

# The Doc's Battery Test Report

Battery Details	
Brand	Kingcell 1800
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	1800
Stated Voltage	1.5 volts 1.2 volts
Number of batteries	Single Set of 2 Set of 4
Battery Set used	Set 1
Times charged before test started	12
Charger used to charge	Rezap RBC883 Vanson Speedy Box UBA4
Time Batteries charged in charger	See UBA graph.

Test Procedures	
Spreadsheet name	Kingcell1800NiMH-AA-Set1.123 (Discharge data file)
UBA file name	Kingcell1800NiMH-AA-Set1-12.uba (Charge file)
Select Resistance 5 or 10 ohms	5 ohms 10 ohms
Voltage cut off	3.5 volts 3.6 volts
Date of test	01/01/04

Summary of test	
Voltage	Starting voltage 5.8 volts, cut off voltage 3.6 volts
Test duration	5,899 seconds or 98.31 minutes
Max Battery Temp	34.9 degrees Celsius
Min Battery Temp	27.7 degrees Celsius

## Methodology

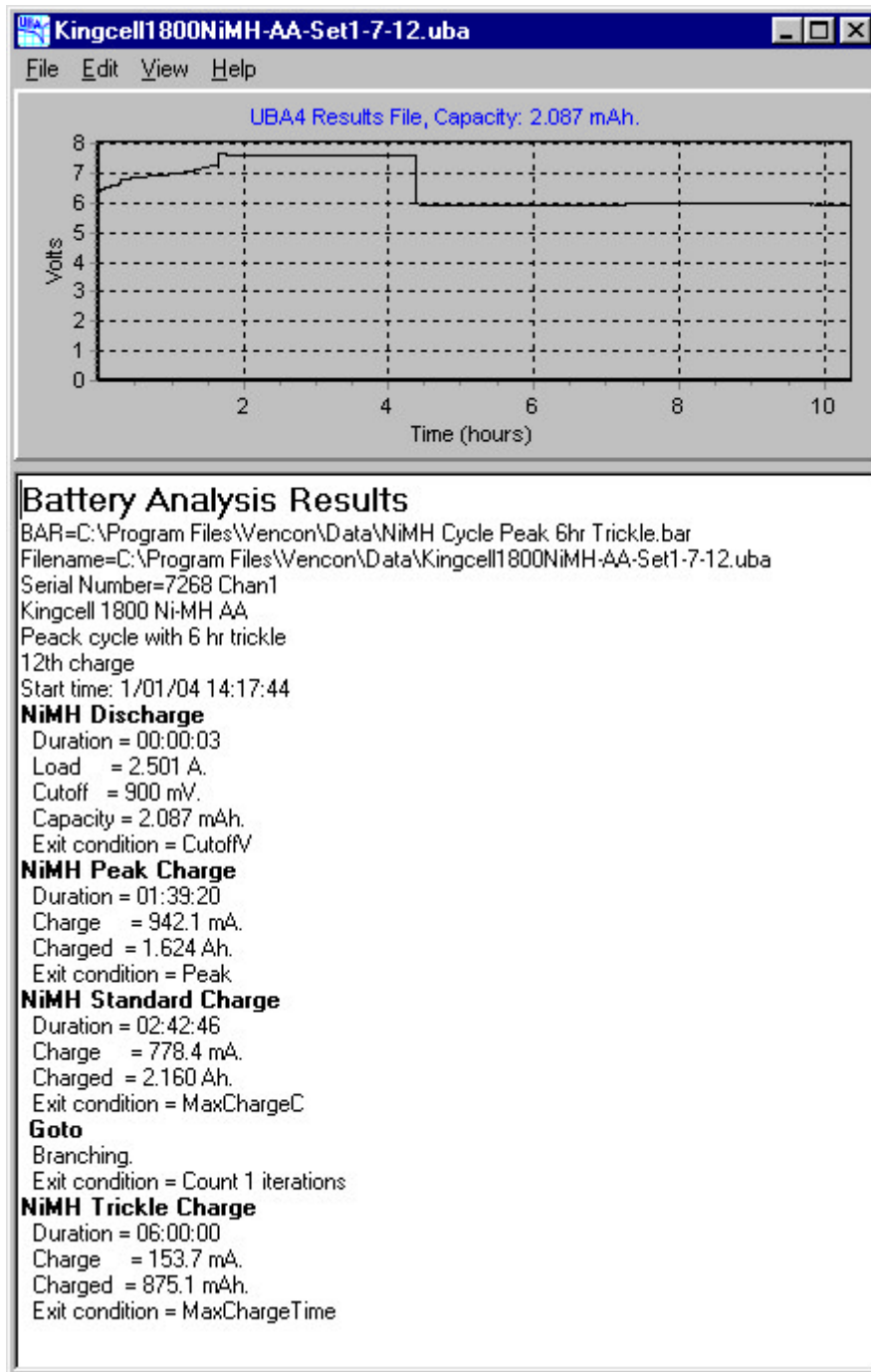
The battery set being tested has been charged at least 5 times. The charge actually used in the test is noted above. The battery set is charged in a Universal Battery Charger (UBA4). It is then tested under a load of 5 ohms, in the scientific dooverlackie. The following pages give various data, including:

1. charging information from the UBA4;
2. a graph of the voltage during the test (cut off voltage being 3.6 volts);
3. a graph of the battery temperature during the test; and
4. a graph of the battery temperature verse ambient air temperature during the test.

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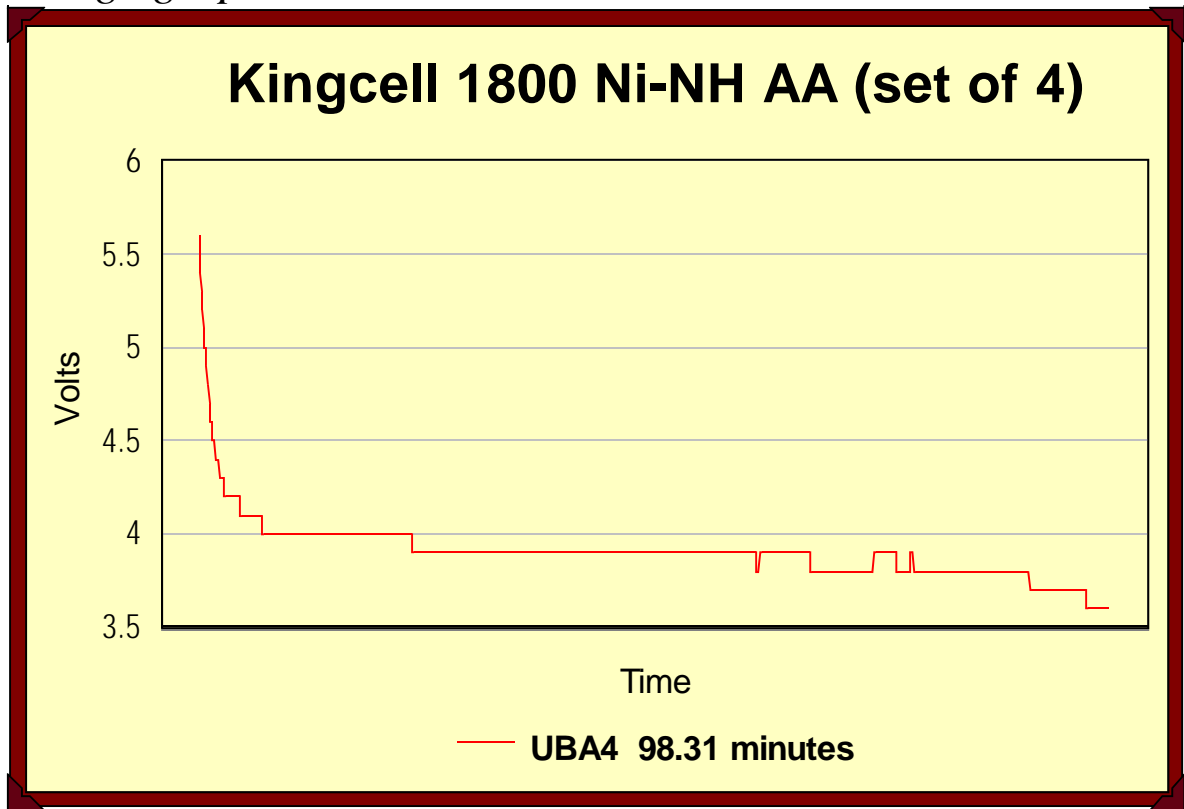
## UBA report

