

Table 9. Rate of release of N₂O measurements made in June 2009.

[BHM, Bass Harbor Marsh Watershed; GW#, measurement site; mM, millimolar; Temp., temperature; °C, temperature degrees Celsius; NO₃, nitrate; nmoles, nanomoles; m, meters; hr, hours; sq, square; T₀, date and time chamber sealed; T₁, beginning of period of associated flux calculation; T₂ ending of period of flux calculation; N₂O, nitrous oxide]

Location	Sequence No. ¹	Chamber Sealed (T ₀)	Start Time (T ₁)	End Time (T ₂)	Treatment	Number of replicate measurements ²	Soil Temp. (°C)	Net N ₂ O release ³ (nmoles/sq m/hr)
BHM GW1	1	6/15/09 12:15	6/15/09 15:35	6/15/09 19:45	Ambient	3	16.5	-117
BHM GW1	2	6/15/09 12:15	6/15/09 19:45	6/16/09 7:37	Ambient	3	16.5	-0.247
BHM GW2	1	6/15/09 12:20	6/15/09 15:39	6/15/09 19:49	Ambient	3	16.5	-133
BHM GW2	2	6/15/09 12:20	6/15/09 19:49	6/16/09 7:40	Ambient	3	16.5	-30.1
BHM GW3	1	6/15/09 12:40	6/15/09 15:47	6/15/09 19:53	Ambient	3	16.5	-268
BHM GW3	2	6/15/09 12:40	6/15/09 19:53	6/16/09 7:45	Ambient	3	16.5	-119
BHM GW4	1	6/15/09 12:50	6/15/09 15:51	6/15/09 19:59	Ambient	3	16.5	82.7
BHM GW4	2	6/15/09 12:50	6/15/09 19:59	6/16/09 7:48	Ambient	3	16.5	-41.8
BHM GW5	1	6/15/09 13:28	6/15/09 15:16	6/15/09 20:11	Ambient	3	16.5	256
BHM GW5	2	6/15/09 13:28	6/15/09 20:11	6/16/09 8:36	Ambient	3	16.5	-306
BHM GW6	1	6/15/09 13:13	6/15/09 16:02	6/15/09 20:15	Ambient	3	16.5	156
BHM GW6	2	6/15/09 13:13	6/15/09 20:15	6/16/09 8:17	Ambient	3	16.5	-425
BHM GW3	1	6/16/09 9:22	6/16/09 13:55	6/16/09 16:09	5 mM NO ₃	2	17.4	48900
BHM GW3	2	6/16/09 9:22	6/16/09 16:09	6/16/09 19:45	5 mM NO ₃	2	17.4	14200
BHM GW3	3	6/16/09 9:22	6/16/09 19:45	6/17/09 7:55	5 mM NO ₃	2	17.4	6450
BHM GW3	1	6/16/09 9:22	6/16/09 13:56	6/16/09 16:10	5 mM NO ₃ + 75 mM Glucose	1	17.4	35600
BHM GW3	2	6/16/09 9:22	6/16/09 16:10	6/16/09 19:46	5 mM NO ₃ + 75 mM Glucose	1	17.4	4110
BHM GW3	3	6/16/09 9:22	6/16/09 19:46	6/17/09 7:56	5 mM NO ₃ + 75 mM Glucose	1	17.4	-1900
BHM GW3	1	6/16/09 9:35	6/16/09 13:58	6/16/09 16:12	25 mM NO ₃	2	17.4	67200
BHM GW3	2	6/16/09 9:35	6/16/09 16:12	6/16/09 19:48	25 mM NO ₃	2	17.4	79100
BHM GW3	3	6/16/09 9:35	6/16/09 19:48	6/17/09 7:58	25 mM NO ₃	2	17.4	38100
BHM GW3	1	6/16/09 9:35	6/16/09 13:59	6/16/09 16:13	25 mM NO ₃ + 75 mM Glucose	1	17.4	101000
BHM GW3	2	6/16/09 9:35	6/16/09 16:13	6/16/09 19:49	25 mM NO ₃ + 75 mM Glucose	1	17.4	76200
BHM GW3	3	6/16/09 9:35	6/16/09 19:49	6/17/09 7:59	25 mM NO ₃ + 75 mM Glucose	1	17.4	30700
BHM GW3	1	6/16/09 9:44	6/16/09 14:01	6/16/09 16:15	50 mM NO ₃	2	17.4	54000

