

## Batch #9 - 4 Apr 2021

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## SMASH Si mcoe v2 - 5.8%

American Pale Ale

Brewer: The Thirsty Otter

Type: All Grain

IBU : 36 (Tinseth)  
 BU/GU : 0.65  
 Colour : 10 EBC  
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.028  
 Original Gravity : 1.055  
 Final Gravity : 1.011

Fermentables (393 g)

389 g - Maris Otter Pale Ale Malt 5.9 EBC (99%)  
 ^ Lot # 694-201130-111430-176081-1/1  
 ^ The Malt Miller (UK) MAL-00-036  
 4 g - Sugar, Table (Sucrose) 2 EBC (1%)  
 ^ Albert Heijn (NL)

Hops (5.1 g)

30 min - 1.5 g - Si mcoe (T90) - 13.3% (25 IBU)  
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...  
 ^ The Malt Miller (UK) HOP-05-004  
 5 min - 1.5 g - Si mcoe (T90) - 13.3% (8 IBU)  
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...  
 ^ The Malt Miller (UK) HOP-05-004

Hop Stand

10 min hopstand @ 80 °C  
 10 min - 2.1 g - Si mcoe (T90) - 13.3% (3 IBU)  
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...  
 ^ The Malt Miller (UK) HOP-05-004

Miscellaneous

Mash - 0.236 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3  
 Mash - 0.851 l - NL Spa Reine Flat Mineral Water  
 ^ Lot # 20210822  
 ^ AH (NL)  
 Sparge - 1.11 l - NL Spa Reine Flat Mineral W...  
 ^ Lot # 20210822  
 ^ AH (NL)  
 30 min - Boil - 0.032 g - Lipohop K  
 ^ The Malt Miller (UK)  
 10 min - Boil - 0.214 g - Irish Moss  
 ^ Lot # 4348  
 ^ Brouwstore (NL)  
 10 min - Boil - 0.011 g - Servomyces  
 ^ Lot # 154001112904ABV  
 ^ Brouwstore (NL)  
 Bottling - 2 items - 33 cl Steinie bottle Fle...

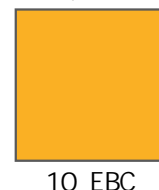
Yeast

1 pkg - Fermentis Harvested slurry from Batch...  
 ^ Lot # 52766 1049 269  
 ^ The Malt Miller (UK) YEA-02-025

02 PET Bottle 1.5L (60min) (rev 4)

Batch Size : 1.2 L  
 Boil Size : 3.68 L  
 Post-Boil Vol : 1.87 L

Mash Water : 1.17 L  
 Sparge Water : 2.88 L  
 Boil Time : 60 min  
 Total Water : 4.05 L



Brewhouse Efficiency: 52.7%  
 Mash Efficiency: 79.1%

Mash Profile

01 One Step Mash (60 min)  
 73.3 °C - Strike Temp  
 67 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning  
 20 °C - 10 days - Primary  
 23 °C - 4 days - Diacetyl rest  
 20 °C - 14 days - Carbonation  
 15 °C - 28 days - Conditioning

Measurements

Mash pH: 5.5

Boil Volume:

Pre-Boil Gravity: 1.041

Post-Boil Kettle Volume: 1.2

Original Gravity: 1.051

Fermenter Top-Up:

Fermenter Volume: 1.2

Final Gravity: 1.002

Bottling Volume: 0.66

## Batch #9 - 4 Apr 2021

www.brewfather.app

## Recipe Notes

Malt is ordered with standard crush @ The Malt Miller (<https://www.themaltmiller.co.uk/>).  
No minerals added (Ca = 5, Mg = 2, Na = 3, Cl = 5, SO4 = 4, HCO3 = 17).

## Batch Notes

04-04-2021 10:25 4 L Spa flat mineral water.  
04-04-2021 10:26 1.1 mL Lactic acid.  
04-04-2021 10:30 pH < 5.2 @ 20 C.  
04-04-2021 10:38 Mash in @ 73.2 C.  
Lump hunting.  
04-04-2021 11:38 start batch sparging.  
04-04-2021 12:45 Batch sparged with 5 L Spa flat mineral water in 3 batches.  
04-04-2021 12:48 SG = 1.031 @ 48 C --> 1.041 @ 20 C.  
04-04-2021 12:50 wort level = 16.5 cm --> 8.25 L pre boil volume.  
04-04-2021 12:53 added 0.38 grams LipoHop K.  
04-04-2021 13:07 started boil.  
04-04-2021 13:37 added 5 grams Simcoe pellet hops in a hop sock.  
04-04-2021 13:57 added 0.15 grams Servomyces yeast nutrient.  
04-04-2021 13:57 added 1 gram Irish Moss.  
04-04-2021 13:57 added wort chiller.  
04-04-2021 14:02 added 5 grams Simcoe pellet hops in a hop sock.  
04-04-2021 14:08 flame out  
04-04-2021 14:42 start hop stand @ 79.8 C.  
04-04-2021 14:42 added 10 grams Simcoe pellet hops in hop sock  
04-04-2021 14:52 end hop stand @ 73.3 C.  
04-04-2021 15:15 wort level = 13 cm --> 6.5 L post boil volume.  
04-04-2021 15:18 SG = 1.050 @ 24.8 C --> 1.051 @ 20 C.  
04-04-2021 15:20 1.2 L wort in a PET bottle with screw cap (1.5 L volume).

