

2023 Headwaters Rally

May 20, 2023



Main Route Book

Competitor Edition



AMERICAN RALLY®
ASSOCIATION

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2023 Headwaters Rally

May 20, 2023

Competition Schedule

20 cars

Sunset: 20:53

Twilight Ends: 21:30

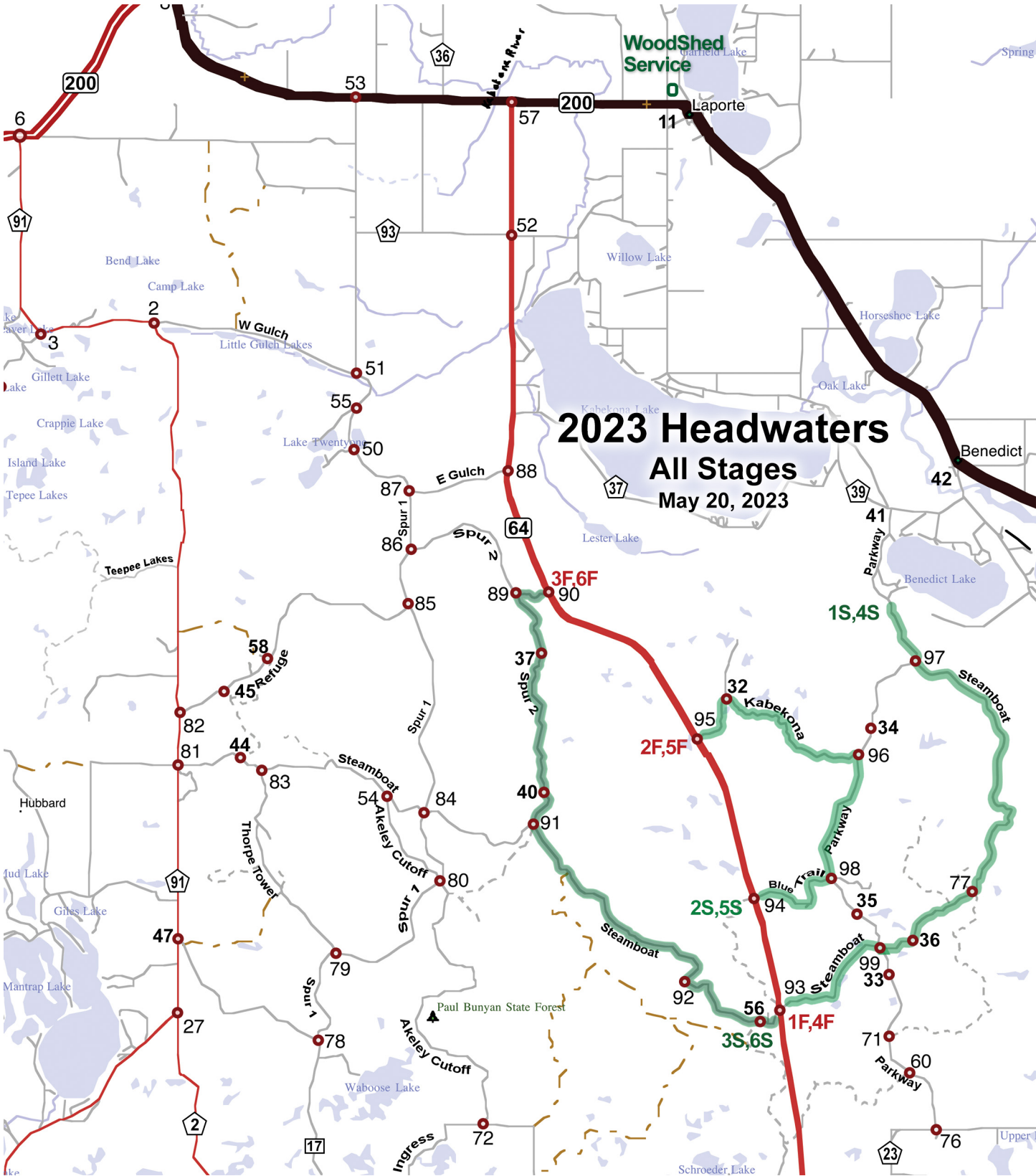
	1st Car In	Svc Len	1st Car Out	Transit Miles	Transit Time	Avg Spd	Stage Miles	Lateness	1st Car Done	Last Car Done	MPL Over
MTC 1			14:00								
Transit to SS #1				7.78	15	31					
SS #1/4 Parkway	14:15		14:18				7.09	12	14:30	14:50	15:20
Transit to SS #2/5				1.40	10	8					
SS #2/5 Blue Trail	14:40		14:43				5.02	8	14:51	15:11	15:41
Transit to SS #3/6				3.42	13	15					
SS #3/6 Spur 2 Cutoff	15:04		15:07				7.58	12	15:19	15:39	16:09
Transit to Service/End of race				7.45	17	26					
				20.05	transit		19.69	stage			39.74 total miles
WoodShed Service	15:36	45	16:31								
Transit to SS #4				7.78	15	31					
SS #4 Parkway 2	16:46		16:49				7.09	12	17:01	17:21	17:51
Transit to SS #5				1.40	10	8					
SS #5 Blue Trail 2	17:11		17:14				5.02	8	17:22	17:42	18:12
Transit to SS #6				3.42	13	15					
SS #6 Spur 2 Cutoff Revisited	17:35		17:38				7.58	12	17:50	18:10	18:40
Transit to WoodShed				7.45	17	26					
				20.05	transit		19.69	stage			39.74 total miles
MTC 2 End of Race	18:07										
Day totals:				40.10	transit		39.38	stage			79.48 total miles

