

# Third Coast Training

## Cycling VO2 & Lactate Assessment

Name: James Eric Meadows

Date: 12-Aug-10



| ASSESSMENT RESULTS |               |            |         |
|--------------------|---------------|------------|---------|
| Stage              | Power (watts) | Heart Rate | Lactate |
| 1                  | 130           | 118        | 1.46    |
| 2                  | 160           | 133        | 1.72    |
| 3                  | 190           | 151        | 2.53    |
| 4                  | 220           | 165        | 4.39    |
| 5                  | 250           | 173        | 7.03    |
| 6                  |               |            |         |
| 7                  |               |            |         |
| 8                  |               |            |         |
| 9                  |               |            |         |

| SUMMARY                   |       |                      |          |
|---------------------------|-------|----------------------|----------|
| WEIGHT (kg)               | 60.91 | TOTAL TIME (min)     | 14:30:00 |
| HEIGHT (in)               | 66    | RPM                  | 85       |
| HR <sub>peak</sub> (bpm): | 171   | STAGE TIME (min)     | 3        |
| W <sub>L2</sub>           | 175   | LAST STAGE COMPLETED | 5        |
| W <sub>L4</sub>           | 215   | AT (w)               | 185      |
| W <sub>peak</sub>         | 250   | AT (W/kg)            | 3.04     |

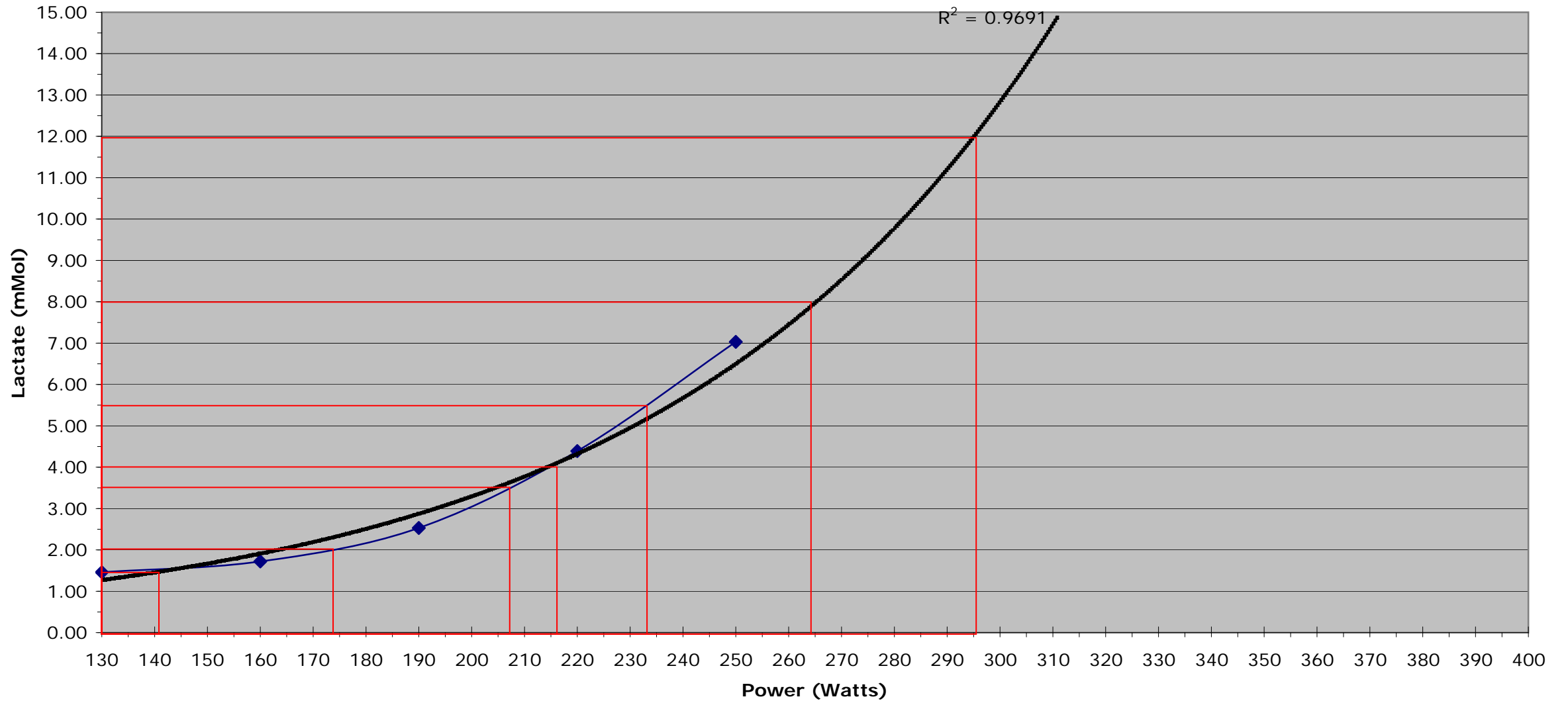
Client reached muscle failure (not able to maintain rpm)

