

Date	δD	$\delta^{18}O$	d	V_Lat	V_Lon	ΔT_{cool}	$\sigma \Delta T_{cool}$
M/D/YYYY	‰	‰	‰	$^{\circ}N$	$^{\circ}E$	$^{\circ}C, ocean$	$^{\circ}C, ocean$
1/25/2009	-161.4	-22.1	15.42	55	-170	19.4	10.46
1/30/2009	-216.9	-29.2	16.69	77	-12	17.2	9.50
1/31/2009	-243.5	-31.9	11.69	86	-119	10.5	8.63
2/13/2009	-265.3	-34.8	13.09	63	-164	13.8	13.92
2/19/2009	-110	-15.3	12.43	64	180	14.5	11.41
3/18/2009	-191.4	-26.9	23.77	75	-162	1.1	3.72
3/22/2009	-198.2	-26.8	16.19	75	-179	6.9	4.90
4/1/2009	-278.9	-35.2	2.71	60	-156	24.6	12.92
4/14/2009	-146.6	-21.6	26.23	61	-157	10.1	6.90
4/21/2009	-145.4	-21	22.6	71	-157	1.6	1.59
4/24/2009	-221.4	-28.9	9.79	65	-161	12.4	4.08
5/7/2009	-220.7	-29	11.29	52	134	22.3	14.23
5/28/2009	-201	-26.5	10.95	65	140	10.9	10.26
8/10/2009	-124.8	-16.2	4.8	74	-176	1.0	4.30
10/20/2009	-68.1	-10.5	15.91	72	-155	11.4	2.97
10/26/2009	-123.3	-16.6	9.53	54	-148	19.9	7.37
11/3/2009	-81.4	-13.5	26.62	73	-161	8.9	2.89
11/10/2009	-100.3	-15.8	26.09	72	-150	2.6	4.21
11/25/2009	-226.2	-31.1	22.62	60	-147	25.4	9.51
12/20/2009	-204.6	-27.6	16.2	59	-142	23.5	6.46
1/21/2010	-243.5	-32.5	16.49	53	-171	26.1	7.29
1/31/2010	-150.4	-21.3	19.96	70	-156	4.5	7.52
2/9/2010	-230.9	-31.8	23.53	63	-148	22.2	13.90
2/27/2010	-234.7	-31.5	17.28	54	-151	37.5	12.23
3/7/2010	-194.9	-26.2	14.72	66	-152	6.4	8.59
3/31/2010	-185.2	-24.5	10.79	58	-167	10.5	9.89
4/6/2010	-204.5	-26.5	7.47	55	-113	30.6	9.58
4/15/2010	-180.7	-23.4	6.5	70	-167	4.4	1.82
4/21/2010	-183.7	-23.4	3.54	59	-168	40.2	10.74
7/16/2010	-119.6	-15.2	2	70	-169	3.6	5.50
7/19/2010	-134.5	-17.2	3.09	71	-161	6.2	7.42
7/23/2010	-108.6	-14.6	8.17	69	-164	0.9	5.52
7/30/2010	-88.4	-11.1	0.36	74	103	0.0	6.22
8/13/2010	-95.4	-12	0.58	57	179	17.8	9.14
10/11/2010	-90.6	-14.3	23.83	87	-46	13.5	6.90
11/6/2010	-102.9	-15.4	20.32	71	-143	8.1	4.65
12/9/2010	-203.6	-27.4	15.61	62	159	17.3	9.92
1/17/2011	-142.8	-20.3	19.58	47	-178	22.8	8.97
2/9/2011	-168.6	-22.5	11.41	56	-165	18.3	8.44
2/24/2011	-190.8	-24.8	7.65	44	-174	26.5	11.14