* indicates reseed

Comments

2023 Headwaters Rally

Main Route Book, Competitor Edition Area Map: All Stages


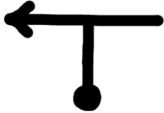
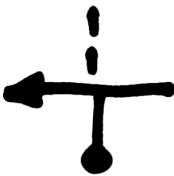
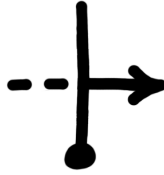


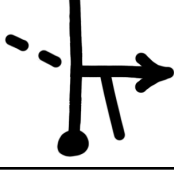



2023 Headwaters Rally

Transit to SS #1

Distance: 7.78 miles

Transit Time: 15 minutes

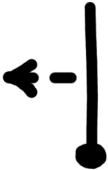


INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
1	0.00	0.00		MTC 1 Out	7.78
		30		N 47 12.965 Time W 94 45.443	
2	0.02	0.02		Speed limit 30	7.75
		30		N 47 12.940 W 94 45.443	
3	0.25	0.22		MN 200	7.52
		30			
4	0.31	0.06		MN 200	7.46
		30			
5	0.54	0.23		Speed limit 60	7.23
		60			
6	4.78	4.23		County 31	2.99
		60			
7	5.36	0.58		County 38	2.41
		60		N 47 09.424 W 94 41.345	42
8	5.74	0.37		County 39	2.04
		60		N 47 09.120 W 94 41.337	
		0.88			

2023 Headwaters Rally

Transit to SS #1

Distance: 7.78 miles

Transit Time: 15 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
9	6.62	60 0.88		41 Parkway Begin quiet zone Speed limit 30 N 47 09.000 W 94 42.380	1.15
10	7.30	30 0.68		Ladyslipper Dr	0.47
11	7.78	30 0.47		ATC 1 End quiet zone N 47 08.130 Time W 94 42.405	0.00
		30 0.00			