| POWER TRAINING ZONES |         |
|----------------------|---------|
| WATTS                |         |
| Zone 1               | 140-175 |
| Zone 2               | 175-205 |
| Zone 3               | 205-235 |
| Zone 4               | 235-265 |
| Zone 5               | 265-295 |

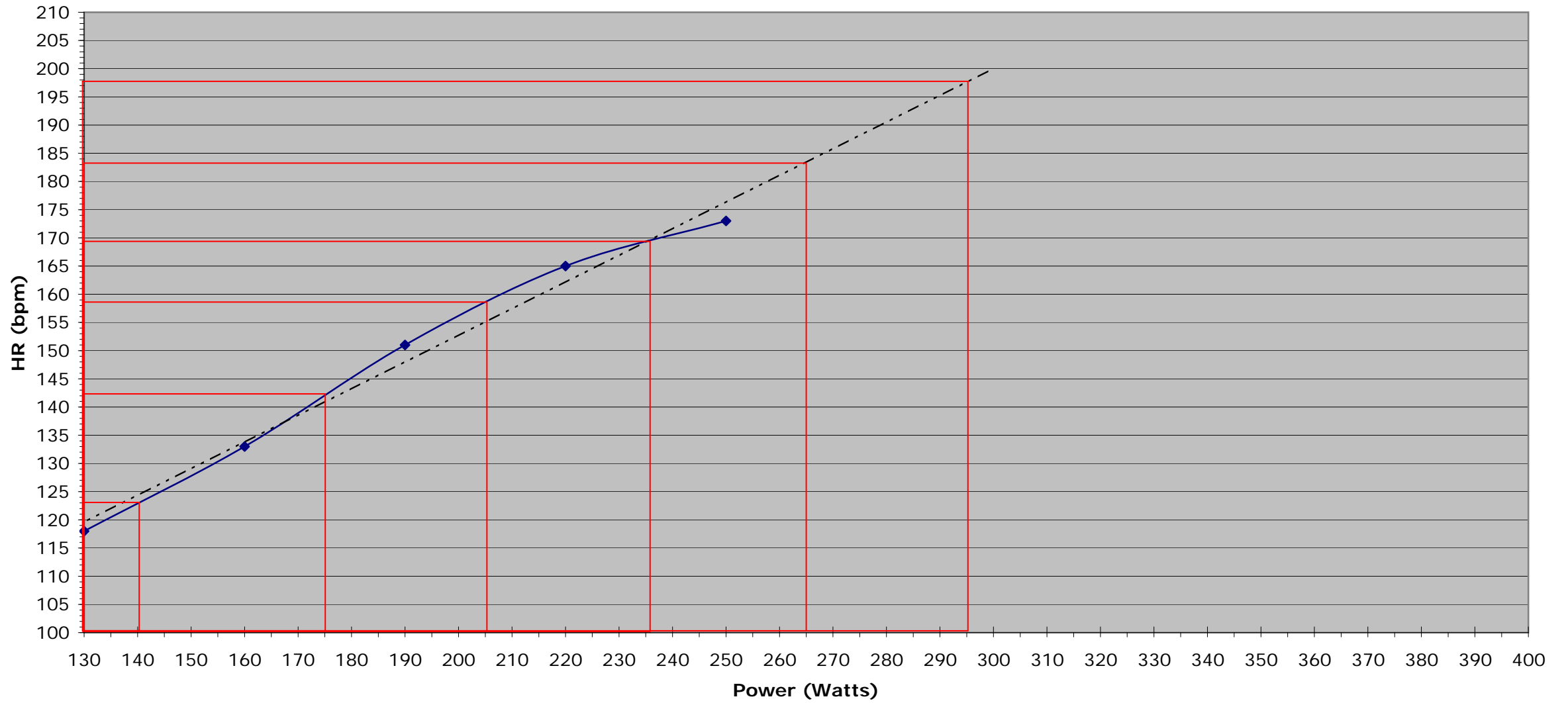
1.0-2.0  
2 - 3.5  
3.5- 5.5  
5.5-8  
8-12'

