

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources, Inc.

P.O. Box 583
Russell KS
67665
ATTN: Jerry Green

15-13-17 Ellis Co KS

LJ Drilling 2

Job Ticket: 64241

DST#: 1

Test Start: 2017.11.12 @ 18:01:00

GENERAL INFORMATION:

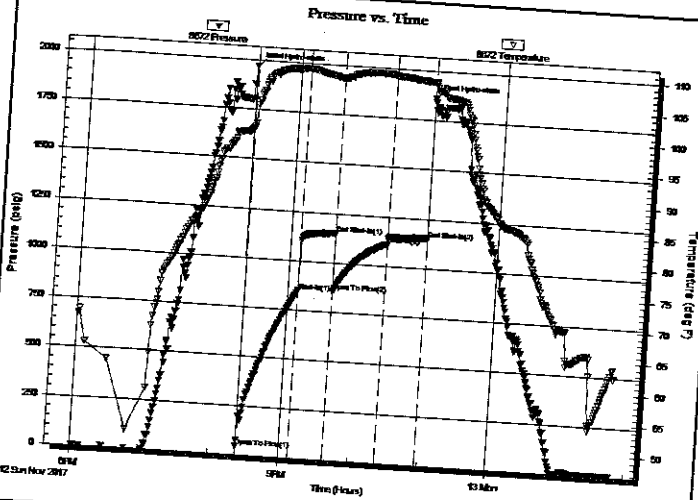
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:23:00
 Time Test Ended: 01:46:15
 Interval: **3504.00 ft (KB) To 3548.00 ft (KB) (TVD)**
 Total Depth: 3620.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Initial)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2001.00 ft (KB)
 1996.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: **8672** Inside
 Press@RunDepth: 1110.62 psig @ 3509.00 ft (KB)
 Start Date: 2017.11.12 End Date:
 Start Time: 18:01:15 End Time:

Capacity: 8000.00 psig
 Last Calib.: 2017.11.13
 Time On Btm: 2017.11.12 @ 20:22:15
 Time Off Btm: 2017.11.12 @ 22:58:00

TEST COMMENT: IF:BOB in 2 min.
 IS:No return blow
 FF:BOB in 2 min.
 FS:No return blow



PRESSURE SUMMARY

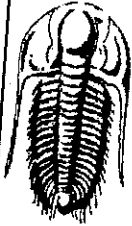
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1970.94	99.22	Initial Hydro-static
1	42.61	99.20	Open To Flow (1)
47	849.95	109.29	Shut-In(1)
76	1149.67	108.02	End Shut-In(1)
76	858.68	107.89	Open To Flow (2)
121	1110.62	108.98	Shut-In(2)
156	1152.50	108.30	End Shut-In(2)
156	1862.39	108.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
448.00	mud 100%m	6.28
512.00	w cm 10%w 90%m	7.18
310.00	w cm 50%w 50%m	4.35
1148.00	sw 100%sw	16.10

Gas Rates

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



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LJ Dreiling 2

Job Ticket: 64241

DST#: 1

Test Start: 2017.11.12 @ 18:01:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 10.75 in³

Resistivity: 0.00 ohm.m

Salinity: 12400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbbl

psig

Oil API:

0 deg API

Water Salinity:

30000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
448.00	mud 100%m	
512.00	w cm 10%w 90%m	6.284
310.00	w cm 50%w 50%m	7.182
1148.00	sw 100%sw	4.348
		16.103

Total Length: 2418.00 ft

Total Volume: 33.917 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Laboratory Name:

Laboratory Location:

Serial #:

Recovery Comments: RW= .584@ 32.1= 30,000 ppm

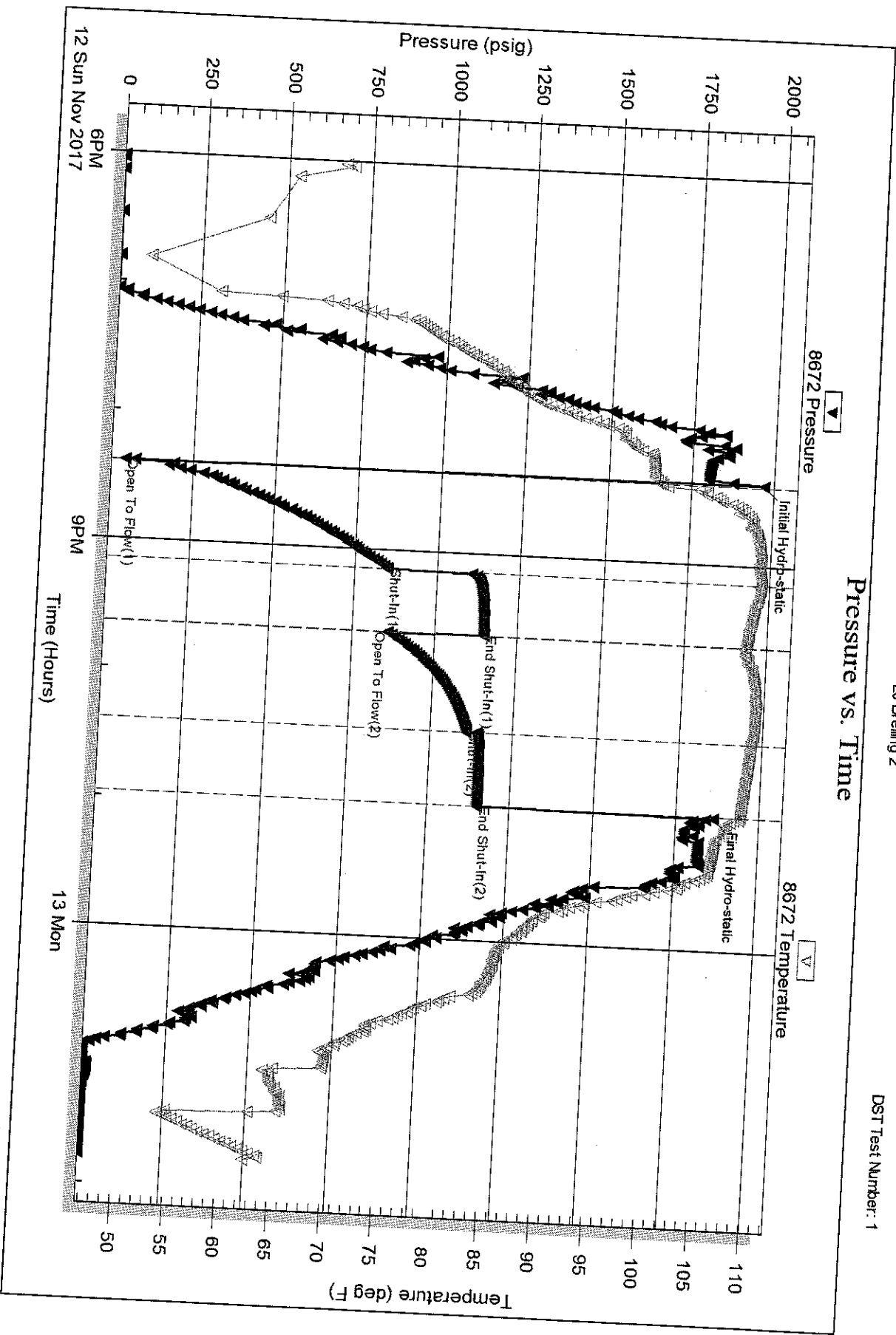
Serial #: 8672

Inside

Castle Resources, Inc.