Date M/D/YYYY	δD ‰	$\delta 18O$ ‰	d ‰	V_Lat °N	V_Lon °E	ΔT_{cool} °C, ocean	$\sigma \Delta T_{cool}$ °C, ocean
6/24/2011	-72	-9.1	0.75	67	-136	-11.3	3.57
7/13/2011	-91.8	-12.3	6.64	68	-144	-4.7	4.87
7/18/2011	-91.6	-11.7	2.02	68	-138	7.1	4.95
7/21/2011	-83.7	-10.5	0.34	73	-176	0.3	3.08
7/22/2011	-65.1	-8.6	3.72	71	-158	-2.2	1.01
7/29/2011	-108.9	-14	3.05	66	-171	7.6	1.68
8/1/2011	-96.7	-12.9	6.53	81	-158	0.3	2.43
10/4/2011	-103.2	-14.2	10.41	64	-152	20.6	7.64
11/3/2011	-66.3	-10.6	18.54	71	-161	8.7	1.17
2/10/2012	-203.2	-27	12.77	46	-158	18.0	4.97
2/13/2012	-142.8	-19.7	14.81	66	-157	3.9	7.29
2/15/2012	-222.2	-29	9.79	61	-153	14.3	9.67
2/16/2012	-186.4	-24.1	6.4	65	-158	9.9	5.94
2/23/2012	-212	-27.9	11.23	63	-140	16.1	9.78
4/7/2012	-219.5	-28.6	9.33	60	-166	20.8	3.82
4/11/2012	-181.1	-23.5	6.91	70	-155	0.0	4.74
4/26/2012	-163.7	-22.9	19.47	67	-131	1.3	5.97
5/3/2012	-299	-39.1	13.82	66	-138	7.8	7.47
5/4/2012	-205	-25.4	-1.78	69	-147	5.5	9.44
7/16/2012	-150.6	-19.9	8.64	69	-157	-2.8	13.14
7/17/2012	-90.2	-12.1	6.6	72	-163	-3.8	1.53
8/22/2012	-124.9	-15.4	-1.71	70	-175	7.5	2.83
9/4/2012	-53.6	-7.8	8.79	68	-147	3.3	4.74
9/6/2012	-93.3	-12	2.71	74	-152	2.8	0.84
11/5/2012	-110.3	-16.8	24.08	70	-169	5.2	2.54
11/7/2012	-67.3	-10.1	13.47	74	-167	8.1	3.61
12/1/2012	-159.6	-22	16.37	76	-172	6.0	2.18
3/11/2013	-98	-15.3	24.36	67	-170	4.1	2.74
3/27/2013	-223.1	-29.1	9.71	66	-141	8.7	9.92
3/28/2013	-194.4	-25	5.59	73	-150	4.3	1.22

Date	T_d	σ T_d	mtn	h_2m	T_2m	T_ss
M/D/YYYY	°C, ocean	°C, ocean	boolean	fraction, ocean	°C, ocean	°C, ocean
1/25/2009	-1.1	6.98	0	0.84	1.59	4.72
1/30/2009	-3.9	7.49	0	0.84	-1.17	6.23
1/31/2009	-10.5	6.31	0	0.82	-1.57	6.46
2/13/2009	-6.4	11.47	1	0.81	1.10	5.26
2/19/2009	-3.0	8.25	1	0.82	2.15	6.65
3/18/2009	-25.0	4.09	0	0.98	-24.72	5.22
3/22/2009	-14.1	5.94	0	0.94	-13.13	5.35
4/1/2009	-4.1	7.41	1	0.87	-5.02	4.07
4/14/2009	-3.1	6.98	1	0.88	-3.93	4.73
4/21/2009	-8.7	0.59	0	0.92	-7.49	-1.69
4/24/2009	-2.4	2.14	1	0.91	-5.49	-1.26
5/7/2009	0.3	3.66	0	0.89	-4.65	-0.83
5/28/2009	-0.9	3.52	0	0.90	-4.66	-0.72
8/10/2009	-0.1	3.41	0	0.92	-1.51	0.96
10/20/2009	-3.9	0.84	0	0.90	-2.22	0.51
10/26/2009	6.6	3.99	1	0.86	4.24	5.16
11/3/2009	-6.1	2.65	0	0.89	-4.44	-0.21
11/10/2009	-14.0	2.87	0	0.90	-11.70	-0.81
11/25/2009	0.3	6.44	1	0.80	0.43	4.06
12/20/2009	4.1	5.44	1	0.82	2.39	5.01
1/21/2010	1.5	2.37	1	0.78	2.28	4.47
1/31/2010	-15.0	4.79	1	0.93	-13.85	2.57
2/9/2010	-4.8	10.98	1	0.92	-11.94	3.38
2/27/2010	0.1	9.12	1	0.84	-3.17	4.41
3/7/2010	-13.1	8.04	1	0.86	-10.88	2.68
3/31/2010	-4.5	10.92	1	0.79	-3.16	4.45
4/6/2010	-0.9	5.32	1	0.80	-1.34	4.73
4/15/2010	-8.9	1.72	1	0.89	-6.62	4.46
4/21/2010	4.4	5.40	1	0.87	-2.44	4.88
7/16/2010	2.2	3.53	0	0.76	4.35	2.73
7/19/2010	3.4	3.59	0	0.80	3.70	2.10
7/23/2010	2.8	2.60	0	0.75	4.09	2.74
7/30/2010	3.0	4.76	0	0.75	4.44	2.97
8/13/2010	9.4	2.48	0	0.93	6.00	7.18
10/11/2010	-0.9	5.44	0	0.87	4.07	5.38
11/6/2010	-6.3	3.32	0	0.90	-4.38	-0.37
12/9/2010	-1.1	6.16	0	0.90	0.09	1.94
1/17/2011	6.8	7.01	0	0.88	2.66	3.39
2/9/2011	0.7	4.00	0	0.91	1.37	2.19
2/24/2011	9.0	7.31	0	0.88	7.98	8.86
6/24/2011	-2.3	3.24	0	0.78	7.21	6.31