\* refer to online data for heart rate zones

# Lactate vs Power



# HR vs Lactate



# Third Coast Training

## THRESHOLD VO<sub>2</sub> MAX INFORMATION

Name: James Eric Meadows

Date: 12-Aug-10

### ASSESSMENT RESULTS

| Stage | Speed (mph) | Speed (min/mile) | Heart Rate (bpm) | Lactate (mMol) |
|-------|-------------|------------------|------------------|----------------|
| 1     | 6.5         | 9:14             | 140              | 1.33           |
| 2     | 7.1         | 8:27             | 153              | 1.98           |
| 3     | 7.7         | 7:48             | 164              | 2.23           |
| 4     | 8.3         | 7:14             | 174              | 2.44           |
| 5     | 8.9         | 6:44             | 183              | 5.59           |
| 6     | 9.5         | 6:19             | 187              | 8.23           |
| 7     |             |                  |                  |                |
| 8     |             |                  |                  |                |
| 9     |             |                  |                  |                |
| 10    |             |                  |                  |                |

### SUMMARY

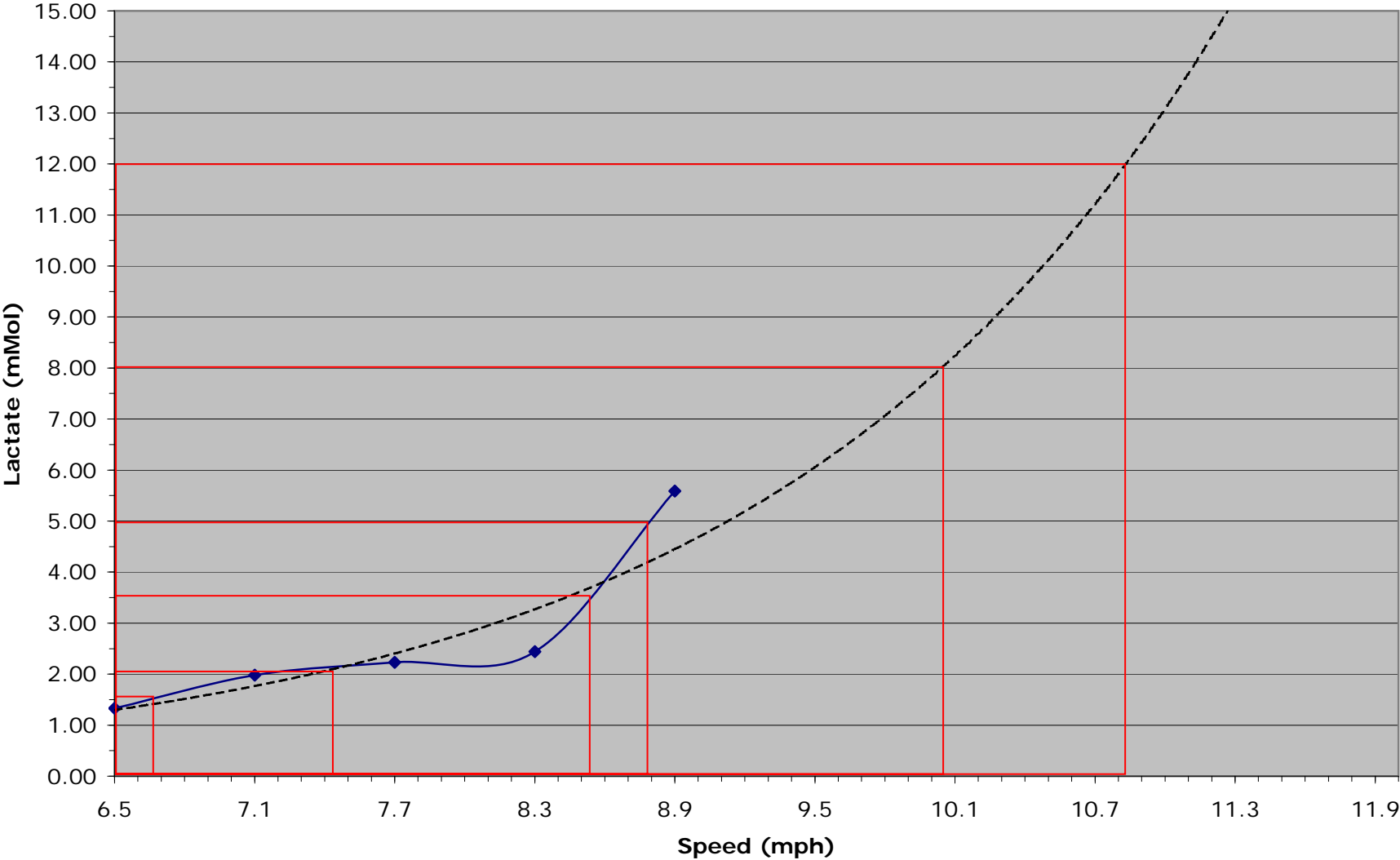