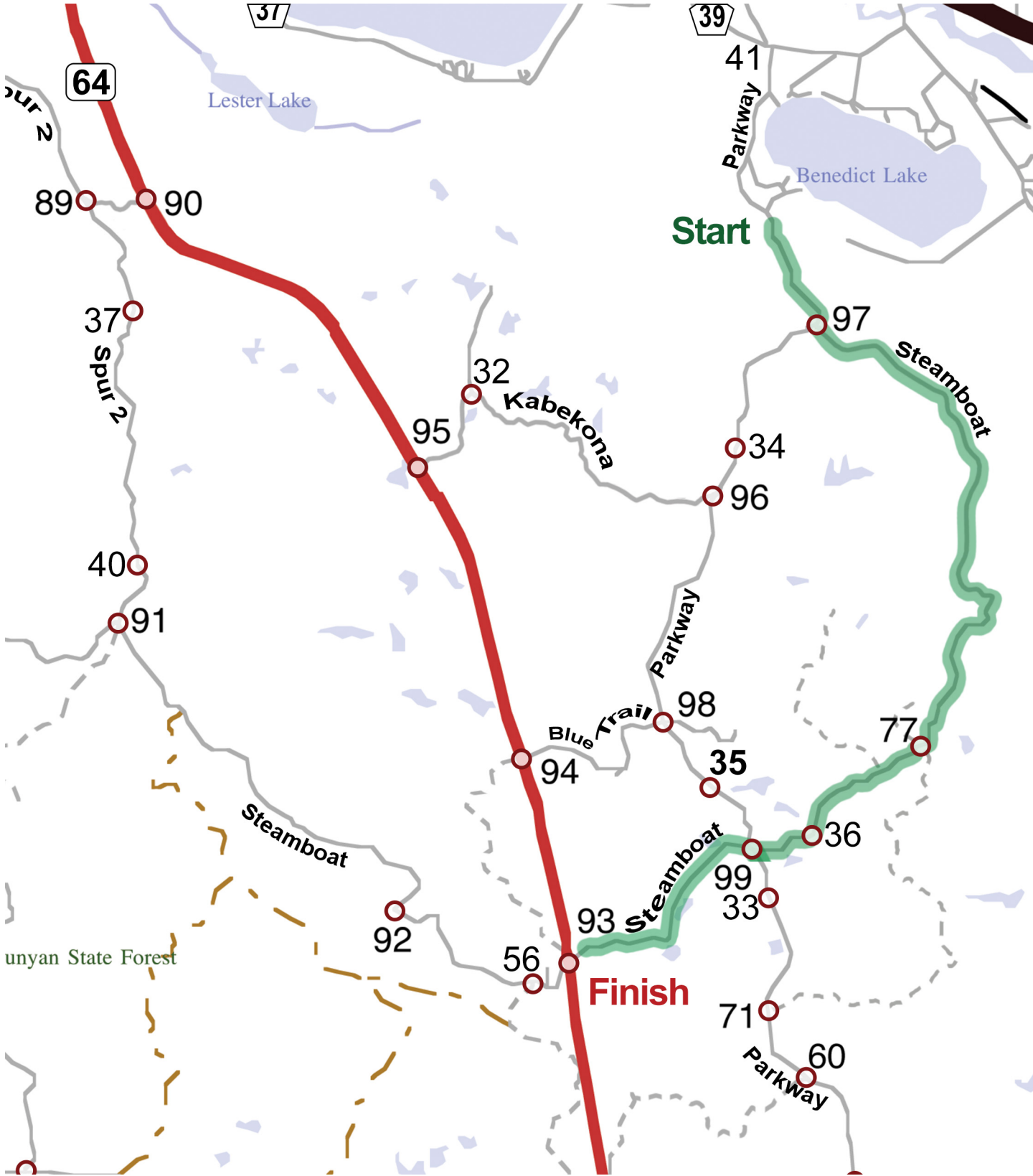
2023 Headwaters Rally

SS #1/4 Parkway

Distance: 7.09 miles

Lateness Time: 12 minutes

FCO: 14:18










2023 Headwaters Rally

SS #1/4 Parkway

Distance: 7.09 miles

Lateness Time: 12 minutes









INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
		0.00		ATC 1/4	
1	0.00	0.12		Start 1/4 <i>Time</i> _____	7.09
2	0.28	0.28		Mileage at crest	6.80
3	0.61	0.33			6.47
4	0.72	0.11		97	6.36
5	1.65	0.93		Mileage at crest	5.43
5 D	2.11	0.45			4.97
6	3.25	1.13		Double apex	3.84
		0.82			