Date	T_d	σ T_d	mtn	h_2m	T_2m	T_ss
M/D/YYYY	°C, ocean	°C, ocean	boolean	fraction, ocean	°C, ocean	°C, ocean
7/13/2011	0.8	3.78	1	0.83	7.34	7.55
7/18/2011	8.8	3.73	0	0.83	7.36	7.56
7/21/2011	3.6	2.68	0	0.84	7.42	5.65
7/22/2011	3.5	0.51	0	0.85	5.84	2.68
7/29/2011	7.7	1.76	0	0.88	8.11	6.28
8/1/2011	1.2	2.26	0	0.89	4.84	4.12
10/4/2011	4.8	4.00	1	0.87	6.05	5.43
11/3/2011	-4.6	0.83	0	0.77	-0.81	-0.15
2/10/2012	3.1	3.93	1	0.71	6.07	6.49
2/13/2012	-11.8	8.10	1	0.81	-4.75	5.32
2/15/2012	-3.3	9.28	1	0.81	0.32	4.67
2/16/2012	-4.9	6.20	1	0.80	1.78	4.50
2/23/2012	-6.0	9.82	1	0.79	1.11	4.64
4/7/2012	-0.2	3.08	1	0.80	2.30	4.14
4/11/2012	-13.0	4.79	0	0.92	-10.77	3.45
4/26/2012	-11.1	5.90	0	0.90	-9.70	3.61
5/3/2012	-7.1	5.12	1	0.91	-7.87	3.77
5/4/2012	-6.8	9.67	1	0.91	-7.84	3.79
7/16/2012	3.4	2.61	1	0.75	0.81	3.85
7/17/2012	0.9	1.60	0	0.91	1.08	2.04
8/22/2012	10.1	1.63	1	0.90	2.46	3.53
9/4/2012	4.0	2.79	1	0.91	3.19	4.17
9/6/2012	-0.9	0.67	0	0.94	-0.09	1.03
11/5/2012	-8.6	1.41	0	0.73	-3.50	-0.42
11/7/2012	-3.8	3.03	0	0.79	-1.07	0.24
12/1/2012	-9.2	2.15	0	0.98	-8.89	0.24
3/11/2013	-10.9	2.89	0	0.86	-8.20	-0.50
3/27/2013	-9.1	10.51	1	0.87	-6.99	1.07
3/28/2013	-15.2	1.22	0	0.93	-14.14	-1.74

Variable	Unit	Description
Date	M/D/YYYY	Date of precipitation event and sample collection
δD	‰	measured deuterium value of precipitation sample, reported in per mil on VSMOW-SLAP scale (+/- 0.1)
$\delta^{18}O$	‰	measured oxygen-18 value of precipitation sample, reported in per mil on VSMOW-SLAP scale (+/- 0.1)
d	‰	deuterium excess, calculated from δD and $\delta^{18}O$ values
V_Lat	$^{\circ}N$	Average vapor source latitude calculated from ~1000 trajectories
V_Lon	$^{\circ}E$	Average vapor source longitude calculated from ~1000 trajectories
ΔT_{cool}	$^{\circ}C, ocean$	Average cooling experienced by an air parcel from the lifted condensation level to the height of condensation above the precipitation site. Calculated only for parcels that originated over the ocean.
$\sigma \Delta T_{cool}$	$^{\circ}C, ocean$	standard deviation of the cooling experienced by air parcels during transport.
T_d	$^{\circ}C, ocean$	average dew point temperature of the evaporation region. Calculated only for parcels that originated over the ocean.
σT_d	$^{\circ}C, ocean$	standard deviation of the dew point temperatures in the source region
mtn	boolean	Whether (1) or not (0) most air parcels traveled over the Brooks and/or Alaskan mountain ranges.
h_2m	fraction, ocean	average source relative humidity in as a fraction of 1. Calculated only for parcels that originated over the ocean.
T_2m	$^{\circ}C, ocean$	average source temperature at 2m above ocean surface. Calculated only for parcels that originated over the ocean.
T_ss	$^{\circ}C, ocean$	Average source ocean temperature.