## Day 0 in fermentation

04-04-2021 15:50 pitched harvested yeast from Batch #7 (A1) @ 24.8 C.  
04-04-2021 18:33 19.2 C.  
04-04-2021 21:53 19.5 C.

## Day 1 in fermentation

05-04-2021 08:59 19.5 C.  
05-04-2021 11:23 19.8 C.  
05-04-2021 13:15 19.5 C.  
05-04-2021 17:13 19.3 C.  
05-04-2021 23:40 19.7 C.

## Day 2 in fermentation

06-04-2021 08:21 19.7 C.  
06-04-2021 12:42 19.8 C.  
06-04-2021 15:22 19.9 C.  
06-04-2021 20:22 19.5 C.  
06-04-2021 22:50 20.0 C.

## Day 3 in fermentation

07-04-2021 09:29 19.9 C.  
07-04-2021 11:32 19.5 C.  
07-04-2021 16:37 19.5 C.  
07-04-2021 22:58 20.0 C.

## Day 4 in fermentation

08-04-2021 07:51 19.0 C.  
08-04-2021 13:12 20.0 C.  
08-04-2021 17:12 19.9 C.  
08-04-2021 23:14 19.3 C.

## Day 5 in fermentation

09-04-2021 07:00 19.7 C.  
09-04-2021 14:19 19.9 C.  
09-04-2021 22:17 19.8 C.

## Batch #9 - 4 Apr 2021

  
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## Batch Notes

## Day 6 in fermentation

10-04-2021 09:39 19.6 C.  
10-04-2021 15:26 18.9 C.  
10-04-2021 15:26 PET fermenter with experiment shaken, not stirred.  
10-04-2021 22:16 19.4 C.

## Day 7 in fermentation

11-04-2021 09:23 19.5 C.  
11-04-2021 13:42 19.0 C.  
11-04-2021 14:50 19.4 C.  
11-04-2021 17:29 18.9 C.  
11-04-2021 18:40 18.8 C.  
11-04-2021 21:50 19.2 C.

## Day 8 in fermentation

12-04-2021 08:13 19.4 C.  
12-04-2021 13:39 19.0 C.  
12-04-2021 17:40 19.1 C.  
12-04-2021 22:27 19.0 C.

## Day 9 in fermentation

13-04-2021 07:52 19.7 C.  
13-04-2021 12:10 19.8 C.  
13-04-2021 19:00 19.2 C.  
13-04-2021 23:04 19.1 C.

## Day 10 in fermentation

14-04-2021 08:15 19.4 C.  
14-04-2021 08:22 SV = 23.0 C.  
14-04-2021 12:10 21.7 C.  
14-04-2021 20:00 22.3 C.  
14-04-2021 23:21 23.0 C.

## Day 11 in fermentation

15-04-2021 07:27 22.7 C.  
15-04-2021 15:40 22.1 C.  
15-04-2021 23:09 22.0 C.

## Day 12 in fermentation

16-04-2021 07:30 22.0 C.  
16-04-2021 12:38 22.1 C.  
16-04-2021 18:07 22.8 C.

## Day 13 in fermentation

17-04-2021 09:04 22.0 C.  
17-04-2021 12:02 23.0 C.  
17-04-2021 16:18 23.0 C.  
17-04-2021 21:49 22.3 C.

## Day 14 in fermentation

18-04-2021 09:24 22.8 C.  
18-04-2021 14:23 22.4 C.

## Bottling day

18-04-2021 17:15 FG = 1.002 @ 23 C --> ABV = 6.8 %  
18-04-2021 17:18 bottled PET fermenter beer in 2 Flensburg swing tops Steinie bottles, added 2 grams table sugar in each bottle.

## Day 1 in conditioning

19-04-2021 09:30 19.6 C.  
19-04-2021 13:25 19.6 C.  
19-04-2021 18:51 19.2 C.  
19-04-2021 23:05 20.0 C.