LJ Drilling 2

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 64241

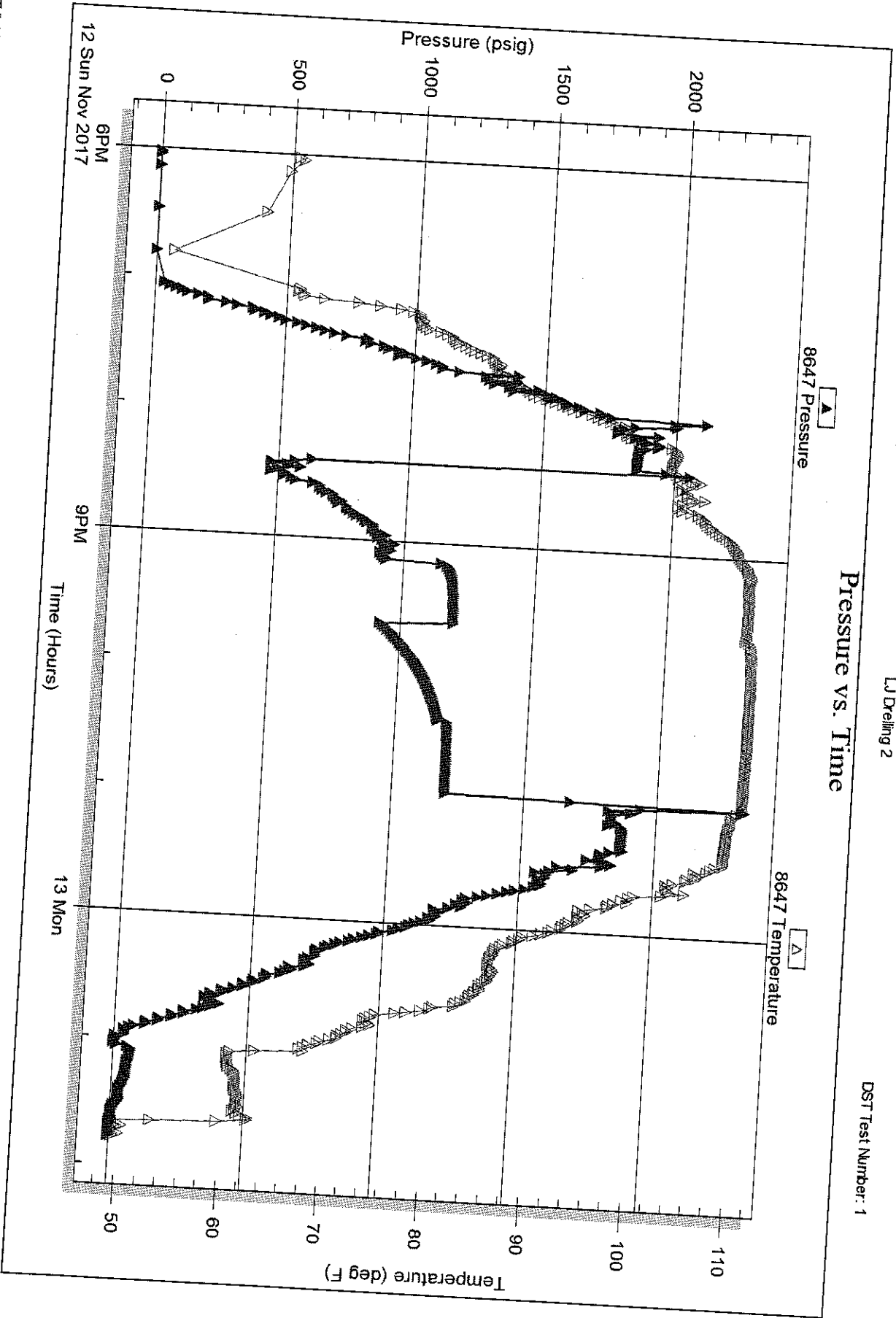
Printed: 2017.11.13 @ 08:50:26

Serial #: 8647

Below (Straddles) Resources, Inc.

LJ Drilling 2

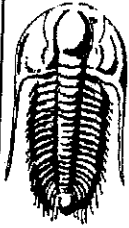
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 64241

Printed: 2017.11.13 @ 08:50:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources, Inc.

15-13-17 Ellis Co KS

P.O. Box 583
Russell KS
67665

LJ Drilling 2

ATTN: Jerry Green

Job Ticket: 64242

DST#: 2

Test Start: 2017.11.13 @ 06:58:15

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:45:30
Time Test Ended: 12:12:30

Test Type: Conventional Straddle (Reset)
Tester: Mike Roberts
Unit No: 81

Interval: **3504.00 ft (KB) To 3535.00 ft (KB) (TVD)**
Total Depth: 3620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2001.00 ft (KB)
1996.00 ft (CF)
KB to GR/CF: 5.00 ft

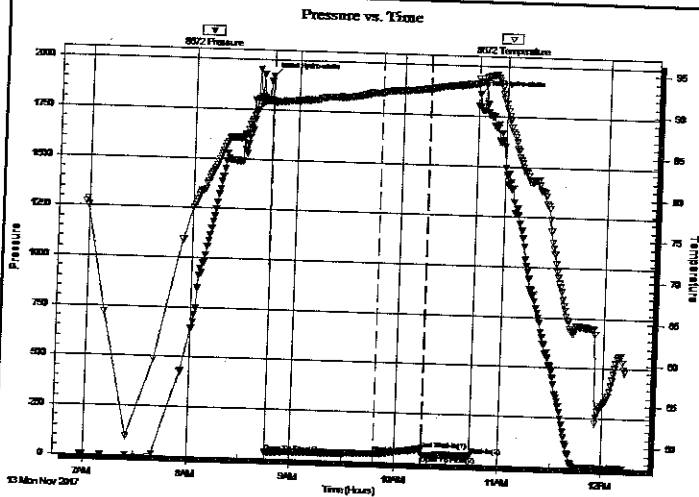
Serial #: 8672

Inside

Press@RunDepth: 41.73 psig @ 3509.00 ft (KB)
Start Date: 2017.11.13 End Date: 2017.11.13
Start Time: 06:58:15 End Time: 12:12:30

Capacity: 8000.00 psig
Last Calib.: 2017.11.13
Time On Btm: 2017.11.13 @ 08:44:45
Time Off Btm: 2017.11.13 @ 10:44:00

TEST COMMENT: IF: Built to 3" blow
IS: No return blow
FF: No blow
FS: Pulled Test



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1918.82	90.92	Initial Hydro-static
1	31.49	90.59	Open To Flow (1)
64	41.73	92.24	Shut-In(1)
91	73.59	92.92	End Shut-In(1)
91	43.86	92.93	Open To Flow (2)
119	45.60	93.74	Shut-In(2)
120	1860.49	93.80	Final Hydro-static

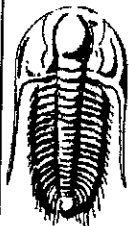
Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100%m	0.56

Gas Rates

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

* Recovery from multiple tests



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LJ Dreiling 2

Job Ticket: 64242

DST#: 2

ATTN: Jerry Green

Test Start: 2017.11.13 @ 06:58:15

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 10.75 in³

Resistivity: 0.00 ohm.m

Salinity: 12400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

0 deg API

Water Salinity:

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	mud 100%m	0.561

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

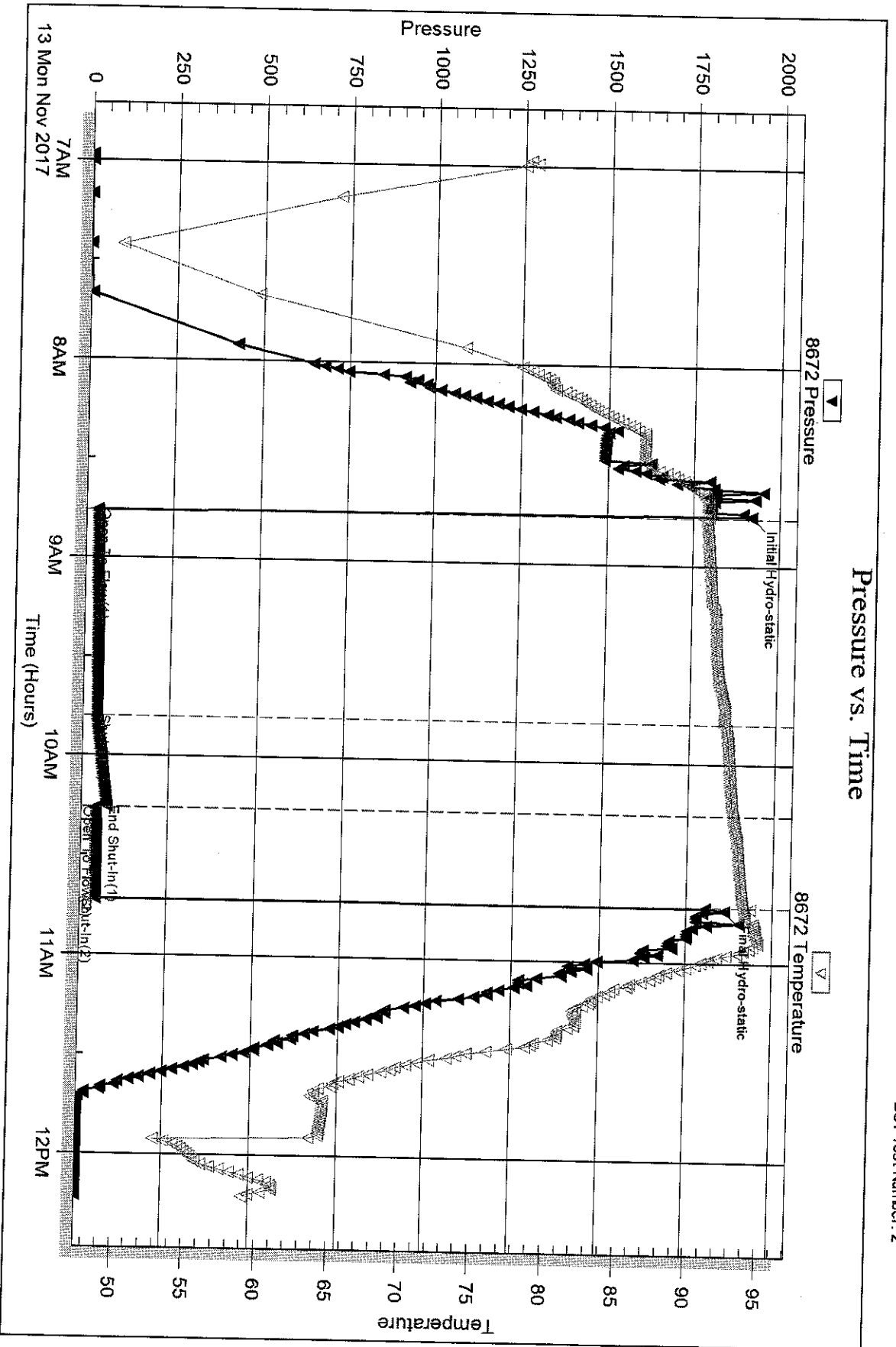
Serial #: 8672

Inside

Castle Resources, Inc.