BHM GW3	2	6/16/09 9:44	6/16/09 16:15	6/16/09 19:51	50 mM NO ₃	2	17.4	70500
BHM GW3	3	6/16/09 9:44	6/16/09 19:51	6/17/09 8:01	50 mM NO ₃	2	17.4	39200
BHM GW3	1	6/16/09 9:44	6/16/09 14:02	6/16/09 16:16	50 mM NO ₃ + 75 mM Glucose	1	17.4	151000
BHM GW3	2	6/16/09 9:44	6/16/09 16:16	6/16/09 19:52	50 mM NO ₃ + 75 mM Glucose	1	17.4	89200
BHM GW3	3	6/16/09 9:44	6/16/09 19:52	6/17/09 8:02	50 mM NO ₃ + 75 mM Glucose	1	17.4	29100
BHM GW3	1	6/16/09 9:55	6/16/09 14:04	6/16/09 16:18	100 mM NO ₃	2	17.4	87300
BHM GW3	2	6/16/09 9:55	6/16/09 16:18	6/16/09 19:54	100 mM NO ₃	2	17.4	110000
BHM GW3	3	6/16/09 9:55	6/16/09 19:54	6/17/09 8:04	100 mM NO ₃	2	17.4	76600
BHM GW3	1	6/16/09 9:55	6/16/09 14:05	6/16/09 16:19	100 mM NO ₃ + 75 mM Glucose	1	17.4	33500
BHM GW3	2	6/16/09 9:55	6/16/09 16:19	6/16/09 19:55	100 mM NO ₃ + 75 mM Glucose	1	17.4	37300
BHM GW3	3	6/16/09 9:55	6/16/09 19:55	6/17/09 8:05	100 mM NO ₃ + 75 mM Glucose	1	17.4	69900
BHM GW3	1	6/16/09 10:05	6/16/09 14:07	6/16/09 16:21	250 mM NO ₃	2	17.4	74300
BHM GW3	2	6/16/09 10:05	6/16/09 16:21	6/16/09 19:57	250 mM NO ₃	2	17.4	77100
BHM GW3	3	6/16/09 10:05	6/16/09 19:57	6/17/09 8:07	250 mM NO ₃	2	17.4	111000
BHM GW3	1	6/16/09 10:05	6/16/09 14:08	6/16/09 16:22	250 mM NO ₃ + 75 mM Glucose	1	17.4	165000
BHM GW3	2	6/16/09 10:05	6/16/09 16:22	6/16/09 19:58	250 mM NO ₃ + 75 mM Glucose	1	17.4	150000
BHM GW3	3	6/16/09 10:05	6/16/09 19:58	6/17/09 8:08	250 mM NO ₃ + 75 mM Glucose	1	17.4	246000
BHM GW3	1	6/16/09 10:15	6/16/09 14:10	6/16/09 16:24	500 mM NO ₃	2	17.4	81100
BHM GW3	2	6/16/09 10:15	6/16/09 16:24	6/16/09 20:00	500 mM NO ₃	2	17.4	70100
BHM GW3	3	6/16/09 10:15	6/16/09 20:00	6/17/09 8:10	500 mM NO ₃	2	17.4	100000
BHM GW3	1	6/16/09 10:15	6/16/09 14:11	6/16/09 16:25	500 mM NO ₃ + 75 mM Glucose	1	17.4	137000
BHM GW3	2	6/16/09 10:15	6/16/09 16:25	6/16/09 20:01	500 mM NO ₃ + 75 mM Glucose	1	17.4	80500
BHM GW3	3	6/16/09 10:15	6/16/09 20:01	6/17/09 8:11	500 mM NO ₃ + 75 mM Glucose	1	17.4	149000
BHM GW3	1	6/16/09 10:20	6/16/09 16:27	6/16/09 20:03	75 mM Glucose	2	17.4	1850
BHM GW3	2	6/16/09 10:20	6/16/09 20:03	6/17/09 8:13	75 mM Glucose	2	17.4	1550
BHM GW3	3	6/16/09 10:20	6/17/09 8:13	6/17/09 17:13	75 mM Glucose	2	17.4	-2930
BHM GW2	1	6/17/09 10:33	6/17/09 13:15	6/17/09 16:53	75 mM Glucose	3	16.2	110
BHM GW2	2	6/17/09 10:33	6/17/09 16:53	6/17/09 20:28	75 mM Glucose	3	16.2	3,500
BHM GW2	3	6/17/09 10:33	6/17/09 20:28	6/18/09 8:45	75 mM Glucose	3	16.2	1,880
BHM GW2	1	6/17/09 10:35	6/17/09 13:16	6/17/09 16:54	5 mM NO ₃ + 75 mM Glucose	1	16.2	46,400
BHM GW2	2	6/17/09 10:35	6/17/09 16:54	6/17/09 20:29	5 mM NO ₃ + 75 mM Glucose	1	16.2	103,000
BHM GW2	3	6/17/09 10:35	6/17/09 20:29	6/18/09 8:46	5 mM NO ₃ + 75 mM Glucose	1	16.2	27,300