2023 Headwaters Rally

SS #1/4 Parkway

Distance: 7.09 miles

Lateness Time: 12 minutes




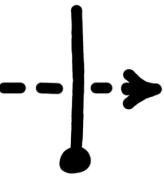

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
7	4.08	0.82		Mileage at sideroad	3.01
8	4.19	0.10		Rock at apex	2.90
9	5.77	1.58		Possible yump Spectators 	1.31
10	6.23	0.45			0.86
11	6.63	0.40		Dropoff at exit	0.46
12	7.09	0.46		Finish 1/4	0.00
13	7.26	0.16		FTC 1/4	
		0.00			

2023 Headwaters Rally

Transit to SS #2/5

Distance: 1.40 miles

Transit Time: 10 minutes

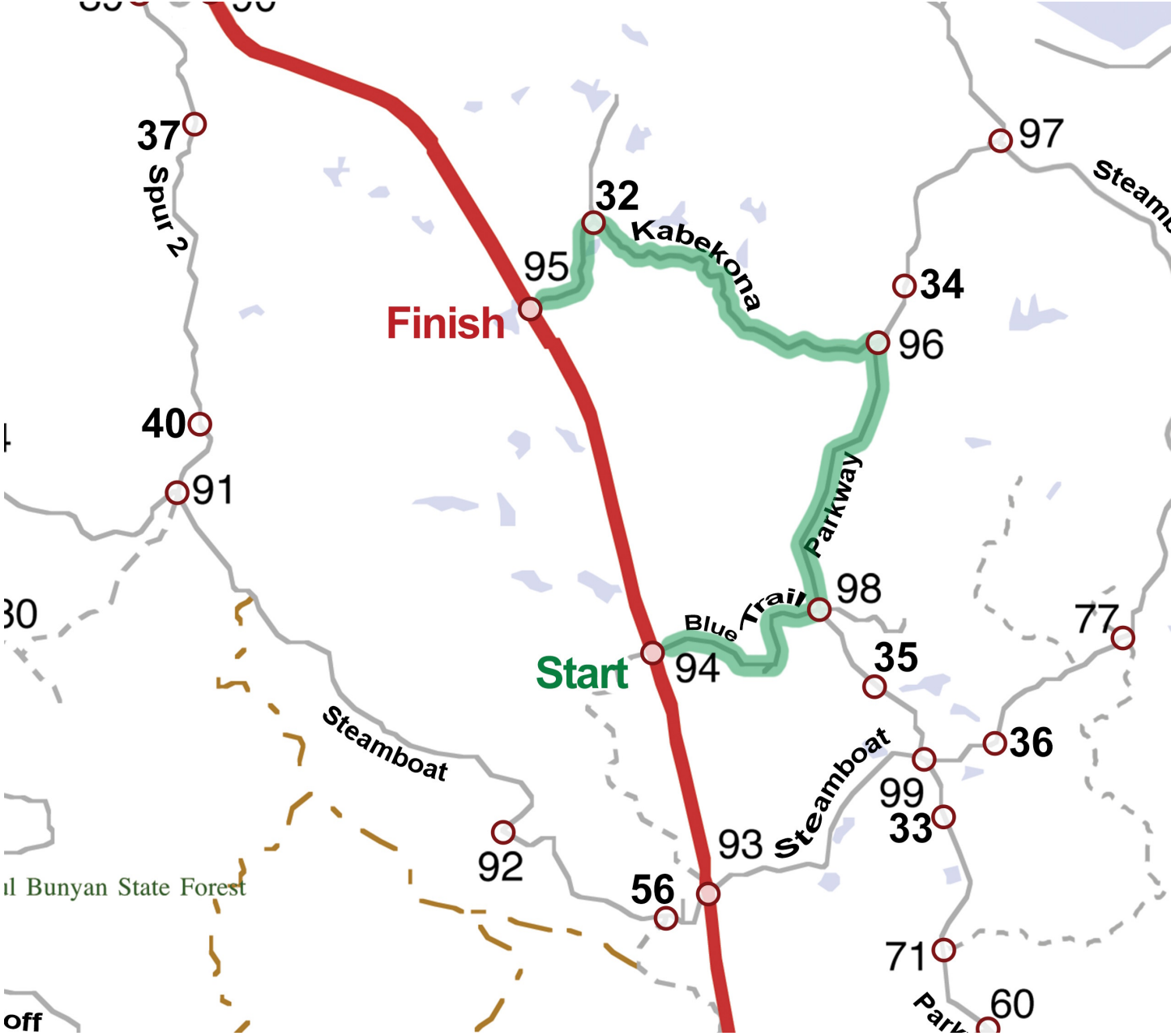
INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
14	7.26	0.00		FTC 1/4	1.40
		30		N 47 04.184 W 94 43.891	
15	7.27	0.01		UTV Drop off	1.39
		30			
16	7.30	0.03		MN 64 Speed limit 60	1.36
		60		N 47 04.135 W 94 43.959	93
17	8.57	1.27		Blue Trail	0.09
		45		N 47 05.208 W 94 44.321	94
18	8.66	0.09		ATC 2/5	0.00
		45		N 47 05.242 Time W 94 44.219	
		0.00			