LJ Drilling 2

DST Test Number: 2

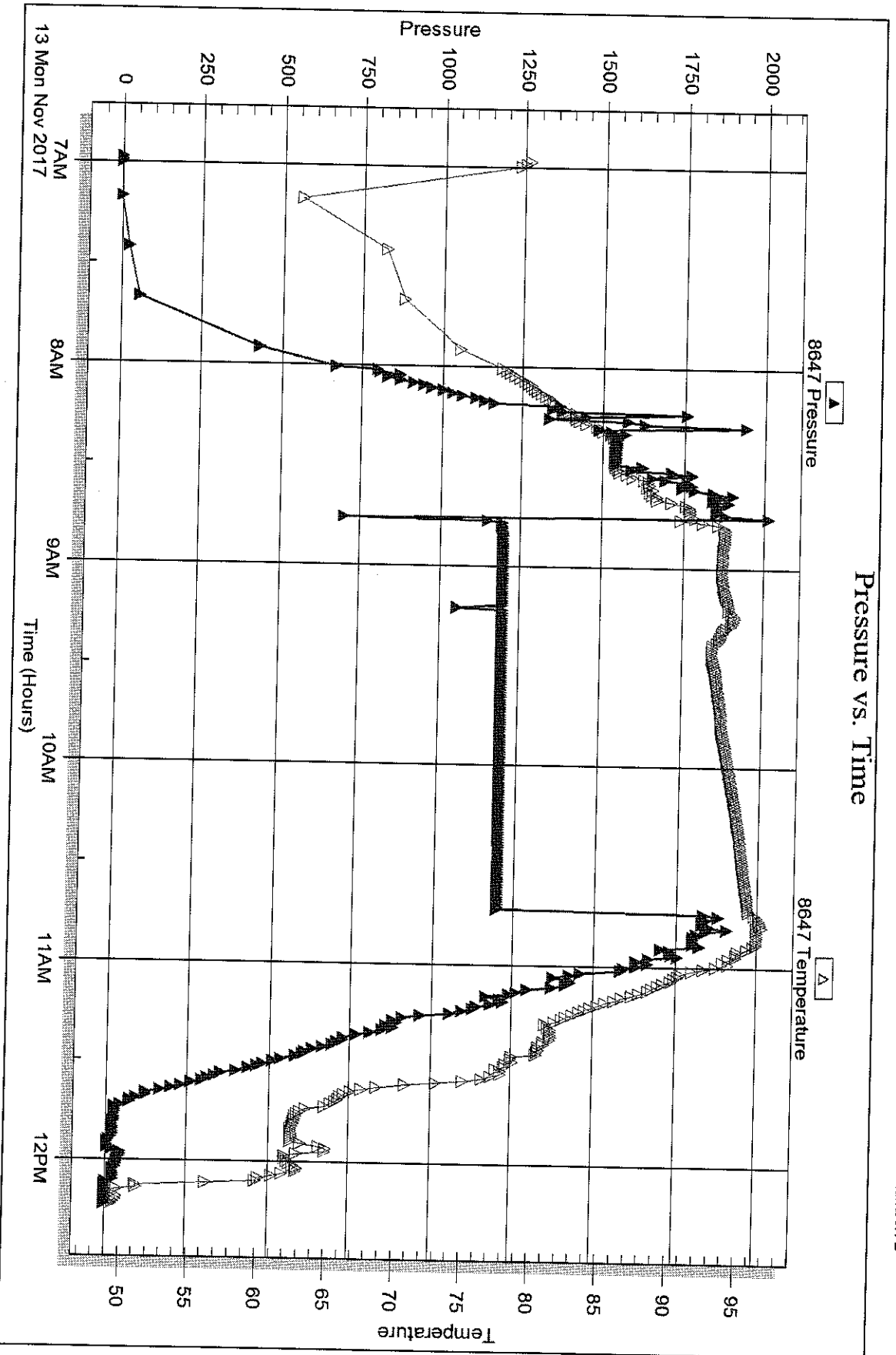


Serial #: 8647

Below (Straddle) Resources, Inc.

LJ Deiling 2

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64242

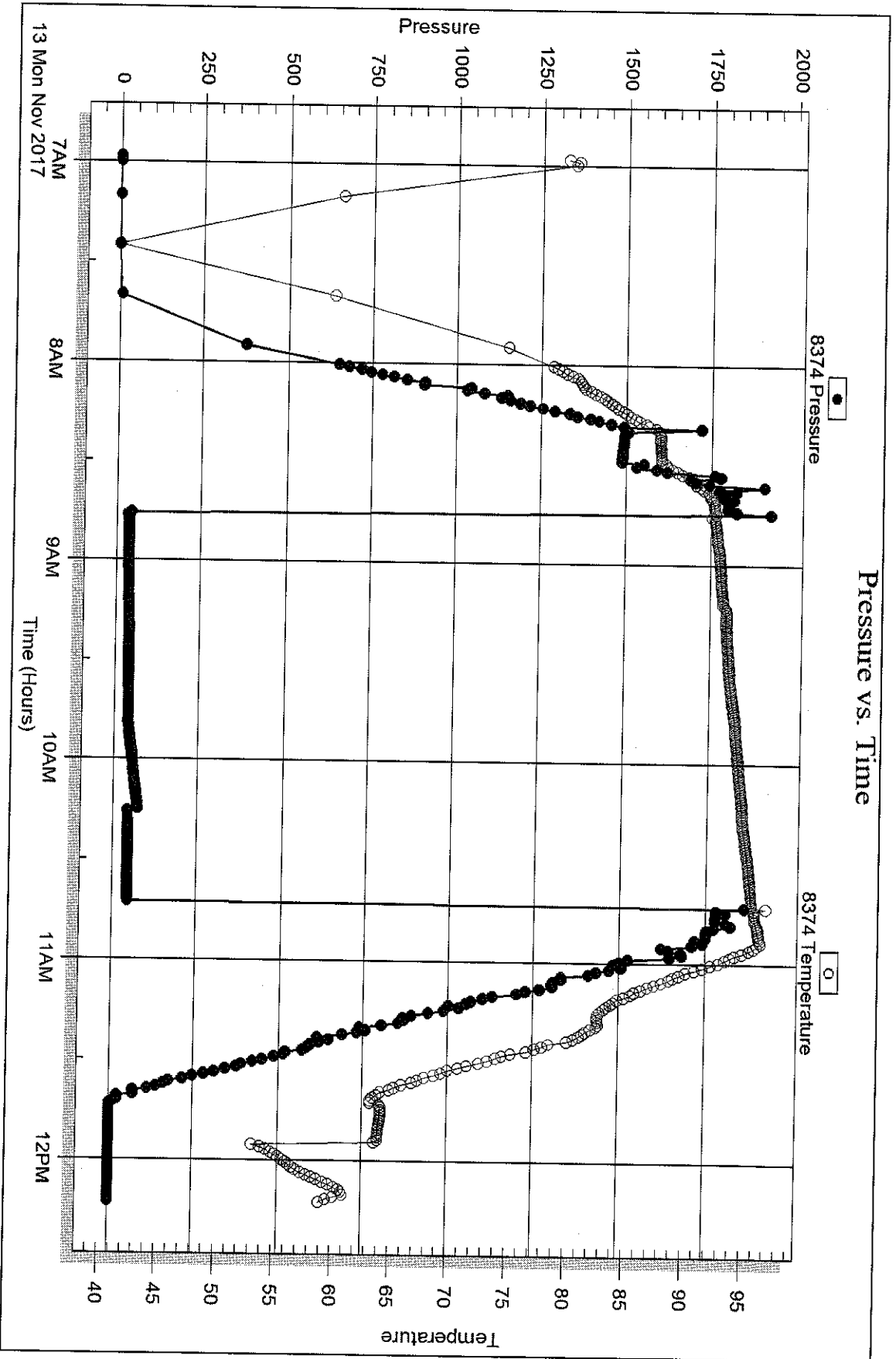
Printed: 2017.11.13 @ 15:15:45

Serial #: 8374

Outside Castle Resources, Inc.

