 S. Belmont #12 Box 8037 Wichita KS 67208
 Co. Rep / Geo. Larry Nicholson Rig Murfin 7
 Location: Sec. 32 Twp. 3 S Rge. 26 W Co. Decatur State KS

Interval Tested 3695-3762 Zone Tested LKC" J-L"
 Anchor Length 67 Drill Pipe Run 3485 Mud Wt. 9.1
 Top Packer Depth 3690 Drill Collars Run 186 Vis 61
 Bottom Packer Depth 3695 Wt. Pipe Run 0 WL 6.2
 Total Depth 3762 Chlorides 2300 ppm System LCM 2

Blow Description IFP - Weak Surface Blow Died in Illumin.
ISIP - No Blow
FFP - No Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
3	0.5M			100	

Rec Total 3 BHT 106 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1882</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>17:21</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:02</u>
(C) First Final Flow <u>26</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:10</u>
(D) Initial Shut-In <u>79</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>22:40</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>00:46</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>60</u>	Comments _____
(G) Final Shut-In <u>34</u>	<input type="checkbox"/> Sampler _____	<u>loaded tools 7/12 16:00</u>
(H) Final Hydrostatic <u>1707</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</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>1685</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1685</u>	

Approved By _____

Our Representative 

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