2023 Headwaters Rally

SS #2/5 Blue Trail
Distance: 5.02 miles

Lateness Time: 8 minutes

FCO: 14:43









2023 Headwaters Rally

SS #2/5 Blue Trail

Distance: 5.02 miles

Lateness Time: 8 minutes









INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
		0.00		ATC 2/5	
1	0.00	0.05		Start 2/5 <i>Time</i> _____	5.02
2	0.06	0.06		Rock at apex	4.96
3	0.53	0.47		Rock at exit	4.49
4	1.05	0.51			98 3.97
5	2.59	1.54		Short way around	96 2.42
		0.32			

2023 Headwaters Rally

SS #2/5 Blue Trail

Distance: 5.02 miles


Lateness Time: 8 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
6	2.92	0.32		Mileage at crest Dropoff at exit	2.10
7	2.97	0.04			2.05
8	3.36	0.39		Mileage at crest	1.66
9	3.49	0.13		Downhill Tree at exit	1.53
10	3.83	0.33			1.19
11	4.08	0.25			0.93
12	4.54	0.46		32	0.47
13	5.02	0.47		Finish 2/5	0.00
		0.12		Time _____	

2023 Headwaters Rally

SS #2/5 Blue Trail
Distance: 5.02 miles

Lateness Time: 8 minutes


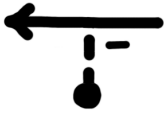
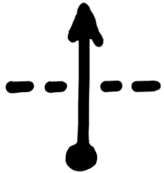


INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
14	5.14	0.12		FTC 2/5	
		0.00			

2023 Headwaters Rally

Transit to SS #3/6

Distance: 3.42 miles

Transit Time: 13 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
15	5.14	0.00		FTC 2/5	3.42
		55		N 47 06.806 W 94 45.059	
16	5.23	0.09		MN 64 Speed limit 60	3.33
		60		N 47 06.762 W 94 45.120	
17	7.15	1.91		Blue Trail	1.41
		60		N 47 05.208 W 94 44.321	
18	8.43	1.27		Steamboat	0.14
		60		N 47 04.126 W 94 43.965	
19	8.57	0.14		ATC 3/6	0.00
		60		N 47 04.030 Time W 94 44.042	
		0.00			