The graph and charging information from the UBA4.

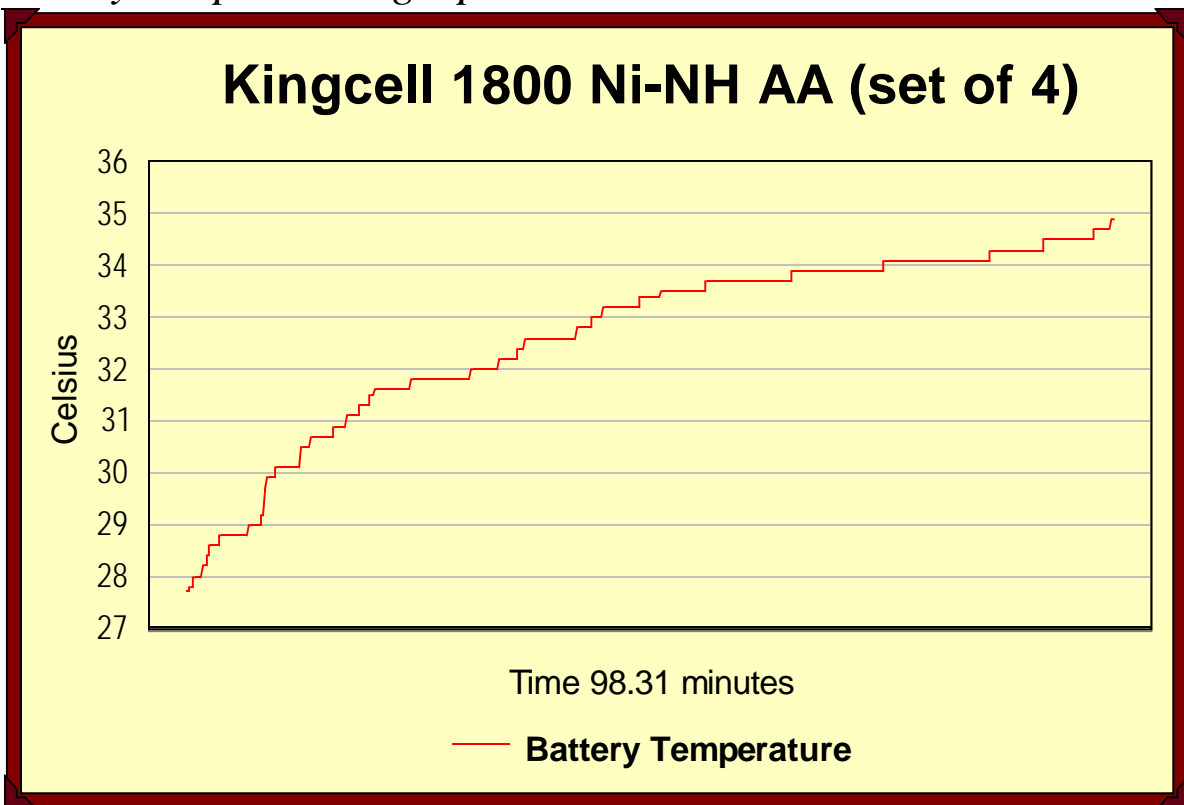


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Voltage graph



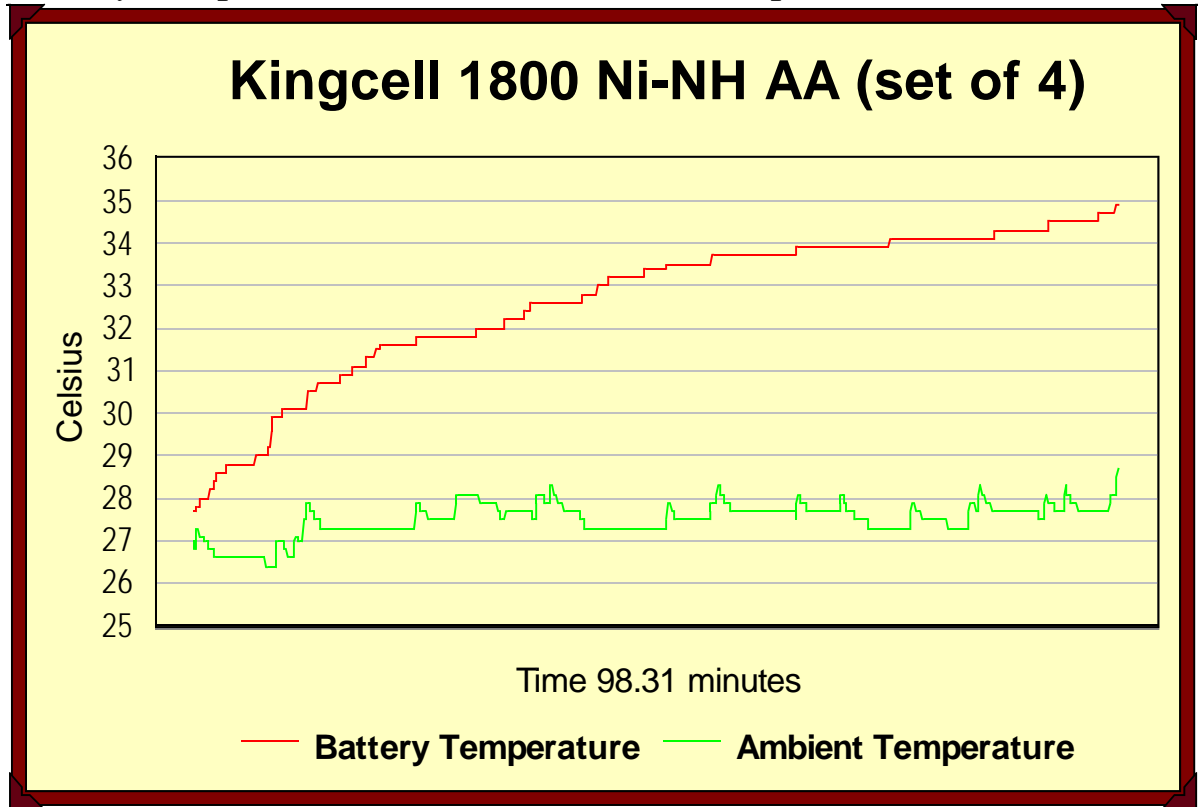
Battery temperature graph



Note the battery temperature rises as the battery discharges more energy.

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*Battery temperature -v- Ambient air temperature*



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## *Conclusion*

One thing is obvious, the rating of 1800 mAH is an exaggeration. 1200 mAh would be a more accurate rating based on these tests. There are better choices out there in terms of price and performance. Look elsewhere.

<b>Run Time (5 ohm)</b>	<b>98.31 minutes</b>
<b>Battery build quality</b>	<b>Very Good</b>
<b>Place of Origin</b>	<b>China</b>
<b>Cost (set of 4)</b>	<b>AUD\$19.00</b>

*Report date: 8 January 2004*

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