LJ Drilling 2

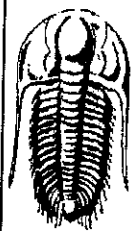
DST Test Number: 2



Triobrite Testing, Inc

Ref. No: 64242

Printed: 2017.11.13 @ 15:15:45



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Castle Resources, Inc.

15-13-17 Ellis Co KS

P.O. Box 583
Russell KS
67665

LJ Dreiling 2

Job Ticket: 64243

DST#: 3

ATTN: Jerry Green

Test Start: 2017.11.13 @ 13:07:42

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:36:50

Time Test Ended: 19:06:05

Test Type: Conventional Straddle (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: **3504.00 ft (KB) To 3549.00 ft (KB) (TVD)**

Total Depth: 3620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2001.00 ft (KB)

1996.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8672

Inside

Press@RunDepth: 34.85 psig @ 3509.00 ft (KB)

Start Date: 2017.11.13

End Date: 2017.11.13

Start Time: 13:07:57

End Time: 19:06:05

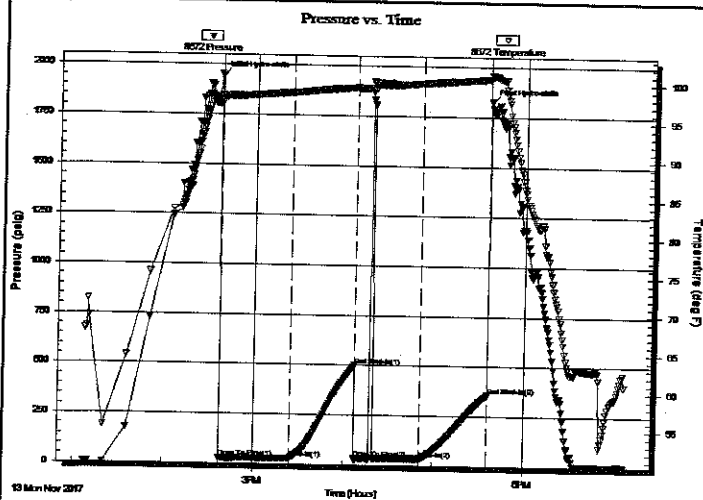
Capacity: 8000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2017.11.13 @ 14:36:35

Time Off Btm: 2017.11.13 @ 17:36:35

TEST COMMENT: IF: Built to 3" blow
IS: No return blow
FF: No blow -- flushed tool -- weak surface blow died in 20 min.
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1944.64	98.27	Initial Hydro-static
1	25.88	97.41	Open To Flow (1)
47	28.93	98.71	Shut-In(1)
90	499.25	99.46	End Shut-In(1)
91	31.16	99.24	Open To Flow (2)
101	1867.79	100.22	flush
135	34.85	100.05	Shut-In(2)
180	359.12	100.67	End Shut-In(2)
180	1824.38	101.18	Final Hydro-static

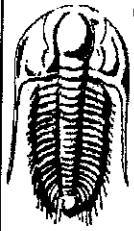
Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud with oil spots	0.42

* Recovery from multiple tests

Gas Rates

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



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15-13-17 Ellis Co KS

P.O. Box 583

LJ Dreiling 2

Russell KS

Job Ticket: 64243

DST#: 3

67665

ATTN: Jerry Green

Test Start: 2017.11.13 @ 13:07:42

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.77 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 12400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	mud with oil spots	0.421