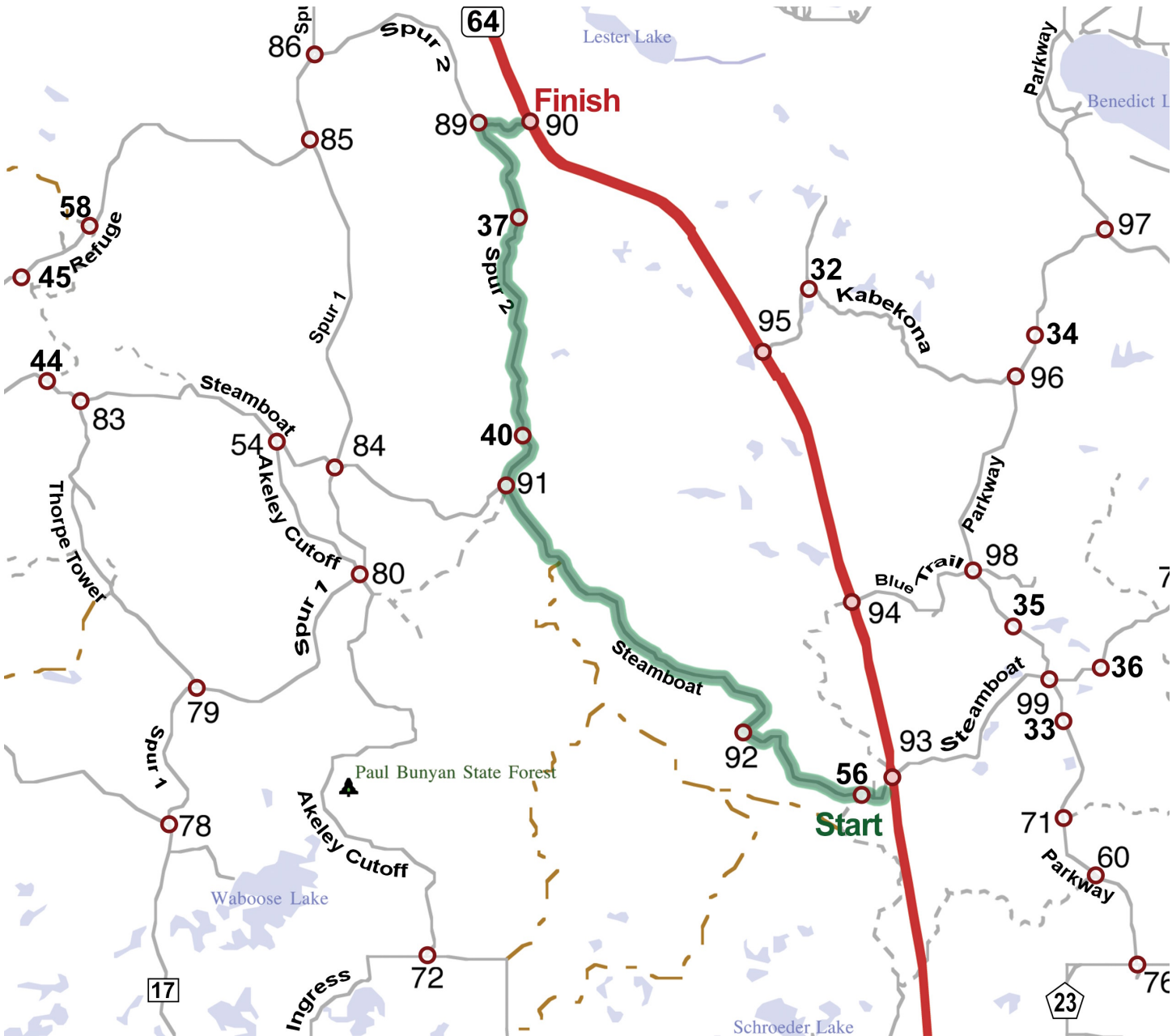
2023 Headwaters Rally

SS #3/6 Spur 2 Cutoff

Distance: 7.58 miles

Lateness Time: 12 minutes

FCO: 15:07



2023 Headwaters Rally

SS #3/6 Spur 2 Cutoff

Distance: 7.58 miles

Lateness Time: 12 minutes










INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
		0.00		ATC 3/6	
1	0.00	0.06		Start 3/6 <i>Time</i> _____	7.58
2	0.15	0.15		Mileage at sideroad	7.42
3	0.99	0.83		Tightens Don't cut!	6.59
4	1.14	0.15		Dropoff outside! Tree at exit	6.43
5	1.26	0.12		Mileage at sideroad	6.31
6	2.04	0.77			5.54
7	2.37	0.33		Mileage at crest	5.20
		0.57			

2023 Headwaters Rally

SS #3/6 Spur 2 Cutoff

Distance: 7.58 miles










Lateness Time: 12 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
8	2.94	0.57		Steep downhill Rough!	4.63
9	3.13	0.19		Mileage at crest	4.44
10	4.02	0.89			3.55
11	4.14	0.11		Dropoff at exit	3.44
12	4.24	0.10		Mileage at intersection 	3.33
13	4.53	0.29		Downhill Mileage at crest Tightens	3.04
14	4.69	0.15		Mileage at sideroad ⁴⁰	2.89
15	5.48	0.79			2.10
		0.28			

