

Table 10. Rate of release of N<sub>2</sub>O measurements made in July 2009.

[BHM, Bass Harbor Marsh; NEC, Northeast Creek Watershed; GW#, measurement site; mM, millimolar; °C, temperature degrees

Celsius; NO<sub>3</sub>, nitrate; nmoles, nanomoles; m, meters; hr, hours, sq, square; T<sub>0</sub>, date and time chamber sealed;

T<sub>1</sub>, beginning of period of associated flux calculation; T<sub>2</sub> ending of period of flux calculation; Temp., temperature; N<sub>2</sub>O, nitrous oxide]

Location	Sequence No. <sup>1</sup>	Chamber Sealed (T <sub>0</sub> )	Start Time (T <sub>1</sub> )	End Time (T <sub>2</sub> )	Treatment	Number of replicate measurements <sup>2</sup>	Soil Temp. (°C)	Net N <sub>2</sub> O release <sup>3</sup> (nmoles/sq m/hr)
BHM GW1	1	7/13/09 12:55	7/13/09 16:18	7/13/09 19:40	Ambient	3	17.0	1,830
BHM GW1	2	7/13/09 12:55	7/13/09 19:40	7/14/09 8:18	Ambient	3	17.0	156
BHM GW2	1	7/13/09 13:00	7/13/09 16:21	7/13/09 19:43	Ambient	3	17.0	1,540
BHM GW2	2	7/13/09 13:00	7/13/09 19:43	7/14/09 8:21	Ambient	3	17.0	-67
BHM GW3	1	7/13/09 13:05	7/13/09 16:24	7/13/09 19:46	Ambient	3	17.0	1,490
BHM GW3	2	7/13/09 13:05	7/13/09 19:46	7/14/09 8:24	Ambient	3	17.0	38
BHM GW4	1	7/13/09 13:10	7/13/09 16:27	7/13/09 19:49	Ambient	3	17.0	1,110
BHM GW4	2	7/13/09 13:10	7/13/09 19:49	7/14/09 8:27	Ambient	3	17.0	47
BHM GW5	1	7/13/09 13:40	7/13/09 16:39	7/13/09 19:19	Ambient	3	17.0	858
BHM GW5	2	7/13/09 13:40	7/13/09 19:19	7/14/09 8:40	Ambient	3	17.0	39
BHM GW6	2	7/13/09 13:40	7/13/09 19:23	7/14/09 8:43	Ambient	3	17.0	49
BHM GW6	1	7/13/09 13:40	7/13/09 16:37	7/13/09 19:25	Ambient	1	17.0	327
BHM GW4	1	7/14/09 10:12	7/14/09 14:06	7/14/09 16:27	5 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	83,500
BHM GW4	2	7/14/09 10:12	7/14/09 16:27	7/14/09 19:32	5 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	28,300
BHM GW4	3	7/14/09 10:12	7/14/09 19:32	7/15/09 7:45	5 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	16,500
BHM GW4	1	7/14/09 9:45	7/14/09 14:07	7/14/09 16:28	5 mM NO <sub>3</sub>	2	16.5	32,300
BHM GW4	2	7/14/09 9:45	7/14/09 16:28	7/14/09 19:33	5 mM NO <sub>3</sub>	2	16.5	22,000
BHM GW4	3	7/14/09 9:45	7/14/09 19:33	7/15/09 7:46	5 mM NO <sub>3</sub>	2	16.5	12,000
BHM GW4	1	7/14/09 10:13	7/14/09 14:09	7/14/09 16:30	25 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	48,000
BHM GW4	2	7/14/09 10:13	7/14/09 16:30	7/14/09 19:35	25 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	17,500
BHM GW4	3	7/14/09 10:13	7/14/09 19:35	7/15/09 7:48	25 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	19,300
BHM GW4	1	7/14/09 9:50	7/14/09 14:10	7/14/09 16:31	25 mM NO <sub>3</sub>	2	16.5	54,800
BHM GW4	2	7/14/09 9:50	7/14/09 16:31	7/14/09 19:36	25 mM NO <sub>3</sub>	2	16.5	34,300
BHM GW4	3	7/14/09 9:50	7/14/09 19:36	7/15/09 7:49	25 mM NO <sub>3</sub>	2	16.5	18,400
BHM GW4	1	7/14/09 10:14	7/14/09 14:12	7/14/09 16:33	50 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	115,000
BHM GW4	2	7/14/09 10:14	7/14/09 16:33	7/14/09 19:38	50 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	71,700
BHM GW4	3	7/14/09 10:14	7/14/09 19:38	7/15/09 7:51	50 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	49,700
BHM GW4	1	7/14/09 9:55	7/14/09 14:13	7/14/09 16:34	50 mM NO <sub>3</sub>	2	16.5	125,000