Total Length: 30.00 ft

Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

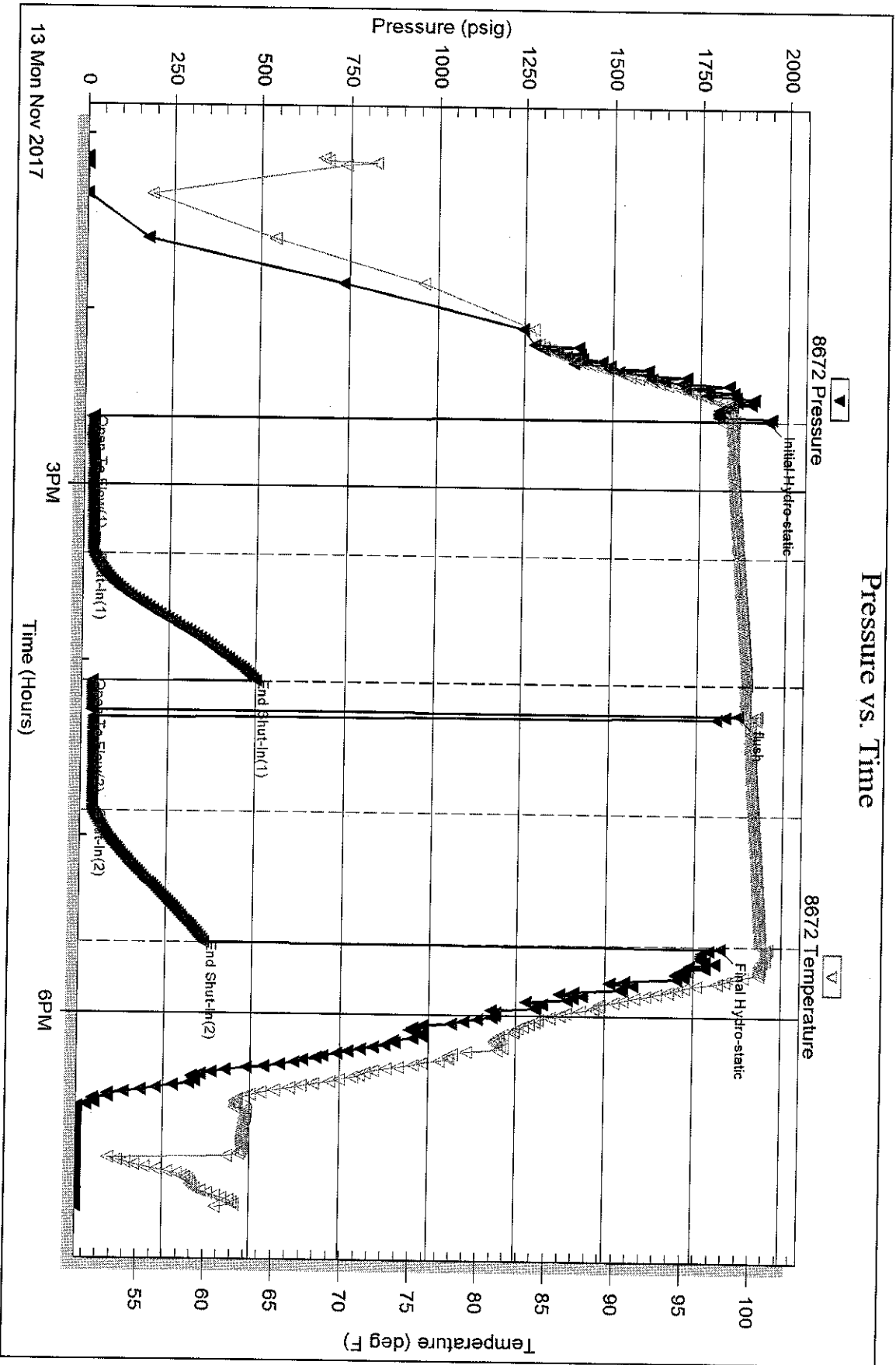
Serial #: 8672

Inside

Castle Resources, Inc.