2023 Headwaters Rally

SS #3/6 Spur 2 Cutoff
Distance: 7.58 miles


Lateness Time: 12 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
16	5.76	0.28			1.81
17	5.91	0.14			1.66
18	6.22	0.31		Double apex tightens into left	1.35
19	6.43	0.20		37	1.15
20	6.71	0.28			0.87
21	7.28	0.57		89 	0.29
22	7.45	0.17		Exposed rock at apex	0.12
23	7.58	0.12		Finish 3/6	0.00
		0.06		Time _____	

2023 Headwaters Rally

SS #3/6 Spur 2 Cutoff
Distance: 7.58 miles

Lateness Time: 12 minutes


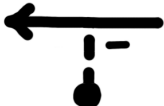

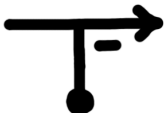
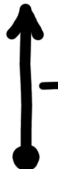


INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
24	7.65	0.06		FTC 3/6	
		0.00			

2023 Headwaters Rally

Transit to Service/End of race

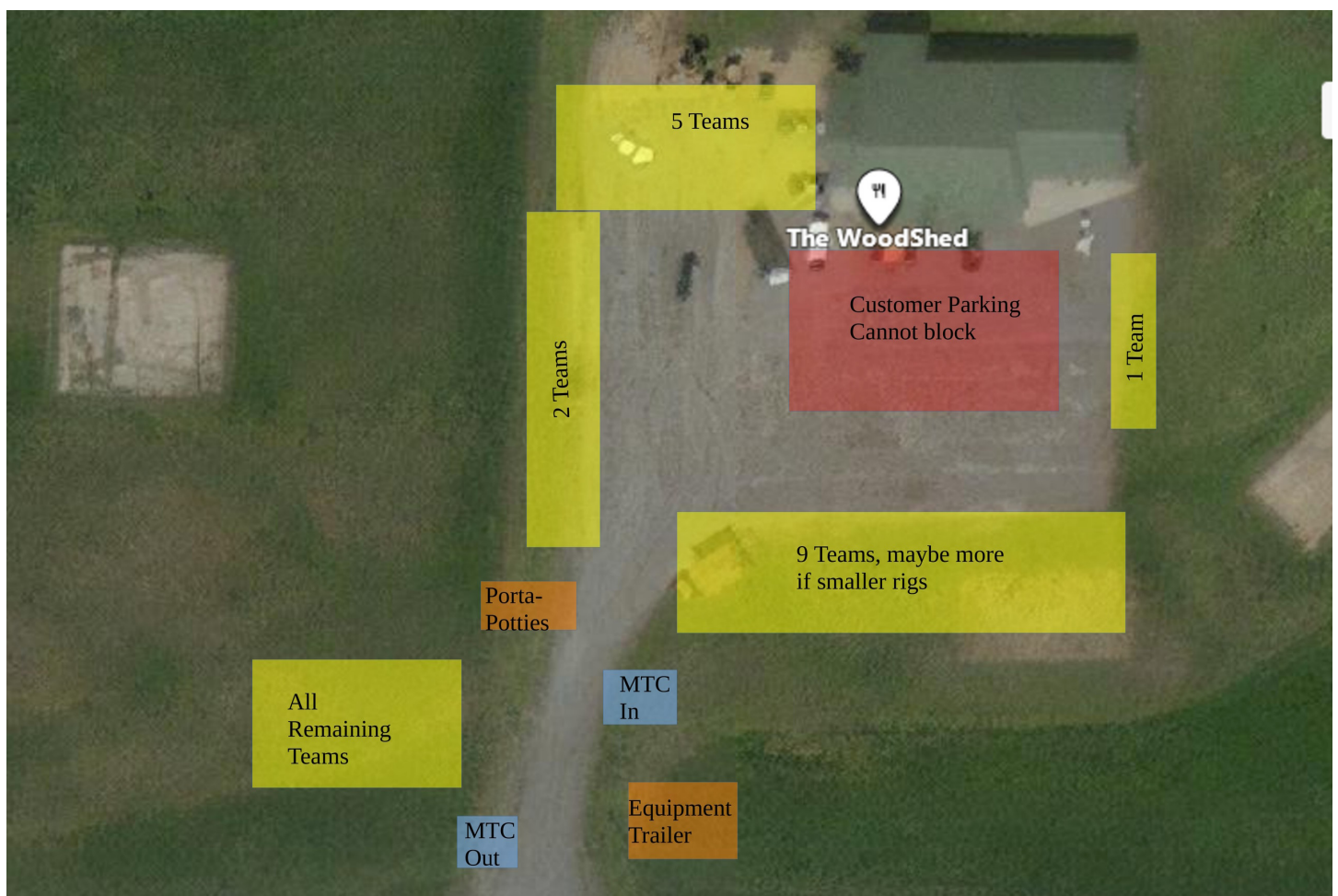
Distance: 7.45 miles

Transit Time: 17 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
25	7.65	0.00		FTC 3/6	7.45
		60		N 47 08.190 W 94 47.352	
26	7.69	0.04		MN 64 Speed limit 60	7.40
		60		N 47 08.203 W 94 47.293	
27	9.12	1.42		East Gulch	5.98
		60		N 47 09.376 W 94 47.860	
28	13.23	4.10		MN 200	1.87
		60		N 47 12.941 W 94 47.797	
29	14.97	1.74		Speed limit 30	0.13
		30			
30	15.06	0.09		Entrance to WoodShed Service	0.03
		30		N 47 12.940 W 94 45.445	
31	15.10	0.03		Service In first time MTC 2 second time	0.00
		30		N 47 12.962 Time W 94 45.435	
		0.00			

2023 Headwaters Rally

WoodShed Service
Distance: 0.00 miles



2023 Headwaters Rally

WoodShed Service
Distance: 0.00 miles


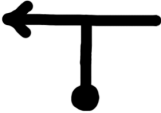
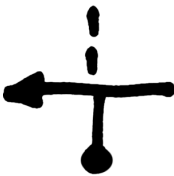