BHM GW4	2	7/14/09 9:55	7/14/09 16:34	7/14/09 19:39	50 mM NO <sub>3</sub>	2	16.5	42,900
BHM GW4	3	7/14/09 9:55	7/14/09 19:39	7/15/09 7:52	50 mM NO <sub>3</sub>	2	16.5	73,000
BHM GW4	1	7/14/09 10:15	7/14/09 14:15	7/14/09 16:36	100 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	112,000
BHM GW4	2	7/14/09 10:15	7/14/09 16:36	7/14/09 19:41	100 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	68,600
BHM GW4	3	7/14/09 10:15	7/14/09 19:41	7/15/09 7:54	100 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	77,000
BHM GW4	1	7/14/09 10:00	7/14/09 14:15	7/14/09 16:37	100 mM NO <sub>3</sub>	2	16.5	120,000
BHM GW4	2	7/14/09 10:00	7/14/09 16:37	7/14/09 19:42	100 mM NO <sub>3</sub>	2	16.5	88,600
BHM GW4	3	7/14/09 10:00	7/14/09 19:42	7/15/09 7:55	100 mM NO <sub>3</sub>	2	16.5	57,500
BHM GW4	1	7/14/09 10:16	7/14/09 14:18	7/14/09 16:39	250 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	167,000
BHM GW4	2	7/14/09 10:16	7/14/09 16:39	7/14/09 19:44	250 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	119,000
BHM GW4	3	7/14/09 10:16	7/14/09 19:44	7/15/09 7:57	250 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	97,400
BHM GW4	1	7/14/09 10:05	7/14/09 14:19	7/14/09 16:40	250 mM NO <sub>3</sub>	2	16.5	159,000
BHM GW4	2	7/14/09 10:05	7/14/09 16:40	7/14/09 19:45	250 mM NO <sub>3</sub>	2	16.5	110,000
BHM GW4	3	7/14/09 10:05	7/14/09 19:45	7/15/09 7:58	250 mM NO <sub>3</sub>	2	16.5	51,300
BHM GW4	1	7/14/09 10:17	7/14/09 14:21	7/14/09 16:42	500 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	342,000
BHM GW4	2	7/14/09 10:17	7/14/09 16:42	7/14/09 19:47	500 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	171,000
BHM GW4	3	7/14/09 10:17	7/14/09 19:47	7/15/09 8:00	500 mM NO <sub>3</sub> +75 mM Glucose	1	16.5	146,000
BHM GW4	1	7/14/09 10:10	7/14/09 14:22	7/14/09 16:43	500 mM NO <sub>3</sub>	2	16.5	224,000
BHM GW4	2	7/14/09 10:10	7/14/09 16:43	7/14/09 19:48	500 mM NO <sub>3</sub>	2	16.5	127,000
BHM GW4	3	7/14/09 10:10	7/14/09 19:48	7/15/09 8:01	500 mM NO <sub>3</sub>	2	16.5	66,500
BHM GW6	1	7/15/09 9:42	7/15/09 14:22	7/15/09 19:05	5 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	108,000
BHM GW6	2	7/15/09 9:42	7/15/09 19:05	7/16/09 7:00	5 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	-19,600
BHM GW6	1	7/15/09 9:15	7/15/09 14:23	7/15/09 19:06	5 mM NO <sub>3</sub>	2	16.8	22,100
BHM GW6	2	7/15/09 9:15	7/15/09 19:06	7/16/09 7:01	5 mM NO <sub>3</sub>	2	16.8	2,740
BHM GW6	1	7/15/09 9:43	7/15/09 14:25	7/15/09 19:08	25 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	90,700
BHM GW6	2	7/15/09 9:43	7/15/09 19:08	7/16/09 7:03	25 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	49,200
BHM GW6	1	7/15/09 9:20	7/15/09 14:26	7/15/09 19:09	25 mM NO <sub>3</sub>	2	16.8	54,100
BHM GW6	2	7/15/09 9:20	7/15/09 19:09	7/16/09 7:04	25 mM NO <sub>3</sub>	2	16.8	31,200
BHM GW6	1	7/15/09 9:44	7/15/09 14:28	7/15/09 19:11	50 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	48,400
BHM GW6	2	7/15/09 9:44	7/15/09 19:11	7/16/09 7:06	50 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	32,800
BHM GW6	1	7/15/09 9:25	7/15/09 14:29	7/15/09 19:12	50 mM NO <sub>3</sub>	2	16.8	48,800
BHM GW6	2	7/15/09 9:25	7/15/09 19:12	7/16/09 7:07	50 mM NO <sub>3</sub>	2	16.8	19,500
BHM GW6	1	7/15/09 9:45	7/15/09 14:31	7/15/09 19:14	100 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	147,000
BHM GW6	2	7/15/09 9:45	7/15/09 19:14	7/16/09 7:09	100 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	201,000
BHM GW6	1	7/15/09 9:30	7/15/09 14:32	7/15/09 19:15	100 mM NO <sub>3</sub>	2	16.8	50,300
BHM GW6	2	7/15/09 9:30	7/15/09 19:15	7/16/09 7:10	100 mM NO <sub>3</sub>	2	16.8	26,300
BHM GW6	1	7/15/09 9:46	7/15/09 14:34	7/15/09 19:17	250 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	186,000