## Day 2 in conditioning

20-04-2021 07:52 19.6 C.

## Batch #9 - 4 Apr 2021

  
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## Batch Notes

20-04-2021 12:43 20.0 C.  
20-04-2021 18:47 19.0 C.  
20-04-2021 20:21 20.1 C.

## Day 3 in conditioning

21-04-2021 05:40 20.1 C.  
21-04-2021 12:29 19.9 C.  
21-04-2021 19:33 19.8 C.

## Day 4 in conditioning

22-04-2021 08:35 18.9 C.  
22-04-2021 12:53 20.0 C.  
22-04-2021 17:20 19.0 C.  
22-04-2021 21:02 20.1 C.

## Day 5 in conditioning

23-04-2021 05:59 19.0 C.  
23-04-2021 12:50 19.8 C.  
23-04-2021 18:57 20.0 C.  
23-04-2021 22:42 19.0 C.

## Day 6 in conditioning

24-04-2021 10:16 20.0 C.  
24-04-2021 14:37 19.1 C.  
24-04-2021 20:05 19.4 C.  
24-04-2021 23:45 19.6 C.

## Day 7 in conditioning

25-04-2021 09:03 20.0 C.  
25-04-2021 12:15 19.0 C.  
25-04-2021 19:35 19.0 C.  
25-04-2021 23:41 19.6 C.

## Day 8 in conditioning

26-04-2021 08:14 19.0 C.  
26-04-2021 12:52 20.0 C.  
26-04-2021 18:50 19.6 C.  
26-04-2021 23:42 19.0 C.

## Day 9 in conditioning

27-04-2021 08:51 19.0 C.  
27-04-2021 15:22 19.0 C.  
27-04-2021 21:16 20.0 C.

## Day 10 in conditioning

28-04-2021 08:45 19.2 C.  
28-04-2021 13:46 19.3 C.  
28-04-2021 23:19 19.0 C.

## Day 11 in conditioning

29-04-2021 09:44 20.0 C.  
29-04-2021 17:09 20.0 C.  
29-04-2021 23:57 20.1 C.

## Day 12 in conditioning

30-04-2021 07:47 20.0 C.  
30-04-2021 12:25 19.6 C.  
30-04-2021 21:09 20.0 C.

## Day 13 in conditioning

01-05-2021 11:09 19.9 C.  
01-05-2021 17:53 19.9 C.  
01-05-2021 23:40 19.1 C.

## Day 14 in conditioning

02-05-2021 08:25 19.6 C.

## Batch #9 - 4 Apr 2021

  
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## Batch Notes

02-05-2021 14:35 transferred bottles to the cellar.

02-05-2021 18:12 17.3 C.

02-05-2021 23:15 16.5 C.

Day 15 in conditioning

03-05-2021 09:33 16.4 C.

03-05-2021 20:17 16.0 C.

03-05-2021 23:51 16.9 C.

Day 16 in conditioning

04-05-2021 08:15 16.2 C.

04-05-2021 14:30 16.5 C.

04-05-2021 20:30 16.3 C.

04-05-2021 23:44 16.2 C.

Day 17 in conditioning

05-05-2021 10:08 15.7 C.

05-05-2021 16:27 16.0 C.

05-05-2021 23:58 16.5 C.

Day 18 in conditioning

06-05-2021 08:20 16.4 C.

06-05-2021 16:26 16.4 C.

06-05-2021 23:45 16.9 C.

Day 19 in conditioning

07-05-2021 08:22 16.6 C.

07-05-2021 12:53 16.6 C.

07-05-2021 19:36 16.8 C.

Day 20 in conditioning

08-05-2021 00:08 16.2 C.

08-05-2021 10:44 16.0 C.

08-05-2021 15:47 16.0 C.

08-05-2021 22:29 16.5 C.

Day 21 in conditioning

09-05-2021 09:46 16.2 C.

09-05-2021 16:46 16.9 C.

09-05-2021 23:19 16.7 C.

Day 22 in conditioning

10-05-2021 10:26 16.0 C.

Day 23 in conditioning

11-05-2021 10:11 16.2 C.

11-05-2021 15:00 16.5 C.

11-05-2021 19:21 16.7 C.

11-05-2021 23:56 16.9 C.

Day 24 in conditioning

12-05-2021 09:21 16.7 C.

12-05-2021 13:41 16.7 C.

12-05-2021 18:22 16.8 C.

12-05-2021 22:16 17.0 C.

Day 25 in conditioning

13-05-2021 09:44 17.0 C.

13-05-2021 12:57 17.0 C.

