Ullevaal stadion Sognsveien 75 J 0840 Oslo NORWAY

E-mail: friidrett@friidrett.no
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COURSE MEASUREMENT REPORT

- REPORT FOR NATIONAL CERTIFIED COURSE -

INFORMATION ABOUT EVENT AND COURSE				
Event: Hornindalsvatnet maraton				
Technical Organis	Technical Organiser: Hornindal IL			
City/Place: Grod	City/Place: Grodås			
Date of Arrangen	Date of Arrangement: 2022-07-23			
Date and time fo	r measurement: 2022-07-22 14:00			
Measured distan	ce(s): 10km, halfmarathon, maratl	non		
Length of calibration course: 304.37m				
Terrain: Flat Slightly hilly Hilly Terrain Ato B Other Type of course route: Closed loop Back and forth Ato B Other Race surface: tarmac Elevation Start - Finish: Om (10km), -2.5m (halfmarathon), -5m (marathon) Description of start: 10km: Hornindals Sports Park, finish-line 1/2M: Hornindal church M: Main road west of Hornindal nursing home Description of finish: Hornindal Sports Park, finish-line (10km, 1/2M and M) Distance, in a straight line, between start & finish: Om (10km), 400m (1/2M), 1500m (M) Start and Finish marked: Yes No Measurement direction: Running direction				
CONTACT INFORMATION				
	Measured by:	Organizer:		
Contact person:	Geir Jensen	Inge Asbjørn Haugen		
Phone:	+47 48 08 22 00	+47 918 40 004		
Email:	Ccie8795@gmail.com	iahaugen@online.no		

It is hereby confirmed that the course has been measured by a national certified course measurer from Norwegian Athletics. The course is measured in accordance with Norwegian athletics regulations, and the distance(s) has the minimum reported length(s). The survey is valid for 5 years, except if the route is changed.



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2022-08-04 Geir Jensen (sign)

5.8.2022

Peer Jensen

Date Signature by Course measurer

Date Signat

CALIBRATION COURSE AND PROCEDURE			
Length of measuring tape (steel measuring tape only)	50m		
Length of calibration course 1st measurement	304.37m		
Length of calibration course 2nd measurement	304.37m		
Possible 3rd measure (max. 1 cm diff per 100m 1 st and 2 nd)			
Average of measurements before adjustments	304.37m		
Temperature (road or measuring tape)	20C		
Adjustment cf. D-(D*(1+(temp-20)*0,0000115)	0		
Measured calibration distance after adjustment	304.37m		
Distance from start/finish to calibration distance	1km from start marathon		

CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300m and 3 count of 400m)						
	Pre-measurement:			Post measurement:		
	Date and Time: 2022-07-22 14:30			Date and Time: 2022-07-22 17:00		
	Start	End	Diff.	Start	End	Diff.
1st measure	568 000	571 522	3 522	775 300	778 821	3 521
2nd measure	571 600	575 122	3 522	779 336	782 858	3 522
3rd measure	575 200	578 724	3 524	783 000	786 521	3 521
4th measure	578 800	582 323	3 523	786 500	790 021	3 521



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	Pre	Post	
	measurement	measurement	
Average (1+2+3+4) / 4	3522,75	3521,21	Today's constant. Either highest or average of before and after measurement
Constant 1 km	11573,907	11568,9785	
Addn. +1‰	11,573907	11,5689785	
Measurement constant (rounded)	11585	11581	
MEASUREMENT PROCEDURE			
Moscuroment constant	11505		

MEASUREMENT PROCEDURE				
Measurement constant	11585			
Measured Distance	Counter	Description of place		
Section A, the 10km loop				
Start	600 000	Start/Finish line at the stadium		
1 km	611 585			
2 km	623 170			
3 km	634 755			
4 km	646 340			
4,896km (turning point)	656 720	Turning point Otredalen, half a meter north of attachment for wire crossing the river. Marked with orange spray-paint		
5 km	657 925			
6 km	669 510			
7 km	681 095			
8 km	692 680			
9 km	704 265			
10 km	715 850	Finish line at the stadium. Actual 715 864		
Section B/C: From Finish/turning point in the stadium to start of M and 1/2M (opposite of running direction)				
Start	715 850			
1 km	727 435			
1,0975km	728 565	Start ½ Marathon – by the church		
2,195 km	741 279	Start Marathon – by the nursing home		



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CONCLUSION OF MEASUREMENT

1. Measurement method

Jones counter mounted on bicycle

2. Measurement procedure

The measurement was carried out in two parts:

- A) Measure the 10km from the Hornindal stadium to Olderdalen and back to Hornindal stadium. This part was measured in the running direction.
- B,C) Measure the distance from the finish line on the stadium to the starting point for M and 1/2M respectively. This part was measured opposite to the running direction.

