

# Canoe Slalom Lactate Threshold Report

ATHLETE NAME

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DATE

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BOAT CLASS

K1 Men

PROTOCOL

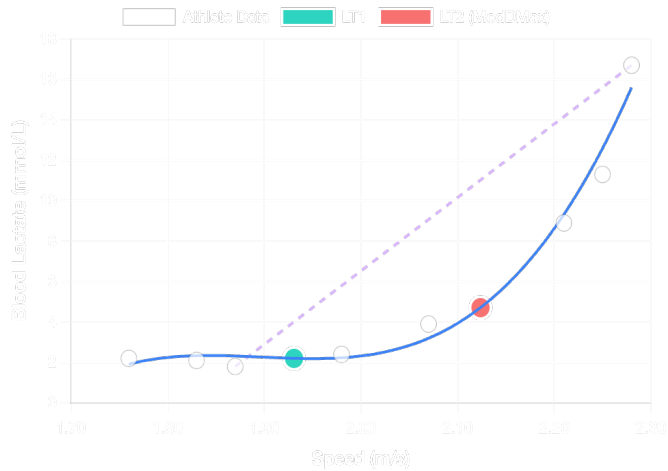
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## Step Test Data

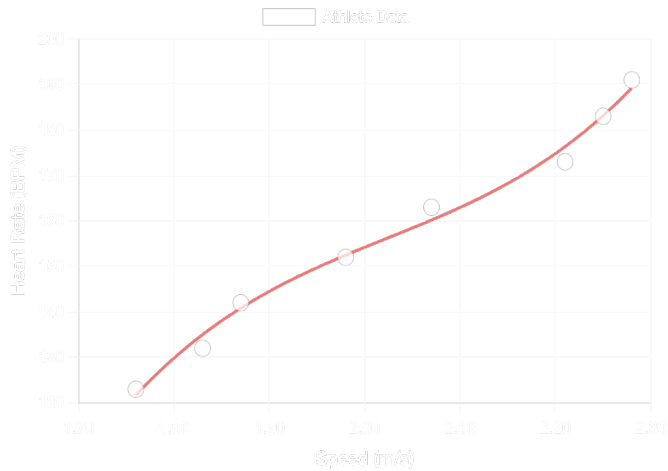
| Step | HR Planned (BPM) | HR Achieved (BPM) | Speed (m/s) | Lactate (mmol) | Stroke Rate (spm) |
|------|------------------|-------------------|-------------|----------------|-------------------|
| 1    | 120              | 123               | 1.76        | 2.2            | 33                |
| 2    | 130              | 132               | 1.83        | 2.1            | 32                |
| 3    | 140              | 142               | 1.87        | 1.8            | 32                |
| 4    | 150              | 152               | 1.98        | 2.4            | 37                |
| 5    | 160              | 163               | 2.07        | 3.9            | 45                |
| 6    | 170              | 173               | 2.21        | 8.9            | 56                |
| 7    | 180              | 183               | 2.25        | 11.3           | 62                |
| 8    | Max              | 191               | 2.28        | 16.7           | 68                |

## Performance Visualizations

Speed vs Lactate

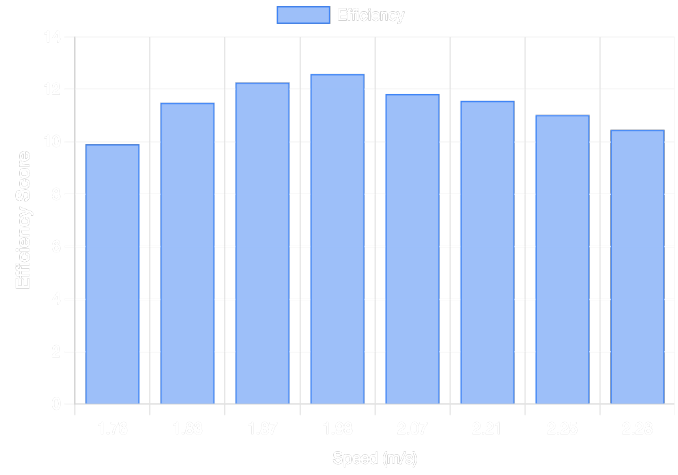
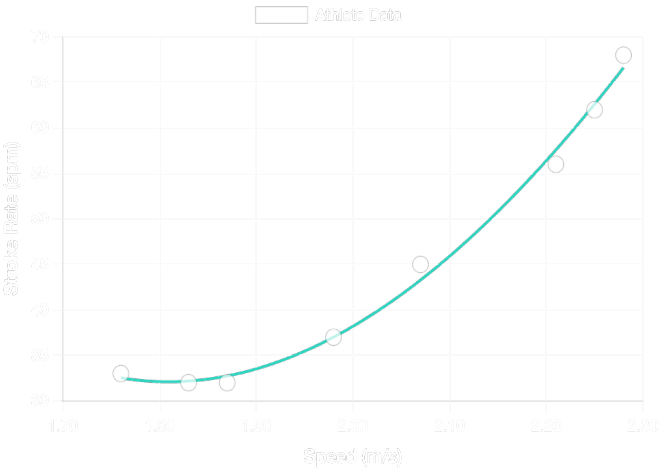


Speed vs Heart Rate



Speed vs Stroke Rate

Step Efficiency



## Thresholds & Training Zones

| Lactate Threshold 1 (LT1) |       |         | Lactate Threshold 2 (LT2) |       |         |
|---------------------------|-------|---------|---------------------------|-------|---------|
| HR                        | Speed | Lactate | HR                        | Speed | Lactate |
| 148                       | 1.93  | 2.20    | 165                       | 2.12  | 4.71    |

| Key Lactate Points     |                        |                        |
|------------------------|------------------------|------------------------|
| 2.0 mmol/L             | 4.0 mmol/L             | 6.0 mmol/L             |
| HR: 123<br>Speed: 1.77 | HR: 163<br>Speed: 2.10 | HR: 169<br>Speed: 2.15 |

## Training Zones

| Domain                          | Zone | Descriptor       | HR (BPM) | Speed (m/s) | % VO2max | RPE            | Duration |
|---------------------------------|------|------------------|----------|-------------|----------|----------------|----------|
| MODERATE                        | T1   | Light Aerobic    | < 134    | < 1.71      | 50-60    | (1-2) [7-11]   | 1-6h     |
|                                 | T2   | Moderate Aerobic | 134-148  | 1.71-1.93   | 60-75    | (2-4) [11-13]  | 1-3h     |
| 1ST METABOLIC THRESHOLD MT1/LT1 |      |                  |          |             |          |                |          |
| HEAVY                           | T3   | Heavy Aerobic    | 148-157  | 1.93-2.03   | 70-85    | (4-5) [13-15]  | 45-90m   |
|                                 | T4   | Threshold        | 157-165  | 2.03-2.12   | 80-90    | (5-7) [15-17]  | 30-60m   |
| 2ND METABOLIC THRESHOLD MT2/LT2 |      |                  |          |             |          |                |          |
|                                 | T5   | Maximal Aerobic  | > 165    | > 2.12      | 90-100   | (7-10) [17-20] | 12-30m   |
|                                 | T6   | Power Tolerance  | N/A      | N/A         | N/A      | (10) [20]      | 4-12m    |
|                                 | T7   | Power Production | N/A      | N/A         | N/A      | (10) [20]      | 2-6m     |
|                                 | T8   | Neuro-muscular   | N/A      | N/A         | N/A      | (10) [20]      | 10s-2m   |

## Step Efficiency Analysis

Calculated as (velocity<sup>3</sup>) / (stroke rate / 60)