BHM GW6	2	7/15/09 9:46	7/15/09 19:17	7/16/09 7:12	250 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	143,000
BHM GW6	1	7/15/09 9:35	7/15/09 14:35	7/15/09 19:18	250 mM NO <sub>3</sub>	2	16.8	157,000
BHM GW6	2	7/15/09 9:35	7/15/09 19:18	7/16/09 7:13	250 mM NO <sub>3</sub>	2	16.8	150,000
BHM GW6	1	7/15/09 9:47	7/15/09 14:37	7/15/09 19:20	500 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	232,000
BHM GW6	2	7/15/09 9:47	7/15/09 19:20	7/16/09 7:15	500 mM NO <sub>3</sub> +75 mM Glucose	1	16.8	318,000
BHM GW6	1	7/15/09 9:40	7/15/09 14:38	7/15/09 19:21	500 mM NO <sub>3</sub>	2	16.8	73,100
BHM GW6	2	7/15/09 9:40	7/15/09 19:21	7/16/09 7:16	500 mM NO <sub>3</sub>	2	16.8	56,200
NEC GW1	1	7/16/09 9:15	7/16/09 12:52	7/16/09 16:00	75 mM Glucose	1	16.3	-51
NEC GW1	2	7/16/09 9:15	7/16/09 16:00	7/16/09 19:20	75 mM Glucose	1	16.3	-146
NEC GW1	1	7/16/09 9:15	7/16/09 12:53	7/16/09 16:01	Ambient	2	16.3	64
NEC GW1	2	7/16/09 9:15	7/16/09 16:01	7/16/09 19:21	Ambient	2	16.3	-11
NEC GW2	1	7/16/09 9:40	7/16/09 13:01	7/16/09 16:03	75 mM Glucose	1	16.3	29,800
NEC GW2	2	7/16/09 9:40	7/16/09 16:03	7/16/09 19:23	75 mM Glucose	1	16.3	-8,100
NEC GW2	1	7/16/09 9:40	7/16/09 13:02	7/16/09 16:04	Ambient	2	16.3	266
NEC GW2	2	7/16/09 9:40	7/16/09 16:04	7/16/09 19:24	Ambient	2	16.3	-183
NEC GW3	1	7/16/09 9:10	7/16/09 12:55	7/16/09 16:06	75 mM Glucose	1	16.3	12,300
NEC GW3	2	7/16/09 9:10	7/16/09 16:06	7/16/09 19:26	75 mM Glucose	1	16.3	33,900
NEC GW3	1	7/16/09 9:10	7/16/09 12:56	7/16/09 16:07	Ambient	2	16.3	1,090
NEC GW3	2	7/16/09 9:10	7/16/09 16:07	7/16/09 19:27	Ambient	2	16.3	475
NEC GW4	1	7/16/09 9:25	7/16/09 12:58	7/16/09 16:09	75 mM Glucose	1	16.3	7,620
NEC GW4	2	7/16/09 9:25	7/16/09 16:09	7/16/09 19:29	75 mM Glucose	1	16.3	-1,410
NEC GW4	1	7/16/09 9:25	7/16/09 12:59	7/16/09 16:10	Ambient	2	16.3	461
NEC GW4	2	7/16/09 9:25	7/16/09 16:10	7/16/09 19:30	Ambient	2	16.3	80
NEC GW5	1	7/16/09 9:14	7/16/09 13:15	7/16/09 16:20	75 mM Glucose	1	16.3	1,180
NEC GW5	2	7/16/09 9:14	7/16/09 16:20	7/16/09 19:32	75 mM Glucose	1	16.3	223
NEC GW5	1	7/16/09 9:11	7/16/09 13:16	7/16/09 16:21	Ambient	2	16.3	1,020
NEC GW5	2	7/16/09 9:11	7/16/09 16:21	7/16/09 19:33	Ambient	2	16.3	311
NEC GW6	1	7/16/09 10:03	7/16/09 13:04	7/16/09 16:12	75 mM Glucose	1	16.3	4,960
NEC GW6	2	7/16/09 10:03	7/16/09 16:12	7/16/09 19:53	75 mM Glucose	1	16.3	4,150
NEC GW6	1	7/16/09 10:02	7/16/09 13:05	7/16/09 16:13	Ambient	2	16.3	469
NEC GW6	2	7/16/09 10:02	7/16/09 16:13	7/16/09 19:54	Ambient	2	16.3	-17

<sup>1</sup> Sequence numbers refer to the chronologically ordered N<sub>2</sub>O release rate measurements at a given site for the same treatment following sealing of the chamber.

<sup>2</sup> 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.

<sup>3</sup> A negative number indicates a decrease in N<sub>2</sub>O in the headspace during the measurements interval suggesting N<sub>2</sub>O was consumed.