3. Course adjustment

No adjustments where necessary

Measured length of 10km course: 10 001m (715 864 – 600 000)*1000/11585 = 10 001,21m

Measured length of ½ Marathon course: 21 100m

(2*(715864 - 600000) + (728565 - 715850))*1000/11585 = 21099,92m

Measured length of Marathon course: 42 200m

(4*(715864 - 600000) + (741279 - 715850))*1000/11585 = 42199,84m

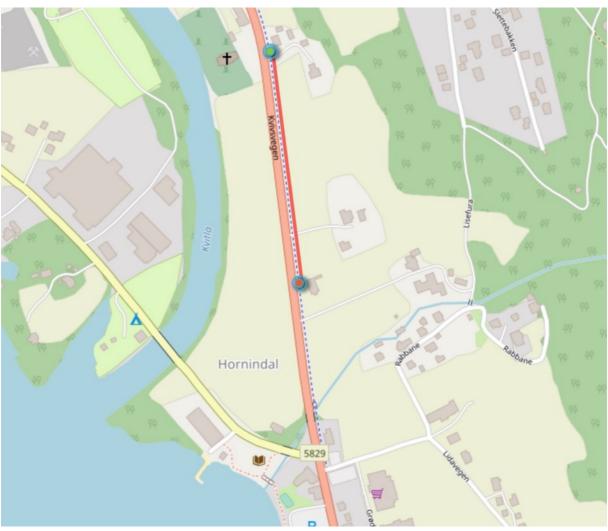


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CALIBRATION COURSE MAP



Calibration course: On the walkway along road E39. Between manholes at house nr 1498 and 1532



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Calibration course: On the walkway along road E39. Between manholes at house nr 1498 and 1532





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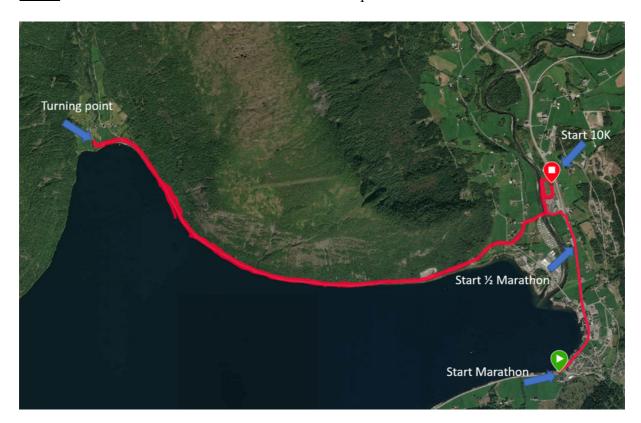


COURSE MAP & DESCRIPTION

Marathon (42195 m) starts on the national road west of Hornindal nursing home and continues along the footpath and cycle path to Hornindal Sports Park. To the finish line, this amounts to 2195 metres. After this, there will be four round trips to Otredalen, which lies on the north side of Hornindalsvatnet. The distance from the sports park to Otredalen and back is 10 km. (2,195km + 4*10km = 42,195km)

<u>Half marathon</u> (21097.5 m) starts at Hornindal church and continues to Hornindal Sports Park. To the finish line, this amounts to 1097.5 metres. After this, there will be two round trips to Otredalen.(1,0975km + 2*10km = 21,0975km)

10 km Starts at the finish line and then once round trip Otredalen.



The course:

A. A 10km back-and-forth from Hornindal Stadium to turning point in Otterdal. This section is run once for 10km, twice for the 1/2Marathon and 4 times for the Marathon.



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- B. A 1097,5m section from the Start at Hornindal church to Hornindal Stadium for the ½ Marathon
- C. A 2195m section from the Start at Hornindal nursing home to Hornindal Stadium for the Marathon.

KM-markers:

The kilometer markers show the <u>remaining distance</u>, i.e. not how far you have run. Since all the distances end with the same 10km loop, the kilometer markers for 10K, 1/2M and M will be in the same place.

The picture below shows 8km left for the 10km-runners, but also 38km, 28km,18km and 8km left for marathon and half-marathon runners depending on number of laps run.





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Start ½ marathon. Marked with orange spray-paint



Start Marathon – marked with orange spray-paint



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Turning point for the 10K