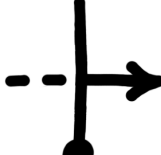
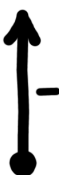



INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
32	15.10	0.00		Begin 45 minute service	
		0.00			

2023 Headwaters Rally

Transit to SS #4

Distance: 7.78 miles

Transit Time: 15 minutes

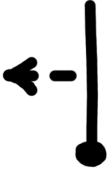


INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
1	0.00	0.00		Service Out Begin transit to SS #4	7.78
		30		N 47 12.965 W 94 45.443	
2	0.02	0.02		Speed limit 30	7.75
		30		N 47 12.940 W 94 45.443	
3	0.25	0.22		MN 200	7.52
		30			
4	0.31	0.06		MN 200	7.46
		30			
5	0.54	0.23		Speed limit 60	7.23
		60			
6	4.78	4.23		County 31	2.99
		60			
7	5.36	0.58		County 38	2.41
		60		N 47 09.424 W 94 41.345	42
8	5.74	0.37		County 39	2.04
		60		N 47 09.120 W 94 41.337	
		0.88			

2023 Headwaters Rally

Transit to SS #4

Distance: 7.78 miles

Transit Time: 15 minutes

INST	MILEAGE	INTERVAL	TULIP	COMMENT	DECR
9	6.62	60 0.88		41 Parkway Begin quiet zone Speed limit 30 N 47 09.000 W 94 42.380	1.15
10	7.30	30 0.68		Ladyslipper Dr	0.47
11	7.78	30 0.47		ATC 4 End quiet zone Route continues on Page 5 N 47 08.130 Time W 94 42.405	0.00
		30 0.00			

Car Number								
Driver								
Brought Forward								
Stage 1								
Stage 2								
Stage 3								
Stage 4								
Stage 5								
Stage 6								
Stage 7								
Stage 8								
Stage 9								
Stage 10								
Stage 11								
Stage 12								
Stage 13								
Stage 14								
Stage 15								
Stage 16								
Total								

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