BHM GW2	1	6/17/09 10:21	6/17/09 13:17	6/17/09 16:55	25 mM NO ₃	2	16.2	107,000
BHM GW2	2	6/17/09 10:21	6/17/09 16:55	6/17/09 20:30	25 mM NO ₃	2	16.2	78,400
BHM GW2	3	6/17/09 10:21	6/17/09 20:30	6/18/09 8:47	25 mM NO ₃	2	16.2	30,300
BHM GW2	1	6/17/09 10:25	6/17/09 13:18	6/17/09 16:56	50 mM NO ₃	2	16.2	139,000
BHM GW2	2	6/17/09 10:25	6/17/09 16:56	6/17/09 20:31	50 mM NO ₃	2	16.2	106,000
BHM GW2	3	6/17/09 10:25	6/17/09 20:31	6/18/09 8:48	50 mM NO ₃	2	16.2	24,600
BHM GW2	1	6/17/09 10:44	6/17/09 13:19	6/17/09 16:57	250 mM NO ₃ + 75 mM Glucose	1	16.2	86,400
BHM GW2	2	6/17/09 10:44	6/17/09 16:57	6/17/09 20:32	250 mM NO ₃ + 75 mM Glucose	1	16.2	240,000
BHM GW2	3	6/17/09 10:44	6/17/09 20:32	6/18/09 8:49	250 mM NO ₃ + 75 mM Glucose	1	16.2	95,200
BHM GW2	1	6/17/09 10:31	6/17/09 13:20	6/17/09 16:58	500 mM NO ₃	2	16.2	76,800
BHM GW2	2	6/17/09 10:31	6/17/09 16:58	6/17/09 20:33	500 mM NO ₃	2	16.2	190,000
BHM GW2	3	6/17/09 10:31	6/17/09 20:33	6/18/09 8:50	500 mM NO ₃	2	16.2	73,300
BHM GW2	1	6/17/09 10:28	6/17/09 13:22	6/17/09 17:00	250 mM NO ₃	2	16.2	188,000
BHM GW2	2	6/17/09 10:28	6/17/09 17:00	6/17/09 20:35	250 mM NO ₃	2	16.2	178,000
BHM GW2	3	6/17/09 10:28	6/17/09 20:35	6/18/09 8:52	250 mM NO ₃	2	16.2	49,400
BHM GW2	1	6/17/09 10:19	6/17/09 13:24	6/17/09 17:02	5 mM NO ₃	2	16.2	99,200
BHM GW2	2	6/17/09 10:19	6/17/09 17:02	6/17/09 20:37	5 mM NO ₃	2	16.2	86,000
BHM GW2	3	6/17/09 10:19	6/17/09 20:37	6/18/09 8:54	5 mM NO ₃	2	16.2	19,700
BHM GW2	1	6/17/09 10:41	6/17/09 13:26	6/17/09 17:04	50 mM NO ₃ + 75 mM Glucose	1	16.2	74,400
BHM GW2	2	6/17/09 10:41	6/17/09 17:04	6/17/09 20:39	50 mM NO ₃ + 75 mM Glucose	1	16.2	67,200
BHM GW2	3	6/17/09 10:41	6/17/09 20:39	6/18/09 8:56	50 mM NO ₃ + 75 mM Glucose	1	16.2	72,600
BHM GW2	1	6/17/09 10:46	6/17/09 13:27	6/17/09 17:05	500 mM NO ₃ + 75 mM Glucose	1	16.2	281,000
BHM GW2	2	6/17/09 10:46	6/17/09 17:05	6/17/09 20:40	500 mM NO ₃ + 75 mM Glucose	1	16.2	189,000
BHM GW2	3	6/17/09 10:46	6/17/09 20:40	6/18/09 8:57	500 mM NO ₃ + 75 mM Glucose	1	16.2	138,000
BHM GW2	1	6/17/09 10:37	6/17/09 13:30	6/17/09 17:08	25 mM NO ₃ + 75 mM Glucose	1	16.2	109,000
BHM GW2	2	6/17/09 10:37	6/17/09 17:08	6/17/09 20:43	25 mM NO ₃ + 75 mM Glucose	1	16.2	104,000
BHM GW2	3	6/17/09 10:37	6/17/09 20:43	6/18/09 9:00	25 mM NO ₃ + 75 mM Glucose	1	16.2	67,100

¹ Sequence numbers refer to the chronologically ordered N₂O release rate measurements at a given site for the same treatment following sealing of the chamber.

² Replicate measurements refers to the number of individual chambers receiving the same treatment. Values shown are for the average of measurements receiving the same treatment.

³ A negative number indicates a decrease in N₂O in the headspace during the measurements interval suggesting N₂O was consumed.