|                       |                |                         |       |                             |       |
|-----------------------|----------------|-------------------------|-------|-----------------------------|-------|
| <b>V<sub>L2</sub></b> | <b>7.4 mph</b> | <b>WEIGHT (kg)</b>      | 60.91 | <b>TOTAL TIME (min)</b>     | 17:00 |
| <b>V<sub>L4</sub></b> | <b>8.7 mph</b> | <b>HEIGHT (in)</b>      | 66    | <b>MAX HR (bpm)</b>         | 187   |
| <b>AT (V)</b>         | <b>9.5 mph</b> | <b>Grade (%)</b>        | 2     | <b>LAST STAGE COMPLETED</b> | 6     |
|                       |                | <b>STAGE TIME (min)</b> | 3:00  |                             |       |

### SPEED TRAINING ZONES

|               | Speed (mph) | Min/mile    | KPH           |
|---------------|-------------|-------------|---------------|
| <b>Zone 1</b> | 6.7 - 7.4   | 8:57 - 8:06 | 10.72 - 11.84 |
| <b>Zone 2</b> | 7.4 - 8.5   | 8:06 - 7:04 | 11.84 - 13.6  |
| <b>Zone 3</b> | 10.5 - 8.8  | 5:43 - 6:49 | 16.8 - 14.08  |
| <b>Zone 4</b> | 10.9 - 10   | 5:30 - 6:00 | 17.44 - 16    |
| <b>Zone 5</b> | 11.6 - 10.8 | 5:10 - 5:33 | 18.56 - 17.28 |

# Lactate vs Speed

$y = 0.0461e^{0.5134x}$   
 $R^2 = 0.858$



# HR vs Speed

$$y = 15.952x + 39.214$$
$$R^2 = 0.9783$$