LJ Drilling 2

DST Test Number: 3



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Ref. No: 64243

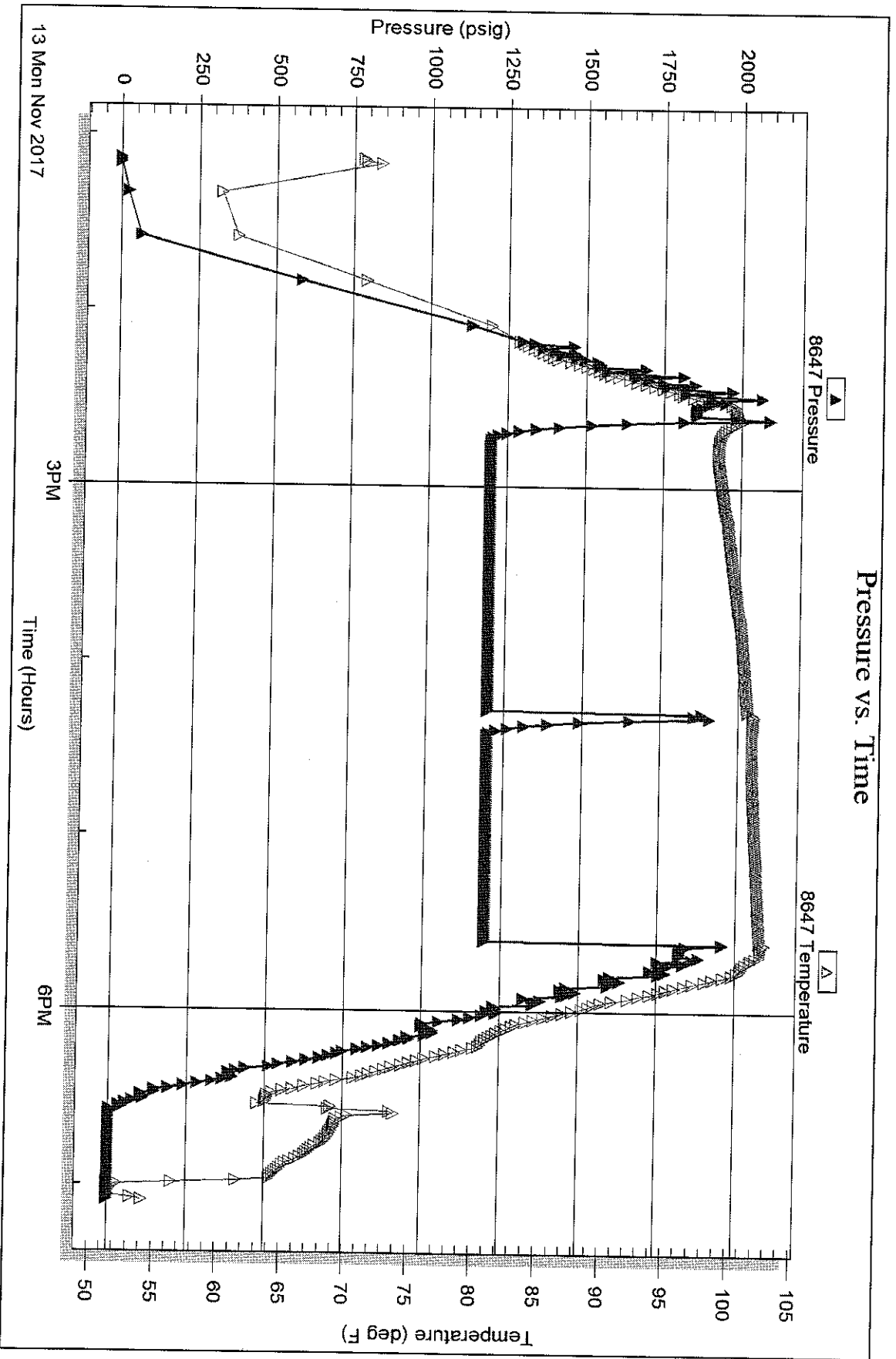
Printed: 2017.11.13 @ 19:24:31

Serial #: 8647

Below (Stratton) Resources, Inc.

LJ Drilling 2

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64243

Printed: 2017.11.13 @ 19:24:31

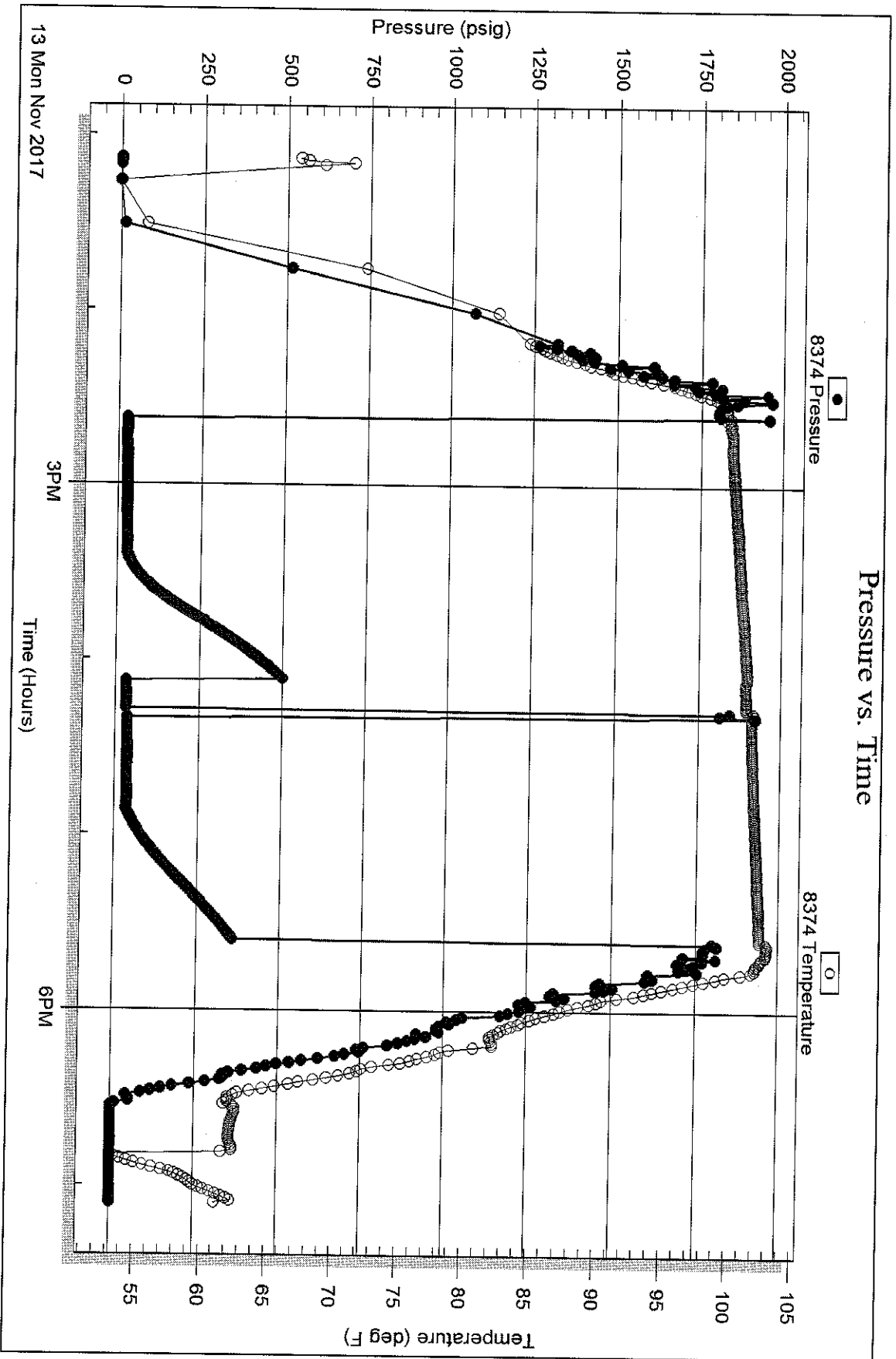
Serial #: 8374

Outside

Castle Resources, Inc.

LJ Drilling 2

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64243

Printed: 2017.11.13 @ 19:24:31