13-05-2021 17:50 17.2 C.

13-05-2021 23:24 17.8 C.

Day 26 in conditioning

14-05-2021 10:26 17.2 C.

14-05-2021 13:31 17.2 C.

14-05-2021 19:21 17.1 C.

## Batch #9 - 4 Apr 2021

  
www.brewfather.app

## Batch Notes

14-05-2021 23:52 17.2 C.

Day 27 in conditioning

15-05-2021 10:07 17.1 C.

15-05-2021 14:38 17.9 C.

15-05-2021 18:41 17.0 C.

15-05-2021 23:09 17.2 C.

Day 28 in conditioning

16-05-2021 11:48 17.8 C.

16-05-2021 19:18 17.9 C.

16-05-2021 23:55 17.1 C.

Day 29 in conditioning

17-05-2021 08:02 17.2 C.

17-05-2021 14:03 17.2 C.

17-05-2021 20:08 17.3 C.

17-05-2021 23:23 17.3 C.

Day 30 in conditioning

18-05-2021 07:40 17.3 C.

18-05-2021 15:30 17.2 C.

18-05-2021 21:43 17.4 C.

Day 31 in conditioning

19-05-2021 09:58 17.5 C.

19-05-2021 12:50 17.5 C.

19-05-2021 20:30 17.8 C.

Day 32 in conditioning

20-05-2021 10:51 17.7 C.

20-05-2021 14:33 17.7 C.

20-05-2021 18:26 17.7 C.

Day 33 in conditioning

21-05-2021 07:42 17.2 C.

21-05-2021 12:40 17.9 C.

21-05-2021 17:56 17.6 C.

21-05-2021 23:49 17.4 C.

Day 34 in conditioning

22-05-2021 11:00 16.9 C.

22-05-2021 14:23 16.9 C.

22-05-2021 23:03 17.0 C.

Day 35 in conditioning

23-05-2021 09:56 16.9 C.

23-05-2021 18:38 16.7 C.

23-05-2021 23:52 17.2 C.

Day 36 in conditioning

24-05-2021 08:52 17.2 C.

24-05-2021 15:35 17.3 C.

24-05-2021 23:43 17.6 C.

Day 37 in conditioning

25-05-2021 10:10 17.3 C.

25-05-2021 13:52 17.4 C.

25-05-2021 23:53 17.2 C.

Day 38 in conditioning

26-05-2021 08:56 17.0 C.

26-05-2021 14:56 17.0 C.

26-05-2021 23:03 16.9 C.

Day 39 in conditioning

## Batch #9 - 4 Apr 2021

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## Batch Notes

27-05-2021 08:36 16.9 C.  
 27-05-2021 12:44 16.8 C.  
 27-05-2021 21:29 17.2 C.

Day 40 in conditioning  
 28-05-2021 08:52 17.2 C.  
 28-05-2021 18:30 17.6 C.  
 28-05-2021 22:09 17.8 C.

Day 41 in conditioning  
 29-05-2021 09:41 17.1 C.  
 29-05-2021 15:45 17.4 C.  
 29-05-2021 22:02 17.8 C.

Day 42 in conditioning  
 30-05-2021 09:24 17.0 C.  
 30-05-2021 16:32 17.0 C.  
 30-05-2021 22:47 17.2 C.

Day 43 in conditioning  
 31-05-2021 08:39 17.7 C.  
 31-05-2021 16:13 17.9 C.  
 31-05-2021 23:20 17.5 C.

Day 44 in conditioning  
 01-06-2021 07:50 17.1 C.  
 01-06-2021 17:57 17.5 C.  
 01-06-2021 23:09 17.0 C.

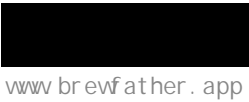
## Extra Measured Values

Strike Temperature	73.2
Strike Water pH	5.2
Sparge Water pH	6
Sparge Water Temperature	70
Pitch Temperature	24.8

## Batch Log

4 April 2021	Brew Date
4 April 2021	Fermentation Start
4 April 2021 10:38	Status: Brewing
4 April 2021 15:50	Pitched US-05 yeast slurry from Batch #7 (A1) @ 24.8 C, SV = 20.0 C
10 April 2021 15:26	Fermenter shaken, not stirred
14 April 2021 08:22	SV = 23.0 C
18 April 2021	Bottling Date
18 April 2021 17:18	Filled 2 Steinie bottles (33 cl)
18 April 2021 17:20	Status: Conditioning
1 June 2021 23:15	Status: Completed
31 July 2021 21:12	Status: Archived

# Batch #9 - 4 Apr 2021



Taste

2.7 / 5.0